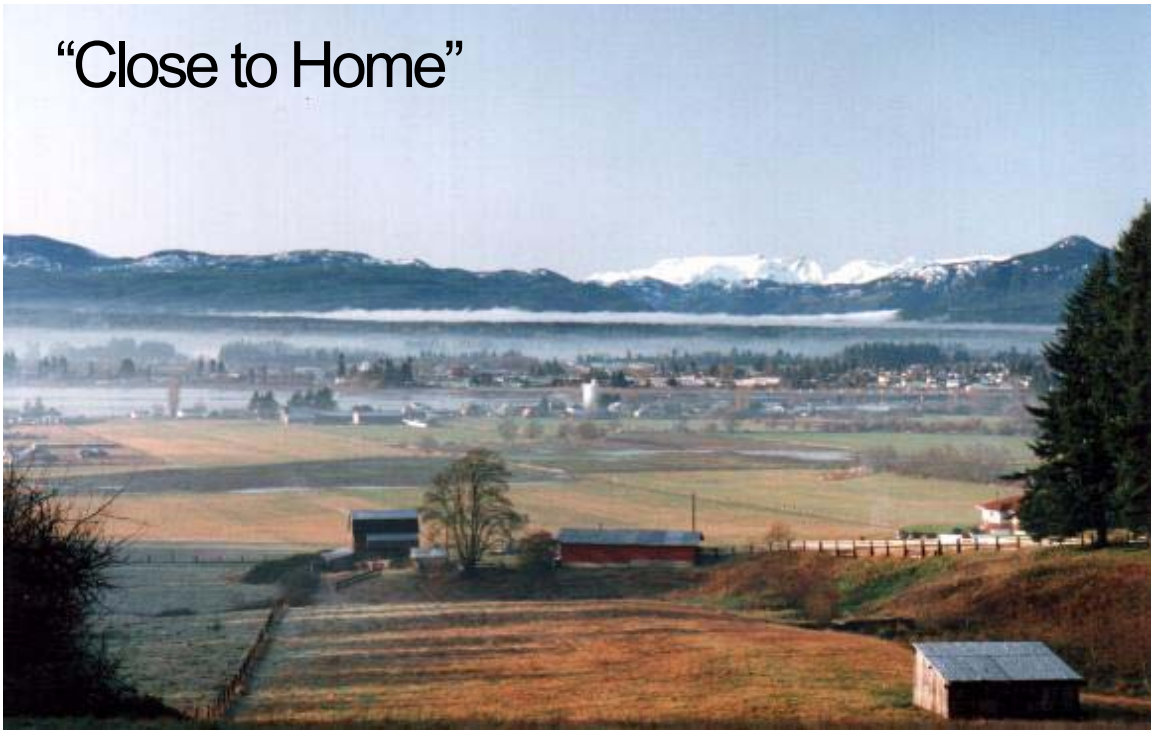
Comox Valley Agricultural Plan:

Phase 1: Report 1 - History and Resources



Prepared for:

REGIONAL DISTRICT
Comox-Strathcona

December 16, 2001 (Updated July 28, 2002)

Prepared by:

Qu'West Consulting Services
George Penfold , MCIP

From the Ground Up
Gary Rolston P.Ag.

GroundWorks Strategic Marketing Solutions
Paul Guiton

Comox Valley Agricultural Plan
Phase 1: History and Resources

Table of Contents

LIST OF FIGURES

Comox Valley Agricultural Plan - Phase 1: History and Resources

1. Introduction

1.1 Background: Agriculture in BC and Canada

The agricultural sector in the Comox Valley, the province and Canada has changed dramatically over the last 50 years. Technology, consumer demands, new crops, marketing structures, reduced profit margins, threats to the resource base from urban and other development, trade, environmental, and agricultural support policies and programs and a host of other factors have radically transformed the industry. While the "family farm" is still held as the "ideal" for the industry, the forces of change noted above have pushed much of the industry into an agro-industrial model that emphasizes large, highly mechanized, globally competitive "factory" farms. While many farms may remain family-operated, the legal structure of the farm is evolving. An increasing number of farms (37% in 1996) were registered as partnerships or family corporations.[1] At the same time, the small farm sector has continued to survive based on combining farm and off-farm incomes. In 1996, only 8% of Canadian census farm families received more than 3/4 of their income from farming[2].

Table 1: B.C. Agriculture, Fish and Food Trade Balance ($million)

	1997	1998	1999	2000
Total Exports	$1,883	$1,971	$2,090	$2,226
Total Imports	$2,582	$2,830	$2,843	$2,987
Trade Balance	-$700	-$858	-$754	-$760

Source: Industry Canada, Stategis: product codes HS1 – HS24[3]

Although Canada is a net exporter of agriculture and fisheries products at a level of approximately $9 billion in 2000, B.C. has not fared as well in the global market. Approximately 7% of the Canadian gross agricultural production comes from B.C.,[4] but the provinces'' annual trade deficit in agriculture, fish and food is in the order of $750 million annually. (See Table 1)

The agricultural trade balance on Vancouver Island is in even a greater deficit. The provincial government estimates that only 10% of the value what is consumed on the Island is produced here[5]. There are many possible reasons for this relative imbalance on Vancouver Island. Costs associated with being an Island, distribution systems, marketing structure and policies, land and water resources, climate, consumer preferences and other factors affect Island agriculture. Whatever the causes, the consequence is that there is a significant import replacement opportunity for Vancouver Island agriculture.

1.2 Goals and Objectives of This Study

In February 2001, the Regional District of Comox-Strathcona (RDCS) formally initiated the process of preparing an Agricultural Plan for the Comox Valley. In the Terms of Reference, the Goal of this Agricultural Plan is:

"to further the development of socially, culturally, environmentally and economically sustainable farming"

[1] http://www.cfa-fca.ca/farms-e.htm
[2] http://www.uni-marburg.de/geographie/virtual/english/canada/module/m2/u8.htm
[3] http://strategis.ic.gc.ca/sc_mrkti/tdst/engdoc/tr_prod.html
[4] http://www.agr.ca/policy/epad/english/pubs/chrtbook/jun99/all.pdf
[5] http://www.cse.gov.bc.ca/Publicinfo/newsreleases/nrs99/088nr99.htm

- The planning process has two Phases. This document is the result of Phase 1 of the study process. The Goal of Phase 1 is to develop an information base and a common understanding of the issues and opportunities facing agriculture in the study area. The focus of Phase 2 will be to develop strategies that address these issues and opportunities. The planning area includes Electoral Areas A, B, C and part of Electoral Area D (the UBC research farm at Oyster River), of the Comox Strathcona Regional District (See Map 1.)

The objectives of Phase One of the planning process are:

- To create a profile of local agriculture that defines the current state of the agricultural industry and use of agricultural resources within the plan area.
- To determine the issues and opportunities for development of the local industry, and
- To determine the impediments to development of the agriculture industry in the plan area – including those related to planning and the regulatory environment.

1.3 Assumptions

The emphasis of this planning process is not on adjustment to international trade policy, global market concerns, or other large-scale national or provincial policies. Provincial or federal issues may be identified, but resolving these issues is beyond the control of local individuals or organizations. Regional, provincial and national organizations are best equipped to address those concerns. Other national and global issues such as global warming, related issues, ocean warming, ozone depletion, and land claims are also beyond the scope of this project.

The premise of this planning process is that the focus should primarily be on local and regional agricultural development and marketing opportunities (i.e., Comox Valley and Vancouver Island), and on resolving those issues or obstacles that stand in the way of development of those opportunities. In this context, agriculture is intended to include agroforestry and land based aquaculture, but does not include mariculture. Although discussion will include comment on agroforestry, the planning focus will be on more traditional agricultural production. A Forest Sector Strategy was completed for the Comox Valley in 1997 by The Group of Four, and Westland Resource Group.

Between 1991 and 1996, the number of census farms in the Region grew by 12 farms and a total of 1,042 ha. The number of farms grossing more than $2500 grew by 71 to a total of 368. Most of this positive change has been in the small farm sector, and it is this momentum that the Agricultural Plan should support. Small farm agriculture also relies heavily on local marketing, which this Plan should also support. The emphasis of this Plan will be on taking advantage of the opportunities, and addressing the issues that are “close to home.”

The economic importance of agriculture to the Comox Valley is significant. Recent studies show that for every direct job in agriculture, 2 additional jobs are created in the local economy in support services to the industry, and in the processing and marketing of agricultural products. In addition, for every dollar generated in agriculture, and additional 2 dollars in generated in the local economy. (http://www.ofa.on.ca/aglibrary/Research/econmic%20impact%201) In the Comox Valley this means that although agriculture is only 3% of the labour force, the “multiplier” effect means that approximately 9% of the labour force directly related to agriculture. It also means that for every additional job in primary production, there may be an opportunity to add two additional related jobs. Development of the local agricultural sector presents a real economic development opportunity that is not tied to global trade agreements, or other factors that affect the stability of other sectors.

The links between agriculture and the environment are also important. For example, the link between agricultural land use management and water quality and quantity for salmon are significant,

and although there is still much to be done in this regard, much has already been accomplished in areas such as Black Creek and Little River to improve fish habitat. Similarly, much of the areas ability to support the over wintering of trumpeter swans depends on farm fields and pastures.

Finally, the quality of food products on Vancouver Island and the Comox Valley, and its relative freedom from pesticides and GMO content presents both a quality of heath and lifestyle opportunity that few other areas of Canada can so easily or economically enjoy.

The local emphasis for this plan will mean that current social, economic and environmental links between agriculture and the community will have to be recognized and new links established if change is to take place. Both the agricultural sector and the "consumer" community will have to be involved in developing a stronger agricultural sector in the Comox Valley.

1.4 Approach

This report has been generated using a number of research methods. First, the overall project has been guided by a Steering Committee with representatives from the Comox Strathcona Regional Board, regional planning staff, the BC Ministry of Agriculture, Fisheries and Food, The Land Reserve Commission, the Island Farmers Alliance, the Comox Valley Farmers' Institute, the Agricultural Advisory Committee, the Comox Valley Farmers Market and rural landowners. Much of the data has been collected from available reports and studies as noted in the footnotes.

The second Phase 1 Report - Issues and Opportunities, presents some specific challenges for Phase 2 of this project. These challenges were identified both from other studies and reports as well as from a series of focus groups held in the study area.

The first section of this report outlines some of the general issues that face Comox Valley agriculture including trade and marketing and policy and program concerns. The remainder of the report describes the current state of the local industry in terms of the resources available, and how those resources are currently used.

Map 1: Regional District and Comox Valley Study Area

2. Regional Context

2.1 History of Agriculture in the Comox Valley[6] [7]

"Monster potatoes, onions as large as Spanish ones, parsnips, wheat and oats full headed, and sound turnips – splendid butter and milk are products of this most beautiful Valley"

Dr. Robert Brown, 1864

The Comox Valley was known as "place of abundance" by the local Komoux First Nation, who lived here for centuries before European explorers arrived. The Valley was rich in fish, game, and plants that were staples of their culture.

In 1860, Richard C. Mayne navigated the lower reaches of the Courtenay River and noted "large prairie areas…covered with long grass and fern…soil that did not want for water…" Within 3 years, some 60 settlers had moved to the area and 'staked their claim' on over 7500 acres of land. These pioneers were drawn to the Comox Valley by the fertile soils and favourable climate. Many of their writings refer specifically to the productive agricultural soils in the low-lying areas near the ocean. The 1894 census reported a total of 12,365 acres owned in the Comox Valley and on Denman and Hornby Islands. Only 1,817 acres were cleared, with 1,340 acres as pasture or hay meadows.

Figure 1: Early Agriculture in the Comox Valley

By 1900, farmers in the Comox Valley produced: grain, silage corn, milk and other dairy products, beef, sheep, hogs, poultry (meat and eggs), peas, potatoes, tree fruits (apples, pears, plums and prunes).

Dairying was the main agricultural sector with product being shipped to Nanaimo and points south. In March 1901, a group of farmers met and agreed to establish a co-operative creamery that became the 'Comox Creamery'. By 1920, there were 2,700 milking cows in the Valley and revenues at the Comox Creamery had climbed to $250,000.

The Creamery operated until 1968 when the remaining members voted to join the Fraser Valley Milk Producers Co-operative Association (Dairyland).

Livestock, dairy and forage production are still the main agricultural activities in the study area. Fruit and vegetable and other specialized small farm production activities are also part of current activity and are growing. Chapter 5 of this document provides further details of the current state of the industry in the Comox Valley. A detailed history of the agriculture industry in the Comox Valley can be found in "Land of Plenty – A History of the Comox District", D.E. Isenor, W.N. McInnis, E.G. Stephens, and D.E. Watson, Campbell River: Ptarmigan Press, 1987.

[6] 1903 Year Book of Agriculture, J.A. Halliday, treasurer of the Comox Agricultural Association

[7] Land of Plenty - A History of the Comox District", D.E. Isenor, W.N. McInnis, E.G. Stephens, and D.E. Watson, Campbell River: Ptarmigan Press, 1987

2.2 Current Regional Setting

The Regional District of Comox Strathcona (RDCS) covers approximately 20,296 square kilometres and stretches from the west coast of Vancouver Island to the eastern boundary of the Cariboo Regional District on the mainland. On the Island, the RDCS spans the area from Deep Bay in the south to Sayward in the North. The RDCS is made up of 9 rural Electoral Areas, 8 municipalities and several First Nations communities and interests.

The Comox Valley is located in the southeastern portion of the RDCS on Vancouver Island. It is bordered on the west by the Beaufort Mountains and on the east by the Strait of Georgia and Baynes Sound. The Comox Valley study area extends from Deep Bay in the south to the Oyster River, mid-way between Courtenay and Campbell River[8], and from the Strait of Georgia to the Beaufort Range.

The Study Area covers all of Electoral Areas A (south of Courtenay), B (north of Courtenay/Comox), and C (west of Courtenay), and that portion of the Oyster River Research Farm located in Electoral Area D. The total study area is approximately 1,735 square kilometres, or 8.5% of the area of the Regional District. The Oyster River Research Farm accounts for 695 hectares of which 150 hectares are located in Electoral Area D. Each of the Electoral areas has a representative on the Regional Board. The "rural" portion of the study area accounts for 4 of the 20 votes at the Regional Board.

The population of the Regional District increased from 82,101 in 1990 to the current estimate of 105,439 (28%).[9] Most of this growth has been in the Comox Valley and in Campbell River. During the 1990 to 2000 period, the population of Courtenay and Comox increased by 76%. This population growth has resulted in adjustments to urban boundaries, and increased development in rural areas.

The population of the Comox Valley study area is estimated to be 53,969 (2000).[10] It is made up of approximately 21,924 (1996) in the study area including Electoral Area A, B, and C, and approximately 32,055[11] in the municipalities of Comox and Courtenay. However, the local "market area" for farm gate and local sales also includes the adjacent areas and municipalities of Cumberland, Area D, Campbell River and Denman and Hornby Islands. These areas have a total population of approximately 40,683. The combined market area (study area and adjacent areas and municipalities) has a total population of 94,662, or approximately 90% of the total RDCS population.

The average family income in the RDCS in 1996 was $52,597, 7% below the provincial average. Between 1991 and 1996, the labour force in agriculture and related industries in the RDCS increased by 15%, from 855 to 985, and makes up 2% of the total regional labour force of 48,850.

The study area (with the exception of Electoral Area D) is covered by the Rural Comox Valley Official Community Plan adopted in 1998. Electoral Area Plans have subsequently been developed and adopted for Electoral Areas A, B, and C and several Local Area Plans have also been subsequently developed to address specific development areas within the Electoral Area Plans. The current Zoning Bylaw for the Comox Valley was adopted in 1986. A Zoning Bylaw adopted in 1991 covers electoral Area D[12]. (See Appendix B).

---

[8] http://www.comoxvalleychamber.com/pdf/PROFILE01.pdf

[9] http://www.bcstats.gov.bc.ca/data/dd/facsheet/CF110.pdf

[10] BC Stats, Ministry of Finance and Corporate Relations, Government of British Columbia.

[11] http://www.bcstats.gov.bc.ca/data/pop/popstart.htm

[12] http://www.agf.gov.bc.ca/stats/faststats/brochure2002.pdf, http://www.bcstats.gov.bc.ca/data/dd/c96drdat.pdf

3. Policy and Regulatory Context

3.1 Introduction

A number of federal, provincial and Regional policies, regulatory realities and issues impact agriculture in the Regional District of Comox Strathcona (RDCS), including:

- Marketing Boards
- International trade
- Input costs
- Food safety regulations
- Environmental regulations
- Provincial Land Use Policy
- Regional Land Use Policy

The RDCS has Official Community Plans and Zoning Bylaws in place. These are discussed in detail in Section 3.8 and listed in Appendix A.

3.2 Marketing Boards

Key commodities produced in the Comox Valley mix are dairy, poultry and eggs. There are also several vegetable, potato and cranberry producers in the area. Production and sales of these commodities are organized in British Columbia by marketing boards that establish production quotas approximating market demand, and establish prices based on cost-of-production formulas.

Marketing Boards have served to maintain orderly markets in British Columbia and across Canada by setting wholesale prices to the farmer that allow reasonable expectation of profits and a stable environment for long term farm business planning. The British Columbia Marketing Board, the general supervisor of all commodity marketing boards or commissions ("boards") constituted under the Act in British Columbia, is reviewing aspects of the supply management system because:

- Although the system is generally popular with participating producers, consumers and retailers view it as artificially raising the prices of staple commodities.
- The relatively high market value of production quota means that new producers can only enter the industry by spending significant amounts of capital to buy quota. New entrants may find this cost prohibitive, even when quota is available. For a variety of reasons, there has been a general erosion of quota from Vancouver Island to the Mainland.
- In some commodities, non-conventional producers claim that the Marketing Board system has made it difficult for them to introduce alternative production practices.
- Some Boards have experienced management and member support problems.

> *... there are a number of obvious flaws in the system as it stands today:*
> - *It is vulnerable to challenge under the NAFTA/by the WTO;*
> - *It was designed to protect the farm sector from concentration but has (ironically) allowed concentration generated by the farm sector;*
> - *Its benefits have led to a certain complacency among producers and a tendency to focus more on production issues than on responsiveness to the marketplace; and*
> - *Generally, it is ossified and defensive, which in view of the challenges noted above, seems short-sighted and dangerous for the industry as a whole (we disagree with the argument made in the July 26 Public Hearing that "agriculture is conservative and slow moving" . . . in the context outlined above it cannot afford to be).*
>
> Extract from FarmFolk CityFolk Society Brief to the B.C. Marketing Board, July 2000.

Limitations to the system have also been identified in recent submissions to the B.C. Marketing Board regarding quota allocations. However, there are no clear indications that the either Federal or Provincial government would consider dismantling supply management. The only consideration appears to be whether the system can be made more flexible and inclusive.

> *Strong support for regulated marketing, including supply management, will continue. Policy changes will be made to ensure that these systems continue to evolve with global trends.*
>
> Extract from BC Agriculture Council's Vision for Agriculture, as quoted in the first report of the Select Standing Committee on Agriculture and Fisheries, 1999.

3.2.1 Quota Allocation for Vancouver Island

Because of the centralized planning process inherent in the supply management system, some Vancouver Island producers feel that the amount of current quota allocation to the various regions with BC, does not reflect the product demand of the Vancouver Island region, or the geographic realities of the costs and uncertainties of dependence on ferries for access to major processors and markets.

For example, according to the Island Farmers Alliance, recent egg quota allocations have fallen short of the appropriate levels to meet Island demand. From the focus group comments, it appears that there are two markets for eggs in the Comox Valley. One market is through conventional channels, under the auspices of the BC Egg Marketing Board. However, there are also direct farm sales to consumers of niche products, such as free range or free run eggs. A 1996 study of consumer egg purchases indicated that, province wide, as much as 10% of eggs are marketed direct outside the Marketing Board system[13].

3.3 International Trade

At the international level, supply management is under attack, notably by the U.S. and New Zealand. They claim that the quota system – especially for dairy products, unfairly restricts their access to Canadian markets.

> *Canada's trading partners, for example, have questioned Canadian measures in areas such as patent protection, milk and dairy products pricing, and state trading arrangements for dairy and wheat products…*
> *Canada's few but highly restrictive trade measures in agriculture could help to perpetuate some of the distortions in world markets that Canada sought to remove in the Uruguay Round. These restrictions, by effectively shielding key agricultural activities from market opening under the WTO Agreements, also deny opportunities for trade with Canada to more efficient agricultural producers, particularly those not enjoying preferential access. This approach detracts from Canada's otherwise strong support for production based on comparative advantage, a principle that has served Canada well in other areas.*
>
> Extract from WTO Report on the Agreement on Agriculture ,
> http://www.wto.org/english/docs_e/legal_e/ursum_wp.htm#aAgreement

Initially the World Trade Organization (WTO) ruled that Marketing Board's price setting practices constituted a subsidy to the industry. This initial ruling by the WTO Panel was subsequently overturned on appeal. Canada's Minister of Agriculture has consistently supported the supply

[13] The BC Market for Eggs – Results of Consumer Research, prepared for BC Egg Producers' Association, by Integra.

management concept and, at present, the system has been ruled acceptable for the orderly marketing of domestic products, but may have to be reviewed for export markets.

> *"In addition to the green box policies, other policies need not be included in the Total Aggregate Measurement of Support (Total AMS) reduction commitments. These policies are direct payments under production-limiting programmes…"*
>
> Extract from A Summary of the Final Act of the Uruguay Round of Trade Negotiations
> http://www.wto.org/english/docs_e/legal_e/ursum_wp.htm#aAgreement

> *"The WTO Appellate body has confirmed the WTO Panel ruling that some parts of Canada's Special Class system constitute an export subsidy. However, the Appellate body has reversed the WTO Panel decision on the administration of fluid tariff rate quotas. This means that Canada can continue to limit imports of fluid milk to cross-border purchases by Canadian consumers. Thus the Appellate Body findings have no direct impact on supply management for the domestic market, but may restrict the activities of marketing boards in export markets."*
>
> Extract from BC Milk Marketing Board. Annual Report 1998-99. Chairman's Report.

However, the US, among others, has vigorously argued that the quota system constitutes a non-tariff barrier to trade, and it can be expected that Canadian supply management of key commodities will continue to come under international pressure. This pressure will be felt by all quota-based production, including the dairy industry, which accounts for approximately 50% of the gross agricultural receipts in the study area.

3.3.1 BC Government Marketing Policy

It is not clear how the BC Government elected in 2001 will respond to these pressures or to supply management in general. They have not yet established a policy position for agriculture. They have eliminated government support for the Buy BC Program.

> BC Marketing Board Decision and Directions
>
> *Over the past several years, the issue of whether and how regional markets are to be preserved or encouraged has been a concern of the BCMB. This issue has come before us in several appeals in different commodities as well as formed part of a number of supervisory reviews.*
>
> *Restructuring in the processing and retail sectors is a major issue for producers and marketing boards to address. Consolidation into larger production and processing operations is one of the strategies available to the egg industry to reduce costs and maintain profitability. However, neither the Egg Board nor producers can afford to ignore the impacts to the system if regional production capacity is not maintained. Consolidation of processing in one region and the loss of production capacity in other regions of the Province could undermine the ability of the regulated marketing system to respond to pressures from outside.*
>
> *Regional processing has proven to be a key component of maintaining a viable regional production sector. The existence of a viable milk processing plant on Vancouver Island is a key factor in maintaining dairy production in this region. The loss of chicken processing capacity on Vancouver Island was in part due to the fact that over time the system did not fully support the regional chicken processor by ensuring that all of the production in the region was available to them.*
>
> Extract from Vancouver Island Egg Supply Review– BC Marketing Board, December 21st, 2000.

If alternate support for the program is not developed the program will be dropped. To date, the agricultural sector has not decided to assume responsibility for funding the program.

This program's focus was on labelling and promoting BC products in the marketplace and local farmers markets. Thus, consumers had an informed choice of buying products produced in BC rather than imported products. If the program is dropped, the community will have to rely on local farmers markets and on-farm sales outlets as they are recognized as offering locally and /or BC grown food products.

The Island Farmers Alliance and other producer groups have identified direct marketing, either at the farm gate or at farmers' markets, as a worthwhile strategy to diversify producers' customer base and to improve margins by simplifying distribution to the consumer.

3.4 Input Costs

Between 1941 and 1995, producers in various regions of Canada benefited from a Feed Freight Assistance (FFA) Program. That subsidy program offset differences in feed grain and concentrate costs in different locations resulting from different transportation costs. The program was terminated in the 1995 Federal budget, but a transitional Feed Freight Assistance Adjustment Fund (FFAAF) was announced. British Columbia received 32.3% of the national allocation for this fund and the first instalment was paid in 1996, including a proportion earmarked for Vancouver Island producers. Payments from that fund were made directly to farmers. That program ended in 1997.

The result is that Vancouver Island livestock producers are experiencing markedly higher imported feed grain and concentrates costs than competitive producers in other parts of BC and Canada. The major impact is on the poultry and swine industries. Other livestock, including the dairy sector, has been less affected as a result of the emphasis on forage-based production on Vancouver Island.

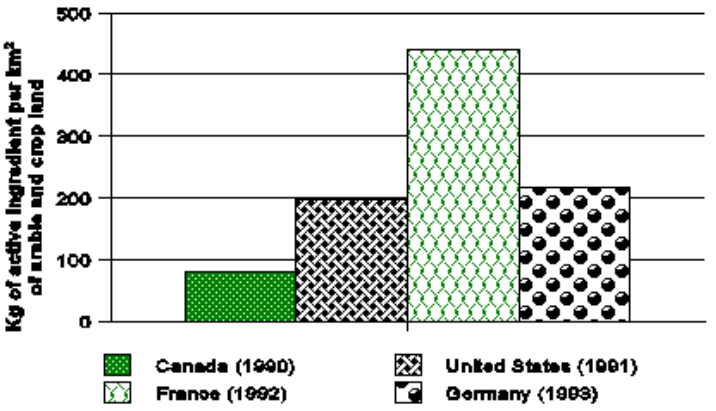
3.5 Food Safety and Quality

3.5.1 Standards

It is generally accepted within the BC agriculture industry that Canadian food safety standards are higher than those in the United States and especially than those in Mexico, our other NAFTA partner. This is usually argued in the context of pesticides and other production or processing aids that are permitted in these countries but are not permitted in Canada, and that pesticide use rates are lower in Canada. (See Figure 2) In addition, although there is no specific supporting data, pesticides use rates on Vancouver Island are understood to be lower than the BC average. This is in part due to the fact that some pests such as corn borer and potato beetle are not found on Vancouver Island.

However, it appears that BC consumers have generally not understood or interpreted any differences in standards as reflecting better quality of BC products. In consumer research, conducted for Buy BC in 1996, only one third of the respondents felt that BC products are much better quality than imports. Industry observers – especially in meat production and processing – note publicity surrounding health concerns of British livestock (Hoof and Mouth and "Mad Cow") diseases have heightened consumer awareness and sensitivity to food safety issues in Canada and around the world. For example, McDonalds Restaurants posted a 16% first quarter decline in income attributed to concerns over

Figure 2: Intensity of Pesticide Use, Canada and Selected Countries



Source: OECD Environmental Data, 1995

product safety[14]. Industry observers expect that this sensitivity will abate over time in the absence of further disease outbreaks.

Improving consumer awareness of local food quality could be one approach to increasing local market opportunities. In addition, trends towards organic products do indicate heightened awareness and desire for the highest standards, at least when it comes to the absence of artificial additives and processes.

The retail market for organic food in Canada is worth an estimated $300 to $750 million, (1% of total retail food sales) with 80% of the products being imports. This market represents 1 to 2% of total retail sales and sales are growing at an average annual rate of over 15%.

Only 18% of Canadians regularly purchase organic foods, while 29% have never purchased any. Baby boomers (35-55 age group) and the health-conscious younger generations are primarily driving this market. There is also a correlation between higher education and the quantity of organic foods purchased.

Forty-nine per cent of organic purchases are made in mass-market outlets (supermarkets, drug stores and mass merchandisers), while 48% are made in specialty stores. The remaining 3% of purchases are mostly made at farmers' markets.

Excerpt from: The Canadian and US Markets for Organic Foods and Soy and Rice Beverages, Markets and Industry Services Branch, Agriculture and Argufied Canada, August, 2001

3.5.2 Meat Inspection

Meat products require federal inspection in order to be shipped outside the local production area. There is no requirement for meat inspection on Vancouver Island outside of the greater Victoria area. There are no federally inspected facilities in the study area, and therefore no opportunity to export local meat products to markets in Victoria or the lower Mainland. This may limit the ability of some local producers to develop a range of consumer offerings attractive to a "regional" market. On the other hand, no inspection costs can mean reduced costs for local consumers and/or better margins for local producers.

[14] http://www.theage.com.au/business/2001/04/21/FFX501QTQLC.html

3.5.3 Genetically Modified Foods

Recent developments in biotechnology have led to considerable debate about the health and nutrition implications of genetically modified foods. At present, there is no Canadian legislation requiring identification of genetic modification, but there is a strong consumer movement in favour of this step, which has already been adopted by a number of countries worldwide. Retailers are also paying close attention to this issue, with some international companies developing guidelines for the removal of GMO foods from their listings.

> *Poll: Canadians believe they have the right to know what they eat- 95% say Parliament should impose mandatory labelling now. (Toronto, September 21, 2001)*
>
> *When asked if they believed they had the right to know whether their food had been genetically engineered, 95 per cent of Canadians said yes. Only 4 per cent said no. When asked if they favour Bill C-287, which would impose mandatory labelling, 73 per cent said they strongly favoured it with 22 per cent saying they generally favoured it. Only 4 per cent indicated they did not favour the bill. And when asked which system of labelling they wanted - mandatory or voluntary - Canadians picked mandatory by a margin of 87 per cent to 12 per cent. (Note: Proposed Bill C-287 has been defeated.)*
>
> http://www.greenpeace.org/~geneng/

At present, major Canadian retailers are refusing to accept products labelled "GMO Free" because of uncertainty as to the validity of such claims. Bill C-287, an amendment to the Food and Drugs Act received 1st reading Feb. 28, 2001 but was defeated on October 16, 2001. This enactment would have provided for all foods or food ingredients that are or that contain genetically modified material to be labelled to that effect, in accordance with the regulations. It would not have applied to content of genetically modified material in a food or in a food ingredient below one percent, to allow for the practical limitations that exist in the avoidance of GMO product content.[15] The Canadian position represents a cautious approach to the labelling issue, suggesting that labelling must be handled appropriately.

3.6 Environment

One of the major challenges facing all Canadian producers is the ever-increasing array of environmental regulations and guidelines. The *Choosing our Future* discussion paper distributed by the Minister of Agriculture identifies Environmental Stewardship as a key policy issue. It is claimed that B.C. is a leader in North America in establishing environmental standards to protect air, soil, water, fish and wildlife[16]. The concern expressed by some in the industry is that this high level of regulation is having a negative impact on the BC agri-food industry's competitiveness.

Issues

Key environmental issues are:

- Species at Risk legislation
- Riparian Area and Fish Habitat protection
- Nutrient management
- Multiple jurisdiction
- Cost of regulation

[15] http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/private/C-287/C-287_1/C-287_cover-E.html
[16] Choosing Our Future: Options for the Agri-Food Industry, BC Ministry of Agriculture, Food and Fisheries, January, 1999

3.6.1 Species at Risk

In February 2001, the Federal Minister of the Environment re-tabled a new Species at Risk Act, Bill C-5, designed to protect selected wildlife species[17]. Responsibility for its implementation would rest with the Minister of Fisheries and Oceans for aquatic species and the Ministry of the Environment for all other species and overall administration of the Act. While there is acknowledgement that the implementation of the Act would impact landowners and land users, Ministries of Agriculture are not specifically named as participating in its administration.

Farmers (as well as other resource industries) will be affected by the new Act, which does provide for potential compensation. Details of the compensation proposals are being debated at the present time, but will be based on the concept of conservation agreements with private landowners.[18]

3.6.2 Fish Habitat Protection

Declining fish stocks in B.C. is a major concern. The combined salmon catch for 1995 and 1996 was the lowest of any two-year period in the last 35 years. Loss of marine biodiversity including destruction of crucial fish habitat and reduced genetic diversity of fish stocks also are contributing to the decline in fisheries[19]. The *BC Fish Protection Act* is a key element of the British Columbia Fisheries Strategy to save fish stocks and habitat. The *Fish Protection Act* provides legislative authority for water managers to consider impacts on fish and fish habitat before approving new licences, amendments to licences or issuing approvals for work in or near streams. Combined with the federal *Fisheries Act*,[20] there are now comprehensive policy and regulatory controls and requirements in place to address both water quality and habitat protection for salmonids.

These policies have several impacts on agriculture. *The Fish Protection Act* does not currently affect agricultural operations, but producers should be aware of its requirements as regulations for agriculture are expected to be developed in the future. Best management practices for both manure management and irrigation have to take into consideration water quality and quantity objectives for fisheries. Watercourses that are used for drainage, if they contain salmonid species, must be managed in a manner that protects habitat. In some cases these watercourses are man made "drainage ditches" that have been inhabited by salmonids. Protection of riparian areas to provide shade to maintain water temperature and to prevent erosion is also considered to be a desirable farming practice. These changes place additional responsibilities on the farmer, and add costs in terms of reduced access to irrigation water, difficulties in improving drainage, and lost area for agricultural production in riparian areas.

3.6.3 Nutrient Management (manure management)

The Ministry of Air, Land and Water Protection recently released a report on manure management titled *Compliance Enforcement of Agricultural Practices in the Lower Fraser Valley, August 2001.*[21] As a result of fly over inspections in the fall of 2000 and early spring of 2001, and follow up on site inspections, 19 warning letters were issued to Fraser Valley producers for spreading manure on bare ground, and 57 for uncovered manure piles. In addition, 13 Waste Management Orders were issued for manure management or storage infractions. The report also estimates that up to 80% of older dairy farms may be discharging milk parlour waste directly into watercourses.

---

[17] http://www.speciesatrisk.gc.ca/sar/strategy/index.htm
[18] Species at Risk Legislation – A Guide, Environment Canada, 2001, http://www.speciesatrisk.gc.ca/sar/main.htm
[19] http://www.wcel.org/wcelpub/1997/11725.html
[20] www.nearctica.com/conserve/canlaw/chapf141.htm
[21] http://www.env.gov.bc.ca/sry/downloads/forms/pac/p2_agwaste_report.pdf

This report does not have a direct impact on Comox Valley producers, but as agency and public awareness about potential agriculture based pollution problems increases, there will be more attention paid to the management of farming and commercial composting activities.

3.6.4 Cost of Regulations

At the same time, some BC producers, including the BC Milk Producers and others are expressing concern at the cost of meeting environmental regulations and are requesting that taxpayers share in these costs. They point out that the environmental standards are set by society and that society should share in the costs of meeting them. The BC Agriculture Council, in its submission to the Select Standing Committee, proposed an incentive based program for environmental stewardship through a program of tax credits and partnership with the various agencies involved.

3.6.5 Multiple Jurisdiction

Environmental regulations may be set by federal, provincial, regional and municipal governments. A related concern is that when different levels of government set environmental regulations they sometimes do so with conflicting goals and priorities. The result is that farmers may be "caught in the middle", with an ever increasing range of limitations on their activities. For example, a farmer may have to deal with various ministries, e.g., provincial agriculture and environment, and federal fisheries when dealing with a fish bearing drainage outlet. When agencies differ in their view of either the "problem" or the best "solution" it usually takes a long time to resolve, if it gets resolved at all. The farmer has no control over time, costs or management requirements that agencies may require to address problems. Delays and overly demanding requirements to address problems all mean added cost to the farmer.

3.7 Provincial Land Use Policy

3.7.1 Agricultural and Forest Land Reserves

In 1973, the Provincial government approved the Land Commission Act that established a special land use zone to protect BC's limited agricultural land. This zone is called the "Agricultural Land Reserve" (ALR) and it covers about 5% of the province. The Land Reserve Commission (LRC), until recently, has administered the Agricultural Land Reserve Act as well as the Land Reserve Commission Act, the Forest Land Reserve Act, the Private Land Forest Regulation and the Soil Conservation Act. The LRC is an independent Provincial agency whose object is to ensure resource lands are available for BC's working farms and forests.

On May 21, 1974, the Commission designated 43,725 hectares of land in the Regional District of Comox Strathcona into the ALR. As of January 1, 2000, there was 40,270 hectares of land (about 2% of the area in the RD) remaining in the ALR within the RDCS – a reduction of 3,455 hectares since it was established in 1974[22].

Most of the changes to the reserve occurred in the early years with refinements being made to the boundaries as more information became available. Three ALR reviews were carried out. Two of these, on Denman and Hornby Islands respectively, were undertaken in 1977 and 1978. The third, undertaken in 1979, included much of the plan area between the Oyster and Puntledge Rivers. As a consequence, during the 1970's, 3,573 ha were added and 5,830 ha were excluded from the reserve for a net loss of 2,257 ha.

[22] http://www.icompasscanada.com/lrc/Publications/ALR_Stats/Mar00/Part_A/Table_A-2.htm

In the early 1980's, 27 ha were added and 306 ha excluded. In the late 1980's, another review of an area similar the 1979 review was conducted by the Commission. As a result, a further 768 ha was added and 1,236 was excluded in 1991 for a net loss of 467 ha.

In the 10 years since that time only 20 ha have been added and 175 excluded for an average net loss of under 20 ha per year. The decrease in the amount of land included or excluded is a result of the boundaries of the reserve being more precisely defined. Future changes to the boundaries of the reserve are likely to be minor. (See Figure 3)

The Agricultural Land Reserve Act restricts ALR land to "farm use," which means an occupation or use of land for farm purposes, including tillage of land, production of plants and animals and any other similar activity designated as farm use by regulation. The Commission has the responsibility of administration of the ALR, and to make decisions on applications for inclusions and exclusions of land from the ALR and on development proposals and subdivision application within the ALR[23]. The study area contains approximately one half of the ALR lands in the RDCS.

Table 2 presents a general description of the agricultural land resources in the study area. Following the Table is additional detail on each of the Electoral Areas. Most of the area outside of the ALR in the study area was in the FLR and is privately owned working forest. These lands are located between the coastal agricultural zone and the Beaufort Range.

Table 2: Agricultural Land Reserve (ALR) in the Study Area and RDCS [24]

ELECTORAL AREA	HECTARES	# OF LOTS
A	1882.48	192
B	3611.53	411
C	13265.69	1071
Oyster River Research Farm	695	
TOTALS	**19,669.7**	**1674**
Total ALR in RDCS	**40,269**	

Electoral Area A (South of Courtenay – Baynes Sound): ALR lands in Electoral Area A are confined to a 3 to 4 kilometre strip along Baynes Sound. Land capability west of this area is limited by topography and/or climate. There are seven blocks of ALR land in Area A totalling 1,880 hectares. Most of Electoral Area A fronts onto Baynes Sound, a highly valued area for shellfish aquaculture. Reduced water quality associated with fecal coliform has been an ongoing problem for shellfish growers.

Electoral Area B (North East of Courtenay/Comox): This area has 4 productive agricultural areas including Courtenay Flats (Class 3 improvable to Class 2 and 1), Knight Road/Lazo (Class 4 improvable to 3 with adequate groundwater for irrigation on most parcels), Little River (Class 4 improvable to 3 with adequate groundwater for irrigation on many parcels) and the Island Highway (land along both sides of the Island Highway between Courtenay and Grantham are Class 4, improvable to Class 2 with irrigation and drainage.) Much of this area is also south facing slope, which gives an added climatic advantage. Landowners in this area rely on groundwater for irrigation. Supplies are variable, abundant on some parcels and very poor in others. The remaining ALR lands are in the upland area sloping towards Seal Bay and Kitty Coleman Beach. Soils vary from shallow Class 5 to Class 4 improvable to 3.

[23] http://www.qp.gov.bc.ca/statreg/stat/A/96010_01.htm#section%2007
[24] Source: Land Commission and RDCS GIS data

Electoral Area C (North West of Courtenay /Comox – Puntledge, Black Creek): The most productive soils in Electoral Area C are found along Headquarters Road to Grantham and in the Dove Creek area. These soils are Class 3 and 4. With irrigation and drainage they improve to Class 2 and 3. There are also large blocks of highly productive agricultural land in the Black Creek watershed, especially in the area between the new Inland Island Highway and the old Island highway.

Oyster River Research Farm (Electoral Areas C and D – Oyster River North, Buttle Lake): Oyster River Research Farm is in the ALR. The field cropland on the UBC Lower Farm is CLI Class 4A and 3A soil types, improvable to Class 2CP and Class 1. They are highly productive with irrigation and the addition of lime, but require careful management to maintain adequate levels of organic matter. The forested areas on the Lower Farm are soil types Class 5AP and 4AP improvable to Class 3AP at best.[25] The soils on the Upper Farm are Class 4WD and 3WD improvable to 3DC and 2DC. The ridges and river bottom areas are limited by aridity and stones, and contain soil types Class 4AP and 5AP improvable to 4AP at best.[26]

3.7.2 Proposed Changes to the Land Reserve Commission

As a result of recent fiscal and program initiatives by the provincial government, several changes have been made in the operations of the Land Reserve Commission.[27]

Some of the key changes are:

1 The restructuring of the Land Reserve Commission. Six regional panels and a provincial chair have been created providing greater regional presence. The Commissioners were chosen for their relevant background and expertise to represent the regions in which they live, thus improving awareness of local issues and enabling quicker response times. The panels can meet more readily and work more cooperatively with applicants and local governments as well as view properties in person. As well, an executive committee of the provincial chair and the six regional vice-chairs will meet as required to discuss policy and administrative issues and matters of province wide importance. The commission members were appointed in the spring of 2002.

2. Collaborative governance., Delegation is a major component. It will be based on a mutually agreed-upon way for local governments to share decision-making in the ALR. Under delegation local boards and councils will be able to make decisions on non-farm use and subdivision applications in the ALR consistent with their community plans and other land use bylaws endorsed by the Commission.

3. Deregulation and Streamlining. The Agricultural Land Reserve Act has recently been repealed by the Agricultural Land Commission Act which comes into effect on 1st November 2002. The regulations have also been rewritten resulting in a reduction in regulatory requirements of about 30 percent. Permitted uses in the ALR have been expanded to provide for new economic opportunities for farmers and landowners. An additional benefit will be to provide more flexibility and discretion for local governments to regulate non-farm uses in the reserves.

4. The Forest Land Reserve regulatory system will cease to exist and will be redefined as a working forest initiative.

---

[25] A represents a limitation due to aridity, P is stones and C is climatic.
[26] Draft Oyster River Farm Concept and Initial Business Plans, Dr. Larry Martin, Holly Mayer, September 2001
[27] http://www.gov.bc.ca/prem/popt/cabinet/open_cabinet_meeting_jan_16_2002.htm

Map 2: Agricultural Land Reserve (ALR) Lands in the Comox Valley (Insert)

3.7.3 Strengthening Farming and Farm Practices Protection

The Ministry of Agriculture, Food and Fisheries and the Land Reserve Commission are jointly implementing the Strengthening Farming Initiative. It is an effort to assure stronger links between local governments, the farm community and the province in addressing agricultural land management and use issues. The Initiative provides a platform upon which local and provincial interests can be jointly considered and integrated - particularly within the ALR. New local government Official Community Plan and bylaw tools associated with agriculture have also been developed. Local government planning and bylaw processes provide a particularly appropriate forum within which to consider agriculture's long-term role in the larger community and to consider issues in a comprehensive and balanced manner.

At the core of the Initiative are the complementary efforts to develop means to lessen land use conflict between farm and non-farm uses while protecting farmers from unwarranted nuisance complaints. Strengthening Farming has two broad components: the protection of normal farm practices and what might be referred to as planning for agriculture. The legislative underpinning of Strengthening Farming is found in the *Farm Practices Protection Act* and amendments to the Municipal Act (now *Local Government Act*) and the *Land Titles Act*, with the *Agricultural Land Reserve Act* playing an important supportive role.

The *Farm Practices Protection Act* provides a "shield" for farms both inside and outside the ALR from unwarranted nuisance complaints normally involving dust, odour, noise and other disturbances. The Act has important relationships to a variety of local government bylaws associated with issues such as animal and noise control. An effort is made to strike a balance between the "right-to-farm" provisions in the Act, local jurisdiction and dealing in a balanced manner with legitimate concerns about farm practices.

Farmers are not liable in nuisance and cannot be prevented from conducting a farm operation if they meet specific criteria. These include: (1) using normal farm practices, (2) the farm being located in the ALR or other areas zoned for farm use by the RDCS or is within a licensed aquaculture area, and (3) the operation is not in contravention with specified legislation (Health, *Pesticide Control and Waste Management Acts*) and other land use regulations. Thus, right-to-farm is earned upon compliance with these conditions and the Act's protection does not extend to health and environmental issues.

If the Act's conditions are met, farm operations are not in contravention with several specified local government bylaw powers. However, and using a noise bylaw as an example, if it is determined that a farm is not operating in accordance with the conditions noted in the Act, the provisions the local government bylaw would apply. In addition the bylaw continues to apply to a farm if the noise in question has nothing to do with the farm operation.

The Act also established a Farm Practices Board to provide a forum within which nuisance complaints about farm practices may be heard. The Board's work has been supported by the development of a *Guide to Farm Practices*. In addition, Ministry of Agriculture staff and often farm/ranch peer advisors, deal with concerns about farm operations on a continuing basis in an effort to resolve concerns satisfactorily early on and avoid involvement of the Board.
While protecting farmer's from unwarranted nuisance complaints, the effect of *the Farm Practices Protection Act* is not to eliminate Regional District bylaws associated with nuisance, but rather, to modify their application in specific circumstances if the conditions of the Act are

met. Moreover, the Act has provided improved means to deal with complaints about farm operations.

The Planning for Agriculture side of the Initiative is backstopped by the *Local Government Act* (LGA) and *Land Titles Act* along with non-legislative support - all of which is strongly related to local governments and in many ways compliments the farm practices protection part of the initiative.

The following highlights several opportunities available to the RDCS that provide a foundation to integrate Regional District planning and bylaw processes and other programs with provincial initiatives to ensure agriculture's place in a healthy, sustainable community.

a) Local Government Act Provisions

- The purpose and content of regional growth strategies have several positive implications for agriculture. Besides the stated purpose of maintaining the integrity of the productive resource base of the agricultural land reserve, other purposes of a strategy such as avoiding urban sprawl, economic development that supports the unique character of communities and protecting ground and surface water have agricultural links (Sec. 849(1) - LGA). Under content, a strategy may also deal with "…any other regional matter." (Sec. 850(3) - LGA). This provides scope for a regional district to consider how its growth strategy contributes to food security beyond the preservation of the agricultural land base.

- The Regional District has the ability to adopt more than one community plan for more than one area of the Region (Sec. 875(1) LGA). This provides the opportunity to undertake agriculturally focused planning efforts, such as the Comox Valley Agricultural Plan, which the Act encourages (Sec. 878(1)(c) LGA).

- Development permit areas may be designated in official community plans for the protection of farming. This is largely an urban-side 'edge' planning tool that can assist in lessening the possibility of urban / agriculture conflicts by the application of buffering and setback provisions. (Sec. 879(1)(c) & 920(10) - LGA)

- An important provision for local governments is the intensive agriculture section of the *Local Government Act* (Sec. 915 - LGA). This section allows intensive agriculture to occur within the ALR despite any provisions to the contrary that may be in a Regional District zoning bylaw. This could have important implications, for example, in close proximity to urban areas.

- Guidelines have been developed to assist local governments in the updating of bylaws in farming areas (Sec. 916 - LGA). The guidelines are housed in the document *a Guide for Bylaw Development in Farming Areas*.

- Local governments may adopt farm bylaws that can influence the operational techniques of farms. These provisions could have important application as a farm-side 'edge'-planning planning tool to lessen land use conflict. An example of a farm bylaw provision might be to regulate the orientation of exhaust fans on farm buildings located close to an urban area. In all cases the use of a farm bylaw first requires the passage of a regulation by Cabinet under Section 918 - LGA and farm bylaws must

gain the approval of the Minister of Agriculture prior to the Regional Board adopting the bylaw (Sec. 917 - LGA).

- If necessary, the provincial Cabinet may require local governments not to exercise zoning or rural land use bylaw powers that prohibit or restrict farming *in the ALR* without approval by the Minister of Agriculture (Sec. 887(8) & 903(5) - LGA). This provision, however, has no affect on a local government bylaw unless Cabinet first passes a regulation (Sec. 918 - LGA).

  By policy, it is intended that this provision be used only when a solution or mutual agreement cannot be worked out with the municipality. The preferred process is for the province and regional district or municipality to work collaboratively in the review of bylaw provisions affecting agriculture. With the completion of the review and the Minister of Agriculture's approval of those aspects of the bylaw that prohibit or restrict agriculture, the intensive agriculture provisions of the *Local Government Act* no longer have effect (Sec. 915(3) - LGA). Thus, activating a bylaw review process with the passage of a Cabinet regulation under Sec. 918 - LGA provides the Regional District access to farm bylaws and can lead to the elimination of the implications of the intensive agriculture sections of the *Local Government Act*.

b) Land Titles Act Provisions

- Amendments have been made to the section of the *Land Titles Act* (LTA). The changes give subdivision-approving officers the ability to refuse a plan of subdivision if development would unreasonably impact a farming operation due to insufficient buffering or separation of the development from the farm (Sec. 86(1)(x) - LTA).

- In addition, to lessen the potential for intrusion into the ALR or expectations of future land use change, subdivision plans can also be refused if the provision of roadways and highways would unreasonably or unnecessarily increase access into the ALR.[28] Both of these provisions are urban-side edge tools that provide opportunity to increase compatibility between farming and urban and rural residential uses. While the Ministry of Transportation continues to have the approving officer duties in electoral areas in most parts of B.C., it is important that the Regional District work closely with approving offices to ensure the planning policies and subdivision approvals are coordinated.

In summary, the Strengthening Farming Initiative has provided new planning and bylaw tools. It has also improved resources through the development of several two person provincial Agri-teams (Ministry of Agriculture / Land Reserve Commission staff) to work with local governments and local farm groups such as agricultural advisory committees. A variety of support materials has been or is being developed, almost all of which provides support for local governments. New funding sources have also been developed to assist agriculturally focused planning and bylaw work, which has assisted the Comox Valley Agricultural Plan process. Success in using these new opportunities to strengthen farming in the Comox Valley will rest largely in the Regional District, farm community and province jointly exploring their appropriate and creative application.

[28] Land Titles Act, Sec. 86(1)(ix)

3.8 Regional Land Use Policy

The Rural Comox Valley Official Community Plan and accessory Electoral Area Plans (EAP's) and Local Area Plans (LAP's) cover the study area. In general, the EAP's conform to the Rural Plan, and add specific policies to address local concerns. The LAP's deal with areas of proposed growth receiving areas identified in the Rural and EAP plans, and address site specific issues such a buffering for agricultural zones (e.g. Anderton Road LAP). The following table (Table 3) summarizes the relevant policies that address agriculture, forestry and land-based aquaculture. A list of applicable documents in included as Appendix A.

These Plans are recent documents that generally reflect prevailing provincial policy and guidelines. There are some minor differences between the EAP's, but they do not significantly affect the ability of farmers on designated lands in the ALR to pursue their activities. In general, local policies are supportive of agricultural uses and on-farm diversification in terms of farm sales and agritourism activities. They also emphasize buffering in adjacent urban areas to minimize the potential for conflict between farm and non-farm uses.

The Zoning Bylaw (Bylaw No. 869, 1986) is now 15 years old and has many compiled amendments. Most of the ALR lands are in the Rural One (RU-1) Zone, which also permits garden nurseries, veterinary clinics, animal kennels, riding academies, silvaculture, and intensive aquaculture as well as public utilities, parks and model aircraft flying. Agriculture is also a permitted use in a variety (total of 20) of other rural, residential, commercial and recreational zones. This leads to a complex variety of details and options depending on the specific zone. It also leads to the potential for mixed-use areas within which agriculture may have to co-exist with other uses with which agriculture may not be compatible.

In general, feedlots are limited to one zone, (RU-1) which is the general agricultural zone. This Zone also includes most the ALR land in the Study Area. On-farm wholesale and retail sales of products produced on the farm are permitted in the RU-1 Zone, as well as other zones where agriculture is a permitted use. Home occupations such as a Bed and Breakfast facility are permitted in most zones.

Commercial composting is also limited to one zone (RU-3) as are machinery sales (Commercial Agriculture, CA-1) feed and supplies sales (Commercial Agriculture, CA-3.) This Bylaw structure does not permit these uses in a general zone, but would allow site specific rezoning to an appropriate zone on application for a rezoning.

Zoning Bylaw 869 is currently under review by the Regional District.

Table 3: Rural and Electoral Area OCP and Zoning Bylaw Summary				
	Rural OCP	**Electoral Area A Plan**	**Electoral Area B Plan**	**Electoral Area C Plan**
Overall Goals	- Protect the environment - Maintain rural character - Support continued agriculture, aquaculture and forestry opportunities	(Rural OCP)	(Rural OCP)	**(**Rural OCP)
Land Use/Environment Goals	- Protect ESA's - Protect surface, groundwater quality/quantity	- Protect Baynes Sound		
Land Use/Economy Goals	- Encourage resource utilization - Encourage resource stewardship	- Create employment opportunities		
Land Use/Settlement Goals	- Maintain rural character, rural community, diversity of lifestyles and economic activities - Urban growth in municipalities	- Protect, enhance rural lifestyle		
Land Use/Environment Policies	- Promote flood control, bank stabilization and stream protection - Covenants for ESA's encouraged - Protect natural drainage patterns - Riparian covenants for tax exemptions - ESA identification and evaluation - Education programs on environmental quality - Decrease impact of storm water runoff downstream (including agricultural lands) - Adequate water supply for fish, settlement and economic activities - Develop watershed management plan	- Prepare Liquid Waste/Groundwater Protection Plans - Encourage update of SEI - Encourage cooperation implementing Fisheries Protection	- Sensitive area management in "working landscapes (ALR) under provincial/federal legislation Upland habitat management in "working landscapes" voluntary	- Sensitive area management in "working landscapes (ALR) under provincial/federal legislation - Upland habitat management in "working landscapes" (ALR, FLR) voluntary - Update SEI - Encourage cooperation implementing Fisheries Protection Act

Table 3 (continued): Rural and Electoral Area OCP and Zoning Bylaw Summary				
	Rural OCP	**Electoral Area A Plan**	**Electoral Area B Plan**	**Electoral Area C Plan**
Land Use/Economy Policies	- Encourage home based and small business - Identify areas for value added processing - Maintain ALR, FLR lands and renewable resource industries - Encourage responsible practices for soil, water conservation, vegetation removal and storm water management Designated Upland Resource Area for forest, recreation, habitat, recharge and biodiversity - Permitted uses: agriculture, farm experience tourism, home occupations, fish hatcheries and enhancements, temporary commercial use, forestry - Small parcel consolidation encouraged - Explore alternative methods of water management for irrigation - New development on non-agricultural land will provide buffers - DPA's will be considered	- Encourage commercial composting - Domestic businesses on parcels of 0.4 ha or larger	- Low odour composting in the ALR and Rural Areas on parcels 8 ha or larger - High odour (e.g., using fish morts) facilities must be 800 m away from rural settlement areas, existing residences, resorts or commercial buildings	- Encourage commercial composting - Home industries on parcels 0.4 ha or larger - Agri-tourism operations considered on farms
Land Use/Settlement Policies	- Minimize urban sprawl - Settlement areas adjacent to ALR shall provide buffering - Establish criteria for containment boundaries	- Possible Development Permit Areas adjacent to ALR land - Allow second homes, secondary suites	- Establishes agricultural Development Permit Areas	Establishes agricultural Development Permit Areas - Allow secondary suites

Table 3 (continued): Rural and Electoral Area OCP and Zoning Bylaw Summary	
<u>Zoning Bylaw 869, 1986</u> Applies to Electoral Areas A, B, C	**Agricultural use:** growing, rearing, harvesting and marketing of agricultural products, includes processing of products grown and harvested on same lot but excludes feedlots and processing of livestock from feedlots
Zoning Policies	**Rural 1 (RU-1, general agricultural zone):** Garden nurseries, Vet clinics, Kennels, Riding Academies, Silvaculture, Aquaculture Agriculture on any lot. Sawmills, Feedlots on 2 ha or larger. Feedlot side yards 15 m. and buffering required. Sawmills require 30 m yard, screen and buffers. Events on 20 ha or larger Home occupations permitted No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) 2 dwellings on 2 ha or more, 3 dwellings on 35 ha or more, up to six dwellings on 80 ha or more Lot coverage 15% except greenhouses Min lot area below 150 m contour - 8 ha, Min lot area above 150 m contour- 16 ha
	Rural 3 (RU-3): Agriculture, Composting, Silvaculture No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) 15 m screening and buffering No outdoor or unenclosed storage Composting in enclosed structure of maximum 2150 sq. m. Lot coverage max 35% Min lot area 1.2 ha.
	Rural 4 (RU-4): Agriculture, Silvaculture Maximum accessory buildings of 200 sq. m. No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) Lot coverage 35% or total of 500 sq. m. No subdivision of parcels smaller that 100 ha.
	Rural 5 (RU-5): Agriculture, Silvaculture, wholesale/retail sales of products grown on farm No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) Accessory buildings max 200 sq. m. Lot coverage max 35% Min lot area 4 ha.

Table 3 (continued): Rural and Electoral Area OCP and Zoning Bylaw Summary	
	Commercial Agriculture 1 (CA-1): Agricultural use, kennels, farm machinery sales, garden nursery No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) Screening of outdoor storage of 2.0 m. Minimum lot area 2500 sq. m. Lot coverage max 50%
	Commercial Agriculture 2 (CA-2): Agricultural use, kennels, farm feed and supplies sales, garden nursery No annoyance or nuisance except for agriculture (now within the scope of the Farm Practices Protection Act) Landscape depth of 3.5 m., Screening of 1.8 m. Minimum Lot area 1 ha. Lot coverage max 50%
	Agriculture also a permitted use in: Residential 1 (no livestock) Country Residential 1 (on lots over 4000 sq. m.) Country Residential 2 (on lots over 4000 sq. m.) Country Residential 2A (on lots over 4000 sq. m.) Country Residential 2B (on lots over 4000 sq. m.) Country Residential 2C (on lots over 4000 sq. m.) Country Residential 3 (on lots over 4000 sq. m.) Country Residential 3A (on lots over 4000 sq. m.) Country Residential 3B (on lots over 4000 sq. m.) Country Residential 4 (on lots over 4000 sq. m.) Rural recreation 1 Commercial 1 Commercial 3A Commercial C4 Public Assembly 1

The Oyster River Research Farm is also zoned RU-1 in Bylaw 1404, 1991. The provisions are similar to those in the RU-1 Zone in Bylaw No. 869.

3.9 Health

The Upper Island/Central Coast Community Health Services Society (UICCHS) was established on April 1, 1997. It was formerly known as the Upper Island Health Unit, a Regional Health Unit within the Ministry of Health.

The Health Society provides a comprehensive range of public and community health services through programs in Public Health, Health Protection, Continuing Care and Mental Health Services. The main programs affecting agriculture are Environmental Health and Public Health.

All residential development, including farm residences that require on-site services (domestic waste disposal systems) must have approval of UICCHS for the design and installation of the waste treatment facility or septic system. Any communicable disease that is potentially communicable between livestock and humans would also be under the jurisdiction the Medical Officer of Health. Finally, UICCHS is responsible for inspection of food preparation facilities. Processed food products intended for general retail or wholesale distribution other than direct sales (e.g., farm gate or farmers market) have to be prepared in an inspected facility. Any commercial kitchen or other commercial food processing facility requires UICCHS inspection.

4.0 Agricultural Capability and Resources in the Comox Valley

The agricultural potential that drew the early settlers to the area is still attracting farmers today. The area has a relatively high quality land resource base and climate for agricultural production. The limits to production are affected by a number of factors. Agricultural capability varies within the Valley based on:

- Seasonal climate variation: From an agricultural perspective, the area receives too much rain in the fall and winter months (November through March) and not enough rain in spring and summer.
- Geographic climate variation: Geographic features such as proximity to the mountains, slope aspects, proximity to the ocean and surface drainage patterns create a wide variety of both positive and negative microclimatic affects for agriculture.
- Soils: There are a wide variety of soil types in the area. Any given parcel could have several different soils with varied capability and management requirements.
- Irrigation water availability: Lack of water (aridity) is the main limitation on soil capability for agriculture in most of the plan area.

These limitations all have either technical (e.g., irrigation) or management (e.g., crop selection) solutions.

4.1 Climate

The climate of the Comox Valley is well suited to a wide range of agricultural products. There is significant variation caused by geography (i.e., elevation and landform) within the Valley.

4.1.1 Temperature

Table 4: Mean Temperature and Precipitation Range (Comox Airport)

Month	Mean Daily Maximum	Mean Daily Minimum	Precipitation
January	5.2 deg C (41.3 deg F)	-0.3 deg C (31.5 deg F)	169.4 mm (6.7 in)
July	22.5 deg C (72.5 deg F)	12.3 deg C (54.1 deg F)	30.6 mm (1.2 in)

The Comox Valley is a coastal marine environment, with warm, dry summers and short, mild winters. The coldest month is normally January and the warmest is usually July. (See Table 4) Temperature varies throughout the study area. For example, Cumberland, because of its proximity to the mountains and its elevation (100 m), has average winter temperatures about 1 degree lower than Comox. Summer temperatures are as high as areas close to the water.

4.1.2 Hours of Bright Sunshine

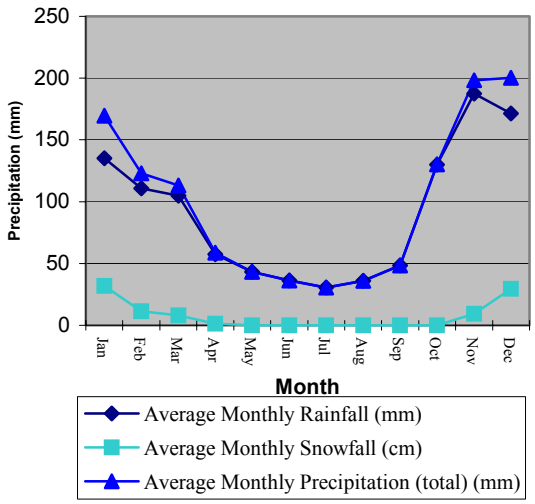
The total hours of bright sunshine at the Comox Airport averaged 1938.6 over the period of 1987 to 1997. In contrast, the hours of bright sunshine at Vancouver International Airport, (the climate recording station nearest to BC's greenhouse industry) average 1919.2. Again, the hours of sunshine do vary throughout the plan area. Although there is no specific data, greenhouse producers who have considered locating in the Valley are usually directed by agencies such as MAFF to focus their attention on properties near the airport or the area above the Courtenay Flats (Electoral Area B).

4.1.3 Precipitation

Average annual precipitation ranges from 1187 mm per year in Comox to 1489 mm per year in Cumberland. Rainfall is significantly higher in the shadow of the Beaufort range[29].

From an agricultural perspective it is important to note that 75% of this precipitation falls between October 1 and the end of March. During these months, some soils and low-lying areas are subject to saturation and flooding that can affect the productivity of perennial crops. For many farms, drainage is an important consideration. Summer months are relatively dry. Average precipitation is less than 50 mm (2 in. approximately) from May to September. Irrigation is valuable for most crops, and necessary to reach maximum production potential for land based field, fruit and vegetable crops.

Figure 4: Average monthly Precipitation - Comox



Average annual total snowfall ranges from 104 to 144 cm. While this is relatively low compared to other areas of the province, it is usually wet and heavy. Large single snowfalls can cause significant damage to trees and bush type crops as well as greenhouse type structures.

4.2 Soils

> *""Relatively speaking, the Comox Valley has land with superior agricultural capability. It can be anticipated that the agricultural capabilities of land in the ALR within the Plan Area will be representative of other ALR lands on Vancouver Island. On the Island, prime agricultural capability land (Class 3 or better) accounts for nearly 60% of all land in the ALR. This is considerably better than the province as a whole in which only about 23% of the ALR has prime or prime dominant agricultural capabilities."*

Most arable land in B.C. is classified under the British Columbia Land Inventory (BCLI), a variation of the Canada Land Inventory (CLI). Based upon soil and climate conditions, the BCLI classifies land into seven categories, Class 1 to 7, according to the *range* of crops that can be grown[30]. Generally, the higher capability soils have fewer limitations on crop production. A lower capability rating is not necessarily an indication of an inability for land to make an agricultural contribution. For example, most of the rangeland that supports the beef industry is on Class 4 to 6 lands. Other lands may have a low capability rating but be highly productive for a single or narrow range of crops. For example, bog lands are highly suitable for cranberry production. Poor capability lands within a single farm operation may also provide good sites for farm buildings and yard areas.

The soils within the ALR (approximately 20,000 ha.) in the in the plan area generally have good capability rating, but have three common limitations (See Map 3):

[29] http://www.cmc.ec.gc.ca

[30] Class 1 has the broadest range with little or no limitations for production of common agricultural crops and Class 7 has no capability for arable culture or sustained natural grazing.

- **Acidity (low pH)** – Virtually all soils in the study area are highly acidic in nature. Soil acidity affects the availability of certain nutrients and/or limits the types of crops that can be produced. For most soils, large volumes of lime will correct the acidity and regular application is required to maintain optimum pH levels.

- **Aridity or moisture deficiency** during the summer months. Based on existing soils maps, about 60% (34,636 ha) of the soils are limited by aridity or moisture deficiency. The capability and productivity of these soils is improved by irrigation.

- **Excess Wetness**. It is estimated that about 25% (9790ha ha.) of the soils are limited by excess wetness and another 15% (2,343 ha.) has water deficiency in the summer and excess water in the spring and fall. Generally this is caused by a hardpan layer at a depth of about 1 meter (or less in some areas) that can restrict movement of water through the soil. Water percolates down to the hardpan layer and either accumulates above or moves horizontally along it. If it accumulates, it can result in high water tables that limit the rooting depth of plants. If it moves horizontally, it can create drainage problems or seepage in other places.

Figure 5: Spray Irrigation

These limitations can be adequately addressed by the addition of agricultural lime, irrigation or other water and soil moisture conservation practices, and by on-farm sub surface and surface drainage. Soils and agricultural capability throughout the plan area are mapped at a scale of 1:20,000[31].

4.3 Water

4.3.1 Surface water

Aside from Comox Lake, which is the domestic water supply for the urban areas of the Comox Valley, there are limited amounts of stored surface water available for irrigation. The BC government licenses surface water use, and most stream and river capacity has already been committed[32]. A number of water bodies in the upper watersheds e.g., Wolf Lake have been identified as potential water storage sites[33], however, concerns over fish habitat and the infrastructure costs associated with delivery of that water for irrigation have prevented construction of additional storage.

Many farmers have water licenses to use water from streams and rivers in the plan area; however, there isn't always adequate flow to allow the permit holder to use the permitted volume. Only water that is deemed excess to the needs of fish is available for domestic and irrigation purposes. As an alternative to water access from rivers, lakes or streams, a number of farmers have built large reservoirs (40+ acre feet) to collect and store surface runoff from the winter months.

[31] Land Capability for Agriculture and Soil Series, Courtenay Area, Surveys and Resource Mapping Branch, BC Ministry of Environment, Lands and Parks, 1982-1986. The soils are described in detail in Soils of Southeast Vancouver Island Duncan-Nanaimo Area, MoE Technical Report 15, 1985.

[32] (see http://srmwww.gov.bc.ca:8000/pls/wtrwhse/water_licences.input for details on specific water bodies)

[33] Wolf Lake Study, Dept of Environment, DW Higgins and DG McLean, Fisheries and Marine Service, 1976 and the Hamilton report on Black Creek

Map 3a: CLI Agricultural Capability (Improved) In The Study Area (Insert)

Map 3b: CLI Agricultural Capability (Unimproved) In The Study Area (Insert)

4.3.2 Groundwater

Groundwater supplies vary considerably throughout the plan area. Generally, there is adequate supply for domestic purposes but not enough for irrigation. Most of the wells registered[34] in the RDCS do not have reported flow rates. Of those that do, 47% report flows of 10 or more gallons per minute. The most reliable supplies come from deep wells as shallow wells can dry up during extreme dry periods in the summer months. *The Regional District of Comox Strathcona Aquifer Classification Project Report (August 2000)* identified and classified aquifers throughout the RDCS. The main aquifers are described in Appendix B.

4.4 Natural Features

4.4.1 Topography

The agricultural lands in the plan area generally have slopes between 1% and 5%. On areas with higher slopes, some soils are subject to erosion if left bare during the winter. South facing slopes in the plan area usually have favourable microclimates for crops such as grapes or berry crops that are marginal in other parts of the study area. In contrast, low-lying lands along the creeks and rivers are susceptible to frost that can limit crop options or shorten the growing season.

There are some areas of agricultural land with the high production capability located in low-lying areas in mid- to lower reaches of watersheds. Some of these areas are in natural floodplains, and are subject to occasional flooding. The Lazo area and Courtenay River Estuary areas are two examples. On low lands near the ocean waterfront, flooding can also be aggravated when high tides prevent water from draining from outlet ditches.

4.4.2 Watercourses

Figure 6: Salmon Smolts In-Stream

Watercourses and rivers are located throughout the study area. The main watercourses are the Oyster River, Black Creek, Little River, The Tsolum, Browns and Puntledge River system, and the Trent and Tsable Rivers. In addition there are numerous tributaries of these systems and several smaller creeks such as Rosewall, Millard, Roy and Brooklyn Creeks that flow directly to the ocean. Many of these watercourses are habitat areas for salmonids. These and other watercourses are mapped and interpreted as to their fish bearing potential in the Sensitive Habitat Atlas published by Fisheries and Oceans Canada, BC Ministry of Water, Land and Air Protection and RDCS. The information in the Atlas has not been comprehensively ground truthed, so a completely accurate inventory of fish bearing streams is not available.

The watercourses noted above are the most significant natural features affecting (and affected by) agriculture. The BC Ministry of Environment under the Fish Protection Act has designated Black Creek and Little River as Sensitive Streams. Under this legislation, Sensitive Stream designation

[34] Well records for BC are posted on the Internet at www.env.gov.bc.ca/wat/gws/.

ensures that habitat is adequate to address fish survival. Recovery plans, an essential tool of the *Fish Protection Act*, may be required on designated streams that are unable to rehabilitate naturally. Many of the smaller creeks (e.g., Millard, Portuguese Creek) have active salmon habitat rehabilitation activities underway.

The multiple use pressures on these systems (i.e., fish habitat, water for irrigation, land drainage, recreation) directly impact agricultural use. They result in management priorities that can limit access to surface water for irrigation purposes, the extent and design of in-stream drainage or surface or tile drainage outlet improvements and new land uses or development within the riparian areas. These impacts are discussed in more detail in section 6 of this report.

Black Creek has been selected as a pilot project under the Sensitive Stream component of the *Fish Protection Act*. A Black Creek Roundtable has been active in planning restoration projects in the watershed. The Comox Valley Farmers Institute, Ducks Unlimited, government agencies, landowners, stewardship and other groups have been engaged in planning, education, habitat, riparian restoration, fencing, gating and other projects.

4.4.3 Wetlands

Figure 7: Flooding in the Courtenay Estuary

Wetlands and Sensitive areas have been inventoried in a Sensitive Ecosystems Inventory (SEI,) published Environment Canada. This information base identifies remnants of rare and fragile terrestrial ecosystems. It is intended to encourage land-use decisions that will ensure the continued integrity of these ecosystems. Key wetland and habitat areas include the Lazo Marsh and the Courtenay River Estuary. (See Map 3) These and other smaller wetland areas scattered throughout the study area are highly valued for the waterfowl habitat they provide, and the role they play in water storage, recharge of surface and groundwater systems. Some wetlands and sensitive areas are of more concern in terms of potential conflict with agricultural uses that others. In the Black Creek watershed for example: clearing and draining of wetlands for agriculture is a significant issue affecting the fisheries resource.

4.4.4 Woodlots and Woodlands

There are approximately 700[35] landowners in the North Island Area (Comox Valley north) managing over 45,000 hectares of woodlands (woodlot) area within a total land base of about 93,000 hectares. Many of these people are farmers and the woodland area is often a part of the property that is not well suited for agriculture but may be very well suited for production of forestry and agro-forestry products. A survey conducted through Forestry Renewal BC in 1999 indicated that landowners would like to see dry land sorts, buying stations, training and guidance programs to assist them in

[35] . Forest Land Owner Survey in the Omineca-Peace Region and on Vancouver Island, FRBC, Small Woodlands Program, June 1999

generating more income from their woodlots. In addition the Union of BC Municipalities has been discussing tax relief programs for managed forests similar to the programs that are available for farm use and the Land Commission has recently eliminated the FLR regulations.

Most of the major blocks of forested land are west of the Inland Island Highway at higher elevations and south of Courtenay in Electoral Areas A and C. The soils and climate in these areas are not well suited for agriculture. Thus, there is no conflict between agricultural and forestry uses. In fact, private woodlot management and harvesting can provide additional income for farm operators. These woodlots have potential not only for managed fibre production, but also for production of botanical forest products such as mushrooms, salal and other greenery, vascular plants such as shrubs and flowers, and cryptograms such as ferns, moss and lichens. A total of 211 forest botanical products have been identified in B.C. and approximately half of these are harvested commercially.[36] Most of these are harvested from public forestlands. There may be an opportunity for management of botanical forest product production on private forestland.

4.4.5 Waterfowl and Wildlife Habitat

The Comox Valley lies within the Nanaimo Lowlands Consecution, which is part of the Eastern Vancouver Island Ecoregion as described by Demarchi, 1987. The network of rivers and extensive foreshore areas of Comox Harbour were ranked highest of 407 BC Coastal areas for their fish and wildlife resources. (Hunter et al, 1982) The estuaries, backshore areas and associated lowland valley bottoms provide an extensive network of habitats. Estuary areas such as Comox harbour provide important feeding and resting areas for millions of water birds that migrate along the coastal corridor each year. Valley bottoms inland consist of farms and timbered areas, and are used by a diverse array of songbirds, wintering waterfowl, and upland species. (Fry, 1993)

Figure 8: Grazing Trumpeter Swans

In addition to the natural areas and wetlands described above, farmlands of the Comox Valley provide winter habitat and feeding area for many forms of birds and wildlife, including over 10% of the world's Trumpeter Swan population. Farmland and associated woodlots, fencerows etc. also provides habitat and food supply for bears, deer and other smaller mammals. In most cases there is little conflict between these wildlife uses and farming, but in some cases, individual farmers have to deal with crop and soil damage from wildlife grazing. Ducks Unlimited do provide limited financial support planting of winter "lure" cover crops for swan grazing. Access to wildlife also provides a tourism opportunity associated with agricultural areas.

[36] Botanical Forest Products: Effects on Operational Planning. Ministry of Forests, Lynne Atwood, 1998

Map 4 - ESA Areas in the Study Area (Insert)

4.5 Agricultural Infrastructure

4.5.1 Comox Valley Airport – Air Cargo

Canadian Forces Base Comox has the second largest airstrip in BC, and it is capable of handling very large aircraft. It has facilities for civilian air cargo and passenger services. The Comox Valley Airport Commission (CVAC) is working diligently to develop air cargo links to the Comox Valley. In addition, a storage facility and a cooler/freezer facility are being discussed.

Air cargo flights out of the Comox Valley could provide air access to markets beyond Vancouver Island; however, the cost of airfreight limits these opportunities to higher valued niche market products. The potential for use of the recently initiated West Jet passenger service between Calgary and Comox to deliver fresh or processed products from the Comox Valley to the Alberta market is unknown.

4.5.2 Oyster River Research Farm

Figure 9: Oyster River Research Farm

An important element for information exchange has been the Oyster River Research Farm. This facility, owned by UBC, has provided applied research, demonstration and extension services to Vancouver Island agriculture for the past 40 years. In November 1998, UBC announced the consolidation of its dairy cattle research activities at the UBC Dairy Education and Research Centre at Agassiz as part of a recently established collaboration with Agriculture and Agri-Food Canada. UBC worked with the Vancouver Island Dairymen's Association and the B.C. Milk Marketing Board to leave infrastructure in place to support the grazing trial proposed by the Dairymen's Association and funded by Investment Agriculture. The trial was to help assess ecologically and economically sustainable grazing practices. The faculty retained cows, quota and staff to continue the grazing trial at Oyster River until Oct. 31, 2000.

Oyster River Farm is comprised of two sections, the Lower Farm (located in E.A. D) and the Upper Farm (located in E.A. C). The Lower Farm is approximately 360 acres (145 ha), with 210 acres (84 ha) of cropland, 37 acres (15 ha) of managed woodlot in several pieces, 37 acres (15 ha) of mixed woodland, pasture and riparian land, and 58 acres (23 ha) of foreshore/slough. The Upper Farm is 1374 acres (550 ha), with 1050 acres (420 ha) of managed woodlot, 250 acres (100 ha) of unmanaged woodlot and 75 acres (30 ha) of cleared cropland. All land on the Farm is in the Agricultural Land Reserve.

The Oyster River Farm has the potential to carry out important and highly relevant research and to educate the public on issues related to the local resource base and the industries that rely on it. In response to the closure, and concerns expressed by farmers, the community and local governments, the provincial government has funded the development of a business plan for the facility. A component of the plan will be to consider different models of community partnerships for the future of the farm that will allow the strengths of the community, its citizens, its public institutions, its industries and the university to support one another.

Current and possible future or expanded uses include:

- Development of academic and research facilities in the areas of agricultural, forest and environmental sciences;
- Regional environmental and agricultural education facilities such as Montfort House;
- Regional recreational sites and greenways;
- Ecological preserves or reserves such as Oyster River Enhancement Society facilities;
- Managed woodlots and agro forestry;
- Agricultural crop research lands;
- Organic farming, viticulture, niche market crops;
- Dairying.

4.5.3 Barge Facility

The cost of bulk material such as agricultural lime, and off-Island sales of bulky materials such as hay is significantly affected by road-based transportation and ferry costs. There has been an ongoing effort by the Economic Development Society, farmers and local businesses to develop a barge facility that may provide a less expensive transportation alternative. The current BC Ferries facility at Little River (Area B) has been designated in the Electoral Area B Community Plan for development of this service. At present, there are no specific barge facility development initiatives underway.

4.5.4 C C C and C J C Auction Barns and Equipment Sales

C C C and C J C Auctions hold livestock and general auctions twice a month at their facilkit6y in Merville (Electoral Area A). Once a year they hold machinery auctions once a year. This is the only active agricultural auction on Vancouver Island.

4.5.5 Regional Ministry of Agriculture, Food and Fisheries and Local Organization Support

There is a local office of the Ministry of Agriculture, Food and Fisheries, with a professional agrologist on staff. This resource is accessible to individual farmers for technical support and advice, to the farming community for education, and to the general public for education and agricultural awareness.

The Valley also has local farm organizations such as the Farmers Institute, the RDCS Agricultural Advisory Committee, the Farmers Market Society, Agricultural Awareness Committee, Comox Valley Exhibition Association, Comox Regional Organic Producers Society, 4-H clubs along with approximately 40 other commodity and specific interest groups. The area also has representation in regional groups such as the Island Farmers Alliance and provincial commodity organizations and boards.

4.5.6 Processing and Distribution of Farm Products

Following is a summary of the key agricultural products produced in the Valley, and the opportunities available for local processing. (See Table 5) Dairyland is the main processor of agricultural product in the Valley. The number of producers and volume of milk shipped to this plant has declined over the past decade.

Figure 10: Dairyland, Courtenay

Comox Valley Produce Ltd. cleans, grades and processes their own potatoes and distributes them on the Island.

Vancouver Island Produce is a marketing cooperative of mid Island and Comox Valley vegetable growers. The cooperative coordinates the marketing and distribution of products packaged on farm to Island retail outlets.

Some livestock is shipped to Victoria or the mainland for sale live. Most meat products are processed at Gunter Bros Meats the only slaughter plant in the area. Current business volume at Gunter Bros is absorbed in the local and regional market.

The Comox Valley is not a meat inspection area. The major urban areas, the Capital Regional District and the Greater Vancouver Regional District, are both inspected areas meaning that all meat sold through retail outlets and restaurants must be federally inspected. Plants that are not Federally Inspected cannot access these large-scale markets.

In addition to these 3 facilities, processing and value added enterprises are generally "cottage industries," small scale, home based businesses. A study entitled *'Valley FoodWorks - Shared Community Kitchen Project'* looked at the feasibility of developing a shared use community kitchen. The result was that people who do small scale, value added products at home did not want to rent commercial kitchen space. The cost was too high for the volume of product they produced. There are several existing inspected kitchens with varying degrees of availability. Valley FoodWorks 'has held several workshops dealing with value added food products and food safety.

The typical development of an on-farm processing operation is to start with an in-home kitchen. That scale of processing allows direct sales or sales at the farmers' market. Once a producer wants to expand beyond that point, they need an approved kitchen, depending on the type of product. This becomes a problem, because of the need for additional space and equipment. Some producers access approved facilities by using kitchens that are available for rent. They may also need a test kitchen with lab facilities (such as pH metres). These facilities are not currently available in the Comox Valley.

Commercial scale processors have expressed an interest in accessing local produce such as fruits for jams. St Jean's Cannery in Nanaimo is reported to be willing to work with local producers even on a co-packing basis. They would be willing to move their processing to an "on-farm" location, in the Comox Valley, so that they can process fresh product immediately after picking. The problem for them is finding adequate volumes of product to process economically, and the relatively short season for most products. In other words, there is both a shortage of small scale processing facilities, and for larger scale processing, a shortage of product.

There may be considerable opportunity for livestock producers to cooperatively produce and market specialty products. Local producers of grass fed beef report that they are unable to meet demand. The climate and soils of the Comox Valley are very well suited to long season intensive grazing.

Non-timber forest products are marketed through Hiawatha Inc. and Western Evergreens Limited.

4.5.6 Regional and Local Marketing

Comox Valley residents have a range of choices, when it comes to buying food. They may shop at major grocery stores, such as *Thrifty's, Superstore, Safeway* or *Overwaitea,* and *Quality Foods. Wal-Mart* has also recently entered the market and is expected to offer shelf stable food products.

Canada Safeway has a strict policy that all products have to be purchased and distributed centrally. Superstore and Super Valu are apparently willing to buy local products, but producers are expected to pay to ship to Winnipeg, where there appears to be little control as to where it goes after that. Thrifty's, Overwaitea and Quality Foods do retail local products. Canadian Tire also buys specific horticultural products and food products such as pumpkins seasonally.

One limitation to local marketing through major retail outlets is supply capacity, which means that producers may not be able to deliver the quantities required for large-scale promotion. When it comes to staple commodities, such as fluid milk, there is an additional challenge that many stores use these products for "predatory" pricing and loss leaders. Thus, there is constant pressure on everyone within the distribution system to minimize margins. The area also has specialty food stores, such as Edible Island, and Middleton's Meats and the Cutting Edge Meats specializing in organic and natural products and meats respectively.

There are also a number of independent grocers in the Valley including Leungs, Courtenay Country Market, Goods Groceries, Jolly Giant, Union Bay Market, Black Creek Market, the Hornby Island Co-op and Rosie's Country Junction. These outlets do buy local products. However, they have a small portion of the market, especially for fresh produce. The cost of shipping of small volumes is very high, and that cost has to be built into the retail price. Fresh vegetables sales volumes are more likely to be higher through other direct farm markets that may be short on one product or another, than through these outlets. The exceptions would be the specialty markets like Edible Island and Butcher Block. However, there may be an opportunity for smaller producers close to these outlets to use them for direct sales.

Figure 11: Comox Valley Farmers Market

The Comox Valley Farmers' Market is going into its eleventh year. It has grown from 6 or 8 vendors doing a three-hour market on Saturdays to 3 times a week during the summer with between 50 and 60 vendors and over 90 members. The Market is extending its season this year by operating on Saturday in the native Sons Hall in Courtenay. This outlet supports both full time and part time farming operations. Several full time businesses have evolved from the market. Vendors and shoppers feel that it is truly a weekly social event in the Comox Valley and has grown steadily since that first year. They feel that it provides a very valuable marketing tool for part time producers who may work in other occupations during the week and it also allows producers to test market products.

The farmers market is planning to establish a permanent facility in the Valley so that year round operation is possible. The most likely location for such a facility is the exhibition grounds on Headquarters Road.

Table 5: Processing and Distribution of Selected Farm Products		
Product	**Processing**	**Distribution/Consumption**
Milk	Most Fluid milk is processed at Dairyland plant in Courtenay. They also process milk from several farms in the Alberni Valley. The volume of milk shipped to Dairyland has declined to levels that may jeopardize the long-term viability of this plant. Several local producers ship to Island Farms in Victoria. A local cheese plant has recently been opened.	Packaged for distribution to retail outlets locally and elsewhere on the Island.
Forage	Mainly stored as silage and hay and fed to the livestock industry in the Valley	Converted to local meat and dairy products.
Meat Products	Beef, lamb, dairy beef and hogs are processed at Gunter Bros. Meats. Some are marketed at a the local auction or shipped to auction in the Fraser Valley	Large portion of locally processed meat is consumed in the Comox Valley
Poultry Products	The statistics show an increase in poultry and egg producers with an increase in small-scale producers. There is only one licensed producer in the plan area.	Product from small producers is sold direct. Product from the licensed facility is graded locally and marketed through the Board, mostly to local outlets.
Cranberries	Five separate acreages of cranberries in the plan area. The growers are members of the Ocean Spray cooperative.	All berries are shipped to Ocean Spray in Richmond where they are cleaned, graded and forwarded for processing in Washington state.
Potatoes	Two large-scale growers and a number of smaller producers with direct farm market outlets.	Large-scale growers grade, package and distribute their product to retailers on the Island. Most of the small-scale farm product is sold in the Comox Valley.
Other Vegetables and fruits	There are a number of growers of fruits and vegetables on less than 2 ha. Relatively small volumes are processed.	Most is sold direct and consumed in the Comox Valley. Some is shipped to St. Jean's Cannery in Nanaimo
Turf Grass	Several smaller scale producers that respond to local housing markets.	Producer distribution to local and regional markets
Horticultural Products	Variable scales of enterprises	Smaller enterprises sell directly to local markets and at the Farmers Market. There is a flower auction available in Vancouver.
Botanical Forest Products	Mushrooms and salal are the main local products.	There are two permanent buyers and a number of seasonal buyers that typically use cash purchase system.

4.5.7 Direct Farm Marketing

The volume of sales through direct outlets, and especially the Farmers' Market, is growing. In addition to serving as a retail outlet, the Farmers' Market offers an opportunity for social interaction and offers a learning experience to consumers. Direct sales cater to the specific segment of the

market that wants more information about the product they are buying and who gain some re-assurance by buying directly from the farmer who produced the product. This is a different shopping pattern from those who seek the speed and convenience of the supermarket. Quality, freshness and the ability to talk to the producer may be among the reasons for their popularity. There is no evidence that sales volumes of the major food retailers is being impacted significantly by growth in direct farm sales.

Two food box programs are operating in the Comox Valley. There may be potential to expand the box programs and Community Supported Agriculture (CSA) in the Valley. A moderate increase could be realized if service clubs sponsored a few food boxes each week to those who need them most. Close collaboration between the producer and program operators allows the producer to educate and inform the consumer about the handling of the products. The programs could provide high quality food to a wide range of customers.

The main form of promotion and advertising used by local producers is word of mouth. Long-standing farm markets are well known to local consumers; some can barely fill the demand of their existing customer base.

Figure 12: Norm's Farm Market

To increase consumer awareness, the agriculture industry in the Comox Valley has participated in consumer education programs such as: Farm Open Houses and tours, Food For Thought, the Fall Fair, the Farmers' Market. In spite of those efforts, two large on farm markets have closed recently due to business changes and other circumstances. One new larger operation started in 2001, and several other smaller operations are also active. There is no current inventory of all the farm gate sales opportunities in the Comox Valley.

One issue with on-farm sales is that although there is demand for local products, time and resources for management of both the farm and a retail facility can create demands that are beyond the capacity of the 'family farm'. That means finding and managing employees for sales and fieldwork, which can further add to management difficulty. There is also an added burden of payroll paperwork and payroll taxes.

An increasing number of rural landowners are recognizing the opportunities to combine agricultural ventures with other activities such as agri-tourism and agro-forestry. There are increasing opportunities to 'sell the farm experience' to urban residents. In other areas, there are events such as Art on the Farm (Cowichan Bay Farm), Feast of the Fields (Farm Folk/City Folk - Duncan), Octoberfest and other farm festivals (Oldfield Orchard, Sidney). There is certainly potential to do more of these types of activities in the Comox Valley.

4.5.8 Consumption

Consumers in the Comox Valley are generally quite loyal to local product if they can find it and identify it. Smaller grocery chains like Thrifty's have increased and maintained market share by supporting Vancouver Island producers.

The Farmers' Market and farm market outlets have generally experienced steady increases in sales because they provide quality, freshness and the ability to talk direct to the producer. There are no recent estimates of the volume of food produced relative to consumption on Vancouver Island. Table

6 shows consumption estimates in1987 and estimates the change since then. In 1987 Island farmers produced about 26.5% of the value of what was consumed.

Table 6: Agricultural Production vs. Consumption on Vancouver Island (1987) and Estimated Change[37]				
Product	**Farm Gate Value of**		**Proportion of Consumption produced on the Island (%)**	
	Production ($000)	**Consumption ($000)**		**Estimated Change since 1987 study**
Fruit	9548	584	4.3[38]	Ratio has declined. Consumption is up and production has declined
Vegetables	9968.4	1415.9	14.2	Slight increase - large producers have been replaced by small scale producers
Red Meat	12125	104948.5	11.6	Probably stable overall
Poultry	10676.7	28567.5	37.4	Ratio is lower. Production has declined – lack of processing.
Eggs	7038.3	11364.1	61.9	Probably stable: many more small-scale producers have replaced large-scale producers.
Dairy Products	57915.5	133429.0	42.8	The number of dairy farms has declined but production has increased.

Between 1986 and 2000, Vancouver Island experienced a 36% population increase. This equates to almost 185,000 additional mouths to feed. During this same period the Regional District of Comox-Strathcona had a 48% population increase, or 34,294 additional people. This population increase, along with stability or in some cases decline in production levels, means there has been a decline in the production to consumption ratio. While there are no recent published studies to substantiate this, it was estimated in a recent presentation by the Ministry of Agriculture, Food and Fisheries that current ratio for eggs is 35%, broilers, 25% and dairy, 85%.[39] These estimates are based on the volume of "quota" sales and do not include direct farm sales. With the value of "imported" feed grains included, only approximately 10% of the value of what is consumed on the Island is produced here.

In spite of the lack of accurate data, the information available indicates that there is a significant import replacement opportunity on Vancouver Island, especially for fruits and vegetables. It is also evident that there are a number of local marketing opportunities that could be used if more products were made available to consumers. It is not clear is what products consumers are looking for, or product attributes such as quality, freshness, freedom from pesticides, convenient packaging or partial processing they would prefer, or what retail conditions such as price, and shopping location would encourage them to buy locally.

[37] BCMAF, March 1987. "Value of Production and Consumption of Land Based Food Crops - Island/Coast Region".
[38] Updated Fruit and Vegetable consumption estimates for 1995 produced by MAFF based on Stats Canada Food Consumption Estimates, Vol II Cat. No. 32-230, 1997
[39] Personal communication with Wayne Haddow, MAFF Agrologist, Duncan.

5.0 Agricultural Economy

The following information is based on Census Canada data. A more detailed description of Comox Strathcona agriculture can be found in *"Regional District of Comox Strathcona: Agricultural Overview"* published by the B.C. Ministry of Agriculture, Food and Fisheries.[40]

5.1 Types of Farms

According to the 2001 Census of Agriculture, there were 445 census farms on a total area of 13,700 ha (33,853 acres) in the RDCS. In contrast, the 1991 census reported 427 farms totalling 12,361 ha (30,532 acres). Both the number of farms, and the area farmed has slightly increased. Distribution of farm types with sales of $2,500 or more, and change from 1991 to 2001 is shown in Table 7.

Table 7: RDCS Farms with Gross Receipts over $2500, by Farm Type[41]

Farm Type	No. of Farms (1991)	No. of Farms (1996)	No. of Farms (2001)	% of Vancouver Island (1996)	Percent of BC (1996)	RDCS - Change from 1991 to 2001	
						Number	Percentage
Dairy	40	34	21	24%	2.87%	-19	-48%
Cattle	85	83	83	19%	.02%	-2	-2%
Hog	9	5	8	10%	2.42%	-1	-11%
Poultry and Eggs	11	20	16	11%	2.16%	5	45%
Wheat, Grain & Oilseed	1	1	1	17%	<.01%	0	0
Field Crops	9	18	32	16%	.011%	23	255%
Fruits	18	34	23	15%	.012%	5	28%
Vegetables	4	14	11	12%	.024%	7	175%
Misc. Specialty	94	121	127	15%	.025%	33	35%
Livestock Combination	16	25	19	16%	.040%	3	19%
Other Combinations	10	13	16	11%	.027%	6	60%
Total	**297**	**368**	**357**				

These farms directly employed 770 in the Comox Valley and 985 in the Regional District[42]. The employment base in the agricultural sector increased by 130 between 1991 and 1996. The highest employment in agriculture on Vancouver Island is in the Capitol Regional District (1,965) and in the Cowichan Regional District (1,095)[43].

Other specific product types that are Included in the specialty farms are shown in Table 8.

[40] B.C. Ministry of Agriculture, Food and Fisheries, 2001*"Regional District of Comox Strathcona: Agricultural Overview"* Complied by Barry Smith
[41] Based on the 1996 Census of Agriculture
[42] http://www.cveds.com/profiles/labourlaborforcecolor.doc
[43] http://www.bcstats.gov.bc.ca/data/dd/facsheet/rd.htm

Table 8: RDCS Specialty Farms by Farm Type		
Farm Type	**No. of Farms (1991)**	**No. of Farms (1996)**
Greenhouse	44 – 54,694 sq. m.[44]	49 – 42,561 sq. m.
Mushroom	2	2
Sod	2	4
Christmas trees	n/a	25
Forest products	n/a	61

Source: Agricultural Overview, Regional District of Comox Strathcona, BCMAFF, June 2001

Figure 13 Cranberries Ready for Shipping

Farms in the Comox Valley produce a wide variety of commodities. Essentially, every major agricultural commodity produced in BC is produced in the Comox Valley. The most significant activities based on sales, are dairy, hogs, poultry and eggs. Based on numbers of farms, "mixed" and cattle farms are the most predominant. Single product "specialized" dairy and hog farms are declining in number while smaller, fruit, vegetable and mixed specialty and livestock operations are increasing in number. The number of poultry and egg farms has also increased. This is likely a result of more small mixed poultry farms, as the number of large commercial operations has declined.

5.2 Farm Size

There is a significant range in area of farms from small farms (less than 4 ha or 10 acres) to large holdings of over 227 ha or 575 acres. The change in area of farms between 1991 and 2001 is shown in Table 9. Farm size includes all parcels making up the land base of the farm enterprise.

Table 9: RDCS Farm Size (by area) 1991 - 2001				
Farm Size (ha)	**Number of farms reporting**			**% change 1991 to 2001**
	1991	**1996**	**2001**	
Less than 4	111	128[45]	131	+18%
4 to 28	185	198	207	+12%
28 to 52	57	47	43	-25%
53 to 73	33	26	23	-43%
74 to 99	13	13	14	+8%
100 to 162	19	13	13	-32%
163 to 226	7	3	5	-29%
227+	2	11	9	+450%
Total	**427**	**439**	**445**	**+4.2%**

Source: Agricultural Overview, Regional District of Comox Strathcona, MAFF, June 2001, Census Canada

[44] Includes Alberni Clayoquot

[45] An earlier table reported 151 farms with less than 10 acres. The apparent contradiction is based on a different definition of farm. Table 9 is based on farms reporting more than $2500 in revenue. Table 10 includes all farms reporting.

5.3 Parcelization

Based on analysis of the 1998 Assessment BC Rolls the Assessment Authority data by the RDCS, Table 10 shows the extent of fragmentation of the land base in the study area. These are "titled" lots, not farms as defined by Census Canada[46]. One farm enterprise could consist of several individually titled parcels.

The main observation from this data is that 42% of the lots in the ALR are 4 ha (10 ac) or larger 41% are between .4 ha (1 ac) and 4 ha (10 ac) and 17% are smaller than .4 ha (1 ac.) This means that there is a good distribution of parcel sizes in the Study Area. The distribution of parcel sizes reasonably reflects the distribution of farm sizes.

Table 10: Parcelization in the Study Area - 1998[47]

Parcel Size	Total ALR		Outside of the ALR		Active Farmland Outside of ALR		Active Farmland In ALR	
	# of parcels	% of total	# of parcels	% of total	# of parcels	% of total	# of parcels	% of total
0 to 0.39ha	246	13%	5820	60%	79	50%	26	6%
0.4 to 0.79ha	117	6%	1160	12%	3	2%	11	2%
0.8 to 1.9ha	284	15%	1328	14%	27	17%	41	9%
2.0 to 3.9ha	330	18%	657	7%	26	16%	58	13%
4.0 to 7.9	242	13%	263	3%	14	9%	74	16%
8.0 or larger	624	34%	523	5%	10	6%	254	55%
TOTAL	1843	100%	9751	100%	159	100%	464	100%

LIMITATION: If a road/water/power line divides a parcel (owned by the same owner obviously) into two, then those two parcels will be counted as two with individual lot sizes

There are total of 159 parcels with "farm" assessment status outside of the ALR within the Study Area. The total area of these parcels is 9,751 hectares. At least 30 of the parcels are associated with active part time and full time farms located in the ALR. Farming activities outside of the ALR are faced with two difficulties:

- incompatible non-farm uses may be able to establish on adjacent lands.
- there is no protection under the Farm Practices Protection Act unless they are zoned for farm use by the RDCS.

Within the ALR, only 25.2% of the parcels are currently assessed as being agricultural in use. There are 192 owners of assessed farmland, and 1410 owners of land that is not assessed as farmland within the study area. This data does not include farm uses and ownership that do not meet the BC Assessment Authority criteria for farm status. A higher proportion of larger parcels (4.0 ha or more) are currently in agricultural use compared to smaller parcels. Still, only one third of the larger parcels are in agricultural use as defined by the Assessment Authority.

[46] Assessment farm class is based on gross sales of more than $10,000 from parcels smaller than 8,000 m^2 (2ac), gross sales of $2,500 if the land area is between 8,000 m^2 (2ac) and 4 ha (10ac), and gross sales of $2,500 plus 5 per cent of the actual value of any farm land in excess of 4 ha (10ac) if the lot is larger than 4 ha (10 ac). Census Canada describes a farm as a business that sells at least $50.00 worth of agricultural product, including crops, livestock, poultry, animal products, or other agricultural products such as honey mushrooms or Christmas trees.

[47] Generated by RDCS based on GIS property mapping

Table 11: Active Farmland in the ALR, and Outside the ALR in the Study Area - 1998[48]								
	ALR		Outside of ALR		Active Farmland Outside of ALR		Active Farmland in ALR	
	# of parcels	% of total	# of parcels	% of total	# of parcels	% of total	# of parcels	% of total
0 to 0.39ha	246	13%	5820	60%	79	50%	26	6%
0.4 to 0.79ha	117	6%	1160	12%	3	2%	11	2%
0.8 to 1.9ha	284	15%	1328	14%	27	17%	41	9%
2.0 to 3.9ha	330	18%	657	7%	26	16%	58	13%
4.0 to 7.9	242	13%	263	3%	14	9%	74	16%
8.0 or larger	624	34%	523	5%	10	6%	254	55%
TOTAL	1843	100%	9751	100%	159	100%	464	100%

5.4 Farm Land Use

Based on the 1996 Census, 13,403 hectares is used for agriculture and related uses. The use of farmland is shown in Table 12. In terms of use of land, 219 (50%) of the farms reported 'unmanaged pasture' totalling 3146 ha (7774 acres) or 23.5% of the total reported farmland base.

Table 12: RDCS Farm Land Use - 1996[49]	
Crop	**Hectares**
Perennial Forages produced for livestock feed	7954
Annual Forages produced for livestock feed	391
Potatoes	132
Cranberries	41
Other Berries and Grapes	22
Apples	16
Other tree fruits	18
Vegetables	103
Summer fallow	161
Other	4347
Total	**13,403**

Of the land that is farmed, the majority (over 62%) is used for production of livestock feed and related uses. 'Grass' or pasture is often viewed as unused land; in practice it provides feed for a livestock industry that generates $15-20 million annually in the RDCS.

The land used for vegetables, berries and fruits is less than 500 hectares (3.6% of the reported farm land use) and is equivalent to only 1.2% of the ALR in the RDCS. Potato and corn production and summer fallow represent the majority of those 500 hectares.

[48] Generated by RDCS based on BC Assessment Authority data

[49] Based on 1996 statistics. Perennial and annual forage crops for livestock feed are reported as a mixture of 'Field Crops' and Pasture by Statistics Canada.

Table 13: Areas of Land in Farm Types in the Study Area - 1998[50]				
Actual Use Code	Actual Use Description	Total Area In ALR (ha)	Total Area Outside ALR (ha)	Total Area In Hectares
110	GRAIN & FORAGE	718	18	736
111	GRAIN & FORAGE - VACANT	154	2	156
120	VEGETABLE & TRUCK	175	14	189
121	VEGETABLE & TRUCK - VACANT	89	0	89
130	TREE FRUITS	13	2	15
131	TREE FRUITS - VACANT	0	0	0
140	SMALL FRUITS	90	24	114
141	SMALL FRUITS - VACANT	17	2	19
150	BEEF	2,100	85	2,184
151	BEEF - VACANT	283	8	291
160	DAIRY	1,413	2	1,415
161	DAIRY - VACANT	702	28	730
170	POULTRY	46	4	51
171	POULTRY - VACANT	0	0	0
180	MIXED	574	59	633
181	MIXED - VACANT	8	0	8
190	OTHER	459	60	519
191	OTHER - VACANT	463	39	502
400	FRUIT & VEGETABLE	0	0	0
	TOTALS	7,303	348	**7,650**

Using assessment data, land areas and farm types can be linked. Because the standards for farm classification are different for census data collection compared to assessment data, the areas shown in Table 12 and in Table 13 are not directly comparable[51]. BC Assessment sets a higher standard than the general census ($50.00 in gross sales) or the $2500 in gross sales data within the census (Table 7). The assessment data therefore under reports small farms compared to the census.

Land shown as "Vacant" is land that that does not have structures or improvements with assessed value. This land is primarily in forage or pasture uses. The Assessment data shows that livestock operations (Beef and Dairy) account for 62% of the assessed farmland even though they account for less than 10% of the number of farms in the Region grossing more than $2500 in sales. There are two explanations for this. One is that all of the dairy farms in the RDCS are located in the study area. The second is that dairy and beef are land extensive uses that rely on forage for both winter-feeding as hay and for summer feeding as pasture.

[50] Source: BC Assessment Authority

[51] Assessment farm class is based on gross sales of more than $10,000 from parcels smaller than 8,000 m^2 (2ac), gross sales of $2,500 if the land area is between 8,000 m^2 (2ac) and 4 ha (10ac), and gross sales of $2,500 plus 5 per cent of the actual value of any farm land in excess of 4 ha (10ac) if the lot is larger than 4 ha (10 ac).

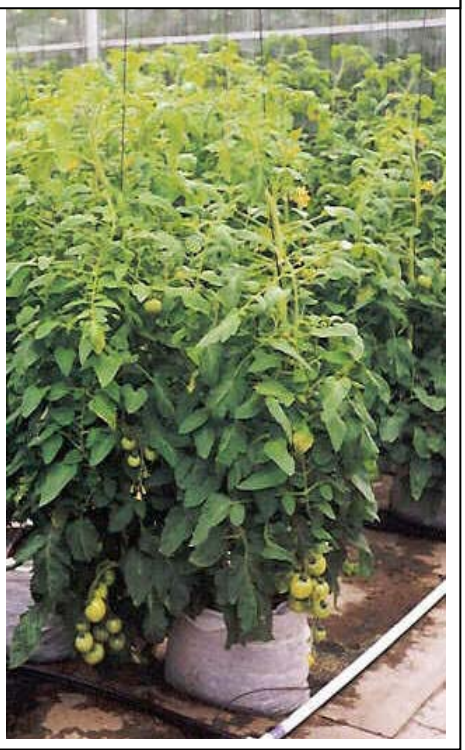
Figure 14: Cattle on Pasture

Due to the large area of land used for livestock, land management issues and conflicts are most likely to be livestock based.

Another observation is that only about one third of the total ALR land in the study area is in assessed farm use. This is a low estimate as many small census farms are not included in the assessment data. This estimate is based on census data.

Based on Assessment and Census data, it appears that there is a significant "untapped" land base of unused or underutilized agricultural land resources in the ALR in the Regional District and the Comox Valley. There are approximately 40,270 ha of land in the ALR in the District, and approximately 19,670 ha. in the study area. Assuming that the reported uses on farmland land above is all in the ALR, less than 33.3% of land in the ALR in the Region is used for agriculture.

Figure 15: Greenhouse Tomatoes



5.5 Farm Revenues

Total gross farm receipts in the RDCS have increased from $24.6 million in 1991 to $28.1 million in 1996 – a 14.2% increase over 5 years (not corrected for inflation). Approximately 10 % of the total of 439 farms generated gross revenues of $100,000 or more, and over 50% of the total farm revenue. Small farm i.e. farms of 4 ha (10 acres) or less constituted 34% of the total number of farms, and generated approximately 6.5% of total farm sales (See Table 14.)

Table14: RDCS Farm Gross Receipts - 1996[52]

Gross Farm Receipts	Total all RDCS Farms
Under $2500	71
$2500 - $4999	107
$5000 - $9999	97
$10000 - $24999	82
$25000 - $49999	15
$50000 - $99999	22
$100000 - $249999	13
$250000 - $499999	16
$500000+	16
Gross Farm Receipts	$28,099,369
Total Farms	439

[52] Census Canada, 1996

A significant proportion of the revenue from small farms comes from intensive operations on small land bases (See Table 15.) In Electoral Area A there are 6 small farms reporting over $50,000, 2 in Electoral Area B and 1 in Electoral Area C. Assuming those farms generate average revenue in the category ($75,000), then 6% of the small farms (farms less than 10 acres) generate 38% of the total revenue in the small farm category. While there are some very productive small farms, the remainder of the small farms average approximately $8,000 per farm in gross sales.

Table15: Study Area Small Farm Gross Receipts - 1996[53]			
	Study Area Small Farms (less than 4 hectares) in:		
Gross Farm Receipts	**Electoral Area A**	**Electoral Area B**	**Electoral Area C**
Under $2500	11	4	26
$2500 - $4999	4	3	40
$5000 - $9999	5	4	26
$10000 - $24999	1	1	15
$25000 - $49999	0	0	2
$50000 - $99999	1	2	4
$100000 - $249999	0	0	1
$250000 - $499999	0	0	1
$500000+	0	0	0
Gross Farm Receipts	**$125,168**	**$193,201**	**$1,472,886**
Total Farms	**22**	**14**	**115**

5.6 Agritourism

Additional farm income is generated from some farms through B&B or other tourism activities. Income from these sources is not reported in the Census of Agriculture.

Figure 16: Rural Bed & Breakfast

Tourism accounts for 5% of the gross annual product of the BC economy. Outdoor experiences and cultural events are a significant attraction to tourists.

The growing potential of agritourism as a market opportunity is recognized by the province as the Ministries of Agriculture, Food and Fisheries, and Competition, Science and Enterprise are currently organizing a provincial Agritourism Committee to help support and promote agritourism development. There are a wide variety of opportunities included in agritourism from on-farm Bed and Breakfast or camping, to on-farm work experience vacations through sales of local products at the farm gate or at farmers markets and events, agriculturally related events and cultural activities, to the "countryside" of farms, woodlots and natural areas as a resource for wildlife viewing, hiking or riding, or simply travelling the back roads.

[53] Census Canada, 1996

The farmers market and the Comox Valley Exhibition Fall Fair held in August are the key "event" attractions in the study area. Over 15,000 visitors come annually in late August to the exhibition, which includes family activities, educational displays, sustainable community issues, entertainment, livestock and exhibits.

There is no good inventory of current on-farm agritourism activities. Although several members of the Comox Valley Bed and Breakfast Association promote a rural location, only one specifically promotes their farming activity.

If the success of other areas such as the Cowichan Valley is an indication of opportunities, the study area has significant untapped potential for agritourism development– both on-farm and area events.

6.0 Summary

The study area has a long history of agricultural activity based on its relatively strong resources including a good quality land resource base, good climate and agricultural community.

Still, a considerable portion of both the production potential and the potential to develop local markets and sales opportunities remains untapped. The Comox valley has much to offer new investors and businesses in terms of a growing small farm sector, a significant local market, available opportunities for direct farm marketing, untapped potential in agritourism and supportive local and regional policies and land use controls.

Along with these opportunities there are some constraints that will have to be addressed in order to optimize the areas potential. There are acidity, drainage and irrigation issues with local soils, and the need to address a number of local organizational, infrastructural, training and other issues before opportunities can be fully realized. Phase 2 of this Plan addresses these Issues and Opportunities in more detail.

Appendices

Appendix A: RDCS Planning Documents in the Study Area

Electoral Areas A, B, & C

Bylaw No. 2042 – "Comox Valley Official Community Plan, 1998" (Adopted Feb. 22, 1999)

- *Schedule C – Electoral Area 'C' Land Use and Greenways Plan and the Saratoga/Miracle Beach Local Area Plan (Amending Bylaw No. 2100 – Adopted October 25, 1999)*
- *Schedule D – Electoral Area 'B' Land Use and Greenways Plan (Amending Bylaw No. 2152 – Adopted February 28, 2001)*
- *Schedule E – Electoral Area 'B' Anderton Road Local Area Plan (Amending Bylaw No. 2153 – Adopted August 27, 2001)*
- *Schedule F– Electoral Area 'A' Plan (Amending Bylaw No. 2192 – Adopted January 31, 2000)*
- *Schedule G – Electoral Area 'A' Union Bay Local Area Plan (Amending Bylaw No. 2193 – Adopted January 31, 2000)*
- *Schedule H – Electoral Area 'A' Greenways Plan (Amending Bylaw No. 2194 – Adopted January 31, 2000)*
- *Schedule I – Electoral Area A Royston Local Area Plan (Amending Bylaw No. 2366 – Adopted October 29, 2001)*
- *Schedule J – Electoral Area 'C' Mt. Washington Local Area Plan (Amending Bylaw No. 2368 – Adopted October 29, 2001)*

Bylaw No. 869 – "Comox Valley Zoning Bylaw, 1986" (Adopted April 28, 1986)

Electoral Area D

Bylaw No.1857 – "Oyster Bay /Buttle Lake Official Community Plan, 1996" (Adopted April 28, 1997)

- *Electoral Area 'D' Greenways Plan (Amending Bylaw No. 2206 –Adopted January 31, 2000)*

Bylaw No. 1404 – "Campbell River Area Zoning Bylaw, 1990" (Adopted March 30, 1992)

***Also the following bylaws affect Electoral Areas A, B, C, & D**

Bylaw No. 1836 – "Floodplain Management Bylaw, 1997" (Adopted April 28, 1997)
Bylaw No. 1931 – "Bylaw Amendment, Permit Procedures & Fees Bylaw, 1997"

Appendix B: Aquifers in the Plan Area

Aquifer number/location		Class	Size (km^2)	Well output (US gpm)	Vulnerability	Demand	Water use	Concerns
414	Mouth of Rosewall Creek	IIA(13)	1.5	60 to 650	High	High	Multiple	None
415	Tsable River Delta	IIIA (10)	.8	100 (1 well)	High	Low	Drinking water	None
416	Deep Bay south	IIB (12)	13.7	5 to 200	Moderate	Low	Multiple	None
419	Inland from Ship's Point	IIIB (12)	4.0	15 to 500	Moderate	Moderate	Drinking Water	None
413	West of Royston, North to Puntledge	IIA (12)	18.4	1/2 to 15	High	Moderate	Multiple	None
417	North of Cumberland to Puntledge River	IIIA (11)	16.9	25 +/-	High	Low	Drinking water	None
408	All of Electoral Areas B and C east of the Tsolum and as far north as Endall Road	IIC (13)	148.0	.3 to 500 (10 ave.)	Low	High	Multiple	Local
407	Sandpines – Lazo	IIA (10)	1.9	3 to 40 (13+ avg.)	High	Low	Drinking Water	Isolated quality concern
409	Little River Delta	IIIA (8)	1.3	3 to 10 (4+ avg.)	High	Low	Drinking Water	None
410	South bank of Oyster River Delta	IIA (11)	1.7	7.9 to 300	High	Moderate	Drinking Water	None
411	Lory Rd & MacAuley Rd. area	IIIC 7	1.2	.7 to 20	Low	Low	Multiple	None
412	Oyster River Research Farm	IIA 11	3.2	6 to 50	High	Moderate	Multiple	None
418	Robinson Lake – upper MacAuley	IIIC 7	1.4	4 to 10	Low	Low	Multiple	None
420	Miracle Beach Park	IIB 9	.4	1 to 97	Moderate	Low	Drinking Water	Isolated quality concern