Maple Ridge Agricultural Area Planning Situation Analysis: 2008 Update

- DRAFT FINAL 2 -

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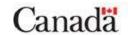
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Executive Summary

The District of Maple Ridge has been pursuing an agricultural plan for over 20 years. In successive community plan reviews in 1985 and 1995, and the Agricultural Policy Review of 2004, Maple Ridge has revisited the question of the role of agriculture in the District. In 2008, there is consensus and acceptance that agriculture is an important component of the community's character and economy and should be protected and supported.

Given the support for agriculture in the 2006 Official Community Plan, actions need to be identified that will enhance agriculture. These initiatives will critically depend on a coherent vision for the agricultural sector and the development of a strategy that is tailored to the characteristics and circumstances of Maple Ridge agricultural activity. This Situation Report describes salient features of Maple Ridge agriculture that will serve as the basis from which the planning can proceed and agricultural opportunities may be pursued.

This Agricultural Plan was funded in part by the Investment Agriculture Foundation of BC through Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-Food (ACAAF)program¹

1.0 Renewed Support for Locally-Based Agriculture

Recent developments indicate that support for local agriculture at all levels is increasing. The national Environmental Farm Plan program is assisting farmers to reduce their environmental risk and make their operations more environmentally sustainable. At the provincial level, the recent (2008) BC Agriculture Plan is focusing on supporting local food production, the farm tax assessment system is being reviewed, and the Climate Action Plan has market opportunities for agriculture. At the local level, several communities are exploring community food self-reliance and have developed food charters that recognize local food production capacity as a vital component of food security.

2.0 Characteristics of Maple Ridge Agriculture

There are 213 remaining agricultural operations in Maple Ridge, down 36% from 331 farms in 1995. Approximately 65% of these farming operations generate less than \$10,000 annually in gross farm receipts (GFRs) and 85% of these farming operations have annual gross farm receipts not exceeding \$50,000. Only about 8.5% of the farming operations (n=18) have annual GFRs of \$250,000 or more. Yet, Maple Ridge farming operations generate GFRs/ha above the Metro Vancouver average and GFRs totaled \$34.5 million in 2005. And while GFRs are convenient economic measure, they represent only the largest portion of the economic contribution that agriculture makes to the local community.

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¹ Agriculture and Agri-Food Canada (AAFC) is pleased to participate in the production of this publication. AAFC is committed to working with our industry partners and the Investment Agriculture Foundation of BC to increase public awareness of the importance of the agriculture and agri-food industry to Canada. Opinions expressed in this publication are those of the District of Maple Ridge and not necessarily AAFC's.

Probably the most extensive use of agricultural land in the District is for horse farms and the hay/pasture requirements. As such, much of the land is not being used for the production of food products but more to support rural lifestyle. Nevertheless, there is a diversity of agricultural products produced in Maple Ridge, albeit at small scale.

In 2005, 54% of the Census² farms in Maple Ridge were under 4 ha in size.

The larger farming operations interact with regional agricultural networks. With a few exceptions, the products are marketed through regional distribution systems that are based on marketing and processing channels that only indirectly supply the local community.

Approximately 27% of the land with farm tax assessment status in Maple Ridge is not in the Agricultural Land Reserve. For the purposes of agricultural area planning, this component of the agricultural sector must be considered in overall agricultural strategy development.

2.0 Maple Ridge Agriculture Faces Challenges

Maple Ridge agriculture is faced with several key challenges. These include:

- Parcels are small and the scale of agriculture is correspondingly small
- Small scale agriculture is mostly capable of generating part-time employment and income
- The soils are less capable than in prime areas of the Lower Mainland and require more management
- Farming activities may be compromised by surrounding residential uses and environmental concerns
- Competition from non-agricultural and Green Zone land use is intense and growing.

These challenges have complicated efforts to mobilize public support for agriculture in Maple Ridge. As a consequence, the agricultural sector has been largely neglected and left to languish on its own. Agricultural operators have been discouraged by suburban growth pressure, incremental non-agricultural land use encroachment, and deterioration of agricultural infrastructure.

In addition, new transportation systems have physically intruded on the footprint of agriculture and are likely to create pressure to convert agricultural lands to support emerging commercial and industrial opportunities.

While the Green Zone designation serves to protect Green Zone lands, including agricultural land, from unplanned development, it will also have not fully understood implications for how the land can be used for agricultural purposes.

3.0 Maple Ridge Agriculture has Opportunities

Despite the struggles that Maple Ridge agriculture is currently enduring, the future may not have to be doom and gloom. There is a core that has shown remarkable

² Statistics Canada. 2006. Agriculture Census. http://www.statcan.gc.ca/ca-ra2006/index-eng.htm

resiliency and which could provide the base for revitalization. Maple Ridge agriculture is endowed with several positive attributes. These include:

- Favourable climate suitable for growing a wide variety of agricultural products
- Unused agricultural land that is still available for agricultural production
- Close proximity of a large urban population
- Presence of a consumer population that is starting to value local foods and production for their wholesomeness, freshness, and reduced carbon footprint
- Agricultural entrepreneurs with knowledge and capability to produce healthy and safe food
- Significant existing value in the investment in agricultural capital assets.

4.0 The Maple Ridge Agriculture Plan Needs to Address Key Issues

In developing an effective agricultural plan for Maple Ridge, the analysis and strategizing will have to provide options to resolve several key factors. The key issues facing local agriculture were quickly identified by interviewees we contacted. Some of these factors include:

- "Agriculture" needs to be defined in a broader sense;
- The challenges of Maple Ridge agriculture must be recognized and specific actions taken to alleviate them;
- The economic viability of local agriculture is central to its sustainability;
- The community needs to develop a vision for the role of agriculture;
- Measures need to be devised to protect the land and resource base;
- Some of the highest agricultural capability lands in Maple Ridge are under the greatest threat;
- The quality of resources for agriculture, such as drainage, must be addressed;
- An agriculture-friendly resolution of rural-urban conflicts is required to create favourable conditions for small-lot agriculture;
- Regulation of small lot agriculture needs to be reviewed; Idle potential farm land need to get into production;
- The relationship between agricultural practices and conservation values needs to be improved;
- An agricultural transportation system strategy is required;
- Agricultural wastes must be managed in a beneficial way.

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1.0 Introduction

The District of Maple Ridge is currently involved in developing an area plan to enhance and promote agriculture in the District. As part of the planning process, this report is an updating of the comprehensive situational analysis of agriculture in Maple Ridge undertaken in 2004.³ The information presented is intended to provide a context for addressing agricultural policy needs in the second phase of the work. It includes:

- an update of the provincial, regional and local context for agricultural planning
- an updated comprehensive analysis of agricultural resources, farm characteristics and the contribution of agriculture to the local economy
- further discussion of policy issues facing agriculture in Maple Ridge.

This *Situation Analysis Report* updates various agriculture reports prepared in 1995, 1997 and 2004. The findings presented are based upon an analysis of developments since 2004, a series of interviews with agricultural sector participants in the District and a Workshop with invited stakeholders consisting of farmers, community groups, agency representatives, the Agricultural Advisory Committee and municipal staff. This report is intended to establish issues and conditions facing the agricultural sector in Maple Ridge, from which options and strategies may be devised to promote and enhance agriculture in the District.

2.0 Update on the Context of Agricultural Planning in Maple Ridge

Since 2004, there have been significant initiatives at the national, provincial and regional levels that are affecting promote BC and local agriculture.

2.1 National Initiatives Affecting Agriculture

2.1.1 Canada-BC Environmental Farm Plan Program

Since 2004, the British Columbia Agriculture Council (BCAC) has been delivering the Environmental Farm Plan program in BC. The federal-provincial program is currently under negotiation for the next 5-year period. Agricultural producers are provided technical assistance and guidance to:

- Perform an environmental assessment of their farm operation outlining their risks and benefits
- Develop an action plan to mitigate their agro-environmental risks.
- Producers with a completed and reviewed EFP can apply for assistance to implement the beneficial management practices listed in their action plan through the Canada-British Columbia Environmental Farm Plan Program.

Since the beginning of the program, some 20% of agricultural operators have completed a farm plan and a substantial portion of those operations have invested in environmental friendly practices and projects. Adoption of these practices is making farming operations more environmentally sustainable in BC communities.

³ See Zbeetnoff, DM and M McPhee. 2004. Maple Ridge Agricultural Policy Review. Report prepared for the District of Maple Ridge.

2.2 Provincial Initiatives Affecting Agriculture

2.2.1 Agricultural Land Commission Service Plan

In 2002, changes were made to the Agricultural Land Commission's Service Plan to allow for the consideration of community need as a criterion for the removal of land form the Agricultural Land Reserve. Several Commission decisions resulting in farmland removal have made since 2002. The provision has been highly contentious in that it has been perceived as being used by municipalities to thwart the mandate of the ALC Act to preserve agricultural land. At the farmer level, uncertainty in the future status of land under development pressure inevitably leads to an unwillingness to invest in improvements to facilitate agricultural use since the improvements would be lost if the land were to be converted into non-agricultural use. A report commissioned by Smart Growth BC concludes that the term "community need" should either be removed from the Service Plan or the legislation amended to include it but, if included, would effectively transform the ALR into an urban land reserve.⁴ Most recently, the ALC rejected an application in 2006 from Canada Lands Company to exclude Garden City lands from the ALR in Richmond. However, the issue has not yet been resolved after the City of Richmond negotiated a Memorandum of Understanding with the land owner (Canada Lands Company) and the Musqueam Band in the hopes of reviving the application.5

2.2.2 The BC Agricultural Plan

In 2006, the provincial government launched an industry review leading to the development of "The BC Agricultural Plan: Growing a Healthy Future for BC Families". The plan was completed in February, 2008 and outlines 23 strategies, and 68 action items for sustaining the BC agriculture industry within 5 key themes:

• **Producing Local Food in a Changing World** – Promoting BC agriculture and food products top support BC producers in supplying fresh, healthy food directly to consumers; and developing a "food miles" program to create public awareness of the distance food products have been transported, and the effect on greenhouse gas emissions.

The Plan will implement a financial strategy to support various projects, including the following:⁷

- Local agricultural products and develop a BC brand (\$1 million)
- ➤ A "Food Miles" Project to reduce GHG emissions (\$1 million)
- Expansion and delivery of the "Eat BC" program
- Direct farm sales by producing a Farmers' Markets Directory, Farmers' Markets Newsletter, and Farm Fresh Guides
- > Community Food Action initiatives (community gardens, local farm markets)
- Community-lead food projects focusing on local production and delivery (e.g., Slow Food, pocket markets)

http://www.smartgrowth.bc.ca/Portals/0/Downloads/CommunityNeedreportmediarelease.pdf

⁴

⁵ http://www.richmond.ca/__shared/assets/B1_Application_Summary19487.pdf

⁶ http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/434802/2008AL0004-000208.pdf

⁷ See The BC Agriculture Plan: Growing a Healthy Future for BC Families. http://www.al.gov.bc.ca/Agriculture_Plan/Agriculture_Plan.pdf

- > Development of a wine and culinary centre
- > The School Fruit and Vegetable Snack Program
- ➤ The EatSmart BC Program (focusing on food safety and healthy eating)
- A Farmer's Market Nutrition Coupon Pilot initiative.
- **Meeting Environmental and Climate Challenges** Shifting farm practices to turn agricultural residues like plant material, animal and organic waste into renewable energy; and investing in environmental farm planning, to encourage producers to adopt more environmentally friendly ways of handling their livestock, fertilizer, farm buildings and engine emissions.

Projects of potential interest to Maple Ridge include:

- ➤ Continued support for environmental farm plans (\$2 3 million)
- ➤ Investigating value-added options for agricultural waste management
- ➤ Developing a Provincial Agriculture Zone Wildlife Program to develop prevention, mitigation and compensation strategies (\$4 million /year)
- ➤ Assisting farmers to provide ecological goods and services and to derive benefit from their provision
- ➤ Supporting agriculture to participate in the carbon credit market
- > Supporting industry to adopt technologies to reduce GHG emissions and more efficient alternative energy systems
- > Policies and programs to include the needs of agriculture in provincial water management strategies.
- **Building Innovative and Profitable Family Farm Businesses** Supporting the agriculture industry in addressing BC's farm labour shortage; and supporting agriculture's diverse sectors in developing sector-specific strategic plans to work towards sustained profitability.

Projects with potential application to the Maple Ridge agricultural sector include:

- Working with industry to develop sector plans
- > Implementing taxation changes from the Farm Assessment Review
- > Filling gaps in extension services
- Establishing a BC Food and Bioproduct Technology and Commercialization Centre
- Changes in food labeling in the interests of the BC food industry.
- **Building First Nations Agriculture Capacity** Establishing a program to certify First Nations food products prior to the 20101 Olympics; and delivering a "local foods for healthy eating" program for First Nations, including community gardens.
- **Bridging the Urban/Agriculture Divide** Increasing funding for agriculture in the classroom programs to reconnect children with the source of their food; and reviewing zoning bylaws and farm use bylaws to ensure the regulatory structure supports the sustainable growth of farming in BC.

Projects of potential interest to Maple Ridge agriculture include support for:

➤ Delivery of 4-H programs to BC youth (\$100,000)

- Agriculture in the Classroom programs, such as Agriculture in the Classroom on the Road, Spuds in Tubs, school gardens (\$100,000)
- > Agriculture fairs and exhibitions
- Review of ALR to ensure the preservation of agricultural resources
- Developing information on normal farm practices to landowners adjacent to agricultural operations
- > Initiating conferences and forums to increase agricultural dialogue
- Agricultural Advisory Committees and Agricultural Area Planning as mechanisms to address urban/rural interactions
- > Revisions of regulatory structures to promote the growth of farming.

There is noticeable emphasis on the promotion of BC food products, reconnecting British Columbians with locally grown food, and ensuring the regulatory structure to support the sustainable growth of farming.

2.2.3 Farm Property Tax Assessment Review

In December, 2007, the provincial government began a comprehensive review of British Columbia's farm status assessment policy. The review, conducted by the Farm Assessment Review Panel, has as its purpose to ensure the property assessment system is fair, equitable and supports farming in BC with clear, simple and straightforward regulations and policies. Meetings have been had in many areas of the province. Consultation is expected to be completed in 2009. Some of the issues that are arising include:

- Split classification on farmed properties
- Taxation of natural areas and non-productive areas subject to environmental restrictions
- Farm income levels for farm tax qualification
- Additional taxation support for small scale agriculture
- Taxation of farms outside the ALR.

2.2.4 BC Climate Action Plan

Also in 2008, the provincial government initiated its Climate Action Plan with the goal of reducing greenhouse gas emissions by 33% by 2020. Included in the strategy is a focus on seven sectors creating significant environmental impacts, including agriculture. In the agricultural sector, the stated objective is to "...work with the agricultural industry on strategies that may include digesters to capture methane from manure, improved fertilizer application, community biogas digestion/electricity generation projects, research on biomass fuel, green city farms and encouraging local purchase of agricultural products."

While details are still unclear, there appears to be significant intent to create sustainable market, environmental and regulatory conditions where agriculture can be promoted and enhanced. Two recent fact sheets explore the impact of climate change

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⁸ Meetings that have been held in Saanich, the Okanagan and Courtenay have been highly focused on taxation issues related to small lot agriculture. See

http://www.farmassessmentreview.ca/pdfs/Courtenay_Summary_FINAL.pdf;

http://www.farmassessmentreview.ca/pdfs/Penticton_Summay_FINAL.pdf;

http://smallsaanichfarmers.blogspot.com/; http://www.bcfga.com/files/1226301605.pdf

⁹ http://www.livesmartbc.ca/government/plan.html

on agriculture and the potential for farm operators to sell offset projects on farmland that will result in emission reductions and carbon sequestration.¹⁰

2.3 Regional Developments Affecting Agriculture

2.3.1 Metro Vancouver-ALC Implementation Agreement

Since 1996, when the Metro Vancouver Board and the Agricultural Land Commission (ALC) signed an Implementation Agreement, the two organizations have worked together in the implementation of the Liveable Region Strategic Plan (LRSP) and the ALC's strategic plan. The ALC refers applications for exclusions from the ALR to Metro Vancouver for comment. The applications are reviewed by staff in context of the impact of the proposed exclusion on the LRSP, in particular on the Green Zone. The ALC is under no statutory obligation to consider such comments in deciding upon exclusion applications.

Metro Vancouver's growth strategy (Liveable Region Strategic Plan) ¹² has included efforts to protect the Green Zone in the face of pressure to convert these lands into other uses. The designation of Green Zone lands, including renewable resource lands such as agricultural and forestry areas, has limited urban expansion and the physical expansion of services into the Green Zone. Since the District has adopted the LRSP, its Official Community Plan must be consistent with the LRSP and Metro Vancouver's approval is required.

Recently, Metro Vancouver has refused to allow the Jackson Farm in Maple Ridge to be excluded from the Green Zone for development. The ALC had already made a prior decision to approve an application to remove the property from the Agricultural Land Reserve. It may also be noted that although Metro Vancouver turned down the request to have the 40 acre Jackson Farm pulled out of the Green Zone for suburban development, it voted to exclude 5 other parcels of properties in Maple Ridge. 13

The Jackson Farm ruling has become a flashpoint of concern over the rationale for the decision, whether Metro Vancouver is "overruling" on an ALC matter, interference of regional interests in District land use decisions, and property owner rights.¹⁴

¹⁰ See BC Agri-food sector Climate Action Initiative: Fact Sheet #1 (November 2008) and Fact Sheet #2 (November, 2008)

¹¹ Liveable Region Strategic Plan Implementation Agreement. "An Agreement between the Greater Vancouver Regional District and the Agricultural Land Commission on Supporting Agriculture in Greater Vancouver and the Liveable Region Strategic Plan". October 12, 1996. This agreement is currently being renegotiated and is likely to include a broader umbrella definition that will include conservation, agricultural and other rural lands in the Green Zone. 12 Liveable Region Strategic Plan Implementation Agreement. "An Agreement between the Greater Vancouver Regional District and the Agricultural Land Commission on Support Agriculture in Greater Vancouver and the Liveable Region Strategic Plan". October 12, 1996. 13 http://www.suzanneanton.ca/cms/the-news/suzanne-in-the-media/jackson-farm-to-stay-in-green-zone/

¹⁴ See Steele, A. 2008. Jackson Farm to Stay in Green Zone. Maple Ridge/Pitt Meadows Times, October 24. http://www.canada.com/mapleridgetimes/news/story.html?id=e309de60-c623-4a5d-89f4-75046f96eb59

2.3.2 Use of ALR Land for Organic Waste Conversion Projects

There has been recent interest in diverting biomass from landfills by using green technologies to convert organic waste into energy, compost, bioproducts, and other beneficial products. There are likely to be applications submitted to the ALC to site these projects on agricultural land and a Maple Ridge location is possibly being contemplated. Currently, these types of land uses are not permitted uses in the ALR.

2.4 Local Developments Affecting Agriculture

2.4.1 Community Food Charters

A number of local jurisdictions have made strides with Food Charters and food policy organizations to create a sustainable, just local food system in which farmers can make a living and nobody goes hungry. There are a total of at least 27 regional food security policy organizations in BC, including in the Lower Mainland, BC Food Systems Network, Farm Folk/City Folk, Food For Kidz, Fraser Health Food Security Program, Mission Community Food Coalition, New Westminster Community Food Action Committee, Society Promoting Environmental Conservation (SPEC) Food Safety and Security Committee, Trout Lake/Cedar Cottage Food Security Network, Vancouver Food Policy Council, and Vancouver Native Health Society: Urban Aboriginal Food Enhancement Program.

The principles upon which Food Charters are being created and adopted include: 15

- safe and nutritious food is available within the region for all residents;
- access to the safe and nutritious food is not limited by economic status, location, or other factors beyond a resident's control;
- there is a local and regional agriculture and food production system which supplies wholesome food to the region's residents on a sustainable basis;
- all residents have the information and skills to achieve nutritional well-being.

This orientation toward integrating local food production into social and cultural objectives relating to increasing urban access to local food sources would be anticipated to create more market opportunities for agricultural producers wherever such a program was pursued. Vancouver's Food Policy Council Work Plan, for example, contains a number of initiatives including:

- Securing zoning and resources for farmer's markets
- Sponsoring forums to link organizations working on food issues
- Securing a land base in Vancouver for community gardens
- Working with other municipalities to create a regional food council
- Promotion of community kitchens
- Mobilization of neighbourhoods through food security networks
- Directing resources towards neighbourhood empowerment
- Pursuing opportunities in social housing for urban gardens, edible landscaping and meal services.

¹⁵ See The BC Food Systems Network. http://www.fooddemocracy.org/policy.php A more complex vision is also found in the Capital Region Food Charter. See http://www.communitycouncil.ca/pdf/CR_Food_Charter_Final-2008-06-10.pdf

2.4.2 Community Food Action Initiatives (CFAI)

Regional Health Authorities in BC have a mandate to pursue food security as part of their public health mandate. A number of local jurisdictions are collaborating with Health Authorities to integrate food policy into community decision-making. One component of this approach is developing greater control over the food system by pursuing the linkage of food security with public health.¹⁶

There are currently 8 local committees in the Vancouver Coastal Health Authority that have used the CFAI program to fund food system assessments, gap analysis, and the development of action plans. These initiatives are striving increase the awareness among residents about food security, local healthy food, food knowledge, local food security and community food security. In the Fraser Valley, Surrey- White Rock has completed assessments of local food policy.¹⁷

In Maple Ridge, a food security table is also emerging.

2.4.3 Agricultural Area Planning

In 2008, over 19 BC local or regional jurisdictions have completed agricultural area planning studies and a number of others are in the process of doing so to develop strategies to enhance agriculture in their areas. Since 1990, the Investment Agriculture Foundation and BC Ministry of Agriculture and Lands have provided funding and resources to assist. In jurisdictions where these plans have been completed, planning has lead to assessment of the baseline situation, identification of issues and options, and development of an action plan to implement solutions to local issues.

3.0 Context of Maple Ridge Agriculture

3.1 Planning Context

Efforts to undertake agricultural planning in Maple Ridge have been ongoing for over 20 years. The 2004 Agricultural Policy Review¹⁸ observed that agriculture and farmland were important components of the rural lifestyle, values and economy of Maple Ridge. The then most recent version¹⁹ had articulated many concepts and ideas important to agriculture in Maple Ridge. However, decisions on implementing the recommendations continued to be hampered by uncertainties related to:

- agricultural capability of specific parcels and areas
- doubts about the realistic potential for economic agricultural enterprise, given the small farm sizes

¹⁶ See The Community Nutritionists Council of BC. 2004. Making the Connection – Food Security and Public Health.

 $[\]underline{http://www.fraserhealth.ca/HealthTopics/HealthyLiving/NutritionInfo/Documents/Food_Security.pdf}$

¹⁷ Food Policy in Surrey & White Rock Steering Committee. 2006. Moving Food Policy Forward in Surrey and White Rock: Phase I.

 $[\]underline{http://www.fraserhealth.ca/HealthTopics/HealthyLiving/NutritionInfo/Documents/phase1report.pdf}$

¹⁸ Zbeetnoff, DM and M. McPhee. 2004. Maple Ridge Agricultural Policy Review. Report prepared for the District of Maple Ridge.

¹⁹ Rural Plan: Final Report. 1997. Recommendation of the Rural Plan Advisory Committee. Maple Ridge. December.

- pressures for subdivision development
- rural-urban land use conflicts
- definition of rural lifestyle.

In 2004, the discussion of the existing policy context for agriculture concluded:

- The role of agriculture is supported and articulated at the regional level through the LRSP;
- The District of Maple Ridge, through its OCP has designated the majority of land within the ALR for Agriculture, however, there is not a strong vision for the protection and enhancement of agriculture, other than a generic statement supporting the continuation of the ALR;
- Historic non farm land use zoning within the ALR may give the image that agriculture is not the primary land use within the ALR;
- The existence of commercial agriculture outside the ALR is not recognized or addressed in community policy;
- There are no policy objectives in resolving agricultural issues
- There are no policy objectives related to quality of rural lifestyle issues;
- There are few, if any, municipal bylaws specifically designed to support or enhance agricultural activity;
- There is no special treatment to protect or enhance agriculture in or outside of the ALR:
- There is no preferential treatment given to agriculture, other than lower taxes for agricultural uses;
- The goal of self-sufficiency in agriculture has been shown repeatedly to be a non-starter wherever non-agricultural activities are allowed to compete unencumbered for agricultural resources;
- The goal of local self-reliance in food production is not achievable with the loss of local farming;
- Pressure on the agricultural land base has been increased by the speculation about exclusion and potential development of ALR properties;
- In the absence of strong rural and agricultural policies and tools, land use planning tends to be more "reactive" creating the potential for spill over impacts into other areas (e.g., residential development) that may be detrimental to the community's overall rural lifestyle objectives.

In the 2006 Official Community Plan (OCP) ²⁰, the first 3 of 45 principles address agriculture specifically:

- **Principle 1**: Protection of agricultural lands is considered a strong element of protecting environmental values.
- **Principle 2**: Agriculture is an important part of the community's character and economy. Citizens value methods to enhance and protect a diversity of agriculture in Maple Ridge.
- **Principle 3**: A comprehensive assessment of the ALR is important to ensure compatibility between municipal objectives and the objectives of the GVRD and the ALC.

²⁰http://www.mapleridge.org/assets/Default/Planning/OCP/pdfs/1.0_community_context.pdf

• **Principle 24**: The community recognizes the environmental contribution made by lands within the ALR.

Section 6.2 of the OCP²¹ highlights agricultural opportunities in the District that Maple Ridge intends to pursue. The strategy is based on Maple Ridge pursuing a) agricultural economic development and b) sustainable agriculture through the following policies:

- **Policy 6-5: Collaborate with other agencies,** such as the ALC, BCMAL, and GVRD, to promote and foster agriculture.
- Policy 6-6: Develop an Agricultural Plan that a) maintains an inventory of local agricultural products and agricultural land use, b) develops and maintains a database of farm businesses and operations,) promotes leasing opportunities of agricultural land, d) promotes agricultural heritage initiatives, e) identifies appropriate land uses within the agricultural areas and at the urban-rural interface, f) promotes urban agriculture, g) recognizes the positive role that agricultural lands have on the environment, h) identifies mechanisms to assist farm operators and to protect agricultural lands (such as, creation of trusts, endowments, life-leases, i) includes and assessment of the agricultural land base, and j)develops Development Permit area guidelines to direct non-agricultural development at the urban-rural interface.
- Policy 6-7: Promote sustainable agriculture and consider the inclusion of agriculture in the District's Economic Development Strategy by a) increasing public awareness of farming values and practices, b) emphasizing the local and regional importance of agriculture, c) emphasizing the importance of preserving and supporting access to locally grown food, d) encouraging farmers to implement Environmental Farm Plans, and e) emphasizing the importance of agricultural land in the District's social, economic, and environmental values.
- Policy 6-8:Work cooperatively with senior levels of government and other agencies to promote agricultural business opportunities by a) aligning land use bylaws to permit supportive non-farm uses such as agro-tourism, bed and breakfast, and on-farm sale, b) assisting agricultural landowners to identify and develop agricultural opportunities, such as value-added, agri-tourism, bed and breakfast, recreational, c) identifying and encouraging access by agricultural landowners to agricultural programs, d) promoting the demand for, and sale of, local agricultural products within the community, such as farmers' markets, onfarm marketing, District food and plant material procurement policies, and e) developing a small lot agriculture initiative tailored to Maple Ridge conditions.
- Policy 6-9: Support the policies and regulations of the ALC and the Farm
 Practices Review Act in its land uses and review its bylaws affecting farmland
 and farm operations for consistency with provincial acts, regulations and
 guidelines.

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²¹ http://www.mapleridge.org/assets/Default/Planning/OCP/pdfs/6.0_employment.pdf

- Policy 6-10: Strive to maintain its agricultural land base in Maple Ridge through a) supporting the Green Zone, b) establishing a distinct separation between rural and urban designated areas, c) designating all lands outside of the Urban Area Boundary that are within the ALR as Agriculture, d) establishment of an Agricultural Advisory Committee, and e) striving for a balance between arming activity and conservation lands.
- **Policy 6-11: Review policies and regulations** to support and encourage small lot agriculture.
- Policy 6-12: Protect the productivity of its agricultural land by a) adopting a "positive benefit to agriculture" guiding principle in making land use decisions affecting agriculture, b) requiring agricultural impact assessments and groundwater impact assessment of non-farm development and infrastructure projects and identifying measures to off-set impacts to agricultural capability, c) preserving larger farm units by using buffers, topographic features, watercourses, ditching, fencing, or reduced residential densities on properties adjacent to agricultural land, d) discouraging subdivision of agricultural land into smaller parcels except where positive benefits to agriculture can be demonstrated, e) reinforcing the concept that the ALR is intended for agriculture by increasing the minimum lot size for ALR properties that are zoned rural residential, and f) encouraging the amalgamation of smaller parcels of farmland into larger parcels.
- Policy 6-13: Develop Development Permit Area Guidelines for the protection of farming to: a) reduce impacts on farmland and maintain compatibility between farm and non-farm uses, b) guide the form and character of future adjacent non-farm development, and c) place conditions on title to inform non-farming rural residents of normal incidents encountered when living in an active agricultural area.
- Policy 6-14: Work with the ALC to advance community services related to proposed parks in the ALR.

The agricultural components of the OCP are in the early stages of implementation. An Agricultural Advisory Committee has been appointed by Council and is guiding the Agricultural Area Planning process currently underway. Maple Ridge has provided space for a Farmer's Market and community garden.

3.2 Agricultural Trends

3.2.1 Global Agricultural Trends

Canadian agriculture and food production systems largely perform in a global market. Canada is an agricultural trading nation and needs export markets for its grains, oilseeds, beef, pork, nursery, and greenhouse vegetable products. Similarly, Canada is a food importing nation, relying on imports to offset seasonality in our own horticultural production, and to provide variety and choice demanded by consumers. Red meat products are coming into Canada from New Zealand and Australia.

While on-going World Trade Organization (WTO) negotiations (Doha Round) may or may not result in further agreement among agriculture trading nations in 2008, there

are likely to be further rounds with the objective of improving market access, phasing out export subsidies, and reducing trade distorting domestic support. However, WTO talks are becoming outdated in their scope, which does not include issues related to GMOs, carbon footprint, and crops for biofuels. Moreover, some key traders, such as the US, are increasing trade distorting subsidies.

Canada has supply managed systems for poultry and dairy production that have been facing global pressure to be dismantled. To date, these systems have been vigorously defended. Most recently, the supply managed sector has promoted the concept of food sovereignty to support its position. Food sovereignty is described as "... the right of people to determine their own food and agriculture policy, to protect and regulate agricultural production and trade for sustainable purposes, to determine the degree of food self-sufficiency, and to eliminate dumping on their markets."²²

In North America, trade has been governed by the North American Free Trade Agreement (NAFTA) among Canada, the US and Mexico since 1999. In this period, most trade barriers have been eliminated and the level of trade has increased substantially. A slowly declining tariff structure has been implemented to ease the supply managed sectors towards more liberalized trade.

Canadian food production is being increasingly exposed to competition from year round operations of much larger scale and lower cost food production systems, exacerbated by a rising Canadian dollar. Canadian products are competing with US and Mexican products in the market place even when domestic products are in supply.

Canada also conducts extensive trade with other food producing countries, such as China and South American countries. While South American markets tend to be offseason markets, China is in the same hemisphere as Canada meaning that competition is head on. Currently, a full range of products from China, including organic, are in Canadian markets at prices substantially less than domestic costs. Much of the vegetable supply for the foodservice sector, which comprises almost 50% of the food sold in BC, is currently sourced primarily from US, Mexican, Chinese and other off-shore producers.

Food security is emerging as an issue and being reflected at the international, national, regional and local level levels. Soaring global food prices in 2008, and the resulting political instability they created, have highlighted the susceptibility of the existing food system to shocks from rising input (petroleum and synthetic fertilizer) costs, diversion of stocks for non-food purposes, and competition for food and resources. The large and increasingly affluent populations of Russia, China and India will play a greater role in the global food demand.

Food safety is becoming global concern. Recently, adulteration of Chinese food products has compromised the health of consumers there and created concerns about the safety of the global food system. Bird flu risk is growing globally as the virus becomes entrenched in more countries in Asia, Africa and parts of Europe.

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 $\frac{http://www.ifap.org/en/about/documents/worldfarmerscongress/Presentation_CanadianDairyIndustry_English.pdf$

²² See

3.2.2 Canadian Agricultural Trends²³

Canada's agricultural production sector as a whole continues to consolidate into larger units, with the number of farms declining, particularly in the Prairies. Provinces with more diverse agricultural sectors, such as BC, have had much lower rates of decline. In terms of gross receipts in 2005, about two-thirds of Canadian farms reported less than \$100,000 in receipts, while 17% were in the \$100,000-to-\$249,999 receipts category and farms in the \$250,000-or-more receipts category accounted for 17.0% of farms.

In recent years, the Canadian beef sector has been significantly affected by the bovine spongiform encephalopathy (BSE) crisis. In 2003, a cow in northern Alberta was found to have BSE. The United States and 33 other countries closed its borders to Canadian beef. Operations were forced to retain their cattle and herd sizes increased until 2004 when domestic slaughter capacity started to catch up to the supply. In 2005, borders reopened to cattle less than 30 months old and the herd sizes in Canada started to decline slightly.

High feed grain prices have increased feed costs of Canadian livestock producers. This development in turn, has reduced demand from the US processors for hog and beef animals, creating further economic hardship in these sectors.

There has been substantial concern over manure management practices in Canada as a whole. In Manitoba, a government moratorium on large scale hog barn expansion continues to stir up controversy in the sector and could spread to other livestock sectors.

United States policies and programs to expand fuel production from agricultural commodities have lead to a significant reduction in U.S. grain and oilseed exports, which in turn has increased grain prices worldwide. This follows a period in which grain prices were low and input costs were high, causing a shift in many provinces from annual crops, such as wheat and barley, to lower-cost perennial forages such as alfalfa, tame hay, and improved pasture. Canada competes globally with producers in other countries for inputs such as fertilizer and petroleum.

Canada supplies virtually all of its dairy, poultry meat and eggs domestically. Improvements in production efficiencies of milk, turkey, broiler, and egg layer production has resulted in smaller animal populations generating more consumable product.

Canadian field vegetable production has been declining due to the large scale of production demanded by large suppliers to consolidated retailers and also by the inability to provide year-round high quality supply. The Canadian vegetable processing sector has been challenged by the high Canadian dollar and off-shore competition

Canadian blueberry production has expanded as result of their reputation as a healthy food choice. The area of apple and other fruit crops has been declining in response to global competition.

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²³ http://www.statcan.ca/english/agcensus2006/articles/snapshot.htm

Canadian greenhouse vegetable sector is maintaining its size, but growth has temporarily ceased. About 80% of Canadian greenhouse vegetable production is destined for the US market. The sector is facing increased competition from expanding operations in Mexico and the southern US that are carrying production into the winter months, which is bringing average prices down. The greenhouse sector has been in a good position to respond to supply shocks created by adverse weather, disease and events in the US and Mexico.

The Canadian organic sector is growing in response to public and consumer concerns about sustainability, environmental impacts, and food safety issues. In 2005, 6.8% of all Canadian farms reported growing organic products for sale. Farms producing organic, but not certified commodities outnumber both certified organic farms and farms that are in transition to becoming certified. British Columbia reported the most organic farms, followed by Ontario.

Canadian products have been challenged in export markets by a high Canadian dollar.

3.2.3 BC Agricultural Trends²⁴

Nearly a quarter of the agriculture industry's gross domestic product (GDP) is generated by the greenhouse vegetable, nursery and floriculture industry. A further 36% comes from other types of crop production. Animals and animal products account for about 20% of the industry's GDP, while aquaculture contributes another 14%. Crop and animal services generated about 7% of the industry's total GDP in 2005.

The Lower Mainland, with \$1.66 billion in farm gate receipts, generates about 63% of all farm receipts in the province. The region is known for a high diversity of horticultural production due to its mild climate. However, it does not produce grains and oilseeds, beef or hogs in quantities significant enough to meet the needs of the local population. The Lower Mainland also imports most of the feed grains used in livestock production.

The last few years have been difficult ones for BC's agriculture industry, which has faced some significant challenges. The discovery of a single case of bovine spongiform encephalitis (BSE, or mad cow disease) in Alberta in 2003 led to the complete closure of the US export market for Canadian farmers until mid-2005. BC is not a major beef-producing province, but the border closure hurt cattle producers, including dairy farmers, in this province. Birds infected with avian influenza (AI) were discovered in the Fraser Valley in 2004, leading to a massive cull of poultry flocks in the surrounding area. Although most poultry growers received compensation and cash receipts have since recovered, repercussions are still being felt in terms of new biosecurity measures and AI testing of poultry exports.

Overall, BC produces essentially all its dairy, eggs and poultry. Otherwise, BC agriculture competes globally with imports from the US, Mexico, and China, even in periods when local production is available.

^{24 &}lt;a href="http://www.guidetobceconomy.org/major_industries/agriculture.htm">http://www.guidetobceconomy.org/major_industries/agriculture.htm

Due to the seasonality of horticultural production, the provincial food supply system is characterized by significant seasonal surpluses of perishable produce, necessitating processing into frozen, canned, dried, preserved, and other products. Vegetable production has been in fierce competition with imports from the US and Mexico. The BC vegetable processing sector is small, producing products for market niches too small for large processors in the US, specializing in unique production mixes, and with versatility to change production lines throughout the year.

The berry sector (i.e., blueberries, cranberries, raspberries) is predominantly based on processing, with primary processing (cleaning, chilling, freezing) occurring at the farm and exportation of this product for further –processing at large US processing facilities and elsewhere. BC high quality strawberries face extreme competition from California strawberries in their local market. Seasonality and short harvest season limit the sector's ability to enlarge its presence in the food system.

The province has long been known for its tree fruit and berry industry, but the importance of these crops has declined over time as the focus of farming activities in the province has shifted. BC sweet cherries continue to hold valuable fresh export markets. The lack of pollination due to declining bee populations is emerging as a concern for berry and fruit crop growers.

BC vegetable greenhouses account for significant share of total Canadian production of peppers, tomatoes, cucumbers and mushrooms. Some BC greenhouse operators have expanded their operations to locations in the US. US-based Village Farms has purchased about 35% of BC's vegetable greenhouse operations.

The BC nursery sector has been robust in recent years, despite setback related to the discovery of Sudden Oak Death (SOD) in susceptible nursery plants. The sector has taken strong collective action to avoid the spread of infected plants, implemented mandatory inspection and control measures, and required BC nursery growers to certify their management practices, with follow-up independent audits.

Self-employment is very common in the BC agricultural industry. Nearly half (46%) of the people who work in agriculture are self-employed and about 75% of all self-employed workers do not have paid help. Among the farming operations with paid help, about 53% of employees in agriculture work at establishments with fewer than 20 workers. Another 33% have jobs at mid-size establishments (with 20-99 employees) and 13% work in establishments with 100-500 employees.

Labour supply is an issue in the more labour-intensive agricultural sectors, such as greenhouse vegetables, nursery, berries, fruits, and field vegetables. BC producers have made use of the Seasonal Agricultural Workers Program (SAWP) to access unskilled labourers from Mexico and most recently, Jamaica.

3.2.4 Trends in Lower Mainland Agriculture

Maple Ridge is in the Regional District of Metro Vancouver and local agriculture faces the same economic realities as most of the Lower Mainland, resulting in similar changes in agricultural crops and operations over time. These changes include:

• Intensification of livestock operations in response to economics dictated by relatively high agricultural land costs

- Construction of greenhouses to produce various indoor crops, taking advantage of BC's sunlight and climate
- Increased nursery and blueberry crops production in response to buoyant markets
- Agri-tourism, ranging from petting farms to corn mazes to bed and breakfast operations
- Increased consumer support for locally produced commodities, leading to interest in local marketing
- Consumer interest in organically grown products.

At the same time, Maple Ridge faces similar pressures and issues as the rest of the Lower Mainland. These key issues include:²⁵

- Continuing urbanization of the land base affecting the viability of agriculture
- High cost of land
- Marketing efforts tend to be under-funded and lack coordination, making it difficult to find and expand markets for produce and build awareness and demand for locally produced food
- Higher input costs, especially for fuel, energy, water
- An increasingly complex set of regulations regarding food safety, bio-security, air emission regulations and environmental standards, which are negatively affecting the economic viability of agriculture and particularly challenging for smaller farms
- Need for succession planning, human resource management, and research and development to become much higher priorities to avoid a rapid decline in our capacity to produce food
- Undermining of the future security of the food system in the Lower Mainland by the combined effect of the above issues and the uncertainty of impacts from climate change.

Among the strategies that Metro Vancouver has identified as worth pursuing²⁶ to address the key issues are:

- Strengthening the ALR
- Testing new approaches to land tenure
- Developing, with local and regional governments, plans to protect agriculture from urban pressures
- Improve access to water resources
- Work, with local governments, to limit the impact of provincial transportation infrastructure projects
- Developing effective and coordinated policies and programs to address labour availability and skills training, promote innovation, improve risk management programs and assist food security initiatives such as promoting urban and local food production capability
- Raising agricultural awareness through marketing and developing consumer links to local agricultural production.

²⁵http://www.metrovancouver.org/planning/development/agriculture/AgricultureDocs/GVRD SubmissionBCAgrPlanComttee.pdf

²⁶ GVRD. 2002. An Economic Strategy for Agriculture in the Lower Mainland. July 2002.

The role of the various local municipalities is also complicated by the growth strategy for the Regional District. There is concern that while Vancouver and some other coastal areas are densifying, other outlying municipalities are being coerced into becoming the support structure at the expense of development.

3.3 Regional Significance of Maple Ridge Agriculture

It is useful to compare Maple Ridge agriculture to other jurisdictions to gauge its significance in Metro Vancouver. In 2005, Maple Ridge represented 9.1% of the farms in the region, 3.9% of the farm area and 4.7% of the gross farm receipts (GFRs)²⁷.

The number of farms in the Metro Vancouver rose to a peak in 1995 before dropping to the lowest number since 1990 in 2005 (see Table 1). In the most recent period (2000 to 2005), the number of farms declined about 8% and most markedly in Surrey, Maple Ridge, Delta and Langley. Maple Ridge farm numbers have fluctuated with Metro Vancouver but the reduction in farm numbers since 1995 has been more dramatic.

In the 1990-2005 period, gross farm receipts in Metro Vancouver doubled (Table 5) lead by increases in Delta, with its rapid increase in greenhouse vegetable production, and Maple Ridge. In the last 5 years (2000 to 2005), Surrey and Maple Ridge have shown the largest percentage decreases in GFRs.

Farm area in Metro Vancouver has declined about 6% between 1990 and 2005. In comparison, Maple Ridge farm area has declined about 3.5%.

A measure of the productivity of Maple Ridge agriculture is provided by a comparison of the GFRs generated per acre of farm. In 2005, GFRs per acre in Maple Ridge were above the Metro Vancouver average (Table 2). Notably, Maple Ridge ranked 3rd in per hectare GFRs, only behind Delta and Pitt Meadows. As such, agricultural enterprise in Maple Ridge generates significant revenues regardless of limitations related to soils capability or climate.

Figure 1 shows that agricultural land use patterns in Maple Ridge have differed from those of Metro Vancouver as a whole, reflecting different farming realities and/or capabilities. In particular, the scale of farming is smaller than elsewhere in the Lower Mainland and this may be leading to less competitive operations. With the exception of more berry acreage, there appears to be a shift to less intensive farming activity in Maple Ridge.

Figure 2 shows a livestock comparison of Maple Ridge with Metro Vancouver. Maple Ridge shows increases in llamas/alpacas, cattle and horses, two of the categories representing non-food species.

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²⁷ Gross farm receipts are the total "farm gate" revenue from farming operations.

Table 1: Number of Farms and Gross Farm Receipts, by Consolidated Census Subdivision, Greater Vancouver Regional District, 1990 to 2005

Municipality	1990	1995	2000	2005	1990-2005	1995-2005	2000-2005
	# farms	# farms	# farms	# farms	% change	% change	% change
Langley	1,408	1,584	1,417	1,292	-8.2%	-20.6%	-8.8%
Surrey	668	744	557	487	-27.1%	-46.1%	-12.6%
Delta	188	186	196	180	-4.3%	-3.1%	-8.2%
Richmond	237	247	182	172	-27.4%	-41.2%	-5.5%
Burnaby (1)	53	54	51	54	1.9%	0.0%	5.9%
GV, Subd. A	93	118	82	82	-11.8%	-43.9%	0.0%
Pitt Meadows	171	178	132	138	-19.3%	-30.3%	4.5%
Maple Ridge	244	331	237	213	-12.7%	-49.8%	-10.1%
GVRD	3,062	3,442	2,854	2,618	-14.5%	-28.9%	-8.3%
Municipality	1990	1995	2000	2005	1990-2005	1995-2005	2000-2005
	GFRs	GFRs	GFRs	GFRs	% change	% change	% change
Langley	\$118,383,062	\$150,355,771	\$203,399,307	\$228,440,789	93.0%	51.9%	12.3%
Surrey	\$95,395,994	\$106,866,115	\$181,371,891	\$153,390,637	60.8%	43.5%	-15.4%
Delta	\$33,366,398	\$65,177,713	\$160,841,471	\$190,315,672	470.4%	192.0%	18.3%
Richmond	\$43,596,188	\$56,388,204	\$37,646,150	\$40,512,112	-7.1%	-28.2%	7.6%
Burnaby (1)	\$6,063,987	\$19,388,020	\$14,949,181	\$9,589,684	58.1%	-50.5%	-35.9%
GV, Subd. A	\$7,138,675	\$10,817,897	\$10,073,081	\$13,593,801	90.4%	25.7%	35.0%
Pitt Meadows	\$28,022,923	\$59,368,379	\$50,592,345	\$58,214,426	107.7%	-1.9%	15.1%
Maple Ridge	\$13,785,406	\$27,106,058	\$39,180,041	\$34,546,984	150.6%	27.5%	-11.8%
GVRD	\$345,752,633	\$495,468,157	\$698,053,467	\$728,604,105	110.7%	47.1%	4.4%

Source: Statistics Canada. 1991, 1996, 2001, 2006. Agriculture Census.

Notes: (1) This is an amalgamation of data from Burnaby and Vancouver Census Consolidated Subdivisions.

Table 2: Agricultural Area, by Consolidated Census Subdivision, Greater Vancouver Regional District, 1990 to 2005

Municipality	1990	1995	2000	2005	1990-2005	1995-2005	2000-2005
Acres	Farm Area	Farm Area	Farm Area	Farm Area	% change	% change	% change
Langley	34,008	33,042	35,056	32,050	-5.8%	-3.0%	-8.6%
Surrey	19,213	21,509	17,505	22,998	19.7%	6.9%	31.4%
Delta	18,599	18,641	19,372	18,582	-0.1%	-0.3%	-4.1%
Richmond	14,868	7,442	8,315	9,216	-38.0%	23.8%	10.8%
Burnaby (1)	845	1,349	722	3,453	308.6%	156.0%	378.3%
GV, Subd. A	2,023	3,372	5,877	2,723	34.6%	-19.2%	-53.7%
Pitt Meadows	13,012	7,603	7,350	7,626	-41.4%	0.3%	3.8%
Maple Ridge	4,922	4,801	3,990	4,752	-3.5%	-1.0%	19.1%
GVRD	107,490	97,759	98,187	101,400	-5.7%	3.7%	3.3%
Municipality	2005	2005	2005	2005		2005	
	# acres	% farms	% GFRS	% acres		GFR/Ac	
Langley	32,050	49.4%	31.4%	31.6%		\$7,128	
Surrey	22,998	18.6%	21.1%	22.7%		\$6,670	
Delta	18,582	6.9%	26.1%	18.3%		\$10,242	
Richmond	9,216	6.6%	5.6%	9.1%		\$4,396	
Burnaby (1)	3,453	2.1%	1.3%	3.4%		\$2,777	
GV, Subd. A	2,723	3.1%	1.9%	2.7%		\$4,992	
Pitt Meadows	7,626	5.3%	8.0%	7.5%		\$7,634	
Maple Ridge	4,752	8.1%	4.7%	4.7%		\$7,270	
GVRD	101,400	100.0%	100.0%	100.0%		\$7,185	

Source: Statistics Canada. 1991, 1996, 2001, 2006. Agriculture Census.

Notes: (1) This is an amalgamation of data from Burnaby and Vancouver Census Consolidated Subdivisions.

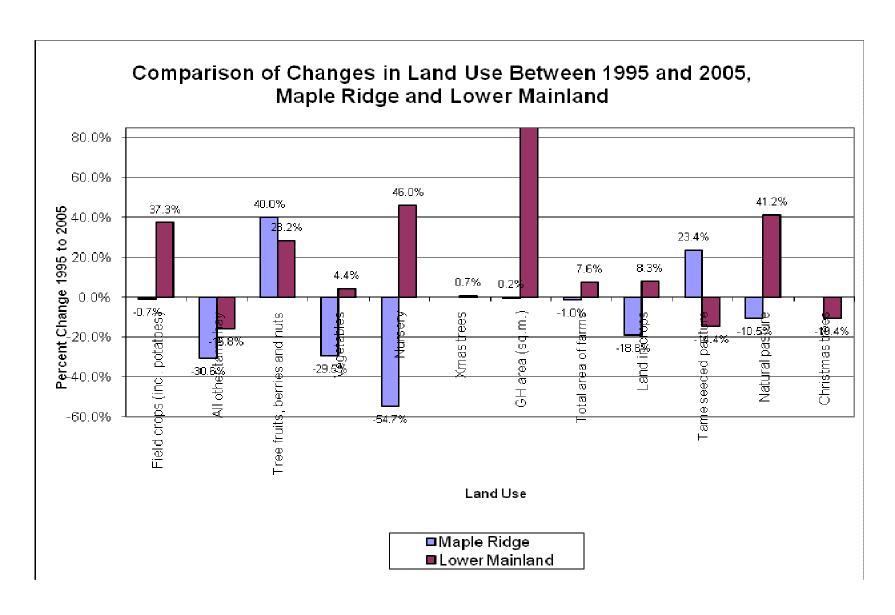


Figure 1: Comparison of Changes in Land Use Between Maple Ridge and the Lower Mainland, 1995 and 2005

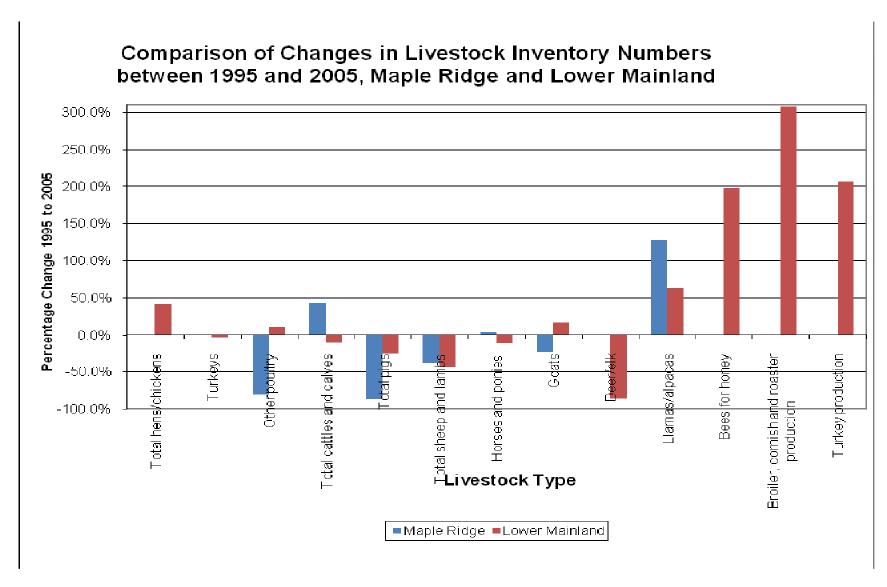


Figure 2: Comparison of Changes in Livestock Inventory, Maple Ridge and the Lower Mainland, 1995 and 2005

4.0 Update on Agriculture Resources in Maple Ridge

A review of agriculture in the District of Maple Ridge was last undertaken in 1995.²⁸ That study provided extensive detail about Maple Ridge agriculture, much of which has not changed in the interim.

Broadly defined, the agricultural resource base consists of resource and services used in the production of agricultural products. While availability of land, water and drainage immediately spring to mind, other factors such as farm services and infrastructure directly impact the ability to carry out agricultural activities.

4.1 Agricultural Land Base

Total land area in the District of Maple Ridge is 257sq. km or 25,700 ha (63,500 acres). As of December 02, 2003, total land area in the ALR = 3,848.9 ha (9,509 acres) or 15% of Maple Ridge.

The area of farms in Maple Ridge in 2005²⁹ was 4,752 acres, or 19% more than in 2000. This compares favourably with area of lands in Maple Ridge with farm class tax assessment³⁰ in 2003, which amounted to 4,485 acres. The area of land with farm tax assessment status comprised 7.5% of Maple Ridge.

However, the estimated area of land in actual agricultural use may differ, depending on the methodology employed to establish its use. Section 5.1 indicates that the area of actual agricultural use in the ALR in Maple Ridge could range between 2,196 ha and 3,277 ha, when land not in the Statistics Canada Census or assessed as farmland is included.

c. the training and boarding of horses when operated in conjunction with horse rearing.

All farm structures, including the farmer's dwelling, will be classified as residential. Properties that are taxed in the farm class category meet the land use and income requirements. Primary agricultural products must be sold each year. Crops grown for home consumption will not be considered part of farm income. Minimum income requirements are calculated as follows:

See http://www.bcassessment.bc.ca/process/agricultural forestry/classify farm.asp

 $^{^{28}}$ GG Runka Land Sense Ltd. 1995. An Official Community Plan Review Discussion Paper: Agriculture and the Agricultural Land Reserve.

²⁹ Statistics Canada. 2005 Agriculture Census.

³⁰ Farm class tax assessment is a lower tax bracket that provides a tax incentive to farm. Under B.C. Regulation 411/95 (Standards for the Classification of Land as a Farm) of the Assessment Act, a farm is all or part of a parcel of land used for:

a. primary agricultural production

b. a farmer's dwelling, or

a. \$10,000 on land less than 8,000 m² (2 ac)

b. \$2,500 on land between 8,000 m² (2 ac) and 4 ha (10 ac)

c. on land larger than 4 ha (10 ac): the operator must earn \$2,500 plus five per cent of the actual value of any farm land in excess of 4 ha.

In 2003, area of lands in Maple Ridge with farm class tax assessment³¹ amounted to 1815.9 ha = 4,485 acres; of which 3,286 acres (73.3%) is in the ALR and 1,198 (26.7%) is outside of the ALR (see Figure 4). By area, 34.5% of the ALR has farm class tax assessment status.

4.2 Soil Capability for Agriculture

Soils in the District of Maple Ridge are varied and reflect closely the parent materials (i.e., surficial geology materials) on which the soils have formed. Surficial materials are varied and 10 types or more occur. The most commonly occurring surficial materials and soils are very briefly summarized below for the various Maple Ridge ALR Subareas indicated in Figure 3, below.

The following information is based on the soil survey report *Soils of the Langley-Vancouver Map Area*³² and recent work by C&B Land Resource Consultants Ltd.³³ Details regarding soil characteristics and 1:20,000 scale soil maps are in the "*Soils of the Langley-Vancouver Map Area*" and information regarding soil management and crop production is outlined in the "*Soil Management Handbook for the Lower Fraser Valley*".³⁴

Sub-area 1 (West Maple Ridge) has surficial materials in the lowlands that are dominantly alluvial and alluvial with organic surface. On the alluvial deposits the most common soil series are Bonson, Sturgeon and Hammond. On the alluvial/organic area the major soils are Widgeon and Alouette.

e. a farmer's dwelling, or

f. the training and boarding of horses when operated in conjunction with horse rearing.

All farm structures, including the farmer's dwelling, will be classified as residential. Properties that are taxed in the farm class category meet the land use and income requirements. Primary agricultural products must be sold each year. Crops grown for home consumption will not be considered part of farm income. Minimum income requirements are calculated as follows:

- d. \$10,000 on land less than 8,000 m² (2 ac)
- e. \$2,500 on land between 8,000 m² (2 ac) and 4 ha (10 ac)
- f. on land larger than 4 ha (10 ac): the operator must earn \$2,500 plus five per cent of the actual value of any farm land in excess of 4 ha.

See http://www.bcassessment.bc.ca/process/agricultural forestry/classify farm.asp

³¹ Farm class tax assessment is a lower tax bracket that provides a tax incentive to farm. Under B.C. Regulation 411/95 (Standards for the Classification of Land as a Farm) of the Assessment Act, a farm is all or part of a parcel of land used for:

d. primary agricultural production

³² Luttmerding, H.A. 1981. Soils of the Langley-Vancouver Map Area. RAB Bulletin 18. BC Ministry of Environment, Victoria. BC.

³³ The Agricultural Land Commission (ALC) and C&B Land Resource Consultants Ltd. (C&B LRC) Data are from a currently ongoing (mid-2004) study conducted for the ALC by C&B LRC.

³⁴ Bertrand, R.A. 1991. Soil Management Handbook for the Lower Fraser Valley. BC Ministry of Agriculture and Food. Victoria, BC.

Sub-area 3 (Albion) is dominantly alluvial with organic surface. The major soils are the Hazelwood and Fairfield soils.

Sub-areas 2, 4, 5, 6, 7, 8, 9 and 10 (consisting of portions of Yennadon, Albion, Thornhill, Websters-Corner-Cottonwood, Thornhill, Whonnock, Ruskin and Ruskin, respectively) are almost entirely glacio-marine material. There are minor areas of alluvial and alluvial with organic surface, as well as some littoral beach deposits over glacial marine material or till. The principal soils on the glacio-marine material areas are Albion, Scat and Nicholson. On the coarse textured littoral beach deposits, the main soils are the Heron and Summer series.

Agricultural capability classes are usually defined as improved or unimproved ratings. The unimproved rating describes the agricultural capability class for soils without drainage and irrigation improvements; the improved rating describes the agricultural capability class for soils with drainage and irrigation improvements, regardless of whether or not improvements have been made.

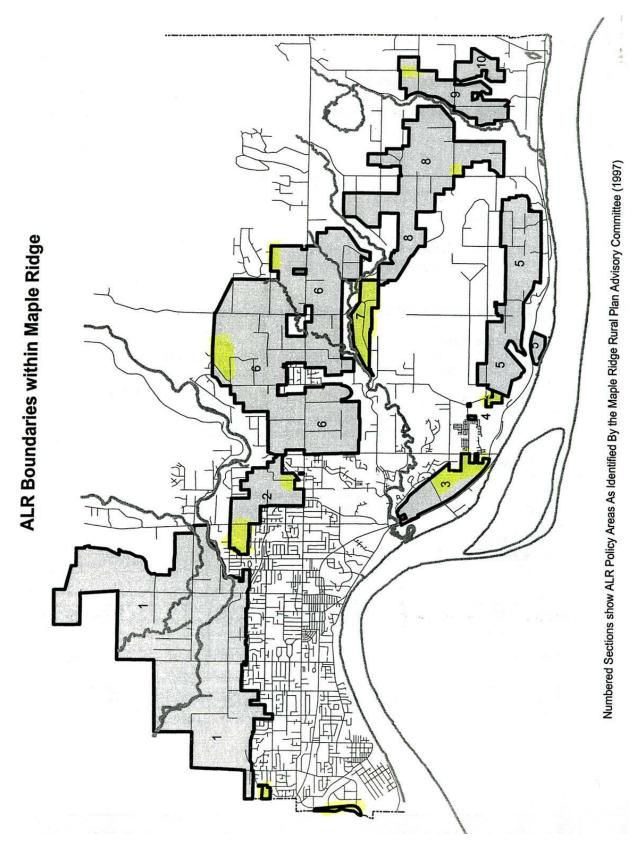


Figure 3: ALR Sub-Areas in Maple Ridge

Agricultural capability³⁵ in Maple Ridge ranges from Canada Land Inventory (CLI) Class 1 to Class 7. The soil limitations to agricultural capability are due primarily to very low permeability (impervious subsoils), restricted drainage (due to low permeability or location in undyked lowland areas), low moisture holding capacity where the surface soil is coarse textured (gravely/sandy) and topography.

In response to questions about Maple Ridge soil quality, C&B Land Resource Consultants Ltd. (LRC) in 2004 reviewed the suitability of Maple Ridge soils. Their study has provided groupings of agricultural capability ratings for the Maple Ridge ALR lands as shown in Figure 4 and summarized in Table 3. In particular, there is a category of formerly Class 3 soils that have been re-assessed as being Class 4 due to various factors, including impermability, perched water tables, and low moisture holding capacity.

Table 3: Improved Agricultural Capability of Lands in the Maple Ridge ALR

Classes 1-3		Class 4		Classes 5-7		Total
ha	%	ha	%	ha	%	ha
3496.2	90.7	260.5	6.8	96.9	2.5	3853.5

Source: Data are from a study conducted for Agricultural Land Commission by C&B Land Resource Consultants Ltd.

Note: Agricultural capability ratings are improved ratings (i.e. ratings with improvements due to drainage and irrigation, regardless whether the improvements have actually been made).

In the BC Lower Mainland, lands with agricultural capability ratings of Class 1 through 4, and sometimes Class 5, are considered suitable for inclusion in the ALR. As shown in Table 5, more than 90% of Maple Ridge land in the ALR has soils in Classes 1 to 3 and 97% of the Maple Ridge land in the ALR has soils that are classed as Class 1 through Class 4.

Reference: Kenk, E. and I. Cotic, 1983. Land Capability Classification in British Columbia. B.C. Ministry of Agriculture and Food, Victoria, B.C.

³⁵ Canada Land Inventory (CLI) Soil Capability for Agriculture Classes:

Class 1- no or only very slight limitations that restrict use for the production of common agricultural crops.

Class 2- minor limitations that require good ongoing management practices and/or slightly restrict the range of crops.

Class 3- limitations that require moderately intensive management practices and/or moderately restrict the range of crops.

Class 4- limitations that require special management practices and/or severely restrict the range of crops.

Class 5- limitations that restrict its capability to producing perennial forage crops and/or other specially adapted crops.

Class 6- non-arable but is capable of producing native and/or uncultivated perennial forage crops.

Class 7- no capability for arable culture or sustained natural grazing.

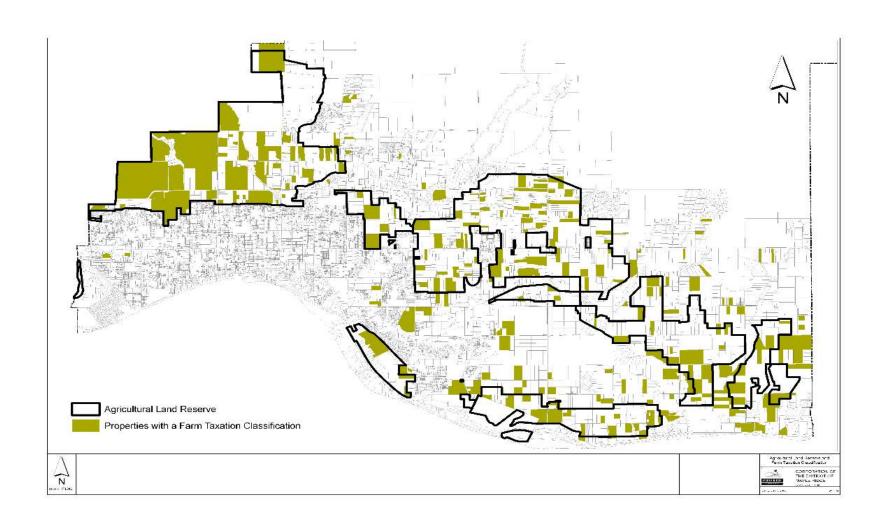


Figure 4: Land with Farm Tax Assessment in the District of Maple Ridge, 2008

4.3 Agricultural Drainage

Drainage problems in lowland agricultural areas have been exacerbated by increased upland storm flows and the deterioration of channels for drainage due to federal Department of Fisheries and Oceans restrictions on cleaning and maintenance. Rain storms in the winter 2003-2004 nearly caused massive damage due to storm water overflow and flooding from McKenney Creek. While it appears that options in the New Fraser River Crossing Project to address drainage issues related to McKenney Creek and the new connector are being worked out, the regional drainage system is in need of maintenance, upgrading and expanded capacity that would re-vitalize the drainage system serving the northwest corner of Maple Ridge and adjacent Pitt Meadows.

Agricultural drainage in the Albion Flats is problematic even though the area (subarea 3 in Figure 3 and Table 4) has drainage improvements from a dyke system in the area. Unimpeded drainage from upland development is leading to more storm water draining onto the agricultural flood plain faster with higher peak flows. In addition, elevations of surrounding non-agricultural land use in the Albion Flats floodplain have been raised relative the agricultural land. The agricultural land, with the lowest elevation, is now the recipient of the displaced storm water and not effectively served by the disrupted drainage system.

The effects of deteriorated storm water drainage system on agricultural cropping include inability to grow perennial crops due to flooding, later spring seeding, higher water tables leading to difficult field operations through the growing season, early fall soil saturation resulting in the inability to harvest crops.

Table 4: Breakout of the ALR area by Sub-Area (Rural Plan, 1997) - Includes only parcels wholly within the ALR

Sub-	# of	# of	Powerlains remark (ca)	Average parcel size			
area	acres	parcels	Parcel size range (ac)	(ac)			
1	3,043	364	1.2-173	8.52			
2	399	68	4.9-20	6.59			
3	293	44	4.9-62	6.61			
4	Excluded	from the	ALR in 1995				
5	681	119	4.9-30	7.58			
6	2,677	594	1.2-30	4.72			
7	208	45	Recommended for exclusion by ALC as residential/park (1985)				
8	1,174	174	4.9-89	7.41			
9	321	46	4.9-49	7.62			
10	157	3	20-124	25.94			
Totals	8,953	1,457		6.59			

Upland agricultural drainage has not been a major factor limiting agricultural activity. Where slopes are encountered, operators have had to pay closer attention to erosion control and the prevention of waste runoff, such as manure, from moving into water courses. In the Thornhill area (sub-area 5 in Figure 3 and Table 4), rural residential development has created localized runoff concerns for adjacent agricultural properties

in the past. In isolated situations, localized flooding has been caused by storm water flows that have been altered by roads and ditches.

In general, agriculture requires a lower standard of flood control and drainage improvements than most other non-agricultural uses to achieve beneficial impacts. Agricultural land provides public services related to its ability to use water in crop production, accommodate seasonal inundation of fields, and prevent flooding by means of dissipating storm flows. Nonetheless, agricultural land requires a standard of regional drainage and flood control to be effective for crop production, for which ARDSA criteria have been developed and established in many agricultural areas of the Lower Mainland.³⁶

4.4 Agricultural Irrigation

Agricultural irrigation was indicated on 112 hectares in Maple Ridge in 2005, or about 5.8% of the area farmed, and an increase of over 100% from 2000. In general, water demand is related to domestic livestock watering, berries and greenhouse and floriculture operations. Much of the agricultural area depends on groundwater for domestic supply. The large former silviculture operation in the northwest corner of the District was on municipal water supply.

4.5 Farm Services

There has been no change in farm services. Vanderwal Equipment, specializing in smaller scale tractors and equipment, is the only farm equipment and machinery supplier in the community and attributes about 15% of its business to the local faming sector. Farm services are obtained from other municipalities with farm sectors, such as Pitt Meadows, Abbotsford and Chilliwack. The anticipated construction of the Fraser River crossing may change where Maple Ridge farm operators acquire farm services in the future.

4.6 Agricultural Processing

A blueberry grower in Maple Ridge does primary processing of his crop for export. While there may be other on-farm processing of produce, the activity is small scale and generally not for commercial purposes.

4.7 Transportation

Translink's New Fraser River Crossing (Golden Ears Bridge) between Pitt Meadows/Maple Ridge and Surrey/Langley is almost complete. Significant traffic across the Fraser River is anticipated. The intensity of traffic from areas east of the crossing, including traffic on feeders to the bridge is expected to increase. The impact on Maple Ridge agricultural traffic is uncertain but with the continuing trends of rapid residential population growth in municipalities east of Maple Ridge and commuting to

³⁶ The regional drainage criteria for agricultural areas are: 1)To remove the runoff from the 10 year, 5 day storm, within 5 days in the dormant period (November 1 to February 28); 2) To remove the runoff from the 10 year, 2 day storm, within 2 days in the growing period (March 1 to October 31); 3) Between storm events and in periods when drainage is required, the base flow in channels must be maintained at 1.2 m below field elevation and 4) The conveyance system must be sized appropriately for both base flow and design storm flow. See http://www.agf.gov.bc.ca/resmgmt/publist/500series/535100-2.pdf

the Vancouver area for employment, all traditional road links have experienced overcapacity use and traffic congestion.

This crossing is anticipated to provide time-saving transit benefits to Pitt Meadows/Maple Ridge and make the northern terminus area of the bridge more desirable for residential and light industrial development.³⁷

³⁷ GVTA Board Meeting. 2001. Fraser River Crossing Project: Interim Summary Report. December 18.

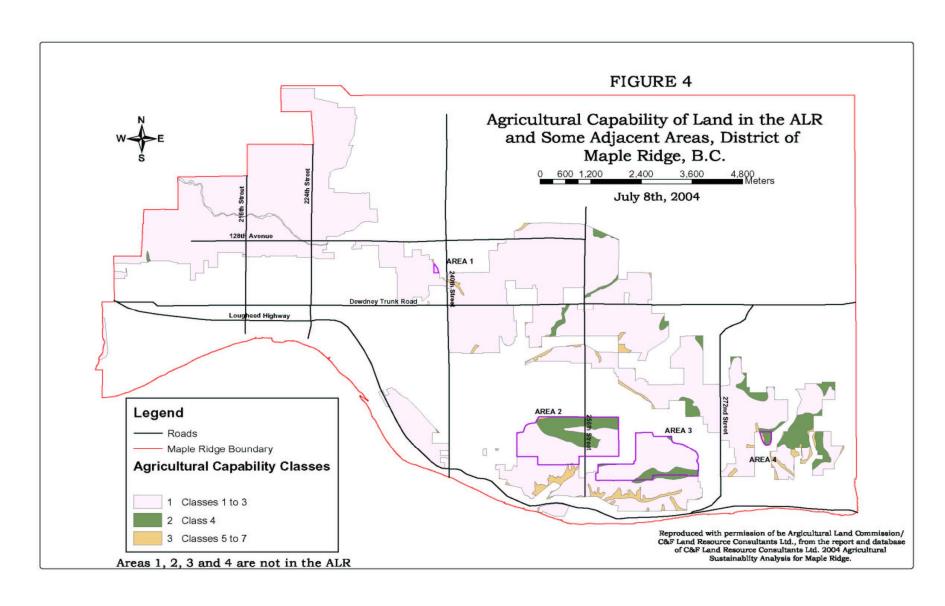


Figure 5: Soil Capability of Lands in the ALR, District of Maple Ridge

5.0 Update on Farm Characteristics in Maple Ridge

5.1 Land Use

An agricultural land use inventory of Maple Ridge was conducted by the BC Ministry of Agriculture and Lands in 2004.³⁸ While this inventory is being updated in 2008, the updated information is not available at this time.

The purpose of the inventory was to generate a "snapshot" of Maple Ridge agriculture and to document the location of agricultural land uses within the District. As expected, the 2004 inventory provides another dimension to the 2005 Statistics Canada Agriculture Census.

From the Land Use Inventory, the dominant land use in the Maple Ridge ALR is agriculture (52%), much of this attached to one family rural residential property (see Table 5). One-quarter (25%) of the ALR is indicated to be unused farmland. Note that the area of Statistics Canada farms (1,924 ha or 4,752 ac in Table 3), is about 45% of the area of the ALR in Maple Ridge.

Table 5: Primary Land Use Activities, District of Maple Ridge, 2004

Primary land use activity	Number of Parcels	% of Parcels	Total area (ha)*	% of Total Study Area	Average parcel size (ha)
Unused Farmland	614	40%	1076	25%	1.8
Agriculture	563	36%	2201	52%	3.9
Residential Use	122	8%	25	1%	0.2
Not in use	95	6%	388	9%	4.1
Hobby - Amenity Use	76	5%	127	3%	1.7
Park	30	2%	153	4%	5.1
Institutional Use	12	1%	44	1%	3.6
Land in Transition	8	1%	19	<1%	2.3
Commercial/Service Use	7	<1%	7	<1%	1.0
Unknown	6	<1%	11	<1%	1.9
Mineral extraction	3	<1%	133	3%	44.4
Recreational Use	2	<1%	27	1%	13.3
Transportation & Communications	2	<1%	<1	<1%	0.2
Utility	2	<1%	<1	<1%	0.1
Water Management	2	<1%	<1	<1%	0.5
Golf Course	1	<1%	4	<1%	4.3
Vacant	1	<1%	10	<1%	9.6
Total	1546	100	4226	100%	2.7

Source: District of Maple Ridge Agricultural Land Use Inventory, 2004

This would suggest that at significant proportion of ALR land in agricultural use in Maple Ridge is not reported in the Agricultural Census, particularly since the Census farms include operations outside of the ALR.

³⁸ See BC Ministry of Agriculture, Food and Fisheries. 2004. District of Maple Ridge Agricultural Land Use Inventory. October.

http://www.mapleridge.ca/assets/Default/Operations/Purchasing/pdfs/RFP-PLA08-067%20Appendix%20B%20-%20Agricultural%20Land%20Use%20Inventory.pdf

From the Land Use Inventory, the land area associated with horse farms is 618 ha (Table 6), compared to 333 ha in the Census. This suggests that almost half of the equine uses are not associated with farming activity reported in the Census. As such, the amount of equine use of ALR land in the District is more extensive than the statistics would indicate.

Table 6: Primary Agricultural Activities, District of Maple Ridge, 2004

Primary agricultural land use	Number of	% of	Total	% of Total	Average parcel
activity	Parcels	Parcels	area (ha)	Study Area	size (ha)
Horse farms	175	31%	618	28%	3.5
Forage and pasture operations	145	26%	548	25%	3.8
Livestock operation - type unknown	87	15%	259	12%	3.0
Extensive livestock (excl. horses)	55	10%	228	10%	4.1
Nursery operations and tree farms	32	6%	166	8%	5.2
Nursery (incl. greenhouses)	10	2%	128	6%	12.8
Greenhouse operation	14	2%	30	1%	2.2
Berry operations and vineyards	20	4%	136	6%	6.8
Miscellaneous crops	16	3%	50	2%	3.1
Poultry and game bird operations	8	1%	34	2%	4.2
Total	562	100%	2196	100%	3.9

Source: District of Maple Ridge Agricultural Land Use Inventory, 2004

In 2003, land use was identified from air photography and then "ground-truthed" by a detailed visual observation survey. ³⁹ Fourteen land use categories were identified and are shown in Figure 5. The total extent (ha) and relative extent (%) of the various land use categories in the ALR are listed in Table 7.

Table 7: Land Use in Maple Ridge ALR, 2003

Мар		Maple	Ridge ALR lands
Code	Land Use Category	(ha)	% of ALR
1	Blueberries/Cranberries	66.8	1.7
2	Pasture/Horses	732.1	19.1
3	Hay/Pasture	374.0	9.8
4	Forested	985.4	25.8
5	Environmental	43.5	1.1
6	Peat Bog	175.6	4.6
7	Golf Course	3.8	0.1
8	Christmas Trees	3.4	0.1
9	Urban	54.0	1.4
10	Gravel Pit/Industrial	25.1	0.7
12	Green House	68.1	1.8
13	Nursery Stock	16.9	0.4
14	Rural Residential	1,273.6	33.3
15	Vacant	3.8	0.1
	Total Area	3,826.1	100.0

³⁹ Data are reproduced with permission of the Agricultural Land Commission (ALC) and C&B Land Resource Consultants Ltd. (C&B LRC) Data are from a study conducted for the ALC by C&B LRC in 2004.

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Source: Data are from a study conducted for Agricultural Land Commission by C&B Land Resource Consultants Ltd.

Note: Total area is 27.4 ha less than for ALR in Table 5 as some lowland along the Alouette River is not included here

This information indicates that the most common primary agricultural land uses (horses, hay and pasture) are likely correlated with the dominant land use, Rural Residential (33%). Somewhat less than one-third (28.9%) is designated as hay/pasture, often with horses. One quarter (25.8%) of the ALR is forested. The remaining 12% comprises various other uses as listed in Table 7. Figure 7 shows graphically the geographical distribution of the various uses of the ALR in Maple Ridge.

Differences between Tables 6 and 7 are largely explained by the categorization methodologies employed in recording use. Rural residential is often accompanied by a primary agricultural use of the land and primary agricultural use is often accompanied by the presence of residences on the property. Drive-by interpretation of the significance of the agriculture observed was made in both studies.⁴⁰

In 2005, there were 213 farms in Maple Ridge.⁴¹ This represents a decrease in farm numbers of about 10% compared to 2000 and almost 36% since 1995 (see Table 8). As Table 8 also shows, the area of operating farms recovered from a dip in 2000 but declined by 1% in the 1995-2005 period.

Since 1995, the area of land in crops has decreased 18.8% while the area in tame and seeded pasture has increased 23.4%, suggesting that land use is becoming relatively less intense.

As indicated in Table 9, tame/seeded and natural pasture together accounted for about 33% of the farm area in Maple Ridge in 2005. Crops are grown on only 28.7% of the farming area.

 ⁴⁰ It is noted in the Land Use Inventory, for example, that "agriculture" was recorded if
 "...farming was the only observed use or was considered to be the most important use. "Hobby – Amenity Use" was recorded when farming was obviously on a small scale and of secondary importance to the residential use, and not likely the major source of income to the residents."
 41 Statistics Canada. 2005 Agriculture Census. This includes all farms with Maple Ridge addresses indicating at least \$2,500 annually in Gross Farm Receipts.

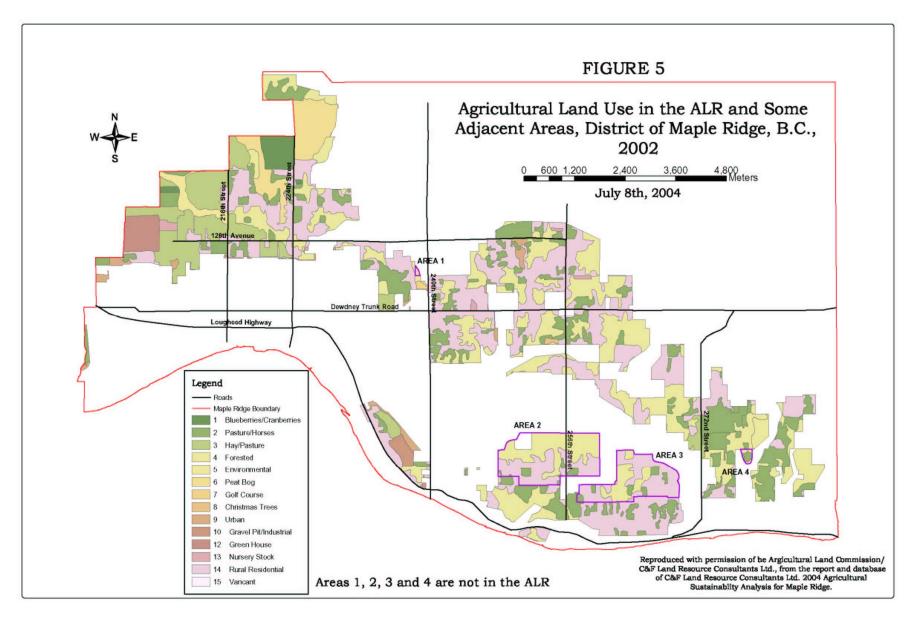


Figure 6: Land Use in the ALR, District of Maple Ridge, 2003

Table 8: Agricultural Area in Production, Maple Ridge, 1995 to 2005

Maple Ridge	1995	2000	2005	Change	1995	2000	2005	Change
	# (of farms		1995-		# of acres		1995-
				2005				2005
Field crops (incl. potatoes)					413	145	410	-0.7%
All other tame hay	45	41	32	-28.9%	901	792	625	-30.6%
Tree fruits, berries and nuts	23	26	32	39.1%	160	132	224	40.0%
Vegetables	21	11	12	-42.9%	44	43	31	-29.5%
Nursery	47	36	27	-42.6%	161	207	73	-54.7%
Sod	1	2	1		X	X	X	
Xmas trees	21	13	15	-28.6%	60	47	X	
GH area (sq.m.)	41	25	24	-41.5%	176,492	256,863	277,674	57.3%
Mushrooms	0	1	1			Х	Х	
Total area of farms	331	237	213	-35.6%	4801	3990	4752	-1.0%
Land in crops (1)	63	108	102	61.9%	1679	1319	1363	-18.8%
Summerfallow	2	3	1	-50.0%	X	4	x	
Tame and seeded pasture (2)	64	51	39	-39.1%	401	686	495	23.4%
Natural pasture (3)	161	109	87	-46.0%	1193	1036	1068	-10.5%
Christmas trees		13			59	47	Х	
All other (4)	252	169	174	-31.0%	1469	898	Х	

Source: Statistics Canada. Agriculture Census.

Notes:

⁽¹⁾ Land in crops includes all areas reported for field crops, tree fruits and nuts, berries and grapes, vegetables, nursery products and sod

⁽²⁾ Tame and seeded pasture includes land that has been cultivated and seeded or drained, irrigated, fertilized or controlled for weeds or brush

⁽³⁾ Natural pasture refers native pasture, native hay, rangeland, and grazeable bush

⁽⁴⁾ All other includes idle land, land on which farm buildings, barnyards, lanes, home gardens, greenhouses and mushroom houses are located, woodlots, sugarbush, tree windbreaks, bogs, marshes, sloughs, etc.

Table 9: Agricultural Land Use, District of Maple Ridge, 2005

Maple Ridge	2005		2005				
	# of farms	Percent	# of acres	Percent			
Field crops (incl. potatoes)			410	8.6%			
All other tame hay	32	15.0%	625	13.2%			
Tree fruits, berries and nuts	32	15.0%	224	4.7%			
Vegetables	12	5.6%	31	0.7%			
Nursery	27	12.7%	73	1.5%			
Sod	1	0.5%	x (2)				
Xmas trees	15	7.0%	Х				
GH area (sq.m.)	24	11.3%	277,674				
Mushrooms	1	0.5%	Х				
Total area of farms	213	100.0%	4752	100.0%			
Land in crops	102	47.9%	1363	28.7%			
Summerfallow	1	0.5%	Х				
Tame seeded pasture	39	18.3%	495	10.4%			
Natural pasture	87	40.8%	1068	22.5%			
Christmas trees			х				
All other (1)	174	81.7%	Х	~38.5%			

Source: Statistics Canada. Agriculture Census.

Notes: (1) All other includes idle land, land on which farm buildings, barnyards lanes, home gardens, greenhouses and mushroom houses are located, woodlots, sugarbush, tree windbreaks, bogs, marshes, sloughs, etc

(2) An "x" indicates suppressed data

5.2 Land in Crops

In the 1995-2005 period, changes in agricultural cropping patterns in Maple Ridge (Table 9) have not mirrored changes in the Lower Mainland (see Table 10). In Maple Ridge, the area of land in crops has declined over 20%. As well, there has been a shift in the types of crops grown. While crop acreage in tree fruits, berries and nuts has increased 40% since 1995, it has been offset by declines in acreage of tame hay (-31%), vegetables (-21.5%) and nursery (-55%).

In contrast, the Lower Mainland⁴² area in crops increased 8% between 1995 and 2005. The crops showing the largest increases include: greenhouse vegetables (118%), nursery products (46%), field crops (37%), and berries (28%). Acreage of tame hay declined 16%.

⁴² The Lower Mainland-Southwest Agricultural Region includes Metro Vancouver, the Fraser Valley Regional District, the Sunshine Coast and Squamish-Lillooet.

Table 10: Changes in Lower Mainland Agricultural Land Use, 1995 to 2005

Lower Mainland	1995	2000	2005	Change	1995	2000	2005	Change
	# c	f farms		1995-		# of acres		1995-
				2005				2005
Field crops (including potato	es)				37362	38729	51294	37.3%
All other tame hay	1857	1651	1312	-29.3%	64937	62612	54666	-15.8%
Tree fruits, berries and nuts		1037	1157		17491	19591	22432	28.2%
Vegetables	597	516	501	-16.1%	12748	14135	13315	4.4%
Nursery	785	766	711	-9.4%	5082	6706	7419	46.0%
Sod	31	18	24	-22.6%	1190	1089	1157	-2.8%
Xmas trees	232	190	182	-21.6%	1287	1292	1296	0.7%
GH area (sq.m.)	541	527	464	-14.2%	2,1974,314	3,9772,106	4,7824,783	117.6%
Mushrooms	98	63	45	-54.1%	2625419	2322448	2367429	-9.8%
Total area of farms	6671	5733	5410	-18.9%	271219	257907	291808	7.6%
		3686	3514	-10.9 %	138810	142862	150283	8.3%
Land in crops	3982							
Summerfallow	126	146	37	-70.6%	1696	1497	440	-74.1%
Tame seeded pasture	1409	1080	896	-36.4%	23482	19092	20098	-14.4%
Natural pasture	2503	2110	1893	-24.4%	48185	36663	68053	41.2%
All other (inc. Xmas								
trees)	5192	4236	4157	-19.9%	59046	57793	52934	-10.4%

The nursery sector has been one of the more buoyant sectors and has been appropriate for smaller farms because of the intensity of production. Cranberry and blueberry acreage has increased where adequate supply of water for flood harvesting and frost protection is available. Maple Ridge greenhouse production area and vegetable production acreage declined marginally in the period, as acreages were not large enough to support growth in commercial large-scale greenhouse vegetable or floriculture operations.

5.3 Farm Livestock

A significant proportion of Maple Ridge farms raise various types of domestic and specialty animals (Table 11). The number of livestock operators has continued to decline in the 1995-2005 period. Numbers of sheep and goats have declined while cattle and specialty animals (such as llamas and alpacas) have increased. Cattle, sheep and goat numbers have been relatively static in the period.

In the Lower Mainland (Table 12), poultry production has recovered from the avian flu outbreak in 2004 and resumed its growth in response to consumer demand for white meat. There has also been an increase in numbers of goats, llamas/alpacas, and bee hive colonies between 2000 and 2005. Cattle numbers in the Lower Mainland as a whole have declined as have numbers of horses and ponies, sheep and lambs, and pigs.

Table 11: Livestock Farming Activities, Maple Ridge, 1995 to 2005

, Maple Ridge	1995 #	2000 of farms	2005	Change 1995- 2005	1995	2000 # animals	2005	Change 1995- 2005
Total hens/chickens	114	88	70	-38.6%	66,355	267,664	Х	
Turkeys	5	9	4	-20.0%	Х	х	Х	
Other poultry	57	30	22	-61.4%	3,081	1,296	566	-81.6%
Total cattle and calves	116	62	48	-58.6%	1,509	1,608	2147	42.3%
Total pigs	24	8	4	-83.3%	123	X	15	-87.8%
Total sheep and lambs	49	34	23	-53.1%	824	800	513	-37.7%
Horses and ponies	105	76	66	-37.1%	429	521	444	3.5%
Goats	32	28	15	-53.1%	155	169	118	-23.9%
Rabbits	31	5		-100.0%	3,134	153		
Deer/elk	1	0	0	-100.0%	Х	0	0	
Llamas/alpacas	10	14	19	90.0%	44	98	100	127.3%
Other livestock	7	0		-100.0%	Х	0		
Bees for honey	7	1	6	-14.3%	12	X	X	
						Kilograms		
Broiler, Cornish and roaster production	20	23	15	-25.0%	Х	3,005,669	Х	
Turkey production	10	13	5	-50.0%	Х	Х	Х	

Table 12: Livestock Farming Activities, Lower Mainland, 1995 to 2005

Lower Mainland	1995	2000 # of farms	2005	Change 1995- 2005	1995	2000 # animals	2005	Change 1995- 2005
Total hens/chickens	1463	1487	1179	-19.4%	10901621	15799575	15476410	42.0%
Turkeys	129	149	88	-31.8%	795721	767072	767068	-3.6%
Other poultry	519	408	242	-53.4%	455838	825130	504176	10.6%
Total cattle and calves	2600	1843	1511	-41.9%	143451	127474	127701	-11.0%
Total pigs	356	235	151	-57.6%	135625	143374	100476	-25.9%
Total sheep and lambs	581	472	407	-29.9%	16106	16049	9074	-43.7%
Horses and ponies	1626	1355	1203	-26.0%	10606	10628	9331	-12.0%
Goats	360	308	248	-31.1%	4381	8116	5106	16.5%
Rabbits	228	74		-100.0%	10304	11497		
Deer/elk	15	5	5	-66.7%	1772	х	239	-86.5%
Llamas/alpacas	76	161	180	136.8%	617	1220	1001	62.2%
Other livestock	71	24		-100.0%	X	266069		
Bees for honey	143	126	161	12.6%	3409	6800	10149	197.7%
						Kilograms		
Broiler, Cornish and roaster production	409	425	366	-10.5%	88792802	143800615	362017391	307.7%
Turkey production	140	142	88	-37.1%	16309121	20627920	49997055	206.6%

5.4 Farm and Parcel Size

In 2005, over 93% of farms were less than 28 ha (70 ac). Farm size in Maple Ridge averaged 9.0 hectares, up from 6.3 ha in 2000. Note that small farms appear to have gone out of business since 2000 (see Table 13).

Table 13: Distribution of Farm Size in Maple Ridge

Acres	1990	1995	2000	2006	Percent 2006	Hectares
<10 ac		210	131	115	54.0%	<4 ha
10-69		112	96	84	39.4%	4-28
70-129		3	6	8	3.8%	29-52
130-179		1	1	3	1.4%	53-72
180-239		3	2	1	0.5%	73-97
240-399		2	1	0	0.0%	98-162
400+		0	0	2	0.9%	163+
	244	331	237	213	100.0%	

5.5 Agricultural Land Tenure

Approximately 81% of the Maple Ridge farm area was owned by farm operators in 2005 (see Table 14), a decrease from 2000. In the 1995-2005 period, the number of operators leasing farmland continued to decline.

In comparison, fewer farm operators in the Metro Vancouver leased agricultural land in 2005 (33% leased) but the proportion of leased land increased compared to 2000.

Table 14: Agricultural Land Tenure in Maple Ridge

- 44-10 - 11 1-6-10				·P-0	5						1995-2005
	1995			2000			2005			Change	Change
	# of			# of			# of				
	farms	acres	Percent	farms	acres	Percent	farms	acres	Percent	Farms	Area
Total farm area	331	4801		237	3990		213	4752		-35.6%	-1.0%
Area owned	304	3892	81.1%	224	3412	85.5%	203	3828	80.6%	-33.2%	-1.6%
Area											
leased/rented	53	909	18.9%	37	578	14.5%	35	X		-34.0%	
Lower	# of			# of			# of				
Mainland	farms	acres		farms	acres		farms	acres			
Total farm area	6671	271219		5733	257907		5410	291808		-18.9%	7.6%
Area owned	6201	201298	74.2%	5377	186738	72.4%	5122	194937	66.8%	-17.4%	-3.2%
Area											
leased/rented	1458	69921	25.8%	1385	71169	27.6%	288	96871	33.2%	-80.2%	38.5%

5.6 Farm Capital Investment Categories

Table 15 presents a breakout of farm numbers by size of farm capital investment⁴³. In 2005, more Maple Ridge farm operators reported in higher capital investment categories than in 2000. The "average" Maple Ridge farm operator appears to have a farm capital investment of about \$1,000,000 in 2005 compared to \$676,000 in 2000. It may be noted from the Table that the decline in farm numbers in the 2005-2005 period occurred particularly in the \$200,000 to \$500,000 range. This suggests the presence of a substantial value of currently idle farm capital assets.

The GVRD displays a higher proportion of farms with investments exceeding \$1,000,000 (32% Metro Vancouver vs. 19% Maple Ridge). However, the proportion of farms with investments under \$200,000 is virtually the same (5.5% Metro Vancouver vs. 5.6% Maple Ridge). Since 2000, the proportion of Maple Ridge farms with capital investment under \$1,000,000 has fallen by 10%.

Table 15: Farm Numbers by Farm Capital Category, Maple Ridge and Metro Vancouver, 1995 to 2005

Farm Capital Category (\$)	1995	# of farms	2005	Percent of Maple Ridge farmers (cumulative (2005)	Percent of Metro Vancouver farmers (cumulative 2005)
<\$50,000	6	3		0.0%	0.0%
\$50,000-99,999	8	5	3	1.4%	2.4%
\$100,000-199,999	21	8	9	5.6%	5.5%
\$200,000-349,999	70	50	16	13.1%	10.6%
\$350,000-499,999	99	69	19	22.1%	15.9%
\$500,000-999,999	102	67	93	65.7%	48.7%
\$1,000,000-1,499,999	11	14	33	81.2%	67.6%
\$1,500,000-1,999,999	14	10	9	85.4%	76.2%
\$2,000,000-3,499,999	0	11	22	95.8%	89.0%
\$3,500,000+	0	0	9	100.0%	100.0%
Total # of farms	331	237	213		

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⁴³ Farm capital investment includes value of land, buildings, machinery, equipment and livestock inventory used in agricultural production by the operator.

5.7 Distribution of Farms in Maple Ridge by Gross Farm Receipts Category

The Maple Ridge agricultural sector is comprised primarily of operators with part-time levels of farm income, although a small number of operators generate full-time revenues (see Table 16). In 2005, about 79% of farm operators grossed less than grossed less than \$25,000, annually. Alternatively, 21% of the farms exceeded \$25,000 in annual gross farm receipts. In the 1995-2005 period, the greatest decline in farm numbers occurred in GFR categories of the less than \$10,000.

Table 16: Distribution of Maple Ridge Farms by Gross Farm Receipt Category, 1995 to 2005

1770 to 2000						
GFR Category	1995	2000	2005	1995	2000	2005
	#	of farms		% of farm	s (cumulativ	/e)
<\$2,500	73	35		22.1%	14.8%	
\$2,500-4,999	125	92		59.8%	53.6%	
\$5,000-9,999	51	29	139	75.2%	65.8%	65.3%
\$10,000-24,999	38	28	29	86.7%	77.6%	78.9%
\$25,000-49,999	14	17	12	92.4%	84.8%	84.5%
\$50,000-99,999	5	12	7	95.8%	89.9%	87.8%
\$100,000-249,999	11	8	8	97.3%	93.2%	91.5%
\$250,000-499,999	5	4	7	100.0%	94.9%	94.8%
\$500,000-999,999	9	12	4	100.0%	100.0%	96.7%
\$1,000,000-1,999,999			4			98.6%
\$2,000,000+			3			100.0%
Totals	331	237	213			

In comparison, 63% of Metro Vancouver farm operators generated less than \$25,000 in gross farm receipts in 2000 and about 38% of Metro Vancouver farm operators also derive less than \$5,000 from farming activities, annually. Overall, while the proportion of farmers generating more than \$100,000 annually is higher in Metro Vancouver than Maple Ridge (23% versus 10%), the data indicate that a high proportion of part-time and hobby farming is characteristic of the whole of Metro Vancouver.

5.8 Comparisons of GFR Categories, Maple Ridge with Metro Vancouver

In comparison, 54.5% of Lower Mainland farm operators generated less than \$25,000 in gross farm receipts in 2005, annually. Overall, while the proportion of farmers generating GFRs of \$500,000 or more is higher in the Metro Vancouver than Maple Ridge (14.3% versus 5.2%), the data also indicate that a high proportion of part-time and hobby farming is characteristic of the Lower Mainland (Table 17).

Table 17: Comparison of Maple Ridge and Lower Mainland Farms by Gross Farm Receipt Category, 1995 to 2005

	Ma	ple Ridge	Metr	o Vancouver
GFR Category	2005	%	2005	%
	# of farms	Cumulative	# of farms	Cumulative
<\$2,500				
\$2,500-4,999				
\$5,000-9,999	139	65.3%	2299	42.5%
\$10,000-24,999	29	78.9%	650	54.5%
\$25,000-49,999	12	84.5%	407	62.0%
\$50,000-99,999	7	87.8%	370	68.9%
\$100,000-249,999	8	91.5%	472	77.6%
\$250,000-499,999	7	94.8%	436	85.7%
\$500,000-999,999	4	96.7%	400	93.0%
\$1,000,000-1,999,999	4	98.6%	233	97.4%
\$2,000,000+	3	100.0%	143	100.0%
Totals	213		5410	

5.9 Contribution of Maple Ridge Agriculture to the Local Community

While the best source of information on Maple Ridge agriculture is the Agriculture Census conducted by Statistics Canada every 5 years (2005 was the last Census), it is important to note that the data tends to underreport the contribution of agriculture. First, some farmers do not respond to the Census and thus, their activities are not reported at all. Secondly, data is aggregated by location of residence and some farmers in Maple Ridge reside in the surrounding area (e.g., Pitt Meadows).

5.9.1 Gross Farm Receipts (GFRs) 44

Table 18 shows GFRs by farm type; a farm type is defined as a farm deriving over 50% of its receipts from that category. In 2005, Maple Ridge agriculture generated at least

⁴⁴ Gross farm receipts include receipts from all agricultural products, marketing board payments received, program and rebate payments received, dividends received from cooperatives, custom work and other farm receipts.

\$34.5 million in GFRs. This represents a decrease of almost 12% from 2000 but still an increase of 27.5% from 1995.

In 2005, it is noted that more GFR information by farm type category has been suppressed due to the smaller numbers of participants in the sectors in Maple Ridge. Nevertheless, in the 1995-2005 period, significant increases in GFRs occurred in the following categories: other animal specialty, fruits and tree nuts, hay and other fodder crops. Horses and ponies and greenhouse floriculture receipts showed more modest increases in GFRS in the 5 year period. GFRs from beef and sheep and lambs declined significantly.

The excess of gross farm receipts over operating expenses, termed gross margin, amounted to \$4.04 million in Maple Ridge in 2005 and represented an 11.7% return to operating expenses. In comparison, farm operations in the Lower Mainland generated a return to operating expenses of 13.1%. Previously, Maple Ridge gross revenue returns have exceeded the Lower Mainland average (see Table 19).

Since 2005, a major greenhouse operation has ceased operations in Maple Ridge. As such, the GFRs generated by agriculture in the District have dropped further, possibly by as much as \$14 million.

Agri-tourism is playing an increasingly important role in Lower Mainland agriculture. The proximity of a large urban population to agricultural land and production is an untapped economic resource that is capable of supporting agricultural enterprise. Agricultural Land Commission regulations allow on-farm retail markets, processing, equine facilities, accommodation for agri-tourism, and agri-tourism activities. For small agricultural holdings, attracting customers to the farm has created unique opportunities to derive revenue from people wanting to be more informed about how their agricultural products are produced and those wanting to connect with the rural experiences that farmland can provide. The Circle Farm Tour Maple Ridge & Pitt Meadows currently includes 6 agricultural operations.⁴⁵ The economic contribution of agri-tourism activity to the community has not been estimated.

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⁴⁵ See Agri-Tourism. http://www.mapleridge-pittmeadows.com/farm_experiences.htm#sample1

Table 18: Comparison of Gross Farm Receipts (GFRs) by Farm Type, Maple Ridge, 1995 to 2005

Farm Type (1)		1995		2000	-	2005	2005		
	# of farms	GFRs	# of farms	GFRs	# of farms	GFRs	На	% Change	% Change
	iaiiis	GFRS	iaiiis	GFRS	iaiiis	GFRS	Па	in GFRs (1995- 2005)	in GFRs (2000- 2005)
Dairy	10	\$958,177	5	\$1,278,287	3	х	97		
Beef	42	\$433,455	35	\$1,554,180	23	\$1,197,998	287	176.4%	-22.9%
Hog	3	\$51,117	(2)						
Cattle & hog	na (3)	na	1						
Poultry & egg	42	\$1,310,572	35	\$5,287,248	25	x	71		
Sheep & lambs	12	\$105,244	10	\$57,294	4	\$32,145	50	-69.5%	-43.9%
Cattle, hog & sheep	na	na	1	х					
Goat	na	na	4	\$8,753	1	х			
Horses and ponies	71	\$726,103	45	\$1,314,828	44	\$1,435,953	333	97.8%	9.2%
Other animal specialty	na	na	10	\$153,044	9	\$227,672	278		48.8%
Other livestock combination	na	na	12	х	9	\$40,435	36		
Fruits & tree nuts	29	\$423,001	17	\$241,203	23	\$870,651	183	105.8%	261.0%
Hay & other fodder crops	12	X	5	\$27,011	10	\$99,782	217		269.4%
Wheat	na	na	1	X	2	X			
Vegetables	8	\$111,952	2	x	6	\$137,960	51	23.2%	
Nursery products	16	x	25	x	36	\$13,457,599	217		
Sod			1	X					
GH vegetables	7	X	4	\$756,016	2	X			
GH flowers	16	\$4,560,996	13	\$10,269,492	11	\$11,076,617	41	142.9%	7.9%
GH Other	na	na	4	\$16,925,820					
Mushrooms			1	X	1	X			
Other horticultural specialty	na	na	3	\$32,437					
All other	63	\$12,293,279	3	\$21,870	2	Х			
Apiculture					2	Х			
Suppressed (5)		\$6,132,162		\$1,252,558		\$5,970,172	63	-2.6%	376.6%
Total Notes: Na = Not available	331	\$27,106,058	237	\$39,180,041	213	\$34,546,984	4,752	27.5%	-11.8%

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Notes to Table 18:

- (1) A farm type falls into a farm type category if greater than 50% of its gross farm receipts are derived from that category
- (2) "---" refers to nil or zero
- (3) "na" refers to farm data included in "All Other"
- (4) An "x" indicates suppressed data
- (5) The row called "suppressed" refers to the gross farm receipts from farm types with an "x" in the GFR column

Table 19: Comparison of Gross Margins Generated in Agriculture in Maple Ridge and the Lower Mainland, 1995 to 2005

	1995		2000		2005	
Total GFRs	27,106,058		39,180,041		34,546,984	
Total operating expenses	23,407,618		32,904,315		30,501,689	
Surplus	3,698,440	13.64%	6,275,726	16.02%	4,045,295	11.71%
Lower Mainland						
	1995		2000		2005	
Total GFRs	1,044,151,246		1,441,145,402		1,660,504,505	
Total operating expenses	911,979,947		1,248,618,023		1,442,818,662	
Surplus	132,171,299	12.66%	192,527,379	13.36%	217,685,843	13.11%

5.9.2 Local Employment

Maple Ridge agriculture creates significant community-based employment in the District. In addition to the employment of operators of the 237 agricultural enterprises, Maple Ridge farmers in 2000 paid for 13,811 weeks of agricultural labour to a labour force numbering about 675 persons. Wages and salaries paid by farm operators totalled \$12 million.

In 2005, about 335 employees worked on 35 farms in Maple Ridge full-time. As well, total weeks of part-time employment were equivalent to about 118 person years of full-time employment⁴⁶, implying a total hired labour force of approximately 454 person years. Year-round employment on Maple Ridge farms has almost doubled since 2000 (Table 20).

Since 2005, the silviculture operation in Maple Ridge has ceased operations. The employment impact has been significant as the operation employed 110 full-time and 250 part-time workers. This represents the loss of about 32% of the full-time paid agricultural labour force in Maple Ridge.

Table 20: Paid Labour on Agricultural Operations, Maple Ridge, 1995 to 2005

	1	995	20	2000		2005		%
	# of	Change	Change					
Paid Labour	farms	weeks	farms	weeks	farms	weeks	1995 to	2000 to
							2005	2005
Total	83	9752	69	13811	72	22229		
Year-round	37	4768	36	8326	35	16428	244.5%	97.3%
Seasonal	59	4984	46	5485	48	5801	16.4%	5.8%

5.9.3 Farm Capital Value

Table 21 compares the value of farm capital investment in Maple Ridge and the Lower Mainland between 1995 and 2005. This Table reveals that farm capital investment in Maple Ridge deviated significantly from investment in the Lower Mainland in the 1995-2000 period. Specifically, Lower Mainland investment in all asset classes increased while Maple Ridge operators significantly reduced investment in land and buildings.

Between 2000 and 2005, animal inventory values declined significantly in both Maple Ridge and the Lower Mainland, in response to cattle and poultry disease outbreak. In Maple Ridge, machinery and equipment value also declined from 2000. Land and building values have continued to increase in response to general densification and competition for land in the Lower Mainland and in anticipation of the improved transportation link between Maple Ridge and points south of the Fraser River. Overall, capital value increased slightly more in the Lower Mainland than in Maple Ridge.

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⁴⁶ This is based on a conversion of 49 weeks per full-time position.

Table 21: Farm Capital Value, Maple Ridge and Lower Mainland, 1995 to 2005

Farm Capital Item Maple Ridge	1995		2000			2005	% Change in value	% Change in value
	# of farms	Value	# of farms	Value	# of farms	Value	1995 to 2000 to 2005	
Machinery and equipment	304	\$9,153,882	237	\$12,892,364	213	\$12,240,810	33.7%	-5.1%
Livestock inventory	254	2,709,361	183	4,357,467	147	2,636,324	-2.7%	-39.5%
Land & buildings	331	208,970,781	237	153,719,670	213	253,232,316	21.2%	64.7%
Total	331	\$221,194,024	237	\$170,969,501	213	\$268,109,450	21.2%	56.8%

Farm Capital Item	1995		2000			2005	% Change	% Change
Lower mainland	# of farms	Value	# of farms	Value	# of farms	Value	in value 1995 to 2005	in value 2000 to 2005
Machinery and equipment	6,312	\$393,284,580	5,733	\$520,804,269	5,410	\$575,475,456	46.3%	10.5%
Livestock inventory	4,646	216,274,623	3,858	304,276,303	3,385	230,206,068	6.4%	-24.3%
Land & buildings	6,671	5,150,303,911	5,733	5,621,005,054	5,410	10,201,398,696	98.1%	81.5%
Total	6,671	\$5,759,863,114	5,733	\$6,446,085,626	5,410	\$11,007,080,220	91.1%	70.8%

5.9.5 Home-Based Businesses in the ALR

Parcel size and municipal zoning in the Maple Ridge ALR has attracted rural residential development and contributed to opportunities to operate home-based businesses in the ALR. Many rural residents have deliberately chosen to pursue lifestyle and non-farming business interests in the ALR, some of which are not related to agriculture. The 2006 OCP contains policies that promote the ideas of more direct farm sales, on-farm value-added enterprise, bed and breakfasts and agro-tourism and recreation. As well, the 2006 OCP supports home-based business opportunities in Maple Ridge. The current Zoning Bylaw should be examined to ensure that agritourism activities within the ALR are aligned with current ALC requirements.

5.9.6 Quality of Life and Rural Character

Although the majority of Maple Ridge residents no longer have direct links to agriculture, its rural character is regarded as an integral part of the culture of the community. The 2006 OCP supports agriculture as compatible with its desired rural character

5.9.7 Environmental Benefits

The contribution that agriculture makes to environmental values in the community is recognized in the 2006 OCP. Nevertheless, agriculture carries an environmental burden in society and provides the benefit to local residents. There is room to develop innovative approaches that enable environmental values to support sustainable farming enterprises.

6.0 Agricultural Issues

In successive community plan reviews in 1985 and 1995, the Agricultural Policy Review of 2004, Maple Ridge has revisited the question of the role of agriculture in Maple Ridge. Now, in 2009, there is general consensus and acceptance that agriculture is an important component of the community's character and economy and should be protected and supported. The fundamental overriding issue is to develop an agricultural area plan that promotes and enhances the unique attributes and characteristics of Maple Ridge agricultural pursuit.

In the face of continued economic hardship in agriculture, not only in Maple Ridge but in BC and Canada, there is an urgent need for the development of approaches that manipulate Maple Ridge's unique agricultural attributes to advantage. While the vital signs of agriculture in Maple Ridge have been diminishing, there are local and international developments that suggest there are opportunities for Maple Ridge agriculture to exploit its niche as a producer of agricultural food products in proximity to an affluent and vibrant urban population demanding clean, safe, healthy food. The challenge is to identify and develop mechanisms that permit the exploitation of these opportunities to local advantage.

6.1 Confront the Agricultural Challenges

From the 2004 Agricultural Policy Review:

"The three most familiar arguments that are made for the continued conversion of agricultural properties to non-agricultural uses are:

- The land has low soil capability for agriculture
- Farming activities are compromised by surrounding residential uses and environmental concerns
- The scale of agricultural activity, a function of parcel size, is too small to be sustainable."

On the other hand, some landowners indicate that Maple Ridge lands possess advantages over other agricultural areas. The advantages include close proximity to substantial markets, favourable climate, good drainage (uplands) and drainage/water control system (dykes) and access to irrigation water.

Difficulty in addressing these dichotomies within a context that supports a Maple Ridge version of agriculture continues to create an atmosphere of uncertainty among current and potential farmers in the ALR, most clearly reflected in a decline in investment in fixed agricultural assets, such as buildings. The more indirect effect, however, is that the physical and psychological encroachment on the agricultural land base has approached a critical point, where the entire land base is being subjected to pressure from within and at the periphery by forces that have discouraged agricultural options and activities.

6.2 Economic Viability of Agriculture

Soil-based agricultural production within the entire Lower Mainland is under siege from a plentitude of imported products of comparable or superior quality selling at lower price. Given the high costs of agricultural land and lack of economies of scale, farmers may need alternate strategies to extract livelihoods from the markets, whether they are food production, recreational, tourism, conservation, or some other service demanded by residents.

6.3 Need to Develop a Vision

While there is community support for agriculture, enshrined in the OCP, there is also trepidation about the type and characteristics of agriculture that is really worth supporting in Maple Ridge.

From a traditional commercial perspective, only certain types of agricultural activity in Maple Ridge are competitive with agricultural operations in the main agricultural jurisdictions in the Lower Mainland. There are only a few areas in Maple Ridge where the parcels sizes (or potential land availability for consolidation) are large enough to support appropriately sized conventional commercial operations. And, there are only a few areas with the superior soils that would bestow a competitive advantage on Maple Ridge soil-based agriculture.

Recognizing these shortcomings should not be construed as making a case for not supporting agricultural endeavour in Maple Ridge. Rather, full accounting of these weaknesses is vital in identifying strategies that can nullify their impacts or turn them into opportunities and strengths.

Recent initiatives promoting improved local food security would integrate local food production into food distribution systems. There are significant opportunities to encourage Maple Ridge agriculture towards creating sustainable markets based on local competitive strengths. There is renewed emphasis being placed by local governments and organizations on attaining social and health objectives through improved food distribution systems that have the potential to revitalize the local food industry.

The Official Community Plan states a community desire to integrate agriculture as a contributor to the District's economic strategy. Agriculture endeavour embodies many of the attributes valued in the community, such as local business and employment, locally produced goods and services, clean industry, low environmental impact, protection of the Green Zone and environmental values, and contribution to the character of the District. However, stronger strategies need to be developed and implemented to promote these attributes in the agricultural sector, including supporting agricultural initiatives, investing in infrastructure, and improving conditions for working agriculture.

Agri-tourism is a marketable aspect of Maple Ridge agriculture. Opportunities could include attracting consumers to local farm markets, direct farm marketing, U-picks, providing gardening opportunities, bed and breakfasts, riding stables, and volunteer labour contributions on farms.

6.4 Protect the Agricultural Land and Resource Base

In the face of strong ongoing competition for land and other limited resources for residential, industrial, commercial recreational and institutional uses in the lower mainland, protection of the agricultural land base is a fundamental requirement for a sustainable agricultural industry. This fact was recognized with the creation of the agricultural land reserve and has been supported by every successive government since.

At issue for some landowners is whether their land and their neighbours' is going to remain agricultural or whether it is a land reserve for urban expansion. The issue is how to create the land base stability that will encourage would-be agricultural entrepreneurs to invest in agriculture. A corollary of this theme is being able to reduce the speculation rampant in rural areas so as to make land more affordable for agricultural enterprise.

Figure 6 shows the history of land exclusion from the ALR in Maple Ridge from 1974 to 2000. Figure 7 presents the record of land exclusion applications between 1999 and 2003. Figures 8 and 9 indicate land exclusion applications in the 2003-2004 period and between 2004 and 2008, respectively. It is clear from the Figures that the ALR in Maple Ridge has gone through significant alteration since its inception and that pressure on the agriculturally designated land base continues to the present day.

In 2008, some of the highest agricultural capability land in Maple Ridge is also under the greatest threat. In the northwest of the municipality and at Albion Flats, increased urban storm water runoff and degraded regional drainage infrastructure are compromising on-farm soil drainage. As well, both areas are at risk of losing further acreage due to competing non-farm demand for land. This situation is especially problematic for advocates of local agriculture in that, if the best land cannot be protected and enhanced for agriculture, the prospects for other agricultural areas of the municipality may appear more unfavourable.

Maple Ridge also has a significant amount of farming that occurs outside of the Agricultural Land Reserve, amounting in area to about 24% of all the land farmed in the District. There are decisions to be made about the extent to which measures and policies should be developed for agricultural land and operations both inside and outside the ALR.

6.5 Quality of the Resources for Agriculture

6.5.1 Drainage

Regional and on-farm drainage improvements are essential in most parts of the Lower Mainland to increase the range of crops and opportunities on agricultural land. Drainage is also a significant issue in the agricultural lowland of Maple Ridge. Contributory reasons include capacity of the system, age of improvements, deterioration of maintenance, alterations by transportation projects, and fish habitat concerns. Although the northwest agricultural area pays a drainage tax to Pitt Meadows, the standard of drainage remains inadequate for intensive agricultural use, particularly as the catchment area requiring draining has expanded and the need for a storm water outlet for properties not in the lowlands has increased.⁴⁷

In the Albion Flats, regional drainage works have also deteriorated. It is not known if recent upgrades to the dykes and pump station of the Maple Ridge/Albion/Road 13 Dyking District have contemplated the potential need for improved agricultural drainage.

6.5.2 Access to Water for Irrigation

Access to water is an issue where the access to groundwater for irrigation is unreliable, such as in the more hilly areas of Maple Ridge. As well, storm water entering the lowlands from adjacent urban development may contain pollutants making it unsuitable for food crop irrigation. Provision of irrigation water is an essential factor in improving Maple Ridge agricultural capacity and will require planning for sources (e.g., municipal water, ditch water) of suitable quality water in sufficient quantity to meet future production needs.

6.5.3 Land Capability

Land capability for agriculture is classed according to the range of crops that can be grown. It is a function of soil characteristics and climate.

Maple Ridge lands are endowed with a mild climate, long growing season and adequate rainfall during most of growing season. The climate is among the best for crop production in British Columbia and Canada.

⁴⁷ See description of the system on the City of Pitt Meadows website. http://www.pittmeadows.bc.ca/EN/main/residents/2897/1671.html?zoom_highlight=dykes

In the British Columbia Lower Mainland of British Columbia lands with agricultural capability ratings of Class 1 through 4, and sometimes Class 5, are considered suitable for inclusion in the ALR. Classes 1, 2 and 3 are considered prime agricultural land in British Columbia.

Ninety percent of the Maple Ridge ALR lands are classed as prime farmland, i.e., improved land capability classes 1, 2 and 3. The improved ratings are the ratings achieved with improvements such as irrigation, drainage and stone removal, regardless of whether such improvements have or have not be been made (the ALC generally considers improved ratings when adjudicating applications for changes to the ALR)

6.5.4 Soils Management

Although the ALR lands in Maple Ridge have a very high proportion of prime farmland, soil quality is often perceived as inferior to ALR lands in other Lower Mainland agricultural municipalities. This is due in part that Maple Ridge has a higher proportion of soils that are more complex to manage. The soil limitations to agricultural capability are due primarily to very low permeability (impervious subsoils), restricted drainage (due to low permeability or location in undyked lowland areas), low moisture holding capacity where the surface soil is coarse textured (gravely/sandy), and topography.

Maple Ridge soils can and are being managed to achieve successful agricultural production. Other soil management requirements include erosion control, organic matter additions, (i.e., manure and compost), fertility improvements (i.e. fertilizer and organic supplements), and irrigation.

6.5.5 Agricultural Infrastructure

There is also the issue of the adequacy of other infrastructure, such as roads, to support agriculture. The Abernethy Connector, for example, could be made more accessible to farm traffic by expanding to four lanes, so that farm traffic could use the slower outside lane.

6.6 Rural-Urban Interface Conflicts

Previous studies in the District of Maple Ridge and the OCP recognize the potential for rural-urban conflicts, particularly along the boundary between residential areas and farms. Issues can include smells from manure, noise from cannons used to discourage birds in berry growing areas, lighting from greenhouse operations, increased drainage runoff from urban development on lowland farms, increased road use in rural areas leading to interference with farm machinery, new transportation and utility corridors through farm areas leading to fragmentation and disruption of farming activity, increased recreational use along the edge of farm land leading to potential trespass and vandalism of farm property. All these issues have the potential to make it much more difficult for existing farmers to farm and may discourage new farmers. These issues can also lead to greater pressure to exclude land from the ALR for non-farm uses.

Several municipalities where agriculture is an important activity have implemented policy tools to address these urban-rural interface issues. Two primary tools that have been used include Development Permit Areas (DPA) and Farm bylaws. The provincial Farm Practices Protection Act (right-to-farm) provides a number of tools to allow farms to operate using normal farm practices without unwarranted nuisance claims about agricultural sights, sounds and activities.

6.7 Regulation of Activities on Small Farm Lots

Small agricultural lots face more challenges in terms of land use than do larger agricultural holdings. Given the fact that small lots are likely to continue to exist, the issue is whether changes can be made in zoning and regulation can be made in land use favouring agriculture without compromising the environment or community values.

6.8 Getting Rural Land into Production

Generally, on rural residential zoned property, agriculture is a secondary consideration although some agricultural uses are permitted. Property owners are usually seeking a rural lifestyle and their properties happen to be in the ALR. While most rural residents may support retaining their property in the ALR as a means of retaining the "rural quality" of their neighbourhoods, many of them do not actively "farm" their property as a means of generating income and have no intention to do so. Because of the varied historic zoning within the ALR area, there is often the perception that agriculture is not the primary use of the area and expectations for non-agricultural property development do result.

To reduce speculation of rural residential (RS 3 zone) properties within the ALR, consideration should be given to increasing the minimum parcel size for this zone to 2 hectares. This zone also allows for an accessory employee residential use. This should not be interpreted by property owners as an automatic right to be issued a building permit. Demonstration of an agricultural use requiring an employee residence should be provided. Residentially zone properties with farm status may also require the use of a commercial vehicle for conducting agriculture and should not be restricted as they are currently under the current Zoning Bylaw (3510).

The terms "agriculture" and "farming" are typically reserved for full-time commercial agricultural operations. However, Maple Ridge agriculture is also comprised of land uses such as part-time and hobby farming, on-farm processing, not-for-profit growing and selling of food and flowers, horse boarding, etc. These operations have needs and requirements that have not been clearly articulated to date. Support for these types of agricultural land uses and related infrastructure may be anticipated to also bring currently unused lands into agricultural use.

The rationale for local agricultural activity is undergoing conceptual change as governments and consumers are beginning to express concerns about the availability of local food production, food security, and food quality and safety. In this respect, revival of food production in the District is arguably one of the best ways in which community food security goals may be pursued. As such, there may be more appetite among decision-makers today to provide the necessary conditions for working agriculture to be viable.

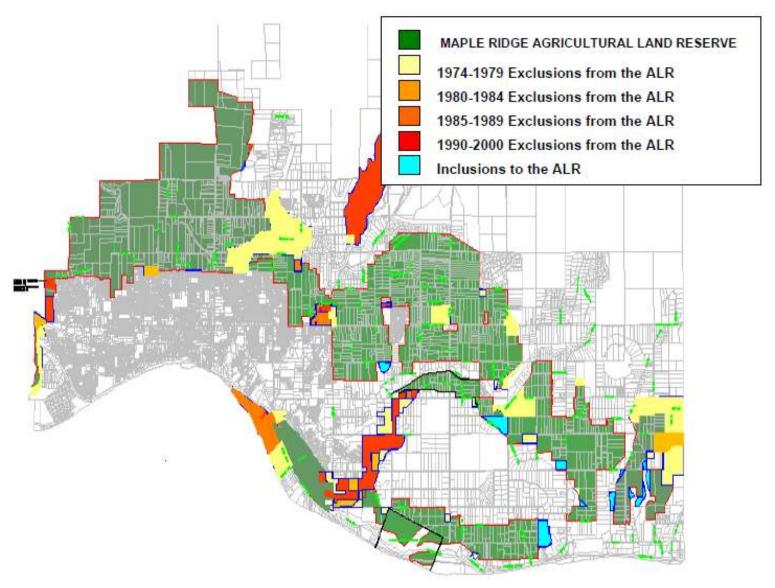


Figure 7: Land Exclusions from the Agricultural Land Reserve, District of Maple Ridge, 1974 to November, 2000

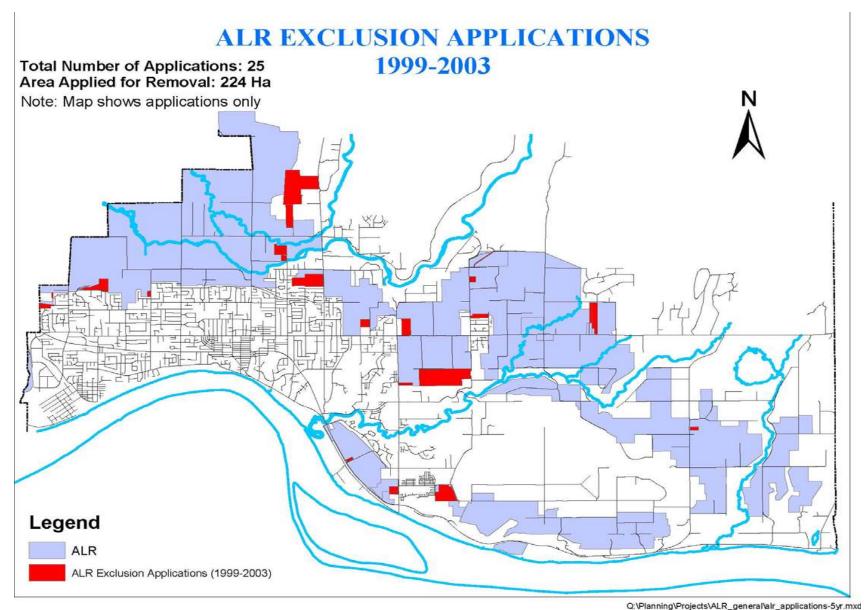


Figure 8: ALR Exclusion Applications in the District of Maple Ridge, 2000 to 2003

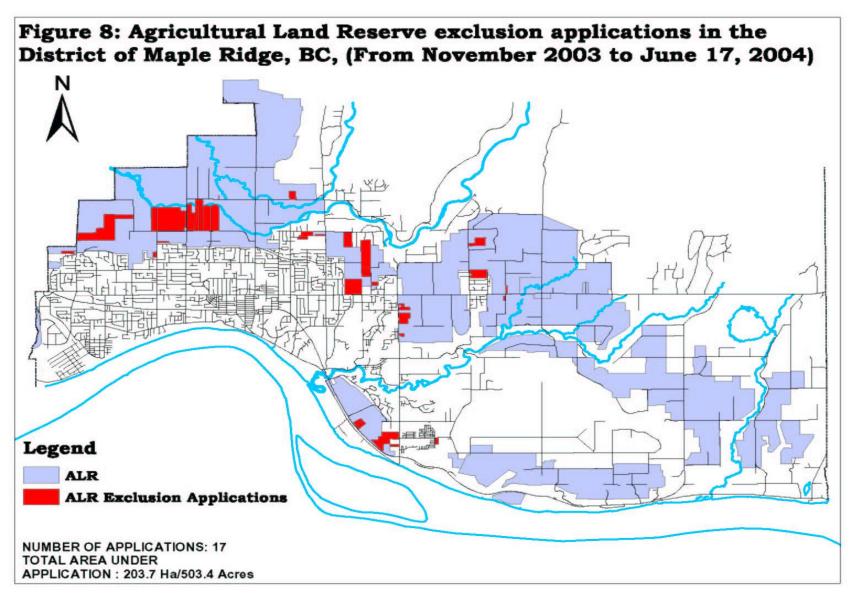


Figure 9: ALR Exclusion Applications, District of Maple Ridge, November, 2003 to June 17, 2004

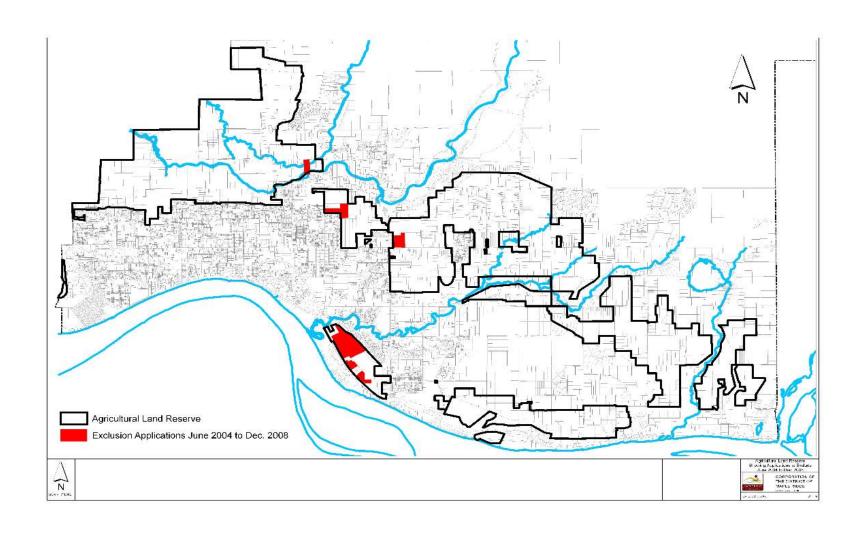


Figure 10: Exclusion Applications, District of Maple Ridge, June, 2004 to December, 2008

6.9 Conservation Covenants/Encroachments on Agricultural Land

ALR lands and non-ALR agriculturally designated lands are considered Green Zone lands within the GVRD Liveable Region Plan, providing a range of amenities to the community and the region. These include "open space", aesthetics, views and fish and wildlife habitat. Agricultural lands in Maple Ridge are no exception. They provide important benefits. The issue is to make conservation lands available for appropriate agricultural uses, particularly small lots in ways that do not diminish conservation value.

There may also be an opportunity for the District of Maple Ridge, the farming community, and senior agencies to enter into agreements that are beneficial to all parties as has occurred in other areas of the Lower Mainland, such as the Delta Farmland and Wildlife Trust (DFWT).⁴⁸

There also is a concern from conservation interests that existing agricultural resources not being used in a sustainable fashion by some farm operators.

6.10 Agricultural Transportation System

Like many other municipalities in the GVRD, Maple Ridge's transportation issues tend to be defined in relation to strong residential population growth, demand for transportation infrastructure to facilitate the commute to business or work (often not in the local community) and attraction of industry. In addition, Maple Ridge's transportation situation is further aggravated by the physical configuration of the community, pattern of historic road development, major barriers to movement such as the Fraser River and topographical features.

In the face of these challenges, agriculture has also been significantly affected: directly, with the land used for transportation rights-of-way and indirectly, on farming operations due to changes in local access to fields, services and markets.

Options for dealing with agricultural transportation issues have not been incorporated in current transportation projects. In particular, the Abernethy connector would be more accessible to farm operators if it were expanded to four lanes to allow for the movement of slower moving farm traffic.

6.11 Agricultural Waste Management

Not all farm operators have sustainable options for disposing of their agricultural wastes in the long term. Strategies are required to integrate agricultural waste disposal in ways that do not cause environmental impacts and also provide benefits to the agricultural sector.

⁴⁸ The DFWT works in partnership with farmers and conservationists to the preserve farmland and associated wildlife habitat on the Fraser River Delta through sustainable farming and land stewardship. Programs to enhance agricultural resources and wildlife habitat include grass setasides, cover crops, field laser-levelling, and field margin habitat. See http://www.deltafarmland.ca/index2.html

Agricultural waste from livestock operations can and should be used in horticultural operations as a source of nutrients. For instance, poultry manure from a local turkey farm is distributed locally as soil conditioner and fertilizer, beef feedlot manure is being applied to crop lands, and horse manure is incorporated in local vegetable farms. Within the context of using sustainable farming practices, such beneficial uses could be allowed and promoted.

7.0 Selected References

BC Ministry of Agriculture, Food and Fisheries. 2004. District of Maple Ridge Agricultural Land Use Inventory. October.

Bertrand, R.A. 1991. Soil Management Handbook for the Lower Fraser Valley. BC Ministry of Agriculture and Food. Victoria, BC.

C&F Land Resource Consultants Ltd. 2004. Agricultural Sustainability Analysis for Maple Ridge. Report prepared for the Agricultural Land Commission.

GG Runka Land Sense Ltd. 1995. An Official Community Plan Review Discussion Paper: Agriculture and the Agricultural Land Reserve.

Kenk, E. and I. Cotic, 1983. Land Capability Classification in British Columbia. BC Ministry of Agriculture and Food, Victoria, B.C.

Liveable Region Strategic Plan Implementation Agreement. 1996. "An Agreement between the Greater Vancouver Regional District and the Agricultural Land Commission on Supporting Agriculture in Greater Vancouver and the Liveable Region Strategic Plan". October 12.

Luttmerding, H.A. 1981. Soils of the Langley-Vancouver Map Area. RAB Bulletin 18. BC Ministry of Environment, Victoria. BC.

Rural Plan: Final Report. 1997. Recommendation of the Rural Plan Advisory Committee. Maple Ridge. December.

Statistics Canada. 1991, 1996, 2001, 2006. Agriculture Census.

Zbeetnoff, DM and M McPhee. 2004. Maple Ridge Agricultural Policy Review. Report prepared for the District of Maple Ridge.