

REGIONAL DISTRICT OF CENTRAL OKANAGAN

AGRICULTURAL PLAN _____ ***Background Report***



INTEGRA
Community
Planning Services



FINAL
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1.1 Plan Purpose

The purpose of the Agricultural Plan as stated in the Terms of Reference is:

“to enhance the viability of the agricultural sector in the Regional District by addressing farm viability issues arising from resource potential, diversification opportunities, urbanization conflicts and competition for agricultural land. While it is recognized that there are a broad range of issues and jurisdictions that have an impact upon agriculture, the main focus of this Agricultural Plan will be on those issues that lie within the jurisdiction of the Regional District.

An Agricultural Plan is intended to achieve:

- an enhanced understanding of agriculture as a basis for establishing solution-oriented policies;
- greater focus on the farmland base and agricultural issues;
- inclusive planning processes where members of the farm community are full partners in the plan’s development; and
- improved local and Provincial (and Federal, where appropriate) policy integration (Smith, 1998), recognizing that the plan will focus mainly on activities within the jurisdiction of the Regional District.

1.2 Plan Context

The Central Okanagan Regional District Agricultural Plan applies to those areas, mainly consisting of lands in the Agricultural Land Reserve, that lie outside the boundaries and jurisdictions of the City of Kelowna, and the municipalities of Peachland and Lake Country and Indian Reserves. These lands range in elevation from Okanagan Lake (elev. 342m) to over 1000m on parts of the adjacent plateau areas. On the west side of Okanagan Lake the most highly developed and diverse agricultural lands occur below the 700m elevation in the Westbank and Lakeview Heights areas. On the east side of Okanagan Lake, the most concentrated area of agricultural development is in the Ellison area. Lands at intermediate elevations include those in the Glenrosa area, east of Ellison, and in the Joe Riche-Belgo Creek area. These are less intensively developed agricultural lands. The plan area also contains high lying, essentially undeveloped ALR lands, in

scattered areas; south of Shorts Creek; in the general vicinity of Silver Lake; near James Lake; and east and north of Black Knight Mountain.

The ALR lands in the Regional District are shown on Map 1. Also shown on Map 1 are planning areas that represent unique geographic regions and settlement areas within the Regional District. These areas are the subject of specific Official Community Plan documents including:

<i>Planning Area</i>	<i>Existing Planning Documents</i>	<i>ALR Area - Agricultural Zone</i>
North Westside	North Westside Official Community Plan	➤ generally lands > 1000m
Westside	Westside Official Community Plan	➤ Westbank – Shannon Lake ➤ Lakeview Heights – Sunnyside
Joe Rich	Joe Rich Land Use By-law	➤ Joe Rich – Belgo Creek (600m – 1000m)
Ellison	Ellison Official Community Plan	➤ Ellison












These planning areas also represent unique agricultural zones and are used throughout this document to provide a framework for the analysis and discussion of agricultural issues.

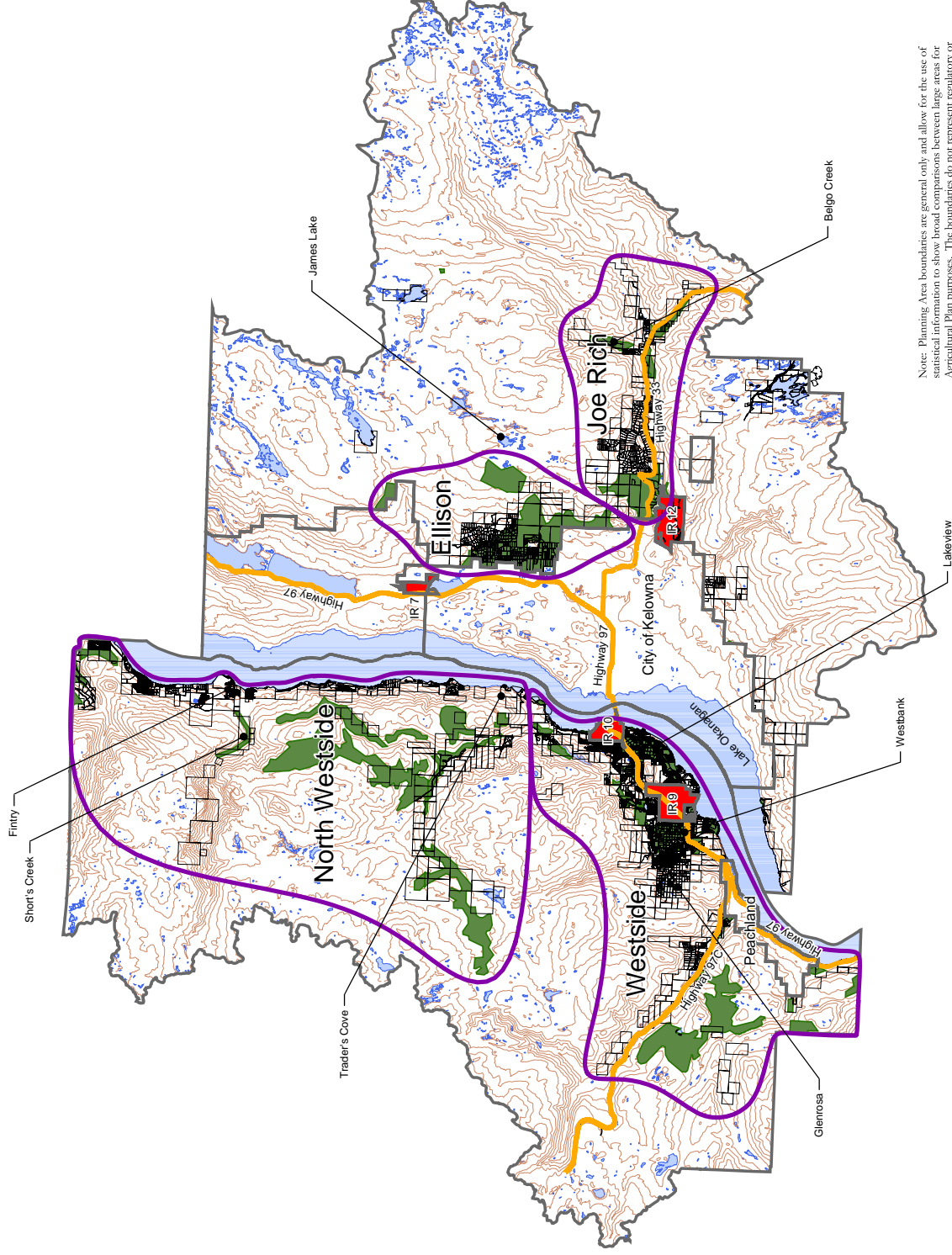
It is important to recognize that those farms are not only part of the agricultural industry in the Okanagan valley but also are major players in the community in other ways. Agricultural land is a large part of the land base and an important shaper of the form of towns as well as a strong visual image in people's minds. Tourism has also benefited from the pleasant rural landscape, agricultural land uses, and the resulting activities and festivals.

The community has confirmed the importance of the agricultural landscape and agricultural activities to the livability of the region through recent processes to update both the Westside and the Ellison Official Community Plans. The desire to have an Agricultural Plan was established and supported in the policies of the Regional District.

Agricultural Plan

Project and Planning Areas
Map 1

-  Planning Areas
-  Administrative Areas
-  Highways
-  Parcels
-  ALR
-  R10 IR # 10 - Tsinsikeptum
-  R12 IR # 12 - Medicine Creek
-  R7 IR # 7 - Duck Lake
-  R9 IR # 9 - Tsinsikeptum
-  Contours (100m Interval)
-  Lakes



Note: Planning Area boundaries are general only and allow for the use of statistical information to show broad comparisons between large areas for Agricultural Plan purposes. The boundaries do not represent regulatory or policy boundaries within the Regional District. Policies within this plan apply to all areas.



1:300,000

Agricultural land in the ALR is of critical importance to the farm sector and to society as a whole through its role in protecting society's local foodlands. Agricultural land also has roles in providing open green space, that is valued by residents and tourists to the region and in contributing to the economy. The total farm capital value in the entire Regional District, including Kelowna, Lake Country and Peachland in 2001 was \$829.5 million with sales of \$74.9 million and wages of \$20 million. Within the RDCO, the municipalities of Lake Country and the City of Kelowna have prepared or are preparing plans to address agriculture within their own jurisdiction. This plan addresses areas that lie outside the jurisdictions of member municipalities and Indian Reserves as shown on Map 1 while maintaining a strong sense of the larger regional context.

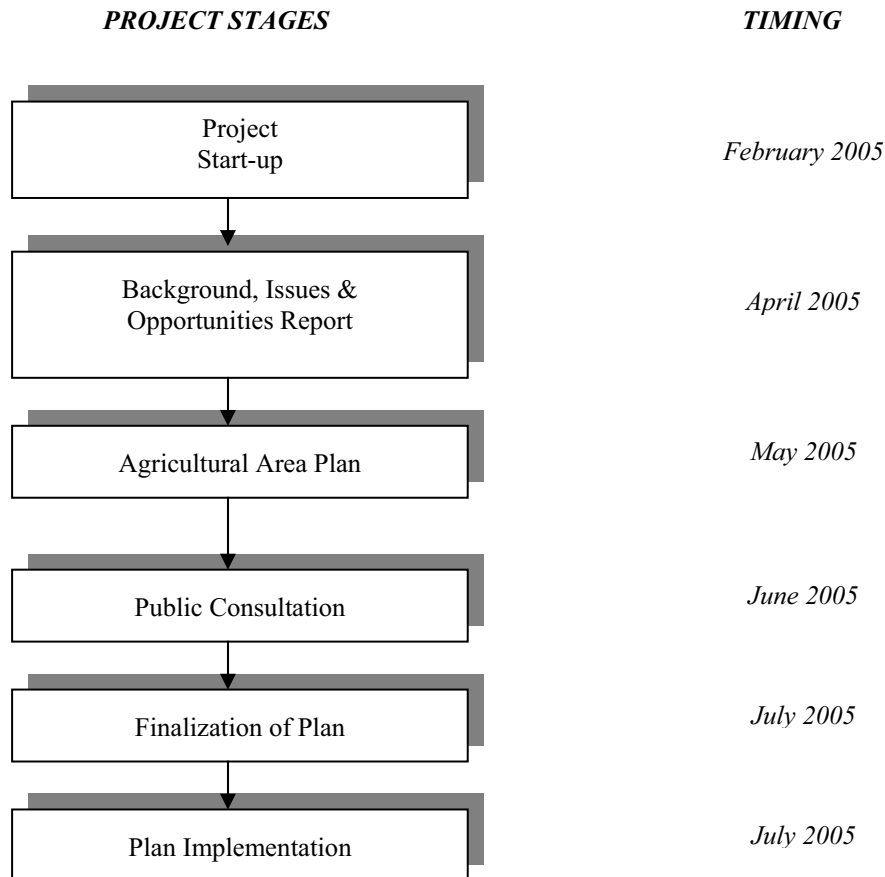
The most prominent agricultural uses in the Plan area include tree fruits, vineyards, pasture and forage operations and horse and beef cattle farms. Secondary agricultural activities include wineries, wholesaling and retailing of agricultural products and tourist tours. Agricultural land use and production is dependent on the climate, soils and management practices. New farm practices, such as irrigation efficiencies and higher yield crop varieties all contribute to the health and viability of agriculture in the Regional District.

Agriculture is also competing with other uses for a limited land base. The Okanagan is growing quickly and the most easily serviced and easily developed land is also often the most agriculturally viable.

The Agriculture Plan provides an opportunity to address current issues and to discuss directions for the best possible future for agriculture. The purpose of the Plan is to identify what the District can do to encourage agricultural activity within the ALR. This document has been developed to provide the background necessary for an informed review and discussion of agricultural issues in the Regional District.

1.3 Planning Process

This Background report outlines the background consultation and research plus the key points derived from that research. From that there are several issues identified and some broad statements of opportunities. This report forms the background to the Agricultural Plan. The Agricultural Plan itself will make recommendations on how to best take advantage of these opportunities.



1.4 Consultation & Research

The Terms of Reference for this project required that background research include direct industry consultation. During March and April the following agencies, organizations and representatives of the farm industry were contacted to collect input on issues, opportunities and the current status of agriculture in the Regional District. We wish to thank all of the parties who contributed time and information to this report.

Regional District of Central Okanagan

- Staff
- Agricultural Advisory Committee
- Planning & Environment Committee
- Environmental Advisory Committee
- Economic Development Commission

Ministry of Agriculture and Lands

Agricultural Land Commission

B.C. Assessment Authority

District of Lake Country

Environmental Farm Program

City of Kelowna (Planning)

University of British Columbia Okanagan, Department of Agriculture

Fisheries & Oceans Canada

Ministry of Water, Land & Air Protection

Ministry of Transportation

First Nations

Summerland Research Station

Sterile Insect Release Program

Water Improvement Districts – Westbank, Lakeview, Glenmore-Ellison, Black Mountain

Westbank/Kelowna Chamber of Commerce

Orchard Museum

Interior Vegetable Marketing Agency Cooperative

Okanagan Partnerships

Independent Grape Growers Association

Gellatly Nut Farm

Investment Agriculture

B.C. Cattlemen's Association

B.C. Fruit Packers Cooperative

B.C. Tree Fruits Ltd./B.C. Fruit Growers
Okanagan Tree Fruit Authority
B.C. Wine Institute
Nursery

Orchardist, Westside
Livestock Producer, Joe Rich
Agri Tourism, Upper Ellison/Joe Rich
Ranching, Ellison
Winery, Westside

From the earliest days of settlement growth in the central Okanagan in the mid-1800's, agriculture has been a vital part of the economic and cultural lifestyle in the valley.

Even in the years before settlement began, the area had been inhabited for an estimated 7000 years by members of the Okanagan Indian community. An ample food supply of berries, roots, fish and deer was available as first nations people traversed the valley. Also, in pre-settlement days, fur traders and prospectors searching for gold in the Cariboo region passed through the area. Ranching and wheat-growing activities also predated major settlement growth in the central Okanagan.

The establishment of the Oblate Mission in the 1860's prompted initial fruit-growing efforts in the area. Agricultural activities spread to lands on both sides of Lake Okanagan during the latter half of the 1800's, with activities such as the railway extension onto the valley helping to advance the fledgling industry. The Westbank/Lakeview, Fintry, Ellison, and Joe Rich areas became integral parts of the central Okanagan agricultural community as the industry expanded. In support of the industry, the British Columbia Fruit Growers was established in 1892, including Okanagan representation in the organization.

The early years of the industry in the central Okanagan were challenging, with many physical and economic constraints to its survival - crop disease, water limitations, gluts in market supply, war conditions. However, the agricultural industry persisted, in good and difficult years, becoming increasingly an essential component of the central Okanagan area. Agricultural production has grown and evolved into numerous areas of production – apples, cherries, peaches, vegetables, and grapes. At the same time, livestock and poultry production activities have continued in the area with livestock mainly in the higher elevations while crop production more centralized in the valley bottom.

The area also moved with the times in the extension of essential irrigation systems, the introduction of new fruit varieties, the advent of high-density plantings, and the development of a high quality network of wineries. To present the many facets of the industry to the general public, nationally and internationally, agri-tourism opportunities have been integrated into the regional agricultural setting.

Significant portions of the agricultural land base came under regional jurisdiction upon the creation of the Regional District of Central Okanagan in 1967. Today, agricultural lands are included in three Electoral Areas and three municipalities of Kelowna, Lake Country, and Peachland.

The advent of the Agricultural Land Reserve in 1973-1974 put in place protection of the productive land base, supported by the Farm Practices Protection Act (Right-to-Farm) enacted in 1996, and a number of additional legislative initiatives in support of agriculture. The Province of BC established the Agricultural Land Reserve (ALR) with the goal of protecting the agricultural land base of BC. Land in the ALR cannot be used for non-agricultural purposes or subdivided without the permission of the provincial Agricultural Land Commission.

The Regional District of Central Okanagan is fortunate today to have many vestiges of our agricultural past still intact for the education and enjoyment of citizens and visitors. Features such as the Gellatly Nut Farm, Fintry Heritage Estate, remnants of irrigation flume networks, Orchard and Wine Museums, and heritage homes in agricultural areas all serve to express the depth and significance of the agricultural community in the central Okanagan.



*Historical farm building converted
to wine shop*

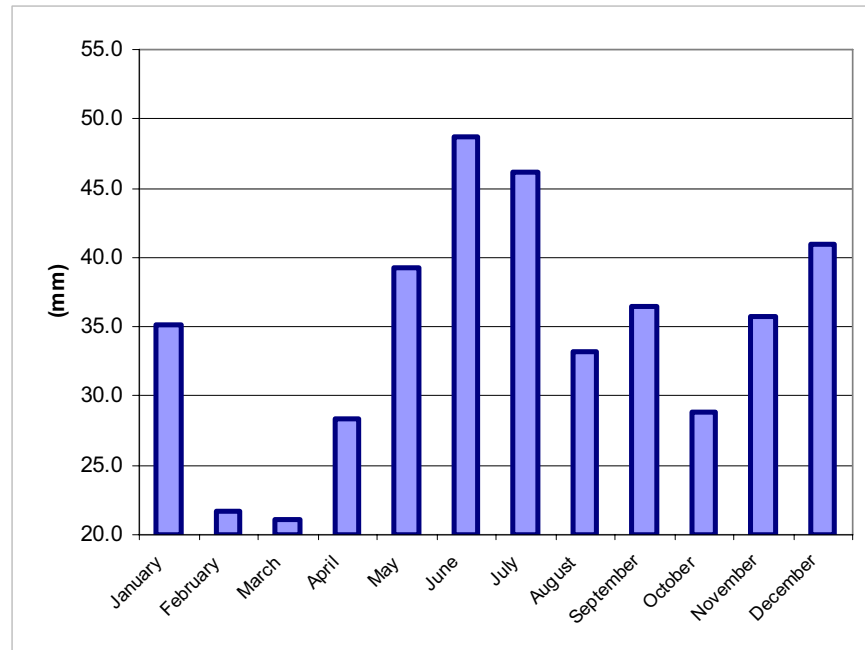
3.1 Climate

The lack of adequate growing season precipitation is the major climatic limitation for agriculture in the Regional District. Table 3.1 and Figure 3.1 illustrate temperature and precipitation conditions impacting agriculture in the Regional District (Source: <http://www.msc-smc-ec-gc-ca/climate>).

Table 3.1 *Mean Temperature & Precipitation Range*
Kelowna East, Elevation 491m

	<i>Mean Daily Maximum</i>	<i>Mean Daily Minimum</i>	<i>Precipitation</i>
January	.5°C	-5.1°C	35.10mm
July	27.2°C	13.4°C	47.1mm

Figure 3.1 *Annual Precipitation (mm)*



Essentially all agricultural crop production requires supplemental and timely irrigation. This situation is most critical at the lowest elevations but is a severe limitation even at the highest lying areas. On the other hand, long frost-free periods and relatively mild winters, together with high accumulations of growing-degree days and sunshine-hours during the growing season, provide opportunities for the production of the widest range of agricultural crops in Canada.

Frost-free periods of at least 120 days, and commonly over 150 days are usual for the Westbank, Lakeview Heights and Ellison areas. The frost-free period progressively decreases with increased elevation with upper Glenrosa, Ellison and Black Knight Mountain having values in the range of 75 to 100 days depending on local landscape features such as aspect, and cold air drainage (or pooling). The Belgo Creek-Joe Riche Area, specifically, has relatively short frost-free periods, generally in the range of 50 days, due to downward cold air drainage from the adjacent high elevations and pooling on the valley floors. Frost-free periods at the highest elevations are generally less than 75 days.

Minimum winter temperatures seldom exceed –30 degrees C at the lowest elevations and are usually of short duration. Minimum extreme values over the past 15 years have not exceeded –20 to –25 degrees C.

Growing degree-days accumulations during the growing season at the lower elevations range between about 1600 to 2200 depending on aspect and air drainage. These values progressively decrease with increasing elevation to about 1000 for the highest lying ALR areas.

Mean annual temperatures range from about 7.5 to 8.8 degrees C for the settled portions of the Plan areas while annual maximum and minimum values are about 13.5 and 3.0 degrees respectively. Values for the Belgo Creek-Joe Riche area are somewhat lower.

Total annual precipitation is in the range of 325 mm/year while growing season values (May-September inclusive) are about 130 to 140 mm. Total annual snowfall is usually less than 100 cm. The plan area is severely moisture deficient during the growing season and timely and assured supplemental irrigation is required for essentially all crop production. Non-irrigation relegates agricultural production to natural grazing species or limited amounts of early season pasture and forage crops.

Climatic data from the last 15 years or so suggests that the frost-free periods, growing degree-days and summer temperatures are generally increasing for the lands of the Plan

area while growing season precipitation is decreasing. This trend, if it continues, has long-term implications for agriculture. On the one hand, the conditions for the production of crops and, varieties which require long frost-free periods and high growing season temperatures will become more widespread. On the other hand, the need for and amount of irrigation will become even more critical.

Water for irrigation is currently mostly supplied from storage areas developed on the upland plateau areas (i.e. reservoirs) and distributed via pipeline as required. Some is pumped from Okanagan Lake and limited amounts are provided by groundwater (i.e. wells). Irrigation is discussed in Section 4.

3.2 Soils and Agricultural Land Capability

The soils in the plan area are variable and are summarized by ALR areas.

3.2.1 Westbank-Shannon Lake

Soils in the vicinity and north of Westbank, and in the general Shannon Lake area are dominantly of glaciofluvial origin and have gently to moderately undulating or sloping surfaces with steeper inclinations. Textures are mostly sandy loam or loamy sand, sometimes gravelly, in the upper 15 to 50 cm, then grade rapidly to gravelly sand or gravel in the subsoil. Stoniness is variable, depending on the thickness of the sandy surface capping and on the contents in the underlying gravel. The soils are rapidly drained and have low moisture holding capacity. They are non-saline, neutral in reaction (pH) under natural conditions, and have low to moderate natural fertility.

Land capabilities for agriculture under natural conditions (i.e. unimproved) are mostly Class 6 or Class 5 due to severe climatic aridity and are limited to natural grazing or limited pasture or forage production. With irrigation, and stone picking and fertilization as required, the capability improves to Class 2 or 3 and indicates a wide range of climatically suited crops can be produced.

Agricultural land uses consist primarily of orchards (mostly apples and cherries), vineyards and limited areas of small fruits. Some holdings are developed as forage and pasture for horses and livestock.

3.2.3 Lakeview Heights – Sunnyside

The soils in the general vicinity of Sunnyside and Lakeview Heights are mostly of glaciolacustrine origin with small interspersed areas originating in glaciofluvial or morainal materials. They are mostly gently to moderately sloping or undulating with scattered steeper inclusions. Textures range from silt loam or silty clay loam to sandy loam in the surface soils; the subsoils are usually similar as well. Stone content is low although varying amounts of gravel sometimes occur. The soils are well to moderately well drained and have high to moderate water holding capacity. The more steeply sloping areas are moderately erodible. They are generally non-saline (in small areas the subsoils are moderately saline), neutral in reaction and have moderate to high natural fertility.

Land capabilities of agriculture under natural (unimproved) conditions are mostly Class 5 due to severe climatic aridity and are limited to natural grazing or pasture and forage production. With irrigation, the capability improves markedly to Class 1, 2, or 3 depending on topographic conditions that may be present. Essentially all climatically suited crops can be produced.

Agricultural uses are primarily vineyards and orchards with small inclusions of a variety of small fruits and vegetables.

3.2.3 Ellison Area

The soils in the settled parts of the Ellison area have developed mainly in glaciolacustrine or fluvial deposits at the lowest elevations and grade into fluvioglacial or morainal materials as elevations increase.

Soil textures in the glaciolacustrine materials are silty clay, or silty clay loam in the surface layers and grade to silty clay or clay in the subsoils. Stones or gravels are not usually present. The soils are moderately well drained, slowly pervious and have high water holding capacity. Soil trafficability is poor when the soils are wet often resulting in degraded soil structure and decreased infiltration. They are generally non-saline, neutral in reaction and have high natural fertility.

The fluvial materials, deposited by the adjacent streams, are generally sandy loam or loamy sand (often gravelly) in texture in the upper part and underlain by gravels and sands. They are imperfectly to well drained with fluctuating groundwater tables in the

subsoil in some areas, usually associated with the freshet season or periods of heavy rain. The soils are non-saline, neutral in reaction and have low natural fertility.

The higher lying soils on the benches are usually sandy loam or gravelly sandy loam in the upper part with subsoils ranging from gravelly sand to gravelly sandy loam. Topographies are mostly moderately sloping or undulating with steeper inclinations. The soils are rapidly to well drained and have low moisture holding capacity. They are non-saline, neutral in reaction and have low to moderate natural fertility.

Unimproved land capability for agriculture ratings for the glaciolacustrine soils are Class 4 or 5 due to aridity. Improved ratings are Class 3 or 2 depending on the severity of the root restriction imposed by the clayey subsoils and the potential for late spring frosts. The improved ratings for the fluvial soils is Class 2 or 3 and are sometimes limited by the possibility of late spring frosts as well.

The higher lying soils have unimproved agricultural capabilities of Class 5 or 6 due to severe climatic aridity. When improved with irrigation the agricultural capabilities are mostly Class 2 or 3 depending on the ongoing topographic limitations.

The lowest lying valley bottom areas are currently used mostly for forage (or pasture production) while the adjacent benches are mainly planted to orchards with vineyard and small fruit inclusions. The lands above the irrigated areas are used for natural livestock grazing.

The valley in this area is well known for its ‘frost pocket’ conditions where cold air pools near the valley floor producing temperatures that may be several degrees colder than those in nearby, higher lying areas. The frost free period is shorter and may limit production of some crops, particularly those that are susceptible to late spring or early fall frosts.

3.2.4 Glenrosa, Joe Riche-Belgo Creek Area and Upper Ellison

These lands, lying between about 600 and 1000 m elevation, have mostly developed in morainal deposits and less commonly, in glaciofluvial or fluvial materials. The soils of morainal origin are mostly strongly to moderately rolling or steeply to very steeply sloping with gravelly sandy loam to gravelly silt loam textures. They are usually moderately to strongly stony and are well or moderately well drained. Water holding capabilities are moderate and they are non-saline, neutral to slightly acid in reaction and

have moderate to low natural fertility. Most areas are still undeveloped and under forest or natural grassland cover.

Most land capability for agriculture ratings, unimproved, are Class 5 with inclusions of Class 6 due to aridity and topographic limitations. Improved ratings are still in many cases Class 5 or Class 6 due to ongoing topographic limitations while those areas with more subdued topography are Class 4 and occasionally, Class 3.

The ALR lands in the Belgo Creek-Joe Riche area consist mainly of soils with sandy loam or gravelly sandy loam surfaces grading to gravelly sand in the subsoil. They are mostly rapidly drained with small inclusions near streams which are imperfectly drained. Gradients vary from gently to steeply sloping. Unimproved land capabilities are mainly Class 5 due to topographic and aridity limitations. Improved ratings are mostly Class 4 or 3 due to ongoing topographic limitations and in some cases high water table restrictions. Relatively short frost-free periods also occur.

3.2.5 James Lake, and Silver Lake Areas, and Areas South of Shorts Creek

These agriculturally undeveloped, remote, high-elevation areas lying above 1000m consist primarily of morainal deposits interspersed with those of fluvioglacial origin. Shallow to bedrock areas also occur. Topographies are mostly moderately to strongly rolling or sloping with inclusions that have more subdued gradients. The soil is gravelly loam to gravelly silt loam in texture and moderately to very stony. The soils are well or moderately well drained and have moderate moisture holding capacity. They are non-saline and weakly acidic in the upper part.

The soils developed in the glaciofluvial deposits usually have shallow sandy loam or gravelly sandy loam surfaces underlain by gravelly sand or gravel. Stone content is usually high.

Information in this section is based on the Statistics Canada Census of Agriculture Profile Data, 2001. A detailed Agricultural Land Use Inventory was also conducted by the Ministry of Agriculture and Lands in 2005.

4.1 Agricultural Land Reserve

Map 2 identifies properties in the Agricultural Land Reserve. The 700m contour is highlighted to illustrate a significant transition in agricultural capability. Most high density planting and irrigated agricultural production occurs below this elevation. Above the 700m elevation pasture and forage production are the principal land use activities. As noted in Section 3, agricultural opportunities in these areas are limited primarily by climate and access to irrigation. Climate change may have the effect of raising this elevation, however, access to water will still be an issue (pers.comm. 2005, Neilsen). Table 4.1 summarizes the ALR land inventory for each of the 4 planning areas above and below the 700m elevation. Overall, only 25% of the ALR is located within areas considered suitable for high density planting and high yield agriculture (<700m) and the majority of these lands are located within or adjacent to developed urban areas and the associated Irrigation Districts. Table 4.1 indicates that there is a very limited inventory of high quality agricultural land in the RDCO. Maps 3A, 3B and 3C present the Irrigation Districts within the planning area.

Table 4.1 Agricultural Land Reserve Inventory

	<i>Westside</i>	<i>Ellison</i>	<i>North Westside</i>	<i>Joe Rich</i>	<i>Total</i>
Above 700 m	2050.1	1369.7	4571.4	1272.3	9263.6 ha
Below 700 m	1273.6	1453.3	358.9	28.1	3114.0 ha
Total	3323.7 ha	2823.0 ha	4930.3 ha	1300.4 ha	12377.6 ha

Note: Includes all land area within the ALR boundaries, not parcel areas.









4.2 General Farm Conditions

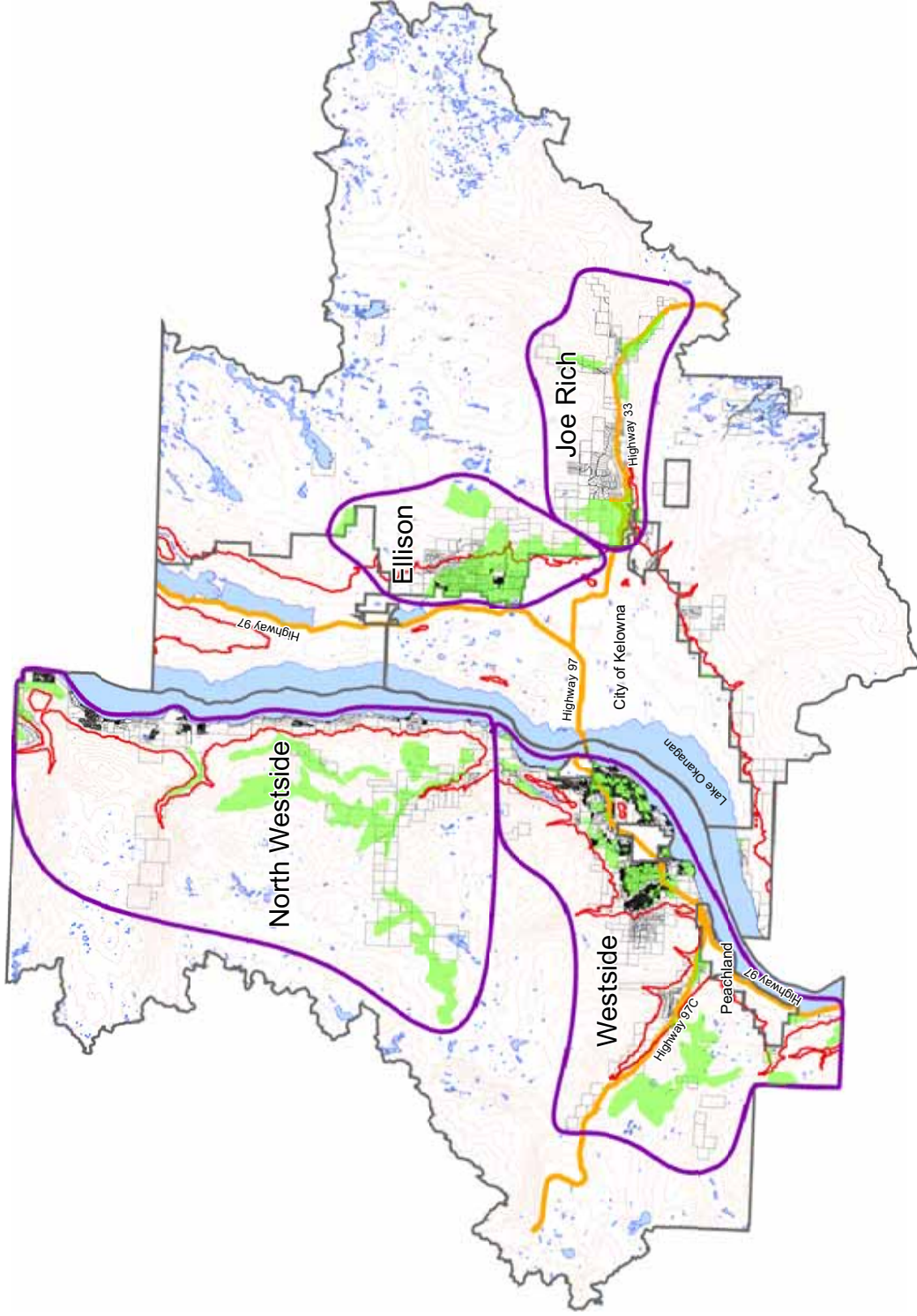
According to the 2001 Census of Agriculture, there were 255 farms¹ in the RDCO.

¹ In 2001, a Census farm was defined as an agricultural operation that produces at least one of the following products intended for sale: crops; livestock; poultry; animal products or other agricultural products.

Agricultural Plan

Agricultural Land Reserve
Map 2







-  Agricultural Land Reserve
-  Planning Areas
-  Administrative Areas
-  700m Contour
-  Highways
-  Parcels
-  Contours (100m Interval)
-  Lakes



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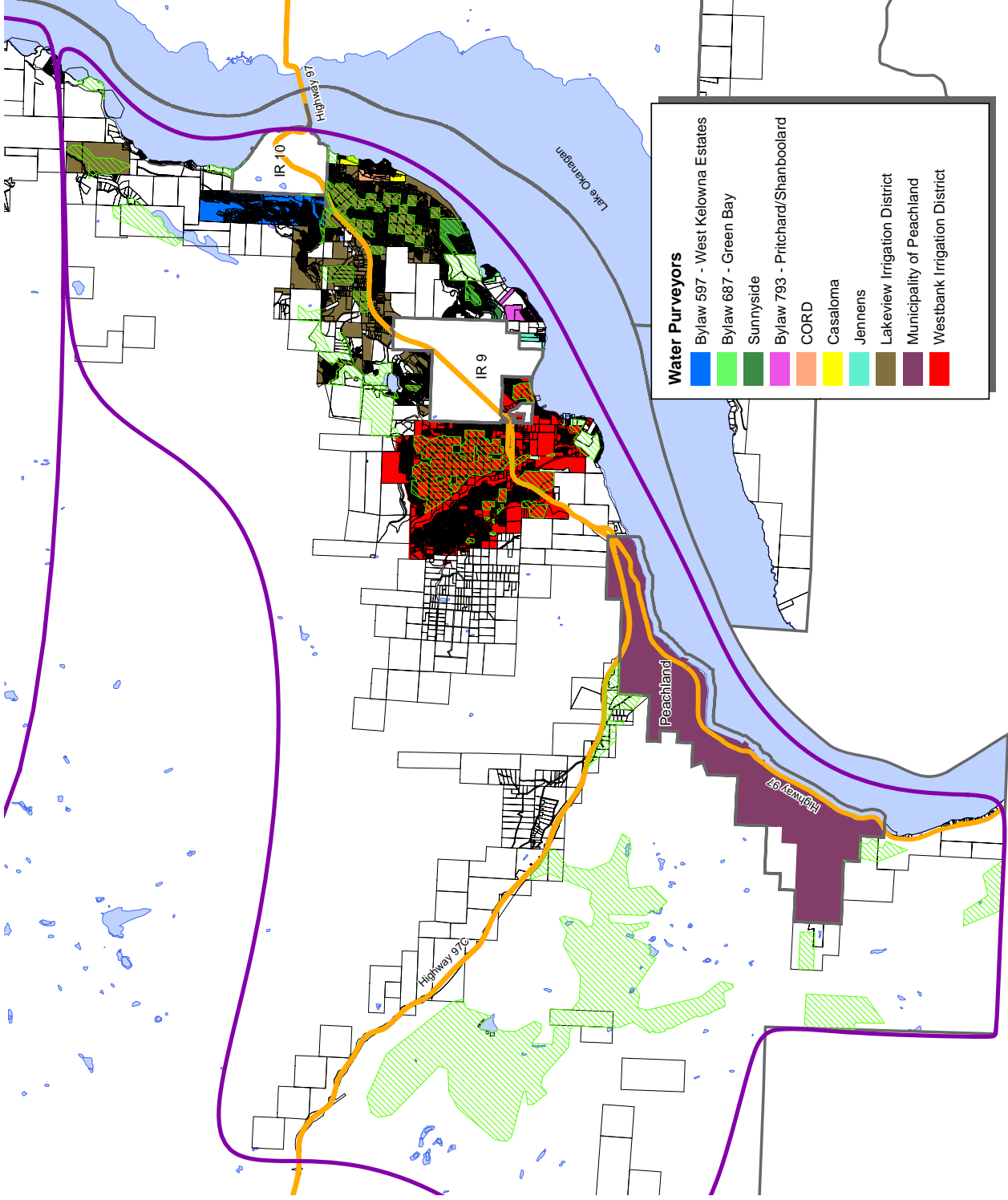
Agricultural Plan

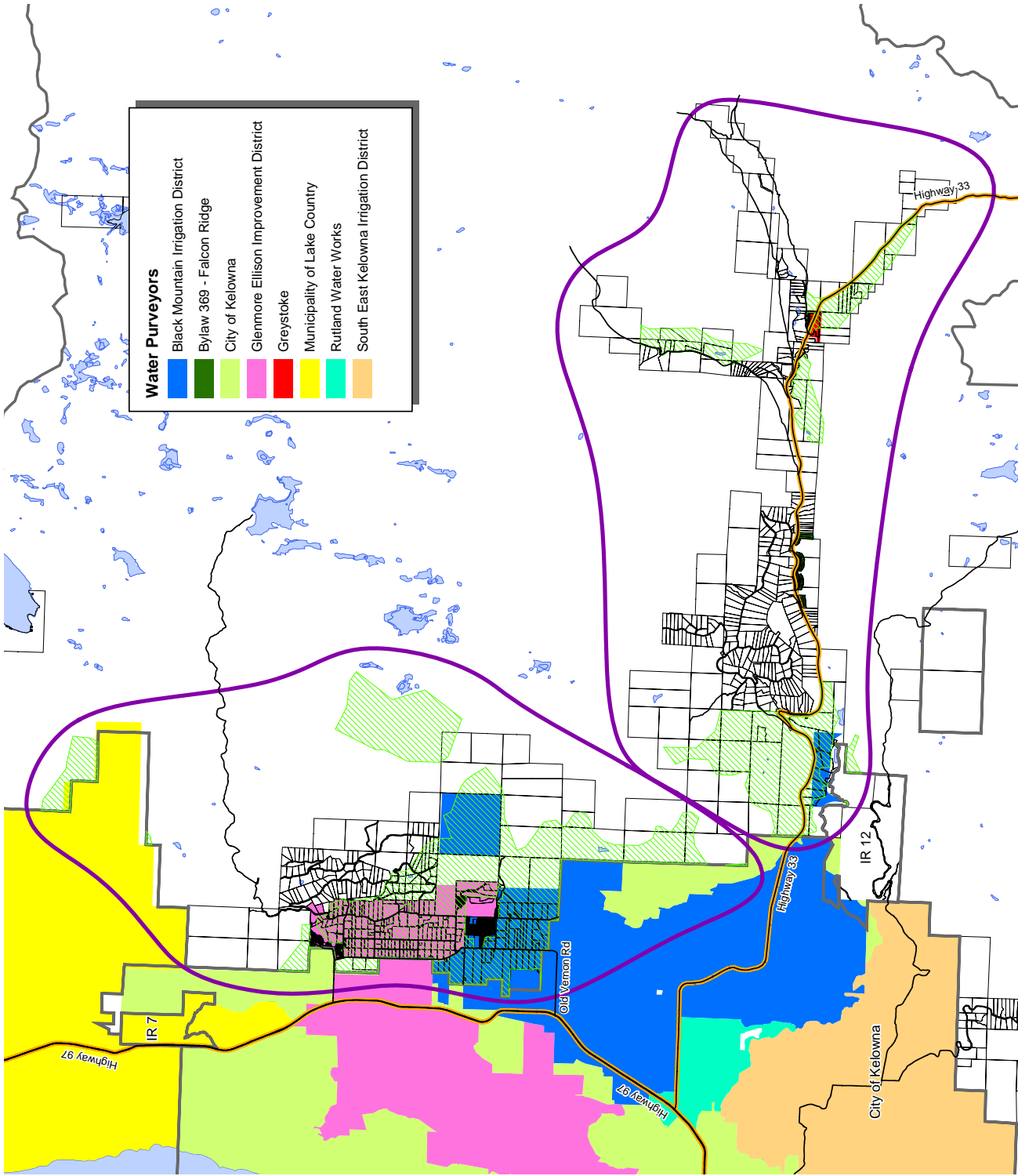
Irrigation Districts
Westside Area
Map 3A

-  Planning Areas
-  Agricultural Land Reserve
-  Administrative Areas
-  Highways
-  Parcels
-  Lakes



1:100,000





Agricultural Plan Irrigation Districts Ellison and Joe Rich Areas Map 3B

- Planning Areas
- Agricultural Land Reserve
- Administrative Areas
- Highways
- Parcels
- Lakes









1:100,000



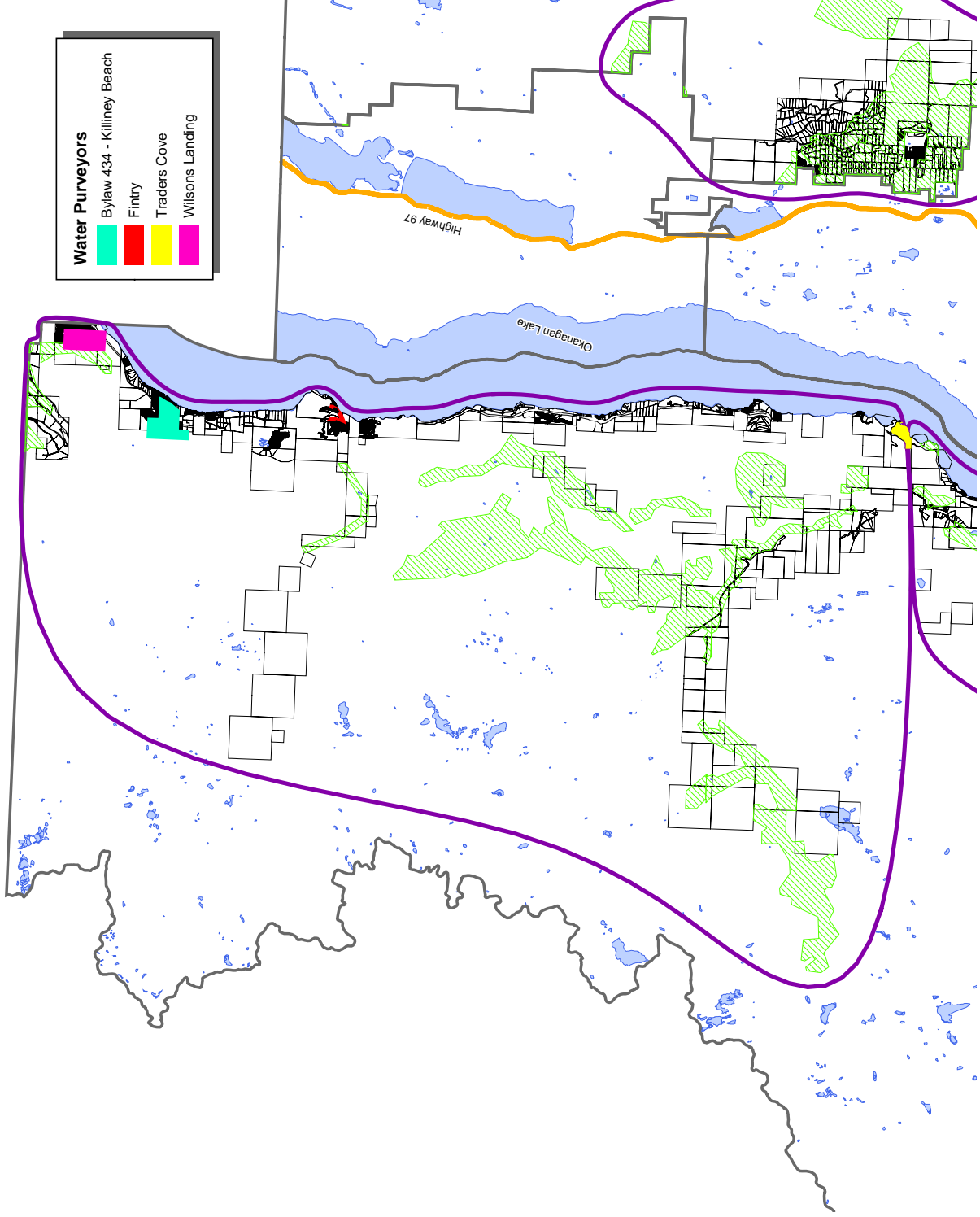
Agricultural Plan

Irrigation Districts
North Westside Area
Map 3C

-  Planning Areas
-  Agricultural Land Reserve
-  Administrative Areas
-  Highways
-  Parcels
-  Lakes



1:150,000



Water Purveyors





-  Bylaw 434 - Killiney Beach
-  Fintry
-  Traders Cove
-  Wilsons Landing

Table 4.2 provides summary statistics on farm conditions and highlights the following:

- less than 50% of ALR lands are reported as farmland and this figure is likely over reported because Statistics Canada attributes farmlands to head offices (e.g. all vineyards owned by a winery are attributed to its head office location).
- irrigation is an important farm practice in the RDCO, with most of the agricultural lands below 700m supplied by one of the areas several irrigation districts.
- 81% of farmland is owned, while only 19% is rented.

Table 4.2 General Farm Conditions

	<i>RDCO</i>	<i>Kelowna</i>	<i>Lake Country</i>
➤ Agricultural Land Reserve	12,290 ha	9140 ha	4770 ha
➤ Total Area Farmed ²	5896 ha	9185 ha	8263 ha
➤ Farms Reporting	255	569	250
➤ Average Farm Size (Province 127.5 ha)	23.1 ha	16.1 ha	33 ha
➤ Areas irrigated	2144 ha	3895 ha	1063 ha
➤ Farmland Ownership			
▪ Owned	81%	83%	71%
▪ Rented	19%	17%	29%

Source: Statistics Canada, 2001

Table 4.3 provides summary statistics for general agricultural production and highlights the following:

- less than 20% of lands in agricultural production are used for high density planting and high yield field crops and fruits, nuts and berries. Inventory may be over reported due to the headquarters rule that requires wineries in RDCO to report all vineyards, even outside RDCO.
- few farms are involved in livestock production, however 30% of all farms reporting, have horses or ponies.

² The area farmed is possibly over reported because a “Headquarter” rule is employed by Statistics Canada where all farmland is attributed to the location of the headquarters of the farm (e.g. Mission Hill Winery).

Table 4.3 Agricultural Production

		2001
Crops		
➤ Field crops		474 ha
➤ Fruits, nuts & berries		1020 ha
◆ Grapes	655 ha	
◆ Apples	294 ha	
◆ Cherries	20 ha	
◆ Plums	5 ha	
◆ Peaches	17 ha	
◆ Apricots	7 ha	
◆ Other	25 ha	
➤ Summer fallow		30 ha
➤ Pasture (managed)		646 ha
➤ Pasture (unmanaged)		2193 ha
➤ Other		993 ha
Net Area ³		5896 ha
		<i>Farms</i>
Livestock		
➤ e.g. hens & chickens		55
➤ cattle and calves		
▪ milk		1
▪ beef		20
▪ sheep & lambs		10
▪ pigs		9
▪ horses & ponies		78
▪ honey bee colonies		12
▪ llamas & alpacas		11

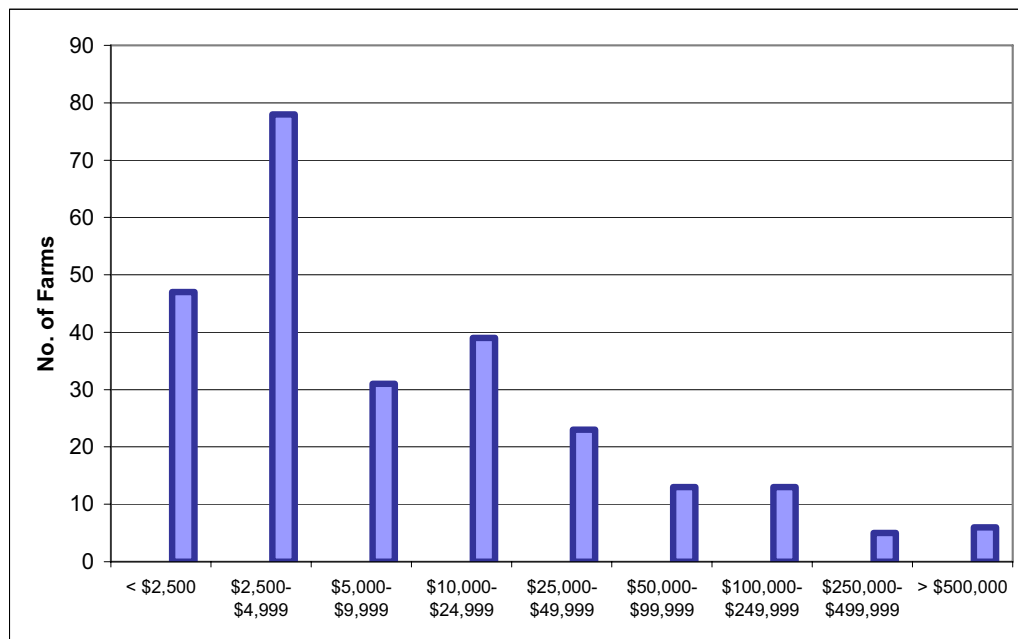
³ Note: Data is from Statistics Canada Survey of Agriculture, 2000. Columns may not sum due to census reporting standards. Additional inventory data is presented in Section 4.3 that was collected in 2005 by the Ministry of Agriculture and Lands.

The high incidence of farms with incomes in the \$2,000-\$4,999 range is likely due to the B.C. Assessments standards that set a minimum income of \$2,500 for farm status eligibility if the farm area is .8 ha to 4 ha. The value of \$2500 is for gross annual sales at farm gate prices.

General Comments:

- 61% of the farms generate small incomes (<\$10,000 per year).
- farm operators are aging (43% are over 54 years old).
- the non-municipal area generates 20% of the gross farm receipts in the RDCO but contains 29% of the farm capital.

Figure 4.1 Farm Receipts, 2001



Source: Statistics Canada, 2001

Table 4.4 Farm Receipts

	<i>RDCO without Municipalities</i>	<i>RDCO with Municipalities</i>
Total Gross Farm Receipts	\$15,619,103	\$74,887,598
Total Farm Capital ⁴	\$240,835,609	\$829,447,138
Total Cash Wages	\$3,343,817	\$19,979,732

Source: Statistics Canada, 2001

Table 4.5 Farm Operators

Total Number of Farm Operators	385
➤ Age under 35	25
➤ 35 to 54 years	200
➤ Over 54 years	165
Average age of farm operators	53.5 years

Source: Statistics Canada, 2001

4.3 AL Farm Survey

In the spring of 2005 Ministry of Agriculture and Lands (AL), formerly the Ministry of Agriculture, Food & Fisheries (MAFF) completed an inventory of farm land use and management consistent with the provincial AgFocus program (MAFF, 2002). The inventory was collected in GIS format:

- to provide a broader understanding of agriculture.
- promote local agriculture
- assist with land use decision making processes.

Information collected through the AL data allows a more detailed analysis of farming practices that is possible with census data. The AL data is collected in three main tables.

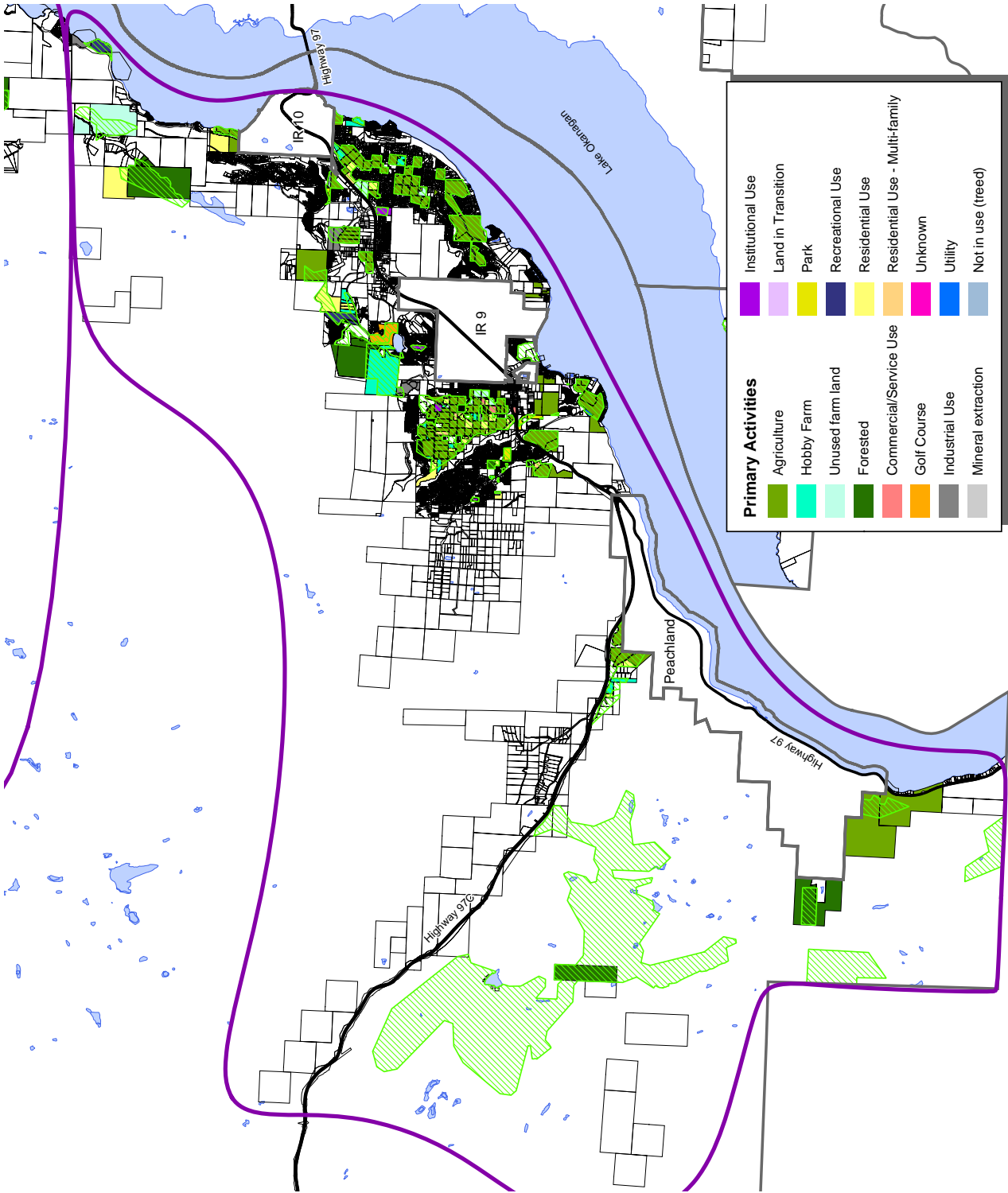
1. Parcel table – the RDCO cadastral parcel information that is used to link to all of the other data sets.
2. Activity table – information about land use activities that are linked specifically to parcels. The activity table has a one-to-one relationship with the parcels, reporting only the primary land use per parcel. Where there is more than one use, they are listed as secondary or tertiary.

⁴ Farm capital includes the value of all farmland, buildings, farm machinery and equipment and livestock and poultry.

3. Covers table – information about what covers the land, e.g. buildings, crops, water features, trees. Because there may be many “covers”, the covers table has a one-to many relationship with the parcel table. For example, for each parcel there may be many covers such as crops, buildings and irrigation.

Additional variables related to percent of coverage, livestock counts, and condition of the land.

The AL survey concentrated primarily in the lower elevations (<700m) therefore detailed land use data is focused on the Westside, Ellison and Joe Rich Planning Areas only. Maps 4A and 4B illustrate the range of land use activities in the ALR while Maps 5A and 5B present the primary agricultural activities. The information from Maps 5A and 5B is summarized in Table 4.6.



Primary Activities		Institutional Use	
Agriculture		Land in Transition	
Hobby Farm		Park	
Unused farm land		Recreational Use	
Forested		Residential Use	
Commercial/Service Use		Residential Use - Multi-family	
Golf Course		Unknown	
Industrial Use		Utility	
Mineral extraction		Not in use (treed)	

- Planning Areas
- Administrative Areas
- Highways
- Agricultural Land Reserve
- Parcels
- Lakes



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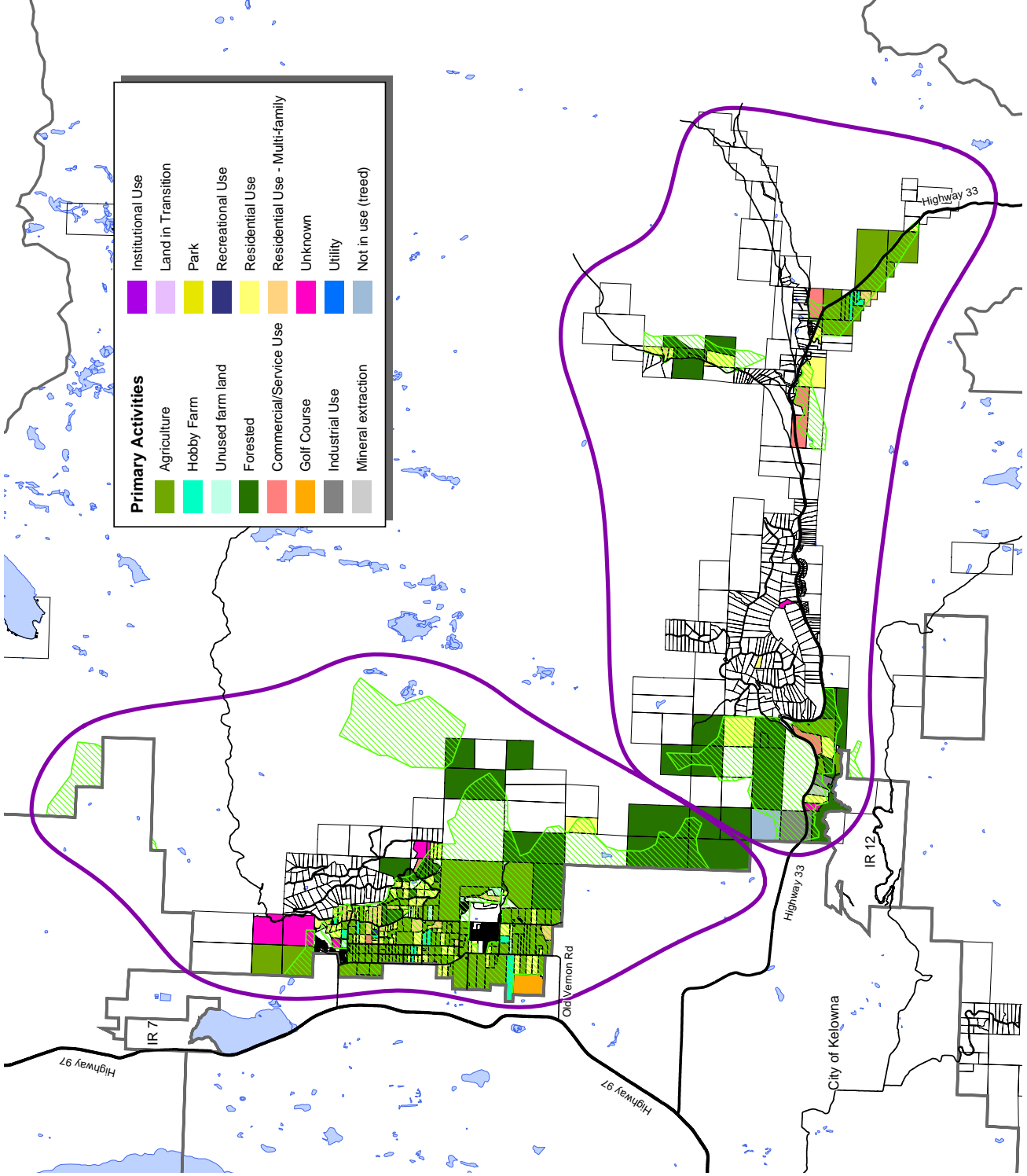
Agricultural Plan

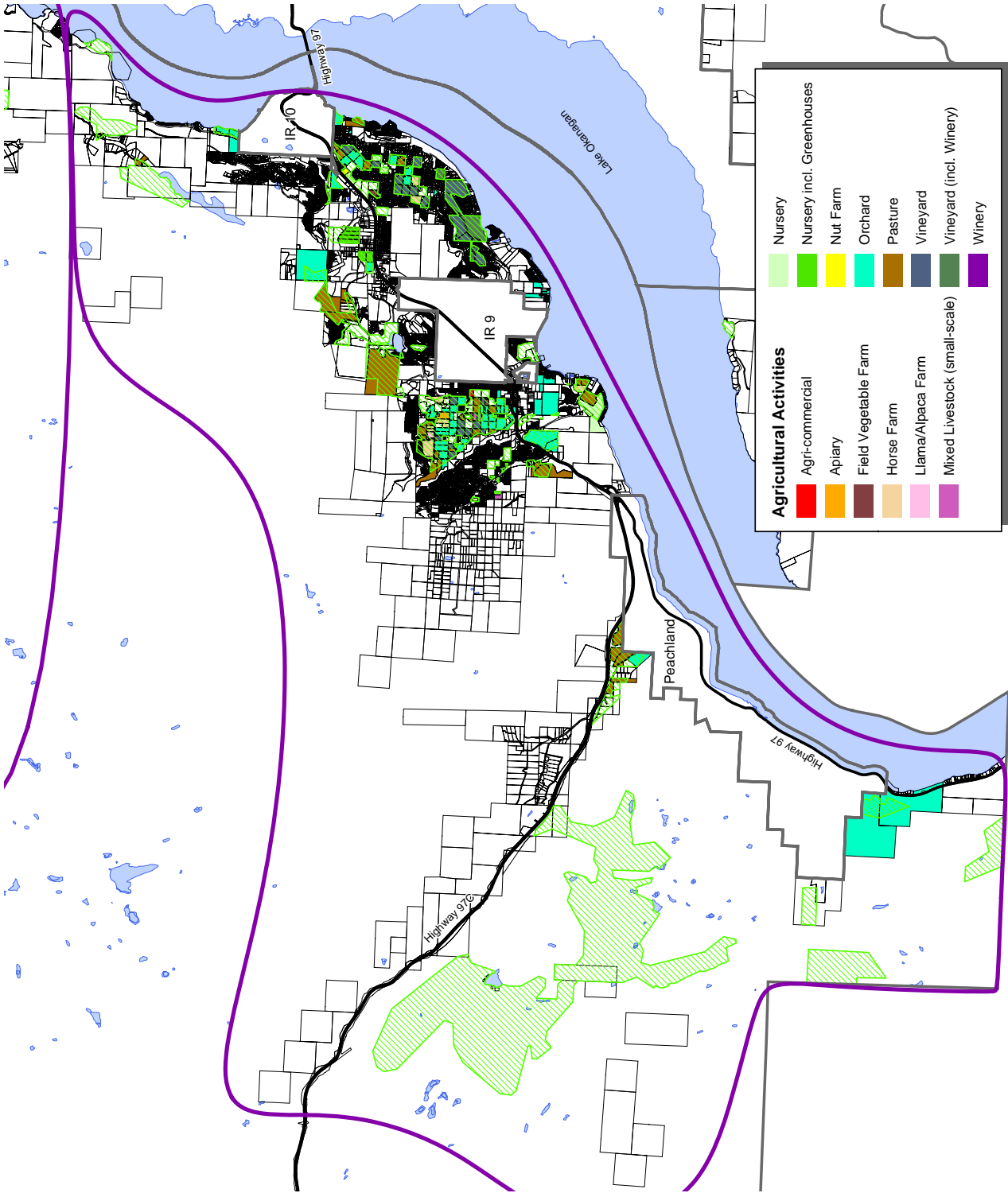
Primary Land Use Activities
Ellison and Joe Rich Areas
Map 4B

- Planning Areas
- Administrative Areas
- Highways
- Agricultural Land Reserve
- Parcels
- Lakes









1:100,000





Agricultural Plan

Primary Agricultural Activities
Ellison and Joe Rich Areas
Map 5B

-  Planning Areas
-  Administrative Areas
-  Highways
-  Agricultural Land Reserve
-  Parcels
-  Lakes



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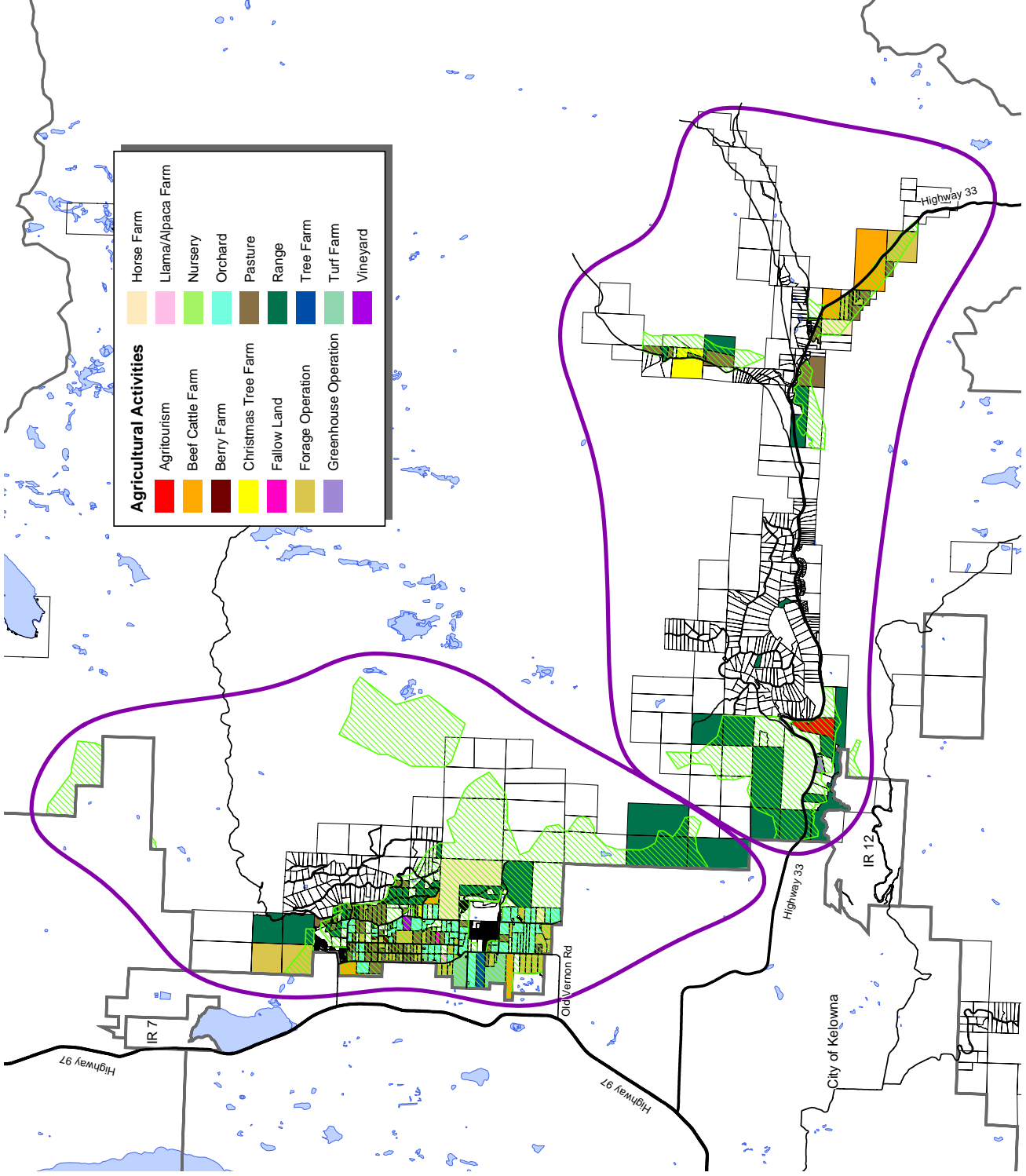


Table 4.6 provides a survey of parcels where the primary land use activity was either agriculture or hobby farm⁵. The total number of agricultural parcels (282 parcels) is reasonably consistent with the number of farms (255 farms) reported in the 2001 census. The farmland area reported in Table 4.6 (2374 ha) is lower than that reported in the 2001 census (5896 ha) because much of higher elevation forestry and pasture areas were not included with AL Survey. AL did not include this area because it was inaccessible by road, and on aerial photographs appeared to be forested.

Table 4.7 assigns all parcels in the ALR to parcel size categories for each of the four planning areas. In Tables 4.8 and 4.9 only parcels sizes in the ALR where agriculture or hobby farms are a primary use or secondary use respectively are grouped into parcel size categories and planning areas.

Table 4.6 Agricultural Land Use, Primary Activity

Agricultural Use	Westside		Ellison		Joe Rich		Total		
	ha	Parcels	ha	Parcels	ha	Parcels	ha	%	Parcels
Agri-commercial	1.9	1					1.9	0.1%	1
Apiary	5.4	1			39.1	1	44.5	1.9%	2
Beef Cattle Farm			54.1	3	163.7	4	217.8	9.2%	7
Berry Farm			2.1	1			2.1	0.1%	1
Christmas Tree Farm			3.9	1			3.9	0.2%	1
Fallow Land			4.0	1			4.0	0.2%	1
Field Vegetable Farm	2.7	1					2.7	0.1%	1
Forage Operation			150.2	19	82.9	5	233.1	9.8%	24
Greenhouse Operation					8.1	1	8.1	0.3%	1
Hobby Farm	4.1	2	3.8	1			7.9	0.3%	3
Horse Farm	45.7	10	171.6	3	32.3	1	249.6	10.5%	14
Llama/Alpaca Farm	3.0	1	3.9	1			6.9	0.3%	2
Mixed Livestock (small-scale)	3.1	3					3.1	0.1%	3
Nursery	41.0	4	1.5	1			42.6	1.8%	5
Nursery incl. Greenhouses	27.8	6					27.8	1.2%	6
Nut Farm	2.4	1					2.4	0.1%	1
Orchard	539.6	48	251.1	50			790.7	33.3%	98
Pasture	222.0	33	94.5	31	29.5	5	346.0	14.6%	69
Range			117.8	9	9.3	1	127.1	5.4%	10
Tree Farm			21.4	1			21.4	0.9%	1
Turf Farm			67.8	3			67.8	2.9%	3
Vineyard	125.1	25	8.1	1			133.2	5.6%	26
Vineyard (incl. Winery)	29.6	2					29.6	1.2%	2
								0.0%	
Total	1053.4	138	956.1	126	364.9	18	2374.4	100%	282

Source, AL Survey 2005

⁵ A hobby farm is a piece of land (acreage) acquired as a lifestyle choice rather than for agriculture.

Table 4.7 Parcelization in ALR – All Properties

	0 - 0.79 ha	%	0.8 - 1.9 ha	%	2.0 - 3.9 ha	%	4.0 - 7.9 ha	%	> 8.0 ha	%	Total Properties
Ellison	146	11%	34	3%	102	8%	78	6%	48	4%	408
Joe Rich	10	1%	2	0%	8	1%	16	1%	54	4%	90
Westside	477	36%	78	6%	88	7%	69	5%	55	4%	767
North-Westside	2	0%	2	0%	3	0%	1	0%	53	4%	61
Total	635	48%	116	9%	201	15%	164	12%	210	16%	1326

Table 4.8 Parcelization of Active Farmland in ALR – Primary Agricultural Use

	0 - 0.79ha	%	0.8 - 1.9 ha	%	2.0 - 3.9 ha	%	4.0 - 7.9 ha	%	> 8.0 ha	%	Total Properties
Ellison	4	1%	12	4%	55	20%	33	12%	22	8%	126
Joe Rich	0	0%	0	0%	2	1%	5	2%	11	4%	18
Westside	7	2%	28	10%	38	13%	45	16%	20	7%	138
North-Westside	0	0%	0	0%	0	0%	0	0%	0	0%	0
Total	11	4%	40	14%	95	34%	83	29%	53	19%	282

Table 4.9 Parcelization of Active Farmland in ALR – Secondary Agricultural Use

	0 - 0.79ha	%	0.8 - 1.9 ha	%	2.0 - 3.9 ha	%	4.0 - 7.9 ha	%	> 8.0 ha	%	Total Properties
Ellison	2	2%	10	11%	32	34%	13	14%	3	3%	60
Joe Rich	0	0%	0	0%	0	0%	3	3%	10	11%	13
Westside	3	3%	3	3%	9	10%	2	2%	3	3%	20
North-Westside	0	0%	0	0%	0	0%	0	0%	0	0%	0
Total	5	5%	13	14%	41	44%	18	19%	16	17%	93

The following observations can be made from the parcelization and land use tables.

- a. There is a large number of small, non-agricultural lots within the ALR. Possible explanations for this pattern include:

- on small properties the residential use will proportionately cover a large part of the site and agriculture will only appear as a secondary use.
- many smaller lots have been created through home site severances.
- small lots may have low agricultural potential (e.g. stony soils) that have been fragmented from larger agricultural parcels.
- new residential subdivisions or the subdivision of a few lots off a farm created piece meal development prior to the establishment of the ALR.

Tables 4.7 to 4.9 were created using a GIS program that may have overlapped ALR boundaries into adjacent urban areas, thereby picking up a disproportionate share of small urban lots. AL survey results indicated a total of only 612 parcels within the ALR.

- b. Subdivisions creating small lots within the ALR have been most prevalent in the developed urban areas of Ellison and Westside. Possible explanations for this pattern include:

- historical development patterns.
- neighbouring land use pressures.
- proximity to servicing and amenities.
- land values.

- c. Mid sized parcels (2.0 ha to 7.9 ha) are most likely (63%) to support active farming. Possible explanations for this pattern include:

- this size is required to support viable agriculture enterprises.
- minimal competition for these lands from non farm uses (e.g. too large for residential/hobby farm).
- historical subdivisions created parcels in this size range and these lots have retained their original agricultural land use and development pattern.
- the AL data inventory focused on the urbanized area, where lots are typically smaller and did not cover the rural range areas with large lots.

4.4 Economic Investment

As noted in Table 4.10, 92% of the farm capital lies in fixed, not moveable, assets of land and buildings. This investment is higher for farms in the jurisdiction of the Regional District rather than in Kelowna and in B.C. as a whole. Possible factors contributing to this pattern include:

- high relative land and building values.
- small livestock sector.
- agricultural practices that are not machinery intensive.
- high incidence of small scale farm operations where high cost residential use is the primary investment and use.

In the Okanagan, it is frequently publicized the “agriculture is the highest user of water”. This seems to be creating the perception that agriculture is a burden on taxes, however, studies have shown that the farm community is not a negative draw on property tax revenue when the demand for services from all sectors is considered.

Canadian studies that have looked at the contribution of agriculture to the local tax base in relation to the cost of providing services to different end users. Services were identified as being either property related, that would be used by or benefit the farmland or “people services” such as parks and recreation programming that do not affect the land base, but are used by, or benefit the people living in the community. As municipalities grow, the demand to provide more “people services” increases. As certain population thresholds are reached, pressure is applied for more new services (e.g., an indoor swimming pool, a new indoor arena surface). This tends to increase the overall tax levels in the municipalities. Experience has shown that the levels of service and minimum standards rise as the result of increased population growth. This results in an increased tax burden to finance and maintain the facilities. For example, while road maintenance is a responsibility that affects all residents in the municipality, major intersection improvements, paving, road widening, signalized intersections, etc., are all results of increasing traffic volumes. Overall services to people in the urban area are generally more expensive than services to property in the agricultural area (Planscape, 2003).

The total gross farm receipts of \$15.6 million in 2001 are small in comparison to the revenues from other economic sectors but agriculture contributes indirectly to many other economic sectors. Agriculture, for example, is part of the natural capital that is our global life support system and this ecological asset also has important amenity and social values and is inextricably linked to other sectors of the economy such as the tourism

sectors. Okanagan initiatives such as the Okanagan Partnership recognize the important role of agriculture in a sustainable future for the valley.

Table 4.9 Farm Capital

<i>Farm Capital</i>	<i>Farms Reporting</i>
< \$50,000	3
\$50 - \$99,999	9
\$100 - \$199,999	23
\$200 - \$349,999	71
\$350 - \$499,999	52
\$500 - \$999,999	59
\$1,000 - \$1,499,999	16
\$1,500 - \$1,999,999	5
> \$2,000,000	17
Total	255

Source: Statistics Canada, 2001

Table 4.10 Farm Capital

	<i>RDCO</i>		<i>Kelowna</i>	<i>BC</i>
	<i>Value (\$)</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>Land & Buildings</i>	\$221,224,950	91.9%	89.6%	82.5%
<i>Farm Machinery and Equipment</i>	\$16,353,047	6.8%	8.8%	10.2%
<i>Livestock and Poultry</i>	\$3,257,612	1.4%	1.6%	7.3%
Total Farm Capital	\$240,835,609	100.0%	100.0%	100.0%

Source: Statistics Canada, 2001

The agricultural sector of the Regional District of Central Okanagan is regulated and influenced by a broad range of legislation and policies put in place by regional, provincial, and federal jurisdictions. Awareness of these jurisdictional differences can be helpful in determining the nature of efforts that can be made by regional government in enhancing agricultural conditions.

5.1 Regional District Policy and Legislation

Current Regional District of Central Okanagan policies and regulations are in place that have significant bearing on agricultural activities.

Growth Management Strategy Bylaw #851

The Growth Management Strategy for the Regional District of Central Okanagan, created under the provisions of Part 25, Divisions 1 to 4, Sections 849 to 871 of the Local Government Act, was prepared and endorsed by all participating local government members - Regional District of Central Okanagan, City of Kelowna, District of Lake Country, District of Peachland.

The 20/20 Vision Statement provides that the area ...”is a region that values and supports its rural communities and agricultural industries”. The Statement of Objectives provides that local government will ...”protect the integrity of the agriculture and forest base”. The Growth Management Policies provide that ..”urban development will be directed away from hazardous areas, sensitive environmental areas, resource extraction areas, and farmlands, to reduce land use conflicts and development encroachments”.

Regional District of Central Okanagan Zoning Bylaw #871

A number of zoning categories provide for agricultural activities within the Zoning Bylaw.

The A1 (Agricultural) zone applies to lands within the Agricultural Land Reserve, and is based on a minimum parcel size of 4.0 hectares (9.88 acres). The zone provides for permitted uses including agriculture, intensive livestock agriculture, agri-tourism, home-based businesses, residence and accessory buildings and structures, and a number of other selected uses.

Zoning categories RU1 (Rural 1), RU2 (Rural 2), RU3 (Rural 3), RU4 (Country Residential), and RU6 (Small Holdings) also permit agricultural activities. These zones apply to lands that are not included in the Agricultural Land Reserve, and range in minimum parcel size from 30 hectares (74.11 acres), to .5 hectares (1.2 acres).

The Zoning bylaw also defines and regulates activities such as agri-tourism and home based businesses and accessory residences. There are also buffering and setback requirements for land uses such as single household residences or large multiple residential unit buildings that neighbour farmland.

Subdivision and Development Servicing Bylaw #704

The Bylaw sets out the servicing standards and requirements for subdivision or development activity within the Regional District of Central Okanagan. It further provides that additional requirements may occur where land is being proposed for subdivision near farming operations within the Agricultural Land Reserve. Provisions may include adequate buffering (e.g. fencing) or separation of the development from farming (e.g. setbacks).

The Subdivision and Development Servicing Bylaw regulates standards for roadways and associated installations, water distribution systems, sanitary sewer disposal, storm drainage systems, slope stability and lighting.

Westside Area Official Community Plan Bylaw #1050

The Westside Official Community Plan, adopted in February 2005, addresses that western portion of the regional area from the Highway 97 Connector northward to Rose Valley and Bear Creek Road. The Plan supercedes earlier planning initiatives in the Lakeview and Westbank areas. It provides policy support for the agricultural industry and the preservation of the agricultural land base. It also endorsed the preparation of an Agricultural Plan for the Regional District of Central Okanagan. While the Plan supports the preservation of the Agricultural Land Reserve base, it does provide support for the exclusion of selected lands in the Glenrosa area that were previously identified by the Agricultural Land Commission, and some potential exclusion of land from the ALR in conjunction with the development of a town centre plan for Westbank.

The Westside Official Community Plan provides positive policy support to agricultural activities including Agricultural Advisory Committee role, secondary activities on farm

lands, refinements to intensive livestock agriculture regulations, improvements to urban-rural interface conditions, and other related matters.

North Westside Official Community Plan Bylaw #785

The North Westside Official Community Plan includes that portion of the regional district from Trader's Cove along Westside Road northward to Westshore Estates.

The Plan Objectives provide for the protection and enhancement of the agricultural sector viability, and efforts to improve the coexistence of the urban and rural communities through buffering and screening techniques.

Policy direction for agriculture in the North Westside Official Community Plan provides for maintaining current parcel size where services, infrastructure and adequate lands are available for development needs. It also addresses the need to provide adequate buffering between uses, and to minimize the impacts of roads and utility corridors through agricultural lands. The Plan supports the introduction of additional secondary uses on farm properties such as agri-tourism, home occupations, and secondary processing operations.

Ellison Area Official Community Plan Bylaw #673

The Ellison Area Official Community Plan is currently undergoing a major process of review and update. The review process to date has determined significant community support for the agricultural land and farming enterprises in Ellison. It is not anticipated that the agricultural policies will significantly change from those of the current plan.

The Ellison Area Official Community Plan includes some 3750 hectares located on the flat and sloped lands east of the Kelowna Airport. Most of the Ellison Plan area is included in the Agricultural Land Reserve. Developed lands are largely situated along both sides of Old Vernon Road which traverses the area. The lower sloped portions include most of the agricultural operations in the area, with open range and forest in the uppermost portions.

Objectives of the current Ellison Plan include the retention of the rural-agricultural character of the area, support and encouragement for agricultural uses, rural-forestry conflict reduction, along with limited additional rural development activity.

Policy direction within the Plan provides for protection of the agricultural land base and limited additional rural development, improved buffering techniques, and enhanced production by infrastructure and pest control improvements. The Plan also supports additional commercial and tourist enterprises, including farm gate sale of products.

Joe Rich Rural Land Use Bylaw #730

The Joe Rich Rural Land Use Bylaw addresses those lands on both sides of the Highway 33 corridor, commencing at the eastern boundary of the City of Kelowna and extending beyond the Joe Rich residential concentration.

An Objective of the Plan it to preserve and enhance the rural character of the study area by ... identifying, protecting and preserving land with good quality for agriculture.

The policy direction outlined in the Plan provides support for hobby farms, crop production and ranching. It further supports decision-making that will incur minimal impact on the agricultural potential of the area. The Plan raises the need for provincial authorities to consider the matter of agricultural and recreational compatibility on Crown lands, and the means to mitigate possible adverse affects. The Joe Rich Rural Land Use By-law is scheduled for a review in 2006. This review will provide an opportunity to incorporate some of the ideas and policies presented in the Agricultural Plan.

Central Okanagan Aggregate Supply and Demand Study – 1996

The regional aggregate study addressed the supply and demand aspects of rock, sand and gravel for construction and maintenance purposes.

The Aggregate Study spoke to the potential for aggregate extraction from lands within the Agricultural Land Reserve in the Regional District of Central Okanagan. The Reclamation and Environment Handbook for Sand, Gravel and Quarry Operations in British Columbia, by the Ministry of Mines and Mines includes that “Resource extraction is ordinarily a permitted temporary use within the Agricultural Land Reserve, provided that the extraction operation will not reduce the agricultural capability of the soils and/or the agricultural potential of the site. In principle, land capability for agriculture following reclamation must be better than that which existed prior to reclamation.”

The removal of gravel from land located in the ALR requires contacting and meeting conditions of the Agricultural Land Commission. Following such approval an extraction permit is required from the Province of BC. While input from the Regional District is

sought, the Regional District does not have direct control over the approval to extract gravel.

Regional District of Central Okanagan Smoke Control Bylaw #773

The Smoke Control Bylaw applies to all lands, inclusive of agricultural lands, within the Regional District of Central Okanagan except those within the District of Peachland, First Nations Reserves, or within the jurisdiction of the Crown.

The Bylaw outlines requirements regarding issuance of permit, air quality prohibitions to burning, nature of burning material, and the timing and duration of burning. Burning permits for Westside and Electoral Areas are limited to properties greater than 1 hectare in size.

5.2 Provincial Policy and Legislation

An extensive system of legislation put in place by the Province of British Columbia influences many agricultural practices and procedures in the Regional District of Central Okanagan.

Local Government Act

The Local Government Act addresses regional growth strategies (Part 25, Divisions 1 to 4, Sections 849 to 871), Official Community Plans provisions (Part 26, Sections 875 to 884), Development Permit designations (Sec. 879), and Regulation of Farm Businesses in Farming Areas (Part 26, Division 8, Sections 915 to 919). These regulations provide for the potential use of Farm By-laws that have been approved by the Ministry of Agriculture and Lands.

Land Titles Act

The Land Titles Act governs the overall disposition of land within British Columbia. The approving officers for subdivision are now permitted to consider the impact on agricultural activities by proposed adjacent subdivisions. The potential intrusion impact of new roadways on abutting agricultural lands is also considered in the process of Land Title designation (Sec. 86).

The Land Titles Act allows for the placement of covenants on title where those covenants are supported by policy, are in the public interest or for protection of the public. Such covenants may place extra requirements specific to that particular property.

Agricultural Land Commission

The Agricultural Land Commission Act was initially enacted in 1973 (with major amendments in 2002) to establish guidelines for the preservation of lands designated as Agricultural Land Reserve. This Act supports the maintenance of a comprehensive farm sector in communities across British Columbia. There is potential for agreements to further delegate authority to local governments in determining the outcome on non-farm use or subdivision applications within their communities. Such delegation, however, needs to be meaningful and the benefit of delegation needs to be assessed relative to the costs to the Regional District.

The Agricultural Land Commission has restructured its organization to create six regional panels to work in closer collaboration with local governments. The Commission panel for the Okanagan currently has members who reside in the Central Okanagan area.

Agricultural Land Reserve Use, Subdivision and Procedure Regulation (2002)

The Agricultural Land Reserve Use, Subdivision and Procedure Regulation was adopted in 2002 to specify and standardize permitted uses of ALR. This regulation encompasses areas including soil removal and placement, application filing, subdivision, government applications and commission proposals, owner applications, commission meetings, owner applications to include land, applications for non-farm use and subdivision of agricultural land, general provisions

The Agricultural Land Commission had advanced significant orders, policy directions, and guidelines on a range of topics including farm retail sales, home occupations, agri-tourism accommodations, farm help dwellings, golf courses, homesite severances, parcels under 2 acres, wineries, outright uses and special cases, and landscape buffer/ fencing.

Farm Practices Protection (Right to Farm) Act

The Farm Practices Protection (Right to Farm) Act was enacted as Provincial legislation in 1996 to afford protection to agricultural communities from nuisance complaints resulting from dust, odour, noise or other occurrences arising from normal farm operating practices. The Act established the Farm Industry Review Board, which serves as a forum

to hear complaints concerning farming activities. In many instances, complaints can be resolved in dialogue between Ministry of Agriculture and Lands representatives, farmers and complainants without referral to the Board.

Water Act (RSBC 1996) Chap. 483

The provincial Water Act provides for the licencing of activities including use, diversion, and storage of water, along with the volumes of water being licenced. The Act also addresses the nature of changes to be permitted to stream courses under application.

Related water legislation in the Water Protection Act (RSBC) Chap. 484, provides the regulatory basis for the removal or transfer of water within and between jurisdictions.

Livestock Act (RSBC 1996) Chap. 270

The Livestock Act provides the basis for designation of livestock districts, the control of animals at large, and the characteristics of the bull population in specified areas.

Weed Control Act (RSBC 1996) Chap. 487

The Weed Control Act addresses the duty and responsibilities for weed control, and the provision for local governments to appoint Committees and Inspection personnel to administer the provisions of the Act.

Waste Management Act (RSBC 1996) Chap. 482

The Agricultural Waste Control Regulations (B.C. Reg. 131/92) prescribe the practices for using, storing, and managing agricultural waste material in an environmentally-sound manner.

Assessment Act (RSBC 1996) Chap. 20

The Assessment Act, within the provisions of B.C. Regulations 411/95, defines Class 9, Farm Land as one of the eight land use categories. The nine categories include Residential, Utilities, Unmanaged Forest Land (repealed), Major Industry, Light Industry, Business Other, Managed Forest Land, Recreational Property Non-profit Organization, and Farm. Properties with differing uses can fall into more than one classification.

Land classified as Farm must be used all or in part for primary agricultural production, farmer's dwelling, or the training and boarding of horses in conjunction with horse rearing. All farm structures are classified as residential, including the farmer's dwelling.

To qualify for Farm status, the property must generate a minimum income annually. The minimum income in 2004 was \$10,000 gross annual sales on land less than 8,000 sq. metres (2 ac.), \$2500 on land between 8,000 sq. metres and 4 ha (10 ac.), and for parcels larger than 4 ha, \$2500. plus 5 per cent of the regulated farmland value of remaining land over 4 ha.

Marketing Boards

The Farm Industry Review Board, created in 1934 under provisions of the Natural Products Marketing (B.C.) Act, is the provincial organization that oversees the activities of all commodity marketing boards or commissions, including those specific to the agriculture industry. The mandate of the Farm Industry Review Board is to ensure the maintenance of orderly market conditions in the province by monitoring product demand, production quotas, and price structures. There are currently eight (8) Boards/Commissions in place under the umbrella of the provincial Board as follows: B.C. Broiler Hatching Egg Commission; B.C. Chicken Marketing Board; B.C. Cranberry Marketing Commission; B.C. Egg Marketing Board; B.C. Hog Marketing Commission; B.C. Milk Marketing Board; B.C. Turkey Marketing Board; and, B.C. Vegetable Marketing Commission.

British Columbia Wine Act

The British Columbia Wine Act (RSBS 1996) Chapter 39, amended and consolidated in 2004, defines the composition and powers of the British Columbia Wine Institute to regulate wine quality in the Province, and outlines the responsibilities of the member wine producers and processors.

5.3 Federal Policy and Legislation

A broad range of federal policies and legislation has significant bearing on the agricultural industry within the Regional District of Central Okanagan.

World Trade Organization (WTO)

The WTO, established by the 1994 Marrakech Agreement, is the primary multilateral institution for addressing cross-border trade agreements, negotiations, dispute resolution, trade policy monitoring and technical assistance for its membership. The WTO Agreement on Agriculture, ratified in 1995, focused on the establishment and maintenance of a fair and market-oriented international trading system for agricultural goods. The Doha Declaration of 2001 provides the mandate for follow-up negotiation on implementation of Agreements, including Agriculture.

North American Free Trade Agreement (NAFTA)

NAFTA is a trilateral agreement established in 1994 between Canada, United States and Mexico to encourage and facilitate increased trade and investment between the member nations, and to work toward the elimination of all tariff and non-tariff trade barriers. Many agricultural interests were addressed in a Canada-U.S. agreement signed in 1998, which provided for the bilateral removal of tariffs on most goods. Also, a Canada-Mexico agreement signed in 1994 provides for the graduated removal of tariffs between those countries by 2003, with notable exceptions including dairy, poultry, egg products and sugar.

Canadian Agricultural Products Act

The Canadian Agricultural Products Act, under the umbrella of Agriculture and Agri-Food Canada, regulates the import, export and inter-provincial trade marketing of agricultural products. The Canadian Food Inspection Agency administers much of the agricultural import and export activities. This Act standardizes agricultural grading and inspecting procedures across Canada.

Canada-British Columbia Implementation Agreement (2003)

The Canada-British Columbia Implementation Agreement was adopted in 2003 as a roadmap for the implementation of the national Agricultural Policy Framework (APF) within British Columbia. The Agreement addresses a broad range of issues including risk management, food safety and food quality, science and innovation, environment and renewal management.

Species at Risk Act (2003)

The Species at Risk Act was enacted as Federal legislation in 2003 to encourage protection of endangered fish and wildlife species. The possibility of including a mechanism within the Act that would allow for provision of compensation to farmers who are affected by conservation agreements is currently under consideration

Fisheries Act

The Canadian Fisheries Act addresses the protection of fish habitats and outlines measures for pollution prevention. The Act stipulates that agricultural applications such as fertilizers, pesticides, fuel, manure or suspended solids must not adversely affect fish habitats, and that farming activities must not damage or obstruct any fish-bearing waterways.

Additional Federal Legislation Affecting Agriculture

Additional federal legislation that address various aspects of the agriculture industry include: Canada Grain Act; Canada Wildlife Act; Consumer Packaging and Labeling Act; Customs Act; Export and Import Permits Act; Feeds Act; Fertilizers Act; Food and Drugs Act; Health of Animals Act; Migratory Birds Convention Act; Pest Control Products Act; Plant Protection Act; Seeds Act; Transportation of Dangerous Goods Act; and, Wildlife Act.

Excise Act and Excise Act, 2001

The federal Excise Act and Excise Act, 2001 provides for payment of duties at the time of delivery to the purchaser. The duties apply to a range of products including wine, spirits and beer made in Canada.

5.4 Other Agricultural Programs

Sterile Insect Release Program

The Sterile Insect Release Program is a joint Federal-Provincial-Regional program initiated in 1992 and directed to control of codling moth infestation of apple and pear fruit. The Program currently has the cooperative participation of five Regional Districts (Okanagan Similkameen, Central Okanagan, North Okanagan, Columbia Shuswap, Central Kootenay), B.C. Ministry of Agriculture and Lands, Agriculture and Agri-Food

Canada, seven First Nations Bands, and representatives of the major fruit growers organizations.

The federal and provincial governments shared in the funding of the SIR rearing facility. Currently, the participating regional governments levy a parcel tax on commercial apple and pear producers, and a general mill rate assessment to provide operating revenues for the Program.

The participating areas are included within 1 of 3 Zones. Zone 1 encompasses the South Okanagan, Similkameen and Creston Valleys. Zone 2 includes the Central Okanagan broadly from north of Summerland to north of the City of Kelowna boundary. Zone 3 includes the North Okanagan and Shuswap areas. Implementation activities to date have achieved significant reductions in the required application of the organophosphate pesticide used for codling moth control.

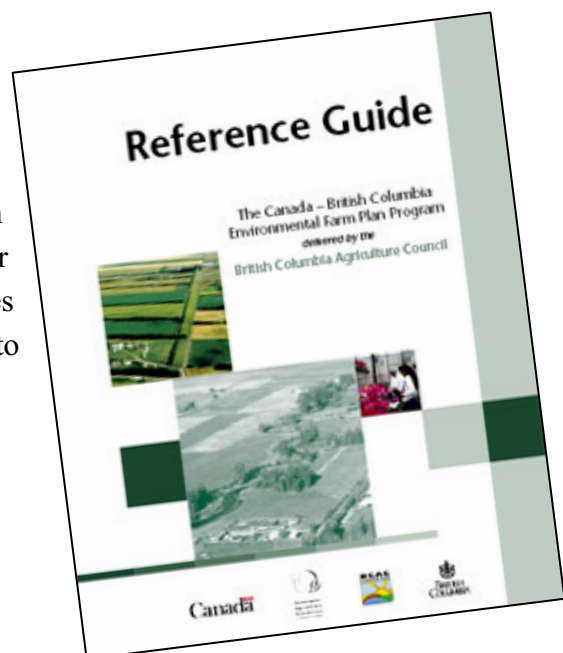
Replant Program

The Orchard Replant Program, funded partially by the Province of British Columbia, provides assistance to owners or lessee growers to replant on lands where orchards have been removed. The Program is directed at tree fruit production, and encourages plantings of new varieties such as gala apples or late season cherries.

The funding assistance to growers is based on an amount for each acre of land and each tree planted, to a maximum contribution per acre. The current maximums are \$7000. per acre for apples, and \$4810. per acre for soft fruits.

Environmental Farm Plan Program

The BC Environmental Farm Plan program is a voluntary program intended to assist farmers in developing an environmental action plan for their farm. This is a plan that enhances natural resources and reduces the possibility of accidental harm to soil, air, water and biodiversity values.



The issues presented in this section were identified through the background research and consultation phase. The issues at this point are listed but not yet assessed or ranked in terms of the jurisdiction of the Regional District. The development of the Agricultural Plan will identify abilities and future actions. Images are provided on the following pages to provide context for some of these issues.

6.1 Legislative/Governance

1. **Official Community Plans.** The Regional District Official Community Plans contain policies that are supportive of the ALR. The success of these policies was acknowledged during the background research stage by contacts who stated that existing problems such as fragmented parcels and the lack of interface planning are the result of poor planning early in the development of this community, and not associated with current policies.

There may, however, be opportunity to tighten policies to strengthen the commitment to agriculture, particularly with respect to urban edge conditions. The ALR boundary will continue to be challenged and needs to be reinforced through strong policies supporting an urban containment boundary.

2. **ALC Delegation Agreement.** Section 26 of the Agricultural Land Commission Act allows for the Agricultural Land Commission to delegate decision making authority to willing local government(s) based on a mutually agreeable decision making framework, such as an Official Community Plan or Zoning By-law. However, this authority may not offer sufficient incentives to balance the impacts of added costs and responsibilities.
3. **Farm By-laws.** Farm By-laws provide an emerging tool to manage farm lands. Important community issues such as the siting and operation of intensive agriculture (e.g. poultry farm, illuminated greenhouses and feedlots) can be addressed through farm by-laws. Farmers may perceive additional regulatory layers as excessive and overly restrictive to agriculture. The agriculture inventory research has identified few intensive agriculture uses. While a farm by-law would proactively assist in addressing future intensive livestock agricultural activities it may be perceived as unnecessary at this time. Farm by-laws must receive the approval of the Ministry of Agriculture and Lands.

Illustrative Examples:



Viewpoints, gardens and walkways as recreation opportunities supporting agri-tourism businesses.



Farmlands regarded as open space and used as recreational lands by neighbouring residents.



Agriculture and urban development are neighbouring land uses, often with insufficient buffering.



Agricultural uses include orchards and vineyards as well as irrigated hayfields



Hobby farms and estate lots are an important part of the agricultural landscape

4. **Farm classification for taxation purposes.** The Assessment Act specifies how properties are classified as farms and ultimately contribute to taxation. This Provincial Act is outside the mandate of the Regional District but was identified as an issue within the RDCO from two perspectives.
- assessment classification may be a disincentive to farm diversification through agri-tourism because classification rules quickly move agri-tourism elements into commercial assessments.
 - farm assessments may be too “soft” on the hobby farm, requiring only \$2500 gross annual income for small farms (0.8 ha to 4.0 ha).
6. **Agri-tourism.** The ALC has progressively recognized shifts towards agri-tourism. There is evidence of the farm industry taking advantage of these new policies in terms of expanded tourist activities and new accommodation units as part of farm enterprises in the RDCO. While the policies are certain about permitting a maximum of 10 accommodation units, they are less clear about defining “agri-tourism” uses. RDCO zoning and OCP policies should provide a direction for agri-tourism uses that are flexible to the unique opportunities in the Okanagan while maintaining the integrity of the farm operation and the objectives of the ALR. A local government may regulate agri-tourism but can only prohibit if a farm by-law is approved by AL.
7. **Environmental Farm Plan Program.** The Environmental Farm Program is a voluntary, relatively new proactive approach to farm management that can assist farmers and the environment. The RDCO through its environmental planning initiatives has experience with environmental issues particularly watercourse restoration in agricultural areas. There is opportunity to link RDCO functions with the Environmental Farm Program. Because this is a new program there is a need for the ongoing distribution of information and education on the program.
8. **Farm Labour.** The Farm Industry indicated that there is an annual demand for farm labour that is met through inter and intra-provincial migration. There have also been efforts to draw international workers into the region for seasonal work but farmers have found farm foreign labour processing cumbersome. The RDCO has limited opportunity to improve access to foreign farm labour markets.
9. **Okanagan Regional context.** The background research identified the farm industry as a regional activity that extends beyond the District boundaries. There

is opportunity for regional partnerships of advocates and leaders in the farm industry. Some of groups that could work together on regional issues includes:

- the Agricultural Advisory Groups of the RDCO member municipalities and neighbouring jurisdictions.
- economic development groups.
- administrative organizations (e.g. fire departments, irrigation districts).

10. Okanagan vision and long term strategy. Many jurisdictions within the Okanagan are planning for the future benefit of agriculture through the development of Agricultural Plans. There may be a need to coordinate this work through the development of an area-wide agricultural strategy or industry vision.

6.2 Economics

1. Advocacy for Economic Issues. There are many external factors influencing agricultural viability in the RDCO. The RDCO has a very limited capacity to influence external conditions, however, as an advocate for local agriculture the RDCO should be aware of external environments. Possible factors that the RDCO may choose to address as an advocate for agriculture include:

- international competition and subsidies (e.g. Washington State subsidies for apples).
- fuel, fertilizer and labour costs.
- provincial Farm Income Payment Program.
- increasing Replant Program subsidies.
- subsidies for changes to irrigation strategies that conserve water.

2. Land values. High agricultural land values were identified as a disincentive to agriculture. Speculation of ALR land by the Real Estate Industry was reported and documented as a factor contributing to higher values.

Table 6.1 summarizes assessed values within the ALR and demonstrates the considerable investment that is occurring on both farm and non farm lands. A review of Maps 4A and 4B suggests that a significant proportion of the assessed values will be associated with the non-farm uses such as residential, commercial and industrial uses that are pre-existing in the ALR.

Table 6.1 Assessments for Properties in the Agricultural Land Reserve

		Total Value ¹	Primary Activity ²	Secondary Activity ³	Farm Classifications ⁴
Ellison					
	<i>Gross Land</i>	\$51,496,600	\$10,905,200	\$9,260,600	\$2,910,500
	<i>Exempt Land</i>	\$15,076,750	\$4,981,950	\$4,713,300	\$1,455,250
	<i>Gross Improvements</i>	\$66,653,500	\$21,963,600	\$12,642,800	\$0
	<i>Exempt Improvements</i>	\$2,743,500	\$1,513,900	\$630,200	\$0
Joe Rich					
	<i>Gross Land</i>	\$15,399,200	\$1,071,500	\$1,890,200	\$344,000
	<i>Exempt Land</i>	\$8,378,700	\$648,750	\$782,900	\$172,000
	<i>Gross Improvements</i>	\$10,876,700	\$1,347,900	\$1,706,500	\$0
	<i>Exempt Improvements</i>	\$4,084,200	\$244,100	\$5,100	\$0
Westside					
	<i>Gross Land</i>	\$143,181,001	\$16,082,101	\$3,412,000	\$3,210,900
	<i>Exempt Land</i>	\$41,694,450	\$6,137,800	\$1,523,150	\$1,605,450
	<i>Gross Improvements</i>	\$166,368,201	\$23,767,900	\$3,790,500	\$0
	<i>Exempt Improvements</i>	\$46,453,801	\$1,232,700	\$70,800	\$0
North Westside					
	<i>Gross Land</i>	\$9,363,000	\$0	\$0	\$0
	<i>Exempt Land</i>	\$7,436,400	\$0	\$0	\$0
	<i>Gross Improvements</i>	\$348,600	\$0	\$0	\$0
	<i>Exempt Improvements</i>	\$0	\$0	\$0	\$0
Total Gross Land & Improvements					
		\$ 463,686,802.00	\$ 75,138,201.00	\$ 32,702,600.00	\$ 6,465,400.00

- 1
- 2 BC Assessment values for all lands within ALR. Includes farm and non-farm uses.
- 3 BC Assessment values for properties in the ALR where the AL survey identified agricultural use as a primary activity.
- 4 BC Assessment values for properties in the ALR where the AL survey identified agricultural use as a secondary activity.
- 5 BC Assessment values where property classified as farm use, Class 9.

3. **Other Costs.** Farms also face challenges, in addition to high land values, that impact opportunities for farm diversification, upgrading and expansion. Some of these challenges include:

- high costs for value-added or agri-tourism components.
- costs to farmers for Replant Program.
- Assessment Authority land classification system for new farm initiatives (e.g. agri-tourism).
- costs to farmers for new servicing infrastructure (e.g. irrigation).

Maps 6A and 6B illustrate irrigation practices for the major agricultural areas. Maps 7A and 7B illustrate some primary crops (apples and grapes) that are dependent on these services. It is evident that the Westside area has significant investment in irrigation systems that are costly, but efficiently servicing the vineyards and orchards. In contrast, the Ellison area has a less significant investment in high yield crops and is also more dependent on traditional irrigation methods that are not efficient water users. This information illustrates, agricultural opportunity (i.e. vineyards and orchard potential in Ellison) as well as the significant economic challenge for farmers associated with investment for crops and servicing infrastructure.

There is also an issue of economic risk for farmers using leased land. Although over 80% of all farms are owned, those leasing may limit their investment without long term lease opportunities.

The Mayor's Task Force on Agriculture for the District of Lake Country, completed in 2004, provided a focus on economic issues in the agriculture industry in the District as part of its mandate. The initiative outlined a number of trends, regulatory improvements, and strategy direction for improvements to agriculture in the community.

A number of topics for improvements were considered including use of restrictive covenants for new property owners adjacent to ALR lands, farmer's market potential, agri-tourism opportunities including culinary tourism, food processing and marketing, and consideration of tax relief for agricultural properties. The need for effective 'one-stop-shopping' distribution of information on agricultural plans, programs, regulations and other associated matters was considered as highly important.

6.3 Rural-Urban Fringe Issues

1. **Pre-existing land use patterns.** The majority of the rural-urban fringe issues are the result of historical development patterns. In particular, subdivisions were not designed with adequate buffering and have created fragmented farm areas. There are few strategies available to address or rectify these conditions. The RDCO will be required to manage the resulting rural-urban fringe pattern over the long-term.

2. **Intensive Agriculture.** The AL survey identified that there are few intensive livestock agricultural land uses in the planning areas, however, there is considerable potential for conflict given the patchwork pattern of agricultural lands, particularly in the Westside Planning area. The RDCO may wish to plan for intensive agricultural in these areas to achieve the best possible integration of potential future uses while keeping open as many farming options as possible for farmers. To regulate intensive agriculture it would be necessary to have a Farm By-law approved by AL.

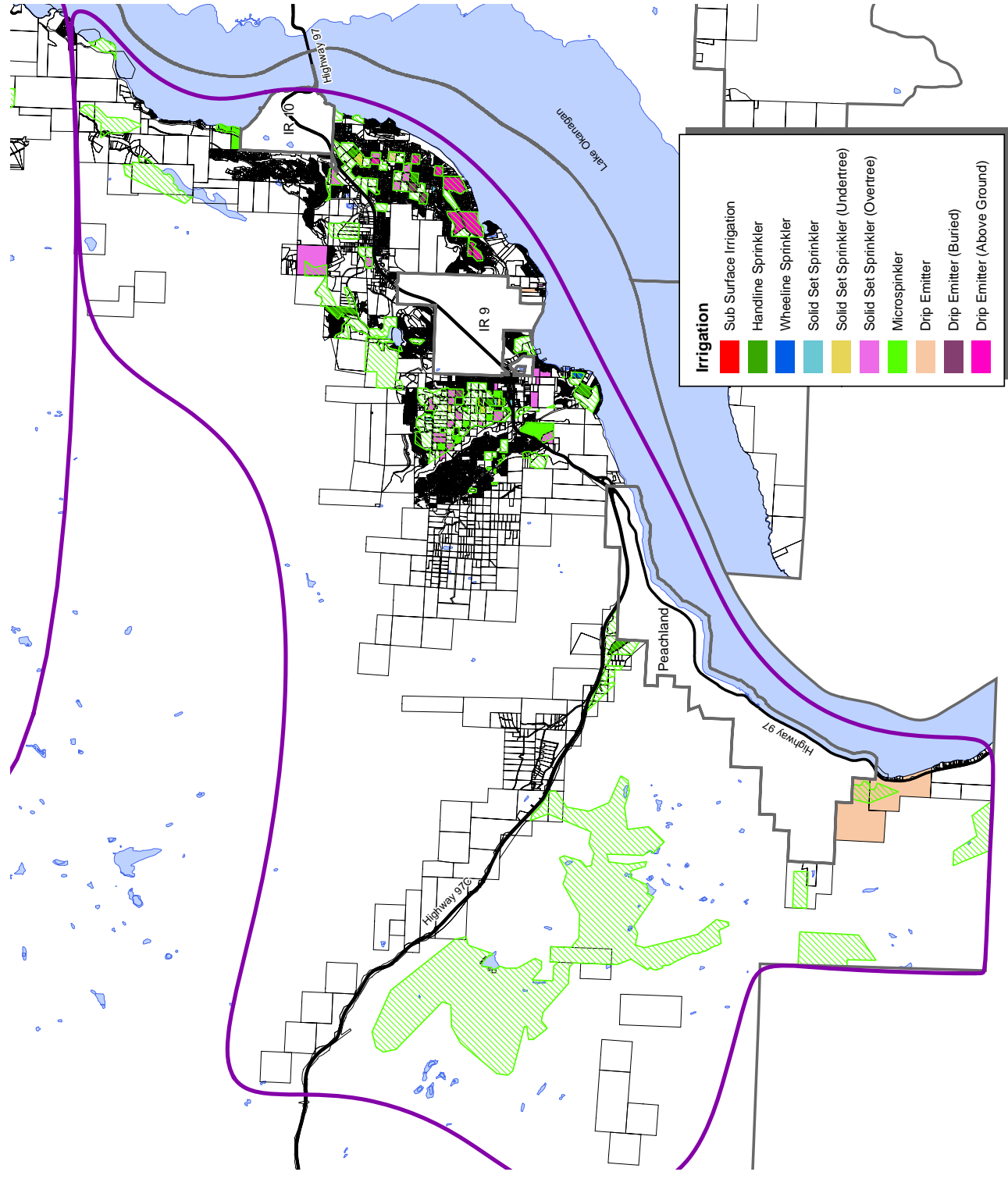
Agricultural Plan

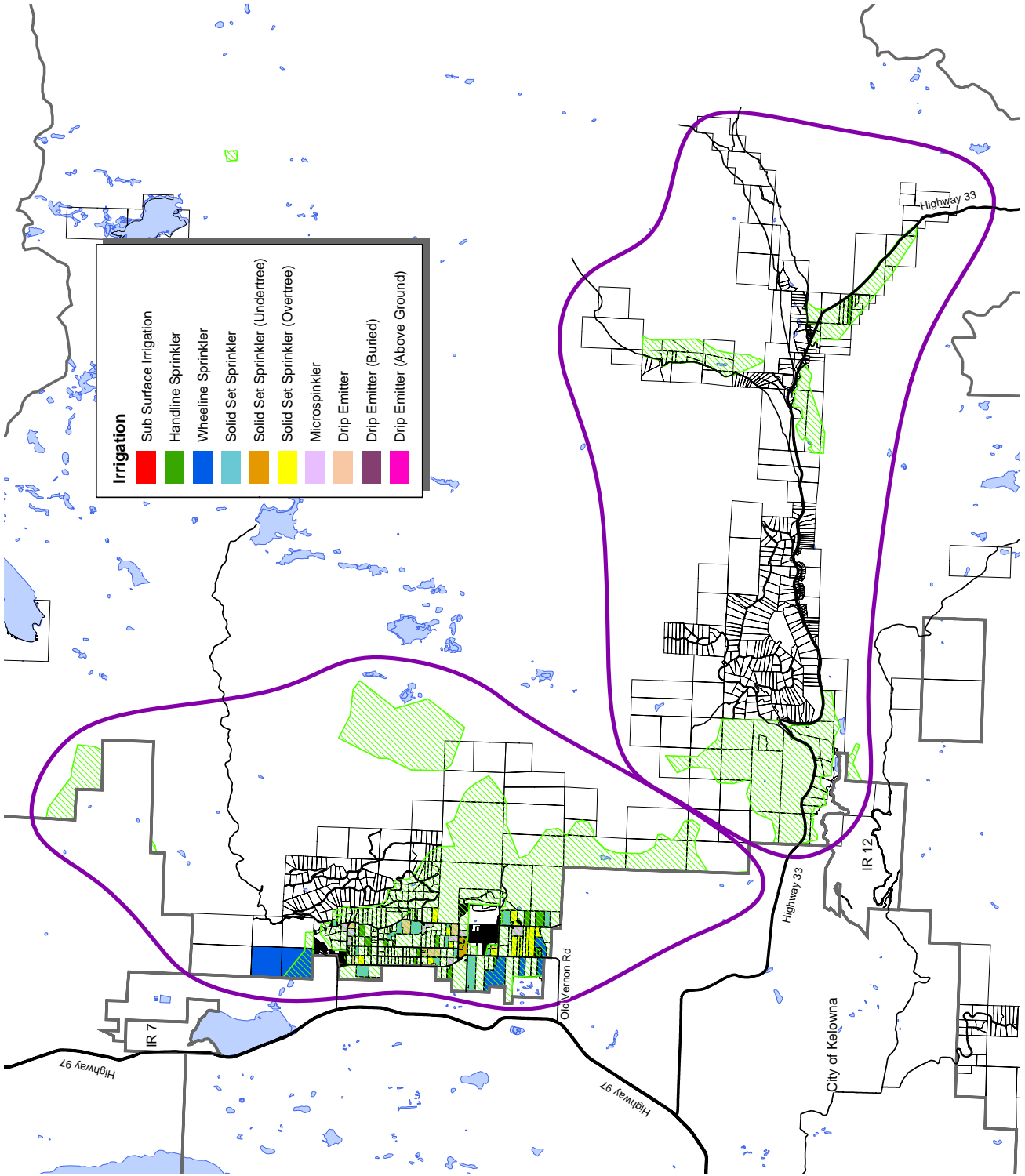
Irrigation Practices
Westside Area
Map 6A

- Planning Areas
- Administrative Areas
- Highways
- Agricultural Land Reserve
- Parcels
- Lakes



1:100,000





Agricultural Plan

Irrigation Practices
Ellison and Joe Rich Areas
Map 6B

- Planning Areas
- Administrative Areas
- Highways
- Agricultural Land Reserve
- Parcels
- Lakes



1:100,000











Agricultural Plan

Grape and Apple Farms

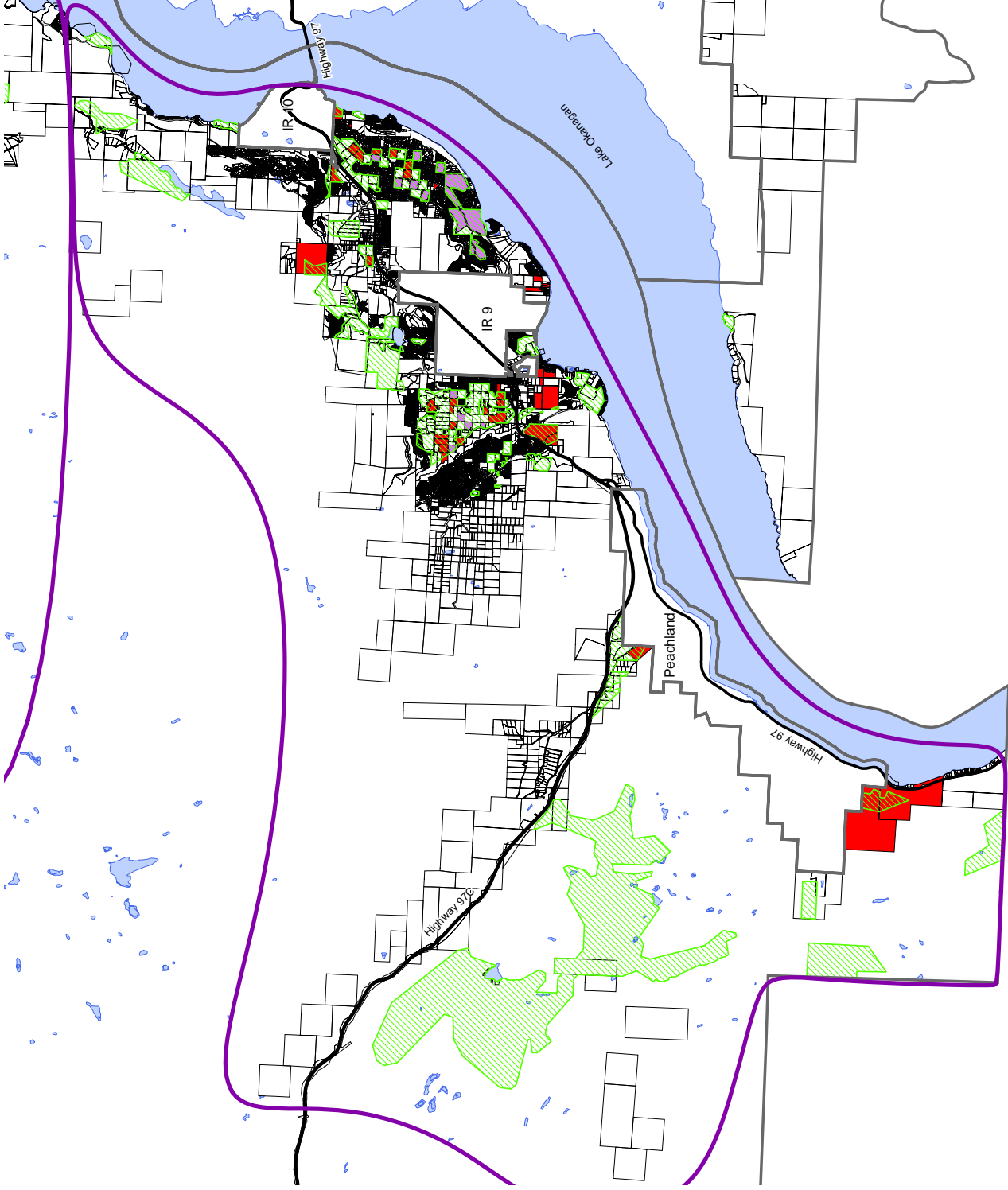
Westside Area

Map 7A

-  Planning Areas
-  Administrative Areas
-  Highways
-  Agricultural Land Reserve
-  Parcels
-  Apples
-  Grapes
-  Lakes












1:100,000



Agricultural Plan

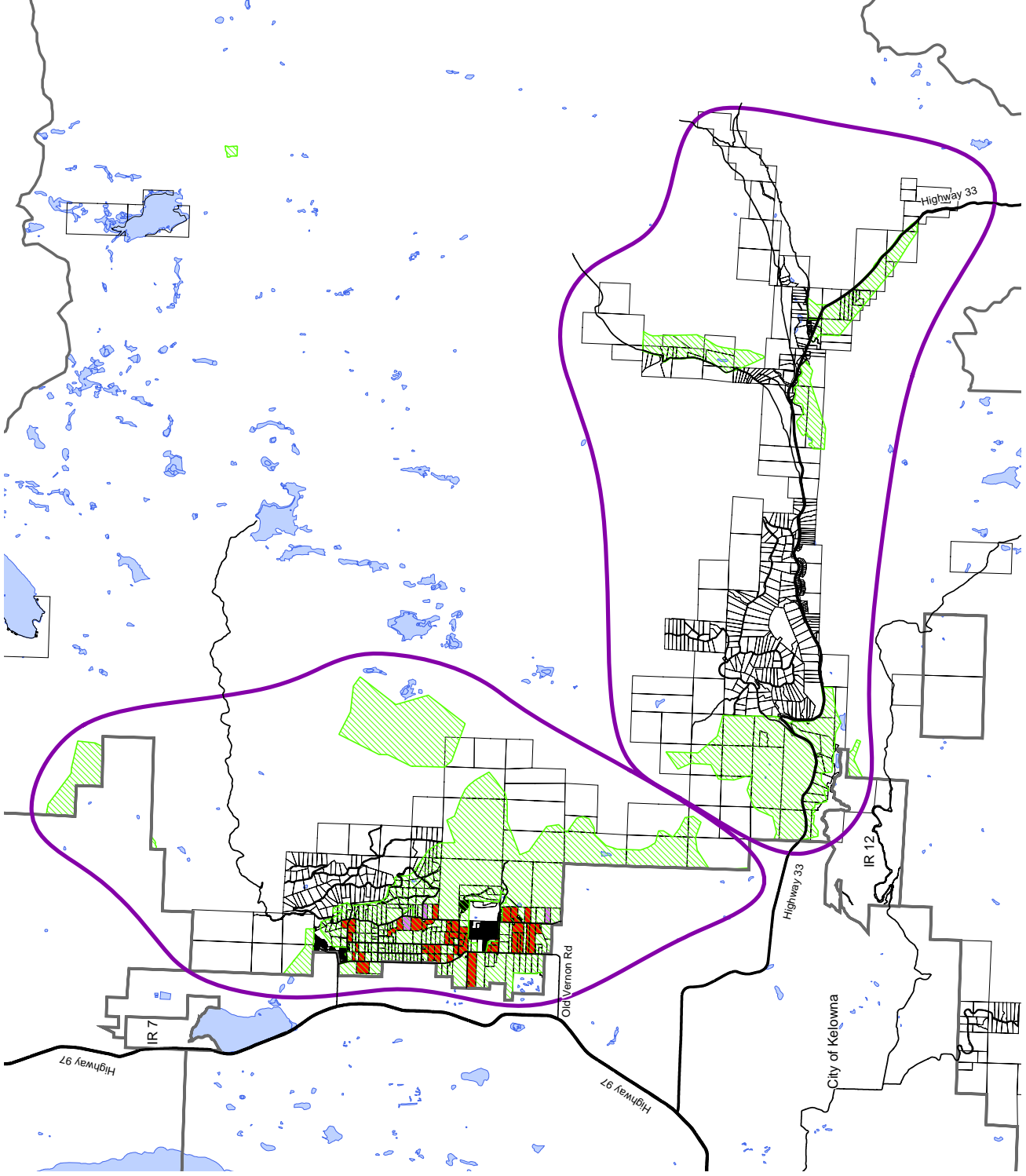
Apple and Grape Farms
Ellison and Joe Rich Areas

Map 7B

-  Planning Areas
-  Administrative Areas
-  Highways
-  ALR_Ellison
-  Agricultural Land Reserve
-  Parcels
-  Apples
-  Grapes
-  Lakes



1:100,000



Planning for intensive livestock agriculture uses may address the following:

- noise, dust and visual impact
- traffic impacts
- vandalism, theft and trespass
- drainage
- water supply

6.4 Environment

1. **Environmental farm planning.** The Environmental Farm Plan Program provides new opportunities to address some of the many environmental issues that may be present in agricultural areas. All agricultural areas are located in a region where wetlands have been all but eliminated at lower elevations and all existing watercourses have high ecological values. The challenge is to find a balance of farm and environmental objectives. The Environmental Farm Plan Program provides an opportunity to discuss these issues on a farm by farm basis.
2. **Stream protection.** There has been ongoing discussion of provincial stream protection regulations and their relation to agriculture. The background research has not provided clear direction on this issue. Federal stream protection regulations are more established and stringent and may raise issues to farmers, particularly if the region faces heightened water supply restrictions. There is a Partnership Committee on Agriculture and the Environment that is finalizing criteria for agriculture near riparian areas. Criteria should be published shortly.
3. **Organic farming.** Environmental quality may become a more specific issue if future agricultural interests include niche markets such as organic foods. This type of initiative would require area policies on herbicides, pesticides and fertilizers.
4. **Abandoned orchards.** Farmers have indicated concerns with abandoned orchards, particularly in relation to the spread of pests.
5. **Climate change.** There will be ongoing discussion of the impacts of climatic change on the viability of regional agriculture, particularly the impacts warmer temperatures will have on crop opportunities.

6. **Water supply.** Water availability is necessary for agricultural production and also requires a focus on:
 - stream water quality and quantity for fishery resources.
 - aquifer protection
 - drought management
 - balancing domestic and irrigation demands
7. **Sterile Insect Release Program (SIR).** The SIR Program, directed at control of codling moth infestation in apple and pear orchards, includes the participation of the Regional District of Central Okanagan and four other interior regional districts. There has been substantial dialogue by participating members on the merits and drawbacks to continuation of the Program. Costs and project effectiveness have been among the issues expressed. A review of the Program is to occur during 2005.

6.5 Infrastructure

1. **Water systems.** Water is the most important servicing issue for agriculture. Particularly there is a need to address the following issues:
 - growing demand for water resources.
 - allocations for competing farm and urban uses.
 - costs for irrigation upgrades and extensions.
 - emergency and drought management planning for irrigation districts.
 - need for urban and agricultural water conservation approaches.
2. **Waste Management.** The RDCO has successfully implemented the Ogogrow program that composts septic waste and sells it as a soil conditioner. Historically, the RDCO has not pursued spray irrigation options and is likely to continue to encourage new development to connect to existing centralized collection systems. However, if new development is permitted on independent systems, there may be opportunities to have treated water supplement irrigation needs. The benefits to agriculture may be:
 - the increased nutrient level in the water.
 - accessibility to water for irrigation in an area where it may otherwise be unavailable.

3. **Traffic.** Existing farms are fragmented by subdivisions and roads. As development densities increase so too will there be an increase in local traffic. New development will need to plan to accommodate farm traffic on local roads. Existing farms will also be dealing with higher traffic volumes on adjoining roads.
4. **Affordable housing for workers.** Seasonal accommodation is required to support the farm industry and there are limited affordable housing options for this sector of the workforce. The RDCO may have a role in supporting affordable housing through such mechanisms:
 - supporting temporary accommodation on designated public lands.
 - facilitating development of temporary accommodation using servicing standards that reflect the seasonal nature of the use.

6.6 Recreation

1. **Recreation with agriculture.** Agricultural areas often support public recreation corridors that use a mixture of public and private property. This use has impacts to the farmer that must be carefully managed. Signage and public education programs are required to reduce the incidence of conflict between different land uses. Some of the specific conflicts evident in this area included:
 - children frequently accessing farmland as open space during regular farming activities such as spraying and fertilizing.
 - residents creating new gates into private agricultural lands for recreational activities (e.g. horseback riding, hiking).
 - crop damage and crop theft.
 - liability if someone gets hurt while using farmland.
 - community perception of private farmland as a public residential recreation space.
 - vandalism and theft of crops and equipment.
2. **Attractions for agri-tourism.** Recreation opportunities in agricultural areas can contribute to agri-tourism businesses either as an integral part of the agri-business or as a complementary use. Recreation opportunities may be part of the agri-tourism package and may be marketed from this perspective.

6.7 **Education**

1. **Education opportunities.** There are many programs, regulations and opportunities targeting the farm industry. There is a need for improved farmer awareness of these opportunities. Education opportunities for farms that assist them in developing new and better business practices would also be of value.
2. **Promote the value of agriculture.** The future health of agricultural sector can be improved with increased public awareness of the value of agriculture. The role of the ALR should be promoted within the Regional District and be part of the community vision over the long-term.
3. **Buy local.** There is an opportunity to emphasize the value of the “buy local” approach. Farmers will advertise their products locally and potentially develop local niche markets. Consumers can also benefit from a better understanding of the merits of buying locally.
4. **Appreciation of agriculture.** Future generations will have a better appreciation of agriculture and farm practices if presented with ongoing educational opportunities. These may occur at a variety of scales including:
 - agricultural museums and local heritage facilities.
 - educational opportunities inclusive of a variety of generations.
 - UBCO (Agricultural) research opportunities.
 - Agriculture in the classroom opportunities.

7.1 Legislative/Governance

1. Strengthen and clarify language in Official Community Plans and Regional Growth Strategy in support of agriculture and the right-to-farm as a fundamental activity in the region; ALR boundary should be considered a permanent edge, an urban containment boundary, and strengthened accordingly.
2. Encourage a more proactive role, increased regional authority, and a more equitable cost-sharing formula in any consideration of entering a Delegation Agreement with the Agricultural Land Commission.
3. Consideration of a local Farm Bylaw that would assist in improving agricultural conditions including siting of buildings, structures, storage and waste facilities, and regulating specified farm operations.
4. Encourage a provincial review of B.C. Assessment provisions to consider providing unique farm assessments for farm related activities of commercial or industrial nature. These assessments may warrant unique values as ‘farm industry’ or ‘farm commercial’.
5. Refine and clarify Agricultural Land Commission and Regional District of Central Okanagan regulations on agri-tourism (i.e. seasonal limitations, range of accommodation types), to enable improved harmonization of legislation.
6. Support establishment of a ‘one-stop shopping’ resource centre for the distribution of information on the wide range of plans and programs available to the agricultural community.
7. Encourage harmonization of agricultural zoning and subdivision provisions within the local government jurisdictions in the Regional District of Central Okanagan to ensure consistency and clarity for the agricultural community.
8. Provide Economic Development Commission assistance role in streamlining the process of obtaining required foreign agricultural workers in a timely and cost-efficient manner.

9. Support establishment of a regional AAC, that would complement the existing local AAC's and would be available to address issues of a region-wide nature such as irrigation, marketing and responding to climate change.
10. Pursue coordination and sharing of information between the Agricultural Advisory Committees in the region.
11. Strengthen the role of the Economic Development Commission as a local resource to assist in the coordination and promotion of the agricultural industry in the Regional District of Central Okanagan.
12. Expand the Economic Development Commission role of agricultural advocacy within the region, providing for on-going explanation and promotion of the industry locally, nationally and internationally
13. Pursue improved coordination of the activities of the numerous organizations and agencies that provide services to the agricultural community (e.g. Irrigation Districts, Fire Departments)
14. Initiate a valley-wide agricultural vision and strategy toward supporting the viability and sustainability of the agricultural industry in the Okanagan.

7.2 Economics

1. Support initiatives to market Okanagan agricultural products provincially, nationally and internationally while building and encouraging the important local market with a buy local campaign.
2. Pursue the reduction of speculative land marketing and purchases of agricultural land by clear and concise expression of commitment to the long-term protection of the agricultural land base in the Regional District of Central Okanagan.
3. Encourage the development of value-added product opportunities in all sectors of the agricultural industry in the region, ensuring that local government application approvals processing minimizes cost and time requirements.
4. Encourage new ventures such as the Ethanol manufacturing facility currently being established, and explore how the local agricultural community can provide product to service the facility.

5. Provide Economic Development Commission assistance (e.g. application processing) to securing required agricultural labour resources as expeditiously and cost-efficiently as possible.
6. Consider opportunities for the RDCO to assist in researching and developing seasonal housing options for migrant farm workers.
7. Encourage full senior government's financial support of the Replant Program in the interests of minimizing the cost burden carried by the agricultural community members.
8. Consider means of reducing or spreading the costs to growers of the Sterile Insect Release Program at the time of the next overall Program review, including the feasibility of extending the scope of the Program to include additional fruit varieties.
9. Encourage farm owners to provide longer-term lease arrangements with lessee operators that would permit land and orchard upgrades to be carried out on a reasonable cost-return basis;
10. Provide assistance to the farm industry through the Economic Development Commission to identify new potential niche markets for the agricultural community in the region.
11. Monitor and enforce Bylaw provisions for controlling weed and pest control on inactive or abandoned orchards or vineyards toward avoiding potential additional costs to be borne by adjacent operations.
12. Work with Real Estate Industry to encourage support for agriculture and the ALR over the long term rather than viewing the ALR as a future development and investment opportunity.
13. Encourage the governments of Canada and British Columbia to continue full contribution participation in the Farm Income Payment Program.
14. Encourage means to support farm succession within families in the interest of maintaining continuity of expertise and practices passed on within the farm family structure.

15. Pursue means to encourage small-area hobby farms to contribute to the overall level of agricultural production in the region. Possible strategies include:

- implement more stringent regulations regarding building footprints for residential uses.
- review income and parcel size requirements for maintaining farm status.

16. Information sharing and training on farm management and product opportunities.

7.3 Rural-Urban Fringe Conditions

1. Emphasize commitment to protection of agricultural land base, and strengthening of edge planning to achieve optimal interface conditions.

2. Continue to require comprehensive buffering provisions by urban development occurring at interface with agricultural lands, consistent with ALC guidelines; introduce a Restrictive Covenant mechanism to be signed by new owners of properties adjacent to agricultural lands, acknowledging the farm presence and operations.

3. Pursue identification of potential sites for future intensive livestock agricultural operations in cooperation with ALC and AL representatives as part of urban-rural edge planning initiative.

4. Assist farmers with education and notification of farm practices such as spraying. Assistance may include:

- standard notice sent by CORD.
- spraying signs.
- web page notices of spraying information.

5. Discourage incidence of vandalism, theft and trespass on farm lands as part of public education program explaining the nature of agricultural operations.

6. Inform farm operators about the importance of maintaining positive relations with their urban neighbours, including carrying out normal farm practices that will minimize the impacts of noise, dust and other nuisance factors.

7. Avoid bisecting agricultural areas with urban through-traffic to developments beyond; not required to make provision for future road extension through agricultural lands.
8. Consider implementing a maximum limit for dwelling size and setbacks on hobby farm parcels to minimize the impact of non-farm uses in agricultural areas.
9. Advise the public regarding the rights and responsibilities associated with range land areas; a Restrictive Covenant in new subdivisions could be used to advise of the presence of range land.
10. Explore opportunities to register a notice on the title of properties located near range areas of the assistance of rangeland provisions.
11. Closely monitor edge conditions. Ensure property owners are meeting buffering requirements.

7.4 Environment

1. Advise the agricultural community about the opportunities associated with the Environmental Farm Plan Program in terms of improved farm operations and environmental protection.
2. Support the initiatives of the voluntary Environmental Farm Plan Program to ensure farm operator activities are carried out to protect water quality and aquifer condition.
3. Inform both the rural and urban communities about the initial tangible results being realized by the Sterile Insect Release Program in the reduced required applications of toxic organophosphate pesticide.
4. Continue active support of the regional burn control program and wood chipping initiative in the interest of maintaining positive air quality conditions in the region (e.g. timing, fees).
5. Consider opportunities to harmonize programs across jurisdictional boundaries (e.g. wood burning and chipping).

6. Encourage expansion of research and monitoring of climate change conditions in cooperation with the Agriculture faculty at the University of British Columbia Okanagan and the Summerland Research Station.
7. Ensure distribution of information to farmers regarding the need for adherence to provincial requirements and practices of herbicide and pesticide use; public education on the rationale and procedures for herbicide and pesticide use; improved farm practices including consideration of integrated pest management and organic production.
8. Stress appropriate aggregate extraction practices to ensure protection of drainage corridors and water quality; potential to provide improved agricultural conditions on some ALR lands through aggregate extraction activity.
9. Encourage provincial enforcement of regulations to protect productive agricultural properties from effects of inactive or abandoned orchards.
10. Increase awareness of need to minimize the risk of wildfire damage to agricultural operations situated near wildland interface areas.

7.5 Infrastructure

1. Involve the agricultural industry in processes that involve the allocation or pricing of water.
2. Implement major valley-wide water protection and conservation initiative directed at both urban and rural communities stressing limitations to the critical resource of agricultural land.
3. Encourage formulation of a valley-wide water management plan that will address the long-term allocation of adequate water resources to sustain the agricultural industry as part of the overall resource utilization. The Plan should include a drought management strategy that considers options for protecting access to water for farmers.
4. Pursue means to assist the farm community in water conservation measures by adapting to new irrigation technologies.

5. Encourage University of British Columbia Okanagan and Summerland Research Station activities directed at plant development requiring reduced water application.
6. Encourage senior governments to provide enhanced financial programs directed at assisting farmers to convert to irrigation technologies and plant varieties requiring reduced water volumes.
7. Encourage local government to develop roadway systems that separate urban and rural traffic where possible, and develop roadway systems that do not necessarily provide for extension into agricultural lands for future development purposes.
8. Seek the support of the Agricultural Land Commission in requiring that improvement works on farm lands are carried out such that on-site and off-site drainage conditions are not adversely impacted.
9. Investigate the feasibility of utilizing treated wastewater as a source of irrigation for agricultural crops.
10. Expand a program of roadway and pedestrian signage directed at informing the public about the nature and significance of the agricultural industry in the community.
11. Encourage the enhanced coordination of the activities of the individual water Improvement Districts toward improved inter-connection capability for delivery or emergency purposes.
12. Provide the regulatory context for modest and cost-efficient infrastructure installation to service accommodations for seasonal workers in the agriculture industry in the region.

7.6 Recreation

1. Limit the number of recreational trails through agricultural areas. Concentrate on trails that are located along stream corridors, roads or other features that form logical edges to agricultural areas.
2. Provide educational, directional and behavioural signage along public recreation corridors that traverse agricultural areas of the community; encourage event

organizers to provide advance notification in the community, enabling farmers or the public to make any desired adjustments.

3. Investigate recreation opportunities that could complement the agri-tourism industry.

7.7 Education

1. Consider the potential role of the Economic Development Commission as an agricultural information distribution centre, directed at consolidating the wide range of materials available to the agricultural community on programs, regulations, research and emerging trends.
2. Develop a heightened awareness of the nature and critical role of agriculture as an integral part of the community-at-large, through education initiatives directed at all segments of the population; publication of Growers Guide similar to Comox Valley that lists producers, fresh food and value-added products, community information.
3. Actively encourage a buy-local shopping attitude for locally-grown and raised products; pursue establishment of a major farmers market in the Westside community.
4. Expand the role of agricultural history and heritage in the region through interpretive opportunities at facilities including the Gellatly Nut Farm, the Fintry Heritage Centre, and the Ellison School.
5. Pursue enhancement of agricultural interests through cooperative field research and training ventures with the newly established Agriculture faculty and Agroecology Degree Program at UBCO, and the facilities of the Summerland Research Station; support initiatives such as the UBCO – BCFGA agreement to work jointly on a broad range agricultural interests.

7.8 Planning Area Initiatives

1. Encourage initiatives that support and enhance a Westside agricultural tour route linking winery, nut farm, nursery and orchard components of the agri-tourism industry.

2. Support opportunities to shift agricultural activities in the Ellison area from less intensive pasture and forage operations to higher yield value added crops. Explore successes of existing apple and vineyard producers and share with neighbouring farmers.
3. Examine opportunities for a heritage agricultural feature in the Fintry area.
4. Support agri-tourism initiatives in the Joe Rich area that can link with the 4-season regional tourism development at Big White.
5. Consider opportunities for the marketing of regional agri-tourism business such as the farm circle tours.

The Agricultural Plan Background Report is intended to:

- provide an overview of agricultural conditions in the RDCO.
- summarize the results of background consultation and research.
- provide preliminary comments on issues and opportunities in the plan area.
- stimulate discussion on issues or opportunities for improving conditions for agriculture.

The Background Report was circulated to the agricultural sector and referral agencies with the objective of obtaining comments on the identified opportunities and possible strategies to best take advantage of these opportunities. The Background Report was subsequently revised to reflect input received through the review process and has provided direction for the preparation of the Agricultural Plan.

REFERENCES

- Atlas of Suitable Grape Growing Locations in the Okanagan and Similkameen Valleys of British Columbia. Agriculture Canada and Association of British Columbia Grape Growers. Kelowna, B.C. 1984.
- Canada Land Inventory. 1977. Soil Capability for Agriculture; Mapsheet 82L/SW (Vernon). 1: 125 000 scale.
- Canada Land Inventory. 1980. Soil Capability for Agriculture; Mapsheet 82E/NW (Kelowna). 1: 125 000 scale.
- Climatic Capability for Agriculture. 1986. Mapsheet 82E/NW (Kelowna).
- Cohen, Stewart, Denise Nielsen and Scott Smith. 2004. Expanding the Dialogue on Climatic Change and Water Management in the Okanagan Basin, British Columbia. Environment Canada and Agriculture and Agri-Food Canada.
- Dandy, David and Kathleen M. Kyle. 1990. A Fruitful Century – The British Columbia Fruit Growers Association 1889 – 1989.
- Environment Canada. http://www-msc_smc.ec.gc.ca/climate
- Land Capability for Agriculture Maps 82E.072, 073, 082, 083, 094, 095 and 82L.003.
- Ministry of Agriculture, Food and Fisheries. 2002. AgFocus: A Guide to Agricultural Land Use Inventory. Province of British Columbia
- Ministry of Environment and Ministry of Agriculture and Food. 1983. Land Capability Classification for Agriculture in British Columbia. MOE Manual 1. Kelowna, B.C.
- Personal communication 2005. Denise Neilson, Summerland Research Station, Agricultural and Agri-Food Canada.
- Planscape, 2003. Regional Agricultural Economic Impact Study. Regional Municipality of Niagara.
- Sauerwein, Stan. 2000. Fintry – Lives, Loves and Dreams
- Smith, Barry. 1998. Planning for Agriculture. Provincial Agricultural Land Commission, British Columbia.
- Soils of the Penticton Map Area 82E. Maps with extended legend only. Pertinent map sheets are 82E/13 and 14. 1: 50 000 scale.
- Soils of the Vernon Map Area 82L. Maps with extended legend only. Pertinent map sheets are 82L/3 and 4. 1: 50 000 scale.
- Surtees, Ursula. 1989. Kelowna – The Orchard City.
- Webber, Jack. 1999. A Rich and Fruitful Land – The History of the Valleys of the Okanagan. Okanagan Historical Society.
- Wittneben, U. 1986. Soils of the Okanagan and Similkameen Valleys. Rept. 52, B.C. Soil Survey; MOE Tech. Rept. 18; BC Ministry of Environment, Victoria, B.C. Pertinent map sheets are 82E072, 073, 082, 083, 093, 094. 1: 20 000 scale.