# Sustainable Development Compromise[d] in the Planning of Metro Vancouver's Agricultural Lands: The Jackson Farm Case

#### by

#### Jonathan Jackson

B.A. (Geography), Simon Fraser University, 2007

RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF URBAN STUDIES

in the
Urban Studies Program
Faculty of Arts and Social Sciences

# © Jonathan Jackson 2012 SIMON FRASER UNIVERSITY Spring 2012

All rights reserved.

However, in accordance with the *Copyright Act of Canada*, this work may be reproduced, without authorization, under the conditions for "Fair Dealing." Therefore, limited reproduction of this work for the purposes of private study, research, criticism, review and news reporting is likely to be in accordance with the law, particularly if cited appropriately.

# **Approval**

Name: Jonathan Jackson

Degree: Master of Urban Studies

Title of Thesis: Sustainable Development Compromise[d] in the

Planning of Metro Vancouver's Agricultural Lands: The

Jackson Farm Case

**Examining Committee:** 

Chair: Peter V. Hall, Associate Professor, Urban Studies Program

Meg Holden

Associate Professor, Urban Studies Program and

Department of Geography

Senior Supervisor

Karen Ferguson

Associate Professor, Urban Studies Program and

Department of History

Supervisor

**Sean Markey** 

Associate Professor, School of Resource and

**Environmental Management** 

External Examiner

Date Defended/Approved: April 23, 2012

## **Partial Copyright Licence**



The author, whose copyright is declared on the title page of this work, has granted to Simon Fraser University the right to lend this thesis, project or extended essay to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users.

The author has further granted permission to Simon Fraser University to keep or make a digital copy for use in its circulating collection (currently available to the public at the "Institutional Repository" link of the SFU Library website (www.lib.sfu.ca) at http://summit/sfu.ca and, without changing the content, to translate the thesis/project or extended essays, if technically possible, to any medium or format for the purpose of preservation of the digital work.

The author has further agreed that permission for multiple copying of this work for scholarly purposes may be granted by either the author or the Dean of Graduate Studies.

It is understood that copying or publication of this work for financial gain shall not be allowed without the author's written permission.

Permission for public performance, or limited permission for private scholarly use, of any multimedia materials forming part of this work, may have been granted by the author. This information may be found on the separately catalogued multimedia material and in the signed Partial Copyright Licence.

While licensing SFU to permit the above uses, the author retains copyright in the thesis, project or extended essays, including the right to change the work for subsequent purposes, including editing and publishing the work in whole or in part, and licensing other parties, as the author may desire.

The original Partial Copyright Licence attesting to these terms, and signed by this author, may be found in the original bound copy of this work, retained in the Simon Fraser University Archive.

Simon Fraser University Library Burnaby, British Columbia, Canada

#### **Ethics Statement**



The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics,

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University;

or has conducted the research

c. as a co-investigator, collaborator or research assistant in a research project approved in advance,

or

d. as a member of a course approved in advance for minimal risk human research, by the Office of Research Ethics.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library Burnaby, British Columbia, Canada

update Spring 2010

#### **Abstract**

Loss of farmland to urban sprawl presents challenges to achieving sustainable development in Metro Vancouver. Finite petroleum supplies foreshadow a potential future need for locally attained foodstuffs to maintain regional food security, and it is therefore critical that local farmland protection be amongst the top priorities for policymakers. With losses to Metro Vancouver's farmland still occurring, albeit in lower quantities than previously experienced, it is prudent to investigate potential improvements to existing policy successes in order to strengthen the region's farmland protection initiatives that are administered by an intergovernmental framework of farmland guardianship. Recent trends in sustainability policy making and implementation have suggested an acceptance of "win-win" solutions by policymakers, resulting in sustainable development compromises. The recent Jackson Farm case suggests such sustainable development compromises can compromise sustainability principles, and additionally contains lessons that provide insight into potential policy improvements that could build upon Metro Vancouver's farmland protection policy successes.

**Keywords**: Sustainable Development; Farmland Protection; Food Security; Urban Sprawl; Agricultural Land Reserve; Regional Planning

# **Acknowledgements**

First and foremost, I would like acknowledge my most sincere gratitude and thanks to my supervisor Dr. Meg Holden for her patience, guidance and mentorship through my completion of this project, as well as for her ability to inspire my ideas in a manner that greatly contributed to the success of this project. I have been incredibly lucky to have such an outstanding supervisor, and attribute much of my success in the Urban Studies program to her guidance and mentorship.

I would also like to thank the rest of the faculty and staff of the Urban Studies program for sharing their knowledge and assistance through my time in the program, which has greatly enriched my graduate school experience and provided me with knowledge that has also assisted with this project.

Additionally, I would like to thank Dr. Robert Huish for his encouragement to continue with my academic endeavours beyond my undergraduate degree. His influence on my early years in academia provided me with foundational skills that have assisted me with my success in graduate school. His inspirational words delivered at the end of each class to encourage his students to "never forget your right to rave," have helped to foster my endeavour to fight for greater environmental and social justice both in life and through academic inquiry.

Finally, I would like thank and acknowledge my family and friends who have stood by me with understanding and encouragement through my time at graduate school. This was particularly challenging while I held down a full-time job at the same time, which resulted in huge sacrifices to the time that I would normally dedicate to these amazing individuals. Ultimately, the sacrifices I made throughout graduate school were often shared by those closest to me. Specifically, my parents and sister were incredible in ensuring that the daily tasks of life continued without falter during times when my focus on graduate school was at its greatest. I could not have successfully completed graduate school without the understanding, support and encouragement of family and friends that helped make it all possible. I owe my family and friends endless gratitude and share this achievement with them.

# **Table of Contents**

Approval	ii
Abstract	
Acknowledgements	iv
Table of Contents	V
List of Figures	vii
List of Acronyms	viii
•	
1 Introduction	1
1 IIII Oddelloii	I
	_
2 Literature Review	
2.1 BC's ALR in Metro Vancouver: A Brief History	
2.1.1 The ALR: A History of Triumph and Contested Policy	6
2.1.2 Regional Governments & Farmland Protection	
2.1.3 Sand Traps or Crops	
2.1.4 The Restoration of Regional Planning	
2.1.5 Agricultural Land Commission Act: Consolidating Policy	
2.1.6 The Province's Most Arable Land: Shrunken ALR Boundary	15
2.1.7 The Political Policy Shuffle	16
2.2 Land Use Planning & Food Security	19
2.2.1 Defining Food Security	19
2.2.2 The Need for Farmland to Ensure Food Security	20
2.2.3 Importance of Land Use Planning & Policy to Food Security	
2.2.4 A Case for Urgency to Protect Metro Vancouver's Farmland	
2.2.5 Sustainable Agriculture	
2.3 Sustainability Theory in Urban & Regional Planning	
2.3.1 Defining Sustainable Development	
2.3.2 Sustainable Development in Urban & Regional Planning	
2.3.3 Measuring Sustainable Development	
2.3.4 A Framework for Sustainable Development Policy Making	
2.3.5 The Anti-Planning Argument for Farmland Protection	
2.3.6 Where Sustainable Development Policy Can Go Wrong	
2.3.6 Where Sustainable Development Policy Carl Go Wrong	30
3 Methodology	40
4 The Jackson Farm Case	
4.1 Jackson Farm: Its History & Location in Maple Ridge	45
4.1.1 Maple Ridge & the Albion Region	
4.1.2 Establishment of the Jackson Farm	48
4.2 Jackson Farm & Establishing the ALR Boundaries	51
4.2.1 Establishing the Original ALR Boundaries	
4.2.2 Lower Jackson Farm's Inclusion in the Original ALR	
4.2.3 No ALR Protection for Upper Jackson Farm	
4.3 Upper Jackson Farm & the Thornhill Urban Reserve	
4.3.1 Upper Jackson Farm Protected by Urban Reserve	
4.3.2 Policy Governing Thornhill Urban Reserve	

4.3.3 Thornhill Urban Reserve Policy & Upper Jackson Farm	61
4.4 Green Zone Protection & Lower Jackson Farm	
4.4.1 Livable Region Strategic Plan & the Jackson Farm	62
4.4.2 Guidelines for Green Zone Inclusion	
4.4.3 Jackson Farm & the Green Zone	
4.5 Lower Jackson Farm ALR Exclusion Application	
4.5.1 Sale of Vin Jackson's Estate to Developers	
4.5.2 Council Supports Jackson Farm ALR Exclusion	
4.5.3 History of ALR Exclusions in the Albion Region	
4.5.4 Lower Jackson Farm ALR Exclusion Considered by ALC	73
4.5.5 Metro Vancouver Input Received Too Late	77
4.5.6 Jackson Farm ALR Exclusion sets Precedent	
4.6 Green Zone Amendment Application	
4.6.1 Green Zone Boundary & Contended Mapping Error	
4.6.2 Green Zone Amendment Process	84
4.6.3 Jackson Farm Green Zone Amendment Processed	
4.6.4 Public Hearing: Public Outcry for Jackson Farm	
4.6.7 Planning Staff Respond to Board Members' Questions	
4.6.8 Removal of Lower Jackson Farm from Green Zone Denied	
4.7 Lower Jackson Farm for Upper Jackson Farm	
4.7.1 Property Owners Push to Develop Upper Jackson Farm	
4.7.1 Property Owners Push to Develop Opper Jackson Parm	
4.7.3 Council Endorses Regional Context Statement Amendment	
4.7.4 Upper Jackson Farm Development Approved	
4.7.5 Jackson Farm: Contested Policy Decision Making News	105
5 Discussion & Analysis	107
5.1 Sustainable Development & Politics	
5.2 Sustainable Development Compromise[d]?	
5.3 Implementation Agreement: Triumph & Weakness	
5.4 Potential to Improve Application Processing	
5.5 ALC Structure	
5.6 Future Directions for ALC Mandates	
5.6 Future Directions for ALC Mandates	119
6 Conclusion	123
References	125
Appendices	133
Appendix A. Chronology of Significant Sustainable Development Policy	
Events Relating to Jackson Farm	134
Appendix B. The Canada Land Inventory Soil Capability Classification for	
Agriculture (1972) (excerpt)	136
Appendix C. Land Capability Classification for Agriculture in BC (excerpt)	
Appendix D. Land Capability Classification for Agriculture in BC	

# **List of Figures**

Figure 1: 7	The Planner's Triangle – Conflicting goals for planning	.28
Figure 2: N	Map of Metro Vancouver depicting District of Maple Ridge relative to City of Vancouver	.46
Figure 3: N	Map of Albion Study Area for Albion Land Use Review, noting the Jackson Farm property not being included	.47
Figure 4: N	Map of Jackson Farm relative to Maple Ridge	.49
Figure 5: \$	Survey Map of Parcel One (Explanatory Plan 12314), Part South ½ of North East 1/4, Section 3, Township 12, NWD, Except Plan LMP 42377, LMP 42378 (Jackson Farm as legally described June 14, 1999)	.50
Figure 6: N	Map of Lower & Upper Jackson Farm, showing aerial photography	.51
Figure 7: N	Map of current (yellow) & former (green) ALR lands in Albion Region of Maple Ridge (Lower Jackson Farm in green, following exclusion)	.54
Figure 8: 1	1970's Aerial Photography of Jackson Farm, showing only a small portion in the southwest corner of Upper Jackson Farm being cleared of trees, while Lower Jackson Farm is primarily cleared for farming	.54
Figure 9: 1	1970's Aerial Photograph of Albion Area illustrating cleared areas	.55
Figure 10:	Old Soil Mapping of Jackson Farm from 1970's	.55
Figure 11:	Updated Soil Mapping for Jackson Farm (1980's)	.56
Figure 12:	Thornhill Urban Reserve, noting Upper Jackson Farm as Subject Property in hatch	.58
Figure 13:	Application Flow Chart (not including matters of provincial interest)	.66
Figure 14:	Proposed Subdivision of Lower Jackson Farm	.69
Figure 15:	Presence of Creeks on Jackson Farm	.70
Figure 16:	Proposed land uses in Albion Study Area; both Lower & Upper Jackson Farm not included in review, but adjacent to Study Area	.73
Figure 17:	Metro Vancouver Green Zone Map excerpt, with notation delineating Lower Jackson Farm (green lines delineate creeks)	.82
Figure 18:	Map of Six Starred Properties in the District of Maple Ridge, under consideration for LRSP Green Zone amendments; with Site #6 being Lower Jackson Farm	.85
Figure 19:	Site 6 outlined in bold (Lower Jackson Farm is largest of 3 parcels)	.89
Figure 20:	Site 6 in relation to Green Zone Connectivity & Riparian Corridors	.91
Figure 21:	Preliminary Layout of Proposed Subdivision for Upper Jackson Farm	102
Figure 22.	Proposed Application Process Flow Chart	118

# **List of Acronyms**

ALC Agricultural Land Commission

ALR Agricultural Land Reserve

GVRD Greater Vancouver Regional District

LRSP Livable Region Strategic Plan

OCP Official Community Plan RGS Regional Growth Strategy

NDP New Democratic Party

Socred Social Credit Party

#### 1 Introduction

The Jackson Farm was settled between 1897 and 1901 by John Jackson (of no relation to this writer) and his wife Ida (Friends of the Jackson Farm, 2010). Throughout its history, Jackson Farm would become subjected to numerous important sustainable development policy decisions, initiated by both various government institutions and private interests (Appendix A). For approximately a century the land was used as a large farm within the Albion community of the District of Maple Ridge by the Jackson family until the death of Vin Jackson, son of John, in 1996. Following his death, the sale of his estate resulted in the farm falling into the hands of a developer who had bought the land on speculative terms. Through numerous development applications, and after nearly a decade, with various policy barriers in the way of developing the land, persistence of the developer and some members of the local municipal council eventually led to a sustainable development compromise that involved part of the farm being developed in exchange for dedicating the other part as parkland. Though the outcome of the Jackson Farm case was not ideal, it was ultimately determined to be a balancing act to save part of the land that was considered to be of both regional and local significance, while conceding to development demands on the other portion.

The trend of adjacent farmlands being developed into urban uses by the city regions they feed poses a troublesome threat to the ability of current and future generations to maintain food security; and this problematic phenomenon has been battled by planners and academics for decades. Metro Vancouver has not been immune to this critical planning issue. Beginning in the early 1970's, commendable steps began to bridle this phenomenon, yet through the years Metro Vancouver nevertheless remained subjected to notable losses of farmland. Though today, quantities of farmland lost to other uses are much less than in previous decades, the continual creep of the suburban frontier onto the farmlands that are supposed to be protected to feed Metro Vancouver's current and future population is disconcerting.

As will later be demonstrated, Metro Vancouver relies significantly on the agroindustrial global food system to obtain its current level of food security, which suggests a
degree of uncertainty over the region's ability to maintain food security when the
petroleum supplies that run this food production system begin to dwindle following peak
oil. Although it is recognized that future technological revolutions may alter this
scenario, this research utilizes a historical precedent set by Cuba to suggest that when
petroleum inputs to agriculture become scarce, cities must revert to a locally obtained
organic food supply to feed their population. Drawing important lessons from Cuba's
return to localized organic forms of agriculture during the country's mass petroleum
shortages following the collapse of the Soviet Bloc, necessitates a need for policymakers
to guarantee protection of all remaining regional farmland to prepare for such a scenario,
should technology not provide alternative solutions. With large parcels of Metro
Vancouver's farmland, such as the Jackson Farm in The District of Maple Ridge, being
pressured by suburban development, it is critical that we understand and learn from
what has happened in the Jackson Farm case.

There are three levels of government that protect farmland in Metro Vancouver, being municipal, regional, and provincial; and therefore it is critical to understand how this intergovernmental myriad of farmland protection policy is administered and functioning. From a policy perspective, to understand how these three levels of government function to protect farmland there are two policy constructs that are critical to understand, being the Agricultural Land Reserve (ALR) and the Green Zone. The Agricultural Land Reserve (ALR) was created by the provincial government in the 1970's and "is a provincial zone in which agriculture is recognized as the priority use, [and where] farming is encouraged and non-agricultural uses are controlled" (Provincial Agricultural Land Commission, 2002, para. 1). The Green Zone was definable as serving "two key purposes: first, it defined the limit to urban expansion; second, it fostered a shared sense of commitment between the region's municipalities to protect the land within it" (Livable Region Strategic Plan, 1996, p. 10). Lands included in the Green Zone were comprised of four different types, including "community health lands," "ecologically important lands," "outdoor recreation and scenic lands," and "renewable resource lands" (p. 10). The Green Zone was additionally supported by a Growth Concentration Zone, which was an area intended to be the focus of most residential

growth, and consisting primarily of Vancouver, Burnaby, New Westminster, Electoral Area A, as well as parts of Port Moody, Anmore, Coquitlam, Port Coquitlam, Surrey, and Delta (p. 12). As an aside it can be additionally noted that Metro Vancouver's Green Zone has recently been renamed through a division into three separate categories, including Agricultural, Conservation & Recreation, and Rural, which occurred in July 2011 with the ratification of a new Regional Growth Strategy. Ultimately, the Agricultural Land Reserve and the Green Zone (as it was named during the Jackson Farm case) serve as land use planning tools to provide guidance to decisions made by the province, regional government, and municipalities pertaining to farmland protection within Metro Vancouver.

The fact that the Jackson Farm was successfully excluded from the ALR, but that Metro Vancouver later denied an application for its exclusion from the Green Zone, makes it a particularly interesting case. This represents inconsistent decision making by the principal guardians of farmland in the region, but simultaneously suggests that sufficient 'checks and balances' exist that serve to uphold a degree of sustainable development practice in relation to farmland protection. Accordingly, it is pertinent to question if the three levels of government in Metro Vancouver that play coordinated roles in farmland protection are functioning in a way that fosters good sustainable development policies and practices for agriculture.

In order to form an analytical lens through which to understand the Jackson Farm case, it will first be necessary to divulge the rich history of cooperation and mutual objectives, along with triumphs and challenges that have been shared by the Agricultural Land Commission and the regional government of Metro Vancouver. Similarly, this history will bring understanding to how these two guardians of farmland have functioned amidst an environment of municipal autonomy over land use planning that has been established through the provincial government's actions to limit the authority of regional governance. Ultimately, comprehension of this historical context is critical to understand how farmland protection policy has evolved through the years and the achievements to date, which subsequently assists in providing insight into potential future directions that could continue to strengthen sustainable development policy in relation to agricultural land. Secondly, connecting the links between land use policy and food security is necessary to understand both the importance and urgency of protecting farmland in

Metro Vancouver. Finally, a comprehension of sustainability theory in urban and regional planning is required to draw understanding to the roots of sustainable development, how it relates to agricultural land use planning, ways to measure it, idealized standards within the practice of such initiatives, and a theoretical awareness of how such policies are developed and implemented. It is hoped that analysis of the Jackson Farm case through this research will foster understanding of the issues and challenges existing within the intergovernmental farmland protection policy framework in Metro Vancouver, in order to identify avenues for improvement that will ultimately strengthen sustainable development initiatives within the region associated with agricultural land protection.

#### 2 Literature Review

British Columbia's most arable lands are found in Metro Vancouver, and despite numerous layers of sustainable development policies to protect these precious farmlands, the regional district has faced significant losses to its agricultural land base since the inception of these policies. To bring understanding to this critical issue this research will seek to answer the following question: how well are the three levels of government that play coordinated roles to protect farmland in Metro Vancouver functioning to foster good sustainable development policies and practices for agricultural land protection? In order to guide and inform the analysis, the research involved an extensive review of three primary literatures to provide a framework for the understanding of the Jackson Farm case. First, literatures on the history of British Columbia's Agricultural Land Commission and regional planning in Metro Vancouver are utilized to illustrate the rich history of triumphs and challenges in planning for farmland protection with sustainable development policies in the region. These literatures will ground the analysis within an appropriately localized political context, while highlighting the consequences of the continual weakening and strengthening of farmland protection policies that has been a political reality within both the context of British Columbia and that of Metro Vancouver. Next, literatures that demonstrate the importance of land use planning policy for protecting food security are utilized to exemplify the urgency regarding the protection of arable lands within Metro Vancouver. These literatures will ultimately be utilized to highlight the importance of protecting BC's most arable lands in Metro Vancouver due to their finite nature, while also further building an understanding of the importance of local farmlands to ensure food security for future generations. Finally, sustainability theory in urban and regional planning literatures are evaluated to yield an understanding of how sustainable development policy is developed and implemented within an urban and regional context, while noting the importance of such practices. Specifically, this section of literature will seek to: define how sustainable development is measured; note the difference between weak and strong sustainable

development; explain how weak and strong notions of sustainable development fit within the planner's triangle that is utilized to understand the balance of economic, social, and environmental merits of a given policy; and, to understand current trends in sustainable development that result in proclaimed "win-win" solutions as seen with the Jackson Farm case. Ultimately, exploring these literatures will provide both a factual and theoretical foundation from which the outcomes of the Jackson Farm case can be analyzed and understood.

# 2.1 BC's ALR in Metro Vancouver: A Brief History

### 2.1.1 The ALR: A History of Triumph and Contested Policy

The continual erosion of farmland for urban development in the mid-twentieth century in Metro Vancouver sparked public outcry. By 1972 this public outcry had created a political platform advocating for the protection of these lands and the New Democratic Party (NDP) successfully campaigned and won the provincial election over this matter (Garrish, 2002/3, p. 36). Following their election in August 1972, in November of that year the NDP announced that it would create province-wide legislation to "stop the rezoning of agricultural land for non-farming purposes" (Yearwood-Lee, 2008, p. 4). This created turmoil amongst agricultural landholders and subsequently triggered a large influx of rezoning applications in attempts to make land use changes prior to the legislation's approval. The provincial government responded swiftly in December 1972 with a provincial moratorium on the subdivision of agricultural lands (Garrish, 2002/3, p. 36; Yearwood-Lee, 2008, p. 4). In February 1973, the government passed the Land Commission Act, however, it met significant resistance in the beginning by farmers who viewed the development potential of their landholdings as a mechanism to finance their retirement (Garrish, 2002/3, p. 40). To remedy this policy deficiency, in the fall of 1973 the NDP introduced the Farm Income Assurance Act, which was a financial support program for farmers that essentially helped to share the financial burden placed on farmers for protecting their lands from development for the benefit of the greater good (Garrish, 2002/3, pp. 40-41). From 1974 to 1976, the boundaries of the Provincial Agricultural Land Reserve (ALR) were established totalling about five percent of British Columbia's land base (Provincial Agricultural Land Commission, 2010);

however, Yearwood-Lee notes that "the initial boundary designation process was largely completed by 1975" (Yearwood-Lee, 2008, p. 5). Additionally, the Land Commission was tasked with a Land Management Program that was backed by a twenty-five million dollar fund to acquire agricultural lands for the purpose of ensuring protection of critical lands and to make land available through leases to upcoming generations of farmers (Garrish, 2002/3, p. 42). Ultimately, this era not only marked the beginning of the ALR and the Provincial Agricultural Land Commission (ALC), but it also demonstrated strategically innovative agricultural support programs that sought to enhance agricultural viability in British Columbia while simultaneously protecting the province's most arable lands for future generations.

The ALC's early days were what Garrish notes as the "activist period of the commission" and were short lived due to the NDP's defeat by the Social Credit (Socred) Party in 1975, which began an era that saw the demise of many of the policies that the NDP had created to protect British Columbia's agricultural lands (Garrish, 2002/3, pp. 43-44; Yearwood-Lee, 3008, p. 5-6). While recognizing the widespread public support that the ALR had gained since its inception, between 1976 and 1977 the Socreds nevertheless replaced virtually all land commissioners appointed by the NDP and amended the Land Commission Act, resulting in a name change to the Provincial Agricultural Land Commission amongst many policy alterations that weakened the abilities of the ALC (Garrish, 2002/3, pp. 43-45; Yearwood-Lee, 2008, p. 6). Most significant were changes that resulted in stripping the power and funding necessary for the ALC to acquire and manage arable lands, and creating the ability to appeal rejected exclusion applications directly through elected officials of the provincial cabinet by allowing landowners to apply to the Minister of Environment (Garrish, 2002/3, p. 45; Yearwood-Lee, 2008, p. 6). Ultimately, the ability to circumvent decisions made by the ALC and appeal to the provincial cabinet would become a recurrent trend in ALR exclusion applications, where properties such as the high profile Spetifore Lands (discussed further below) were excluded directly by the elected Socred cabinet (Garrish, 2002/3, p. 45; Yearwood-Lee, 2008, p. 6). Through a later legislative change, in 1988 the Socred provincial government additionally stripped the ALC of its authority to allow or disallow golf courses on ALR land (Provincial Agricultural Land Commission, 2010, November 20).

#### 2.1.2 Regional Governments & Farmland Protection

Simultaneously during the same era that saw both the rise and political contestation of the ALC, the importance of strong regional governance in the protection of Metro Vancouver's farmland became exceedingly apparent. Though there had been a long-standing existence of special-purpose regional agencies in British Columbia to deal with numerous coordinative governmental issues, rapid urbanization occurring particularly in the Greater Vancouver and Victoria metropolitan areas catalyzed the provincial government's need to replace the existing informal and voluntary system of solving inter-municipal problems as it was seen to be "both too slow and too uncertain" (Hodge and Robinson, 2001, p. 334). The result was that the provincial government created regional districts that were not technically regional governments and therefore functioned parallel to and not higher than local governments (Hodge and Robinson, 2001, p. 335). These regions consisted of Board members that were appointed by local councils and Board member votes were weighted according to municipal population size (Hodge and Robinson, 2001, p. 335). Most functions of the regional districts "depended upon being approved by two-thirds of the municipalities; however, some functions such as hospital financing and planning were directly imposed upon the regional districts (Hodge and Robinson, 2001, p. 335). The Metro Vancouver regional district, formerly the Greater Vancouver Regional District (GVRD), along with three other regional districts in the province, was created through legislation in 1965 and between this time and 1969 land use planning slowly took root in Metro Vancouver (Halseth in Furuseth and Lapping, 1999, p. 171; Metro Vancouver, 2012). Ultimately, the provincial government's 1969 decision to legislatively transfer regional planning authority to the GVRD is of specific importance to the founding of regional planning powers in Metro Vancouver (Metro Vancouver, 2012). As noted by Tomalty, the GVRD had successfully implemented a Livable Region Plan by 1975 and this resulted in the GVRD having a great deal of authority over regional planning decisions during this era (Tomalty, 2002, pp. 433-434). Through this ability to oversee land use planning decisions in the region, the regional district was able to form what could be considered as a second layer of governmental protection for agricultural lands within Metro Vancouver, with the ALC forming the first protective governmental layer. However, these strong regional planning powers for the GVRD were short lived, when a contentious land use amendment

application to convert a large portion of agricultural land to urban uses resulted in conflict between the regional planning authority and the provincial government.

The Spetifore Lands are a 350 acre portion of a larger 543 acre ALR exclusion that began when the development application was made to the Corporation of Delta in February of 1979 (The Corporation of Delta, October 15, 1979, p. 1; Greater Vancouver Regional District, 1979, p. 2). This proposal was to involve an Official Regional Plan amendment in addition to the ALR exclusion in order to gain approval for land use changes that would see the majority of the area converted to urban uses, with approximately 200 acres dedicated to regional park (Greater Vancouver Regional District, 1979, p. 1). What transpired from this development proposal was "the longest land use dispute hearing in Canadian history over efforts by developers to build on farmland for urban use" (Smith & Oberlander, 2006, p. 170). On October 17, 1979 the Corporation of Delta applied directly to the Minister of Environment and the Environment and Land Use Committee<sup>1</sup> in Victoria, requesting the exclusion of the Spetifore Lands and affiliated neighbouring parcels (Corporation of Delta, October 17, 1979, p. 1). Although the ALR exclusion application was successful, the GVRD had utilized its land use planning authority to oppose development applications on the lands, which resulted in the province retaliating by stripping the GVRD of its statutory regional planning functions and subsequently utilizing the Municipal Act to make all regional plans null and void in 1983 (Hodge and Robinson, 2001, p. 337-338; Rothblatt, 1994, p. 505; Tomalty, 2002, p. 434). While Tomalty emphasizes that the province stated that the grounds for the change were premised upon the claim that regional districts were trespassing on municipal jurisdiction (2002, p. 434), Hodge and Robinson suggest that the Social Credit provincial government's motivation was actually entrenched in an act of retribution over the GVRD's use of its statutory planning authority in an unsuccessful attempt to prevent the removal of the Spetifore Lands from the ALR, which was a development proposal made by a Social Credit supporter (2001, p. 338). Ultimately, the Spetifore Lands case not only illustrates the importance of regional planning in agricultural land use planning,

<sup>&</sup>lt;sup>1</sup> Environment and Land Use Committee is an advisory provincial cabinet committee.

but it also serves as a reminder of both the politicized nature of farmland protection and the consequences of lacking provincial political will to protect arable lands for future generations.

#### 2.1.3 Sand Traps or Crops

In 1991, the NDP regained power, and acted quickly to restore some of the power to the ALC, with their first actions taking place within weeks of their return to office, including both rescinding the 1988 order in council that stripped the ALC of its authority over applications pertaining to golf courses on ALR land and the establishment of a moratorium on all new golf course applications (Garrish, 2002/3, p. 49; Yearwood-Lee, 2008, p. 7). During the period of the Socred government, 181 applications had been made to create golf courses on ALR land, many including residential and resort hotel components, and 89 of these were eventually allowed to proceed, as they were deemed to be nearly completed or to have limited negative impacts on agriculture (Provincial Agricultural Land Commission, 2010, November 20; Yearwood-Lee, 2008, p. 7). Later in 1993, the NDP also introduced the Cabinet Appeals Abolition Act to "limit the ability of government to overrule an ALC decision," and replaced the highly criticized Socred legislation with an alternative procedure that allowed "Cabinet to consider applications if they were deemed to be of provincial interest" (Garrish, 2002/3, p. 49-51). Further changes were implemented based on input gained from a report done by the Dean of Agricultural Sciences at the University of British Columbia, Moura Quayle, in 1999 when the NDP government implemented amendments to ALC legislation to clearly define "provincial interest," and confirm that the "balancing test" upheld agriculture as a first priority, as well as adding procedural requirements to enhance open, accountable and informed decision making (Provincial Agricultural Land Commission, 2010, November 20; Yearwood-Lee, 2008, p. 8).

# 2.1.4 The Restoration of Regional Planning

Though the GVRD continued to function after 1983, there was no legislation to force municipalities to partake in a collective planning process. By 1989 growth pressures in the region were significant enough to demand an updating of the Livable Region Plan, and as such the GVRD began working on a major plan update that was

initially intended to be completely voluntary (Hodge and Robinson, 2001, p. 338; Tomalty, 2002, p. 434). Ultimately, the fact that all but one of the municipalities within the GVRD took part in this completely voluntary process suggested the need and appetite for regional planning in Metro Vancouver (Hodge and Robinson, 2001, p. 338). Then from a legislative standpoint, things changed drastically when the NDP took power of the provincial cabinet in the 1991 election, "and almost immediately started work on legislative changes that would give regional plans more authority" (Tomalty, 2002, p. 434). By 1995 the NDP had implemented the Growth Strategies Statutes Amendments Act, which was adopted "to provide a provincial legislative context for growth management planning throughout the province" (Hodge and Robinson, 2001, p. 341). This legislation in effect restored regional planning on a cooperative basis that requires consensus amongst member municipalities to adopt a regional growth strategy (Sancton, 2001, p. 551), but nonetheless "allowed the province to establish mediative forms when local-regional agreement was not forthcoming" (Smith & Oberlander, 2006, p. 157). The Growth Strategies Statutes Amendments Act legislation was carefully "written around consensus building with municipalities and was careful not to establish a conventional two-tiered system of planning control" (Metro Vancouver, 2005, p. 60), thereby attempting to balance re-introducing regional planning while being careful not to impinge upon autonomous local municipalities. Nevertheless, the result of the Growth Strategies Statutes Amendments Act was that the detailed regional planning work that had been done by the GVRD on a voluntary basis became captured in a legislated framework and would form the basis for a new Livable Region Strategic Plan (LRSP) that had the authority to hold member municipalities to sustainable development principles. Finally, in January 1996 Metro Vancouver's LRSP was approved; identifying regional town centres to focus development and protecting approximately two-thirds of the region's land base with a Green Zone designation (Hodge and Robinson, 2001, pp. 339-341; Tomalty, 2002, pp. 434-436). In February 1996 "the Minister of Municipal Affairs signed an order recognizing the GVRD's LRSP as a regional growth strategy" (Hodge and Robinson, 2001, p. 341), and thus the B.C. Legislature had officially declared the LRSP to be enforceable within the regional district.

An important part of the *Growth Strategies Statutes Amendments Act* was the part of the legislation stipulating that "each community within the region must prepare a

regional context statement indicating how its community plan relates to the LRSP and what it intends to do to adjust its plan to conform to the regional growth strategy" (Hodge and Robinson, 2001, p. 342). This regional context statement is required to be submitted to and approved by the regional Board and can only be altered by formal approval by the Board members (Hodge and Robinson, 2001, p. 342). Similarly, the *Growth Strategies Statutes Amendments Act* recognized the need for collaborative efforts between regional planning authorities and other provincial ministries and agencies in order to successfully implement and achieve the goals of a regional growth strategy (Hodge and Robinson, 2001, p. 342). "Accordingly, Section 942.3 of the Act gives regional districts authority to enter into an implementation agreement with these various bodies and to formalize these partnerships," including with such provincial agencies as the ALC (Hodge and Robinson, 2001, p. 342).

In keeping with the Growth Strategies Statutes Amendments Act legislation, the ALC and GVRD signed the Livable Region Strategic Plan Implementation Agreement on October 12, 1996 (Provincial Agricultural Land Commission & Greater Vancouver Regional District, 1996, p. 1). The objectives of this Implementation Agreement were to establish: shared goals; partnership principles; coordination of policy and action; and administration procedures (pp. 2-6). Of notable importance was the Implementation Agreement's "recognition that responsibility for maintenance and enhancement of agriculture as part of the metropolitan region is shared and requires a coordinated response" (p. 4). In adherence with this notion, the Implementation Agreement stipulates that the GVRD Board will "support the preservation of farming in Greater Vancouver as an objective and consult with the Agricultural Land Commission at an early stage on relevant GVRD policies and projects," while also requiring that the ALC will "refer to the GVRD Board for comment any changes to the Agricultural Land Reserve boundaries within or adjacent to the Greater Vancouver Regional District that would have a significant impact on the Livable Region Strategic Plan" (pp. 4-5). Of key importance to note with the Implementation Agreement is that while it does establish mutual goals for the ALC and GVRD, and institutes a mutual referral process for critical issues, it does not require consent or support between two agencies prior to making a decision on a given issue.

#### 2.1.5 Agricultural Land Commission Act: Consolidating Policy

In a somewhat recent change to ALC policies shortly after their 2001 election, the Liberal Government initiated further changes in 2002 to the Agricultural Land Commission. The changes by the Liberal Government included a repealing of the Agricultural Land Reserve Act, the Land Reserve Commission Act, and the Soil Conservation Act and consolidating them into the new Agricultural Land Commission Act (Smart Growth BC, August 2005, p. 4). Significant changes within this new Act included "decisions to decentralize the Commission by creating six regional panels of three commissioners each and to encourage the Commission to devolve more authority to local governments on issues of land use within the reserve" (Smart Growth BC, August 2005, p. 4). The theory behind this restructuring was to "increase interaction with applicants and stakeholders and to provide an opportunity for greater regional presence in ALC decisions" (Green, 2006, p. 4). In a January 16, 2002 Open Cabinet speech, the Liberals claimed that their changes to create six regional panels overseen by a provincial chair were to "provide greater regional presence" while noting "commissioners will be more aware of local issues and will be able to respond more quickly" (Minister of Agriculture and Lands in Provincial Agricultural Land Commission, November 26, 2010, p. 15).

Despite the claims made by the Liberal Cabinet, both Carter-Whitney and Yearwood-Lee suggest the ability of regional panels to make decisions premised on "community need" creates concern over local commissioners being more influenced by local pressures for economic development (Carter-Whitney, 2008, p. 23; Yearwood-Lee, 2008, pp. 8-9). Further to these criticisms pertaining to the regional panel system, a report done by the Environmental Law Clinic at the University of Victoria in August 2006 brought legitimacy to Carter-Whitney's and Yearwood-Lee's claims. However, it should be noted that although the report failed to anchor its analysis in a Metro Vancouver context, as it focused only on ALR exclusion cases outside of this regional district, two of the four cases involved the South Coast Regional Panel, which is the same Regional 3-Member Panel responsible for ALR decisions in Metro Vancouver. The report concluded based on an analysis of four major cases of recent ALR land exclusions, involving the South Coast, Island, and Kootenay Regional Panels, that this "new Regional Panel system is not providing adequate guardianship for the province's scarce agricultural

land," with exclusion decisions being premised on such community needs as the perceived need to expand Abbottsford's industrial land bases or the granting of residential villas to be built on a golf course on ALR land in Sechelt (Green, 2006, p. 11 & 37).

On November 26, 2010, the Chair of the Provincial Agricultural Land Commission submitted a review of the Agricultural Land Commission entitled Moving Forward: A Strategic Vision of the Agricultural Land Commission for Future Generations. The review suggested that "consideration be given to a governance model that establishes a single decision-making body (7 members) while retaining regional representation from each of the ALC's 6 administrative regions," (Provincial Agricultural Land Commission, November 26, 2011, p. 6). The review continued to note two benefits associated with the Regional 3-Member Panels, including that "applicants support decision-making closer to home;" and that "commissioners are knowledgeable about their region and local issues" (Provincial Agricultural Land Commission, November 26, 2011, p. 22). In contrast, the review outweighed these two benefits with twelve negative impacts associated with the Regional 3-Member Panels including the following: "decision-making too close to local governments and people affected by decisions;" "lack of a provincial focus of the ALR program;" "do not provide the breadth of experience, knowledge or opinion needed to examine the host of issues that need to be considered and debated;" "increased potential for commissioners to be placed in situations of an apprehension of bias [or] potential conflict of interest;" "recruitment is often difficult and some important agricultural areas are not represented;" "19 member commission is unwieldy;" "function more as permitting agencies rather than as an administrative tribunal;" "inconsistent approach to considering applications and administering ALC and provincial policy;" "personal biases can prevail with such a small decision-making body;" "chair lacks the statutory authority to intervene on a matter before the panel;" "considerable staff resources are needed to administer panels rather than more thorough in-depth review of applications and issues;" and that they are "costly to operate" (Provincial Agricultural Land Commission, November 26, 2010, p. 22). To deal with these and other notable issues with the Agricultural Land Commission Act, the Liberal Cabinet enacted a few amendments to the Act on November 24, 2011. Included in these amendments was Section 33.1 entitled "reconsideration of decisions of panel" (Province of British

Columbia, November 24, 2011). In summary this amendment gave the chair of the Commission the ability to direct the executive committee to reconsider a decision within 60 days. Thus, the resulting amendments enacted by the Liberal Cabinet to the Agricultural Land Commission Act to address the November 26, 2010 review report resolved the issue of the chair not having the ability to intervene on a decision; however, the amendments failed to remedy the other eleven concerns with the Regional 3-Member Panels system.

#### 2.1.6 The Province's Most Arable Land: Shrunken ALR Boundary

The numerous and significant changes that have been made by the province to both the ALC's power and functions as well as to Metro Vancouver's regional planning abilities since the creation of the ALR have not come without consequences to the protection of arable lands in Metro Vancouver and the province as a whole. Hodge and Robinson note that since the creation of the ALR there have been periods in which the ALC was riddled with contentious farmland exclusions with most of these exclusions occurring in the Metro Vancouver region (2001, 320). Nevertheless, although the ALC has not prevented sprawl into the urban-rural fringe of Metro Vancouver, Leo and Anderson note that it has successfully placed constraints on the extent of sprawl (2006, 176). Currently the ALR includes approximately 4.76 million hectares of land throughout the province; however, only about sixty thousand hectares of land are protected by the ALR in Metro Vancouver (Provincial Agriculture Land Commission, 2010, October 30). Moreover, in spite of the fact that the ALC notes that the overall size of the ALR is approximately the same as it was at its inception, a report by the David Suzuki Foundation suggests that this is only due to the fact that exclusions of land in the more fertile areas are replaced by less productive land in Northern British Columbia (Campbell, 2006, 25). This problem is exacerbated by the fact that the Metro Vancouver region is part of what is known as the Lower Fraser Valley, and a 1972 study of the agricultural geography of British Columbia noted these lands to be the most important agricultural lands in the entire province, yet also subject to the highest degrees of land speculation (Dalichow, 1972, 41). Thus although nearly one-quarter of the land in British Columbia is farmable, most of the prime farmland is in Metro Vancouver (Smith and Oberlander, 2006, 151). As such, the Suzuki Foundation's claims are supported by the fact that since the ALR's inception the total amount of area within the ALR in Metro

Vancouver has been reduced from 66,839 hectares to 60,508 hectares, which is a difference of 6,331 hectares or a 9.5 % reduction in the total amount of protected farmland (Provincial Agricultural Land Commission, 2002). Further to this, in 2005, Metro Vancouver noted that there were recent "applications to remove 515 hectares (1,272 acres) from the ALR including applications on Barnston Island and in the District of Maple Ridge" (Metro Vancouver, 2005, 39)<sup>2</sup>. This included the successful removal of Jackson Farm from the ALR.

#### 2.1.7 The Political Policy Shuffle

Kennedy Stewart developed a theory suggesting that provincial governments tend to alter regional governance structures in ways that suit their own policy preferences (Stewart, 2008, 1). He argues that whenever possible provincial governments will always choose more fragmented regional governance structures because they "are easier for senior governments to control as municipalities tend to compete against their neighbours and this increased competition reduces metropolitan governments' capacity to act collectively and resist senior government forays into their legislated jurisdictions" (Stewart, 2008, 3). Stewart argues that the problem with this is that fragmented forms of regional governance that senior governments tend to implement are less effective at solving region-wide policy issues (Stewart, 2008, 3). Stewart's theory provides insight into the logic behind abolishing regional planning by the Socred government in 1983 when the GVRD became resistant to provincial forays against agricultural land protection. In keeping with Stewart's theory, when the NDP government came to power and reinstated regional planning powers, they did so under a more fragmented consensus-building framework than had previously existed. To this end, although the regional planning authority was finally reinstated, what was lost in this new legislation was the ability, noted by Hodge and Robinson, for regional districts to directly impose planning functions on member municipalities, and as such the consensus-building framework was intended to foster a degree of municipal autonomy

<sup>&</sup>lt;sup>2</sup> Information detailing the specific applications referred to in this report could not be obtained.

(2001, p. 335). Though it should be noted the new legislation did allow for regional planning decisions to be forced upon municipalities; this now had to be done through a provincial mediation process (Smith & Oberlander, 2006, p. 157). Nevertheless, there is reason to suspect that the current consensus-building model of regional governance in Metro Vancouver functions relatively well. Jane-Frances Kelly notes how the successful cooperation of member municipalities led to creation of the protective Green Zone within the regional plan, which suggests that the consensus-building framework is actually a more powerful approach to limiting sprawl than having a central agency attempt to dictate areas to be protected from development that they then have to continually defend (2010, p. 10).

In contrast, Ray Tomalty noted a problem with the consensus building framework of regional planning: that during the regional planning process, the GVRD was able to reach an agreement in principle with member municipalities; however, major opposition arose from municipalities that were not within the proposed Growth Concentration Area and they subsequently "rejected the call to intensify already-settled areas and prevent growth in greenfield areas" (2002, p. 436). Tomalty highlighted the fact that these municipalities were generally concerned with the potential negative economic impacts from diverting the majority of future population growth away from their jurisdictions on the urban-rural fringe (2002, p. 436). Continued opposition from suburban municipalities resulted in the renegotiation of the growth management targets, with the agreed upon figures permitting "more development in the outer suburban areas while lowering the targets for the Growth Concentration Area" (Tomalty, 2002, p. 437). According to Tomalty, the result was that the compact region scenario did little to divert growth trends, that were deemed undesirable by regional planners (2002, p. 437). In the end, the LRSP did implement a Green Zone that was intended to constrain urban development and protect ecologically sensitive lands, such as farmland, yet nearly 30,000 hectares of rural land was termed 'vacant urban' and left outside the Green Zone to allow room for future greenfield development (Tomalty, 2002, p. 442). In addition to this, the policy language in the LRSP utilized general terms that have been subject to broad interpretations by member municipalities and therefore have provided some direction, but no clear outcomes (Metro Vancouver, 2005, p. 61). Ultimately, these issues demonstrate the problems associated with cooperative forms of metropolitan

governance, and correspondingly Tomalty argues that, overall, Metro Vancouver's consensus building model of regional planning is not an effective method for managing growth, as growth management goals "become diluted through negotiation until they become indistinguishable from existing trends" (Tomalty, 2002, p. 443). Moreover, Tomalty predicted that "real pressures on the Green Zone concept will come as easy development sites outside the zone are used up" (2002, p. 442). Tomalty contrasted a prediction by demographer David Baxter that this "green wall" would be hit as early as 2003, with Metro Vancouver's belief that this would take many years, while noting that he felt the latter perspective to be optimistic (2002, p.442). Although the attempts were unsuccessful, the Jackson Farm development applications began in 2002, suggesting that the worst case scenario stressed by Tomalty was relatively accurate. By the time the Jackson Farm Green Zone amendment application was presented to the Board of Metro Vancouver, it was one of six applications to amend the Green Zone, and the only one denied (Metro Vancouver, September 17, 2008, pp. RD-21 – RD-22 & RD-27).

Tomalty's argument regarding the diluting of growth management goals and his predictions pertaining to the erosion of the Green Zone once the "green wall" was hit have continued to have merit since the Jackson Farm case. In July 2011, an updated Regional Growth Strategy (RGS) was approved to replace the 1996 LRSP. Within Metro Vancouver's new RGS, a provision has been made for "Special Study Areas," which are areas that were previously included in the Green Zone under the LRSP, and although they currently remain protected through Conservation and Recreation, Agricultural, or Rural land use designations under the new RGS, these designations have been contested by member municipalities (see Metro Vancouver Regional Growth Strategy, Bylaw No. 1136, 2010, p. 63 & 65). What is critical to note about these "Special Study Areas," is that they are considered a Type 3 minor amendment and consequently only require a 50% + 1 weighted vote of the Metro Vancouver Board for a change in designation and do not require a public hearing (p. 60). If these sites were not subject to the criteria of "Special Study Areas," they would instead be considered a Type 2 minor amendment and would subsequently require a two-thirds weighted vote and a public hearing to have their designation changed (p. 60). Ultimately, what these "Special Study Areas" represent is a concession made to regional planning growth management objectives that were necessary in order for Metro Vancouver to gain approval of the new

RGS from member municipalities through the consensus building framework.

Consequently, the inclusion of these "Special Study Areas" in Metro Vancouver's new RGS conform to Tomalty's notion of land use politics after the "green wall" has been hit, and consequently elucidate a failing of the consensus building framework.

# 2.2 Land Use Planning & Food Security

#### 2.2.1 Defining Food Security

The Government of Canada utilizes a definition of food security that was developed following the World Food Summit in 1996 when participating countries reached a consensus that: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Canada, 1998, p. 9). Huish simplifies the vagueness and ambiguity of this concept by noting that "food security is about ensuring the availability of food, and then promoting people's access to it," (2008, p. 1389).

The concept of being able to sustain the ability to ensure food security is a component of what Huish refers to as "maintaining food security," which involves "identifying vulnerable households, communities and regions that are en route to having a crisis of either availability or access" (2008, p. 1389). To support the model of "maintaining food security," Huish recognizes that it is logical to put the concept of 'risk' at the centre of food security paradigms, instead of the more commonly utilized notion of 'vulnerability' (p. 1390). The reason for this is that vulnerability has been conceived to be related to socio-economic and political factors that often affect the final outcome of one's ability to achieve food security, where the concept of risk has been linked to the actual environmental conditions that affect the ability to produce food in the first place (p. 1389-1390). Ultimately such perceptions of potential risks in maintaining food security have been connected with issues such as climate change and regional conflicts (p. 1389-1390); however, such notions could be expanded into the unknown consequences of environmental degradation and the exhaustion of finite resources utilized for the production of food. To this end, maintaining food security needs to consider 'what if'

factors to ensure that the risk of the previously noted and similar phenomena do not compromise the ability for people to feed themselves. Specific to Metro Vancouver is the fact that the city region currently relies on an agro-industrial food system to achieve food security. Agro-industrial food systems at the production level rely on "agricultural inputs such as chemicals, mechanical [innovations and] energy that are indispensable to conventional agriculture," and from a food distribution perspective this also "includes the food processing industry, distribution networks, trade, and supermarket chains (Dantsis, Loumou & Giourga, 2009, p. 200). Campbell notes these agro-industrial food systems to be dependent on oil for nearly all aspects including fertilization, mechanized farming, transportation, packaging and storage (2002, 196). Relying on this oil dependent agri-industrial food system consequently poses a risk to Metro Vancouver's future ability to maintain food security, as the impacts to this system from the forthcoming oil shortages that will result from reaching peak oil are unknown, and therefore such risks should be at the heart of food security policymaking initiatives.

#### 2.2.2 The Need for Farmland to Ensure Food Security

Riches explains that the globalization and corporate control of the food system has contributed to a loss of community-based agriculture and subsequently hindered the capacity of nations and communities to feed themselves (2002, p. 175). Ultimately, as noted by Tarasuk (2001, p. 489), Canada is very much a part of a global food system and thus is at risk of potential problems with ensuring the availability of food. Jones explores such issues with the current global food system by stipulating that food security is of particular "concern when food imports constitute a large fraction of national consumption," because "sudden changes such as increases in oil prices, strikes, and blockades or a poor harvest in the country of origin could in a short time lead to food shortages" (2002, p. 574).

The BC Ministry of Agriculture and Lands conducted a "food self-reliance" study in 2006 to provide insight as to whether or not B.C.'s farmers have the ability to feed the province's growing population (B.C. Food Self-Reliance, 2006). The approach of this report was "to estimate the food self-reliance in B.C. at the primary production level, and to use this information to examine the impacts of a change in eating habits and a change in population on the level of food self-reliance in B.C." (p. 1). An advantage to this study

over others is that it "examines primary production rather than wholesale value," in that it "uses land in production and average yields to estimate production rather than the value of production that reaches the wholesale level" (p. 5). Ultimately, it is argued that such an approach better lends itself to providing insight into how much food B.C. is actually producing, while also accounting for such anomalies as farm direct market sales, and livestock that may be only partially raised in the province (p. 6). This approach was intended to "provide a link between the food productive capacity of the province and the land base, water resources, and changing of food needs of the population" (p. 5). Such an approach is aimed at creating "a more useful tool for sustainable development planners [that links] food self-reliance and the resources the planners influence - land and water" (p. 4). The report looked at the basic food groups including: dairy, meat and alternatives, fruit and vegetables, and grains, then compared the annual amounts of each consumed in the province versus the amount actually produced (p. 9). The data concluded B.C. farmers produce 56% of the food needed in the province; however, this percentage actually dropped to 48% when sugar as well as fruits and vegetables that cannot be produced in BC are factored into the equation (p. 9). These figures were actually marginally higher when fish was factored into the equation, raising the "food self-reliance" percentages from 56% to 61% for foodstuffs produced in B.C. and from 48% to 53% for total foodstuffs (p. 9). This data therefore supports the notion of British Columbia being a part of this globalized food system, noted by Riches (2002), Tarasuk (2001) and Jones (2002), in which the population relies heavily on food imports to maintain food security.

The B.C. Food Self-Reliance report noted that in 2001 the province required "2.15 million hectares of food producing land to meet their needs [of which] 217,000 hectares of that land needed to be in the fruit, vegetable, and dairy producing areas and have access to irrigation" (p. 12). Projections in the B.C. Food Self-Reliance report go on to suggest that by 2025, 2.78 million hectares of farmland would need to be in production for the province to be food self-reliant, including 281,000 hectares of farmland with access to irrigation (p. 12). Although it should be noted that these predictions assume numerous constants, including expected crop yields from current farming technologies. The Provincial Agricultural Land Commission has successfully set aside 4.7 million hectares of farmland for protection (Provincial Agriculture Land Commission,

2010, October 30), which suggests a degree of preparation for such farmland needs. Nevertheless, careful consideration must be given to factors such as the ability to have irrigation on these lands, given that such lands are critical for fruit, vegetable, and dairy farming. As such, it is critical to note that the report goes on to state that "in 2005 the Ministry of Agriculture and Lands estimated that approximately 189,000 hectares of farmland in B.C. had access to irrigation," which suggests if the province needed to be food self-reliant there is already a deficiency in farmlands that have access to irrigation (p. 12). This demand for farmlands with access to irrigation ultimately creates an additional layer of consideration in farmland protection. Moreover, even though the Agricultural Land Commission has provided a safe guard by protecting some of the province's most arable lands, if the province's population grows substantially beyond 2025 projections, the ratio of protected farmland per capita could easily fall below the amount needed to sustain each person if the province was required to become selfreliant. Ultimately, this is where risk comes into play when policymakers attempt to decide exactly how much farmland is sufficient to maintain food security for both Metro Vancouver and British Columbia, which is a difficult task that involves trying to determine the needs of future generations.

## 2.2.3 Importance of Land Use Planning & Policy to Food Security

Strong planning and policy is critical to ensure that contention between conflicting land uses does not result in irreversible decisions that will become a catastrophic detriment to current and future generations. In order to ensure that future generations have the resources necessary to attain food security it is critical that "residential development must not continue to degrade vital ecosystems or waste limited agricultural lands" (Grant and Manuel, 1996, p. 339). Grant and Manuel emphasize the importance of the productive capacity of the earth to sustain human settlements, and consequently advocate that protecting these precious productive landscapes should therefore be an essential priority for local planning (1996, p. 332). It has been noted that "many benefits can be derived from the protection of productive farmland, including: local and national food security, the protection of rural and environmental amenities, the promotion of compact [communities for] reducing environmental costs, slowing suburban sprawl, and providing wildlife habitat" (Liu, Li, Tan, and Chen, 2011, p. 1830). This suggests that the protection of farmland is actually intrinsically linked to a broad array of sustainable

development planning initiatives, namely, the averting of urban sprawl. Nevertheless, Daniels and Lapping note that trends elucidate great difficulties with city regions successfully protecting farmland from development (1996, p. 287). In the context of sustainable development, Grant and Manuel attribute these difficulties to the fact that there is generally difficulty with gaining consensus regarding exactly what should be done and therefore "while politicians, planners, and others write and talk about sustainability, they continue practices that undermine the sustainability of landscapes" (1996, p. 332). This reflects Williams's argument, suggesting that the benefits of sustainability are often perceived as a 'hope' rather than a factual benefit (1999, p. 172). One way to prevent the sprawl that often destroys farmland is to establish urban growth boundaries surrounding communities (Daniels and Lapping, 1996, p. 287). Metro Vancouver has had some success at implementing this strategy with both the province's establishment of the ALR and the region's creation of the Green Zone and Growth Concentration Area, yet the city region has stated that protecting its natural assets is a major challenge while accommodating growth of 30,000 more people every year (Metro Vancouver, 2005, p. 36). Despite the challenges, it is clear that ways must be found to prevent the erosion of Metro Vancouver's arable lands, given the possibility that in the future farming will have to be down-scaled from its current petroleum intensive form and regionalized to grow more food locally (Kunstler 1993, p. 248).

## 2.2.4 A Case for Urgency to Protect Metro Vancouver's Farmland

The reason why the growth of cities often consumes the farmlands that feed them is rooted in the fact that urban areas were historically founded where vast tracts of arable lands exist to supply their populations with food (Boone and Modarres, 2006, p. 77). Ultimately, communities became disempowered and deskilled at local food production as transnational corporations industrialized agricultural processes (Riches, 1997, p. 73). The result of this phenomenon is that wealthy cities and countries now reach beyond their boundaries to attain food supplies (Boone and Modarres, 2006, p. 81). Industrialized food systems are ultimately dependent upon cheap oil for both mechanization and agrochemical inputs, as well as for transportation over vast distances (Wright, 2009, p. 1). Oil supplies are a finite resource and although there is debate over when it will occur, the reality is that an end will come to the cheap oil on which industrialized food systems depend (Wright, 2009, p. 11). Wright suggests that the food

security crises endured by Cuba when the country's oil supplies ceased virtually overnight during the dissolution of the Soviet Bloc foreshadow the experiences that many countries face due to their dependence on petroleum based food systems (2009, p. 11).

When the Soviet Bloc collapsed in 1989, Cuba's imports, including fuel, petroleum based fertilizers and pesticides, along with parts for agricultural machinery, were quickly cut-off, resulting in an era known as the "Special Period in Peacetime" (Perfecto, 1994, p. 98). Erisman noted this to be "the most serious crisis in the country's history" (2000, p. 106). The country was undoubtedly plaqued with a serous food shortage, with average daily protein and caloric intake falling by approximately thirty percent (Rosset and Benjamin, 1994, p. 22). Cuba's lack of petroleum inputs quickly brought on "a growing realization that an agriculture that depended on costly inputs and environmentally unsound practices could not maintain the conditions of production for much longer; this realization led to increased investment in research and development of alternative practices" (Perfecto, 1994, p. 105). The result was that Cuba "developed various food programs, primarily in the cities, where the food crisis [was] most evident, [and that] changes [were] made in land use and agricultural planning to reflect the priority of food production" (p. 104). Perfecto notes the Cuban experience to be "an experiment in low-input sustainable agriculture like none other in the world, [and he suggests that anyone concerned with the development of sustainable agriculture should pay close attention" (p. 106).

Although the sustainability of the industrialized food system is of serious concern, it is exacerbated by farmlands being devoured through sprawling development patterns that occur in the absence of high demand for local farmlands to produce foodstuffs. Boone and Modarres demonstrate that urban sprawl tends to devour underutilized farmland adjacent to growing cities, as developers view these lands as cheap greenfield sites that are already cleared and therefore serve as prime construction locations (2006, p. 83). Correspondingly, Kunstler notes that one of the fundamental problems with West Coast North American suburbia is that it has a tendency to destroy the best farmlands (1993, p. 260). Ultimately, this phenomenon of cities destroying adjacent farmland suggests a dangerous trend based on the Cuban precedent where lacking petroleum inputs required for the operation of an agro-industrial food system forced the country to

revert to organic, localized, small-scale agriculture in order to prevent famine. To this end, it is critical that city regions, such as Metro Vancouver, pay close attention to the lessons learned by the Cuban experience and protect all surrounding agricultural lands for future food production. Though it is possible that technology may save the day and provide future generations with other alternatives, besides organic, localized, small-scale agriculture, such an assumption would be careless.

#### 2.2.5 Sustainable Agriculture

Sustainable agriculture is rooted in maintaining agroecosystem health, which involves balancing "a combination of biophysical and socioeconomic conditions that jointly influence such properties as productivity, sustainability, stability, and equitability" (Vadrevu et al, 2008, p. 283). Specifically, this involves creating a healthy agroecosystem through balancing biophysical and socioeconomic facets that represent complex interactions among people, domesticated animals, other flora and fauna, arable soils, and competing land uses that do not involve the production of food or fiber (Vadrevu et al, 2008, p. 284 & 304). Following this logic, Bartlett advocates that preserving farmland is a central task of sustainable agriculture, and in conjunction with ensuring that agricultural practices do not degrade the quality of arable lands, a second and critical component involves sustainable development planning policies and practices that protect farmable soils from sprawling suburban development (1994, p. 23). It is therefore important to note that arable topsoils like those found in Metro Vancouver are a precious resource that take an average of five hundred years for the accumulation of only 2.5 centimetres (Kendall and Pimentel, 1994, p. 200; and Suzuki, 2007, p. 145). Suzuki emphasizes that "soil produces life because it is itself alive." with "every cubic centimetre of soil and sediment teem[ing] with billions of micro-organisms" (Suzuki, 2007, p. 119). Ultimately, what Suzuki is calling attention to is the fact that humans derive essential components of the energy they need to survive directly from these precious and finite soils. Haber notes that land with soils that are suitable for agriculture without difficulties are "surprisingly scarce on earth, covering only 11% of all continents" (2007, p. 360). Despite these alarming factors, it is estimated that after factoring in new soil production, approximately 0.7% of the earth's arable soil inventory is lost every year, which equates to at least 10 million hectares of precious topsoil being destroyed annually (Kendall and Pimentel, 1994, p. 200; and Suzuki, 2007, p. 148). Suzuki points

to the destructive cumulative processes of both urbanization and poor agricultural practices as the main causes for these detrimental soil losses (Suzuki, 2007, p. 145). Jaeger, Bertiller, Schwick and Kienast remind us that "land and soils are finite and their destruction is irreversible within human life spans," (2009, p. 397) while Haber asserts that the loss of soils involves "destroying a precious resource that can regenerate only in centuries," (2007, p. 360) which parallels Kendall, Pimentel, and Suzuki's claims. Ultimately, Suzuki's iteration of the scientific complexities pertaining to the value of soils to humans along with the finite nature of soil production noted by many stresses Barlett's point regarding the importance of protecting fertile agricultural lands through sustainable development planning policies and practices.

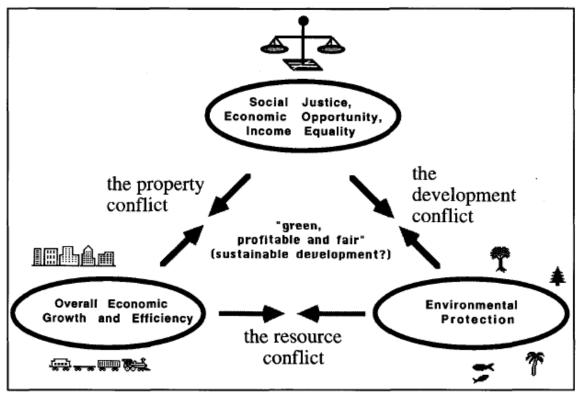
# 2.3 Sustainability Theory in Urban & Regional Planning

#### 2.3.1 Defining Sustainable Development

The theoretical definition of sustainable development is often linked to the possibility of building "a future that is prosperous, just, and secure," which was the central focus of the 1987 report *Our Common Future* from the United Nations World Commission on Environment and Development (p. 8). This report, commonly referred to as the *Brundtland Report*, stated that sustainable development "can be defined simply as an approach to progress which meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 8). In an effort to further this definition, Berke and Manta Conroy combine characteristics of sustainable development noted by other authors to further define the concept as "a dynamic process in which communities anticipate and accommodate the needs of current and future generations in ways that reproduce and balance local social, economic, and ecological systems, and link local actions to global concerns" (2000, p. 23). Berke furthers this concept by linking it explicitly to contemporary cities by suggesting that sustainable development "embraces a big problem involving the widespread dissatisfaction with the sprawl of contemporary urban development" (2002, p. 22).

## 2.3.2 Sustainable Development in Urban & Regional Planning

Berke notes that sustainable development is somewhat analogous to visionary planning centred upon problems with the nineteenth-century industrial city, and consequently "the growing debate about sustainability has revived a forgotten or discredited idea that planning could be visionary and done on a large scale" (p. 22). In keeping with this notion, Campbell nevertheless argues "that the current concept of sustainability, though a laudable holistic vision, is vulnerable to the same criticism of vague idealism made thirty years ago against comprehensive planning" (1996, p. 296). To remedy the potential for such criticisms he notes that sustainability involves both conflicted and complementary interests, and consequently planners must act as mediators, while simultaneously being creative to build coalitions amongst once-separated interest groups (p. 297). In practice this means "the planner must reconcile not two, but at least three conflicting interests: to "grow" the economy, distribute this growth fairly, and in the process not degrade the ecosystem" (p. 297).



Source: Campbell, 1996, p. 298

Figure 1: The Planner's Triangle - Conflicting goals for planning

In order to better rationalize these conflicting interests of sustainability, Campbell sees sustainable development at the centre of a "planner's triangle" (Figure 1) with three corners that include: social justice, environmental protection, and economic growth (p. 298). He notes that conflicts occur along each axis of this sustainable development triangle, as there is tension between the three corners, with the perceived merits of social justice, environmental protection, and economic growth being continually contested in an attempt to reach the ideal centre of the triangle, which is an elusive goal post, as interpretations of sustainability vary (pp. 298-301). As such, Campbell notes that reorganizing society to achieve sustainable development is no easy task (p. 301). The challenge that remains is to "narrow the gap between theory and practice" (p. 301).

Campbell's concept of the Planner's Triangle lends itself well to describing the tensions involved with effectively implementing sustainable development policies and practices relating to farmland protection. The protection of agricultural land can be best summarized through the interconnected conflicting land uses noted in Haber's

"ecological traps," where he notes three principle competing needs for land (2007, p. 363). First, is "the energy trap formed by a quasi-return to renewable energy suppliers for which we need very vast, hardly available tracts of land and sea;" second, is "the food trap formed by increased use and demand of arable and pasture land with suitable soils;" third is "the land occupation trap formed by the need of land for urban-industrial uses, transport, material extraction, refuse deposition, but also for leisure, recreation, and nature conservation" (p.363). Ultimately, Haber suggests that these needs compete against one another for land; however, he explicitly points out that at the heart of this competition is the fact that "land and soils are finite resources, very vulnerable and not reproducible nor restorable [at least not within foreseeable generations] once they are lost or destroyed and [therefore] require our primary attention" (p. 363). To this end farmland protection involves preventing other competing land uses from taking place on farmland and causing harm to or destruction of the precious finite soils that provide humans with food to survive.

Of primary concern to this research is Haber's notion of the food trap and the land occupation trap, which together form a predominant land use conflict known as urban sprawl that has become a tremendous challenge for contemporary planners to mitigate. Jaeger et al, (2009, p. 398) suggest that "there is no general agreement about what defines urban sprawl," but note that:

most definitions mix causes and consequences of this pattern of development into the description of the pattern per se which constitutes the core of the definition. The causes include unimpeded and disorganized growth, aimless and green surrounding, the building of second homes, and the search for inexpensive building lots. The consequences include diminution of landscape quality, loss of arable soil, loss of recreation areas, lack of clearly defined open spaces, functional and spatial separation of places for living and working, and large numbers of commuters.

Jaeger et al. developed their own definition of urban sprawl, based on numerous existing definitions and bring specific attention to the form of the geographical landscape pattern resulting from this land use conflict:

Urban sprawl is a phenomenon that can be visually perceived in the landscape. The more heavily permeated a landscape by buildings, the

more sprawled the landscape. Urban sprawl therefore denotes the extent of the area that is built up and its dispersion in the landscape. The more area built over and the more dispersed the buildings, the higher the degree of urban sprawl. The term "urban sprawl" can be used to describe both a state (the degree of sprawl in a landscape) as well as a process (increasing sprawl in a landscape) (p. 399).

Further complementing the definition of urban sprawl derived by Jaeger et al. is the definition provided by the US Housing and Urban Development agency, which notes that urban sprawl is:

A particular type of suburban development characterized by very lowdensity settlements, both residential and non-residential; dominance of movement by use of private automobiles, unlimited outward expansion of new subdivisions and leap-frog development of these subdivisions; and segregation of land uses by activity (1999, p. 33).

Ultimately, the ideal or balanced uses of land on the urban-rural fringe between food production and urban (or suburban) uses can be understood to be found at the centre of Campbell's Planner's Triangle. Though it is recognized that these relationships are inherently complex, the point is that sustainable development would in theory be achieved if the correct balance of farmland protection versus urban development was achieved, to satisfy the tensions between the environment, economy, and social justice. In theory this correct balance should be found at the centre of the Planner's Triangle, which Campbell suggests is an elusive target (1996, p. 298); and it is this elusiveness over what this correct balance should be that ultimately causes debate over what to consider sustainable development. In simplistic terms it can be understood that people require food to eat and a place to live, and therefore demand for food production and urban (or suburban) development will occur within the Planner's Triangle. Setting other factors aside, the primary struggle that occurs is balancing farmland protection with this development to achieve the best outcome. Ultimately, if strong emphasis is given to farmland protection the result should be tightly clumped together circular developed urban environments, likely built in areas that minimize impacts to farmable soils; and resulting in the protection of both active and dormant farmlands. Conversely, if not enough emphasis is given to farmland protection within the Planner's Triangle, then the result will be dispersed urban (or suburban) development, known as urban sprawl, that

results in the destruction of arable soils, and thus a loss of farmland that is not currently under high demand for food production. In the case of land use conflict resulting over farmland protection being contested for other uses, Haber suggests that "land and soil have to be conserved, maintained, cared for, properly used, based on reliable ecological information and monitoring, planning and design; sustainable development will fail or miss its goals if [this is] disregard[ed]" (2007, p. 364).

## 2.3.3 Measuring Sustainable Development

What is missing from Campbell's method for determining sustainable development is a measurement tool. Following the ecological economist David Pearce's death, Karl-Göran Mäler summarized Pearce's substantial contributions to determining how we as a society can rationalize sustainability through a form of measurement, which involves recognizing that "sustainable development [is] about saving productive resources for the future generations" (Mäler, 2007, p. 63). Mäler notes that, Pearce was "the first to understand that sustainable development could not be captured by an income like concept, but instead by [a] wealth like concept" (p. 63). In summary of Pearce's findings, Mäler notes that the Brundtland report definition of sustainable development "implies that future generations should be granted as much productive power as the present generations inherited from the past generations, in order to have sustainable development" (p. 69). In continuation, Mäler suggests "a more stringent requirement would be to give to the next generation exactly the same productive forces as the present generation inherited; however, that would be a very expensive principle as it would require conservation of all exhaustible and renewable resources and therefore would imply that all changes whatsoever in the resource base would violate the principle" (pp. 69-70). In order to deal with the impracticality of this notion "one needs to accept some substitutability among the different assets that we can bestow our descendants. Given "that the total value of all the assets is an index of sustainable development," Mäler explains that Pearce argued sustainable development assumes one of two directions: "that the next generation should inherit a stock of wealth, comprising man-made assets and environmental assets, no less than the stock inherited by the previous generation; or that the next generation should inherit a stock of critical environmental assets no less than the stock inherited by the previous generation" (p. 70). The distinction between these two assumptions is the inclusion of substitutability

between natural resource capital and man-made alternatives (p. 70). Following this logic of substitutability, Pearce suggested that there were two conceptual notions of sustainable development: strong and weak sustainability (p. 72). Mäler summarizes these two concepts by characterizing weak sustainability as occurring "when man-made capital can be a substitute (but not necessarily a perfect substitute) for natural capital"; in contrast with strong sustainability, which occurs "when a number of critical resources should be sustained because there are no substitutes for these" (p. 72). Finally, Mäler notes that Pearce and his colleagues recognized that population changes matter in calculating sustainable development; and as such they were "the first who used wealth per capita as an indicator of sustainable development" (p. 70).

In short, Pearce recognized that there is actually a spectrum of sustainable development that ranges from weak to strong, with the difference being the degree of substitution utilized between natural resources and man-made alternatives in a given calculation of sustainable development achievement. Additionally, Pearce reminds us that a primary factor that must be involved in any sustainable development calculation is population changes, as the amount of natural resources or "wealth" available per capita to future generations is key to ensuring that they will have the same productive capability as the present generation. In Mäler's analysis of Pearce's theories, one critical outcome that was overlooked was that based on the assumption that "what matters is wealth per capita" (p. 70). If population is to increase sustainable development would involve developing in such a way that actually leaves a greater stock of "wealth" for future generations to inherit. Though this seems challenging at the outset, perhaps such an ideal outcome could involve sustainable development that utilizes substitutes in conjunction with the regeneration of previously depleted resources to actually grow "wealth" for future generations. As a side note for further understanding sustainable development, it should be mentioned that in addition to population changes, other factors that affect sustainable development include affluence and technology. Barry Commoner points out that technology plays a significant role in both a population's ability to consume and its ability to reduce environmental impact (1992, pp. 149-151). Commoner additionally informs us that affluence of a population complicates the notion of sustainable development further, given that affluent populations tend to consume significantly more than their fair share of the world's resources in order to attain a higher

standard of living than others (pp. 163-165). Ultimately, when considerations of population, affluence, and technology are factored into the myriad of what constitutes sustainable development, it becomes increasingly difficult to assume what needs to be done to attain the concept. Nevertheless, Pearce's theories are invaluable for determining direction in sustainable development practices, as the premise of his theory involves strong versus weak actions towards sustainable development. As such, the principle notion of Pearce's theory is based on the idea that the greater the combination of natural resources and human made technological substitutes we leave for future generations the better off they will be; and thus the more we leave for them directly correlates with the stronger degree of sustainable development that we will have achieved.

## 2.3.4 A Framework for Sustainable Development Policy Making

Though having a measurement tool for gauging sustainable development is critical to determine sustainability achievements, it is equally important to understand the political rhetoric that drives and creates the policy that supports such efforts. Stone argues that to understand policy decisions, it is critical to consider the implications of the marketplace, where individuals act out of self-interest to seek personal benefit through processes such as competing against each other over scarce resources (2002, pp. 17-18). This theory jives with Campbell's notion of "jobs versus environment," which is a theory that involves clashes that occur between environmental protection and economic growth as differing opinions of how to obtain social justice transpire amongst workers, companies and community members (1996, p. 297). Furthermore, Stone suggests that public policy requires the collective will and effort of individuals to achieve common goals as a community, resulting in the formation of public interest, which is ultimately what the majority of citizens want at a given moment, and therefore policy must be dynamic and change over time (Stone, 2002, pp. 18-21). It is important to note that within this political myriad of pursuing public interest to create policy there are individuals attempting to shape the process in pursuit of their own self-interests; however, this cannot be done blatantly and rather must be masked in the perception of pursuing a greater public interest (p. 22). Caulfield notes that part of the concern over such individual interests shaping policy initiatives at the governmental level of "local authority control over planning and land-use decisions is that these decisions are largely developer-driven,"

and therefore pursuit of policy to benefit the collective good can become compromised (1993, p. 435). Hence, the "net effect [can be] that developers, rather than plans, have driven the decision-making process" (p. 436). As such, the policy making process can often become conflicted, as public interest and self-interest often contest each other resulting in private benefits entailing social costs and vice versa (Stone, 2002, pp. 22-23). Likewise, "it is hard to motivate people to undertake private costs or forgo private benefits for the collective good" (pp. 22-23), and consequently it is often difficult for politicians to gain popularity through the creation of policy that requires individual voters to give up benefits for the intangible notion of greater social and environmental justice that benefits society as a whole and future generations. To this end, Stone argues that policymaking involves an interaction of alliances and influences to strategically "use ideas to gather political support and diminish the support of opponents, all in order to control policy" (p. 34). Ultimately, the result is that when sustainable development policies lack inviting benefits to modern-day voters or stakeholders with political influence, it becomes difficult for policymakers to make the difficult choices required to enhance social and environmental justice for the collective good while balancing economic objectives if they wish to maintain voter popularity to continue control over policy decisions.

## 2.3.5 The Anti-Planning Argument for Farmland Protection

The Fraser Institute is a longstanding non-profit organization, proclaiming to be an independent research and educational body that "measures and studies the impact of competitive markets and government interventions on individuals and society" (The Fraser Institute, 2010, para. 1). Consequently, the opinions of the Fraser Institute are particularly rooted in business oriented free-market ideologies, but nevertheless elucidate a somewhat general perspective that is upheld by some voters and politically influential stakeholders. In relation to farmland protection, the Fraser Institute advocates that "the preservation of farmland should be relegated to the private sector," and subsequently argues that British Columbia's ALR should be abolished leaving the protection of open space subject to the supply of investors based on market demand (Katz, October 2009, 38-39). They go on to argue that the ALR has unfairly limited the property rights of ALR landholders, while simultaneously resulting in British Columbia being subjected to the highest housing costs in the country, by not allowing development

to expand into the urban-rural fringe as the market demands (Katz, October 2009, pp. 31-35 & 37-38). In summary, they claim that the ALR is "not only harmful but unnecessary," asserting that "human ingenuity and market forces are fully capable of meeting the food demands of British Columbia's growing population through increased productivity and efficiency" (Katz, October 2009, p. 37).

The Fraser Institute's viewpoint echoes the political rhetoric Stone notes to influence policymaking by taking away from the benefit received by the collective good by seeking specific benefits of some private interests (2002, pp. 22-23). On one hand the Fraser Institute advocates their stance would benefit the collective good from the perspective of creating more affordable housing, while allowing technology to substitute losses in agricultural land. On the other hand such a benefit could also be seen as a mask that offers one benefit to cover up the fact that the future capability to use those lands for farming, if ever needed, is being taken away, while speculative owners of agricultural land maximize their return on investment. Borrowing from Pearce's notion of weak sustainability (Mäler, 2007, pp. 70-72) involving technological substitutes that are not necessarily perfect ones, in this case technological substitutes associated with the agro-industrialized farming model, it could be argued that the Fraser Institute's policy preference can still be considered a form of sustainable development within Campbell's Planner's Triangle (1996, p. 297-299); with the balance tipped more towards economic growth than social and environmental justice. Nevertheless, such a stance on sustainability ignores Bartlett's warning regarding the fact that "technology has given many people the feeling that humans are exempt from the constraint of limited carrying capacities" (1994, p. 27). Ultimately, in the case of farmland preservation, what Pearce notes to be strong sustainability (Mäler, 2007, pp. 70-72) would take into account that with an average production time of 500 years to form 2.5 centimetres of arable soils (Suzuki, 2007, p. 145) farmland is essentially a non-renewable resource as far as imminent future generations are concerned. Consequently, strong sustainability would likely not rely on market driven policy to protect farmland, as substituting agricultural technology for depleting a non-renewable resource would be a risky policy to guarantee food security for future generations. This risk of relying on technology to supply food has been proven by the Cuban precedent that demonstrated food security crisis can occur despite human knowledge of agro-industrial technologies and in such instances good

arable land is the best and perhaps only solution. Though the Fraser Institute's notion that free-market regulation of farmland protection will suffice to benefit the collective good by producing food with agro-industrial technologies that lessen demands for farmland to accommodate competing land uses, such as affordable suburban housing, there is reason to question the validity of prioritizing other uses on arable land ahead of farming. Haber suggests that "farming is both the first and final land use, because all other land uses depend on it [and therefore] if farming is abolished or rendered impossible, all other land uses would disappear" (2007, p. 361). Ultimately, Haber's insight suggests that farming is the most important land use, and consequently it should not be sacrificed for competing land uses on arable soil; even if contemporary market demand suggests otherwise.

## 2.3.6 Where Sustainable Development Policy Can Go Wrong

Recent trends in governmental decisions suggest policymakers seek "win-win solutions" that involve implementing weak sustainability initiatives where a "greening" of development is sought through trade-offs that utilize the market to limit demand and technology to increase supply, while neglecting to make difficult choices that involve placing constraints on economic growth (Batty, 2006, p. 31). As noted by Cowell and Owens, planning is often used as a technical and instrumental mechanism for implementing sustainable development rather than an argumentative and political one, with the consequence being a trend of political pressure to streamline and rescale planning processes to both accelerate and simplify planning and development sustainability controls (Cowell and Owens, 2006, p. 403-404). Streamlining planning and development processes involves governments demanding shorter and swifter planning processes that generate quicker economic benefits but that are scrutinized for lacking full and proper inquiries into environmental and social considerations (Cowell and Owens, 2006, pp. 412-413). The concept of rescaling involves seeking flexibility and fast-moving planning processes at the local discretion of regional bodies (Batty, 2006, p. 36; Cowell and Owens, 2006, pp. 407-409). A problem that has been noted with regard to relying solely on localized regional bodies to make critical sustainable development decisions is that economic interests can create potential political influences at the local level that impact outcomes (Provincial Agricultural Land Commission, November 26, 2011, p. 22; Cowell and Owens, 2006, p. 409). As such, the rescaling

process is well-suited to describing the changes that the BC Liberal government made to the ALC in 2002, which required the Commission to conduct farmland protection decision making processes through Regional 3-Member Panels (Minister of Agriculture and Lands in Provincial Agricultural Land Commission, November 26, 2010, p. 15). Batty attributes such streamlining and rescaling of sustainable development policy and implementation processes to political decisions that involve "short-term pragmatic considerations and the need to demonstrate policy success" (Batty, 2006, p. 36).

Furthering this discussion on sustainable development policymaking and implementation processes is the fact that Batty explains that neither ecological nor economic rationales on their own account for the general public's welfare or the collective good (2006, p. 38). This is demonstrated by the fact that "the Earth [is] a selforganizing evolutionary system but with its own existence not that of its human inhabitants as its aim; [and] similarly the economics of development optimises economic progress and maintains the existence of the economy, rather than the welfare of individuals groups or cultures" (p. 38). Accordingly, Batty suggests that "while there are persuasive arguments that on the one hand, Gaia [(mother nature)], or on the other, the market, can provide a path to a sustainable future, that path is unlikely to be one that most humans would want" (p. 38). Therefore, Batty says that it is sound government policy and planning practices that are required to improve quality of life by implementing solutions that are robust enough to counter an array of potential future problems (Batty, 2006, p. 38). In other words, policymakers must find a degree of balance between ecological and economic systems of logic to create sustainable development policy that is palatable for the majority of voters, and ultimately seeks social justice. Stone suggests that this process is premised upon a careful reasoning and calculation of political consequences for a given policy action in order to successfully balance the policy preferences of members of the public and other stakeholders (Stone, 2002, p. 382). In recognition of the fact that it is difficult to please everyone, the rationality behind policymaking and implementation can be seen as seeking strategies to frame issues in a ways that benefit certain interests, while sacrificing others that are deemed to be less politically important (Stone, 2002, p. 383). Specifically, in terms of sustainable development, Katie Williams adds that policies to promote sustainable land use are often politically challenging as "policymakers can, at best, only argue that if X is done they

hope Y will come about" (1999, p. 172). In summary, sustainable development policymaking and implementation involves a balancing of public interests with other stakeholders' interests in a manner that is able to persuade enough individuals to continue to empower a given government as policymakers. Consequently, when we consider that future generations are not a part of the modern-day voting population, it can become better understood how the difficulties of balancing long-term societal benefits for the collective good with the instant gratification of short-term economic stimuli is a vast political challenge. In this context, a sustainable development policy may be utilized to generate perceived short-term benefit to public interests to mask the strategic benefits to particular self-interests of specific stakeholders, such as local developers, while distracting attention from the long-term costs to environmental and social justice. The result is that a sustainable development policy may achieve popularity, even if it fails in some aspects, by generating specific benefits, while masking the fact that it is failing to achieve other critical necessities for the collective good. The literature elucidates a trend in which sustainable development is being sought through "win-win solutions" that do not achieve the environmental and social merits necessary to adequately benefit the collective good and protect the needs of future generations (Batty, 2006, p. 31). Ultimately, such "win-win solutions" are a part of what Pearce coined as constituting weak sustainability (Mäler, 2007, p. 72); albeit the line between weak sustainability and simply unsustainable in some instances is a difficult one to draw. In contrast, what is often being lost in the contemporary political rhetoric is an adherence to sustainable development policy frameworks that uphold, or at least strive for, what Pearce coined to be strong sustainability (p. 72) initiatives that truly seek to preserve resources by maximizing social and environmental justice for the collective good, so that future generations inherit a wealth of resources that will provide future economic opportunity. Specifically, in the case of farmland protection, sustainable development initiatives could really be argued to be a form of risk management, which has been proven to be necessary by the food security crisis that arose in Cuba when agroindustrial technological substitutes to local vast tracts of arable land failed to provide adequate amounts of food in the absence of readily available petroleum. Given the trend of "win-win" solutions for sustainable development policymaking and implementation it becomes clearer why some municipalities may speak to principles that support agriculture in their Official Community Plans, while such policies are often

undermined in practice with interim profits from development, preventing Councils from holding firm on farmland protection (Smart Growth BC, August 2005, p. 4).

# 3 Methodology

Inquiry into and analysis of the Jackson Farm case study was conducted utilizing several methods to gain insight into the challenges elucidated by this case to protecting Metro Vancouver's agricultural lands. These methods include: an extensive review of academic literatures that illustrate the history of British Columbia's Agricultural Land Commission and regional planning in Metro Vancouver, demonstrate the importance of land use policy for protecting food security, and establish the use of sustainability theory in urban and regional planning; a review of relevant government documents including staff reports, public hearing agendas and minutes, bylaws, policies, legislation, and miscellaneous file-specific documents; a review of relevant newspaper articles; and semi-structured interviews with selected governmental representatives who had detailed involvement with the Jackson Farm case.

The case selected for this study involves contentious land use amendment applications that were made over a period of approximately ten years with numerous proposals to gain development rights for urban residential uses on the century old Jackson Farm located in the District of Maple Ridge. The case is of particular interest to me because of my role as Development Planning personnel for more than four years at the City of Coquitlam, where at a governmental staff level I have been responsible for the file managing of numerous development applications. Subsequently, I have an indepth understanding of the processing of development applications and of how the development and implementation of sustainable development planning policies are affected by the myriad of stakeholders that influence the success of sound planning theory and practice.

Although I share the same surname with the family that founded Jackson Farm more than a century ago, I have no relation whatsoever to this family, or to any of the heirs to Viano (Vin) Jackson's estate. As such, my interests in the Jackson Farm case, as a researcher, are purely academic and professional.

Direction for the analysis of the Jackson Farm case study was derived from the following question:

 How well are the three levels of government that play coordinated roles to protect farmland in Metro Vancouver functioning to foster good sustainable development policies and practices for agricultural land protection?

By addressing this question, I intend to offer insight into the planning processes in Metro Vancouver that are responsible for the protection of the region's farmlands. From this insight, conclusions will be drawn that suggest potential problems that exist with the making and implementation of sustainable development policies for the region that are intended to contain urban sprawl and protect arable lands. As such, the overarching intent is to provide direction that will foster improvements to sustainable development farmland protection policy creation and implementation in the region; though it is recognized that potential directions for improvement may in fact be farreaching into other regional sustainability policy initiatives.

A detailed review of governmental documents was conducted as the primary method for gaining insight into the Jackson Farm case. The government documents were primarily obtained from the District of Maple Ridge, Metro Vancouver, and the Agricultural Land Commission; however, additional documents were referenced from the provincial government in the form of legislative amendments to relevant acts. The facts of the Jackson Farm case are principally informed by governmental staff reports, public hearing agendas and minutes, and established bylaws and polices. A great deal of supplemental information was also derived from file-specific material that included such evidence and data as: details of application proposals, intergovernmental memoranda, correspondence between governmental bodies and the applicant/ owners, maps, aerial photography, and supplemental reports such as soil testing records and historical significance narratives. The objective of the review of this government document information was to establish an accurate account of the Jackson Farm story based on factual records that have been endorsed as accurate by governmental institutions. The government documents were carefully organized chronologically in separate binders for each of the three government agencies. Each document was carefully analyzed and highlighted to elucidate the most pertinent information. Additionally, notes that gave a

general idea of the content of the document were made on colour-coded flags that allowed convenient reference to important information during researching and writing. Some information was provided in duplicate between the different government agencies and this was cross referenced to ensure accuracy. In some cases information appeared to be incomplete, missing, or contrary to the facts stated by one of the other government agencies. In these cases inquiry was sought through the interview process to attempt to resolve the issues.

The decision was made to rely primarily on government documents to tell the story of Jackson Farm, because these documents were extensive in detail, and subsequently form a clear and comprehensive understanding of the case. In addition to these government documents telling a relatively complete story, with few gaps, they also provided a degree of legitimacy by being endorsed by the institutions from which they originate. Though it is recognized that sources originating from government institutions do not necessarily guarantee accuracy or truthfulness, the fact that in this case all of the documents generally told a consistent story from each of the government institutions suggests there is significant merit and accuracy in the contents of these particular government documents. Furthermore, as forming part of a written history of Jackson Farm, these documents are not subjected to the potential failure of memory that can occur with interviews.

Newspaper articles were utilized only as a supplemental source of information to enrich the story of the Jackson Farm by referencing in-the-moment accounts of the events that unfolded pertaining to the application proposals to develop the lands for urban residential uses. Newspaper articles were stored in the binder of government agency information that each article best corresponded with. The articles were also carefully analyzed and highlighted in order to ensure attention was drawn to the most important information. They were also flagged in a colour coded fashion with notes made on the flags to convey a general summary of what the article was about.

A total of three interviews were conducted to provide insight into the facts pertaining to the Jackson Farm case that were unanswerable through the detailed government document review. The interviews were semi-structured in nature, and carried out with governmental representatives that had knowledge of the Jackson Farm

case. The three interviewees provided representation from each of the three most pertinent governmental institutions, including: the District of Maple Ridge, Metro Vancouver, and the Provincial Agricultural Land Commission. Interviews were limited to these three individuals to avoid extreme biases that may be held by politicians, grassroots farmland protection groups, or individuals that had a financial stake in Jackson Farm.

The primary obstacle to conducting interviews was premised upon the Jackson Farm case being highly contentious from a political and professional standpoint. From a personal anecdotal perspective taken from my four years of professional planning experience, staff members are sometimes involved with applications that are uncomfortable and in certain cases political direction may pose varying degrees of ethical conflict with professional training. Given the highly politicized and contentious nature of the Jackson Farm case, every possible measure was accordingly taken to provide interviewees with a level of comfort that would not pose them personal or professional risk. In order to alleviate risk from interviewees taking part in the interviewing process, all identifying information with the exception of their governmental institution of origin has been omitted. As such, all data from the three interviewees is referenced as follows: Person X of the ALC; Person Y of the District of Maple Ridge; Person Z of Metro Vancouver.

Although this research recognizes that politics played a role in the Jackson Farm case it merely acknowledges the numerous political actions that occurred, but does not seek a detailed academic investigation of the numerous political rationales that may have influenced decision making. Instead, acknowledgement of political agendas is made simply by referencing notable political actions taken, such as the campaign funding conflicts that were exposed in the media during the Jackson Farm case. The research rationale for not further investigating political rationales is premised upon the fact that such political agendas are status quo in land use planning within Metro Vancouver. In other words, campaign funding emanating from development interests in Metro Vancouver municipal politics is standard practice, and therefore, unless significant changes are sought to campaign funding procedures, such information will do little to benefit the outcome of future farmland protection land use decisions within the region. As such, this research would benefit little by seeking to point blame at politicians or

attempt to understand their specific rationales in depth, as these political agendas are not unique to the Jackson Farm case. Instead, this research seeks to understand where sustainable development policies may have not worked effectively in this case and subsequently seek potential improvements to foster better future outcomes for farmland protection within Metro Vancouver.

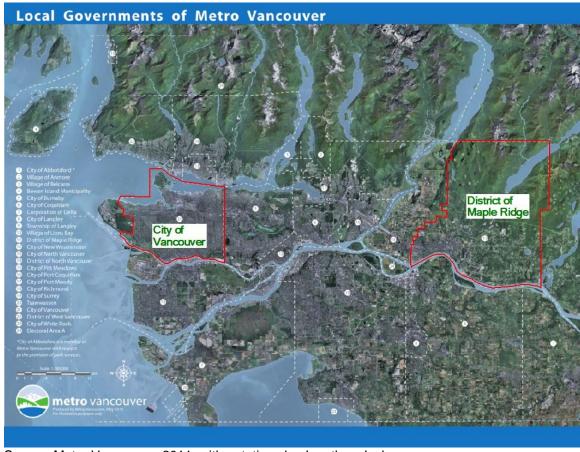
This research uncovers the story and context of the Jackson Farm case, which was a notable and recent case of land use contention in Metro Vancouver. The findings of this research are far-reaching in terms of highlighting farmland protection policy and practice triumphs in the context of Metro Vancouver, as well uncovering areas in need of improvement. Additionally, this research may provide insights that could be advantageous to other sustainable development policies and practices, both within Metro Vancouver and potentially elsewhere.

## 4 The Jackson Farm Case

## 4.1 Jackson Farm: Its History & Location in Maple Ridge

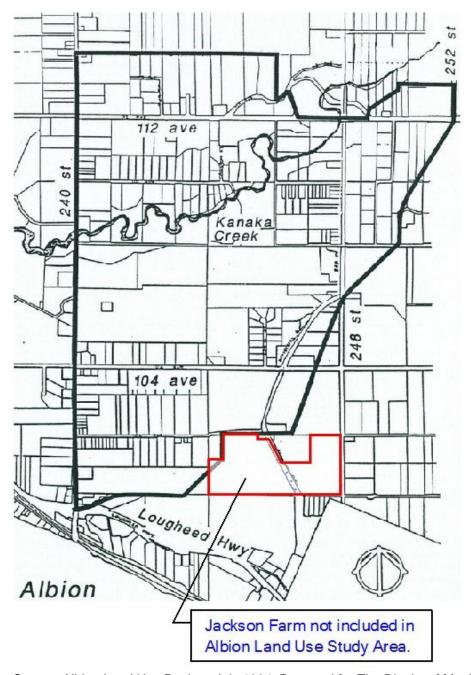
### 4.1.1 Maple Ridge & the Albion Region

The District of Maple Ridge consists of 33,000 acres and was the sixth municipality formed in British Columbia in 1874, preceded only by New Westminster, Langley, Chilliwack, Victoria, and North Cowichan (The District of Maple Ridge, 2011). By the time of incorporation, the Albion Region was already one of many areas of the District that had been established by settlers (The District of Maple Ridge, 2011). Today the District boasts a population of more than 75,000 (The District of Maple Ridge, 2011), and is a Metro Vancouver member municipality, forming an eastern suburb of the City of Vancouver (Figure 2). Maple Ridge's Albion Region is named after one of the soil types found there and the area has a history of farming uses. In July of 1994, the District of Maple Ridge established an Albion study area (Figure 3) that would set the boundaries for a land use review within the Albion Region, and although this review area did not include Jackson Farm, it was nevertheless directly adjacent to the property and therefore inevitably set the stage for future development pressures.



Source: Metro Vancouver, 2011; with notations by Jonathan Jackson

Figure 2: Map of Metro Vancouver depicting District of Maple Ridge relative to City of Vancouver

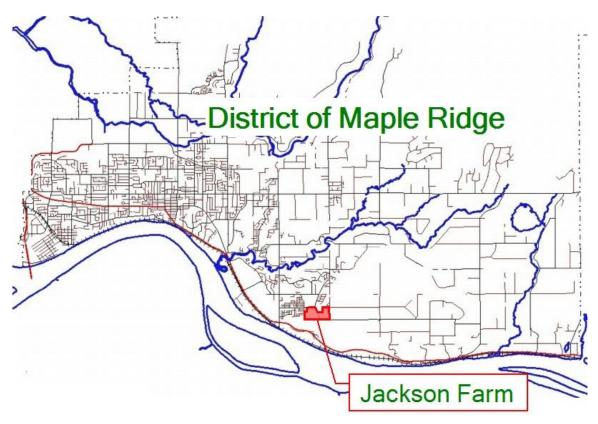


Source: Albion Land Use Review, July 1994, Prepared for The District of Maple Ridge by: Arlington Consulting Group & Quadra Planning Consultants Ltd; with notations by Jonathan Jackson

Figure 3: Map of Albion Study Area for Albion Land Use Review, noting the Jackson Farm property not being included

#### 4.1.2 Establishment of the Jackson Farm

Over a century ago the Jackson Family bought a large piece of property in the Albion Region of Maple Ridge where John Jackson and his wife Ida established a farm that would form a rich history within the region (Maple Ridge News, May 31, 2003, p. 22). Though the exact founding date of the Jackson Farm is unclear, the Jackson Family was noted to have purchased the land in 1897 (Provincial Agricultural Land Commission Staff Report, July 31, 2003, p. 2), while a farm was noted to have been established as early as 1901 (Friends of the Jackson Farm, 2010), followed by a historic farm house having a 1910 construction date, but having since been demolished (Luxton, 1998, p. 90). "At one time [Jackson Farm] had 70 milk cows as well as [an] extensive orchard;" however, in its later years son of John, Viano (Vin) Jackson, "ran a beef cattle operation along with a couple of ponies" (Maple Ridge Museum and Community Archives, 2009). The Jackson Farm is located north of the Lougheed Highway and the Fraser River in Maple Ridge (Figure 4), approximately bound by  $102^{nd}$  Avenue to the north,  $244^{th}$  Street to the west,  $248^{th}$  Street to the east and  $100^{th}$  Avenue and riparian areas to the south.

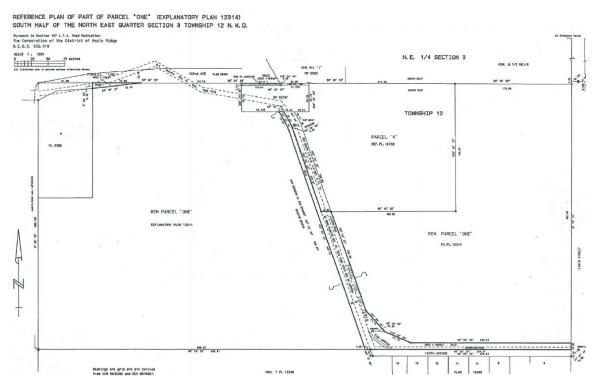


Source: District of Maple Ridge, Ridgeview Mapping, 2011; with notations by Jonathan Jackson

Figure 4: Map of Jackson Farm relative to Maple Ridge

Over the years, the legal boundaries of the Jackson Farm property were subject to a few changes including a 1.2 hectare parcel being subdivided off from the northwest corner of the property at the corner of 244<sup>th</sup> Street and 102<sup>nd</sup> Avenue (Lot A of NWP 8296), as well as another subdivision along the northern portion to create a parcel utilized as a gravel pit (Parcel K of Reference Plan 10788), and a small District owned parcel (Reference Plan 6579F) located at the intersection of Jackson Road and 102<sup>nd</sup> Avenue. Additionally, the property became bisected into two large pieces, when Jackson Road was constructed through the approximate centre of the original parcel on an angle. Despite these historic boundary changes, the remaining two large pieces of the farm bisected by Jackson Road remained one legal parcel, and this form was documented to be in existence in a legal survey map of the District of Maple Ridge since at least September 29, 1951. On June 14, 1999 another 340 square metre piece of the property was taken as road dedication for realigning of 102<sup>nd</sup> Avenue along the northwest edge of the property. Through this road dedication, the property became

legally described as Parcel One (Explanatory Plan 12314), Part South ½ of North East 1/4, Section 3, Township 12, NWD, Except Plan LMP 42377, LMP 42378, which was the legal configuration of the Jackson Farm when it became subject to applications to convert the farm to urban residential uses (Figure 5).



Source: Land Titles Office at New Westminster BC, June 14, 1999

Figure 5: Survey Map of Parcel One (Explanatory Plan 12314), Part South ½ of North East 1/4, Section 3, Township 12, NWD, Except Plan LMP 42377, LMP 42378 (Jackson Farm as legally described June 14, 1999)

Ultimately, the fact that Jackson Farm was bisected by Jackson Road but legally bound as one parcel is important to note in order to understand the naming convention used for the property. The property has areas of sloping terrain, thereby making the southwest corner of the property the lowest in elevation, and the northeast corner of the property the highest in elevation. As such, the portion of the parcel that was located on the west side of Jackson Road became known as Lower Jackson Farm, where the remainder of the property lying to the east of the road became known as Upper Jackson Farm (Figure 6). This naming convention is essential to note, when understanding the history of land use conflict that arose over the fate of Jackson Farm.



Source: District of Maple Ridge, Ridgeview Mapping, 2011; with notations by Jonathan Jackson

Figure 6: Map of Lower & Upper Jackson Farm, showing aerial photography

# 4.2 Jackson Farm & Establishing the ALR Boundaries

# 4.2.1 Establishing the Original ALR Boundaries

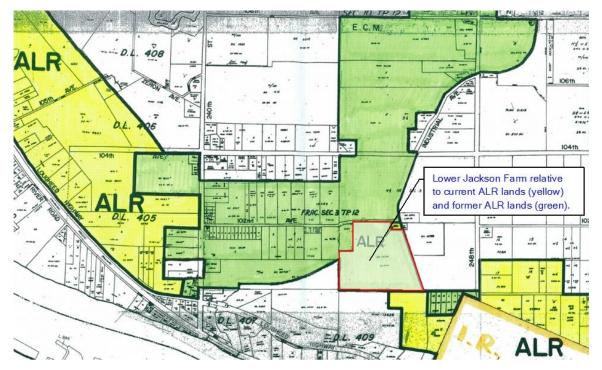
When the Provincial government took action to address the significant erosion of agricultural land by establishing the British Columbia *Land Commission Act* on April 18, 1973, a Commission was appointed to establish a protective land use zone that became known as the Agricultural Land Reserve (ALR) (Provincial Agricultural Land Commission, 2011, November 2). The merits of establishing the ALR boundaries between 1973 and 1975 were premised upon protecting the agricultural land in British Columbia that was most critical to food production and was subsequently based on a number of factors including: "the capability and suitability of the land, its present use, local zoning and input from public hearings" (Provincial Agricultural Land Commission, 2011, November 2, para. 1). In an interview with the ALC, the factors and exceptions pertaining to the inclusion of parcels into the original boundaries of the ALR were elaborated on as follows:

The first and most important [factor] was: is it being farmed? [Other factors included:] Is it part of a larger farm area? Is it Class 1-4 [soils] on the Canada Land Inventory? But nothing in there prohibits from including something that is [class] 5 or 6 [soils] if it is in fact is important for farming. For example, Class 6 is grazing land in some parts of the province [where it] is critical to farm operations to have grazing land. The exception to including parcels of land in the ALR if they were being farmed was if in fact the community already had a plan in place and servicing either in place or in the works, to service the land for residential development or other forms of non-farm development. Then the community was allowed to leave those out if they wished to do so. And regardless of servicing if the community had a plan for development of land that was to take place in the next five years, they were allowed to request that area be omitted from the ALR. I have to say that many communities exaggerated how much they thought would be required in the next five years (Person X of the ALC).

### 4.2.2 Lower Jackson Farm's Inclusion in the Original ALR

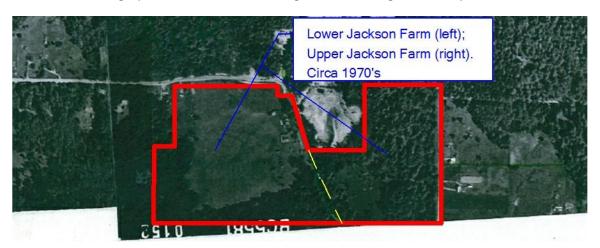
During the establishment of the original ALR boundaries, Lower Jackson Farm was included (Figure 7). It is difficult to determine the exact rationale for any given inclusion at the time of the ALR's inception due to the vast tracts of lands that were included; however, there are some distinct factors that allude to the potential reasoning. In keeping with what the ALC noted to be the most important factor for inclusion, Lower Jackson Farm was being actively farmed at the time the ALR boundaries were established, which is evident in aerial photography from the 1970's, where the majority of the parcel west of Jackson Road is cleared for farming (Figure 8). Additionally, Lower Jackson Farm was part of a larger farm area at the time, which can be seen through the vast clearings in the area that are evident in 1970's aerial photography of the Albion Area (Figure 9), and is additionally supported by the fact that a large expanse of the area was at some time or still remains in the ALR (Figure 7). Finally, Lower Jackson Farm met the criteria of having Class 1-4 soils on the Canada Land Inventory Soil Capability Classification for Agriculture, with the mapping data from the 1970's showing Class 3 and 4 soils to be present (Figure 10). Based on the evaluation criteria available at the time that ranged from Class 1-7 soil types, Class 3 soils were noted to have "moderately severe limitations that restrict the range of crops or require special conservation practices," and Class 4 soils were considered to "have severe limitations that restrict the range of crops or require special conservation practices or both" (Environment Canada, 1972, p. 5 & 7; Appendix B). Nevertheless, although it was done following the

establishment of the ALR, it is important to note the mapping data for this area was updated in the 1980's (Figure 11); using the 1983 new provincial Land Capability Classification for Agriculture in British Columbia that also primarily used a hierarchical range of Class 1-7 (Appendix C & D). The updated soil mapping for the Albion area showed Lower Jackson Farm to primarily consist of Class 2 and 3 soils. In the updated 1983 Land Capability Classification for Agriculture in British Columbia, Class 2 soils were noted to have "minor limitations that require good ongoing management practices or slightly restrict the range of crops, or both," and Class 3 soils were considered to have "limitations that require moderately intensive management practices or moderately restrict the range of crops, or both" (Ministry of Agriculture & Lands/ Ministry of Environment, 1983, p. 9). This data ultimately suggests the agricultural usefulness of the soils at Lower Jackson Farm. Additionally, the Land Capability Classification for Agriculture in British Columbia also contained sub classes (Appendix D). In relation to Lower Jackson Farm, three sub classes are generally observed on various portions of the land, being: "D" denoting undesirable soil structure and/ or low perviousness; "T" denoting topography (steepness); and "W" denoting excess water (Figure 11; Appendix D). All in all, the majority of Lower Jackson Farm (2/3rds) was improved or improvable to Class 2 or 3 soils with only 15% of the land being non-arable mainly due to watercourses and wetlands (ALC staff report dated July 31, 2003).



Source: Agricultural Land Commission, 2011; with notations by Jonathan Jackson

Figure 7: Map of current (yellow) & former (green) ALR lands in Albion Region of Maple Ridge (Lower Jackson Farm in green, following exclusion).



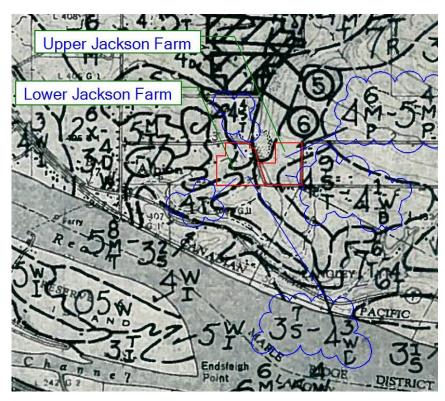
Source, Agricultural Land Commission, 2011; with notations by Jonathan Jackson

Figure 8: 1970's Aerial Photography of Jackson Farm, showing only a small portion in the southwest corner of Upper Jackson Farm being cleared of trees, while Lower Jackson Farm is primarily cleared for farming



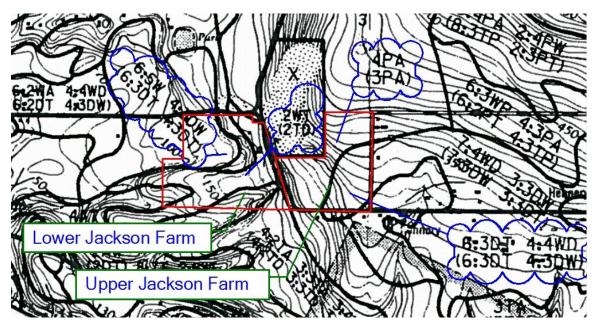
Source, Agricultural Land Commission, 2011

Figure 9: 1970's Aerial Photograph of Albion Area illustrating cleared areas



Source: Agricultural Land Commission, 2011; with notations by Jonathan Jackson

Figure 10: Old Soil Mapping of Jackson Farm from 1970's



Source: Agricultural Land Commission, 2011; with notations by Jonathan Jackson

Figure 11: Updated Soil Mapping for Jackson Farm (1980's)

### 4.2.3 No ALR Protection for Upper Jackson Farm

Although it is not known precisely why Upper Jackson Farm was not included in the ALR, the ALC has confirmed in an interview that:

It certainly would not have been anything to do with Urban Development, because it was far from any area considered for urban development at that time in Maple Ridge (Person X of the ALC).

Further to this, the ALC remarked in relation to the decision not to include Upper Jackson Farm in the original ALR boundaries that:

The decision was made by Dewdney Alouette Regional District, as it was then; [and that] it may have had to do with agricultural capability mapping at that time (Person X of the ALC).

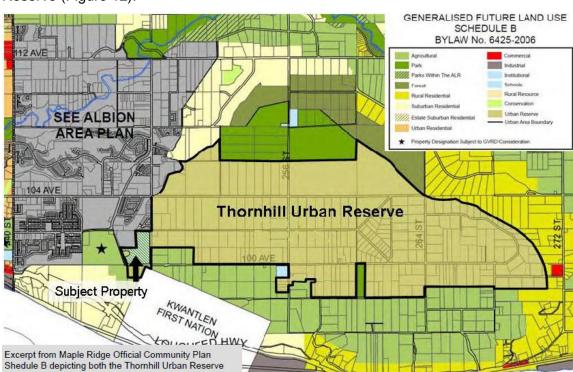
Based on aerial photography of the time (Figure 8), it would appear that Upper Jackson Farm was at least not actively being farmed when the ALR was created; with the majority of the land being covered by tree canopies and only a small portion in the southwest corner appearing to have been cleared. Given that the most important

consideration hinged upon whether or not a parcel of land was being farmed, the decision not to protect Upper Jackson Farm with ALR status seems logical. Additionally, soil mapping from both the 1970's and 1980's confirmed that Lower Jackson Farm consisted of better soils than Upper Jackson Farm. The 1970's soil mapping shows Upper Jackson Farm to be comprised of mostly Class 4 soils with some Class 5 soils (Figure 10). Therefore, in contrast with the Class 3 and 4 soils found on Lower Jackson Farm, Upper Jackson Farm also contained Class 4 soils but no Class 3 soils and additionally had small amounts of Class 5 soils considered to "have very severe limitations that restrict their capability to produce perennial forage crops, [with] improvement practices [being] feasible" (Environment Canada, 1972, p. 7). Similarly, the updated soil mapping from the 1980's again confirmed Upper Jackson Farm to have inferior soils to Lower Jackson Farm. The updated soil mapping for Upper Jackson Farm showed it to consist primarily of Class 3 and 4 soils under the Land Capability Classification for Agriculture in British Columbia; while it was additionally noted that the class 4 soils on the land had the capability of being improved to Class 3 soils (Figure 11; Appendix C & D). The subclasses generally observed on Upper Jackson Farm included: "A" denoting soil moisture deficiency; "D" denoting undesirable soil structure and/ or low perviousness; "P" denoting stoniness; "T" denoting topography (steepness); and "W" denoting excess water. In summary, the soil classifications affiliated with Upper Jackson Farm suggest that it was not as desirable for farming as Lower Jackson Farm from an arability standpoint; and this elucidates further potential justifications for why the lands may not have been included in the original ALR boundaries.

# 4.3 Upper Jackson Farm & the Thornhill Urban Reserve

# 4.3.1 Upper Jackson Farm Protected by Urban Reserve

Although Upper Jackson was not included in the Agricultural Land Reserve when it was established, it nevertheless became protected for a multitude of reasons by the District of Maple Ridge as part of what eventually became known as the Thornhill Urban



Reserve (Figure 12).

and the Subject Property

Source: District of Maple Ridge, 2006; with notations by Metro Vancouver, 2010.

Figure 12: Thornhill Urban Reserve, noting Upper Jackson Farm as Subject Property in hatch

This urban reserve was an area that was not intended to be developed within the foreseeable future. According to the District of Maple Ridge, an urban reserve was first established, encompassing numerous large rural properties in the Thornhill area, in "the early eighties;" however, the policies pertaining to this area evolved and were strengthened and eventually tied to the LRSP to protect the area from development, at least for the interim (District of Maple Ridge Interview).

In the 1996 OCP, Thornhill was called an Urban Reserve. In the OCP it didn't specifically have a section that talked about detailed policies around Thornhill. There were some general policies that talked about [the fact that] Thornhill would not be opened up for urban development until down the road; that it was just simply a reserve. And there was a policy in there that said, until that time, at some point in the future, there was a minimum lot size for subdivision.

Then in 2006, when we were going through our OCP review, there was a lot of discussion in the community about do we go to Thornhill, do we not go to Thornhill. The District had retained Sheltair Group. They did our population projections. They looked at our land capacity. And they came back, and their recommendation was that we don't go to Thornhill. That we drop it, and instead of going to Thornhill, it was a lot more logical to link the town centre part of Maple Ridge to Silver Valley. They looked at Servicing costs and everything else, and their recommendation was that we drop Thornhill and that we go north. This went to the public and to Council, and the community was quite divided. There were some that felt that yes we should not go to Thornhill: it's expensive, there's aguifers, there's all kinds of environmental problems. But our Council then decided that, no, they would continue to go to Thornhill because they felt that there had been a commitment made; back you know 20-30 years ago, that we would go there. They felt that people buying in that area would have bought, thinking that at some point it won't be a reserve. So they said: no, no, we're going to Thornhill. So what we ended up doing then is creating section 3.1.5 in the OCP that established what we call the milestones and the tests for when we'll go to Thornhill. And basically what they say is that the District will not go to the Thornhill area, until it's done an Area Plan, and we won't even start the Area Plan until the population exceeds a 100,000, and we're approaching build-out within the urban area boundary. So there's those two tests. Then we would start an Area Plan. And those policies then go on to talk about all the things we have to do as a component of the Area Plan. So based on our policies and when you look at our population, we won't hit 100,000 until probably 2024, but who knows, it will be around then sometime (Person Y of the District of Maple Ridge).

Ultimately, the Thornhill Urban Reserve was not necessarily intended to protect the lands within it eternally, but rather it was intended to recognize that the lands within it should not be developed unless several critical criteria could first be met, including the development of an Area Plan, attainment of key milestones within the District, and critical environmental studies.

# 4.3.2 Policy Governing Thornhill Urban Reserve

Specifically, policies 3-24 through 3-28 form the criteria and development milestones that are, at least in theory, intended to govern if and when development occurs in the Thornhill Urban Reserve. They were outlined under Section 3.1.5 Urban Reserve in the District's Regional Context Statement in their Official Community Plan as follows:

- 3-24 Maple Ridge will avoid non-contiguous expansion of the Urban Area Boundary.
- 3-25 Maple Ridge will not support urban level densities in the Urban Reserve until an Area Plan is adopted pursuant to policy 3-27.
- 3-26 Maple Ridge will retain the Thronhill area as a long term Urban Reserve area. Urban development will not be supported in the Thornhill Urban Reserve Area until the population threshold exceeds 100,000 people for the District and the residential capacity within the existing urban area is approaching build-out.
- 3-27 Prior to urban development occurring in the Thornhill Urban Reserve, the following must have been achieved:
  - a) approval of an amended Regional Context Statement by the Greater Vancouver Regional District (GVRD) Board;
  - approval of an extension to the Fraser Sewer Area by the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board;
  - c) an Area Plan adopted by Council which includes but is not limited to:
    - policies regarding the types of residential development, land use patterns, minimum density requirements, and appropriate phasing for the area;
    - ii) a fiscal impact assessment study;
    - iii) identification of environmentally sensitive areas, ecosystems and the impact of development;
    - iv) agricultural impact assessment to minimize the impact of development on adjacent farmlands;
    - v) an aquifer groundwater management study; and
    - vi) a transportation plan that includes an integrated system which balances all modes of transportation, including transit.
- 3-28 Until policies 3-26 and 3-27 are satisfied, the minimum parcel size for subdivision of land designated Urban Reserve is 2.0 hectares.

### 4.3.3 Thornhill Urban Reserve Policy & Upper Jackson Farm

As part of the Thornhill Urban Reserve, these policies did not necessarily preclude development from ever occurring on Upper Jackson Farm, but they demonstrated stringent criteria and milestones that needed to be met prior to any urban development occurring on the rural parcel of land.<sup>3</sup> Notably, policy 3-26 clearly stated that urban development could not occur within the Urban Reserve until the population reached a threshold exceeding 100,000 people and additionally not until the existing established urban area had reached near build-out. In an interview, Person Y of the District of Maple Ridge noted that:

We know we're going to hit 100,000 at roughly 2024, [but] we're not exactly sure when we'll reach build out. Everything we do, we're trying to densify. We're always aiming to densify within the urban area boundary. So it's quite possible we'll hit the population [threshold] before approaching build-out. So in that case we'll just keep waiting to get closer to build-out; because to go to Thornhill we have to have both triggers.

Furthermore, it is also important to note that policy 3-27 also set out stringent criteria that may or may not be feasible. Specifically, policy 3-27 c) (iv) and (v) require in depth assessment studies for agriculture and aquifer ground water, for which the findings have yet to be determined. The Thornhill Urban Reserve lies directly north of a large stretch of land designated Agricultural (Figure 4-11), containing numerous farms, and protected by the ALR. The Thornhill Urban Reserve is also known to lie overtop a significant aquifer that supplies these adjacent farms with water for irrigation, and consequently the potentially damaging effects that could arise from development of the reserve are of great concern. As such, given the Thornhill Urban Reserve's adjacency to the noted farmlands, the District of Maple Ridge's OCP carefully outlines that an

Residential development could still occur on a rural scale within the Thornhill Urban Reserve, providing the minimum parcel size of any lot created was 2.0 hectares (District of Maple Ridge Official Community Plan, 2006, Policy 3-28).

agricultural impact assessment and aquifer groundwater management study must be done prior to the approval of any development within the reserve. To this end, it is foreseeable that such reports may find that there are in fact significant impacts to agriculture and the aquifer that could in theory result in prohibiting development within the reserve. In other words, it is logical to assume that the policies within the District of Maple Ridge's OCP may in fact end up preventing some or all development within the reserve, should detailed development potential investigations ever be pursued. Finally, a critical detail to note about the Thornhill Urban Reserve is that "since the regional context statement has embedded triggers and milestones stated in the Urban Reserve section of the Official Community Plan, any urban form of urban development proposed [anywhere within the reserve, including] on the Upper Jackson parcel will require an amendment to the District's adopted Regional Context Statement" (District of Maple Ridge, April 1, 2009, p. 10). Ultimately, this requires regional approvals from the Board of Metro Vancouver, in order to allow development within the Thornhill Urban Reserve, unless every trigger within the Regional Context Statement is first met.

### 4.4 Green Zone Protection & Lower Jackson Farm

## 4.4.1 Livable Region Strategic Plan & the Jackson Farm

Numerous issues related to population growth and urban sprawl, particularly in the Metro Vancouver region of British Columbia, sparked the provincial government to allow Metro Vancouver to adopt the Livable Region Strategic Plan in January 1996 (Hodge & Robinson, 2001, p. 338-339). The Livable Region Strategic Plan (LRSP) consisted of four governing principles that constituted the fundamentals of growth management in the Metro Vancouver region (Metro Vancouver LRSP, 1996, p. 9). These four principles included: Protecting the Green Zone, Building Complete Communities, Achieving a Compact Metropolitan Region, and Increasing Transportation Choice (Metro Vancouver LRSP, 1996, p. 9). Though the LRSP was recently superseded by the recent Regional Growth Strategy in July 2011, at the time of the Jackson Farm applications it nevertheless served in conjunction with the ALR and the District of Maple Ridge's OCP as a regional policy framework that contained sustainable development policies that were intended to guide the fate of Jackson Farm from a

regional planning perspective. Specifically, when the LRSP was adopted in 1996, the principle of protecting the Green Zone became pertinent to the Jackson Farm case, because the adoption of this regional plan resulted in Lower Jackson Farm being included in Metro Vancouver's Green Zone land use designation. It is important to note that Upper Jackson Farm was not included within the Green Zone designation; however, it was subject to sustainable development planning policies pertaining to the Thornhill Urban Reserve; with these policies eventually evolving into guiding principles for the District of Maple Ridge's OCP to be consistent with the LRSP.

### 4.4.2 Guidelines for Green Zone Inclusion

A number of guidelines were established by Metro Vancouver to help member municipalities identify Green Zone lands during the drafting of the LRSP and these guidelines are critical for understanding why Lower Jackson Farm was included in the Green Zone. Interestingly, one specific guideline elucidates a differentiation between Upper and Lower Jackson that suggests why only Lower Jackson was included. The *Guidelines for Identifying Green Zone Lands* include four broad categories that were identified in order to determine whether or not lands should be included within the Green Zone, with each broad category including a list of specific criteria to consider for inclusion. These four categories are (1) *Community Health Lands*, (2) *Ecologically Important Lands*, (3) *Outdoor Recreation and Scenic Lands*, and (4) *Renewable Resource Lands* (Metro Vancouver, 1996, pp. 58-59).

#### 4.4.3 Jackson Farm & the Green Zone

Lower Jackson Farm could have been classified as Green Zone Lands under any of the four categories for inclusion. Lower Jackson Farm could have been classified as *Community Health Lands, Ecologically Important Lands,* or *Outdoor Recreation and Scenic Lands,* but these first Green Zone classification categories, *were* nevertheless likely not significant contributing factors, if they were even points of consideration at all. The reason for this is Lower Jackson's ALR designation would have automatically qualified the land for inclusion in the Green Zone under category (4) *Renewable Resource Lands*, which stipulated that "agricultural land equivalent to lands within the Agricultural Land Reserve," should be included in the Green Zone (Metro Vancouver,

1996, p. 59). Consequently, although there may have been features of the land that could potentially have also seemed worthy for inclusion in the Green Zone, there would have been little need to consider these factors in light of the Lower Jackson's ALR designation.

Upper Jackson Farm was not included within the Green Zone and although the reasoning behind this decision is cloudy, the fact that it was not part of the ALR may have played a significant role in this as it may have created a perception that it did not qualify as *Renewable Resource Lands*. Nevertheless, what is perhaps most notable about Upper Jackson Farm is the fact that it, like the rest of the Thornhill Urban Reserve, is believed to be located above a significant aquifer. In theory this could have thereby qualified Upper Jackson Farm as *Community Health Lands*, as it met the definition of "wetlands that contribute to groundwater recharge where groundwater is an element of the community water supply system" (Metro Vancouver, 1996, p. 59). Nevertheless, Upper Jackson Farm was not included within the Green Zone.

# 4.5 Lower Jackson Farm ALR Exclusion Application

## 4.5.1 Sale of Vin Jackson's Estate to Developers

As with many family farms, through the passing of parents the Jackson Farm was eventually handed down to the six remaining Jackson children in an undivided one-sixth interest in the property; however, with the passing of siblings by 1990 only Viano (Vin) Jackson and his sister Gertrude Parker survived with an undivided interest in the farm of sixty percent and forty percent respectively (Provincial Agricultural Land Commission Staff Report, 2003, p. 2). Until his death in 1996 Vin Jackson continued to use the property as a farm for cattle grazing; however, upon his passing his sixty percent share would fall into the hands of eighteen heirs, along with his surviving sister Gertrude, who was a resident of Edmonds, Washington, USA (Provincial ALC, Staff Report, July 31, 2003, 2; Provincial ALC, September 25, 2003, p. 1). Following his passing, Lorne Nelson and Alvin Millhouse became the executors of estate for Vin Jackson, and along with Vin's surviving sister Gertrude a decision was eventually made to put the property up for sale; though according to the Friends of the Jackson Farm by this time the historic

farmhouse and other farm buildings had since been demolished during a seven year long court controversy that took place over the estate (Friends of the Jackson Farm, 2010).

A review of the Agricultural Land Commission's application file number O—34894-0 revealed a copy of the Contract of Purchase, dated November 28, 2001, between the heirs of the Jackson Farm and a developer. The contract of purchase stipulated numerous terms and conditions, including a condition for the property to be removed from the ALR as well as for the 'Park' land use designation to be amended to a residential one in the District of Maple Ridge's Official Community Plan. Though it should be noted that there was no mention at this time of the need for amendments to Metro Vancouver's Green Zone designation, these stipulations nevertheless clearly demonstrate the purchaser's intent to develop the land.

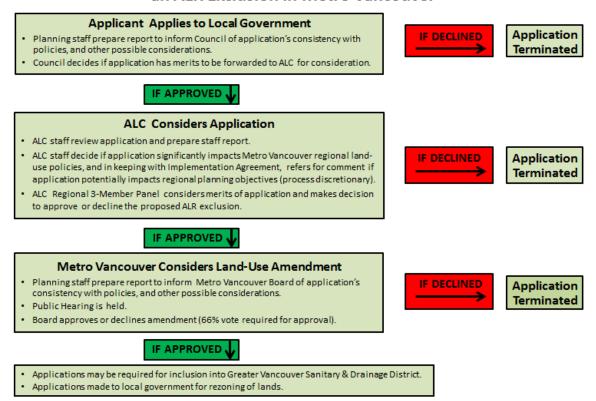
### 4.5.2 Council Supports Jackson Farm ALR Exclusion

On July 24<sup>th</sup> of 2001 the District of Maple Ridge was approached requesting that Council re-designate the Jackson Farm from its 'Park' designation to one that allowed for compact residential uses of 30 units per net hectare and subsequently supply a letter of support for an intended application to remove the property from the Agricultural Land Reserve (District of Maple Ridge, October 28, 2002, p. 4). The District's Chief Administrative Officer responded to these requests on August 7, 2001, noting that although the 2001 Master Plan for Parks, Recreation and Culture (pending adoption at the time) did not contain recommendations for acquiring the Jackson Farm, the District nevertheless could not support a re-designation of the lands for compact residential uses, and would rather likely pursue re-designating the lands to 'Agricultural,' given that the lands were located within the ALR (p. 4-5). Consequently the District's Chief Administrative Officer also noted that Maple Ridge would not be able to provide a letter of support for excluding the Jackson Farm from the ALR (p. 5).

Despite the lack of support, an application was nevertheless made to District of Maple Ridge to exclude Lower Jackson Farm from the ALR (see Figure 13 for application process), which subsequently resulted in the application being presented to Council on November 4, 2002, in a report entitled *Application to Exclude Land from the* 

Agricultural Land Reserve: 24554 & 24572 102 Avenue (Jackson Farm), and dated October 28, 2002. Though Vin Jackson's sister and heirs to his estate still owned the property, a developer who had a contract to purchase the lands hired Damax Consultants Ltd. to make the ALR Exclusion application.

### Typical Development Application Process Requiring an ALR Exclusion in Metro Vancouver



Source: Jonathan Jackson, 2012

Figure 13: Application Flow Chart (not including matters of provincial interest)

The Report to Council, prepared by Maple Ridge planning staff and dated October 28, 2002, outlined a number of discussion issues pertaining to the property. The report started by noting that the application had at that time already received five letters of opposition, one with a forty-one member petition attached to it (p. 2). It then continued on, noting that the application appeared to be in conflict with policies pertaining to the District's Official Community Plan as well as those pertaining to the ALR (pp. 2-3). Specifically, it stated that the "property is located in Area 4, from the District's

1992 Agricultural Land Reserve Policies," which stipulated that "the lands in Area 4 be considered for exclusion at the appropriate time, with the exception of the lands in the Jackson Farm area" (p. 2). The report also clarified that although the property was designated 'Park' in the Official Community Plan it was never recommended for exclusion from the ALR (p. 3). At the outset of the planning analysis, the report stated that "the rationale presented by the applicant does not specifically indicate how the exclusion of this land will result in achieving the long term goal of the Land Reserve Commission which is to preserve agricultural land" (p. 3). Moreover, the report noted that "the property is currently under use as pasture, with cattle and horses roaming the site" (p. 3). The report also spoke to the fact that although designated 'Park,' the forthcoming 2001 Master Plan for Parks, Recreation, and Culture noted the Jackson Farm's potential for "future passive park," but at the time it did not recommend the purchasing of the lands (p.4). Subsequently, it was mentioned in the report that the applicant had been informed of the District's intent to re-designate the lands as 'Agricultural' and not residential uses in the event that it was not to be acquired for park (p. 5). Finally, the report summarized the fact that there were heritage concerns pertaining to the property. In particular, the report referenced the fact that The Heritage Resources of Maple Ridge 1998 document noted the property to be of high heritage importance with regard to cultural history and further remarked that it received the maximum possible rating for its landscape having visual or symbolic importance. The report concluded that:

This exclusion application appears to be in conflict with the mandate of the Land Reserve Commission to maintain a permanent farm land reserve. The application is not consistent with the objectives of the Official Community Plan designation, nor does it respect the existing urban boundary. Additionally, the District of Maple Ridge is not contemplating urban land use potential of rural lands in the Official Community Plan review nor does the proposal demonstrate the merit of excluding this land from the Agricultural Land Reserve which is a requirement of the current Council policy. Therefore, it is recommended that application AL/087/02 not be authorized to proceed to the Land Reserve Commission. (District of Maple Ridge, October 28, 2002, p. 6)

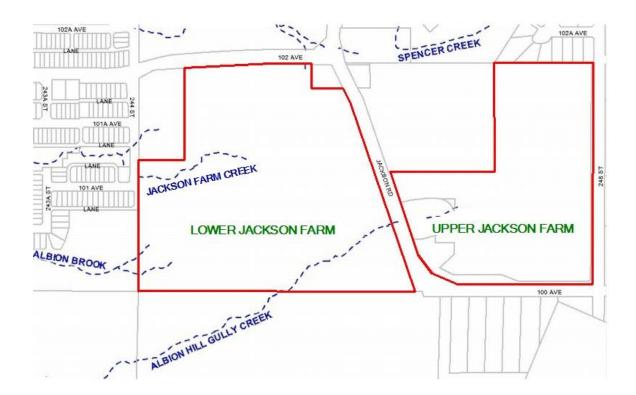
Following staff's recommendations to Council at the November 4, 2002 Committee of the Whole meeting, Council directed staff to collect further information, and subsequently forward the application to Council again for future consideration (District of Maple Ridge, April 17, 2003, p. 1). In order to address Council's direction, planning staff collected the requested information and subsequently presented it to Council in a staff report entitled Application to Exclude Land from the Agricultural Land Reserve 24554 & 24572 102 AVE (Jackson Farm), and dated April 17, 2003. The purpose of this report was primarily to bring clarity to Council's questions pertaining to the Jackson Farm's potential for use as future park, as well as land use planning in the subject area (District of Maple Ridge, April 17, 2003, p.1). In this report, it was noted that Damax Consultants, the applicant, had met with adjacent urban property owners to determine what their biggest concerns were with the exclusion application and development of the Jackson Farm (p.2). The result of discussions with adjacent neighbours was that the developer revised the development proposal in an attempt to address neighbourhood expectations that the land would become utilized as a future park (p.2). Subsequently, the applicant's updated development proposal increased the amount of proposed park land from 17.8 acres (48% of total site area) to 20.9 acres (56% of total site area) (Figure 14). Although with this in mind it is important to note that most of the proposed park land included portions of Lower Jackson farm that were not useful for development as the proposed areas were subject to environmental and topographic issues, such as the presence of creeks, marshland, and steep terrain (Figure 14 & 15). Additionally, in response to previous questions from Council, it was noted by staff that another significant site known as Twin Maples, also designated as park, was not pursued for parkland acquisition, and instead had been recently bought by private interests (p.2). Moreover, in response to Council's questioning regarding whether or not the previously proposed 47% park dedication reflected the District's original plan for the site, staff confirmed that the Parks Department had not previously prepared a concept parks plan for Jackson Farm, while noting that the proposed parkland encompassed the creeks on the property and some of the woodland surrounding the creeks (p.2). Council had also previously questioned the technical abilities for the use of Jackson Farm as farmland. Staff replied to Council in the subject report, noting that "in terms of soil capability the land is very good;" and that "the Canada Land Inventory Soil Classification Map indicates a large portion of the site as having Class 2 soils, with the balance of the site as mineral soils Class 5 (60%) and organic soils as Class 3 (40%), [but having] an improvement rating of Class 3" (p.2). Additionally, the staff report informed Council about the agricultural capability of such soils, stating that "Class 2 soils

have minor limitations that require good ongoing management practices, or slight restrictions on the range of crops" (p. 2). Another question that staff answered in this report was pertaining to timelines for reviewing land-use designations for the property. Staff responded to this question, noting that the Jackson Farm would be included in the agricultural policy review, and that a consultant was expected to be retained in early 2003 to complete a discussion paper. Finally, staff responded to Council's questions pertaining to comments from the District's Community Heritage Commission. Staff noted that the Commission passed a resolution agreeing with staff's position regarding the property's significance to the Albion Region (p.3).



Source: Damax Consultants; submitted to Agricultural Land Commission June 5, 2003

Figure 14: Proposed Subdivision of Lower Jackson Farm



Source: District of Maple Ridge, Ridgeview Mapping, 2011; with notations by Jonathan Jackson

Figure 15: Presence of Creeks on Jackson Farm

To conclude the April 17, 2003 report, staff noted that they had previously stated in the original October 28, 2002 report that the forthcoming Official Community Plan review would not contain residential policy review components; however, since that time Council directed staff to include a residential needs assessment that would provide guidance regarding the location of future residential growth (p.3). Additionally, staff iterated to Council that it was "unknown if this review [would] recommend any expansion of the urban boundary in the District" (p.3). With the exception of amending the conclusion accordingly to account for the recent change to the forthcoming Official Community Plan review, staff's recommendations remained the same as in the October 28, 2002 report (p.3). Consequently, what was intentionally missing from the report conclusion in this follow-up staff report was specific wording that stated "the District of Maple Ridge is not contemplating urban land use potential of rural lands in the Official Community Plan review," as this stance had now changed (District of Maple Ridge,

October 28, 2002, p. 6). Subsequently, the conclusion of the April 17, 2003 report was as follows:

This exclusion application appears to be in conflict with the mandate of the Agricultural Land Reserve Commission to maintain a permanent farm land reserve. The application is not consistent with the objectives of the Official Community Plan designation, nor does it respect the existing urban boundary. Additionally, the proposal does not demonstrate the merit of excluding this land from the Agricultural Land Reserve as required under current Council Policy. Therefore, it is recommended that application AL/087/02 not be authorized to proceed to the Agricultural Land Commission.

(District of Maple Ridge, April 17, 2003, p. 3)

District of Maple Ridge planning staff consistently opposed the application to exclude Lower Jackson Farm from the ALR, and premised its position on numerous policy conflicts that included negative impacts to agriculture, as well as heritage considerations. Despite staff's opposition to the proposed ALR exclusion and the absence of policies giving the application merit, District of Maple Ridge Council carried a motion to authorize the application to proceed to the ALC for consideration. Councillor Craig Speirs and Councillor Candace Gordon opposed the motion to forward the ALR exclusion application for Lower Jackson Farm to the ALC, while Councillors Judy Dueck, Faye Isaac, and Ernie Daykin, along with Mayor Kathy Morse voted in favour (Fletcher, May 31, 2003, p. 23). Tom Fletcher, a reporter from the Maple Ridge News, noted that Councillor Speirs "insisted that any farmland should be preserved for food production," and additionally quoted Councillor Speirs as saying that "the highest and best use for this property...is agricultural" (p. 23). Based on the same Council decision, reporter Tom Barnes of the Maple Ridge Pitt-Meadows Times, quoted Councillor Gordon as saying "when we have land suitable for agriculture...we need to protect it" (Maple Ridge Pitt-Meadows Times, May 30, 2003, p. 5).

# 4.5.3 History of ALR Exclusions in the Albion Region

The Albion Region has a long history of farming, and consequently during the formation of the ALR, many parcels in this area were included in the original boundaries for protection. Nevertheless, throughout the years prior to the Jackson Farm exclusion

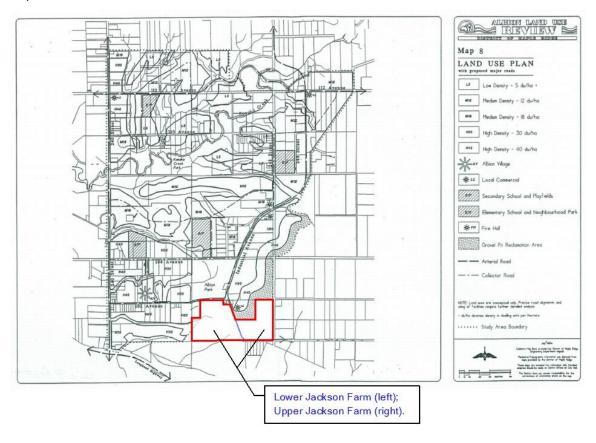
application, many of these parcels were removed from the ALR for a variety of reasons and at different times. The majority of land removed from the ALR was the result of two major ALR reviews in Maple Ridge that were conducted since its inception in 1973 (Provincial Agricultural Land Commission, May 10, 1995). The first major review was the 1978 Dewdney Alouette ALR Review, and the second was The Maple Ridge ALR Review started in 1985 (Provincial ALC, May 10, 1995).

In the Dewdney Alouette ALR Review, 140 Acres were proposed for exclusion within the Albion Region, as part of a 'block application' involving several properties (Provincial ALC, 1978). The Dewdney Alouette ALR Review Summary Sheet noted suggested reasons for exclusion that included: "poor agriculture capability; parcelization; extent of existing development; and isolation of land with suitable capability" (Provincial ALC, 1978). The Agricultural Land Commission recommended excluding only a cluster of small lots with residential and commercial uses, along with an area of Class 6 soils located on a portion of a 33 acre parcel located in the southerly Albion Area, which totalled an approximate 35 acres for exclusion (Provincial ALC, 1978). In accordance with these recommendations, Order in Council 3132/78 was passed on December 14<sup>th</sup>, 1978.

In the 1985 Maple Ridge ALR Review, policy resolutions were developed that set the stage for specified lands within the Albion Region to be excluded from the ALR (Provincial ALC, May 10, 1995). The majority of the lands specified for exclusion were excluded in two block applications, sponsored by the District of Maple Ridge that occurred in 1990 and 1995, under Resolution #402/90 and #426/95, respectively (Provincial ALC, May 10, 1995). The District's involvement in these block applications represented their interest in developing the area for residential development and subsequently coincided with their submittal of Official Community Plan amendment bylaws for the area that were passed by the ALC in January 1995, by Resolution # 107/95 (Provincial ALC, May 10, 1995).

Although the two major ALR reviews were the catalyst for the subsequent block exclusions that resulted in major losses of ALR land in the Albion Area, it should be noted that other property owners throughout the years had opposed their properties being included in the ALR and therefore made their own exclusion applications, which

had a high success rate. Successful individual ALR exclusion applications in the Albion Region prior to the Jackson Farm application included Resolutions #: 8869/78, 9515/78, 9645/78, 1254/84, 1255/84, 1179/92, and 110/95; with the last two digits of the resolution number representing the year it was passed by the ALC. The combined successful results of these smaller exclusions and the larger block exclusions were that a large portion of the Albion Region became available for urban uses. The District's involvement in this became extensive, and in 1994 a land-use study was conducted on the Albion area, which included former ALR lands and those with forthcoming exclusions, but very clearly did not include either Lower or Upper Jackson Farm (Figure 16).



Source: Albion Land Use Review, July 1994, Prepared for The District of Maple Ridge by: Arlington Consulting Group & Quadra Planning Consultants Ltd; with notations by Jonathan Jackson

Figure 16: Proposed land uses in Albion Study Area; both Lower & Upper Jackson Farm not included in review, but adjacent to Study Area

## 4.5.4 Lower Jackson Farm ALR Exclusion Considered by ALC

Following the motions carried by the District of Maple Ridge Council on May 27, 2003 the application to exclude Lower Jackson Farm from the ALR was forwarded to the ALC for consideration on June 5, 2003 (Provincial ALC, June, 5, 2003, p. 1). In the staff report dated July 31, 2003 and prepared by Sherry Gordon, ALC Regional Research Officer, the following recommendations were made for the Commission to consider when reviewing the exclusion application:

- The majority of the subject property has good agricultural capability and has previously been used for farming – only 15% is non-arable – 2/3 is improved or improvable to Class 2 or 3.
- Many of the local residents oppose the proposed exclusion and residential subdivision
- The subject property is located at the edge of the urban boundary between agricultural land and residential subdivisions
- Bringing a residential subdivision into an ALR farming area could create rural residential conflict as well could increase pressure from neighbouring properties for similar applications
- Exclusion of subject property will isolate one Class (3DT) 1.2 ha parcel from other ALR
- On the other hand, the subject property and adjacent ALR lands are isolated from the main part of this ALR block by an Indian Reserve<sup>4</sup>
- GVRD [now Metro Vancouver] has not been consulted regarding removal of this key link from the GVRD Green Zone<sup>5</sup>

(Provincial ALC, July 31, 2003, p. 1)

ALC staff additionally recommended that the Commission preform a site inspection of Jackson Farm before making decisions (Provincial ALC, July 31, 2003, pp. 1-2). The report also advised the Commission that Maple Ridge "Council authorized the

See Figures 7 & 12 for location of Kwantlen First Nation Indian Reserve (also in ALR).

The report provided a reference to the Implementation Agreement (Memorandum of Understanding), noting that the Commission was to provide the GVRD a chance to comment prior to excluding Green Zone land from the ALR.

application to proceed to the Agricultural Land Commission for their adjudication," and that Maple Ridge's "Planning Department recommended that the application not be authorized to proceed to the Agricultural Land Commission due to it not being consistent with the OCP designation, nor...respect[ing] the existing urban boundary" (p.2). Background information was also presented to the Commission in the staff report, which included a brief summation of the Jackson Family's history of owning the land through various generations and advised of the current 18 heirs to Vin Jackson's 60% portion of the estate, while noting that his sister Gertrude still owned the other 40% of the farm (p. 2). Through the report, staff also communicated that "many letters of opposition [were] received from the local community as many of the local residents [felt] that the land should be preserved as a park or heritage area and stay in the ALR," and that "these letters included a petition from approximately forty-one local residents who wished to dispute the exclusion application" (p. 2). Additionally, it was noted that "the property [was at the time] a vacant pasture," but had been used for the raising and grazing of cattle prior to Vin Jackson's death in 1996 (p. 2). Finally, the report also informed the Commission of the surrounding land uses, and presented a full technical breakdown of soil typologies, as well as Official Community Plan and Zoning Information (pp. 2-3). In reference to the District of Maple Ridge's Official Community Plan the report noted the properties "Park" designation at the time, and the need for according amendments if the application exclusion proposal was approved (p. 3).

In keeping with staff recommendations, a site inspection was conducted on Lower Jackson Farm on September 4, 2003 (Minutes of the Provincial ALC, September 17, 2003, p.1). Present at this site inspection were two ALC Commissioners, two ALC staff members, along with Ron Antonik (Realtor), David Laird (Damax Consultants), Craig and Jennifer Redmond (Developers), the executors of the estate and another owner representative (p.1). During the site inspection, the history of the property was discussed and how it came to be designated for park in Maple Ridge's Official Community Plan (p.1). Additionally, it was noted during the site inspection that there were numerous objections to the ALR exclusion application from the public, which mostly were to protest the property not being utilized for park, despite the fact that Maple Ridge no longer wished to purchase the property for park (p.1). It was also verbally noted during the site inspection that though the subdivision proposal was for 5,000

square foot lots, and that there was also to be park dedication as part of the envisioned development (p.1).

On September 17, 2003 a Staff Report Supplement was prepared for Application No. O-34894-0, in order to provide the Commission with additional information on the day of the scheduled meeting to consider the exclusion of Lower Jackson Farm from the ALR. This staff report supplement served primarily to inform the Commission of the District of Maple Ridge's stance regarding the future of the property and how its position had evolved over the years. It is noted in the report supplement that the District of Maple Ridge did not include Jackson Farm in the previous Albion Land Use Review that involved numerous ALR exclusions in the area because the site has heritage value to the Albion community as a farm (Provincial ALC, September 17, 2003, p. 1). The staff report supplement further went on to state the following:

- Had the Maple Ridge recommendation been based strictly on the merits of the property for agriculture, that recommendation could tip the balance more toward refusal of exclusion.
- Had the Maple Ridge recommendation been based strictly on the merits of the property as a place for public recreation, that recommendation could tip the balance more toward exclusion.
- In fact, the Maple Ridge recommendation was based squarely between the two – merits of the property for its agricultural heritage.

The telling point is that, having commended the property for its agricultural heritage value, Maple Ridge adopted an Official Community Plan with over 95% of the parcel as PARK (with ravine area being shown as CONSERVATION). That policy clearly indicates that Maple Ridge had no real intention of encouraging farming except perhaps as part of a heritage demonstration project.

It is recommended the property be excluded from the ALR and that the Commission advise it would be prepared to consider exclusion of the rest of the ALR block west of Indian Reserve #5.

(Provincial ALC, September 17, 2003, p. 1)

Following the direction of the Staff Report Supplement, the Agricultural Land Commission proceeded to exclude the Jackson Farm property from the ALR at the meeting held September 17, 2003. In the Minutes to the meeting it is noted that:

The Commission discussed the proposal at length and noted that the only reason this parcel remained in the ALR at this point was because it had not formed part of the past block application submitted by Maple Ridge because it was being retained as "Park". The block application excluded the adjacent lands from the ALR. The Commission further noted that it did not want to give any indication of support for or against the possible future exclusion of the ALR lands west of Indian Reserve #5.

(Minutes of the Provincial ALC, September 17, 2003, p. 2)

When Person X of the ALC was asked in an interview why the staff report supplement noted the PARK land use designation placed on Lower Jackson Farm to seemingly preclude the property's use for agriculture to the extent that exclusion was recommended by ALC staff, they responded as follows:

The Commission had participated with Maple Ridge in an earlier exercise, looking at the Albion Area in general, other than the Albion Flats; but the Albion Area east of 240<sup>th</sup> Street. And there was a conclusion that in balance that area did not really deserve long term protection by the ALR. When the matter came through, the Jackson Farm was omitted from the area to be excluded. ...And the conclusion was it was omitted because Maple Ridge wanted to use it for park. The suspicion was, and this is strictly a suspicion, no basis for fact...that perhaps Maple Ridge had omitted it from the ALR exclusion so that when they wanted to purchase it for park purposes; they wouldn't have to pay as much. Consequently, when the matter came through, the Commission was of the opinion that it really belonged with the rest of the area that had already been excluded. Also the Commission was receiving information from an agrologist, who had been asked to prepare some material on Farmland in Maple Ridge. Information that a large part of the [Albion] area was part of the Albion or Scat soil type, which is an area that is very difficult to farm because of drainage issues, [and therefore it] needs a lot of management.

## 4.5.5 Metro Vancouver Input Received Too Late

What is perhaps most interesting to note about the decision making process that took place in the case of the Jackson Farm ALR exclusion is that despite staff recommendations in the first staff report, dated July 31, 2003, no formal written

correspondence was received from Metro Vancouver prior to the decision being made. Nevertheless, it appears that there was only an attempt to gain formal written correspondence from Metro Vancouver regarding the exclusion at approximately the same time as the actual exclusion occurred, as the Greater Vancouver Regional District Memorandum; dated September 18, 2003 regarding the Jackson Farm referenced a memo dated the previous day from the ALC that requested the regional district's input regarding the exclusion application (p.1). It is pertinent to note that this means that formal written correspondence was not requested from Metro Vancouver regarding the Lower Jackson Farm ALR exclusion application until the day the actual exclusion decision was made, being September 17, 2003.

The memorandum from Metro Vancouver providing input in relation to the proposed exclusion of Lower Jackson Farm from the ALR indicated that the property was in fact:

within the area designated by the District of Maple Ridge as Green Zone in the Livable Region Strategic Plan. The Green Zone lands include ecologically significant lands, community health lands, renewable resource lands (e.g. agricultural lands), and scenic and recreation lands designated by member municipalities where no intensive urban development is to occur.

(Metro Vancouver, September 18, 2003, p. 1)

Specifically, with relation to the Jackson Farm ALR exclusion, the memorandum referenced the fact that the District of Maple Ridge located Jackson Farm outside of the urbanized areas listed in its Official Community Plan, while referencing in its Regional Context Statement the importance of protecting the Green Zone, while limiting urban areas within the proposed containment boundaries (p. 1). Finally, Metro Vancouver noted that the District of Maple Ridge's Regional Context Statement recognized Green Zone lands, such as Lower Jackson Farm, "through land use designations as being protected for their natural resource values," while additionally stating the importance of "promoting the viability of agriculture through public policy" (p. 2). The Metro Vancouver memorandum concluded that:

The proposal to remove lands from the ALR and the Green Zone and develop them for urban residential as outlined in the application, would

convert lands to an urbanized land use which is inconsistent with the OCP, Regional Context Statement and the intent of the Green Zone; ...[and that Metro Vancouver] staff do not support the proposed exclusion of lands from the ALR as it would impact the integrity of Green Zone and promote urbanization in areas outside of those identified in the Livable Region Strategic Plan.

(Metro Vancouver, September 18, 2003, pp. 1-2)

Ultimately the events that unfolded pertaining to Lower Jackson Farm's ALR exclusion create cause for question pertaining to application processing procedures. Specifically, such questioning pertains to the fact that the ALC and Metro Vancouver have a Livable Region Strategic Plan Implementation Agreement in place, which is "an agreement between the Greater Vancouver Regional District and the Provincial Agricultural Land Commission on supporting agriculture in Greater Vancouver and the Livable Region Strategic Plan" (Metro Vancouver, October 12, 1996, p. 1). Essentially this agreement's objective is to recognize the common development objectives that existed between Metro Vancouver and the ALC and form a partnership (p. 3). Two of the underlying principles that underpinned this partnership are "recognition that responsibility for maintenance and enhancement of agriculture as part of the metropolitan region is shared and requires a coordinated response," and "coordinated joint action on areas of mutual concern" (p. 4). Of particular pertinence, this agreement states that the ALC should "refer to the GVRD Board for comment any changes to the Agricultural Land Reserve boundaries within or adjacent to the Greater Vancouver Regional district that would have a significant impact on the Livable Region Strategic Plan" (p. 4-5). It should however be noted that this Implementation Agreement is in fact only a memorandum of understanding, and consequently does not legally require compliance, but rather forms a special partnership between the two government agencies. Nevertheless, in light of this Implementation Agreement and its above noted underpinning principles, it was pertinent to question what steps the ALC took to honour the processes within the agreement in the Jackson Farm ALR exclusion case. In response Person X of the ALC identified that:

The Commission believed that the land was in fact affected by the Green Zone; however we were verbally advised by Metro Vancouver that it was not affected by the Green Zone. We then proceeded. And shortly after we proceeded; after the decision had been made, we were advised that in fact

Metro Vancouver wished to express its opposition. And we don't know why or who made the error at GVRD.

What we would normally do is to first of all determine whether the land is in the Green Zone; and if we were of the opinion that the proposal would have a significant impact on the Green Zone, we would refer it to GVRD for comment. In the case of the Jackson Farm, we believed it was probably within the Green Zone, but there was some doubt. Some person, not myself, consulted with Metro Vancouver and was advised that 'it was not affected by the Green Zone.' And as I pointed out, we learned just too late that that was an error.

It appears that there were very clearly procedural mistakes made in the referral process between the ALC and Metro Vancouver in the Lower Jackson Farm ALR exclusion case. Ultimately, it appears that correspondence was indeed occurring between the two governing bodies; however, it appears that a human error occurred on a verbal level whereby two unknown staff members, one from each governing body, verbally corresponded and relayed misinformation. This initial verbal error seemed to have a snowballing effect that resulted in a last minute written request on the day of the ALC exclusion decision from the ALC for a formal written response from Metro Vancouver on Lower Jackson Farm's importance to the Green Zone. Interestingly, this request for written confirmation occurred on the same day that a staff report supplement was written by the ALC, recommending that Lower Jackson Farm be considered by the Agricultural Land Reserve Commissioners for exclusion. To this end it seems that a series of unfortunate events occurred that may have drastically influenced both ALC staff position on the application, and possibly the end decision handed down from the Commission. Though the actual effect of this error can never be known, it nevertheless seemed pertinent to gather a notion from the ALC regarding the potential impact of this mistake. As such, insight has been gained pertaining to the possible implications of these events leading up to the exclusion decision. Subsequently, the ALC was questioned regarding whether or not it was likely that the GVRD Memorandum in opposition to the Jackson Farm exclusion (dated September 18, 2003) would have influenced the decision to exclude the Jackson Farm from the ALR. In response, Person X of the ALC suggested that:

It would have influenced it, in that it is likely that the Commission would have had further discussions with Metro Vancouver before bringing this

forward for a decision. The decision might of have been the same, but there would have been further consultation.

#### 4.5.6 Jackson Farm ALR Exclusion sets Precedent

Following the exclusion of Lower Jackson Farm from the ALR on September 17, 2003, a 1.2 hectare parcel was left completely isolated from the rest of the ALR in the northwest corner of Lower Jackson Farm (Minutes of the Provincial ALC, September 17, 2003, p. 1 & 2; Provincial ALC, July 31, 2003, p. 1). Further to the decision made regarding Lower Jackson Farm, the ALC processed an application on this adjacent parcel, addressed as 24426 102<sup>nd</sup> Avenue. Under application #O-35439, the ALC passed Resolution #389/2004 to exclude this parcel of land from the ALR, and confirmed the decision in a letter to the applicant, dated September 13, 2004.

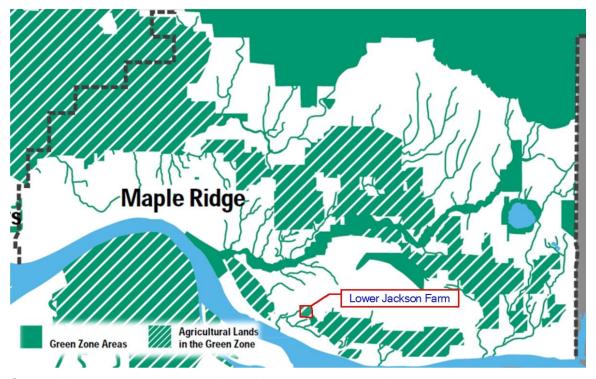
# 4.6 Green Zone Amendment Application

### 4.6.1 Green Zone Boundary & Contended Mapping Error

Although the Green Zone mapping for the 1996 LRSP was not parcel based, careful observation clearly denotes Lower Jackson Farm as being included in the Green Zone (Figure 17). Nevertheless, the early applications that took place on Lower Jackson Farm presented challenges with clarifying this. When Metro Vancouver confirmed Lower Jackson Farm's inclusion in the Green Zone, within the LRSP, during the ALR exclusion application, this sparked a claim from the District of Maple Ridge that this was in fact a "mapping error." When asked about the proclaimed "mapping error," Person Y of the District of Maple Ridge stated that:

This relates to our 1996 OCP. In the 1996 OCP, Jackson Farm was designated as "Park". Where this all comes into play is when you look at the Regional Context Statement [RCS]. In our Regional Context Statement there was a heading under the various pillars of the old LRSP. One of which was called protect the Green Zone. In our RCS, under the heading "Protect the Green Zone," that's where the District talked about what is in the Green Zone in Maple Ridge. And it talked about lands designated "Agricultural" on Schedule B. And then it...talks about certain parks. And then it lists out the parks that are in the Green Zone...it's very specific. So when you read the Regional Context Statement and then you look at our OCP, and when it talked

about lands designated "Agricultural" on the OCP, this one was not, it was designated "Park". And when you looked at the Park piece, there was just a handful of key parks and this was not one of them. So that's why. So when the regional mapping got done, it got put in the Green Zone, but it was designated "Agricultural" and it wasn't a park that was specifically named in our Regional Context Statement. So the District was always of the opinion that it was done in error.



Source: Metro Vancouver, 1996; with notations by Jonathan Jackson

Figure 17: Metro Vancouver Green Zone Map excerpt, with notation delineating Lower Jackson Farm (green lines delineate creeks)

Thus according to Person Y at the District of Maple Ridge, it was thought Lower Jackson Farm being included in the Green Zone was a "mapping error," because the District's OCP saw the land as designated "Park," and the Regional Context Statement within the OCP only listed certain parks as being included within the Green Zone in addition to lands that were designated "Agricultural," which Jackson Farm was not. In this way the District saw Lower Jackson Farm as a "Park" in the OCP at the time; however, not a park that they felt significant enough to include in the Green Zone.

In contrast to the response from Person Y at the District of Maple Ridge, when asked for clarification regarding the said "mapping error," Person Z of Metro Vancouver stated that:

This is something that we never did clear up definitively. What was a mapping error and why they thought it was a mapping error. There were different versions of this. So as you probably know, [for] everything that was still in the Green Zone, we actually went through a Public Hearing process under the GVRD regulation governing the Livable Region Strategic Plan to let the Board decide whether any of the parcels in Maple Ridge were consistent with the objectives from the LRSP and whether they could be removed from the Green Zone.

In the end, what seems to have occurred here is some degree of policy inconsistency that was perhaps overlooked. The District of Maple Ridge's OCP was intended to be consistent with the LRSP; however, if it did intentionally not recognize Lower Jackson Farm as Green Zone lands, then it would have overlooked the fact that Lower Jackson Farm should have automatically qualified for Green Zone status based on its inclusion in the ALR at that time. This rationale is derived from the Guidelines for Identifying Green Zone Lands, which stipulated that "agricultural land equivalent to lands within the Agricultural Land Reserve," should be included in the Green Zone (Metro Vancouver, 1996, p. 59). Ultimately, it is clear that the proclaimed "mapping error," issue does not have a definitive answer to which all parties agree; however, it appears that what was agreed upon was that it was best to assume that Lower Jackson Farm was in the Green Zone, despite the controversy over this matter. In the end, an agreement was reached between Metro Vancouver and the District of Maple Ridge to go through the proper process of a Green Zone amendment involving a regional Public Hearing, which illustrates a good working relationship between the two government agencies, at least at the staff level.

The reference to "everything that was still in the Green Zone" pertains to 5 other parcels that the District of Maple Ridge was simultaneously seeking to have removed from the Green Zone. With the Jackson Farm included, the properties became frequently referenced as the "6 starred properties," as each was flagged with a star on many local government documents.

### 4.6.2 Green Zone Amendment Process

The result of Lower Jackson Farm being confirmed as included within the LRSP Green Zone protective land use designation, in addition to being designated PARK in the District of Maple Ridge's OCP, meant that although it had been excluded from the ALR, there still remained a significant barrier to developing the property. Following an Official Community Plan review in 2006, the District of Maple Ridge through its own initiative redesignated Lower Jackson Farm from Park to Agricultural, given that the District was no longer intending to purchase the property for municipal park (District of Maple Ridge, April 1, 2009, p. 2). Despite the ALC's decision to exclude the property from the ALR, issues pertaining to its Green Zone designation ultimately delayed the application to develop property. At this time there were five other proposals within the District of Maple Ridge to amend the Green Zone to convert a total of 33.09 hectares (81.77 acres) of protected lands to urban uses that included a total of eleven properties at six different locations, which eventually became referred to as the six Starred Properties<sup>7</sup> (Figure 18) (Metro Vancouver, September 17, 2008, pp. RD-21 - RD-22). In July 2006, the District of Maple Ridge requested that Metro Vancouver consider the removal of the eleven properties from the Green Zone, and at their meeting on March 16, 2007, the Metro Vancouver Board decided that Maple Ridge's request should be deferred in order to be included as part of the Regional Growth Strategy Review, where all requests to amend Green Zone boundaries could be considered comprehensively (Metro Vancouver, September 17, 2008, p. RD-22). At that time the application was being "considered under Part 25 of the Local Government Act, which requires that all Metro Vancouver Board members from all municipalities support any amendments to the Regional Growth

The Six Starred Properties referred to 6 different locations within the District of Maple Ridge that were proposed for removal from the Green Zone, but involved a total of eleven properties because some of these sites were actually composed of more than one legal parcel.



Strategy (hence a 100% vote)(p.RD-22).

Source: Metro Vancouver, September 17, 2008, p. RD-32

Figure 18: Map of Six Starred Properties in the District of Maple Ridge, under consideration for LRSP Green Zone amendments; with Site #6 being Lower Jackson Farm

Following the decision to defer Maple Ridge's proposed amendments to the Green Zone, on November 22, 2007, under the statutory authority of Section 799 of the *Local Government Act*, the provincial government passed Order in Council 768 to create the *Greater Vancouver Regional District Regional Growth Strategy Exemption Regulation* (BC Provincial Government, November 22, 2007). The Exemption Regulation was specifically passed by the provincial government to allow the Greater Vancouver Regional District to "by bylaw, amend the designation of an area of land identified in the Green Zone map as (a) a Green Zone Area, (b) Agricultural Lands in the Green Zone, or (c) an Area under municipal consideration" (BC Local Government Act, November 23, 2007, Section 2(1)). Section 2 (2)(a) of the exemption regulation stipulated that "the board of the Greater Vancouver Regional District may amend a designation…only if…in the opinion of the board, the amendment is consistent with

protecting Greater Vancouver's natural assets, including major parks, watersheds, ecologically important areas and farmlands, as set out in the Livable Region Strategic Plan" (BC Local Government Act, November 23, 2007). Finally, in order to pass an amendment to the Green Zone, the Exemption Regulation stipulated under Section 3 (3)(b) that the land use designation amending bylaw be "adopted by at least 2/3 of the votes cast," by the Board of Metro Vancouver (BC Local Government Act, November 23, 2007). Following this legislative change, the District of Maple Ridge Council passed a resolution on April 18<sup>th</sup>, 2008 "requesting that the Metro Vancouver Board initiate an amendment to the Livable Region Strategic Plan to amend the Green Zone boundary in the District of Maple Ridge", which related to Council's intention to have 33.09 hectares of land approved for urban uses (District of Maple Ridge, April 21, 2008, p. 1).

Given the timing of the Exemption Regulation being legislated in relation to the Jackson Farm case, further inquiry was sought from Metro Vancouver regarding what the catalyst was for this new legislation. Person Z of Metro Vancouver noted that this was a "really important part of history in regional planning," and specifically stated that:

Prior to the Exemption Regulation, the Local Government Act provided an amendment [process] to amend the Regional Growth Strategy; exactly identical to if you were putting a new Growth Strategy in place. So any amendment would require unanimous approval [from the Board of Metro Vancouver]. So when we were starting our discussions [regarding] putting a new Growth Strategy in place, the GVRD Board of Directors said: 'hey there's a major flaw with this piece of legislation. You want us to have a more dynamic Regional Growth Strategy that means something. And you want us to be more specific and have more teeth. But, we're frightened about having more teeth if it's such an onerous amendment process.' So before we got too far down the track, even with drafts of the new Regional Growth Strategy, we started talking to the province about another amendment process that wouldn't require unanimous approval. So the province went away and actually talked about a few different ways to do it. And we weren't really involved in the wording, at all, of the regulation. They did it. And there was some talk about different thresholds. From a personal point of view, I quite like the 75% [threshold], because I agree that unanimous is too high a bar. It just is not workable to keep a Growth Strategy relevant to opportunities and challenges along the way. And in legislation...there are three well-known thresholds. There's a majority [greater than 50%], and there's two-thirds, and there's 75%. And you'll see those three bars in different sets of legislation in different countries

around the world. So the province, for whatever reason...decided that it was 66%. So that's how it ended up. So it's definitely a Board initiated process of trying to get a workable Amendment Strategy. And you probably know, after the Regulation, the next step the province put in legislation that allowed Regional Districts to come up with their own amending formula. And we chose this bar for continuation for Conservation and Recreation Areas; and a lower bar for industrial areas.

Additionally, in relation to calls for the province to create the Exemption Regulation legislation, Person Z of Metro Vancouver also stated that:

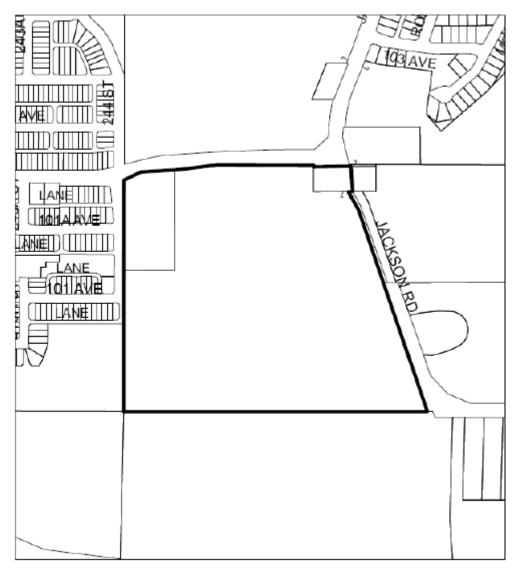
There were a few properties around at that time. There was one owned by Jim Pattison in Maple Ridge, and there was a large property [in Tsawwassen] owned by Ron Toigo. There were also some other major developers in the region, wanting to have a process to amend the Green Zone. But...66% is a relatively high bar. And with the new growth strategy, we did have our choice of picking any threshold that we wanted. And we felt that 66% gave us the assurance we needed, while still maintaining the integrity of the strategy.

The information obtained from Person Z of Metro Vancouver suggests that it is important to have a reasonable method for amending regional growth strategies if they are to remain effective, which suggests that having the ability to question whether a piece of land truly deserves protection is a necessary and beneficial process to ensure sound regional planning practices. The creation of the *Greater Vancouver Regional District Regional Growth Strategy Exemption Regulation* was put in place to provide this and subsequently allowed the Six Starred Properties, including Lower Jackson Farm, to be brought before Metro Vancouver with a reasonable chance of exclusion, should 66% of the Board of Metro Vancouver agree with the proposed amendment.

The reference to "a few properties around at the time," is in reference to the six Starred Properties in the District of Maple Ridge as well as the property in Tsawwassen, and was clarified during the interview.

### 4.6.3 Jackson Farm Green Zone Amendment Processed

To address the request of the District of Maple under the new legislative grounds within the Local Government Act for Green Zone amendments that had been implemented by the provincial government, Metro Vancouver prepared a staff report, dated June 18, 2008, to provide the Board members with information pertaining to the six subject sites (including eleven properties). The District of Maple Ridge's Council was seeking the removal of the six subject sites in order to have them designated as urban areas (Metro Vancouver, September 17, 2008, p. RD-22). The sites were all in private ownership and were either excluded from the ALR or exempt from its regulations due to size (p. RD-22). The Green Zone designation made up 73% of Maple Ridge's land base, and it was thought by Metro Vancouver that most of the properties were included within this designation because of agricultural merits (p. RD-22). Metro Vancouver staff recommendations pertaining to sites 1, 2, 3, 4, and 5 were to support the Green Zone amendments, given the applications were "consistent with the criteria outlined in the Greater Vancouver Regional District Regional Growth Strategy Exemption Regulation and the objectives of the Livable Region Strategic Plan" (p. RD-27). These five site areas totalled slightly less than half of the entire area requested to be amended from the Green Zone at 16.35 hectares of the total requested 33.09 hectares (pp. RD-22 - RD-23). The remaining 16.74 hectares of land requested to be removed from the Green Zone included three adjacent legal parcels referred to as site 6, with 15.06 hectares of this being Lower Jackson Farm, and the remainder being a small road parcel exempt from ALR regulation due to small size, and a 1.2 hectare parcel addressed as 24426 102<sup>nd</sup> Avenue and excluded from the ALR in 2004 (Figure 19) (pp. RD-23 - RD-24). Staff recommended that the request to remove site 6 from the Green Zone be denied (p. RD-21 & RD-27).



Source: Metro Vancouver, September 17, 2008, p. RD-87

Figure 19: Site 6 outlined in bold (Lower Jackson Farm is largest of 3 parcels)

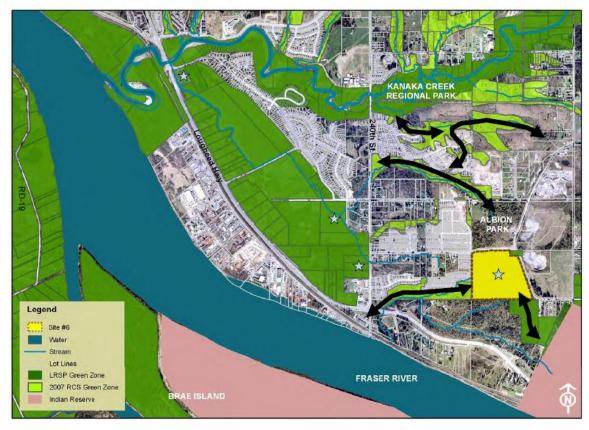
Site 6 was ultimately substantially different from the rest of the sites, not only because of its size, being more than double than that of the others combined, but because of several other considerations as well. Seven key criteria were utilized in the Metro Vancouver staff report to test the consistency of each Green Zone amendment proposal with regional objectives:

 Do subject lands contain natural assets that support the LRSP Green Zone, including drinking watersheds, ecologically important areas, major parks, and/or farmlands?

- Does removal of the properties signal pressure for conservation of other parcels within the Green Zone?
- Does the conversion to urban use preclude future opportunities to protect and enhance natural assets in the Green Zone?
- Is the site contiguous to current or planned urban development?
- Are there impacts on regional services, such as sewer, water, and transportation?
- Does development of the lands assist in greenhouse gas reduction?
- Does the conversion to urban uses of these sites have any regional benefits?

(Metro Vancouver, September 17, 2008, p. RD-24)

In accordance with the above criteria intended to test the consistency of the proposed Green Zone amendments with regional objectives, Metro Vancouver staff found the proposal to remove Site 6, which included Lower Jackson Farm, in conflict with the Livable Region Strategic Plan (Metro Vancouver, September 17, 2008, p. RD-26). Metro Vancouver staff determined that "Jackson Farm's natural assets are of importance to the Green Zone because of the site's size, connectivity to existing undeveloped and other Green Zone areas, and site ecological and cultural values" (p. RD-26). It was also noted by Metro Vancouver staff that given the significant size of the site and its adjacency to a similarly sized park to the north that it served as a critical link to forming a Green Zone link to Kanaka Creek Regional Park with the existing connections to the Fraser River to Jackson Farm's south (Figure 20) (p. RD-26). Consequently, the removal of Lower Jackson Farm from the Green Zone would preclude the ability to form this important connection, given that the property was a critical linkage between other Green Zone lands (p. RD-26). The result of these critical facts pertaining to the regional significance of Jackson Farm resulted in Metro Vancouver staff concluding their report stipulating that: "based on available evidence, the site's large size and its location as a key connecting point to maintain connections south to the Fraser River and develop a Green Zone connection to the northwest, as well as its site characteristics and local cultural value indicate that Jackson Farm should remain in the Green Zone" (p. RD-27).



Source: Metro Vancouver, September 17, 2008, p. RD-19

Figure 20: Site 6 in relation to Green Zone Connectivity & Riparian Corridors

# 4.6.4 Public Hearing: Public Outcry for Jackson Farm

The proposed development of Jackson Farm cultivated public involvement from the start. When the proposed ALR exclusion first came to the attention of some members of the public, a petition, dated August 20, 2002, disputing the application was signed by forty-one Maple Ridge residents. Moreover, prior to the September 17<sup>th</sup>, 2003 decision by the Agricultural Land Commission, an exclusion meeting was held at Albion Community Hall, where 10 members of the general public are listed to have been in attendance, which suggests public interest in the application (Minutes of the Provincial ALC, September 17, 2003, p. 1). While these acts of public engagement were certainly notable, they were nevertheless only the beginning. As the debated Jackson Farm applications proceeded, with knowledge of their occurrence gaining in both the community and the region beyond, momentum increased with a substantial rise in public

outcry. By March 2007, a 3,000 member petition was submitted, requesting that the Jackson Farm be considered for a neighbourhood park and noting that the removal of the lands from the ALR was unacceptable and contrary to past agreements (Minutes from Metro Vancouver Land Use & Transportation Committee, March 2007, p. 2). Additionally, on June 5, 2007, the District of Maple Ridge's Community Heritage Commission met at its regular time and reviewed a letter that asked for the Commission to reaffirm its position regarding Jackson Farm's significant heritage value (Community Heritage Commission, p. 2). The Community Heritage Commission carried a motion stating:

that the Community Heritage Commission strongly endorse the findings as outlined in the staff report *Heritage Resources of Maple Ridge* dated October 28, 2002 [stating] that Jackson Farm should be retained as agricultural designation...and further that the Commission support the property being acquired for community use (p. 3).

Though farmland protection advocacy groups, such as the Farmland Defense League, exist in British Columbia the Jackson Farm sparked a movement that resulted in the formation of its own "grass roots citizen group called Friends of the Jackson Farm" (Metro Vancouver, April 2 & 9, 2007, p. RD-105). This advocacy group even went to the extent of creating its own website that was formerly located at: http://jacksoncommon.org/, as well as presenting to Board of Metro Vancouver members on several occasions. Ultimately, the Friends of the Jackson Farm attempted to provide the Board of Metro Vancouver with additional facts that they felt were pertinent to the case, but not referenced in staff reports. In a presentation given by Stuart Pledge on behalf of Friends of the Jackson Farm, at the Metro Vancouver Board of Directors meeting on July 18, 2008, it was highlighted to the Board of Metro Vancouver that the owners<sup>9</sup> of Jackson Farm were continuing to pay farm taxes on the property and harvest hay each year, while at the same time the owners were going through exclusion applications claiming that the property should be developed rather than be used as a

By this point in the application process the owners were the developers, as the purchase of the Jackson Farm from the heirs to the Jackson estate had taken place several years earlier.

farm (Metro Vancouver, July 16, 2008, p. GVRD Section C-6). Additionally, in the same presentation, the Friends of the Jackson Farm also reiterated the facts to the Board members regarding the suggested mapping error that saw the property included in the Green Zone (p. GVRD Section C-6). This comment was in reference to the fact that the District of Maple Ridge conducted an "Issues Report" in January 2006 to highlight concerns within their OCP. This report suggested three options for Jackson Farm, including rural residential designation, park designation, and inclusion into the urban area boundary and removal from the Livable Region Strategic Plan Green zone based on the fact that they felt it was a mapping error (District of Maple Ridge, January 2006, p. 21). The Friends of the Jackson Farm noted how Maple Ridge continued to argue that a mapping error had occurred during the ratifying of the Livable Region Strategic Plan that inadvertently included the property in the Green Zone, when in fact, as understood by Metro Vancouver staff, the property was included in the Green Zone because of its ALR status and was therefore by no means included erroneously (p. GVRD Section C-6). Similarly, the group worked to debunk the illusion that 56% of Lower Jackson Farm was being proposed as park as a generous donation from the developer, by exposing the fact that this portion of the land was actually undevelopable due to setbacks from environmental features such as streams (Metro Vancouver Minutes, July 18, 2008, p. 4). Finally, at this same meeting, the group ensured that the Board of Metro Vancouver was aware of the fact that the decision of Maple Ridge Council to support the Jackson Farm Green Zone amendment application was not a unanimous one, but actually split by a 4:3 vote<sup>10</sup> (p. 4).

Not coincidently, the three Maple Ridge Councillors who voted in opposition to the Jackson Farm Green Zone exclusion application being forwarded to Metro Vancouver for consideration were present at the September 17, 2008 Metro Vancouver

Civic Elections had taken place between the original vote to forward the ALR exclusion application to the ALC for consideration on May 26, 2003 and the April 18, 2008 resolution to request the Board of Metro Vancouver consider amending the property from its Green Zone designation. Councillor Craig Speirs and Candace Gordon remained opposed, as before, but this time were joined by Councillor Linda King in opposition, who was not a member of Council during the May 26, 2003 resolution.

Public Hearing to provide the Board with their standpoints regarding the Jackson Farm. Councillor Craig Speirs spoke in opposition to the removal of Lower Jackson Farm from the Green Zone, noting that it should be considered separately from the other Green Zone amendment proposals to provide an opportunity to assess the property's heritage value, while additionally providing an overview of the history of applications on the property (Metro Vancouver Minutes, September, 17, 2008, p. 12). Councillor Candace Gordon also spoke in opposition to the exclusion of the Jackson Farm from the Green Zone (p. 13). Ms. Gordon stipulated that the farm had been slated as park for heritage reasons and noted that there had been extensive public consultation during the Official Community Plan creation process that designated the property as PARK, yet there was no public consultation for the decision to not acquire the property; which was a decision made in the later established Parks Master Plan (p. 13). Additionally, Councillor Gordon "expressed concern around food security as the region looks at the current world food crisis, she noted that it is unreasonable to remove land out of its protective state when it can be used for food production" (p. 13). Finally, Councillor Linda King also spoke in opposition to the removal of Jackson Farm from the Green Zone, noting that "the Green Zone is and was a key component in the regional plan and it is needed more than ever" (p. 13). She concluded by stating that "the removal of this property from the Green Zone would be a loss to the region and to regional planning" (p. 13).

Other notable speakers at the Public Hearing included the part owners and developers, Jennifer and Craig Redmond, Ron Antalek, part owner and realtor, as well as their consultant David Laird of Damax Consultants. Mr. Laird supported the Jackson Farm Green Zone amendment bylaw and spoke to some issues of clarification regarding the designation, zoning, and ALR status, while noting that the property contains very sensitive wetlands (p. 14). Mr. Laird also spoke to the developer's proposal which he noted would protect 40%-60% of the land as Environmentally Sensitive Area or park, with an additional two acres of park to protect the site's heritage value (p. 14). He claimed that in doing so the link between Kanaka Creek and the Fraser River would be retained (p. 14). Jennifer Redmond, developer and owner, spoke in favour of the removal of all six sites from the Green Zone, noting that the removals ultimately would shape the future of her property (p. 15). Craig Redmond, developer and owner, also spoke in favour of the removal of the Jackson Farm from the Green Zone, while

informing the Board of Metro Vancouver that it was "his intention to do what is considered in the best interests of the community" (p. 17). Ron Antalek spoke in favour of removing Jackson Farm from the Green Zone, asking "the Board to allow the District of Maple Ridge and the planning department to determine the land use of the Jackson Farm." (p. 17). Another notable speaker was Pat Drummond who spoke on behalf of the owners of the 1.2 hectare adjacent site located at 24426 102<sup>nd</sup> Avenue, which was also included in the same Green Zone amendment bylaw as Lower Jackson Farm as part of the noted Site 6. Ms. Drummond spoke in favour of the proposed bylaw, noting that the property was a separate parcel from Jackson Farm, was not being used for farming and was not required for park (p. 18).

During the Public Hearing a total of twenty-eight speakers over more than two hours gave presentations to the Board of Metro Vancouver (p. 18). Eighteen speakers spoke in opposition of the Green Zone amendment for Site 6 (Jackson Farm), while nine spoke in favour (pp. 12-18). Of the nine who spoke in favour, five had financial stakes or spoke on behalf of those who had financial stakes in the properties forming the Green Zone amendment Bylaw No. 1093 for Site 6. The twenty eighth speaker was Maple Ridge Director of Planning Jane Pickering, who stated factual information pertaining to the application, but did not express a specific opinion regarding whether or not she supported the Green Zone amendment bylaw for Lower Jackson Farm (pp. 12-13). During the Public Hearing, the Board noted several questions that they wished staff to address.

# 4.6.7 Planning Staff Respond to Board Members' Questions

A total of eight questions needed a response following the September 17, 2008 Public Hearing for the six proposed Green Zone Amendments, including Jackson Farm, and Metro Vancouver staff responded to these with the assistance of Maple Ridge staff at the October 24, 2008 GVRD Board of Directors meeting. Some of the question pertaining to the Jackson Farm site included requests for a description of what had happened with Jackson Farm between 2001 and present day, as well as clarifications regarding Official Community Plan land use designation, zoning, and minimum permitted parcel size under the current zoning (Metro Vancouver, October 6, 2008, pp. 2-3). Another significant line of questioning pertaining specifically to the Jackson Farm was in

relation to Maple Ridge's Parks Master Plan, and why the property was not acquired as a park site by the District (pp. 3-4). The responses to these questions outlined the fact that the Jackson Farm did have the potential to be utilized as a future passive park area; however, the District of Maple Ridge had other higher priorities for parkland acquisition and as such their Parks Master Plan recommended that the site be allowed to be acquired for other uses (p. 4).

#### 4.6.8 Removal of Lower Jackson Farm from Green Zone Denied

Following the receipt of the requested information from planning staff at the GVRD Board of Directors October 24, 2008 meeting, all six bylaws were considered for Green Zone amendments for each of the six sites. Sites #1 and #2 were approved and carried unanimously by the Board (Metro Vancouver Minutes, October 24, 2008, p. 11). Sites #3, #4, and #5 were approved; however, some Board members were in opposition to their approval (pp. 11-12). The Board nevertheless defeated Bylaw No. 1093 to amend Site 6 (including Lower Jackson Farm) from the Green Zone (pp. 12-13). Ultimately, the Board gave the following reasons for denying removal of Site #6 from the Green Zone:

- It is actively farmed land
- 56% of the property will not be donated as a park as indicated by the developer but will be required by the District of Maple Ridge to be preserved as an Environmentally Sensitive Area
- The development will have a negative impact on adjacent parkland, agricultural land and the Fraser River
- Removal of the property would set a precedent for development in the area
- To overcome world food crisis, all remaining agricultural land needs to be preserved

(Metro Vancouver Minutes, October 24, 2008, pp. 12-13)

## 4.7 Lower Jackson Farm for Upper Jackson Farm

### 4.7.1 Property Owners Push to Develop Upper Jackson Farm

Following the Board of Metro Vancouver denying the amendment application to exclude Lower Jackson Farm from the Green Zone for urban uses, the property was essentially protected from development; other than rural uses, such as large rural lots, permitted through the site's historic rural zoning. In other words, Lower Jackson Farm would not be permitted to be developed with higher density urban residential uses, as proposed by the developers, who had bought the land on speculative terms that required significant and numerous land use planning amendments at three different levels of government.<sup>11</sup> Nevertheless, in spite of the October 24, 2008 decision made by Metro Vancouver, in late 2008 the owners of Jackson Farm utilized their existing property rights to make a subdivision application for 15.07 hectare (37.24 acre) Lower Jackson Farm that proposed to divide the land into seven minimum 0.8 hectare (1.98 acre) lots, utilizing the existing permitted minimum lot size under the property's historic RS-3 One Family Rural Residential zone (District of Maple Ridge, April 1, 2009, p. 3). The owners of the farm also had applied to subdivide the 8.96 hectare (22.13 acre) Upper Jackson Farm into four residential lots, minimum 2.0 hectares (4.94 acres), under the existing A-1 Small Holding Agriculture zone and had received a preliminary approval based on meeting existing zoning and Official Community Plan criteria (p. 4). Subsequently, the owners of the Jackson Farm approached various members of Maple Ridge's Council and met with staff to discuss alternate development options for the farm that would compensate for the loss in lot yield that resulted from Metro Vancouver denying the requested Green Zone amendment that proposed to allow Lower Jackson Farm to be developed at urban densities (p. 1). The following options were accordingly discussed between the City and the owners of Jackson Farm in order to grant the property owners higher development rights:

Three levels of government being: the Provincial Agricultural Land Commission, regional government (Metro Vancouver), and the local government (District of Maple Ridge).

- Land Swap: The idea of a land swap was discussed. In such a
  case, the District could exchange one or more parcels of District
  owned land, for the Lower Jackson parcel. The property owners
  were not opposed to this notion, but stated a preference for
  developing the Upper Jackson parcel.
- 2. Purchase: It was noted that the District could purchase the Lower Jackson parcel from the Property Owners. The Owners appeared to be amendable to this option.
- 3. Transfer of Density to Land in the Urban Area Boundary and outside of the Urban Reserve: This option would transfer the value from the Lower Jackson parcel to a parcel within the Urban Area Boundary. The owners stated that they currently did not have another parcel within the Urban Area.
- 4. Transfer of Density and Advance Development in the Urban Reserve: This option was presented by the property owner and involves "dedicating" the Lower Jackson parcel to the District in exchange for advancing development on the Upper Jackson Parcel. It is this option that the owners have identified as the preferred option.

(District of Maple Ridge, April 1, 2009, p. 4)

Upper Jackson Farm was supposed to be protected from development as part of the Thornhill Urban Reserve until numerous criteria were first met, as stipulated by numerous policies within the OCP (District of Maple Ridge, April 1, 2009, pp. 5-9). Ultimately, the criteria specified by these relevant policies required agricultural assessment and groundwater management studies, amongst others, to be conducted, which may have determined that the land should not even be developed, or perhaps only at rural densities (p. 5). Though municipal regulations of the time would have permitted a maximum of four lots to be created on Upper Jackson Farm, the owners were proposing advance development rights to allow for approximately 113 residential lots on the parcel in exchange for dedicating Lower Jackson Farm to the District as park, while negating all required milestones and proper detailed reports that were stipulated within the Official Community Plan (p. 4). In order to understand the economic foundation of this proposal, the District of Maple Ridge undertook preliminary appraisal work to determine the financial viability of the proposed transfer of density to Upper Jackson Farm and advancement of development within the Thornhill Urban Reserve in

exchange for the dedication of Lower Jackson Farm as park (District of Maple Ridge, April 1, 2009, pp. 4-5).

Following a comprehensive review of the District's Official Community PI an and Parks, Recreation and Cultural Master Plan, staff determined that "acquiring Jackson Farm through the advancement of development on a parcel of land currently within the Urban Reserve [was] not supported" (District of Maple Ridge, April 1, 2009, p. 12). Ultimately, staff informed Council that the proposal preferred by the owner of the Jackson Farm would "require numerous amendments to the Official Community Plan, the Regional Context Statement, and Fraser Sewerage Area," as well as raise "questions about development on both neighbouring properties and the Urban Reserve itself" (p. 12). Consequently, staff presented two options for Council consideration:

**Option 1:** Status Quo – Upper Jackson Remains Designated Urban Reserve: under this option development on the Upper Jackson parcel would be limited to 4 A-1 Small Holding Agriculture lots. Council would await the outcome of the Parks Master Plan, and if it was determined that the Lower Jackson parcel was required for park purposes, the District could further explore acquisition of the Lower Jackson parcel through other mechanisms, including purchase, land swap, or density transfer to another parcel within the urban area.

**Option 2:** Upper Jackson is re-designated Urban Residential: under this option an Urban Residential form of development would occur on the Upper Jackson parcel in exchange for the Lower Jackson parcel being dedicated to the District. Should Council wish to pursue this option, it is suggested that:

- the concept plan densities be revisited to more appropriately respond to the Compatibility criteria of the Official Community Plan;
- that the milestone policies in the Urban Reserve section of the Official Community Plan be satisfied prior to first reading, including the completion of the following studies: a fiscal impact assessment; identification of environmentally sensitive areas and ecosystems; agricultural impact assessment; aquifer ground water management study; and transportation study. Other studies may also be required:
- that the amendment to the Regional Context Statement be included in the revised Regional Context Statement to be submitted following the adoption of the Regional Growth Strategy;

- that a full self-contained appraisal be completed; and
- that a legal opinion be obtained.

(District of Maple Ridge, April 1, 2009, p. 12)

In their concluding remarks, District of Maple Ridge planning staff informed Council that many residents in the community wished to see Lower Jackson Farm permanently preserved as municipal park; noting that funding mechanisms to achieve this desired outcome had not yet been explored in detail, while stipulating that there were other viable options besides the one proposed by the owners of the Jackson Farm (District of Maple Ridge, April 1, 2009, p. 12). It was noted by planning staff that even though the property owners were not opposed to other options that they had stated a clear preference to "pursue giving the Lower Jackson parcel to the District in exchange for advancing Development in the Urban Reserve to provide for approximately 113 R-1 (Residential District) zoned lots" (p. 12). Planning staff also clearly noted to Council that while the preliminary appraisal work concluded that the proposal was viable purely from an economic perspective, "from a policy standpoint, advancing development in Thornhill has other implications, since it does not comply with numerous policies contained in the District's Official Community Plan, which was adopted in late 2006, nor is the acquisition of Jackson Farm as a park site firmly supported by the existing Parks, Recreation, and Cultural Master Plan" (p. 13). Based on the clearly outlined facts that planning staff provided in their April 1, 2009 staff report, they asked for Council's direction on how to proceed with the contentious planning issues that related to the Jackson Farm (p. 13).

# 4.7.2 Council Supports Developer Preferred Option

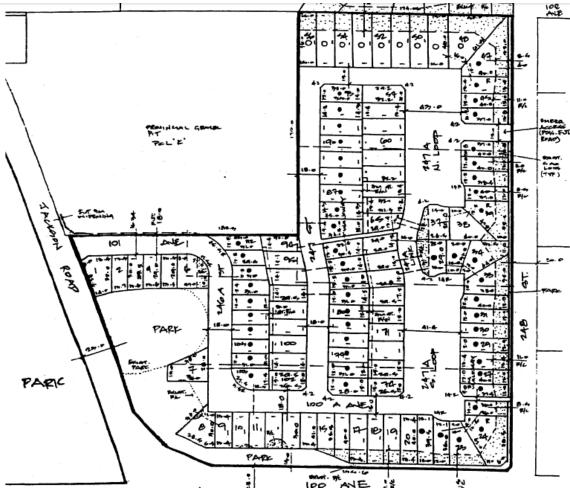
Following consideration of the staff report dated April 1, 2009, which outlined necessary steps of advancing development within the Thornhill Urban Reserve for Upper Jackson Farm, while also informing Council of the implications of doing so, on April 14, 2009 District of Maple Ridge Council passed a resolution to direct staff to proceed with the property owner's proposal (District of Maple Ridge, July 15, 2009, p. 1). Council's resolution stipulated:

that staff be directed to bring back a zone amending bylaw which will designate the Upper Jackson Farm as Urban Residential in exchange for

the dedication of the Lower Jackson Farm to the District of Maple Ridge as per the applicant's proposal at the April 6, 2009 Committee of the Whole Meeting (p. 1).

The applicant's proposal had been revised to include 112 residential lots on Upper Jackson Farm, including 9 minimum 690m<sup>2</sup> RS-1(b) lots, 29 minimum 430m<sup>2</sup> R-1 lots, and 74 minimum 371m<sup>2</sup> R-1 lots (Figure 21) (District of Maple Ridge, July 15, 2009, p. 4). In order to support this proposal, an agreement was reached with the District that involved dedicating Lower Jackson Farm as park, as well as dedicating environmentally sensitive areas on Upper Jackson, along with the provision of minimum 4.0 and 11.0 metre landscape buffer strips along 248th Street and 100th Avenue to buffer the development on Upper Jackson from non-urban uses (p. 4). The planning analysis in the staff report stipulated that "in order to rezone the Upper Jackson Farm property for urban development, an amendment to the Official Community Plan [was] required" (p. 4). These amendments required approval from the Board of Metro Vancouver since the District's Regional Context Statement had "embedded the triggers and milestones stated in the Urban Reserve section of the Official Community Plan," and therefore "any urban form of development proposed on the Upper Jackson parcel [would] require an amendment to the District's adopted Regional Context Statement" (p. 5). Furthermore, the application also required an additional approval from the Board of Metro Vancouver since the parcel was outside the Fraser Sewer Area, and an according amendment would be necessary if it was to be included to provide future lots with regional sewer services (p. 7). The planning analysis provided in this July 15, 2009 report additionally referred back to the detailed planning analysis that was provided to Maple Ridge Council in the April 1, 2009 staff report to inform Council of the significant planning related issues pertaining to the development of Upper Jackson

Farm.



Source: Metro Vancouver, March 4, 2010, p. RPL-44

Figure 21: Preliminary Layout of Proposed Subdivision for Upper Jackson Farm

# 4.7.3 Council Endorses Regional Context Statement Amendment

On September 22, 2009, District of Maple Ridge Council gave third reading to proposed urban residential development on Upper Jackson Farm that included the dedication of Lower Jackson Farm as park, along with additional environmentally sensitive areas on Upper Jackson Farm (District of Maple Ridge, November 26, 2009). Following this, at a November 24, 2009 Council Meeting, a resolution was adopted to request that Metro Vancouver accept an amendment to the Maple Ridge Official Community Plan Regional Context Statement in order to facilitate a land use amendment that would permit urban residential development on Upper Jackson Farm (p.

1). The report to Council noted that Metro Vancouver's approval of this amendment was required in order to support the final reading of the rezoning application for Upper Jackson Farm (District of Maple Ridge, November 9, 2011, p. 3).

When asked if there had been a precedent of any other parcels being excluded from the Thornhill Urban Reserve prior to the Upper Jackson Farm proposal, Person Y of the District of Maple Ridge stated:

No, that [was] the first time that that boundary got pushed out. And when you read [the] staff report you can see that [it's] saying, don't do it. And even at the staff level, we did not think it was a good idea at all.

## 4.7.4 Upper Jackson Farm Development Approved

Prior to this request for an amendment, the District of Maple Ridge's Regional Context Statement had recently been approved as it was on October 20, 2006 during an OCP review process. Within that Regional Context Statement, Maple Ridge continued to support several policies that specifically referenced the Thornhill Urban Reserve, of which Upper Jackson Farm was a part. These policies, specific to the Thornhill Urban Reserve, were intended to maintain consistency between municipal and regional objectives in order to 'Achieve a Compact Metropolitan Region' (Metro Vancouver, February 11, 2011, p. 3). In a February 11, 2011 Metro Vancouver staff report it was noted that Upper Jackson Farm was located on the western boundary of the Thornhill Urban Reserve (Figure 12) and included primarily because part of the parcel lay over Grant Hill aquifer, and its adjacency to agricultural land, which were ultimately factors that warranted the need for further study as part of a future Area Plan to evaluate "impacts of urban development on groundwater quality, agriculture, and environmentally sensitive features" (p. 4).

The February 11, 2011 Metro Vancouver Staff report was intended to inform the Metro Vancouver Regional Planning Committee of the requested Regional Context Statement amendment, while highlighting the most pertinent planning issues in order for the board to make a decision on the proposed advanced development of Upper Jackson Farm in exchange for Lower Jackson Farm being dedicated as park. The Metro

Vancouver staff report finished with a lengthy conclusion for the Board of Metro Vancouver to consider, which stated:

This is not an easy decision, particularly in the context of attempting to establish a new more effective regional growth strategy. While there is broad acceptance of the need to achieve an appropriate balance between regional and local interests and authority, there is still a sentiment expressed in some quarters that, contrary to legislation, municipal autonomy should prevail. In an attempt to address those views, regional staff has taken considerable pains to stress that the Regional Context Statement acceptance process has and will allow significant latitude for local variations to be accepted where they do not undermine the fundamental goals and principles of the plan. This particular proposal may well be seen as a test of that proposition.

The Maple Ridge Regional Context Statement for Thornhill sets out sound planning principles, reflecting the principles of the regional growth strategy, and which should not be set aside lightly. If this decision were to be taken as a precedent for the rest of Thornhill, the concerns would be profound. A further difficulty arises from the fact that there appears to be alternative strategies available that may have been acceptable to the owner which would not have necessitated the compromising of the Thornhill Urban Reserve policies. A land swap for lands already within the area designated for development would have been a particularly happy solution. As the published documents do not provide any analysis of these alternatives, regional staff contacted Maple Ridge staff to determine if they had indeed been investigated. Those assurances were provided and it appears the complexities involved particularly in achieving a value for value exchange, eventually were to discouraging for the property owners to proceed.

Consequently, notwithstanding the real planning concerns that have been raised, it seems reasonable to conclude that the proposal to secure the Lower Jackson Farm by transferring development rights to the Upper Jackson Farm is the most practical method of achieving an outcome of considerable local importance and one which the Board has previously found to be of regional interest. The planning implications are uncomfortable at both the local and regional level and it is unlikely that complete consensus about the decision would be found at any level, staff, elected officials or the community. Nonetheless, looking at the balance of interests which is the critical concept being promoted, the importance of the outcome achieved, the efforts made by the local authority to find an acceptable solution, and the limited regional impact if this is not viewed as a precedent, lead to the conclusion and recommendation that the proposed amendment be accepted.

(Metro Vancouver, February 11, 2010, p. 6)

At the Regional Planning Committee Meeting held March 4, 2010, the Board approved the Regional Context Statement amendment for Maple Ridge, but specifically noted that it "shall not be precedent setting for potential urbanization of the Thornhill area" (Metro Vancouver Minutes, March 4, 2010, p. 4). On one hand it was important that Metro Vancouver explicitly noted that they would not allow this to be a precedent setting decision for Thornhill, but on the other hand it seems prudent to highlight that another precedent was set by Metro Vancouver entertaining a "value for value exchange" in this case that involved compromising regional planning objectives. In other words, while Metro Vancouver made it clear that the Upper Jackson Farm decision would not be a precedent for development on Thornhill, they set a precedent suggesting that a regional planning objective can be dismissed if it involves a compromise that allows the achievement of some other regional planning objective deemed to be more significant.

### 4.7.5 Jackson Farm: Contested Policy Decision Making News

Shortly after the decision was made by Metro Vancouver to allow urban development on Upper Jackson Farm in exchange for Lower Jackson farm being donated to the District of Maple Ridge as parkland, an article by Craig Skelton in the *Vancouver Sun* on May 1, 2010 noted that:

One of the most controversial issues before Maple Ridge Council over the past year has been what to do about Jackson Farms.

The article highlighted that:

The Redmond family, which owns the land, asked council to let it build a 112-lot subdivision in an area known as Upper Jackson Farm -- in violation of Maple Ridge's official community plan -- in exchange for donating another parcel of land, known as Lower Jackson Farm, to the city as a park.

Furthermore, Skelton exposed controversial donations to elected District of Maple Ridge officials during the 2008 election campaigns, noting that:

A numbered company partly owned by the Redmonds, 0701915 BC Ltd., gave \$2,000 to Mayor Ernie Daykin during the 2008 campaign. And Damax Consultants, a company hired to work on the project, gave \$1,500 to Daykin, \$250 to Coun. Judy Dueck and \$250 to Coun. Al Hogart; [and that]...Council voted 5-2 in favour of the Jackson Farms development, with Daykin, Dueck and Hogarth all voting in favour.

In response to the question of controversial donations:

Daykin and Dueck said the donations had no impact on their vote for the development, which they supported because of the parkland the city received in return; [while] messages left for Hogarth were not returned.

Similarly, when asked about the generous 2008 campaign donations, Jennifer Redmond was quoted as saying:

I support things I believe in. It's no different than supporting sports teams or the arts centre...I think he's a good representative for Maple Ridge.

Alike, in response to campaign donations during the 2008 elections, the Redmonds' consultant David Laird, principal of Damax, was noted to have said:

his donations in the 2008 campaign had nothing to do with Jackson Farms. And he doesn't think they influenced Council's decision, unless his small donation tipped the election in their favour.

An article in the *Maple Ridge Pitt-Meadows News*, published on December 22, 2010, proclaimed "now Jackson Farm is a park and will be preserved forevermore" (p. 1). It noted the outcome to be a deal between the District of Maple Ridge and the developer, whereby:

Council OK'd the final bylaws allowing the lower, scenic portion of Jackson Farm —with its rolling pasture and open spaces — to go into public owner-ship as a park. In return, the upper, 22-acre portion of the old Jackson Farm will be absorbed into Maple Ridge's urban area and be developed into a 112-home suburb. The deal made between the District and the Redmond family and other owners of the land was made last year after Metro Vancouver refused to release the lower portion from the green zone (p. 1).

# 5 Discussion & Analysis

The Jackson Farm case contains important lessons and potential future directions for planners and academics pertaining to policies and practices for both farmland protection and sustainable development. Some of these lessons and potential future directions are specific to farmland protection in Metro Vancouver, while other lessons are valuable to the broader concept of sustainable development within the region. Additionally, while this study is regionally specific the lessons and potential future directions learned by the Jackson Farm case also offer insight into policies and practices for both farmland protection and sustainable development elsewhere. The Jackson Farm case demonstrates how sustainable development policies can be undermined by private interest that often influence political decisions, while at the same it informs of how sustainability compromises that have become popular in contemporary policy implementation actually compromise the very concept of sustainable development. Additionally, the Jackson Farm case offers lessons that provide regionally specific insight into potential improvements to both policy implementation procedures and policy mandates.

# 5.1 Sustainable Development & Politics

Whether or not the controversial donations that were associated with the Jackson Farm caused unethical political conduct is not what makes this case unique. Campaign donations by private interests that may encourage decision making biases by elected officials are part of the political reality of municipal politics in Metro Vancouver, despite the fact that these same politicians are in theory supposed to be committed to protecting the interests of the collective good. Consequently, short of a significant overhaul of election processes and associated campaign funding practices, this will remain a hurdle for sustainable development policy that must be overcome if benefits are to be successfully achieved for the collective good. As such, it is not prudent to further investigate the suspicious motives of any given politician for their actions during this

case, as this will not undo the Jackson Farm case decisions; and furthermore, such an investigation would be difficult to find consensus on. Instead, it is more pragmatic to seek important lessons from the Jackson Farm case that can provide benefits to how planners and academics alike can divulge knowledge that fosters the continual improvement to sustainable development policies and associated implementation procedures that better take into account the political arena that they will be subjected to. Therefore, such improvements would seek to create policies and implementation procedures that can better withstand politically influenced interpretations that result in what Pearce (Mäler, 2007, p. 72) coined to be weak sustainable development decisions, or potentially a complete disregard for sustainability initiatives altogether. Specifically, improvements to policies and implementation procedures should work to ensure the upholding of what Pearce coined to be strong sustainable development decisions (p. 72) strategically aimed at protecting the interests of the collective good and future generations in the face of competing private interests that attempt to influence decisions within the political arena. To this end, the Jackson Farm case ultimately serves as a disconcerting but necessary reminder for planners and academics that effective sustainable development policy must be able to withstand the potential myriad of challenges within the political arena presented by influences from private interests that Stone (2002, p. 22) notes to be at the heart of many policy decisions.

Also following Stone's theories, the Jackson Farm case supports the notion of such private interest influences being masked rather than blatantly pursued (p. 22). Though the potential for bias influence is evident by the fact that campaign funding was provided to Maple Ridge's Mayor and some members of Council, this was masked by the offering of parkland donations as part of the development that continually increased as resistance to the proposal occurred from members of the public and Metro Vancouver. Ultimately, the developer began with a modest parkland dedication proposal that generally involved undevelopable riparian areas and wetlands on the farm. This was increased marginally when some members of the public voiced opposition to the proposal, often voicing discontent to the fact that Lower Jackson Farm in its entirety had been designated for park. In the end, the parkland donation offering was increased to include all of Lower Jackson Farm when the Board of Metro Vancouver denied its release from the Green Zone due to the applications numerous conflicts with regional

planning objectives. Following this decision, the developer revised their proposal and pressured for dense suburban development rights on Upper Jackson Farm in exchange for this generous park dedication.

The majority of Council at the District of Maple Ridge supporting this developer preferred option for Jackson Farm to go before the Board of Metro Vancouver for a decision parallels Caulfield's theory that "local authority control over planning and landuse decisions...are largely developer-driven," with the "net effect [being] that developers, rather than plans, have driven the decision-making process" (1993, pp. 435-436). The Jackson Farm developer proved to be persistent for approximately eight years, starting with the ALR exclusion, followed by a failed attempt to amend the regional Green Zone land use designation, and finally proposing to donate the Green Zone portion of the property as park in exchange for development rights on the remainder, all the while continually maintaining the majority of support with Maple Ridge Council. Ultimately, Maple Ridge Council's preference towards supporting the developer preferred options led to the Board of Metro Vancouver having to weigh the benefits and sacrifices to sustainable development in uncomfortable planning decisions on farmland with an owner that was determined to develop. To this end, the Jackson Farm case specifically suggests that private interests have the potential to significantly influence municipal Councils in a manner that sparks intergovernmental conflict between a member municipality and the regional government; which signifies a degree of struggle with some Metro Vancouver municipalities attempting to maintain a level of autonomy within the regional planning process.

# 5.2 Sustainable Development Compromise[d]?

The Jackson Farm case suggests that while there is an appetite in Metro Vancouver to attain food security related sustainable development objectives, such as farmland protection, it also demonstrates that there is an appetite for finding compromises that result in some sustainability objectives being met, while conceding others to private development interests. Though as with many sustainability objectives the effects are not always immediately noticeable, the danger is that trying to feed both appetites has the potential to someday result in an inability to provide food for the

mouths of the region that both elected and appointed politicians have committed to feed. Nevertheless, it is clear that the Jackson Farm case follows the trend noted by Batty (2006, p. 31) where weak sustainable development is being sought through "win-win solutions" that do not adequately achieve the environmental and social merits necessary to protect the needs of the collective good and future generations.

In the concluding sentence of Metro Vancouver's report outlining the uncomfortable planning issues pertaining to the proposal to develop Upper Jackson Farm in exchange for designating Lower Jackson Farm as park it is stated that:

looking at the balance of interests which is the critical concept being promoted, the importance of the outcome achieved, the efforts made by the local authority to find an acceptable solution, and the limited regional impact if this is not viewed as a precedent, lead to the conclusion and recommendation that the proposed amendment be accepted.

(Metro Vancouver, February 11, 2010, p. 6)

In keeping with this statement, it seems that the Jackson Farm case has been hinted to be a sustainable development compromise whereby two sides agreed to accept less than either originally wanted. Yet, the irony in such a stance is that the outcome could also be seen as being: sustainable development compromised, as in the policies themselves and theories behind what constitutes true sustainable development put in danger, by setting a precedent that suggests weaker forms of sustainable development than required by adopted policy will be accepted. Campbell's "planner's triangle" (1996, pp. 298-301) consequently proves to be a useful analysis tool for this situation when supplemented with Stone's (2002, pp. 17-22) and Caulfield's (1993, pp. 435-436) understanding of such policy decisions. The "planner's triangle" has an elusive centre that ultimately is contingent upon one's interpretation of how social, environmental, and economic issues should be balanced. The balance of issues within this triangle can be understood in the context of Stone's claim that policy often balances common goals for the community (public interest) with those of private interests, but does so in a manner that attempts to mask the latter (2002, p. 22). Finally, Caulfield suggested that local authorities are driven by developer interests that allow developers to shape the future rather than it being shaped by carefully established plans (1993, pp. 435-436). When Stone's and Caulfield's theories are combined, the result explains the

Jackson Farm deal, where the District of Maple Ridge (the local authority) was pressured by a developer (the private interest) to pursue a developer driven option that undermined important planning policies, while trying to mask these development oriented intentions with the fact that a generous park donation was being made with the Lower Jackson Farm parcel to calm public outcry; thus satisfy the perceived majority of current public interest. Ultimately such an outcome is certainly not the worst case scenario; however, it nevertheless tips the balance within the planner's triangle greatly towards economic benefits at the sacrifice of environmental and social justice. Such actions raise warning flags pertaining to the extent that local and regional governments are willing to go in order to entertain and appease development interests, rather than work collaboratively to force more ideal outcomes. In the Jackson Farm case, the result is that a weakened form of sustainable development got proposed and accepted from what the original planning policies called for; with perhaps the most detrimental effect of the accepted development proposal being the precedent it set towards making sustainable development compromises in Metro Vancouver planning decisions. Although, it should also be noted the circumventing of important aguifer and agricultural studies that were intended to determine the impacts of such developments on adjacent farmland in the ALR could also have devastating effects to agriculture; particularly if the aquifer that local farmers depend on for irrigation cannot properly recharge following development of Upper Jackson Farm. Consequently, it seems pertinent to question whether such a sustainable development compromise, in actuality has compromised sustainable development?

# 5.3 Implementation Agreement: Triumph & Weakness

The Livable Region Strategic Plan Implementation Agreement that was created between the ALC and Metro Vancouver demonstrated commendable efforts to establish shared goals; partnership principles, coordination of policy and action; and administration procedures. The Implementation Agreement was intended to serve as a Memorandum of Understanding and not a procedural policy; and at least at a theoretical level it has served to provide critical recognition to the need for the ALC and Metro

Vancouver to coordinate their shared goals into mutually agreeable policies and decisions.

The Jackson Farm case suggests that efforts were being made to honour this Implementation Agreement; however, the case has also demonstrated that adherence to the referral process between the two institutions was not being practiced in a manner that involved careful checks and balances and would therefore lessen the likelihood of human errors occurring. The Jackson Farm case revealed that this referral process greatly relied upon verbal confirmation of information between the ALC and Metro Vancouver that was critical to the decision making process. The ALC relied on verbal confirmation from Metro Vancouver that is said to have contained misinformation, and then unknowingly proceeded with this misinformation to inform its decision making on the Jackson Farm ALR exclusion case. Though, on the date of the ALR exclusion decision for Jackson Farm, the ALC did formally request written confirmation from Metro Vancouver regarding a position on Jackson Farm, this request unfortunately came too late to properly inform the Commission's decision. When Metro Vancouver's written response was received the day after it was requested, it listed numerous reasons why the Regional District wished to oppose the ALR exclusion; however, by this time the regional government's position could not undo the Commission's decision from the previous day.

From a legislation perspective, the Jackson Farm case highlights the importance of the November 24, 2011 amendment to the Agricultural Land Commission Act that was done at the request of the ALC and that has given the Chair of the Commission the legislative authority to direct the Executive Committee of the Commission to reconsider a decision within 60 days of its being made. This ability did not exist at the time of the Jackson Farm decision; however, the findings of the Jackson Farm case provide evidence that this recent amendment has the potential to be a useful legislative tool.

Additionally, the human errors that occurred in the Jackson Farm case serve as an important reminder to planners and policymakers that sound sustainable development policy is only as good as the procedures that implement it. In other words, the success of sound sustainable development policy is contingent upon developing of equally sound implementation procedures. Additionally, the Jackson Farm case

elucidates the human aspect of policymaking and policy implementation; and planning in general. Mistakes are a part of human nature and are as such undoubtedly a reality of planning and the accompanying making and implementation of sustainable development policy. The importance of this lesson is not to dwell on the fact that Jackson Farm was subjected to a procedural mistake that may or may not have affected the end outcome, but rather to learn from the fact that mistakes are a reality that planners need to consider and set up procedural checks and balances accordingly to address them. In this way, it would seem that there is room for improvement in how communication occurs between the ALC and Metro Vancouver. While the intent of forming and maintaining critical avenues of communication on matters of mutual interest between the two government bodies clearly exists, the Jackson Farm case demonstrates the shortcomings associated with how these avenues of communication have been implemented. Creating a strengthened Implementation Agreement between the ALC and Metro Vancouver would seem advisable given the human errors that occurred with regard to the miscommunication over Jackson Farm. A strengthened Implementation Agreement may not entail significant revisions; but should at a minimum create a mandatory obligation to require written referrals between the two institutions prior to either government agency making land-use changing decisions that from a sustainable development perspective should ultimately have consensus from both parties to ensure that a clear message is sent to the applicant regarding the land-use status of the property. In suggesting this, it is recognized that clarity should also be provided in a strengthened Implementation Agreement regarding exactly what type of decisions require consensus from both the ALC and Metro Vancouver.

In keeping with this discussion, it is also pertinent to note that the LRSP was recently replaced on July 29, 2011 by a new Regional Growth Strategy (RGS), which had greater ALC involvement than the LRSP during its creation, which in itself should serve well to increase consistency between the two government agencies. Additionally, although the new RGS has now replaced the Green Zone designation with new Agricultural, Rural, and Conservation & Recreation designations, these designations are now better informed with parcel based mapping that more accurately defines the designation of parcels and thereby decreases the likelihood of errors occurring in the determination of their status.

# 5.4 Potential to Improve Application Processing

Given the fact that Scott Campbell notes the idealized centre of the planner's triangle to be an elusive goal post (1996, pp. 298-301) it is not surprising that different government agencies may come to different interpretations of what sustainable development entails for a given situation. In keeping with this notion, David Pearce rationalizes that there is actually a spectrum of sustainability that ranges from strong to weak and ultimately where a given sustainable development initiative lies within this spectrum depends upon the degree to which technological substitutes are accepted in return for resources depletion (Mäler, 2007, pp. 70-72). Ultimately, different interpretations of the elusive centre of Campbell's planner's triangle seem to be hinged upon this spectrum of sustainability notions that range from strong to weak. From an agricultural standpoint, this suggests that the decision to exclude Jackson Farm from the ALR would have involved determining that there is enough productive capacity within the region based upon a combination of other protected arable parcels in conjunction with agricultural technological advances that provide current and future generations with the capability to feed themselves. Determining how much agricultural land is enough is ultimately open to interpretation. The Jackson Farm case clearly elucidates that different government agencies, specifically the ALC and Metro Vancouver may not always come to the same conclusion for a multitude of reasons that span beyond those that are simply premised upon agricultural merits and interpretations of how much farmland should be protected, given that Metro Vancouver has a much broader mandate for determining the overarching importance of Green Zone lands. As seen in the Jackson Farm case, in relation to ALR exclusions, Metro Vancouver considers a myriad of other factors beyond purely food production purposes, including how farmland fits in with larger regional matters including ecologically sensitive areas and the need for connected conservation and recreation lands. Yet from Metro Vancouver's perspective, a primary concern over Jackson Farm's future was clearly articulated to be over its usefulness to agriculture and maintaining food security in the region. This stance was emphasized when Metro Vancouver denied the removal of Lower Jackson Farm from the Green Zone and supported their decision with reasons such as the land being actively farmed (or at least recently) and their statement noting that "to overcome world food crisis, all remaining agricultural land needs to be preserved" (Metro Vancouver Minutes, October 24, 2008,

pp. 12-13). Such a stance clearly demonstrates that Metro Vancouver both has an interest in and plays an active role in the protection of farmland within its boundaries.

Currently, the ALR exclusion process involves first making applications to the local government (so long as there is one), 12 who decides whether or not a given application demonstrates sufficient merit to be forwarded to the ALC for consideration. Although local governments are often politically charged with a host of localized issues that may not necessarily represent larger farmland protection and agriculture issues at a regional or provincial scale, they can nevertheless be viewed as the first layer of governmental protection for ALR lands. Ultimately, if this first checkpoint, the local government, does not grant approval for the ALR exclusion application to be forwarded to the ALC for consideration it, at least in theory, should not be further entertained. Conversely, if the local government does support the application it will subsequently be forwarded to the ALC for consideration. Once an application is received by the ALC, it decides whether the proposal will impact regional planning objectives and refers it to Metro Vancouver for comment accordingly, though it should be noted that the ALC and Metro Vancouver do not have to come to an agreement on a particular application. As with the Jackson Farm case, if the ALC approves a given ALR exclusion, any RGS land use designations that are in conflict with the subject proposal would subsequently be required to be amended through a formal process that may well result in denial of the proposed land use change. Such RGS land use amendments require a public hearing.<sup>13</sup> and subsequently Metro Vancouver's process gains public input on the matter, which the ALC's official process does not currently do.

The Jackson Farm case elucidates the possibility that perhaps the cart has been put before the horse with regard to ALR exclusion application processing in Metro Vancouver. Based on the experience of the Jackson Farm case, it would seem logical

The exception to this would be when there is a matter of Provincial Interest, which could see this process circumvented.

Special Study Areas in the new Regional Growth Strategy adopted July 29, 2011 are an exception to this rule, and do not require a Public Hearing.

to suggest that ALR exclusion applications and amendments to according RGS land use designations should be better procedurally linked, as allowing one application to proceed before the other has the potential to create the assumption by private farmland stakeholders that one government body will agree with the other. The Jackson Farm case clearly indicates that Metro Vancouver and the ALC do not always agree on ALR exclusions, while they both share an important stake in the protection of the region's farmland.

To remedy this issue, consideration should be given to running the applications concurrently in a manner that fosters a high degree of inter-governmental coordination. Nevertheless, doing so should not involve a complete merging of the applications, as the Jackson Farm experience clearly indicates that, although imperfect, benefits to sustainable development exist by allowing each governmental body to make its own decisions based on specific institutional mandates; as the ALC's decision to exclude the lands from the ALR was essentially trumped, at least from an urban development perspective, by Metro Vancouver's decision to deny a Green Zone amendment. As such, allowing the decision making processes of Metro Vancouver and the ALC to merge completely would remove the 'safety net' that currently exists from having separate decision making bodies decide the fate of the region's farmland. This safety net should be heralded as a sustainable development policy implementation process that, at least in theory, provides an additional checkpoint to ensure that the best decision is being made for the collective good. However, it should be noted that in the Jackson Farm case the portion of the land that was not originally in the ALR or included in the Green Zone, ended up getting sacrificed to dense suburban development as part of a compromise proposed by the developer and District of Maple Ridge and supported by Metro Vancouver to ultimately achieve long-term protective objectives for Lower Jackson Farm. This compromise saw the long-term protection of Lower Jackson Farm as park to ultimately prevent it from being subdivided and developed at rural densities under its existing zoning. To this end, although Metro Vancouver in one way provides a safety net for the loss of farmland, it does so without the authority to deny rural development, which is a power that the ALC has, whereby the Commission can refuse the further parcelization of ALR lands. Consequently, to achieve its objectives Metro Vancouver is to a degree at the mercy of the developer to reach ideal outcomes, and therefore as

shown with the Jackson Farm case may have to result to sustainable development compromises to do so. To this end, it is important to note that relying on the regional government of Metro Vancouver as a safety net for farmland protection does not offer the same level of protection as the ALC. Nevertheless, policy and procedural improvements should only be made to the ALR exclusion application process with careful attention to maintaining this farmland protection safety net; and ideally improving upon it by ensuring consistent policy decisions between the ALC and Metro Vancouver to lessen the chances that sustainable development compromises will be necessary to save the region's farmland.

A potential revised application processing model for ALR exclusions in Metro Vancouver could involve both the ALC and Metro Vancouver receiving the application proposal at the same time (Figure 22). This would involve both government agencies simultaneously conducting a separate review of the application based on their institutionally specific mandates with informed and educated staff input, then subsequently each preparing a formal memorandum containing a recommendation. Following this, the ALC staff and Metro Vancouver staff would come together, with their memoranda, to discuss their individual determinations on the case. At this point, ALC and Metro Vancouver staff would make a joint recommendation on the application, taking both governmental bodies' specific mandates into consideration. The application would then be brought forward to a Metro Vancouver Public Hearing, where the public would be given an opportunity to voice opinions on the application proposal. Currently a Public Hearing process is missing from the ALC application review, and by running the applications concurrently, both the ALC Commissioners and the Metro Vancouver Board members could receive public input at the same Public Hearing. Following the Public Hearing, both the Board of Metro Vancouver and the Agricultural Land Commission's Commissioners would make their own decisions based on how they felt input received from the public impacted their governmental agency's mandate. If both the Commission and the Board of Metro Vancouver separately agreed to approval at this point, then both governing bodies would amend their designations of the subject lands accordingly. If either governmental body disagreed with supporting the proposal at this point, then both would decline the application in order to maintain policy consistency. Therefore, such a process would maintain and improve upon the current farmland protection safety net, as

both governmental agencies would have an opportunity to make their own decision on a given application. However, with the proposed application processing improvements, policy consistency would be guaranteed between the ALC and Metro Vancouver. Moreover, public input would be obtained by both the ALC and Metro Vancouver to equally inform the decision making process of these governmental agencies. An additional advantage to this process may be possible improvements to processing timelines; however, such an advantage should not be mistaken for the actual purpose, but rather seen as a supplementary benefit.

Proposed Application Process for ALR Exclusions in

### Metro Vancouver **Applicant Applies to Local Government** NOT SUPPORTED Application Planning staff prepare report to inform Council of application's consistency with Terminated policies, and other possible considerations. Council decides if application has merits to be forwarded to ALC for consideration. IF SUPPORTED ALC Considers Application Metro Vancouver Considers Separately from Metro Vancouver Application Separately from ALC ALC staff review ALR exclusion application and prepare memorandum of support or opposition to proposal. Metro Vancouver staff review ALR exclusi application and prepare memorandum of support or opposition to proposal. Metro Vancouver & ALC Staff Meet and Metro Vancouver **Public Hearing** ALC Commissioners Reach Decision on Board of Metro Vancouver Reaches Decision IF ALC OR METRO Application Public Hearing Separately from the Board of Metro Vancouver on Public Hearing Separately from the ALC Commissioners Terminated OPPOSES IF MUTUALLY SUPPPORTED Applications may be required for inclusion into Greater Vancouver Sanitary & Drainage District. Applications made to local government for rezoning of lands

Source: Jonathan Jackson, 2012

Figure 22: Proposed Application Process Flow Chart

As a caveat to this proposed application process for ALR exclusions in Metro Vancouver, an additional, though potentially time consuming, requirement that could be added would be an early consultation process involving the public, relevant governmental agencies (including all municipalities in the region), First Nations groups,

and community groups to gain early input into the matter. Such a process would be similar, if not identical, to the existing *Local Government Act* requirement under Part 26, Section 879 for early consultation during OCP development. Although such a requirement may seem onerous, given the proven importance of protecting Metro Vancouver's arable lands, it is likely justifiable in light of the fact that as a society we only have one chance to protect finite precious soil resource that ultimately provide life to humankind. With the right political will, an even stronger stance regarding ALC exclusion applications, could see a complete moratorium.

### 5.5 ALC Structure

The current Regional 3-Member Panel has been subject to numerous criticisms and concerns (Carter-Whitney, 2008; Green, 2006; Provincial Agricultural Land Commission, November 26, 2011; Yearwood-Lee, 2008). Nevertheless, the Jackson Farm case does not seem to demonstrate any direct correlations that suggest this Regional 3-Member Panel system may have played a role in generating an undesirable outcome. With this said, the Jackson Farm case may have nonetheless benefited from a larger, province-wide, Commission Panel that perhaps may have generated a more well-rounded discussion pertaining to the agricultural merits of the property. Ultimately, the property had approximately 100 years of demonstrated agricultural capabilities, proving its usefulness to agriculture. Somehow, six to seven years of suggested inactivity following Vin Jackson's death in conjunction with its municipal park land use designation seemed to suddenly preclude the property's usefulness for agriculture. Though results cannot be known, a larger Commission would have at least increased the chance that appropriate questions pertaining to the properties current and future usefulness to agriculture would have been brought to the discussion table prior to the exclusion decision being made.

## 5.6 Future Directions for ALC Mandates

As noted by Katie Williams, sustainable development policies can be difficult to argue given that they are essentially making assumptions that if a given sustainability

initiative is implemented that it will eventually foster a positive outcome for the collective good at some undetermined point in the future (1999, p. 172). Nevertheless, as Suzuki points out, when it comes to arable top soils we really only have one chance to get it right; with it taking an average of five hundred years to produce only 2.5 centimetres, such a resource is essentially non-renewable as far as foreseeable future generations are concerned (2007, p. 145). It is understood that the current agro-industrialized model of agriculture runs on petroleum based inputs at nearly every stage (Campbell, 2002, p. 196; Wright 2009, p. 1). Although technological efficiencies have lessened current agricultural demand for arable lands in Metro Vancouver, such as Jackson Farm, it is important to consider the long-term ability to sustain the current agro-industrialized model of food production. Julia Wright reminds us that the cheap oil supplies that allow the current agro-industrial model to function are finite, and as such the mass oil shortages that caused a food security crisis in Cuba following the collapse of the Soviet Bloc foreshadow what is to come for countries that rely on this model of agriculture (2009, p. 11). Huish suggests that "maintaining food security," involves "identifying vulnerable...regions that are en route to having a crisis of either availability or access," and that this notion is a major component of the food security concept (2008, p. 1389). Consequently, based on the above facts, it becomes prudent to consider what the future holds for Metro Vancouver if we want to have the ability to maintain food security. If we are to consider the Cuban precedent, localized food production within the region may well be the way of the future, just as it was the way of the past for Metro Vancouver. As such, parcels such as Jackson Farm, although perhaps not currently demanded for agriculture may well again become critical for maintaining food security within the Metro Vancouver region; and therefore it seems logical for the ALC to take a hard-line in the maintenance of a defensible ALR boundary.

Based on Pearce's notion of weak versus strong sustainable development (Mäler, 2007, p. 72), it would appear that not fully protecting lands such as Jackson Farm with proper ALR status further suggests a practice of weak sustainability. The logic behind this conclusion is premised on the fact that Jackson Farm was necessary for agricultural production in Metro Vancouver's past, when the population was significantly less than it is today, yet the demand for its former farming use seems to have diminished amidst a region inundated with agricultural imports from outside its

boundaries. This suggests that a petroleum based agro-industrial system has created a substitute whereby the region can gain access to food produced elsewhere. Should this system of petroleum based food production become unviable, the region will likely once again need to rely on agricultural lands such as Jackson Farm, as it did before. Therefore, if the Commission wishes to strengthen its stance on sustainable development, in relation to farmland protection, it would do well to revise its mandate to one that seeks to protect lands that would be useful in the absence of our current petroleum based agro-industrial system. This is because petroleum based technologies are imperfect substitutes to arable land and consequently not a sustainable gift to leave future generations in order to maintain food security. In light of the future that Wright forecasts for food production, the Commission would do well to exercise notions of strong sustainable development that see no exception to arable land that has agricultural merits; even if such merits are not currently being utilized. This stance ultimately, would bring question to whether any exclusion should be considered, with perhaps the only possible exception being if a piece of land was somehow mistakenly included in the ALR and in fact had no agricultural capabilities. Such a model for farmland protection could see a return to the Commission's days of proactively seeking to add new lands to the ALR. This could ideally see tracts of parkland in densely populated urban areas as having potential agricultural benefits to future generations, and as such should be accordingly absorbed into the ALR to ensure that interim uses do not compromise their future food producing capabilities. Nevertheless, it seems important to point out that currently such an idealistic model is far from the Commission's current mandate, given the precedent set in the Jackson Farm case where, although contrary to Metro Vancouver's stance, the ALC viewed the land as being less valuable to agriculture because of its park designation and current underutilization for farming. Metro Vancouver, on the other hand, perceived Lower Jackson Farm as having important merits both as a park and as farmland, which clearly indicated policy direction suggesting that park uses do not have to preclude farm uses. With the Cuban precedent suggesting the potential future value to agriculture of every piece of arable land, perhaps the ALC would do well to adopt Metro Vancouver's stance and develop arable land protection policy encompassing the potential value of parkland to agriculture and seek to retain and proactively include such lands in the ALR, rather than risk the loss of these lands to uses that could inhibit farming in the future.

With the new RGS having the Green Zone divided into Agricultural, Rural, and Recreation & Conservation designations, it is increasingly important for the ALC and Metro Vancouver to develop consensus regarding the potential future importance of all arable lands to agriculture, regardless of current land use designations or farming inactivity, in order to develop appropriate policies. This is perhaps especially important to those lands designated Rural in the regional plan, where rural residential development (less dense than suburban development) can still occur on these lands, and as such it is important to understand the implications of this and develop appropriate policy directions. Ultimately, how we as a civilization produce food has continually changed throughout the history of humankind, and assuming that today's methods of agricultural production will remain the status quo would be a carelessly weak stance on sustainable development. As such, proactive policies are needed within the ALC that support collaboration with Metro Vancouver to forecast the potential agricultural needs of future generations and protect all regional lands with agricultural merit accordingly.

## 6 Conclusion

Planners and academics interested in sustainability play a significant role in continually pushing for improvements to the policies and practices that implement sustainable development initiatives aimed at shaping our future in a manner that will ensure inter-generational equity premised upon notions of social and environmental justice. While the Jackson Farm case may not have resulted in the best possible outcome, it is nevertheless likely that the consequential compromises to sustainable development would have been significant, had it not been for the continual effort of planning staff, community members, as well as some local and many regional politicians that recognized the importance of Jackson Farm and fought for its protection.

Though the Jackson Farm case serves a reminder of the potential influences that politics and influential private interests can have on sustainable development planning policies, such political obstacles are difficult to avoid in the planning realm and merely serve to prompt the need for continual improvement upon sustainable development policy and implementation procedures in order to overcome these challenges. At a regional level, these improvements must specifically seek to address the struggle for municipal autonomy by member municipalities where local Councils attempt to influence regional planning to feed private interests rather than the collective good. Jackson Farm also suggests that the LRSP Implementation Agreement contained worthy policy implementation principles; however, the need to build upon and strengthen these guiding principles was highlighted in this case by the reminder that planning in practice has a humanistic element that can result in unintended errors. Moreover, lessons contained in the Jackson Farm case include a reminder that although the ALC and Metro Vancouver both have mandates to protect agricultural lands that are premised upon similar principles, this does not necessarily generate the same determination on a given case. In keeping with this notion, the Jackson Farm case also serves as reminder of the imperfect but important safety net created by the fact that both the ALC and Metro Vancouver claim jurisdiction over the protection of farmland. As such, while it seems

practical to investigate ways to improve application processing on proposals that require approval from both government bodies, Jackson Farm demonstrates the importance that any changes to this process not compromise the decision making safety net that currently exists by having both government agencies make their own determinations on a given case based on their specific mandates. Ultimately, given the importance of precious finite arable soils to humankind it becomes pertinent to question the need for a more onerous application process that involves significant consultation with the public. government agencies, and community groups; or whether there should even be an exclusion process at all. With reference to the ALC, the Jackson Farm case suggests that the Commission's mandates could be enhanced to demonstrate a much stronger implementation of sustainable development practices by considering the potential need of future generations to rely on more primitive forms of localized agriculture that do not rely significantly on petroleum inputs; thus signifying that the requisites for agricultural viability today may not be the same for future generations. Finally and perhaps most importantly, the Jackson Farm case elucidates a need for academics and planners alike to question whether sustainable development compromise in fact compromises sustainable development. In closing, it seems worthy to highlight that although the findings of this research are useful to provide insight into areas in need of improvement and possible future directions for farmland protection in Metro Vancouver, the ultimate and potentially daunting challenge remaining for planners and academics is to harness political will to support and implement such forms of strengthened sustainable development policy within the region.

## References

- Barnes, Tom (2003, May 30). Jackson farm sent to the ALC: Two Councillors say they don't want farm to be developed. *Maple Ridge Pitt-Meadows Time*. (p. 1 & 5).
- Bartlett, Albert A. (1994). Reflections on Sustainability, Population Growth, and the Environment. *University of Colorado*. 16(1), 21-28.
- Batty, Susan E. (2006). Planning for sustainable development in Britain: A pragmatic approach. *Town Planning Review.* 77(1), 31.
- BC Local Government Act (November 23, 2007). *Greater Vancouver Regional District Regional Growth Strategy Exemption Regulation*. Sections 1-5, Retrieved from: http://www.bclaws.ca/EPLibraries/bclaws\_new/document/ID/freeside/40\_377\_20 07#section2, December 3, 2011.
- BC Provincial Government (November 24, 2011). *Bill 19 2011 Miscellaneous Statutes Amendment Act (No. 3), 2011*, Retrieved from: http://www.leg.bc.ca/39th4th/3rd\_read/gov19-3.htm, February 20, 2012.
- BC Provincial Government (November 22, 2007). Resume of Order in Council: The Greater Vancouver Regional District Regional Growth Strategy Exemption Regulation, 34(29), Retrieved from: http://www.qp.gov.bc.ca/statreg/oic/2007/resume29.htm, December 3, 2011.
- Berke, Philip R. (August 2002). Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century. *Journal of Planning Literature*. 17(1), 21-35.
- Berke, Philip R. and Maria Manta Conroy. (2000). Are We Planning for Sustainable Development? *Journal of the American Planning Association*. 66(1), 21-33.
- Boone, Christopher G. And Ali Modarres. (2006). *City and Environment.* Philadelphia: Temple University Press.
- British Columbia Ministry of Agriculture and Lands (2006). *B.C.'s Food Self-Reliance:* Can B.C.'s farmers Feed Our Growing Population? B.C. Ministry of Agriculture and Lands. Victoria, Canada.
- British Columbia Ministry of Agriculture & Lands and Ministry of Environment (April, 1983). Land Capability Classification for Agriculture in British Columbia. B.C. Ministry of Agriculture & Lands and B.C. Ministry of Environment, Kelowna, Canada.

- Campbell, Charles. (2006). Forever Farmland: Reshaping the Agricultural Land Reserve for the 21<sup>st</sup> Century, Vancouver: David Suzuki foundation.
- Campbell, Colin J. (2002). Petroleum and People. *Population and Environment*, 24(2), 193-207.
- Campbell, Scott. (1996). Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions of Sustainable Development. *Journal of the American Planning Association*.62(3), 296-312.
- Canada (1998). Canada's Action Plan for food Security: A Response to the World Food Summit. Agriculture and Agri-Food, Ottawa, Canada.
- Carter-Whitney, Maureen. (2008). Cinching Sprawl: Worldwide experience with greenbelts can help Calgary protect its near-urban lands. *Alternatives Journal*, 34(3), 17-23.
- Caulfield, Janice. (1993). Responses to Growth in the Sun-Belt State: Planning and Coordinating Policy Initiatives in Queensland. *Australian Journal of Public Administration*. 52(4), 431-442.
- Community Heritage Commission (District of Maple Ridge) (June 5, 2007). Community Heritage Commission Minutes, 1-5.
- The Corporation of Delta (October 15, 1979). *The Corporation of Delta, B.C. Brief—File: P-78-20*, p. 1-13.
- The Corporation of Delta (October 17, 1979). The Corporation of Delta Letter: From the Office of the Mayor—RE: Corporation of Delta Application (P-78-20) under Section 9(1)(a) of the Agricultural Land Commission Act for Removal of 219.7 ha (543 acres)± of land from the Agricultural Land Reserve, p. 1.
- Cowell, Richard and Susan Owens. (2006). Governing space: planning reform and the politics of sustainability. *Environment and Planning C: Government and Policy*, 24, 403-421.
- Dalichow, Fritz. (1972). *Agricultural Geography of British Columbia*. Vancouver: Versatile Publishing Co. Ltd.
- Daniels, Thomas L. and Mark B. Lapping. (1996). The Two Rural Americas Need More, Not Less Planning. *Journal of the American Planning Association*. 62(3), 285-288.
- Dantsis, Thodoris, Angeliki Loumou, and Christina Giourga. (2009). Organic Agriculture's Approach towards Sustainability; Its Relationship with the Agro-Industrial Complex, A Case Study in Central Macedonia, Greece. *Journal of Agricultural & Environmental Ethics.* 22(3), 197-216.
- District of Maple Ridge (January 2006). Issues Report.

- District of Maple Ridge (November 26, 2009). Letter: Application to Amend the Regional Context Statement for the District of Maple Ridge, 1.
- District of Maple Ridge (April 21, 2008). Letter: Referral of Request to Amend the Green Zone of the Livable Region Strategic Plan, 1.
- District of Maple Ridge (October 28, 2002). Staff Report: Application to Exclude Land from the Agricultural Land Reserve—24554 & 24572 102 Avenue (Jackson Farm), File No: AL/087/02, 1-6.
- District of Maple Ridge (April 17, 2003). Staff Report: Application to Exclude Land from the Agricultural Land Reserve—24554 & 24572 102 AVE (Jackson Farm), File No: AL/087/02, 1-3.
- District of Maple Ridge (April 1, 2009). Staff Report: Lower Jackson Farm (24554 102<sup>nd</sup> Avenue) and Upper Jackson Farm (Lot A LMP 42378) at 100<sup>th</sup> Avenue and 248<sup>th</sup> Street, 1-13.
- District of Maple Ridge (July 15, 2009) Staff Report: First Reading—Maple Ridge Official Community Plan Amending Bylaw No. 6674-2009 and Maple Ridge Zone Amending Bylaw No. 6675-2009: 24554 102 Avenue (Lower Jackson Farm) & Lot A LMP 42378 at 100 Avenue & 248 Street (Upper Jackson Farm), File No: RZ/040/09, 1-8
- District of Maple Ridge (November 9, 2009) Staff Report: Application to Metro Vancouver Regional District to Amend Regional Context Statement: 24554 102 Avenue (Lower Jackson Farm) & Lot A LMP 42378 at 100 Avenue & 248 Street (Upper Jackson Farm), File No: RZ/040/09, 1-3.
- District of Maple Ridge (2006). Official Community Plan. *Bylaw 6425 2006.* Maple Ridge: District of Maple Ridge.
- District of Maple Ridge Official. (2010, November 30). *Municipal Hall.* Retrieved from: http://www.mapleridge.ca/index.html
- District of Maple Ridge Official (2011, October 21). *History and Heritage*. Retrieved from: http://www.mapleridge.org/EN/main/residents/569/history.html
- Environment Canada (1972). The Canada Land Inventory: Soil Capability Classification for Agriculture. Ottawa: Minister of the Environment.
- Erisman, Michael H. (2000). *Cuba's foreign relations in a post soviet world.* Fainsville: University Press of Florida.
- Fletcher, Tom. (2003, May 31). Albion farm ignites rural-urban debate. *Maple Ridge News*, p. 1, 22-23.
- The Fraser Institute. (November 26, 2010). *Home Page*. Retrieved from: http://www.fraserinstitute.org/default.aspx

- Friends of the Jackson Farm. (2010, November 30). *Chronology.* Retrieved from: http://jacksoncommon.org/
- Garrish, Christopher. (Winter 2002/03). Unscrambling the Omelette: Understanding British Columbia's Agricultural Land Reserve. *BC Studies*. 136, 25-55.
- Grant, Jill and Patricia Manuel. (1996). A framework for planning sustainable residential landscapes. *Journal of American Planning Association*. 62(3), 331-344.
- Greater Vancouver Regional District (September 27, 1979). Status Report on the Development Proposal for Boundary Bay, p. 1-6.
- Green, Ryan. (2006). Case Studies of Agricultural Land Commission Decisions: The Need for Inquiry and Reform. *Environmental Law Centre Victoria BC*, 1-41.
- Haber, Wolfgang. (2007). Energy, Food, and Land The Ecological Trap of Humankind. Environmental Science and Pollution Research.14(6), 359-365.
- Halseth, Greg. (1999). "Disentangling policy governance, and local contention over change in Vancouver's rural urban fringe." In Furuseth, Owen J. and Mark B. Lapping (eds). Contested Countryside: The Rural Urban Fringe in North America: (151-178). Great Britain: Ashgate Publishing Ltd.
- Hodge, Gerald and Ira M. Robinson. (2001). *Planning Canadian Regions*. Vancouver: UBC Press.
- Huish, Robert. (2008). Human Security and Food Security in Geographical Study: Pragmatic Concepts or elusive Theory? *Geography Compass*. 2(5), 1386-1403.
- Jaeger, Jochen A.G., René, Bertiller, Christian Schwick, Felix Kienast (2009). Suitability criteria for measures of urban sprawl. *Ecological Indicators*.10 (2010), 397-406.
- Jones, Andy. (2002). Environmental Assessment: An Environmental Assessment of Food Supply Chains: A Case Study on Desert Apples. *Environmental Management*. 30(4), 560-576.
- Katz, Diane. (October 2009). The BC Agricultural Land Reserve: A Critical Assessment. Fraser Institute. 1-53.
- Kelly, Jane Frances. (October 2010). Cities: Who Decides? *Grattan Institute.* Report No. 2010-5 OCT 2010, 1-56.
- Kendall, Henry W. and David Pimentel. (1994). Constraints on the Expansion of the Global Food Supply. *Ambio.* 23(3), 198-205.
- Kunstler, James Howard. (1993). *The Geography of Nowhere: The Rise and decline of America's Man-Made Landscape*. New York: Touchstone.
- Leo, Christopher and Kathryn Anderson. (2006). Being Realistic About Urban Growth. Journal of Urban Affairs. 28(2), 169-189.

- Li, Xiaoping, Xia Li, Zhangzhi, Tan, and Yimin Chen (2001). Zoning Farmland Protection Under Spatial Constraints by Integrating Remote Sensing, GIS and Artificial Immune Systems. *International Journal of Geographical Information Science*, 25(11)m 1829-1848.
- Luxton, Donald. (1998). *The Heritage Resources of Maple Ridge*. Retrieved from http://www.mapleridge.ca/assets/Default/Clerks/Committees~and~Commissions/Community~Heritage~Commission/Heritage~Inventory/pdfs/7.albion.pdf#search =%22Jackson%20Farm%20Heritage%22.
- Mäler, Karl-Göran. (2007). Wealth and Sustainable Development: The Role of David Pearce. *Environ Resource Econ.* 37, 63-75.
- Maple Ridge Museum and Community Archives. (2012, March 20). *Jackson.* Retrieved from: http://www.mapleridgemuseum.org/08\_community/09/08\_09\_06\_07\_jackson.htm l#nogo
- Melnychuck, Phil. (2010, December 22). Jackson Farm is now a park: the people, united, were to be defeated. *The News (Maple Ridge Pitt-Meadows,* p. 1 & 3.
- Metro Vancouver (February 20, 2012). *About Us—History*. Retrieved from: http://www.metrovancouver.org/about/Pages/history.aspx
- Metro Vancouver (March 2005). Advancing the Sustainable Region: Issues for the Livable Region Strategic Plan Review. Metro Vancouver, Burnaby, Canada.
- Metro Vancouver (March 4, 2010). Regional Planning Committee Regular Meeting: Agenda, Metro Vancouver, Burnaby, Canada.
- Metro Vancouver (September 2010). *Draft Regional Food System Strategy*. Metro Vancouver, Burnaby, Canada.
- Metro Vancouver (October 12, 1996). Livable Region Strategic Plan Implementation Agreement. Signed in Richmond, BC.
- Metro Vancouver, (January 1996). *Livable Region Strategic Plan*, Metro Vancouver, Burnaby, Canada.
- Metro Vancouver (September 18, 2003). Memorandum Greater Vancouver Regional District: Application #0-34894-0 Exclusion of 15.2 HA of ALR Lands (Jackson Farm) Maple Ridge. File No CP 11-01-RCS-Maple Ridge.
- Metro Vancouver (September 17, 2008). Minutes of the Public Hearing of the greater Vancouver Regional District (GVRD) Board of Directors, 1-22.
- Metro Vancouver (October 24, 2008). Minutes of the Regular Meeting of the Greater Vancouver Regional District (GVRD) Board of Directors, 1-16.

- Metro Vancouver (July 18, 2008). Minutes of the Regular Meeting of the Greater Vancouver Regional District (GVRD) Land Use and Transportation Committee, 1-17.
- Metro Vancouver (March 2, 2007). Minutes of the Regular Meeting of the Greater Vancouver Regional District (GVRD) Land Use and Transportation Committee, 1-6.
- Metro Vancouver (March 4, 2010). *Minutes of the Regular Meeting of the GVRD Regional Planning Committee*, p. 1-6.
- Metro Vancouver (June 18, 2008/ September 17, 2008). Staff Report: "Request from the District of Maple Ridge to Amend the Green Zone Boundary of the Livable Region Strategic Plan" In *Agenda: Greater Vancouver Regional District Public Hearing, Wednesday, September 17, 2008*, p. RD-1 to RD-110.
- Metro Vancouver (October 6, 2008). Staff Report: "Response to Questions Raised at the September 17, 2008 Public Hearing on Bylaws to Amend the Green Zone of the Livable Region Strategic Plan in Maple Ridge" In *Agenda: GVRD Board Meeting Date: October 24, 2008.*
- Metro Vancouver (February 11, 2010). Staff Report: District of Maple Ridge Regional Context Statement Amendment Request, 1-7.
- Metro Vancouver (July 16, 2008). Supplemental Agenda Items to the July 18, 2008 Regular Board Meeting, GVRD Section A1 GVRD Section C8.
- Minister of Agriculture and Lands (January 16, 2002). In Provincial Agricultural Land Commission (November 26, 2010). Review of the Agricultural Land Commission: Moving Forward: A Strategic Vision of the Agricultural Land Commission for Future Generations, p. 15-16.
- Perfecto, Ivette (1994). The Transformation of Cuban Agriculture after the Cold War. American Journal of Alternative Agriculture. 9(3), 98-108.
- Provincial Agricultural Land Commission. (2010, October, 30 & 2011, November 2). About the Agricultural Land Reserve. Retrieved from: http://www.alc.gov.bc.ca/alr/
- Provincial Agricultural Land Commission (2012, February 21). *ALR Statistics*. Retrieved from: http://www.alc.gov.bc.ca/alr/stats/Statistics\_TOC.htm
- Provincial Agricultural Land Commission (1978) *Dewdney Alouette ALR Review:* Summary Sheet. File No: K-06660.
- Provincial Agricultural Land Commission. (2010, November 20 & 2011, November 2).

  History of the ALR: Highlights from the First 25 Years of Preserving Foodlands.

  Retrieved from:

  http://www.landcommission.gov.bc.ca/publications/alr\_history.htm

- Provincial Agricultural Land Commission (June 5, 2003) Local Government Report.
- Provincial Agricultural Land Commission (May 10, 1995). *Minutes of the Provincial Agricultural Land Commission*. File No: K-29670, 1-2.
- Provincial Agricultural Land Commission (September 17, 2003). *Minutes of the Provincial Agricultural Land Commission*. File No: 0-34894-0, 1-2.
- Provincial Agricultural Land Commission (September 25, 2003) *RE: Application # 0-34894-0 (Decision Letter for Resolution #468/2003).*
- Provincial Agricultural Land Commission (September 25, 2003) *RE: Application # 0-34894-0 (Decision Letter for Resolution #468/2003).*
- Provincial Agricultural Land Commission (November 26, 2010). Review of the Agricultural Land Commission: Moving Forward: A Strategic Vision of the Agricultural Land Commission for Future Generations, p. 1-113.
- Provincial Agricultural Land Commission (July 31, 2003) Staff Report: *Application # 0-34894-0*. File No: 0-34894-0, 1-3.
- Provincial Agricultural Land Commission (September 17, 2003) Staff Report Supplement: *Application # 0-34894-0*. File No: 0-34894-0, 1.
- Provincial Agricultural Land Commission & Greater Vancouver Regional District (October 12, 1996). Livable Region Strategic Plan Implementation Agreement:

  An Agreement Between The Greater Vancouver Regional District and The Provincial Agricultural Land Commission on Supporting Agriculture in Greater Vancouver and The Livable Region Strategic Plan, p. 1-6,
- Riches, Graham. (1997). "Hunger in Canada: Abandoning the Right to Food." In Riches, Graham (ed). First World Hunger: Food Security and Welfare Politics: (pp.46-77). New York: St Martin's Press.
- Riches, Graham. (2002). "Human Right to Food." In Lamberton, Donald (ed). *Managing The global: Globalization, Employment, and Quality of Life:* (pp. 169-175). London: I.B. Tauris.
- Rosset, Peter and Medea Benjamin (eds). (1994). *The greening of the revolution:* Cuba's experiment with organic agriculture. Australia: Ocean Press.
- Rothblatt, Donald N. (1994). North American Metropolitan Planning: Canadian and U.S. Perspectives. *Journal of the American Planning Association*. 60(4), 501-520.
- Sancton, Andrew. (2001). Canadian Cities and The New Regionalism. *Journal of Urban Affairs*. 23(5), 543-555.
- Skelton, Craig. (2010, May 1). Controversial Jackson Farms development linked to donations. *Vancouver Sun*, retrieved from:

- http://www.canada.com/vancouversun/news/westcoastnews/story.html?id=3c5ef 5aa-49c4-467a-bfdb-ab95e395c539
- Smart Growth BC. (August 2005). Smart Growth BC's Position on the Provincial Agricultural Land Reserve (ALR). *Smart Growth BC*, 1-7.
- Smith Patrick J. and H. Peter Oberlander. (2006). "Greater Vancouver: l'exception canadienne metropolitaine." In Eran Razin and Patrick J. Smith (eds.). *Metropolitan Governing: Canadian Cases, Comparative Lessons:* (pp.147-183). Jerusalem: The Hebrew University Magnes Press.
- Stewart, Kennedy. (2008). Inaction Costs: Understanding Metropolitan Governmental System Reform Dynamics in Toronto. *CPSR*. 2(1), 1-29.
- Stone, Deborah. (2002). *Policy Paradox: The Art of Political Decision Making.* New York: Norton.
- Suzuki, David. (2007). *The Sacred Balance: Rediscovering Our Place In Nature.* Vancouver: Greystone Books.
- Tarasuk, Valerie. (2001). A Critical Examination of Community-Based Responses to Household Food Insecurity in Canada. *Health Education and Behaviour.* 28(4), 487-499.
- Tomalty, Ray. (2002). Growth Management in the Vancouver Region. *Local Environment*. 7(4), 431-445.
- USHUD (1999). The State of the Cities 1999: Third annual report. US Department of Housing and Urban Development, Washington DC.
- Vadrevu, Krishna Prasad, John Cardina, Fred Hitzhusen, Isaac Bayoh, Richard Moore, Jason Parker, Ben Stinner, Deb Stinner, and Casey Hoy. (2008). Case Study of an Integrated Framework for Quantifying Agroecosystem Health. *Ecosystems*. 11, 283-305.
- Williams, Katie. (1999). Urban intensification policies in England: problems and contradictions. *Land Use Policy*, 16, 167-178.
- World Commission on Environment and Development. (1987). *Our Common Future.*UK: Oxford Press.
- Wright, Julia. (2009). Sustainable Agriculture and Food Security in an Era of Oil Scarcity: Lessons from Cuba. London: Earthscan.
- Yearwood-Lee, Emily. (January 2008). History of the Agricultural Land Reserve. Legislative Library of British Columbia, 1-14.

**Appendices** 

# Appendix A.

# **Chronology of Significant Sustainable Development Policy Events Relating to Jackson Farm**

Date	Policy Decision	Relevance to Sustainable Development Policy and to Jackson Farm
1965	Provincial legislation passed to create the Greater Vancouver Regional District (later known as: Metro Vancouver Regional District).	Creation of regional governing body over land use planning.
1973	Provincial legislation passed to create the Land Commission Act.	Establishment of what is today referred to as the Provincial Agricultural Land Commission (ALC).
1974-1976	Boundaries of the Provincial Agricultural Land Reserve (ALR) are established.	Lower Jackson Farm is included in the ALR.
1975	Greater Vancouver Regional District implemented the <i>Livable Region Plan</i> .	Regional government established authority over regional planning decisions during this era.
1983	Provincial legislation passed to create the Municipal Act	All regional plans made null and void, resulting in regional planning in BC being eliminated (at an official level).
1995	Provincial legislation passed to create the Growth Strategies Statutes Amendment Act.	Framework for regional planning in BC was restored on a cooperative basis, requiring consensus amongst member municipalities to adopt a regional growth strategy.
1996	Livable Region Strategic Plan approved.	Member municipalities held to adopted sustainable development principles.  Lower Jackson Farm designated as Green Zone.
		Thornhill was officially established as an Urban Reserve in the District of Maple Ridge's OCP (this included Upper Jackson Farm).
September 17, 2003	ALC excludes Lower Jackson Farm from ALR.	Lower Jackson Farm loses protection from ALC.

September 18, 2003	As per request from ALC, Metro Vancouver confirms Green Zone designation of property and subsequently opposes ALR exclusion application in an intergovernmental memorandum; however it is too late to change the ALC's decision.	Lower Jackson Farm remains protected by regional government and cannot be developed at urban densities (process to amend Green Zone designation at this time required a 100% vote from the Board of Metro Vancouver, which was the same percentage required to adopt a new regional growth strategy.
November 22, 2007	Provincial legislation passed to create the Greater Vancouver Regional District Growth Strategy Exemption Regulation.	New legislation required a 66% vote from the Board of Metro Vancouver to amend Green Zone designations.
October 24, 2008	Lower Jackson Farm proposed removal from Green Zone designation is denied by the Board of Metro Vancouver.	Lower Jackson Farm deemed to be an important Green Zone parcel.
March 4, 2010	District of Maple Ridge Regional Context Statement amendment approved by Board of Metro Vancouver to exclude Upper Jackson Farm from the Thornhill Urban Reserve to develop at urban densities in exchange for Lower Jackson Farm being donated as park to the District of Maple Ridge.	Lower Jackson Farm protected as dedicated park; Upper Jackson Farm excluded from Thornhill Urban Reserve for development at urban (suburban) densities.

# Appendix B.

# The Canada Land Inventory Soil Capability Classification for Agriculture (1972) (excerpt)

Soil Capability Class	Description
Class 1	Soils in this class have no significant limitations in uses for crops.
Class 2	Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices.
Class 3	Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices.
Class 4	Soils in this class have severe limitations that restrict the range of crops or require special conservation practices or both.
Class 5	Soils in this class have very severe limitations that restrict their capability to produce perennial forage crops, and improvement practices are feasible.
Class 6	Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.
Class 7	Soils in this class have no capability for arable culture or permanent pasture.

Source: Environment Canada, 1972

# Appendix C.

# Land Capability Classification for Agriculture in BC (excerpt)

Soil Capability Class	Description
Class 1	Land in this class either has no or only very slight limitations that restrict its use for the production of common agriculture crops.
Class 2	Land in this class has minor limitations that require good ongoing management practices or slightly restrict the range of crops, or both.
Class 3	Land in this class has limitations that require moderately intensive management practices or moderately restrict the range of crops, or both.
Class 4	Land in this class has limitations that require special management practices or severely restrict the range of crops, or both.
Class 5	Land in this class has limitations that restrict its capability to producing perennial forage crops or other specially adapted cops.
Class 6	Land in this class is non-arable but is capable of producing native and/ or uncultivated perennial forage crops.
Class 7	Land in this class has no capability for arable culture or sustained natural grazing.

BC Ministry of Environment, 1983

# Appendix D.

# Land Capability Classification for **Agriculture in BC**

### 3. Capability Class

The capability class, the broadest category in the classification, is a grouping of lands that have the same relative degree of limitation or hazard for agricultural use. The intensity of the limitation or hazard becomes progressively greater from Class 1 to Class 7, The class indicates the general suit ability of the land for agricultural use.

Two sets of classes exist, one for mineral soils and one for organic soils. The classes are as follows:

#### LAND CAPABILITY CLASSES FOR MINERAL SOILS

The seven land capability classes for mineral soils are defined and described as follows:

CLASS 1 LAND IN THIS CLASS EITHER HAS NO OR ONLY YERY SLIGHT LIMITATIONS THAT RESTRICT ITS USE FOR THE PRODUCTION OF COMMON AGRICULTURAL CROPS.

Land in Class 1 is level or nearly level. The soils are deep, well to imperfectly deained under natural conditions, or have good artificial water table control, and hold moisture well. They can be managed and cropped without difficulty. Productivity is easily maintained for a wide range of field crops.

CLASS 2 LAND IN THIS CLASS HAS MINOR LIMITATIONS THAT REQUIRE GOOD ONGOING
MANAGEMENT PRACTICES OR SLIGHTLY RESTRICT THE RANGE OF CROPS, OR
BOTH.

Land in Class 2 has limitations which constitute a continous minor management problem or may cause lower crop yields compared to Class 1 land but which do not pose a threat of crop loss under good management. The soils in Class 2 are deep, hold moisture well and can be managed and cropped with little difficulty.

CLASS 3 LAND IN THIS CLASS MAS LIMITATIONS THAT REQUIRE MODERATELY INTENSIVE BOTH.

The limitations are more severe than for Class 2 land and management practices are more difficult to apply and maintain. The limitations may restrict the choice of suitable crops or affect one or more of the following practices: timing and ease of tillage; planting and harvesting, and methods of soil conservation.

CLASS 4 LAND IN THIS CLASS HAS LIMITATIONS THAT REQUIRE SPECIAL MANAGEMENT PRACTICES OR SEVERELY RESTRICT THE RANGE OF CROPS, OR BOTH.

Land in class 4 has limitations which make it suitable for only a few cross, or the yield for a wide range of crops is low, or the risk of crop failure is high, or soil conditions are such that special development and management practices are required. The limitations may seriously affect one or more of the following practices: timing and ease of tillage, planting and harvesting, and matched of soil conservation.

CLASS 5 LAND IN THIS CLASS HAS LIMITATIONS THAT RESTRICT ITS CAPABILITY TO PRODUCING PERENNIAL FORAGE CROPS OR OTHER SPECIALLY ADAPTED CROPS.

Land in Class 5 is generally limited to the production of perennial forage crops or other specially adapted crops. Productivity of these suited crops may be high. Class 5 lands can be cultivated and some may be used for cultivated field crops provided unusually intensive management is employed and/or the crop is particularly adapted to the conditions peculiar to these lands. Cultivated field crops may be grown on some Class 5 land where adverse climate is the main limitation, but crop failure can be expected under average conditions.

CLASS 6 LAND IN THIS CLASS IS NON-ARABLE BUT IS CAPABLE OF PRODUCING NATIVE AND/OR UNCULTIVATED PERENNIAL FORAGE CROPS.

Land in Class 6 provides sustained natural grazing for domestic livestock and is not arable in its present condition. Land is placed in this class because of severe climate, or the terrain is unsuitable for cultivation or use of farm machinery, or the soils do not respond to intensive improvement practices. Some unimproved Class 6 lands can be improved by draining, diking and/or irrigation.

CLASS 7 LAND IN THIS CLASS HAS NO CAPABILITY FOR ARABLE CULTURE OR SUSTAINED NATURAL GRAZING.

All classified areas not included in Classes 1 to 6 inclusive are placed in this class. Class 7 land may have limitations equivalent to Class 6 land but they do not provide natural sustained grazing by domestic livestock due to climate and resulting unsuited natural vegetation. Also included are rockland, other nonsoil areas, and small water-bodies not shown on the maps. Some unfamproved Class 7 land can be improved by draining, diking and/or irrigation.

### LAND CAPABILITY CLASSES FOR ORGANIC SOILS

Organic soils are also grouped into seven classes, designated as £! to £7. The organic soil class definitions are equivalent in terms of their relative capabilities and limitations for agricultural use to those defined for mineral soils.

4. Capability Subclasses

The subclass indicates lands with similar kinds but varying intensities of limitations and hazards. It provides information on the kind of management problem or use limitation. Except for Class I and 91 lands, which have no significant limitations, the capability classes are divided by subclasses on the basis of type of limitation to agricultural use. Each class can include many different kinds of soil, similar with respect to degree of limitation, but soils in any class may require unlike management and treatment as Indicated by the <u>subclasses</u> shown.

#### LAND CAPABILITY SUBCLASSES FOR MINERAL SOILS

- A SOIL MOISTURE DEFICIENCY: Crops are adversely affected by droughtiness caused by low soil water holding capacity or insufficient precipitation.
- ADVERSE CLIMATE: Crops are adversely affected by thermal limitations to plant growth such as minimum temperatures near freezing and/or insufficient heat units during the growing season, and/or extreme minimum temperatures during the winter season.
- D UNDESTRABLE SOIL STRUCTURE AND/OR LOW PERVIOUSNESS: Soils are difficult to till, require special management for seedbed preparation, pose trafficability problems, have insufficient aeration, absorb, and distribute water slowly, and/or have rooting zone depth restricted by conditions other than high water table, beforce or permafrost.
- EROSION: Past damage from erosion limits agricultural use due to productivity loss and/or hampers cultivation (eg. gullies).
- \*F FERTILITY: Soils are limited by lack of available nutrients, low cation exchange capacity or nutrient holding ability, high acidity or alkalinity, high levels of carbonates, presence of toxic elements or compounds, or high fixation of plant nutrients.
- \*I INUNDATION: Soils are limited by overflow from streams, lakes or marine tides which causes crop damage or restricts agricultural use.
- $^{\star}\mathrm{N}$  SALINITY: Soils are adversely affected by soluble salts which reduce crop growth or restrict the range of crops.
- P STONINESS: Soils are limited by the presence of coarse fragments which significantly hinder tillage, planting and/or harvesting.
- R DEPTH TO SOLID BEDROCK AND/OR ROCKINESS: Soils are limited by bedrock near the surface and/or rock outcrops which restrict rooting depth and cultivation.
- TOPOGRAPHY: Soils are limited by steepness or pattern of slopes which hinders the use of farm machinery, decreases the uniformity of growth and maturity of crops, and/or increases the potential for water erosion.
- \*W EXCESS WATER: Soils are limited by excess water, other than from flooding, which limits agricultural use. The excess water may be due to poor distinge, high water tables, seepaga, and/or runoff from surrounding
- PERMAFROST: Soils are limited by a permafrost layer which maintains undestrably coil soil temperatures and causes drainage and subsidence problems when it is near the surface.

- B WOOD IN THE PROFILE: Soil is limited by the presence of layers of wood which interfere with cultivation and/or ditching and crain installation.
- H DEPTH OF ORGANIC SOIL OVER BEDROCK AND/OR ROCKINESS: will are limited by bedrock near the surface which restricts rooting depth and the feasibility of subsurface drainage, and/or rock outcrops restrict agricultural cultivation.
- L DEGREE OF DECOMPOSITION PERMEABILITY: Soil is limited by the degree of decomposition which affects drainage, permeability, capillary rise of water and rise of subsidence. The presence of mineral soil layers may be limiting to optimum crop yield and to drainage.  $\lambda$
- \* These subclasses are the same for both organic and mineral soils.

### BC Ministry of Environment, 1983