

Final Report

Agricultural Study

City of Kingston

March 2007

Prepared for:

City of Kingston

Prepared by:

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Final Report
Agricultural Study - City of Kingston
March, 2007

TABLE OF CONTENTS

Summary

Table of Contents

Final Report

I.	Introduction	Page 1
1.1	Study Objectives	Page 1
1.2	Work Program	Page 1
i.	Research Phase	Page 1
ii.	Issues Phase	Page 2
iii.	Policy Development	Page 2
1.3	Public Consultation	Page 2
1.4	Outline of Report	Page 2
2.	Agriculture in the City of Kingston	Page 2
2.1	Soils	Page 3
2.2	Agricultural Land Use	Page 4
2.3	Production Trends	Page 4
2.4	Farming in the City of Kingston	Page 6
i.	Number and Size of Farms (Table 6)	Page 7
ii.	Farm Operators (Table 26)	Page 7
iii.	Farm Capital	Page 7
iv.	Operational Issues	Page 8
v.	Federal Facilities	Page 9
2.5	New Initiatives in Farming	Page 10
3.	Land Use Planning for Agriculture	Page 11
3.1	Review of Existing Official Plans	Page 11
i.	Township of Pittsburgh Official Plan	Page 11
ii.	Lot Creation	Page 12
3.2	Approach	Page 13
3.3	Agricultural Designation	Page 14
i.	Identification of Lands to be Designated	Page 14
a)	Classification of Soils	Page 15
b)	Intensity of Farming	Page 15
c)	Compatibility	Page 15
d)	Evaluation	Page 16
ii.	Policy	Page 16

3.4	Agriculture in Other Designations	Page 17
	i. Aggregate	Page 17
	ii. Urban Area	Page 17
4.	Environmental Policies and Agricultural Lands	Page 17
4.1	Natural Heritage Features	Page 17
4.2	Hazard Lands	Page 19
4.3	Nutrient Management Act 2002	Page 19
4.4	Minimum Distance Separation Formulas (MDS)	Page 19
4.5	Clean Water Act	Page 19
4.6	Recommendations	Page 20
5.	The Economics of Agriculture	Page 20
5.1	Farm Communities	Page 21
5.2	Farm Ownership Trends	Page 22
5.3	Farm Viability	Page 22
5.4	Employment	Page 22
5.5	Alternative Approaches	Page 22
6.	Municipal Support for Agriculture	Page 23
6.1	Protection of Good Farm Land	Page 23
6.2	Maintain/Encourage Farm Operations Both Large and Small	Page 24
6.3	Agricultural Related Economic Development	Page 24
	i. Local Processing and Distribution	Page 26
	ii. Re-establish Farm Production as Part of the Rural Landscape	Page 27
6.4	Ensure Municipal Services are Accessible and Appropriate for Rural Areas	Page 27
6.5	Recognize the Mixed Use Nature of the Rural Area	Page 28
	i. Establish/Support Local Dispute Resolution Mechanisms	Page 28
	ii. Explore Compensation for Environmental Stewardship	Page 28
	iii. Explore Other Forms of Ownership to Provide and Guarantee Ongoing Farm Production	Page 28
6.6	Moving Forward - An Action Plan for Agriculture	Page 29

Figure 1: Soils Map

Figure 2: Classification of Soils

Figure 3: Rural Land Use

Figure 4: Intensity of Farming

Figure 5: Compatibility

Figure 6: Land Evaluation

Figure 7: Candidate Agricultural Areas

Attachment A - Workshops - Summary of Input (provided by others)

Attachment B - Draft Agricultural Policy

BI

Attachment C - Draft Rural Policy

CI

Attachment D - Statistical Analysis (Phase I Report)

- Table 1 Summary of Agricultural Land Use
- Table 2 Shift Share Analysis of Agricultural Trends in Livestock on Farms
- Table 3 Shift Share Analysis of Agricultural Trends in Improved Lands and Major Crop Areas
- Table 4 Farm Capital 1991, 1996 and 2001
- Table 4a Shift Share Analysis of Agricultural Trends in Farm Capital
- Table 5 Farm Land Area Classified by Tenure, 1991, 1996 & 2001
- Table 6 Farm Area and Use of Land 1991, 1996 & 2001
- Table 7 Crops (Acres) 1991, 1996 & 2001
- Table 8 Hay and Fodder Crops (Acres), 1991, 1996 & 2001
- Table 9 Other Field Crops (Acres), 1991, 1996 & 2001
- Table 10 Vegetables, Sod & Nursery Products, (Acres) 1991, 1996 & 2001
- Table 11 Tree Fruits and Small Fruits (Acres), 1991, 1996 & 2001
- Table 12 Poultry, 1991, 1996 & 2001
- Table 13 Cattle and Calves, 1991, 1996 & 2001
- Table 14 Pigs, 1991, 1996 & 2001
- Table 15 Sheep, Lamb & Other Livestock, 1991, 1996 & 2001
- Table 16 Number of Agri-related Business in the Study Area
- Table 17 Agriculture and Non Agri-related Sales for Businesses Surveyed
- Table 18 Estimated Total Gross Sales for all Agri-related Businesses in the Study Area Using Sale Multipliers
- Table 19 Estimated Agri-related Businesses in the Study Area Using Sale Multipliers
- Table 20 Total Value of Agriculture Sales and Location of Sales for All Agri-related Businesses
- Table 21 Total and Agri-related FTE Jobs at the Businesses Surveyed
- Table 22 Estimated Total Agri-related FTE Jobs Using Job Multipliers
- Table 23 Farm Operating Arrangements 1991
- Table 24 Farm Operating Arrangements 1996
- Table 25 Farm Operating Arrangements 2001
- Table 26 Characteristics and Farm Operators in 2001
- Table 27 Hours of Non-Farm Work in 2001

Attachment E - Interim Report - Standing Senate Committee on Agriculture and Forestry

EI

Attachment F - References

FI

Phase I Background Report (separately bound)



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CCS Project No. 1013

March, 2007

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I. INTRODUCTION

Clark Consulting Services (CCS) was retained to prepare an Agricultural Study for the City of Kingston. The Agricultural Study is a component of the background information needed for the preparation of the updated City of Kingston Official Plan.

I.1 Study Objectives

The purpose of the Agricultural Study is to undertake an inventory of the agricultural system and the location of farms and farm support services, analyze contemporary trends and issues in the agricultural industry, provide an economic analysis of the City's agricultural system, address the appropriateness of current agricultural policies, and recommend any changes in policy direction, considering current legislation, if required. The Study focuses on the Rural portion of the City but does include commentary on the farming taking place within the Urban area and specifically addresses the larger institutional holdings in the Urban Area which are currently farmed.

The resulting information will be used to

gauge the economic impact of agriculture in the City of Kingston, harmonize and develop sound land use policies and guide agricultural development.

I.2 Work Program

In undertaking this assignment CCS prepared a detailed Work Program which divided the work into three phases. The following is a brief summary of the work to be undertaken in each phase.

i. Research Phase

In the research phase the available information on agricultural land use including the Comprehensive Land Use Survey conducted in 2005 was reviewed. A field check of land use and a graphical analysis of agricultural land use was prepared.

Data from the Census of Agriculture for the years 1991, 1996 and 2001 was collected and analyzed. With this analysis, the trends in the agricultural industry were identified and an assessment of the resource base for agriculture was prepared.

The economic impact model originally prepared by Professor Harry Cummings was reviewed and modified to reflect an economic impact model for the City of Kingston.

ii. Issues Phase

The issues phase of this study involves a review of a series of predetermined issues and their impact on agriculture and agricultural land use policy. The issues identified were:

- farm size
- nutrient management and its regulation
- environmental impacts
- demographics of agricultural and rural land use
- marketing of agriculture and agricultural products
- product distribution.

iii. Policy Development

The policy development included the preparation of the following items:

- statement of goals and objectives for agriculture
- Official Plan Policy for an Agricultural Designation
- Official Plan Policy for a Rural Designation
- a review of the implications for agriculture in other Rural Designations
- a review of the implications of agriculture in Urban Designations.

1.3 Public Consultation

After completing the first two phases of the

report, CCS approached the public for input. Several one-on-one semi-structured interviews were held on farms in the City. Within the interview format farmers were able to discuss their concerns and make suggestions for the agricultural section of the Official Plan.

Following the interviews the Official Plan Team held two workshops for the new Official Plan. The first workshop on November 30 was directly related to the agricultural section whereas the second workshop on December 6th explored more urban issues related to the Official Plan. The written summary of input received at these Workshops has been prepared by Sue Cummings, the workshop coordinator, and is included as Appendix A.

1.4 Outline of Report

This report begins with an outline of agriculture in the City of Kingston. It is followed by a section dedicated to land use planning for agriculture in the City. The next Section addresses the relationship between agriculture, farming practices and environmental policies. The Economics of Agriculture sets out the current trends and findings related to production and use of agricultural land in the City. One of the unexpected findings was the need for municipal support for agriculture. This section makes a variety of suggestions.

2. AGRICULTURE IN THE CITY OF KINGSTON

Agriculture is primarily based on the native soils and climate of the area and their ability to produce food and fibre for human and industrial use. This descriptive section begins with a review of the natural capacity of the City to support agricultural production.



2.1 Soils

The County of Frontenac Soils Map was Report No. 39 of a series of Soil Survey Reports prepared in 1966 jointly by the provincial and federal Departments of Agriculture. The soil survey provides an inventory of soil resources at a reconnaissance level of detail. The report provides details as to the adaptability of the various soils and considered climate and bedrock geology in classifying the mineral soils according to the standard soil classification systems.

Figure 1 is a reproduction of the southern portion of the Frontenac County Soils Map for the City of Kingston. Of particular note are the areas delineated “FI” and “R.O”.

The “FI” symbol denotes areas of Farmington loam soils. Extensive areas of the former Kingston Township are included in this classification. The Soils report describes these soils as problem soils having limited use for agricultural purposes and a low carrying capacity as grazing land. Improved tillage techniques and higher yielding varieties have allowed the use of the deeper soils in this soil classification. The distribution of such soils is dependent on the bedrock topography and the deposition of the soils. Local farmers describe this as “farming between the ridges”.

The R.O. notation depicts Rock Outcrops and is most evident in the northern portion of the former Pittsburgh Township. Whereas the Farmington soils occur in areas of limestone, the Rock Outcrops are usually granite and are part of the Laurentian Shield. The local rock exposures are erratic and not only disturb the shape of the intervening soils but also disrupt the drainage of these soils making even good soils too wet for cultivation. These areas are described as “farming between the Rocks”.

The soils have been further classified as to their capability for agriculture by the Canada Land Inventory. This classification system is a seven class system. The first three classes are considered to be Prime Agricultural Lands suitable for cultivation. Class Four lands are marginal for their ability for cultivation but may, in combination with Class 1, 2 and 3 Soils, be included as good farm land. Classes 5, 6 and 7 are soils suitable only for pasture land. Class 7 is bare rock.

Figure 2 has been prepared using the Soils Map to delineate the soils into three broad categories. Those lands identified as Class 4 Soils are shown as a transparent or lighter coloured overlay. Classes 5, 6 and 7 are identified with an opaque or darker overlay. This overlay system will be used in our evaluation of those lands which could be designated as Prime Agricultural Lands. The remaining areas which are not shaded are either Class 1, 2 and 3 Soils, Urban Areas or Water. The soils in these areas are generally of a heavier clay type which, in conjunction with the climate results in a short growing season. Only recently have these lands been capable of producing crops such as soybeans and grain corn due to higher yielding plant varieties with shorter maturity and tolerance to limited cultivation techniques.

As *Figure 2* illustrates there are few large (i.e. greater than 1000 ac) contiguous areas of good quality agricultural land. These areas are limited to the eastern portion of the City in the former Pittsburgh Township area. A tour of this area confirms this area as a broad flat area with limited constraints to crop production. This area is also the only area in the City with a significant investment in agricultural drainage improvements. Known as the Pittsburgh Drain, these improvements represent an extensive engineered drainage



system designed to provide much needed drainage outlets for farm fields that would otherwise have significant limitations for cropping due to wetness most notably in late spring and early fall when access to these lands for planting and harvesting is important.

2.2 Agricultural Land Use

J.L. Richards prepared a Comprehensive Land Use Survey for the City of Kingston in the spring of 2005. This survey was conducted principally by windscreen observation. It does not account for those portions of the property that are not visible from the road. Some properties are being shown as Residential when in fact there are large portions used for cropping which are not visible from the road. *Figure 3* is a reproduction of the Comprehensive Land Use Survey updated by our field checks in the summer of 2006. It indicates the primary land use in the rural area. Within this area the agricultural land use is identified with a dark green colour. Agriculture comprises 19,097.9 ha (47,200 ac.) of land or approximately 55% of the Rural area.

The primary land uses were further subdivided into a series of secondary land uses. The use of the geographic information system allows the secondary land uses to also be identified and their areas to be calculated. *Table 1* in Attachment D is a summary of the secondary land uses within the primary land use of agriculture for the City of Kingston. The secondary uses were determined on a parcel by parcel basis. They detail the most significant type of agricultural operation evident on the property in 2005. In preparing the updated survey of agricultural land use for this report each property within the rural area was revisited and the primary and secondary uses of property were determined. In addition to

providing a thorough overview of agricultural land use in the rural area, this approach also resulted in some minor changes in classification which may have been a result of changes in use between the original survey in 2005 and the subsequent survey in the summer of 2006. It may have been a result of focusing primarily on the use of the buildings and structures on the parcel in the 2006 update.

As can be seen by this review and illustrated in *Table 1*, the predominant land uses are field crops and vegetables and cattle farms. These two uses together make up 72% of the Agricultural farm uses by parcel. It must be noted that due to the scattered nature of farm operations, many parcels used for crops are part of a larger animal operation, the livestock portion of the operation being located on a separate parcel. The principal distinction between the spring 2005 and the 2006 land use reviews was that a number of farms were identified as horse farms and equestrian centres on the original survey rather than mixed or cattle farms.

2.3 Production Trends

To review production trends, the Census of Agriculture for the years 1991, 1996 and 2001 has been collected and analyzed. To identify local strengths data for the Province has also been analyzed. The detailed statistics have been reproduced in Attachment D. The Tables referenced by number in this section are located in Attachment D.

In comparison to Ontario where improved lands increased by 7.50% from 1991 to 2001, improved lands in Kingston have increased by only slightly less at 7.5%, as shown on *Table 3*.

The number of acres dedicated to various



crops has increased slightly from 1991 to 2001 in Kingston. Lands in pasture have declined by 16.94% (571 acres) since 1991 and summerfallow dropped by 83.40% (407 acres). Pasture and summerfallow decreased by 19.8% and 77.6% during the same period in Ontario. Both the province and Kingston show similar trends for pasture and summerfallow.

Corn for silage has declined from 1991 to 2001 throughout Kingston. Total acreage fell from 2,399 in Pittsburgh and Kingston Townships in 1991 to 1,148 in the City of Kingston 2001. Tame hay grew from 8,645 acres in Pittsburgh and Kingston Townships to 9,191 acres in the City of Kingston in 2001.

Other field crops do not account for a large percentage of total acreage in the City of Kingston.

The number of acres devoted to vegetables fell from 226 acres in Pittsburgh and Kingston Townships in 1991 to 36 acres in the City of Kingston in 2001. The area of land for sod and nursery products was very minimal in both 1991 and 2001.

Tree fruit and small fruits show little acreage in the Kingston area (See Table 11). There is no apple production recorded in either 1991 and 2001. In contrast, the County of Leeds and Grenville devoted 305 acres to apple production in 2001, although there were 271 acres in 1991. The area under strawberry cultivation is stronger in the counties of Leeds and Grenville, Lennox and Addington and Frontenac than in the City of Kingston. In 1991 and 2001 there were no harvested strawberries reported in Kingston.

Wheat, barley and buckwheat show little growth in the City of Kingston. A shift share analysis of major crops (*Table 3*) is used to

indicate a competitive advantage when compared to the larger area, in this case the Province. Production of barley declined by 34.16% since 1991, a rate much faster than the rest of the province. Mixed grain production in Kingston showed a decrease from 1991 to 2001 (42.0%). The province shows a similar decline at 45.53% in 2001.

Corn showed considerable competitive advantages within Kingston when compared with the province. The production of corn in Kingston grew by 73.66% from 1991 to 2001 compared to only 5.89% in Ontario. On the other hand, corn for silage fell drastically from 1991 to 2001 in the study area (50.92%) while only marginally in the province (2.33%). The production of hay in the province fell by 13.93% from 1991 to 2001 and it grew in Kingston by 6.32% during the same period. The dramatic changes in grain, corn and soybeans suggest a trend to cash cropping and away from livestock. This is supported by the decline in corn for silage.

The City of Kingston has traditionally been a dairy farming area. In 2001, livestock farming in the City of Kingston consisted of a mix of dairy and beef cattle. Pigs, sheep, lambs and horses are not heavily represented in this area. Shift share analysis of livestock farming is shown in *Table 2*.

Turkey farming shows no growth in Kingston. Poultry farming in general has declined between 1991 and 2001. The number of total hens and chickens is not available in 1996 or 2001 for the City. However, Frontenac County shows 14,576 hens and chickens in 2001. The total number of farms with hens and chickens fell from 34 in Pittsburgh and Kingston Townships in 1991 to 22 farms in the City of Kingston in 2001. Combined, these details suggest that many of the small



poultry operations have been discontinued; compensated for by fewer but larger scale operations in the City. Provincially, there was growth in the number of hens and chickens (28.08%) as well as turkeys (3.47%) from 1991 to 2001. The surrounding Counties of Leeds and Grenville and Lennox and Addington demonstrated an increase in growth in the number of hens and chickens with 30.91% growth and 12.99% respectively in the same time period. This illustrates an emphasis on poultry in these areas.

Dairy farming increased in Kingston by 15.53% between 1991 and 2001 (See *Table 2*). During the same period, dairy farming in Ontario increased by 30.86%. By comparison, Kingston was losing its advantage in dairy farming. The surrounding counties of Leeds and Grenville, Lennox and Addington, and Frontenac saw a decline in the number of dairy cattle from 1991 to 2001 by 29.6%, 35.31% and 28.61%, respectively (See *Table 13*).

Beef farming increased in Kingston by only 3.25% from 1991 to 2001 and decreased by 3.86% in Ontario over the same time. This suggests that beef farming in Kingston has a local competitive advantage over the other areas of the province and the surrounding Counties where they were also declined. Leeds and Grenville (6.06%) and Lennox and Addington (8.60%) beef farming declined from 1991 to 2001 while Frontenac has increased by 5.62%.

The total number of pigs in the City of Kingston fell between 1991 to 2001 (See *Table 2*). Although there is no figure for Kingston Township in 1991, the number of farms reporting pigs dropped from 12 in Pittsburgh Township in 1991 to 8 in the City in 2001. Also, there were 98 pigs in Pittsburgh

Township in 1991 and only 74 in the City in 2001. This decline is not significant but of interest is the dramatic fall in the number of pigs in the Counties of Leeds and Grenville and Frontenac by 72.32% and 83.59% respectively. The number for Lennox and Addington is not available in 2001. Provincially, there was a significant growth of 18.2% in the number of pigs (See *Table 2*).

Sheep farming increased both locally and provincially between 1991 and 2001. While sheep farming increased locally it did not increase as rapidly as the as the provincial increase. Sheep farming in Kingston grew by over 10% from 1991 to 2001 while it grew by 33.78% in Ontario. It should also be noted that the number of sheep in the Counties of Leeds and Grenville, Lennox and Addington, and Frontenac increased in the time period also. The number of sheep in Leeds and Grenville grew by 75.81% between 1991 and 2001. In Lennox and Addington the number of sheep increased by 54.42%, and by 12.09% in Frontenac County in the same time. The number of farms did not change significantly.

This analysis confirms the conclusion reached earlier from the review of land use and crop statistics. The area is losing its dominance in dairy farming provincially and there does not appear to be a corresponding increase in other livestock. This is based upon the 2001 Census of Agriculture and does not reflect the affects of the BSE crisis in 2003 which had an impact on the price of cattle and the opportunity for export.

2.4 Farming in the City of Kingston

This section analyzes the characteristics of farms, their operators and the capital invested in farming in the Kingston area. Figures for the Counties of Leeds and Grenville, Lennox



and Addington and Frontenac have been included for the purposes of comparison. This review will give an indication of the current type of agriculture operations and trends in farming.

i. Number and Size of Farms (Table 6)

From the information provided, farm size in Kingston seems to have been maintained throughout the period from 1991 to 2001 despite the fact that two trends were expected. In general, mechanized industrial farming operations have been getting larger with heavier investment in equipment and land. This, however, is not evident from the analysis. In 1991 the total acreage of farms reported in the City was 46, 453. With 216 farms reporting this reflect an average size of 215 acres per farm. In 2001, the number of farms declined to 203. They reported 44, 333 acres or an average of 218 acres/farm. These farm sizes were smaller than those in the County of Frontenac or the adjacent Counties.

Table 5 examines farm land classified by tenure. In addition to the reduction in farm land reported, the portion of this land rented increased from 10,641 acres (22.91%) in 1991 to 14, 462 acres (37.62%) in 2001. This compares to a provincial rate of 30.61% in 2001. The increasing amount of rental lands suggests that land are being purchased by non-farm interests and rented to farmers.

ii. Farm Operators (Table 26)

A “farm operator” according to the 1991, 1996 and 2001 Census of Agriculture is a person responsible for the day-to-day management decisions made in the

operation of a farm. Up to three farm operators could be reported per farm. In 2001 there were 300 farm operators identified. This represents an average of 1.47 operators per farm. The average age of these operators was 52.8. Frontenac County reported 995 operators with an average age was 52.9 and only 6.53% were under the age of 35. The Ontario statistics were similar with an average age of 50.7. In contrast, the average age of the labour force in the City of Kingston in 2001 was 38.7.

The increasing age of farm operators and more significantly the limited number of young operators entering farming is an on-going concern.

iii. Farm Capital

Although farm capital generally declined for the City between 1991 and 2001 as shown in Tables 4 and 4a, the amount of capital invested in machinery and equipment appreciated significantly over this ten year period. This change was consistent with the provincial increase in farm machinery and equipment. The decline in the number of farms was larger than the decline in total farm capital; resulting in the average capital per farm increasing over this period.

Average Capital Per Farm				
1991			2001	% Change 91-01
Pittsburgh	Kingston	Average	Kingston	
\$489,522	\$443,678	\$467,874	\$472,313	0.95

Pittsburgh Township has the highest average capital investment per farm at



\$489,522 in 1991. The increase between 1991 and 2001 was 0.95% for the City. For comparative purposes Kingston Township had an average farm capital investment of \$443,678 in 1991. The average investment for the two Townships was \$467,874 in 1991. Provincially, total farm capital grew by 24.14% between 1991 and 2001, whereas the City saw a decline in the total capital value of -5.13%.

In reviewing the distribution of capital (see Table 4) over 73% is attributed to land and building, 17.1% to machinery and equipment and 9.6% to livestock and poultry in 2001. Since 1991 the capital value of land and buildings has declined. The value of machinery, equipment, livestock and poultry have grown. These trends point out the heavily capitalized nature of farm operations and the changing nature of production. These trends are generally away from labour intensive animal operations toward cash crops. In Ontario, however, farm capital is steadily increasing. The investment in land and buildings grew by 20.15%, machinery and equipment by 49% while livestock and poultry grew by 35.92% between 1991 and 2001 in Ontario. As shown in Table 4, in the Counties of Leeds and Grenville, Lennox and Addington, and Frontenac, there was a definite growth in land and buildings, machinery and equipment, and livestock and poultry. Machinery and equipment demonstrated the most growth in the Counties of Leeds and Grenville, Lennox and Addington, and Frontenac with 39.98%, 44.70% and 47.14% respectively. Growth in livestock and poultry follows with 13.67% in Leeds and Grenville, 19.79% in Lennox and Addington, and 27.67% in Frontenac County. The

investment in land and buildings grew consistently in the Counties, but not to the extent of machinery, equipment, livestock and poultry.

When examining total farm capital over this same period, the City declined 5.13% whereas the province of Ontario increased by 24.14% (Table 4).

Most farms are owner operated. In Kingston, 32.6% of farmland was rented in 2001. The corresponding numbers for the counties are 21.8% for Leeds and Grenville, 27.7% for Lennox and Addington, and 27.8% for Frontenac. Provincially, 30.6% of farmland is rented out, thus land tenure for Kingston is similar to Ontario (Table 5).

iv. Operational Issues

Based on the above analysis and our Public Consultation Program we have identified a number of issues affecting farm operations within the City. The following is a brief review of these issues, highlighting their implications on planning within the Municipality.

The census information on farmland when combined with the number of farms indicated the average farm size is 218 acres. The traditional lot and concession provides 100 acre lot fabric. The data as well as the interviews, indicated that farmers, particularly in areas of erratic soil types must assemble either through ownership or rental, a number of parcels in order to achieve the average sized farm operation. The interviews suggest that some farming operations are actually much larger than the average, in the order of 600 to 1000 acres in size and are required



to assemble and control either through ownership or rental, a number of parcels often widely scattered and dispersed. This presents a difficult operational issue for the farmer who must then manage these dispersed properties. This leads to issues with respect to compatibility, particularly for nutrient management and the spreading of manure. The operation of equipment, and its transport along roadway some of which are heavily traveled, create issues with respect to safe transport of farm equipment among dispersed operations. Adjoining property owners complain about normal farming practices on adjoining farmland.

The statistics on cropping and livestock suggest that although the area has maintained its strength in cattle, the cropping practices indicate a movement towards cash cropping which is a more transitional activity requiring less investment in buildings. The trend toward more rental land accents the concerns about the investment in the land itself. Generally, rental land does not receive the same degree of care that lands owned by farming interests would because of their interest in maintaining its long term sustainable yields.

In addition to farm size, we would expect the Census of Agriculture in 2006 to indicate a decline in the number of cattle as a result of both the discovery of a case of bovine spongiform encephalopathy (BSE) and the sale of dairy operations.

Discussions with farm operators indicate that processing and marketing are becoming widely dispersed. Milk produced locally may be processed in either Winchester or Belleville, which are

the two largest processing plants, or smaller plants between. Beef cattle are often shipped to even more dispersed locations and cattle auctions. The closure of the local cattle auction has seen higher transportation costs as cattle are transported longer distances in order to be sold.

Compounding the difficulties with compatibility and dispersed farming operations is the purchase of farmland by non-farm interests in order to acquire larger holdings in close proximity to the urban area which offers unique rural settings often with attractive views. These trends in ownership introduce owners who do not necessarily have sympathy or interest in local farming operations. These trends are cause for concern as to the long term future of farming in many sections of the City.

v. Federal Facilities

There are two significant Federal Facilities located within the City of Kingston, one in a rural setting, Pittsburgh Institution and another on a large Federal Reserve in an urban setting. Both of these facilities have significant farming operations. These farming operations are not recognized in the local Planning Documents because of the Federal ownership and the principal use being institutional in nature.

The Joyceville Institution is of particular interest because it was originally opened in 1963 as a Farm Annex. Its main function was to be the management of a herd of 300 beef cattle with an abattoir. Today it has a significant agri-business which includes cattle, vegetable gardens and a greenhouse. It produces meat and other



food for Joyceville and other area prisons.

The Collins Bay Penitentiary located within the urban area of the City occupies only 28 acres on a Federal Reserve of 800 acres. This penitentiary and particularly the Federal Reserve is a significant farming operation within the urban area on the remaining 772 acres.

Note should be made in the Official Plan of these Institutions and their significance for agricultural and farming operations. Opportunities exist for the farming community to make a broader use of these facilities both for research and for marketing and distribution of produce. This is particularly relevant in view of the more dispersed processing and marketing of facilities available to local farming operations.

2.5 New Initiatives in Farming

Several recent studies and media reports have identified a growing concern with large industrial scale farming. Economies of scale and declining profit margins as well as improved technology, more efficient livestock and higher yielding crops have encouraged larger and more specialized farms. There are only a few of these types of operations in the City.

These intensive livestock operations require large investments in buildings and infrastructure to support the intensive livestock housing. Concerns range from smell and odour to questions of sustainability, resource use and safe manure storage and disposal. These operations often require/generate large separation distances and large land areas for feed production and waste disposal. Recent experience suggests these

specialized operations are vulnerable to unforeseen market forces and disruptions.

Agriculture in the City of Kingston, as in many jurisdictions is not a uniform land use but can be categorized by size. A few larger farms account for the bulk of the agriculture production. Many farming operations continue at their historic size with increasing issues of viability. Some new operations are exploring production of specialty crops and livestock on small acreages. Many of these crops are grown organically and marketed directly to consumers through roadside stands, farmers markets, cooperative processing and distribution or other direct to consumer arrangements.

These changes in farming, together with other rural uses such as aggregate and mineral production, waste disposal and increasing pressure for rural residential and recreational development create a complete land use system with competing interests and objectives. Agriculture plays an important role in this system. It is the dominant land use by area occupied. Agriculture, particularly if combined with woodlot management, provides much of the landscape and setting for other uses. Historically, agriculture has been the economic support for much of the rural community. These social networks are still important and continue to provide the basis for community life.

Planning in this context must establish clear guidelines for future decisions while maintaining the flexibility to accommodate a variety of uses and interests within the rural areas.

3. LAND USE PLANNING FOR AGRICULTURE

3.1 Review of Existing Official Plans



The agricultural policies contained in the Pittsburgh Township and Kingston Township Official Plans are based on very different planning approaches.

The Pittsburgh Township Official Plan contains two designations, the Rural designation and the Agricultural designation while the Kingston Township Official Plan contains only one Rural designation. The fundamental difference between these two approaches, is the separation of prime agricultural lands from marginal agricultural lands.

Prime agricultural land is defined by the Provincial Policy Statement to mean land that includes specialty crop areas and/or Canada Land Inventory Classes 1, 2 and 3 soils, in this order of priority for protection. Prime agricultural area is defined to mean areas where prime agricultural lands predominate. This includes: areas of prime agricultural lands and associated Canada Land Inventory Class 4-7 soils; and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by the Ontario Ministry of Agriculture and Food using evaluation procedures established by the Province as amended from time to time, or may also be identified through an alternative agricultural land evaluation system approved by the Province.

While the Pittsburgh Township Official Plan has separated the lands and identified two designations, Rural and Agricultural, the Kingston Township Official Plan has only one rural land use classification (Rural). Schedule E to the Kingston Township Official Plan entitled Land Capabilities & Constraints, does identify those areas of the former Kingston Township with high aggregate and agricultural

capability. Many of the areas identified are also natural heritage sites. The protection of prime agricultural areas in the former Township of Kingston Official Plan does not provide a strong basis for protection.

A large portion of the Kingston Township Ward has also been identified as having high aggregate capability. For those portions of the Municipality which have been identified as having a high capability for both agriculture and aggregate extraction, the 2005 Provincial Policy Statement allows for the extraction of the aggregate resource as an interim land use provided that rehabilitation will be carried out so that substantially the same areas and same average soil quality for agriculture are restored.

i. Township of Pittsburgh Official Plan

While both Official Plans recognize that prime agricultural lands should be protected for agriculture, only the Pittsburgh Township Official Plan has a schedule clearly identifying the prime agricultural lands and includes policies which clearly protect these lands. Permitted uses in the Pittsburgh Township Agricultural designations are:

- agricultural uses
- agricultural-related uses
- secondary uses.

The Pittsburgh Township Rural designation permits a broader range of uses including:

- agricultural uses
- secondary agricultural uses
- small-scale commercial and industrial uses
- infrastructure facilities
- forestry, recreation and conservation



- uses
- residential uses accessory to permitted uses
- limited non-farm rural residential development
- existing churches.

By creating separate Rural and Agricultural designations, a greater degree of protection has been afforded to the Agricultural lands while at the same time permitting a broad range of uses in the lands designated Rural.

Permitted uses in the Rural designation of the Kingston Township Ward include: agriculture and farm related activities, limited non-farm residential development, small-scale commercial and quasi-industrial uses serving or directly related to the rural economy, forestry, conservation, recreational, public and institutional uses, and residential uses accessory to the permitted uses. The main difference between the agricultural planning approach taken in Kingston Township and Pittsburgh Township is that the Kingston Township Rural designation combines the uses and policies in the individual Agricultural and Rural designations in Pittsburgh Township. While the Agricultural designation in Pittsburgh Township does not permit non-agricultural uses, the Kingston Township Rural policies do. As such, there is a greater potential for incompatible land uses to be located in a prime agricultural area in the Kingston Township Ward.

The Provincial Policy Statement defines Agricultural Uses to mean, *“the growing of crops, including nursery and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including*

poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including accommodation for full-time farm labour when the size and nature of the operation requires additional employment”. The PPS also defines Agricultural-related uses to mean, *“those farm-related commercial and farm-related industrial uses that are small scale and directly related to the farm operation and are required in close proximity to the farm operation”*. For clarity, these definitions should form the basis for new policy.

ii. Lot Creation

A review of the lot creation policies for the Agricultural designation in the Pittsburgh Township Ward has revealed that these policies are out of date and are not consistent with Provincial Policies as set forth in the Provincial Policy Statement. The Official Plan policies permit the creation of new agricultural lots, farm retirement lots, new residential lots for a surplus farm residence due to consolidation and new residential lots for surplus farm residence built before 1978. Section 2.3.4 of the 2005 Provincial Policy Statement discourages lot creation in prime agricultural areas and permits the creation of new lots only for the following:

- agricultural uses
- agricultural-related uses
- a residence surplus to a farming operation
- infrastructure
- lot adjustments.

The *“residence surplus to a farming operation”* must be created as a result of farm consolidation. The planning



authority is also directed to ensure that new residential dwellings are prohibited on any vacant remnant parcel of farmland created by the severance. The approach to ensure no new residential dwelling is permitted may be recommended by the Province or based on Municipal approach that achieves the same objective.

All other forms of new residential lot creation in prime agricultural areas is not permitted.

The main differences between the PPS policies and the Pittsburgh Township policies are:

- The PPS permits lot creation for agriculture-related uses and the Pittsburgh Township policies do not.
- The Pittsburgh Township policies permit the creation of residential lots the PPS policies do not.

Consent policies for the Rural designation in the Kingston Township Ward permit lot creation in the following circumstances:

- surplus farm dwelling due to farm consolidation
- residential lot for full-time farm employee (minimum .8 ha)
- residential lot for family member employed full-time (minimum .8 ha)
- farm retirement lot (minimum .8 ha).

As with the Pittsburgh Township Ward policies, the Kingston Township Ward consent policies for the Rural designation are not consistent with those policies set forth in the Provincial Policy Statement where they are to apply to a prime agricultural area. This distinction is more difficult because the Rural consent policies

apply to both high and low capability for agricultural lands. There is a need to clearly identify prime agricultural areas in this Ward.

3.2 Approach

Agriculture is one of the largest land uses in the City of Kingston. Planning for agriculture and for the Municipality must therefore adopt an approach to dealing with this land use which will reflect its unique characteristics and its position within the City and particularly the rural areas. The following are elements of the approach:

Statement of Goals for Agriculture in the City of Kingston

We would recommend the following goals for agriculture to be adopted in the Statement of Goals for the new Official Plan.

- i. Protect the agricultural resource base and areas identified as prime agricultural areas.
- ii. Encourage a sustainable form of agricultural and farming through land use policy and economic development activities.
- iii. Promote a diverse range of farming activities and agricultural support uses throughout the Municipality.
- iv. Explore the Municipal role in achieving locally viable farming both in terms of land use, economic development activities and cooperative efforts with adjoining agriculturally related communities.



- v. Review Municipal service delivery to ensure that it meets the special needs of the rural areas and particularly the farming community.
- vi. Evaluate the impact of Public Policies such as the protection of Natural Heritage Areas on farm practices and explore mechanisms to address inequities.
- vii. Review/promote local dispute resolution mechanisms for regulations which affect farming practices e.g. nutrient management, source water protection, Municipal infrastructure improvements.
- viii. Acknowledge the mixed use nature of the rural area in the City and develop policies and approaches to recognize and manage conflicting objectives of the various rural users and uses.
- ix. Recognize agriculture and farming practices as legitimate uses within the urban portion of the Municipality particularly for large holdings.
- x. Clearly identify the prime agricultural areas and provide for their protection.
- xi. Create a rural policy which will also provide protection for ongoing farming operations.
- xii. Create a policy for both agriculture and rural areas which reflects the need to provide for secondary uses

to protect animal operations and to provide a limitation for consent activity and other competing and complementary uses within the rural area.

Identify Prime Agricultural Areas

As identified earlier in this report the Provincial Policy Statement directs Municipalities to recognize Prime Agricultural Areas. As part of this study, an evaluation of the Agricultural Resource Base has been conducted and recommendations made with respect to the recognition of prime agricultural areas in the City.

3.3 Agricultural Designation

- i. Identification of Lands to be Designated

Sustainable agricultural land use is heavily dependent upon the natural environment and particularly the soils of the area. In June of 2002, the Ministry of Agriculture and Food published a Guide to Land Evaluation and Area Review (LEAR) System for Agriculture in which they outlined a method of evaluating land and reviewing areas for their agricultural potential. The purpose of this review was to provide a common approach to the selection and identification of Prime Agricultural Lands for the purpose of protecting them under the Provincial Policy Statement and the local Official Plan.

We have developed an approach using the available information which follows the Land Evaluation and Review (LEAR) System. This approach relies upon the Soils Map and Agricultural Land



Classification System and the Rural Land Use Information updated from the 2005 Comprehensive Land Use Survey.

The following is a description of the approach used to determine those areas as candidates for designation of Prime Agricultural Areas.

a) Classification of Soils

Figure 2 is a reproduction of the Soils Map for the County of Frontenac for the City of Kingston. Using the Canada Land Inventory Soil Classification System those lands identified as Class 4 Soils are shown with a light overlay. Classes 5, 6 and 7 are identified with an dark overlay. This overlay system was used to eliminate lands as Prime Agricultural Lands. The areas not shaded are either Class 1, 2 and 3 Soils, Urban Areas or Water.

b) Intensity of Farming

The Land Use Survey allows for a calculation of the percentage of each area which is being used for farming. This calculation has been prepared on a block basis. The blocks were defined by Primary Road Systems. The categories used to identify the intensity of farming were those areas which had greater than 50 percent of the land area devoted to farming, those areas between 40 and 50 percent and those areas having less than 40 percent devoted to farming.

Figure 4 represents the results of this analysis. Those areas with greater than 50 percent farming are not

shaded. The areas with 40 to 50 percent farming are shown in a transparent green shade and those areas which have less than 40 percent of the land area devoted to farming are shown in a opaque green shade.

The one anomaly is the Joyceville Facility which, although devoted to an institutional use, does have a substantial amount of the area used for farming purposes. Therefore, for purposes of this evaluation we have shown it to be an area which has greater than 50 percent of the land area devoted to farming.

c) Compatibility

The Land Evaluation System requires consideration of those land uses which are incompatible to agricultural use. The intensity of farming accounts for this to the extent that the lands are not used for farming but they do not account for the constraints which Non-Farm uses may impose upon the farming operations. This is particularly true for Residential uses. The presence of a number of Residential uses will limit agricultural operations. In order to evaluate this aspect of the agricultural resource base, *Figure 5* was created which identifies incompatible land uses. The main incompatible land use is clusters of residential development. A cluster was determined to be three or more residences within 300 m of each other. These were identified and illustrated with an arc of an additional 300 m distance to identify the areas which would be affected. In addition to residential clusters other non-farm



uses such as Institutional uses and areas designated for urban development were identified as being incompatible with long-term Agricultural usage. These areas were identified with transparent orange on *Figure 5*.

d) Evaluation

In order to evaluate the effect of the classification of soils, the intensity of existing farm operations and incompatible uses, these three images were overlaid to create *Figure 6*. Those areas which remain transparent are candidates for protection as long-term agricultural areas.

Figure 7 highlights those areas identified in this evaluation and further refines these areas based upon field reconnaissance into Candidate Areas for designation as Prime Agricultural Areas and other Farming Areas. For comparative purposes, the areas already designated as Prime Agricultural Areas in the Pittsburgh Township Official Plan have been shown. The evaluation approach used in this Study generally corresponds to the areas already designated, however, the boundary is more organic. The currently designated area follows property boundaries. The final determination of the area to be designated should be part of the Official Plan preparation process.

In the City of Kingston the only extensive areas of good quality land of sufficient size to support the current/dominant agricultural practices are in the central portion of

the former Township of Pittsburgh. This process identifies two distinct agricultural communities. The lands currently designated as Agricultural are extensive in size, have significant investment in agricultural infrastructure and have few competing uses either natural or man made. The other rural areas have significant farming activities but they are interspersed with natural limitations such as rock outcrops, wet areas and shallow soils or man made uses such as golf courses, housing, aggregate operations and other non-farm uses. Farming in these areas often involves scattered parcels of land and accommodations with other uses.

Those areas delineated as Other Farming Areas should be recorded as Farming Areas within the Rural designation. They are too small to justify designation as Prime Agricultural Areas but they warrant protection as important sites for local farming operations.

ii. Policy

Farming in the extensive areas devoted exclusively to Agriculture qualifies for protection through a separate designation in the Official Plan. This designation would identify the area as a prime agricultural area and provide protection through policies designed to preserve the area for agricultural use. Proposed policies have been prepared as Attachment B to this report which should be read in conjunction with *Figure 7*.

We propose that areas identified as “Other Farming Areas” on *Figure 7* be included in



a Rural designation which includes policy requiring the protection of on-going farming operations. This would include a policy to identify these operations in zoning and require any proposed non-farm uses to consider their impact on these farm uses as part of any planning decision. The proposed Rural Policy is included as Attachment C.

There are a number of other policies such as mineral aggregate resources, natural heritage, wetlands and natural hazards which will also need to be accommodated and may supercede or overlay both the Agricultural and Rural designation. This is a matter to be addressed in the preparation of the Official Plan. Some of the considerations to be made as part of this preparation follow below.

3.4 Agriculture in Other Designations

As referenced above, agriculture production is a significant land use in a number of other designations in the City of Kingston. The new Official Plan should consider farm protection policy similar to the Referral policy suggested above. Special consideration is required in the Aggregate areas and the Urban portion of the City.

i. Aggregate

Section 2.5.4.1 of the Provincial Policy Statement provides specific guidance for Extraction in Prime Agricultural Areas. Extraction is permitted as an interim use provided the site is remediated to restore the agricultural potential. Such rehabilitation is not required if excavation extends below the water table or if other alternatives to complete rehabilitation are explored and found unsuitable.

ii. Urban Area

Large land holdings such as the Federal Reserve are currently farmed and should be encouraged to continue to be used for agricultural production. Other forms of urban agriculture are possible and should be recognized as appropriate. These uses can take the form of community gardens and garden plots and can form a significant source of fresh produce in season. They also enrich community life and provide direct contact with food production for urban residents.

4. ENVIRONMENTAL POLICIES AND AGRICULTURAL LANDS

During the consultation program one of the strong concerns raised by many farmers was that current operations will be negatively affected by policies and regulations established to achieve environmental objectives. The following is a review of the most obvious Environmental Regulations and Policies concluding with recommendations for Municipal action.

4.1 Natural Heritage Features

Farming has long been the unofficial steward of rural lands with natural features. As rural planning has developed an increasing importance is has been placed upon the protection and maintenance of these environmental features and their importance to the public welfare. In the 1980s, wetlands were identified as important to maintaining the health of watersheds and a process for identification and evaluation was developed. This process has continued and in the 2005 Provincial Policy Statement a series of Natural Heritage Features have been identified. These include:



- significant wetlands,
- significant coastal wetlands,
- fish habitat,
- significant woodlands,
- significant valley lands,
- significant habitat of endangered species and threatened species,
- significant wildlife habitat, and
- significant areas of natural and scientific interest.

These features and the areas affected by them exist in a system which includes the natural corridors necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems. The areas can include lands restored to a natural state.

In order to identify this wide range of Natural Heritage Features, in 2004 the Cataraqui Region Conservation Authority started a Regional Natural Heritage Study. The purposes of this study are:

- To identify a “broad brush” system of features and areas that supports biodiversity within the City of Kingston and Loyalist Township with attention to the surrounding area.
- To suggest ways in which each of the municipalities, in consultation and partnership with the community might develop a strategy to protect and enhance the habitats and biological diversity of that system.

A Final Draft Report for the Natural Heritage Study was issued in June of 2006. The study recommendations will form a component for the New Official Plan for the City of Kingston. It also includes recommendations for stewardship initiatives.

The stewardship initiatives suggested in the report include:

- Woodland (Tree) Conservation By-laws under Section 35 of the Municipal Act (2001),
- Site Plan Approval under Section 40 of the Planning Act for lots of record and areas of natural heritage or other conservation related feature,
- Municipal Fill/Site Alteration By-laws under Section 142 of the Municipal Act (2001),
- Landscaping Guidelines for new development.

The stewardship recommendations in the Natural Heritage Study reference public ownership as being the best method of protection. It also references alternatives such as the dedication of lands through conditions of planning approvals and bequests, public education and awareness of the importance of Natural Heritage Features, restoration activities and additions and consolidations of existing public holdings.

Private lands may continue under alternate arrangements such as land trusts and other non-profit organizations and these organizations are encouraged through such legislation and programs as the Conservation Land Tax Incentive Program (Federal) and the Managed Forest Tax Incentive Program (Provincial/Municipal). There are also agencies who offer Natural Heritage Conservation Easements and Land Protection Easements. The implementation phase of the Natural Heritage Study includes the preparation of a Stewardship Strategy which would explore the possibility of incentive packages to encourage “best management practices” for lands with Significant Natural Heritage Features.



4.2 Hazard Lands

The Provincial Policy Statement also includes policies to protect lands which are flood prone or erosion prone. Despite the fact that these lands cannot be used for construction in accordance with the Provincial Policy Statement they do not preclude farming per se.

4.3 Nutrient Management Act 2002

With Royal Assent of the Nutrient Management Act in 2002, the Ministry of the Environment undertook the regulation of Nutrient Management for farms and the application of nutrients on farmland. The Act provides for the environmentally sustainable use of nutrients through a preventative and proactive planning approach. Compliance is regulated and enforced through the Environmental Protection Act.

The Nutrient Management Act protocol was updated in August of 2005 to include any new animal operation or any existing animal operation greater than 300 nutrient units. The application of Nutrient Management is being phased in such that within two years the Nutrient Management Act will apply to all farming operations of greater than five nutrient units. Information collected from the interviews suggests that nutrient management is a particularly onerous exercise on shallow soils over rock as is the case in many areas throughout the City of Kingston. This, together with the regulatory framework established through this Act, means animal husbandry on large scale is or will be limited to the larger holdings of good quality agricultural land where depth of soil ensures nutrients will be retained and utilized in the soils.

4.4 Minimum Distance Separation Formulas (MDS)

The Minimum Distance Separation Formulas established by the Ministry of Agriculture, Food and Rural Affairs and the Ministry of the Environment ensure that animal operations are adequately separated to enhance compatibility. The formulas and guidelines were updated and came into effect in January 1st, 2007. This update is part of a five-year program of review conducted regularly by the Ministries and was put in place to clarify implementation guidelines and ensure that the application of the formulas was more equitable between livestock uses and non-farm development. It also aligned the calculation and formulas with existing nutrient management tools.

4.5 Clean Water Act

With Royal Assent in October of 2006, the provincial government established a program with legislative authority to protect drinking water supplies, both ground water and surface water. The principal mandate and implementation tool is the creation of a Source Water Protection Plan by a Source Water Committee which will identify ground water and surface water supplies and any threats to the quality and quantity of drinking water from these sources. The Source Water Protection Plan will then make a determination as how to address these threats through a series of Risk Management measures which may restrict certain activities adjacent to surface water or in the vicinity of ground water recharge areas. As the Source Water Protection Plans are implemented it would be expected that restrictions and regulations relative to farming operations would be proposed, approved and enforced.



4.6 Recommendations

The following are recommendations prepared to reflect conversations held during the conduct of this Study with a view to addressing the increasingly regulated nature of Rural Land Use and particularly farming operations.

- i. Since agriculture is the largest Rural Land Use, changes to policies affecting lands in the rural area should be evaluated specifically as to their impact on farming and agriculture. Resources including staff with skills and knowledge related to the rural community should be specifically assigned with a mandate to assemble and disseminate information on the new regulations, policies and programs which will affect agriculture and farming. This could be a new section or staff drawn from several existing sections.
- ii. All policy and regulations should include provision to reflect the local situation and circumstances. Implementation should be phased to allow a review of impacts on a case by case basis. Lessons learned in the initial phase may have broader application. There should also be a commitment to local dispute resolution to avoid excessive and lengthy legalistic processes involved with the implementation, regulation and enforcement of environmental objectives.
- iii. A commitment to explore compensation for modified farming practices or lost agricultural opportunities as a result of compliance with higher environmental standards

or the protection of Environmentally Significant Natural Features either voluntarily or by regulation.

5. THE ECONOMICS OF AGRICULTURE

Despite the large land area as shown in *Figure 3*, farming does not make up a significant part of either the employment or the economic activity in the City of Kingston. If agriculture is expected to play a significant role in the management and maintenance of the Rural landscape, assistance in making farming more financially viable is warranted.

This report and the analysis it is based on cannot make the claim to provide a comprehensive review of the economics of agriculture however, the research conducted and the interviews held have highlighted a number of key points with respect to the viability of farming and its role in the local economy.

The preservation of land for agricultural protection is often accompanied by the complaint that saving the land will serve no purpose if it is not viable to farm and there are no farmers who can afford to produce crops on the land. Agriculture and the agri-food industry is composed of a very diverse group of producers who are supported by a number of suppliers and services and who require both processors and distributors of the farm produce prior to it being available for consumption or use.

The graphic representation of the Contemporary Agri-Food System breaks the system into four distinct sets of activities. Activity group A are the Agri-technologies that support farming, Activity group B are the active farm operations including the land/property, farm business and farm/property



servicing agencies, Group C are the food industry activities which include processing, packaging and retailing/catering. Group D are the food consumption activities. Between these activity groups are organizations and agencies which transfer information or regulate the activities. Taken together this system is a complex web of activities and regulations.

Collectively, Statistics Canada indicates that in Canada 1 in 8 jobs or about 8% of the gross domestic product is related to the agri-food industry. This does not include the non-food portion of Agricultural production.

This has changed over the past few decades. The most prominent change is in the primary production area. While primary production is very important, it is a declining component of the agri-food system. In the past, agriculture has led the Canadian economy in productivity growth. While the value of real production has tripled in the past 45 years, the number of farms has declined by 50%. The implication of these trends is very evident in the rural area of Kingston.

More recently, a series of events have challenged not only the farms and farm operators but also the support systems put in place by Government to maintain a viable farming system. Our review based on the available statistics and our interviews indicates the following conclusions:

5.1 Farm Communities

Farm families vary in their approach to farming. The largest family farms are described as being “*business focused*”. These farms are highly specialized and support the farm operators. The majority of farms are described as “*lifestyle or retirement farms*” and

rely upon off-farm income to maintain the family’s financial growth. In Frontenac County statistics from 2001 indicate that nearly 50% of farm operators reported off-farm work and 40% of those reported more than 20 hours per week (Table 27). The City of Kingston in 2001 was reported to have 203 farms. If each farm consisted of a family of 3 people that would reflect a farm population of 609 people. Given the current population of the City of Kingston, even in the rural area, this reflects a small percentage of the rural population.

In Canada, a small portion of the rural economy was derived in 2001 from agriculture and agri-food. Only 11% of Canada’s rural population lived in a farming household. Rural issues are increasingly becoming distinct and different from agricultural issues. The American Farm Bureau Federation has been quoted as saying, “*Farming is now more dependant on rural communities, than rural communities are dependent on farming.*”

Our interviews indicated that 30 or 40 years ago there was a thriving farm community on the outskirts of the then City of Kingston which provided food directly to the City to processors within the urban area. Today, farm product is transported large distances to distributors and processors located long distances from the farm gate. For example, milk produced locally may be processed in plants located in Winchester, Belleville or Lindsay. A similar pattern of consolidation exists with respect to the suppliers of farm machinery and farm services. One observation that was confirmed through our interviews was that suppliers to the farming community once located locally are now much more regionally oriented. Farms located in the Former Kingston Township tend to look westerly to the Napanee and Belleville area for



farm supply services. Farms located in the Former Pittsburgh Township tend to look easterly to Gananoque, Brockville and points east.

5.2 Farm Ownership Trends

In 2001, one-third of the producers in Canada were over the age of 55. In Frontenac County, this number was even higher with 42.7% of the producers over 55 years of age and the average age for Frontenac County was 52.9 whereas the average age of farmers in the City of Kingston was 52.8. The increasing age of the farm operator is an indication that young operators are not choosing to continue with family farms and farming has not been an attractive career choice. The actual ownership patterns, as indicated in Tables 23, 24 & 25, between 1991 and 2001 have not changed dramatically with the exception of partnerships which, during that 10 year period, became more formalized through the use of agreements. The size of farms has not changed dramatically either, however, the areas farmed are increasingly relying on rental properties which suggests that farmland ownership is becoming increasingly non-farm oriented. Through our interviews we were provided with examples of farm property purchased by non-farm interests who then rented the land to an adjoining farm operator.

5.3 Farm Viability

The value of farm sales in the City of Kingston in 2001 was \$15,172,294.00, representing average sales of \$74,740.00 per farm. These are gross sales figures from which expenses, labour and return on capital must be deducted. We can assume that the net figure on an average basis is substantially less, creating the concern for farm viability and the need for off-farm employment to supplement

farm family incomes. Many of the people we interviewed commented on the distribution of sales as being concentrated in a few larger farms with many of the smaller operations achieving far less than the average sales. Thus the issues of viability becomes an issue not only for smaller operations with lower sales but even for the larger operations who have a large investment in equipment, land and livestock which requires substantial farm sales.

5.4 Employment

Statistics Canada provides a figure for resource based industries within the City of Kingston of 725 people. In a report commissioned by the local Federations of Agriculture, Professor Cummins determined that agricultural related industries employed an additional 448 full time equivalent employees. If we assume that many of those agricultural related employment jobs are within the City of Kingston, a total of farm and agricultural related employment within the City of Kingston would be 1,173 grouping both the full time equivalent agri-related industries and the on-farm employment. For the City of Kingston, the total labour force was 57,775 people. Thus agricultural and other resource based industries reflected only 1.25%. Even with the agri-related industries in Frontenac County this would have only reflected approximately 2% of the total labour force.

5.5 Alternative Approaches

The above analysis points out that despite the large land area devoted to farming. Agriculture and agri-related industries do not represent a large percentage of the labour force or of the rural population. Farmgate sales are large but not in relation to the total economic activity within the City. The farmgate sales of \$15.2 million is only 7% of



the total expenditure for food consumed in the households within the City of Kingston. Based on an average expenditure per household per week of \$86.97 for food purchased for consumption at home, the total annual expenditure for all 46,605 households within the City of Kingston would be \$210.8 million. This does not include food consumed outside the home or food provided to the large institutions. During our conversations with individual farmers and farm groups, a number of alternate approaches were suggested.

Many of the larger operations had experienced continual expansion driven by the objective of achieving economies of scale often through highly mechanised operations. Alternatively, there are a number of individuals who are establishing smaller scale operations seeking to add value to the produce either through direct to consumer businesses or by offering a higher value product. Some of this interest is in organic farming which is becoming a larger portion of the consumer food purchases. There is also an increasing interest in locally grown food. The challenge to the smaller operations lies in the area of processing and distribution. Some local entrepreneurs have established local distribution systems and small scale local processing. In the next section we will look at ways in which the Municipality can assist the smaller scale farming operation in creating an alternative to large scale farming within the City and discuss the benefits of such an involvement.

6. MUNICIPAL SUPPORT FOR AGRICULTURE

As the previous sections have indicated, agriculture is a multi-dimensional economic activity beginning with production and relying on support services, processing, distribution and economic policies that span the province, the country and extend internationally.

Maintaining a viable agricultural industry requires a coordinated approach from all levels of government and industry. It is not exclusively a municipal issue but the Municipality has an important stake in the viability of agriculture since agriculture forms such an important part of the rural landscape and supports a significant component of the local economy. The following are our suggestions for municipal involvement in the support of agriculture.

6.1 Protection of Good Farm Land

There is no disagreement among the various elements of the agri-food system that agricultural and the protection of good farmland is important. The large tracks of continuous good quality agricultural lands are already designated for protection. The less obvious and more difficult issue is the smaller tracks of good quality agricultural land dispersed in the rural community which also require protection. These tracks of land and the farming activities which occur on these tracks are much more intimately associated with other non-farm rural uses, in particular, rural residential uses and there in lies a number of the concerns and incompatibilities which need to be explored and resolved. The Provincial Policy Statement is very clear about protecting the large tracks of land. It is less clear about methods of protection which can be afforded to the smaller tracks of good land interspersed in a rural area. The recommendations made in this study suggest that these tracks of land and particularly the farms which rely on them deserve support but cannot and should not be identified by a separate designation in the Official Plan. A more homegrown approach to protecting these lands and the farms that rely on them is warranted and has been proposed in the Rural designation policy.



The Municipality plays a significant role in protecting good farmland as it is the lead agency on the ground providing the day to day protective policy with the support and encouragement of the provincial government.

6.2 Maintain/Encourage Farm Operations Both Large and Small

There is a growing realization that farming has become highly specialized and a growing number of individuals are suggesting that the emphasis on the economics of scale and the benefits derived from technology has moved too far in promoting ever larger industrial scale agricultural operations.

The June 2006 Interim Report of the Standing Senate Committee on Agriculture and Forestry (Attachment E) outlines in some detail the current dire agricultural situation and the numerous and on-going causes. While it is important to address these national and international issues, it is also important to act locally by exploring alternatives that can be implemented individually and collectively at the community level.

Even the farm community have expressed significant concerns about potential large animal intensive operations and the various elements required to support them, in particular, reliance on large manure storage facilities and antibiotics to control disease. There is an alternative which is being explored by a number of farmers. They adopt a more sustainable form of agriculture relying on a combination of animal and cropping practices geared to maintain the carrying capacity of the soil and provide a reasonable rate of return on investment for the operator. Many of these operations are conducted cooperatively in order to take advantage of the coordinated marketing and processing and to compete with

the larger scale operations and respond to the scale required by the food retailers. Also beginning to make their presence known in the Kingston area are smaller, value-added operations which provide specialized produce such as organic or specialty crops. These individual operators must also rely on cooperative processing and distribution in order to compete with larger scale food production and distribution organizations.

There is also a trend in providing secondary farm activities to take advantage of the skills or the environment that farming creates. These take the form of farm vacations, special events focusing on food preparation and sampling or tasting of food, or special farm related activities such as sheepdog trials, etc. These activities should be encouraged provided they remain compatible with the principal use of the area as an agricultural area. These uses can increase farm income and they provide an excellent opportunity to improve public appreciation of and support for local agriculture.

6.3 Agricultural Related Economic Development

New opportunities for local farmers and agri-businesses need to be identified based on the unique strengths of local agriculture. Farms and those involved in the agricultural industry need help adapting their operations to the nearby urban market or to a specialized niche in the agri-food and non-food production. New opportunities such as grain for ethanol need to be explored.

The first priority would be to ensure that consumer preference is understood. Local operators are showing an ability to discover markets for locally grown food relying upon issues such as the reduction or elimination of the use of pesticides and the healthier



standard and quality of food which is locally produced. New technologies including bio-fuels such as ethanols are creating new options for local farmers. Value added opportunities in processing, packaging, and branding should be explored that will improve the visibility and return to local agriculture and agri-business. New value chains which can link the farmer to the consumer through different producer and distributor organizations could be coordinated and controlled to meet specific needs, increase efficiency and provide more security to businesses along the agricultural product chain.

To advance these new opportunities the farming industry, together with private institutional, academic and economic development organizations, need to develop a network to cooperatively explore opportunities. This activity needs to be explored on a broader basis than just within the Municipality. Municipal assistance is required to coordinate and provide resources for this activity.

The agricultural industry has changed dramatically over time and will continue to change. New opportunities need to be defined, promoted and coordinated. These opportunities will require economic and business support as they evolve and adjust to changing market conditions and consumer preferences. A comprehensive agricultural development strategy is needed that addresses:

- changing consumer demand,
- diversification options for individual farmers,
- introduction of new technology such as the internet as a tool for both production and distribution,
- business management skills for the farm operators, the distributor and the

- processor,
- an improved tax policy to support the investments required,
- production and processing which emphasize quality and efficiency as part of the food supply chain, and
- education and market development including promotional methods to highlight locally grown produce and the unique attributes of local agriculture.

In particular, there needs to be an overall coordination between producers, research and development organizations and the consumer.

The economic development model for agriculture needs current and comprehensive information on new markets and the expertise and capacity to develop production processing and marketing methods to capture both the local and the larger market opportunities that are provided. The importance of local food production should be emphasized by meaningfully differentiating local farm products by a mechanism such as the Foodland Ontario style of advertising and campaign which emphasizes locally grown produce as a priority in order to increase sales and encourage further investment in locally grown produce.

In the past, farmers have relied upon government based research and development to assist them in business management, adoption of new technology and diversification and research into farm product and processing opportunities. Increasingly producers must rely upon farm organizations, cooperative action and economic developers to coordinate and provide the research and information that they need to make decisions about production. Increasingly web based applications, forums and publications are becoming the means of



disseminating important research and development information. This form of information needs to be coordinated and delivered locally.

i. Local Processing and Distribution

If local food production is to become important and if consumers are to support local production, important information on food chain management is required. Examples of how various techniques and technologies can be incorporated and used to encourage and support local food production are important. Examples of how to establish and access timely and accurate market information will be important to potential investors in this type of operation. Also important is the facilitation of access to private and public sector industrial advisors to assist in the needs of food production, processing and distribution. The Municipality can play a significant role in the coordination and dissemination of information and by drawing the various groups together and providing a forum and perhaps even some of the facilities necessary to establish local food production chains.

The Municipality can also assist in providing improved coordination between the agricultural industry and government to impact positively on the industry's competitiveness and effectiveness. To accomplish this, organizations operating at all levels of the industry must be coordinated in a new way. Our suggestion is the creation of an agricultural action committee comprised of individuals within the farm sector who have shown leadership and a willingness to explore alternate opportunities. Such an action committee would provide a coordinating

function for agriculture in the broader Kingston area. This committee should initially look at sharing information, raising awareness of issues and acting as a liaison with all levels of government. It should encourage innovation and diversification within the industry. The suggested participations would include the Ministry of Agriculture and Food, the Ministry of Municipal Affairs and Housing -Rural Development Division, local Municipalities and Economic Development Agencies, the Eastern Ontario Development Commission, representatives from the farming community and other industry experts willing to share information and showing an interest in generating and supporting a dynamic agricultural community in the Kingston area.

There is a need to raise awareness of opportunities within the Kingston area for agri-business. There is currently a study by a local group looking at local food production and means of supporting and expanding this. This initiative needs to be encouraged.

A dedicated agricultural economic development agency within the Kingston area could provide overall coordination for local agriculture, connect producers with local markets including retailers and restaurants and provide business support.

It will not be possible to sustain agriculture over the long term if the industry is not financially viable. Taxation and tax assessment are significant components of the economy for farmers. Currently according to the statistics provided, few farmers are able to take advantage of government support programs including



the farm tax assessment. There should be collaboration between the agricultural industry and Municipalities in lobbying the Ministry of Finance for a fairer farmland and value-added tax assessment. Tax incentives should be considered to reduce speculation on the urban fringe areas and to promote an industry where young farmers are encouraged to pursue innovation.

ii. Re-establish Farm Production as Part of the Rural Landscape

As quoted earlier, historically the rural community have relied on farming. It is now becoming obvious that farming is going to have to rely on the rural community to maintain itself. Re-establishing farming and agriculture in the Municipality will require education of both the farm community and the consumer. This activity should seek to:

- raise awareness as to the contribution of agriculture to the economy, environment, and the local and regional character of life particularly in the rural area,
- communicate the importance of preserving agricultural practices and land to allow the industry to remain viable,
- promote local farm products as well as recreation, entertainment and educational opportunities to expand the markets for agriculture and to support agriculture,
- recognize and support the role of urban agriculture in supplying food and serving as an educational tool for

broader agricultural practices,

- identify and build on existing marketing and education programs, and
- assess the impact and opportunities available to build on the cultural diversity in Kingston and the opportunities it presents for the agricultural industry.

6.4 Ensure Municipal Services are Accessible and Appropriate for Rural Areas

During our interviews, there were a number of individuals who raised concerns about the accessibility and the type of services being provided by the Municipality. Recently, the City have initiated improvements to their service delivery in an attempt to provide one-stop shopping for access to Municipal services. In the rural area and particularly for the farm community, it would be important that the City clearly identify and demonstrate their understanding of the specific needs for the rural community. This would include service delivery to the rural areas which are aware of issues with respect to farmland drainage, safe farm machinery transport and road maintenance. It can also involve the adoption of consistent transportation policies and programs that ensure for the safe movement of farm vehicles through such things as slow moving vehicle signage and consultation with farmers during transportation planning and class environmental assessments prior to the design of rural roads. Farmers need to be consulted on rural road design and upgrades for such things as road type, alignments, shoulders, cross sections, drainage and sign placement.



6.5 Recognize the Mixed Use Nature of the Rural Area

i. Establish/Support Local Dispute Resolution Mechanisms

In recognizing the needs of farmers and the reality of non-farm users in the rural area, there is a need to ensure that minimum separation distances are equitably applied in zoning and implemented by building officials to ensure that the public, staff and Council are aware of normal farm practices as represented in the Farming and Food Production Protection Act and the Ministry of Environment regulations governing the use of pesticide, nutrient management, etc. Wherever possible legislation affecting farming operations should include a dispute mechanism which would allow the resolution of disputes at the local level without the need to engage in prolonged legalistic decision mechanisms. The example used during our discussions was the Lined Fences Act and local fence viewers who are knowledgeable of the needs of the agricultural community and are provided with specific regulations and requirements with respect to fencing. A similar type of dispute resolution mechanism should be considered and is available in much of the legislation affecting farming operations such as nutrient management, source water protection, etc.

ii. Explore Compensation for Environmental Stewardship

Farmers appreciate the important functions of natural areas but they also understand that the impact of Environmental designations and

restrictions on their ability to farm and their farm land values. Many find it unfair that they are required to protect these areas for the public good without compensation. Careful consideration must be given to the net impact on farmers from protecting natural areas they own in designated greenspaces and in areas set aside to benefit the general public through environmental protection.

This is not to say that farmers are unwilling to adopt mandatory or voluntary best management practices. It is only to say that they should be compensated for measures which restrict or require changes in farming practices. Encouragement could be given for lease arrangements for new and adjusted farming practices. Such mechanisms as Conservation easements and the provision of professional forestry advice and tree stock to private land owners should be explored. Environmental payments for measures deemed sustainable and beneficial to natural systems could provide incentive to farm operators. The use of tax benefits to reduce the cost to farmers of retaining natural areas could also be explored.

iii. Explore Other Forms of Ownership to Provide and Guarantee Ongoing Farm Production

The use of farmland trusts is a relatively recent initiative which should be explored to provide rural residents with a mechanism to participate in farming activities while also experiencing the benefits of rural living.

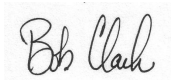


6.6 Moving Forward - An Action Plan for Agriculture

It is hoped that this study can provide the basis for the preparation of an action plan for agriculture. The Principles to form the basis for such a Plan include:

- developing a shared vision with shared actions to be undertaken by the agricultural industry and all levels of government,
- explore how agriculture can become financially sustainable to enable the current and future generations of farmers to continue farming,
- farmland value must be protected and supported through public policy and programs,
- the distinct nature of agriculture in the Kingston area and its unique strengths must be capitalized on and marketed, and
- the agricultural community must ally itself with consumers to create a strong voice for farming and food production and agri-business locally.

Sincerely;



Bob Clark, P.Eng., P.Ag., MCIP., R.P.P.

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Figures:

- Figure 1- Soils Map
- Figure 2 - Classification of Soils
- Figure 3 - Rural Land Use
- Figure 4 - Intensity of Farming
- Figure 5 - Compatibility
- Figure 5-1 - Contemporary Agri-Food System
- Figure 6 - Land Evaluation
- Figure 7 - Candidate Agricultural Areas

Attachments:

- A: Workshops - Summary of Input (provided by others)
- B: Draft Agricultural Policy
- C: Draft Rural Policy
- D: Statistical Analysis (Phase 1 Report)
- E: Senate Report-June 2006 "Agriculture and Agri-Food Policy in Canada: Putting Farmers First!"
- F: References

