LOT CREATION IN ONTARIO'S AGRICULTURAL LANDSCAPES: TRENDS, IMPACTS AND POLICY IMPLICATIONS

Report 3: Impacts and Analysis

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Overview

This report is the third in a series of three reports on the topic of lot creation in Ontario's agricultural designations. This third report builds on research results which were profiled and summarized in the second report. It contains detailed information on methodology, municipal case studies, commodity group interviews, lot creation impacts, and policy recommendations.

The other three reports in this series are entitled:

1. Report 1: Literature Review

2. Report 2: Profiles and Summaries

3. Report 3: Impacts and Analysis

All three reports are products of a research project entitled "Rural Non-Farm Development – Revisiting Rural Severance Policy in Ontario". The reports are based on the first iteration of this study, conducted from 2001-2003. The reports from this study and the previous study are available online at www.waynecaldwell.ca .

Executive Summary

Ontario's agricultural industry has become the most intensive and diversified in Canada. At the same time, thousands of new lots for farm and residential purposes are fragmenting the landscape and introducing limits on agricultural development. The net benefits of creating new lots are debated but, to nearby farmers, each new lot means loss of farm options and new pressures from non-farm residents. In Ontario, lot creation is part of the land use planning and development policy process, which must be consistent with the Provincial Policy Statement (PPS). The PPS lot creation policies have changed twice since 1990: once in 1996 and again in 2005. Both times, the PPS further modified the types of new lots permitted in prime agricultural areas. To determine effectiveness of the 1996 and 2005 policy changes, this research analyzes the number and type of lots created per year from 1990-2009 in the agricultural designations of 102 Ontario municipalities.

This study examined 102 municipalities across Ontario, covering virtually all prime agricultural areas in the province. As part of this study, each municipality received a summary of the number and type of new lots created in farm areas and was surveyed to better understand local factors in lot creation trends. The demand for new lots is affected by a variety of political, economic, and geographic factors that vary at local and provincial levels. The study conducted detailed analysis at the provincial, regional, and upper and single tier levels across the province.

Findings suggest that the provincially-led planning policy approach has been effective in reducing the rate of scattered residential lot creation in most agricultural designations across the province. Results indicate that residential lot creation rates have indeed decreased in agricultural designations at almost twice the rate of decreases in other designations. Both the 1996 and 2005 policy statements were followed by 48% and 59% decreases in residential lot creation, respectively (based on average number of lots created per year in each policy period). This does not mean that all agricultural

land has been protected permanently, or that stakeholders willingly participate in farmland protection. Some municipalities and landowners continue to pursue further residential development, adding to the cumulative impacts of residential development.

These findings suggest that provincial-scale planning policies can effectively reduce lot creation rates. Despite decreased rates, cumulative impacts of residential lot creation continue to threaten agricultural viability. Results are directly relevant to ongoing reviews of provincial policy, such as the 2011 Provincial Policy Statement review, the 2015 Greenbelt Plan review and the ongoing creation of regional Ontario growth plans.

Key Observations from Interviews

The following points are observations from interviewees from 11 different agricultural organizations and municipalities. Interviewees were asked for their personal opinions on severance activity from an agricultural perspective. While there were diverse perspectives, each of the following key observations are themes that were repeated by a number of interviewees.

1. Federal and provincial policies need to ensure economic viability of agriculture, which would provide a disincentive to farmers to sever residential lots to achieve short-term gain. “If the public wants nice rural properties, it needs to pay for it! Policy needs to eliminate cheap competition so that farmers do not want to sever.” OFVGA interviewee.
2. Rural residential severances cost a municipality more than they generate in tax assessment. “Planning by assessment does not make much sense to me. This argument does not work.” Region of Waterloo politician.
3. Rural residential severances increase farmers’ cost of production. “Rural municipalities should not be allowed to threaten the farming community.” Region of Waterloo politician.
4. Rural residential severances increase the level of conflict in a community and have a high social cost. “For cases that go to a Normal Farm Practices Protection Board (NFPPB) hearing, there is a winner and a loser – the people are neighbours and the relationship between those people is impacted.” OFA interviewee.
5. The actual land that is lost through residential development is relatively small when compared to the land that is consumed by the MDS requirements. “Some land is lost, but that is relatively minor in the grand scheme of things. By itself, that is not the biggest issue – the implications of Minimum Distance Separation on neighbouring farms is an absolute negative.” OFA interviewee.

6. Rural residential severances limit a farmer's ability to determine how to use the land. "There is an increasing number of restrictions placed on farmers and what they can do on the land. New barns, spraying, bird bangers, and equipment on the roads all face tighter scrutiny. These restrictions impinge on farmers' businesses and livelihoods." OFVGA interviewee.
7. Inaccurate perception that rural residential severances help keep communities populated. "There is a false perception that rural severances will help keep rural population levels higher in order to keep schools and churches open. While this is a nice, traditional thought, the reality proves that this does not work." Ministry of Municipal Affairs and Housing interviewee.
8. People who move to rural municipalities from urban centers demand a higher level of services than the rural people who already live there. "Urban people who move to rural areas have higher expectations on the services provided by the municipality. They demand better roads and other services that the rural residents don't expect. This puts higher costs on the municipality – in either fighting these demands or in trying to provide them. One constantly complaining person can have a big impact on the rest." Perth County politician.
9. Provincial Policy Statement requires further clarification around the issue of surplus dwellings to close the loophole that people are using to create additional residential lots on prime agricultural land. "It will be beneficial to continue to toughen severance policies and remove the surplus residence option. This option tends to be abused and does not provide the value that it is imagined to have." Ministry of Municipal Affairs and Housing interviewee.
10. Good planning principals do not include placing non-compatible land uses side by side. "Agricultural land is the only land use designation that allows for incompatible land uses to be stuck in the middle of it. Planners would never consider putting residential in the middle of industrial or large-scale commercial land uses." OFA interviewee.
11. Prime agricultural land needs to be valued and protected as a vital resource. "A municipality must have an understanding of what agriculture means to the local economy, and if the desire is to keep agriculture, staff and politicians must do what it takes to support agriculture." Perth County politician. "As agricultural land gets frittered away, the resulting fragmented ownership of land leaves parcels that are not large enough to be viable." Niagara Region interviewee
12. Clarification of "secondary uses" and "value added". "The ability to do more on the farm that captures additional income from the produce should be permitted. This allows farmers to extract more value than they would from a bulk commodity." OFA interviewee.
13. Local councils should not have the power to go against the intent of the Provincial Policy Statement. "The Province needs to enforce the existing policies and take some of the power away from the Land Division Committees." Niagara Region interviewee.
14. Scattered residential development is inefficient and reduces the viability of towns and villages. "Allowing rural residences on farm land also has a negative effect on the vitality of towns and villages. What is best for the broader rural communities must also be considered." OMAFRA interviewee.

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Ontario municipalities and staff for going beyond daily duties to respond to requests for severance information. Well over 100 municipal staff were contacted throughout the course of the study, including planning directors, planners, and Land Division or Committee of Adjustment secretary-treasurers. Their professionalism and assistance made this research possible.

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Note to Reader

This report is intended to provide the reader with an indication of the trends regarding lot creation in Ontario's agricultural designations from 1990-2009. While the researchers strive to ensure the data and analyses included in this report are accurate, the data can only be as accurate as the records from which it came and the scope of municipalities which were able to participate. In that sense, the data can be described as providing approximate indications of the numbers of new lots created in Ontario's agricultural designations. All municipalities included in this study received a copy of the data and were invited to verify the data in follow up surveys. Verification status is indicated for each municipality in Report 2: Profiles and Summaries. Included also, are special notes for research interpretation as it relates to each individual municipality.

Table of Contents

List of Tables

List of Figures

List of Acronyms

AAFC: Agriculture and Agri-Food Canada
BCMAL: British Columbia Ministry of Agriculture and Lands
CFFO: Christian Farmers Federation of Ontario
CLI: Canada Land Inventory
CPPS: Comprehensive Provincial Policy Statement
EFAO: Ecological Farmers Association of Ontario
EU: European Union
FCC: Farm Credit Canada
GGH: Greater Golden Horseshoe
GIS: Geographic Information Systems
GTA: Greater Toronto Area
LEAR: Land Evaluation and Area Review
MIZ: Metropolitan Influence Zone
MMAH: Ministry of Municipal Affairs and Housing
MPAC: Municipal Property Assessment Corporation
MPM: Municipal Performance Measures
MRI: Ministry of Research and Innovation
NEC: Niagara Escarpment commission
NEP: Niagara Escarpment Plan
OCA: Ontario Cattlemen's' Association
OECD: Organization for Economic Cooperation and Development
OFA: Ontario Federation of Agriculture
OFVGA: Ontario Fruit and Vegetable Growers' Association
OMAFRA: Ontario Ministry of Agriculture, Food and Rural Affairs
ORM: Oak Ridges Moraine
PPS: Provincial Policy Statement
SOLRIS: Southern Ontario Land Resource Information System
UDIRA: Urban Development in Rural Areas study
UNCTAD: United Nations Conference on Trade and Development

1.0 *Introduction and Research Purposes*

1.1 Problem statement and research purpose

Ontario's planning policies for lot creation in prime agricultural areas are a modern expression of the age-old battle to balance competing land uses. As a public good, agricultural development has value to local and global human communities for a wide variety of purposes – to grow food, produce fur and fibre, harness energy, filter drinking water, enhance biodiversity and provide recreational and tourism opportunities. Residential development is also a public good because it houses residents who pay taxes, work, learn, shop, play, volunteer and engage in the community. While both types of development are valuable, commercial agriculture and non-farm residential development are not compatible uses. For example, many farmers would disagree that private farmlands are a place for recreational trails. Although there are many forms of agriculture that do complement residential uses, Ontario's current urban and agricultural landscapes are dominated by development forms that do not mesh. Residents in agricultural areas are often concerned about large-scale livestock facilities, loud machinery, chemical inputs, manure odours, water pollution, flies and dust. In turn, farmers are concerned with urban residential complaints about farm practices, high taxes and land values, trespassing, vandalism, traffic and a general lack of understanding about how agriculture works. There is a need for better planning to find ways to separate non-compatible farm and non-farm uses. There is also a need to encourage forms of residential and agricultural development that are compatible with transition zones between city and countryside.

Ontario agricultural landscapes have become a focal point for legislation in conservation, energy, water and nutrient management objectives (the *Land Conservation Act*, the *Green Energy Act*, the *Clean Water Act* and the *Nutrient Management Act*). This occurs at a time when Ontario's role as an agricultural exporter becomes even more important, given rising global food and fuel prices, food safety and security, water scarcity and climate change. Demand for Ontario's agricultural lands continues to intensify and diversify. Yet these lands continue to be converted to non-agricultural uses that are incompatible with agriculture and irreversible. The need to protect and promote viable agricultural landscapes through planning policies continues to grow in unprecedented ways. The success or failure of these policies will play a crucial role in the viability and resilience of Ontario's environment and economy.

This research evaluates the effectives of policy changes made in 1996 and 2005. It fills an information gap created by changes to the circulation of severance application information around the introduction of the *Planning Act* in 1990. Before 1990, municipalities were required to circulate farm-related severance applications to the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). This data was useful in informing land use policy and implementation. After the introduction of the 1990 *Planning Act*, OMAFRA was no longer circulated on severance applications. To fill this information gap, this research builds on severance information collected from 1990-2000 and gathers and analyzes new data from 2000-2009. This helps to determine the effectiveness of the 1996 and 2005 Provincial Policy Statements (PPS), both of which increased restrictions on residential lot creation in prime agricultural areas. In fact, the 2005 PPS prohibited the creation of all new residential lots in prime agricultural areas, with the exception of dwellings made surplus as a result of farm consolidation. The effectiveness of these policies is evaluated in this study.

Towards this goal, four objectives were set out in the original research proposal. The objectives were to:

1. Document the numbers and purpose of lots created within rural and agricultural Ontario.
2. Identify the local land use policy that was in effect when these lots were created.
3. Determine the relationship between current provincial policy and the creation of rural non-farm lots. Identify the impact these lots are having on the agricultural industry and review the impact on the viability and sustainability of agriculture in rural communities.
4. Provide quality information to assist with upcoming reviews of the *Greenbelt Act* and the Provincial Policy Statement. Maintain the data gathered on a publicly accessible web site.

1.2 Report organization and structure

This research will be of broad interest to those engaged in agriculture, rural communities and the pursuit of sustainable development. The report is of particular interest to provincial planning staff, most specifically the Ontario Ministry of Agriculture, Food and Rural Affairs and the Ministry of Municipal Affairs and Housing. Upper, lower and single tier municipal councillors and staff may also draw upon this resource to understand complex trends in their municipalities.

This report is organized broadly into eight chapters. Chapter 1 introduces the research problem and the report context. Chapter 2 discusses the issue of lot creation in agricultural landscapes. Chapter 3 describes the research methodology, with a detailed methodology available in Appendix A. Chapter 4 analyzes data and research results at the provincial and regional levels. Chapter 5 presents four municipal case studies and interviews with municipal planners and councillors. Chapter 6 summarizes

results from interviews with farm leaders. Chapter 7 is a synthesis of literature, data, and interview results that includes detailed impacts and policy implications. Chapter 8 concludes the report with suggestions and recommendations for further research.

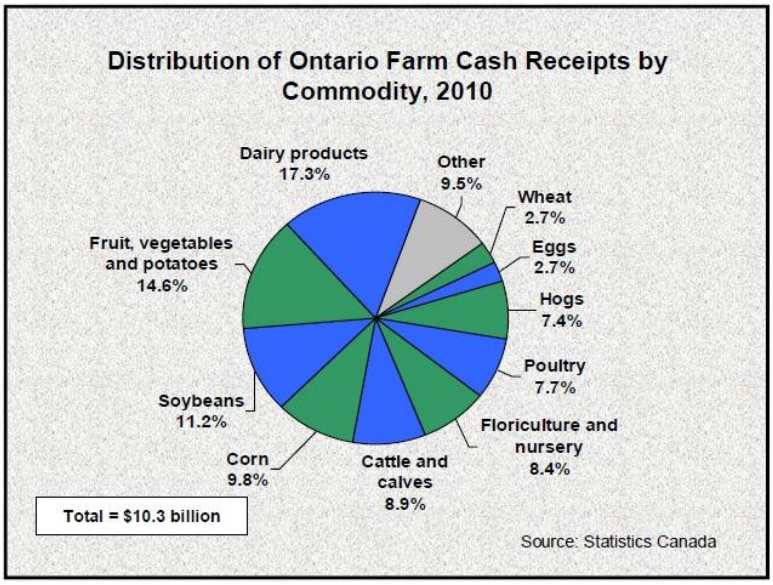
2.0 Discussion

This discussion is focused on the general problem of how lot creation trends in Ontario's agricultural designations can be understood, and why this topic is important in broader contexts. A detailed literature review is available in Report 1: "Literature Review". This discussion focuses on highlights of that literature review to help contextualize research results and analysis.

2.1 Ontario's agricultural context

Since 1991, the overall agriculture and agri-food system in Canada has been growing at an average annual rate of 2.4% (AAFC, 2008). According to a yearly summary prepared by OMAFRA (OMAFRA, 2010), Ontario's agri-food industry is also growing, totaling $10.3 billion in farm cash receipts in 2010. It represents the second largest industry in Ontario, with $32.7 billion in food processing alone and representing 700,000 jobs in 2008 (OMAFRA, 2009b).

Figure 1: Distribution of farm cash receipts by commodity (OMAFRA, 2010)



Ontario agriculture has experienced ongoing expansion of farm capital and size, while the number of farms decrease, indicating an ongoing economic rationale for farm consolidations. Small farms that have not expanded typically depend on off-farm income. Mid-sized farms have reduced in

size or been added to larger farms, resulting in the divergence of large and small farms and various commodity groups and related divergence in policy interests (CFFO, 2007).

These changes have been brought on by international trade liberalization, consumer demands, a rationalization of suppliers and processors, and the use of new technologies (Agricultural Odyssey Group, 2002). Declining labour requirements and increasing labour costs have driven farms to consolidate into fewer, larger units that are more capital than labour intensive (Troughton, 1981). Decreasing net returns per unit of production are also driving the formation of larger, more specialized and more intensive operations (Caldwell, 2001). There is also a trend towards short term leasing of agricultural lands, particularly on lands in the urban shadow, which may lead to soil degradation and lack of infrastructure investment (Temple and Caldwell, 2009). All of these factors lead to increasing alienation between some farmers and the communities in which farming has traditionally occurred.

Increasingly globalized food markets have also alienated agricultural producers in Ontario from local processors, retailers and eaters. In spite of its agricultural productivity and diversity, Ontario currently imports three dollars of food products for every two dollars exported (OMAFRA, 2009a). From 1999 to 2006, Ontario's food imports grew 32%, compared to exports at 28%. Farms in the GGH have access to one of the most densely populated urban centres in North America, the Greater Toronto Area (GTA), providing a distinct advantage in direct marketing that has not yet been fully realized (OMAFRA, 2009).

2.2 Lot creation drivers in Ontario's agricultural designations

Depending on farm size and economic factors, farmers have several motives to sever land. Land sales are perceived as helpful to farmers in times of commodity price volatility (Hiley, 2009). Demand for large country estates continues to be strong in some near urban areas, though not all. The search for rural quality of life drives demand for non-farm rural lots (Caldwell and Weir, 2003). Yet quality of life can mean different things to different people, spanning from back-to-the-landers seeking a small homestead to wealthy commuters buying prestige properties.

Many farmers are motivated to sever retirement lots in order to stay on their home property and stay close to their families and communities, while selling the rest of the farm. Unfortunately, half of retirement lots change ownership within the first five years (Dykstra et al., 2004), introducing new residents to the countryside, along with potential conflicts. Many of the same impacts are observed from severance of surplus dwellings as a result of farm consolidation.

Municipal land division committees and committees of adjustment also have several motives to permit creation of new non-farm lots. For some, it may be the desire not to interfere with the use of private property. For others, new residential development is seen as a boost to municipal tax base. A survey of 390 municipal councillors in 2004 revealed that 62% believed non-farm severances contributed positively to tax assessment (Caldwell et al., 2004). The same survey indicated that only 25% of councillors actually support non-farm severances. Nevertheless, a certain number of residential lots continue to be permitted. According to Bonnett (2002), rural municipal councils are increasingly dominated by non-farm voices. Policy decisions made in favour of new non-farm residents may work against long-term agricultural residents (Caldwell, 1998). It is still possible that farmers, given the choice, would find it tempting to sever new lots for short-term gain, even though long term and cumulative impacts of lot creation may be negative for agriculture on the whole.

2.3 Impacts of lot creation in agricultural designations

This report is focused on the impacts of lot creation in agricultural designations. As such, an in depth discussion of the impacts of lot creation is included in Chapter 7. Perspectives on the impacts of lot creation vary amongst stakeholders. Key stakeholders include municipal and provincial politicians and planners, economic development officers, farmers, conservation authorities, federal land managers, commodity groups, and rural residents.

Social impacts of new lot creation include conflicts between neighbours, alienation between farmers and non-farm rural residents, changing municipal political priorities and the domination of non-farm interests, and an increased pressure for social services.

Agricultural impacts include restrictions on livestock expansion and other types of agricultural development, farmland loss, fragmentation of the agricultural landbase (see Figure 12), fragmentation of individual farm operations, loss of farm services, traffic problems, trespassing and vandalism, and a general lack of understanding of how agriculture works. Many of these impacts become much more critical when considered from a cumulative perspective at a regional scale.

Municipalities also experience varying levels of economic impacts from non-farm development, which are not necessarily net benefits. Costs of community services may actually increase as a result of scattered residential development, according to a number of studies. By permitting new lots, municipalities and individual farmers may also be removing future opportunities for agricultural innovation and adaptation to changing environments and global markets. From a planning perspective,

the character and aesthetic of rural communities is typically important to residents, including the need for open space, woodlots, pristine waterways and well-maintained working lands.

Please see Chapter 7 for further discussion of impacts.

2.4 Provincial policy approaches to lot creation in agricultural designations

Since 1978, the increasingly restrictive land division and consolidation process in rural areas has been directly influenced by the successive policies of the Foodland Guidelines, Growth and Settlement Policy Guidelines, Comprehensive Provincial Policy Statement (PPS), three subsequent versions of the PPS, the *Places to Grow Act* and Plans, the *Greenbelt Act* and Plan, and corroborating versions of the *Planning Act* (Sinker, 2009). This succession of policies can be described in brief as follows:

1978-1994: Provincial Foodland Guidelines are introduced. The Foodland Guidelines deemed CLI Classes 1-4 (and specialty crop areas) as prime agricultural lands to be protected from non-farming uses. Types of lots permitted were:

- Farm splits into viable parcels
- Legal or technical reasons, where no new lot is created
- Surplus farm dwellings as a result of consolidation
- Retirement lot for a bona fide farmer
- Full time farm help

1983: *Planning Act* provides for Provincial Policy Statements under Section 3

1992-1994: Growth and Settlement Policy Guidelines encourage residential growth to locate in settlement areas; no new agricultural land policies introduced

1994-1996: All municipal plans must **be consistent with** the new 1994 Comprehensive Provincial Policy Statement, which identifies agricultural land protection as a provincial interest. The Comprehensive PPS removed farm help as a permitted severance, but allowed residential infilling and further clarified other types of permitted lots:

- Farm split into two viable operations
- Legal or technical reasons
- Surplus dwellings as a result of farm consolidation
- Residential infilling (a newly defined lot type)
- Existing agricultural related uses (businesses)
- One retirement lot for a farmer who is retiring and has owned and operated the farm for a substantial number of years
- Infrastructure

1996-2005: All municipal plans must **have regard to** the revised 1996 Provincial Policy Statement, which maintains agricultural land protection as a provincial interest, although it provided means by which agricultural lands could be redesignated for residential. Types of lots permitted were:

- Farm split into two viable operations
- Legal or technical reasons
- Surplus dwellings as a result of farm consolidation
- Residential infilling
- Existing agricultural related uses (businesses)
- One retirement lot for a farmer who is retiring and has owned and operated the farm for a substantial number of years
- Infrastructure

2005-Present: All municipal plans must **be consistent with** the revised 2005 PPS, which maintains agricultural land protection as a provincial interest. The 2005 PPS defines prime agricultural areas as those in which soil classes 1, 2 and 3 predominate. Sections 2.3.4 (a) and (c) of the PPS identify the only new types of lots permitted in prime agricultural areas:

> *2.3.4.1 Lot creation in prime agricultural areas is discouraged and may only be permitted for:*
> *a. agricultural uses, provided that the lots are of a size appropriate for the type of agricultural use(s) common in the area and are sufficiently large to maintain flexibility for future changes in the type or size of agricultural operations;*
> *b. …*
> *c. a residence surplus to a farming operation as a result of farm consolidation, provided that the planning authority ensures that new residential dwellings are prohibited on any vacant remnant parcel of farmland created by the severance. The approach used to ensure that no new residential dwellings are permitted on the remnant parcel may be recommended by the Province, or based on municipal approaches which achieve the same objective*

2.5 Current severance approval structure and process

Currently, Section VI of the *Planning Act* (1990) permits municipalities to divide land in the form of consents for subdivision (many lots) or severance (typically no more than three lots, though this number is not prescribed in the *Planning Act*). Upper and single tier municipalities in Ontario currently have consent granting authority, unless the authority has been delegated to a lower tier.

Municipalities usually administer their authority to grant consents through a by-law that creates a committee structure. These committee structures take various forms across Ontario:

- Committee of the Whole (all councillors make a decision)
- Land Division Committee (can combine volunteer community members, councillors, or staff)

- Committee of Adjustment (authority for both consent granting and zoning variances)
- Streamlined process whereby straightforward applications are delegated to planning staff

Severances are typically granted with a number of conditions, including rezoning and minor variances such as:

- General conditions (survey, taxes paid, park fee, access)
- Zoning By-law Amendment for prohibiting new dwellings on remnant parcel and preventing farm uses on severed parcel
- Septic test and upgrades to Ontario Building Code
- Agreement on title to pay applicable water rates and drainage charges
- Notice on title of potential for controversial changes (eg. energy projects) in area
- Appropriate lot size of retained and severed
- MDS requirements met

Consent applications are first circulated to neighbours, related ministries, and community agencies. The application and public comments are then considered by the designated consent granting authority (committee or otherwise). The right to appeal to the OMB is granted to any who have participated in the process. A diagram of the approval process is available from MAH online at www.mah.gov.on.ca/Page1756.aspx .

2.6 Summary

Ontario's agricultural resource is a crucial component of the provincial economy, rural communities, and comprehensive planning for compact cities. Yet alienation and conflict within farm communities and between agricultural producers and consumers continues to be a significant problem.

Lot creation is driven by demand for rural quality of life, farmers' desire to benefit from non-farm lots, and municipal perceptions of fiscal benefits. But the cumulative impacts of these new lots may result in net costs to agriculture in the short and long term. Social conflict, farmland loss, land fragmentation, loss of farm services, environmental impacts and increased costs of community services all point to a need to limit non-farm lot creation.

Provincial policies have responded to this reality by introducing increasingly restricted lot creation policies. However, the effectiveness of these policies has not been evaluated since 2003. Recent information, specifically an examination of the changes in lot creation with the implementation of the 2005 PPS, is required to understand pattern and impact of non-farm lot creation in agricultural designations. The information provided in this study helps to fill this information gap for policy analysts, planners and other stakeholders.

3.0 Methodology

3.1 Overview

For a detailed description of the methodology, please see Appendix A. For definitions of key terms, please see Appendix B.

This research builds upon and adapts methods used by Caldwell and Weir (2002) for assessing the scale and impacts of lot creation in Ontario's agricultural designations. All of the severance data collected in the previous study period (1990-2000) was entered into a new digital database and combined with new data collected in the current study period (2000-2009). Data categories were kept as consistent as possible between the two periods. Credit for the collection of data prior to 2001 belongs to Dr. Wayne Caldwell and Claire Weir, who pioneered the study methods and analysis.

A verification survey was carried out with a planner in each municipality as part of the verification process. These surveys were conducted online, over the phone, and in person where possible. Interviews provided a rich source of qualitative knowledge that revealed contextual layers that could not be captured in quantitative severance trends. A set of semi-structured interview questions were used to filter for the most relevant information to improve research efficiency, based on guidelines in Creswell (2009).

Key informant interviews were carried out after municipal-level data had been summarized and analyzed. Data specific to the interviewees' municipality was presented to interviewees for a response. These interviews also focused on the interviewees' perspectives on the impacts of severance activity. These interviews were conducted between June 12, 2011 and August 15, 2011. Respondents were strategically chosen on the basis of their individual roles in municipal councils, planning offices or agricultural organizations. The interviews were exploratory and were not meant to be a random sample.

3.2 Study area

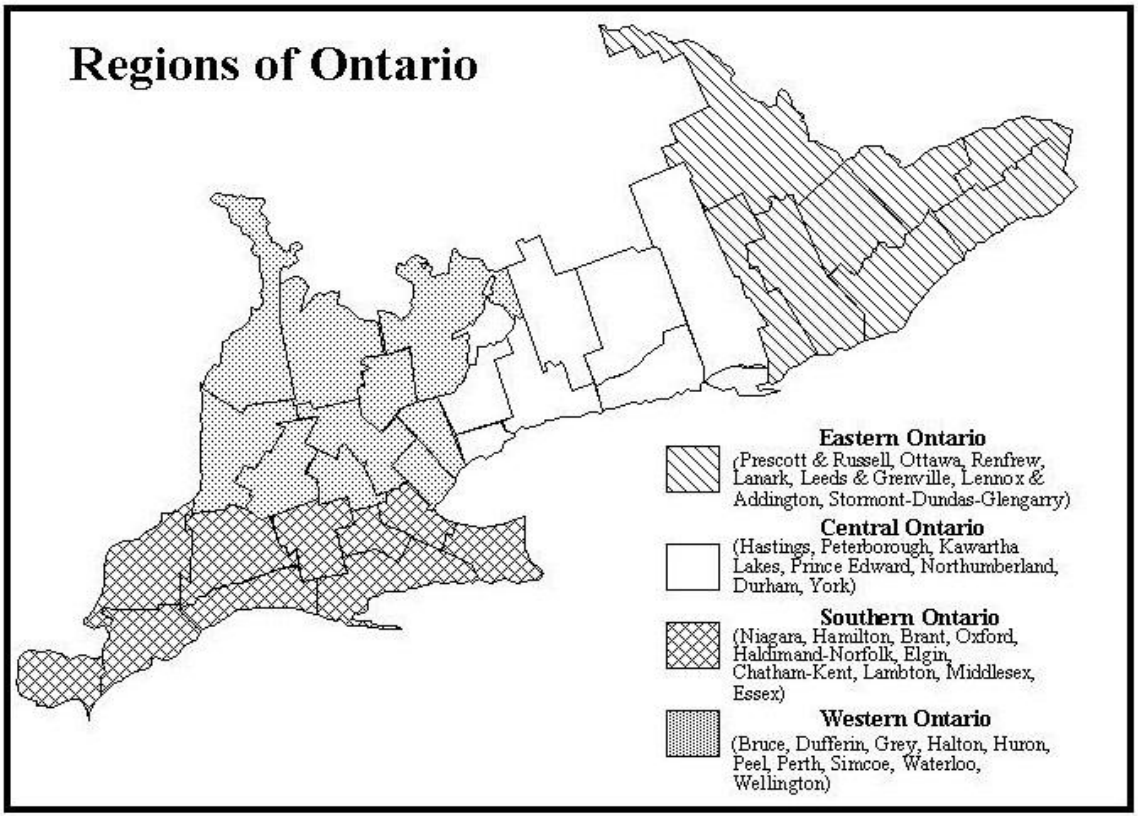
This study is focused on the effectiveness of severance policies for prime agricultural areas as defined by Ontario's Provincial Policy Statement (PPS)[1]. Many municipalities define prime agricultural areas through Agricultural designations in Official Plans. Agricultural designations were used as the most

[1]Boundaries for prime agricultural lands can be mapped using Canada Land Inventory data. However, the distinction between prime agricultural lands and prime agricultural areas is important. Prime agricultural lands are currently defined as being Classes 1, 2 and 3 soils under the Canada Land Inventory. Prime agricultural areas are broader areas in which Class 1, 2, and 3 soils predominate, including associated lower capacity soils with a concentration of agricultural activities.

accurate boundary available for the study. However, caution is required in using Official Plan designations and zones as boundaries for prime agricultural areas because the protection of prime agricultural areas is by no means consistent or comprehensive across the province. Some municipalities protect all prime agricultural areas and more; others protect only portions of prime agricultural areas within their boundaries. A number of counties distinguish between Rural and Agricultural designations in their Official Plans. Agriculture is a crucial component of land uses in many Rural designations. However, Official Plans are not required by the PPS to provide the same level of protection for agricultural land uses in the Rural designation as in the Agricultural designation. In municipalities with both Rural and Agricultural designations, the research focused on the Agricultural designation rather than the Rural, because the Agricultural Designation is the area in which PPS policies for severances are typically applied to the protection of prime agricultural areas.

As a result of the above criteria, the following upper tier municipalities were included (organized by provincial region):

Figure 2: Geographic regions of Ontario



Western	Southern	Central	Eastern
Bruce	Brant	Durham	Lanark
Dufferin	Chatham-Kent	Hastings	Leeds and Grenville
Grey	Elgin	Kawartha Lakes	Lennox and Addington
Halton	Essex	Northumberland	Ottawa
Huron	Haldimand	Peterborough	Prescott and Russell
Peel	Hamilton	Prince Edward	Renfrew
Perth	Lambton	York	Stormont, Dundas and Glengarry
Simcoe	Middlesex		
Waterloo	Niagara		
Wellington	Norfolk		
	Oxford		

3.3 Typical data collection process

Data was collected between June 2010 and June 2011. For each consent granting authority (upper tier or lower tier), a letter was sent to the Planning Director requesting that a key contact person be identified to help with the study. This contact was typically a planner or secretary-treasurer of a consent granting committee. The majority of municipalities did not have sufficient information available in digital format. These municipalities required a researcher to physically visit the municipal office and review hardcopy files. Timing required for research visits varied depending on the level of file organization, staff assistance and the number of eligible files. As often as possible, data was summarized and discussed with planning staff while the researcher was physically present. In each municipality, Official Plan policies, maps and Zoning By-laws were reviewed before collecting data. Municipal Metadata was tracked in each location to note any interesting or missing files and staff comments. Data collection was prioritized for 2002, 2004, 2005, 2006, 2007 and 2009. Data for remaining years was usually collected. However, for some municipalities with a large number of hardcopy files to be collected in a short amount of time, data was collected for alternating years and estimated for in-between years (see Considerations, Section 10.2.7.2).

For a small number of municipalities, a sufficient level of detail for each severance application was available in digital format (e.g. Excel sheet, database). In these municipalities, data was requested via email. Municipalities were fully informed of the study criteria before submitting refined data, often through a written letter and follow-up phone conversations. These criteria were provided to ensure that self-reported data was as consistent as possible. A wide variety of digital formats were received, including PDFs, meeting minutes, planning reports on CD and entire database files.

The following data was collected in each municipality, where possible:

- County/Region name
- File number
- Township name
- Land use of retained and severed parcels
- Size of retained and severed parcels (where available).
- Total numbers of severances in all designations
- Official Plan or other documents not available online

3.4 Consent granting authority

As of 2010, 12 out of 20 counties have retained consent granting authority. Regions are more likely to delegate; only 2 out of 7 regions have retained consent granting authority. A total of 80 lower

tier municipalities now hold consent granting authority (57 lower tiers from 8 counties, and 23 lower tiers from 5 regions). The majority of delegations from upper tiers to lower tiers occurred between 1997 and 2001. This makes for an interesting comparison between the two decades of 1990-1999 and 2000-2009, in that delegation occurred roughly around the year 2000 and could influence the number and type of consents observed in the decade 2000-2009. Thus a comparison of severance activity between the two decades should take into account the different approaches upper tier and lower tier municipalities may take to granting consents.

3.5 Statistical Analysis

The proportion of farm severances is at the interval level of measurement. As such, de Vaus (2004) recommends the following descriptive statistics for exploration and accurate interpretation of results: minimum, maximum, mean, variation, n=, and standard deviation. Beyond the use of simple descriptive statistics, it is also possible to use time series as one to better understand the data. Time series analysis includes both descriptive and inferential techniques. Traditional methods begin with looking for trends in the time series, determining whether seasonal variation plays a role, and understanding irregular fluctuations (Chatfield, 1989). Time series analysis can be used to ask questions about explanation, prediction, and control (Chatfield, 1989). The approach in time series is to look for turning points, where an upward trend turns into a downward trend, and then to develop a different model for different parts of the series. Statistical analysis in this report uses only basic time series techniques in the form of charts and descriptions of trends over time.

Tests of significance are not required in this research because the data is comprehensive for the population of municipalities in Ontario – the data descriptors are for an entire population, not samples.

For a detailed description of the methodology, please see Appendix A. For definitions of key terms, please see Appendix B.

4.0 Results

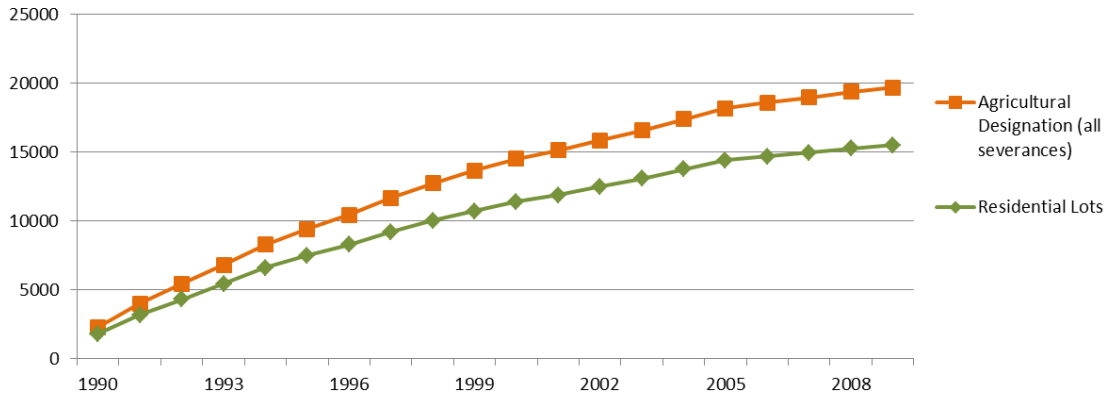
Aggregate parameters at the provincial level can be calculated as follows. Ontario municipalities with agricultural designations received 103,505 severance applications in all designations outside of major or separated urban centres from 1990-2009. Of these, 62,686 applications occurred from 1990-1999 and 40,819 occurred from 2000-2009. Compared between policy periods, there were an average of 6,745 applications per year from 1990-1996, 4,696 applications per year from 1997-2005, and 3,507 applications per year from 2006-2009. This represents a 30% decrease in overall severance applications per year in Ontario following the 1996 PPS, and another 25% decrease following the 2005 PPS. Out of the 103,505 severances, 19,703 new lots were created in the agricultural designation. Compared between policy periods, there was an average of 1,495 severances per year from 1990-1996, 857 severances per year from 1997-2005, and 383 severances per year from 2006-2009. This is a decrease of 43% and 55% following the 1996 and 2005 PPS, respectively.

Within the agricultural designation 15,505 of the 19,703 severances were for the purpose of a new residential lot. Divided by decade, 10,713 new residential lots were created in agricultural designations between 1990-1999 while 4,792 were created between 2000-2009. Compared between policy periods, there were an average of 1,184 residential lots created per year from 1900-1996, 679 lots per year from 1997-2005, and 275 lots per year from 2006-2009[2]. This represents a 48% decrease in new residential lots created in Ontario following the 1996 PPS, and another 59% decrease following the 2005 PPS. In the agricultural designation this is a decrease in residential lots of 43% after the implementation of the 1996 PPS, and a decrease of 59% following the 2005 PPS. This suggests that PPS policies had a proportionally greater impact on residential severances in agricultural designations than severances in other designations.

One of the most significant changes in 2005 was the elimination of retirement lots and infill lots. The current study for 2000-2009 shows a decrease in the number of retirement lots and infill lots created after 2005. From 2001-2005, 1,195 retirement and infill lots were created; from 2006-2009, only 58 such lots were created. The results also show a decrease in farm help lots after 1996. Surplus dwellings continue at a relatively similar rate to before 2005.

[2] Aggregate statistics at the provincial level contain estimates for data gathered from 1990-1999. It does NOT contain estimates for data gathered from 2000-2009. Some municipalities were unable to provide full data for the study period(s) and are noted accordingly on the individual municipal profile page in Report 2 Profiles and Data Summaries. Estimates in the 1990s data that consisted of missing years mixed with counted years were generated by averaging the count for each category of the previous and subsequent year.

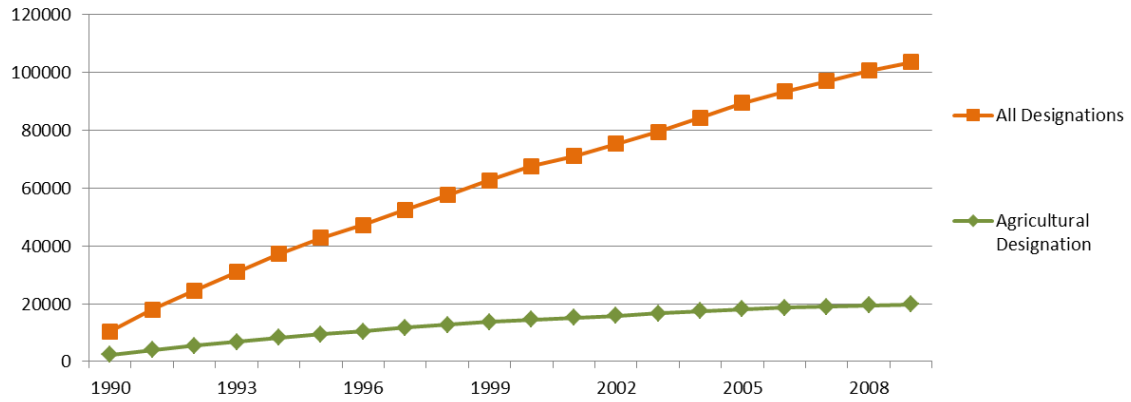
Figure 3: Cumulative new lots in the agricultural designation 1990-2009 (Ontario)



Although the cumulative number of new lots in the agricultural designation continues to climb, the number of lots created per year is slowing. Figure 4 illustrates this trend from 1990-2009. The number of new lots created before 1990 is unknown, although numbers circulated to OMAFRA in the years from 1979 to 1995 indicate much higher numbers of consent applications (OMAFRA, 1995). Although the true quantity of lots in Ontario's agricultural designations is much higher than illustrated here, due to lots created before the study began in 1990, the overall trend is clear: severances in the agricultural designation are decreasing, while the cumulative number of severances continues to grow.

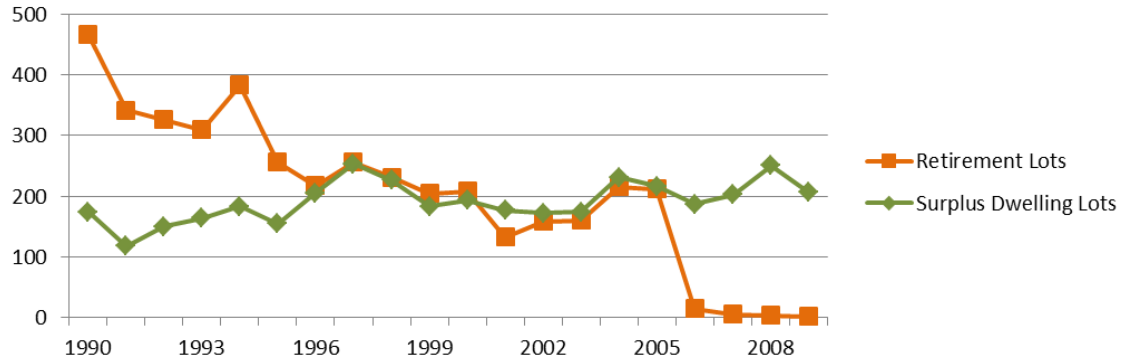
The number of lots created in agricultural designations is increasing at a much slower rate than the overall number of new lots in all designations (see the growing gap in Figure 4). This indicates that less change is occurring in agricultural designations when compared to non-farm rural and urban designations. This could be due to the sequence of provincial policies which increasingly redirected new residential and non-farm development to non-agricultural designations and settlement areas.

Figure 4: Cumulative total new lots in all designations 1990-2009 (Ontario)



The 2005 PPS specifically permitted farm splits and dwellings rendered surplus as a result of farm consolidation (PPS 2.3.4.1). This no longer listed infill and retirement lots as types of lots municipalities were permitted to create. The effects of these policy changes are clearly visible in the following graphs. Figure 5 describes the decrease in the number of retirement lots created per year after the 2005 PPS changes. In the same graph, surplus dwellings continue without significant change after 2005.

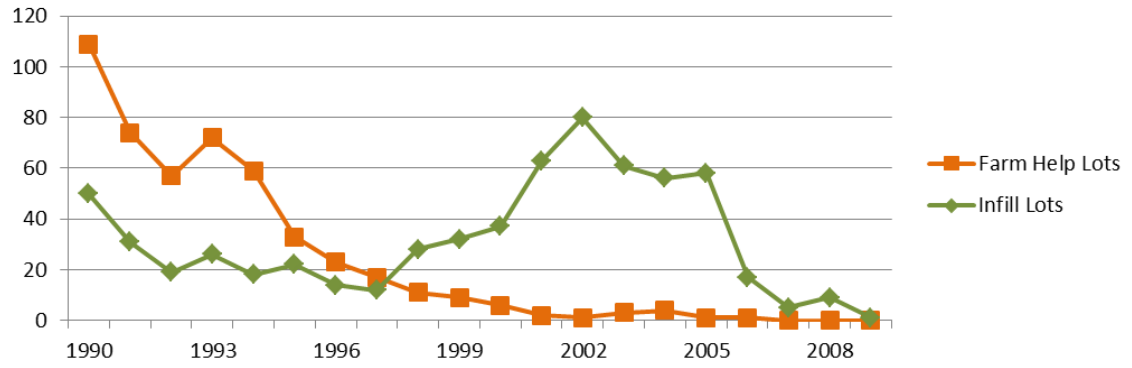
Figure 5: Retirement and surplus lots created per year 1990-2009 (Ontario)



In Figure 6, the decline of farm help and infill lots is also evident. The trend in farm help lots seems to have spiked in response to the Growth and Settlement Policy Guidelines introduced in 1992 and then declined quickly after the Comprehensive Provincial Policy Statement (CPPS) introduced in 1994. By comparison, infill lots were still permitted in the 1996 PPS (after being introduced in the 1994

CPPS) and continued with an upward trend in infill lots per year until the 2005 PPS, after which infill lots also quickly trended towards zero per year.

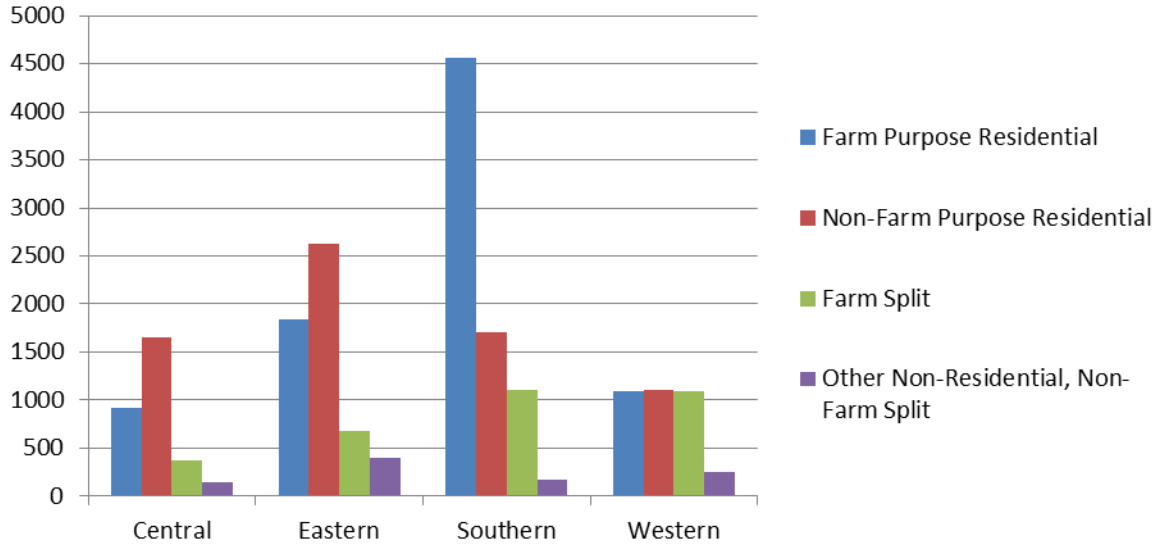
Figure 6: Farm help and infill lots created per year 1990-2009 (Ontario)



The results illustrated in the preceding graphs suggest that provincial policies do play a key determining role in provincial severance trends.

4.1 Lot creation trends in relation to provincial geography

Figure 7: Total lot creation by type across Ontario 1990-2009



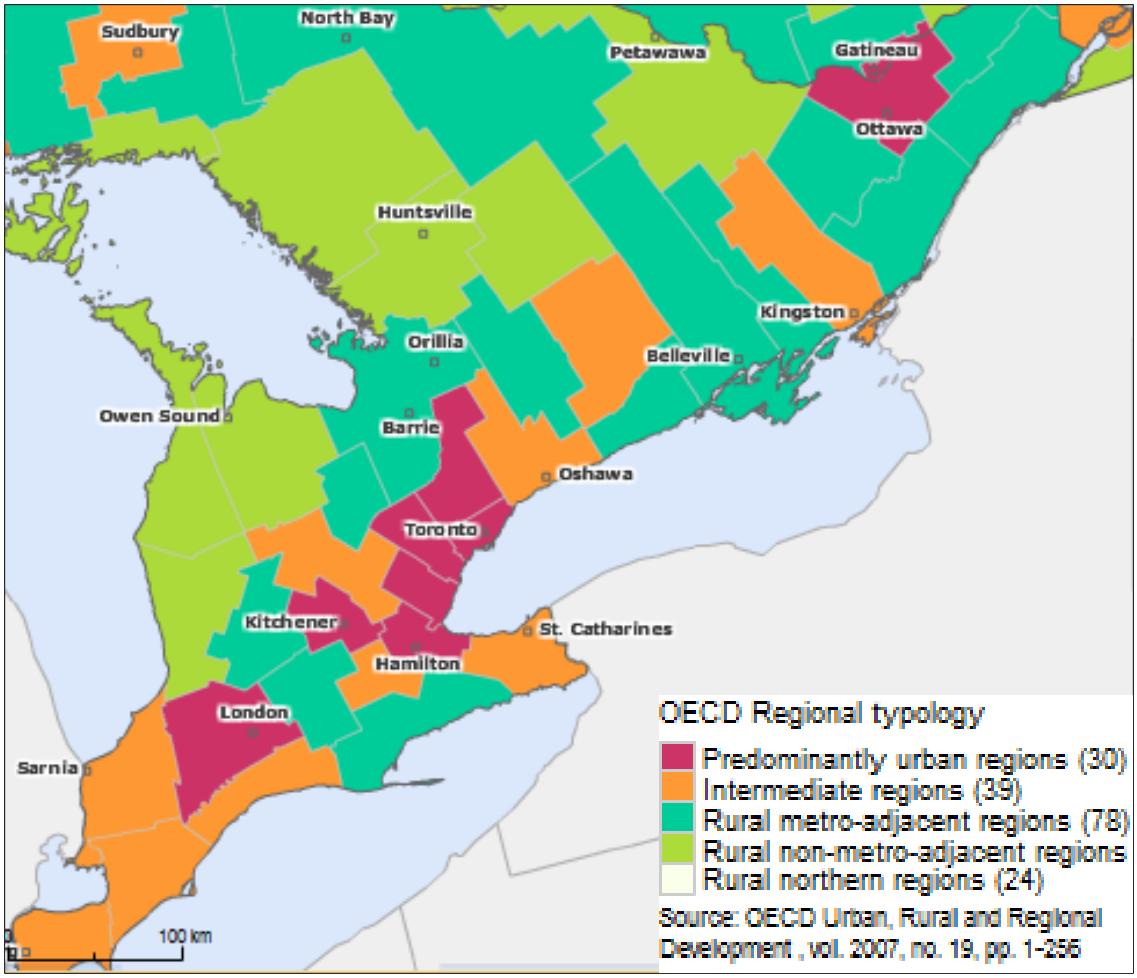
Of the total new lots of all types, 16% were created in Central Ontario, 27% in Eastern Ontario, 42% in Southern Ontario and 15% in Western Ontario (see Figure 2 for regions).

Most notably, Southern Ontario has a very high proportion of residential development with initial farm purposes (farm help, surplus dwelling, retirement). The highest quantities of non-farm residential lots (infill, other residential) occurred in Southern and Eastern Ontario. Eastern and Central Ontario had a higher proportion of non-farm residential development, during site visits it was suggested that this was in the form of recreational and seasonal lots. Western Ontario has roughly equivalent levels of defined farm and non-farm residential lot creation, both of which are lower than other regions of Ontario.

4.2 Lot creation trends in relation to population density and urban proximity

The impacts of changes to the 2005 PPS are distributed differently throughout the province, based on a number of factors. One of the most important explanatory factors is population density and the presence or absence of large urban centres, which can be represented using the OECD regional typology of census districts. The OECD regional typology contains four regional types: predominantly urban, intermediate, rural metro adjacent, and rural non-metro adjacent. These types are based on population density, the proportion of population living in an urban centre, and the presence or absence of urban centres greater than 200,000 (OECD, 2009).

Figure 8: OECD typologies for Ontario census divisions



The 9 intermediate municipalities (rural population 15-50%, large urban centres) had the highest decrease in the number of new lots created per year. On average, intermediate municipalities decreased new lot creation in the agricultural designation by 22 lots per year after 2005. Impacts for intermediate municipalities varied widely, however. Essex decreased by 91 lots per year (-73%), the highest quantitative decrease in Ontario. Niagara decreased by 39 lots per year (-83%), the second highest quantitative decrease. In contrast, Lambton and Peterborough decreased by 5 lots per year (-36% and -45% respectively), the lowest decrease within the intermediate municipalities.

The 14 rural metro adjacent municipalities were the most impacted in terms of the percentage decrease in new lots per year after 2005. Rural metro adjacent municipalities created on average 71% fewer new lots per year after 2005 (compared to the previous policy period 1997-2005). Impacts for

rural metro adjacent municipalities varied widely, however. Both Dufferin and Prince Edward decreased by 17 lots per year after 2005 (-89% and -63% respectively). In contrast, Perth had virtually no severances and therefore no change for the two periods. Over the 20 year study period, Perth created the lowest number of severances per year in the province.

The 7 predominantly urban municipalities also decreased significantly – 61% on average. After 2005, all of the municipalities in the predominantly urban category permitted fewer than 4 severances per year (with the exception of Ottawa, which permitted 12 lots per year after 2005). Three of the four GGH regions are in the predominantly urban category, with rapid population growth rates (York, Peel and Halton). These municipalities have some of the lowest post-2005 rates of lot creation in the province.

The four rural non-metro adjacent municipalities were the least impacted. Bruce, Huron and Grey remained virtually unchanged. Renfrew decreased from 7 to 3 new lots per year in the agricultural designation after 2005.

4.3 Comparing residential lots created per typical concession block of 1,000 acres

When comparing lot creation trends between municipalities it is important to account for differences in land area. As established in the methodology, each municipality has reported the number of acres designated for agriculture within its boundaries. This number is called a 'municipal performance measure' (MPM). The most recent MPM number for each municipality is used to represent the prime agricultural area available for lot creation. Typically, the most recent MPM number is from 2008.

It is also important to account for the types of lots being created. The literature review emphasized that one of the most fragmenting and highly impacting forms of development is residential lot creation (as opposed to new farm lots or non-residential development). Thus, the following analysis focuses on residential lot creation, and does not include farm splits or non-residential types of development such as commercial lots or aggregate operations.

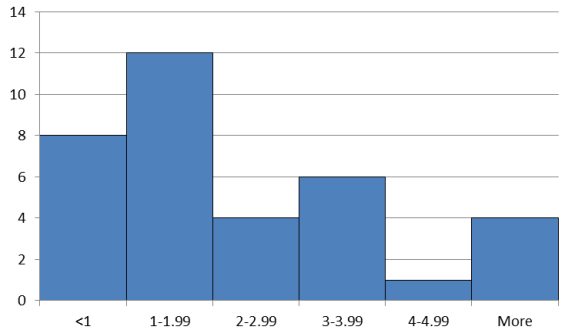
The following formula is used to calculate ratios to comparing residential lot creation trends in municipalities across the province:

Lot creation ratio =	Total # of residential lots created per period (including estimates) (Total acres land designated agricultural in 2008 MPM) / (1000 acres)

The ratio describes the number of residential lots created in a typical concession block of 1,000 acres in a defined period of years. This number helps to illustrate the impact of residential development between municipalities with different land areas. The higher the number, the more restricted agriculture will be (this is most true for livestock production). For reference, all ratios across the province are provided in Tables 5 and 6 on the following pages.

On average, there were 1.64 residential lots created per thousand acres from 1990-1999 in the province. From 2000-2009, there was an average of 0.64 lots created per thousand acres of agriculturally designated land (this number can be referred to as the 'ratio'). The shift from 1.64 to 0.64 in one decade represents an overall 61% decrease, or an average 53% decrease across all municipalities. This average should be interpreted with caution due to the wide variation across the province. The highest ratio was Prince Edward (7.55) while the lowest ratio was Perth (0.08). In a histogram of the data (see Figure 9), 8 municipalities created less than one lot per thousand acres; 12 created between 1 and 1.99 lots per thousand acres; 4 created between 2 and 2.99 lots per thousand acres; and 6 created between 3 and 3.99 lots per thousand acres. This accounts for 30 out of 35 municipalities. The remaining five municipalities created more than four lots per thousand acres from 1990-2009. Please see Figures 10-13 for an illustration of the geographic distribution of these lots.

Figure 9: Frequency of severance ratio values amongst municipalities



Changes to the PPS made in 1996 and 2005 create essentially three provincial policy periods: 1990-1996, 1997-2005, and 2006-2009[3]. Average lot creation per year in each policy period is a number that helps to explore some of the variation in lot creation over the 20 year study period.

[3] There are other significant policy changes that could foreseeably influence severance trends. These are: the introduction of Growth and Settlement Policy Guidelines of 1992; the Comprehensive Provincial Policy Statement of 1994; the amalgamation or redefined boundaries of a number of municipalities from 1997-2002; the delegation of consent granting authority around the same time period from several of the upper tiers to lower tiers; and the introduction of a number of new Official Plans, often changing significantly within several years of the most recent PPS.

As outlined in Table 6 and the discussion in Chapter 5, the policy periods also had significant impacts on lot creation trends across the province. On average, municipalities created 13 fewer lots per year after the 2005 PPS.

Table 1: Residential lots created per 1,000 acres compared between 1990-1999 and 2000-2009

Municipality	1990-1999	2000-2009	% Change	1990-2009
Perth	0.08	0.01	-89%	0.08
Waterloo	0.19	0.07	-65%	0.25
Middlesex	0.20	0.10	-49%	0.31
Oxford	0.22	0.10	-56%	0.31
Huron	0.21	0.21	0%	0.42
Bruce	0.34	0.24	-31%	0.58
Durham	0.42	0.37	-12%	0.79
Lambton	0.65	0.30	-54%	0.95
York	0.80	0.20	-74%	1.00
Elgin	0.48	0.58	21%	1.06
Wellington	0.94	0.20	-78%	1.14
Simcoe	0.75	0.40	-46%	1.15
Haldimand	0.81	0.37	-54%	1.18
Grey	1.26	0.05	-96%	1.31
Brant	0.68	0.65	-4%	1.34
Halton Region	1.15	0.30	-74%	1.45
Kawartha Lakes	1.38	0.29	-83%	1.67
Dufferin	1.37	0.53	-61%	1.90
Peterborough	1.14	0.77	-32%	1.91
Chatham-Kent	0.96	1.00	4%	1.96
Renfrew	1.56	0.46	-71%	2.01
Stormont, Dundas & Glengarry	1.55	0.58	-62%	2.13
Prescott & Russell	1.97	0.51	-74%	2.48
Northumberland	2.11	0.45	-79%	2.56
Norfolk	1.96	1.08	-45%	3.04
Hamilton	2.67	0.64	-76%	3.31
Peel (Town of Caledon)	2.93	0.43	-85%	3.36
Ottawa	2.24	1.30	-42%	3.55
Niagara	2.47	1.13	-54%	3.60
Hastings	2.74	0.87	-68%	3.61
Lennox & Addington	1.95	1.85	-5%	3.81
Leeds &Grenville	4.53	0.65	-86%	5.18
Lanark	5.66	0.40	-93%	6.06
Essex	3.61	3.17	-12%	6.78
Prince Edward	5.40	2.15	-60%	7.55
Average across Ontario	**1.64**	**0.64**	**-53%**	**2.28**

Table 2: Average number of lots created per year in each policy period

	1990-1996	1997-2005	2006-2009	**Change in average # lots/yr after 2005 ***
Huron	13	13	16	+3
Bruce	20	13	14	+1
Grey	N/A	1	2	+1
Halton Region	7	1	1	0
Perth	5	0	0	0
Peel (Town of Caledon)	24	4	2	-2
Waterloo	2	4	1	-3
York	8	4	1	-3
Renfrew	16	7	3	-4
Lambton	36	14	9	-5
Peterborough	20	11	6	-5
Haldimand	26	13	7	-6
Prescott & Russell	69	19	13	-6
Hastings	45	11	4	-7
Middlesex	N/A	12	4	-8
Elgin	22	24	15	-9
Oxford	8	9	0	-9
Northumberland	50	11	1	-10
Stormont, Dundas & Glengarry	95	40	30	-10
Wellington	45	15	5	-10
Kawartha Lakes	55	15	4	-11
Lennox & Addington	23	11	0	-11
Brant	N/A	17	5	-12
Durham	12	15	3	-12
Lanark	68	13	1	-12
Norfolk	55	32	18	-14
Chatham-Kent	54	64	49	-15
Hamilton	41	18	3	-15
Leeds & Grenville	98	21	6	-15
Dufferin	35	19	2	-17
Prince Edward	56	27	10	-17
Simcoe	N/A	33	12	-21
Ottawa	60	41	12	-29
Niagara	81	47	8	-39
Essex	120	124	33	-91
Average across Ontario	**42**	**21**	**8**	**-13**

*Final column is the average number of lots created per year from 2006-2009, subtracted from the average number of lots created per year from 1996-2005; a large negative number signifies that a county created far fewer lots per year from 2006-2009 than it had from 1996-2005

4.4 Spatial distribution of lot creation across Ontario

Having calculated a ratio for comparison of lot creation trends across Ontario, it is now possible to examine spatial distribution of severances across the province, at the upper/single tier scale. The following four maps explore spatial distribution of lot creation. The first two maps (Figures 10 and 11) present data for policy periods 1997-2005 and 2006-2009. Cumulative data is also provided in a third map (Figure 12) as a ratio of lots created per thousand acres, allowing comparison between municipalities with different land areas designated for agriculture. The final map shows the percentage change in lot creation ratios per 1,000 acres between the two decades (Figure 13). Decades were chosen as a reference period for several reasons. First, they align with the approximate dates in which many municipalities were adopting new Official Plans and delegating consent authority to lower tiers. Second, they allow for comparisons over the same period of time (10 years each). Third, the periods align with data collection phases, in which some collection methods may have changed, despite efforts to follow previous study methods as closely as possible.

Figure 10: Distribution of average residential lots created per year 1997-2005 (Ontario)

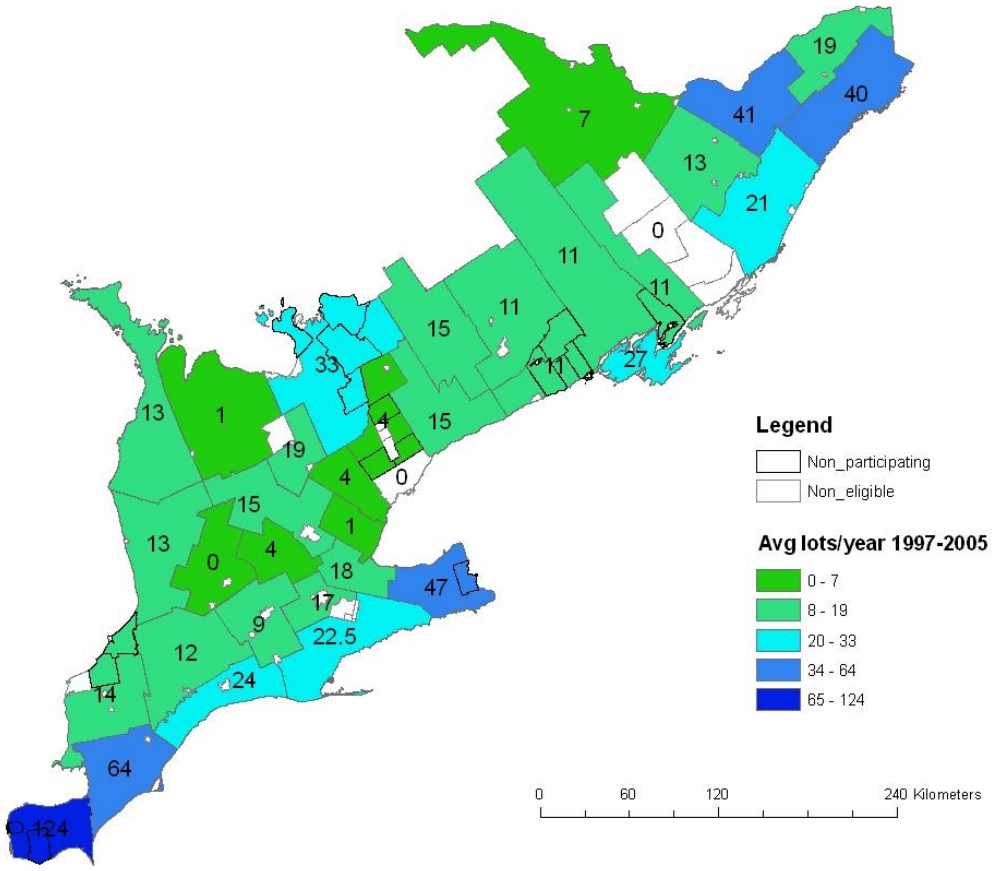


Figure 11: Distribution of average residential lots created per year 2006-2009 (Ontario)

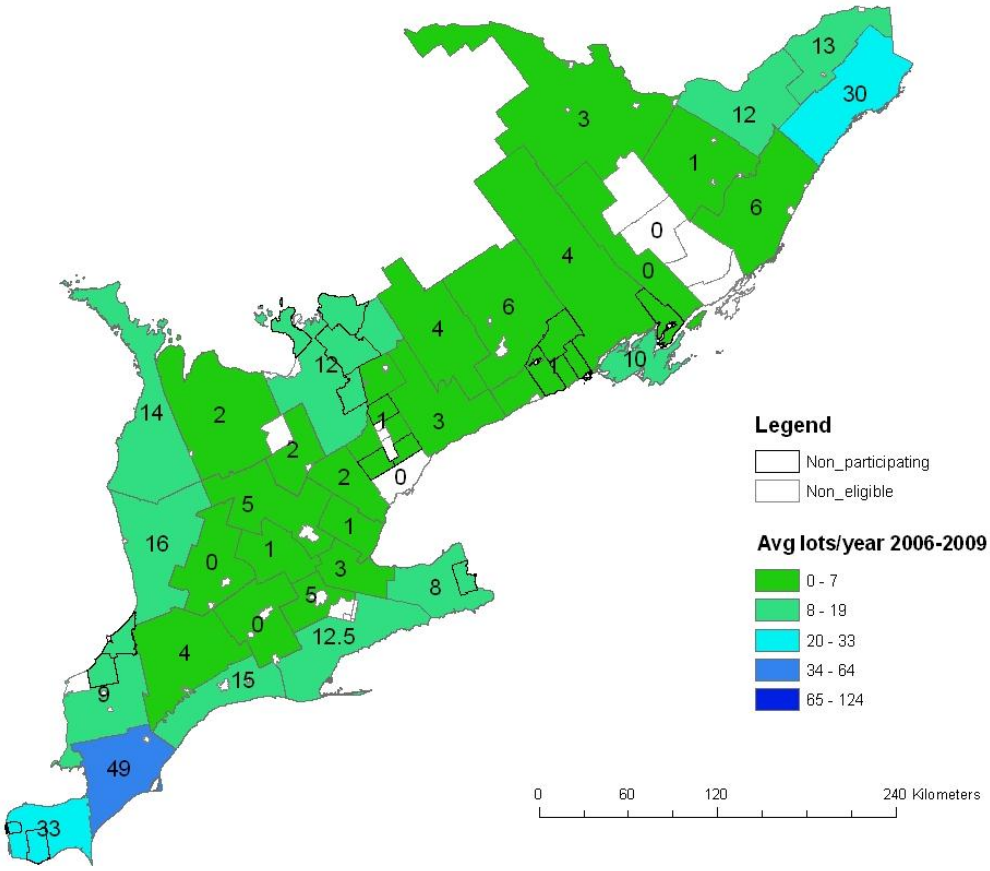


Figure 12: Distribution of residential lots created per 1000 acres 1990-2009 (Ontario)

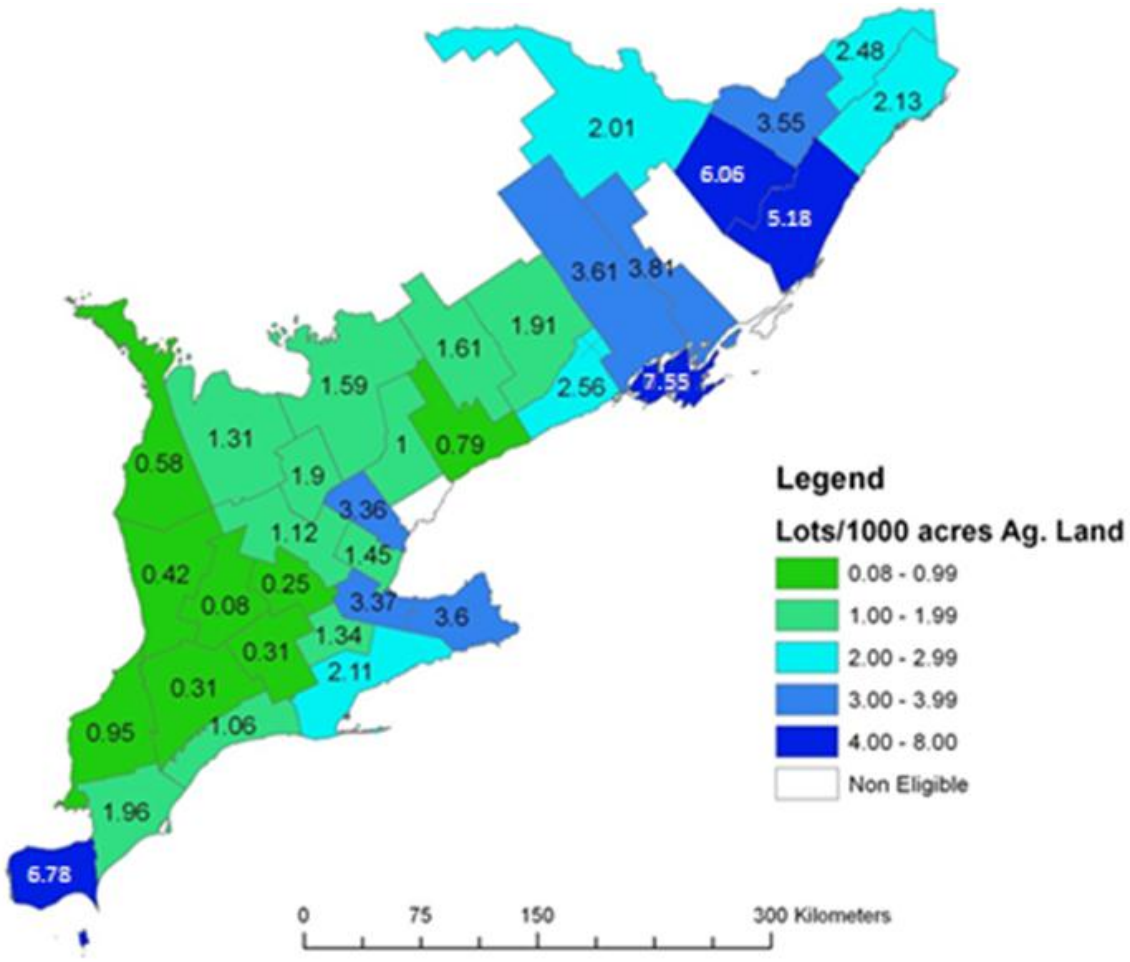
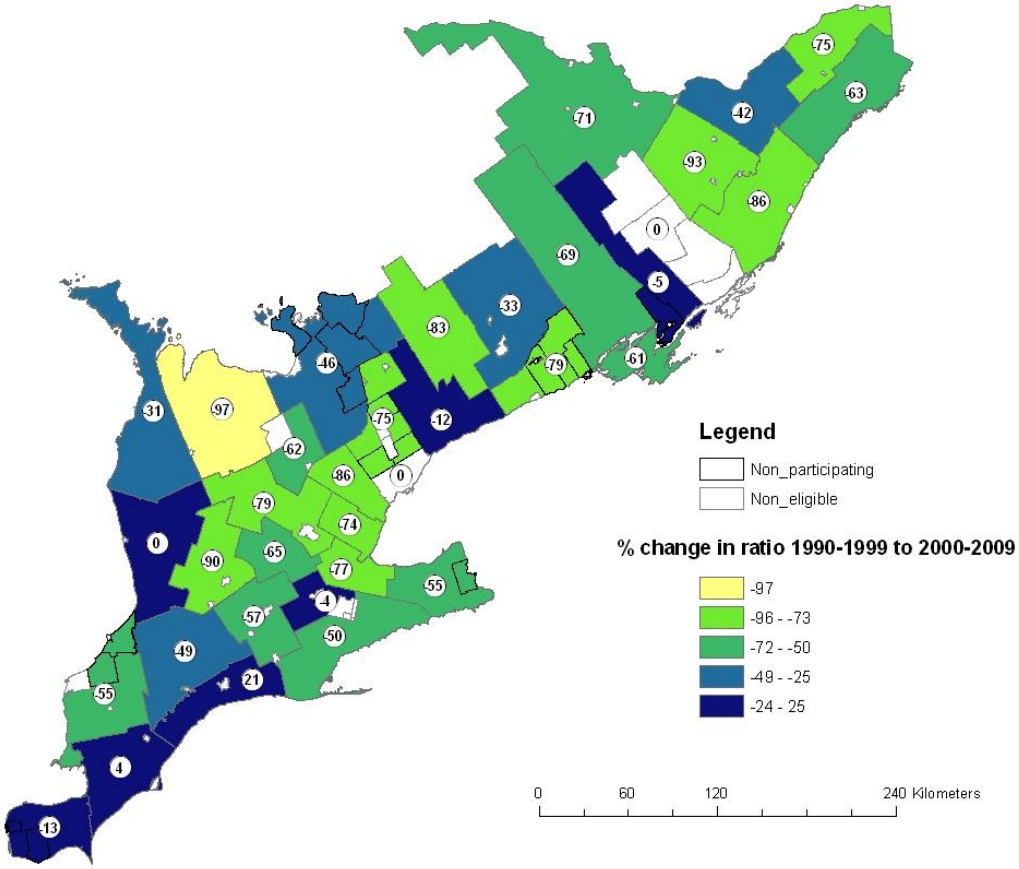


Figure 13: Percentage change from 1990-1999 to 2000-2009 in lots created per 1000 acres (Ontario)

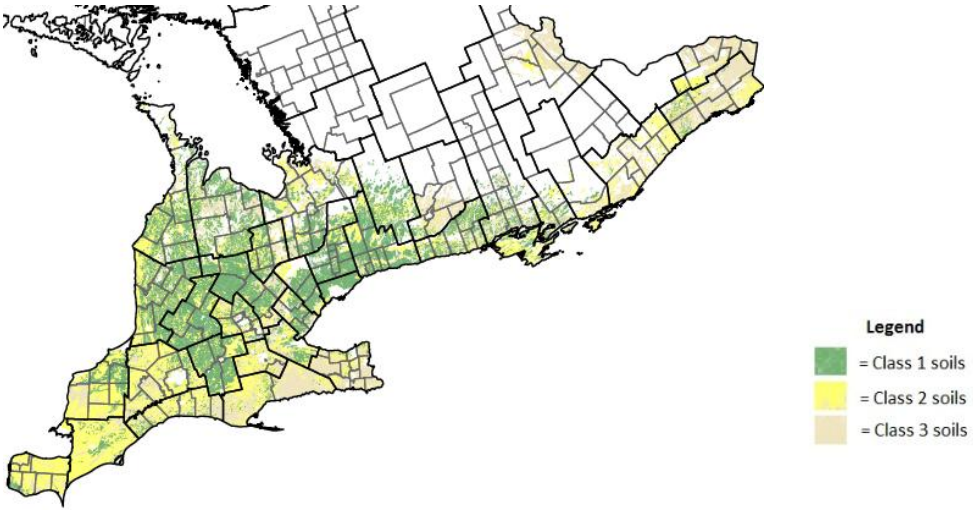


From the previous pages, the clearest trend is that the two decades differ markedly in the ratio of lots created/1000 acres. All municipalities decreased, often dramatically, with the exception of Huron, which remained unchanged, and Chatham-Kent, and Elgin, both of which increased. In both decades, lot creation ratios were highest in a cluster of municipalities around Ottawa in Eastern Ontario, around Prince Edward County, in the GGH, including Hamilton and Niagara, and in the extreme south, Essex and Chatham-Kent.

Figure 13 clearly illustrates that the highest impacted municipalities were rural metro-adjacent and intermediate municipalities. These areas are loosely arranged in horseshoes around Ottawa, Hamilton and Toronto. Caution should be taken in analyzing this map, however. Large percentages resulted in some places that already have very low numbers of severances. For example, although Perth is marked as changing 89%, the situation is in reality that very few severances were permitted before 2000, and virtually none were permitted after, which is a large percentage but a small change in absolute terms. The change in absolute terms can be seen in the preceding Table 6.

In spite of differing impacts of policy changes in each decade, there are likely many other explanatory factors. Presumably, land protection would be better in areas where higher concentrations of prime agricultural lands exist. To test this assumption, a map was created to illustrate soil classes 1, 2, and 3 in the Ontario study area. The map illustrates that some of the most fragmented areas are predominated by prime soils; Niagara, Essex, Chatham-Kent and Prince Edward appear on the map to be predominated with Class 2 soils. There is therefore a weak relationship between presence of prime lands and increased restrictions on severances at a provincial level. At the municipal level, presumably agricultural designations provide greater protection than rural designations.

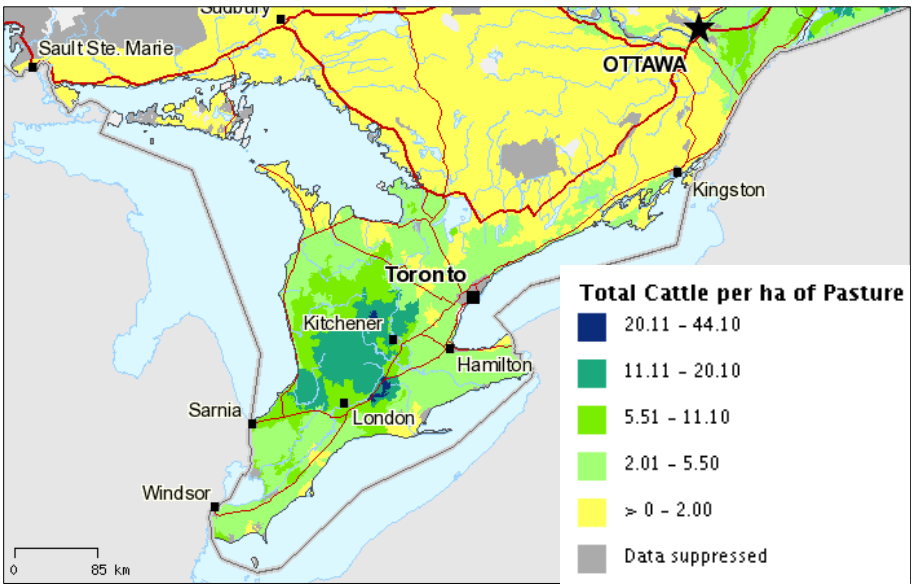
Figure 14: Distribution of Canada Land Inventory soil classes 1, 2, 3 in Ontario study area*



*Note that CLI data for Ottawa, Lanark, and Manitoulin was not available in GIS format

Another logical assumption would be that areas of livestock concentration would co-occur spatially with areas of greater restrictions on residential lot creation. This assumption is indeed borne out in comparison of maps of livestock concentration (Figure 15) with cumulative severances from 1990-2009. A wide region of intensive livestock production overlaps strongly with the region in Western Ontario where a cluster of municipalities has the most restrictive lot creation policies in the province. This area consists of the five municipalities that have the lowest rates of lot creation in Ontario (Perth, Waterloo, Middlesex, Oxford, and Huron). Similar trends exist for poultry and hog production in spatial distribution. This suggests that the presence of high livestock intensity is one of the key driving factors in a municipality's decision to restrict lot creation beyond minimum levels set out in the PPS, as has been done in these five municipalities.

Figure 15: Livestock (cattle) concentrations in Ontario 2006 Census of Agriculture



Source: Census Canada 2006

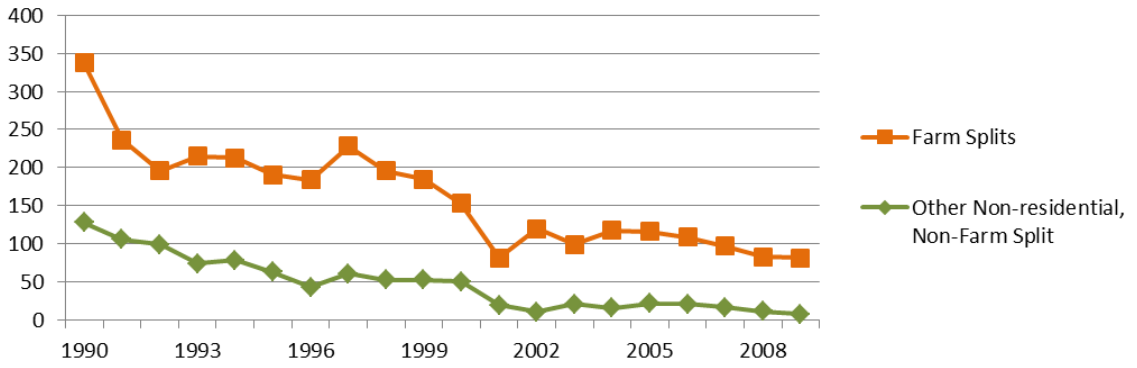
For future studies, it will be interesting to observe how municipalities in the GGH Greenbelt compare to municipalities directly inside the whitebelt. The whitebelt is the area between the GGH Greenbelt and the designated urban boundaries of GTA municipalities. Trends to date indicate that most municipalities in the whitebelt intend to urbanize to the maximum extent possible (Tomalty and Komoroski, 2011). To prevent restrictions in subdivision planning, it is unlikely that further severances will be permitted in these areas. In the interim, it appears that livestock production is already in decline in Greenbelt and whitebelt areas alike (Cummings and Juhasz, 2008).

4.5 Other non-residential development

Non-residential lots comprise a small but equally important portion of lots created in Ontario's agricultural designation. The number of farm splits can be interpreted in a number of ways. Farm splits can mean a healthy agricultural industry with demands for new farm lots, particularly when lot sizes are maintained at an appropriate size for successful farm operations in the area. In other areas of the province, where demand for land is high or where agriculture is not a high-valued activity, farm splits may present a risk that lots will be purchased for non-agricultural interests. This risk increases if the severed farm parcel is smaller than would be desired by commercial farm operations in the area. Although farm splits are still permitted under both the 1996 and 2005 PPS, the number of farm splits has declined. This may be because in all areas, farm sizes are increasing through acquisition of other farm parcels, which does not typically require a severance. In many areas, farm splits are only permitted along original lot lines and with minimum farm sizes of 100 acres or more. The creation of smaller lots in non-specialty crop areas remains a controversial issue. The provincial trend indicates fewer farm splits.

Aside from farm splits, the number of non-residential lots created per year has decreased over the same period. This may be a response to 2005 PPS changes that encourage non-farm related commercial, industrial, institutional and recreational uses to locate within settlement areas. This is to preserve large contiguous areas of workable land in agricultural designations. The decrease may also be attributable to changing farm economics, but this correlation is difficult to justify given that many farm economic choices do not require a severance for expanding or diversifying operations (new buildings and uses).

Figure 16: New non-residential lots created per year in the agricultural designation 1990-2009 (Ontario)



4.6 Key observations based on results

The 1996 and 2005 PPS changes had significant impacts on lot creation across the province. On average, each municipality created 42 lots per year from 1990-1996, 21 lots per year from 1997-2005, and 8 lots per year from 2006-2009. If the difference in land sizes are accounted for between municipalities, there was an average of 2.28 lots created per 1000 acres of agricultural designation in municipalities across the province from 1990-2009. These numbers provide a basis for understanding how policies have effectively reduced residential lot creation, while at the same time allowing cumulative impacts from residential lots to increase.

Results vary widely between municipalities. Very little change occurred for municipalities in Western Ontario, which tended to have low severance activity. In Southern Ontario, many municipalities drastically reduced residential lot creation. For example, Essex County decreased residential lot creation from average of 124 lots per year (1997-2005) to 33 lots per year (2006-2009) a decrease of an average of 91 lots per year. Niagara Region decreased residential lot creation from an average of 47 lots per year (1997-2005) to 8 lots per year (2006-2009), a decrease of an average of 39 lots per year. Eastern Ontario tended to create a high number of lots relative to its smaller areas designated agricultural. Eastern and Central Ontario had more lots created for non-farm purposes than other parts of the province.

Perth County had the lowest number of lots created per 1,000 acres in the province (0.08). Waterloo Region was second lowest (0.25), which is notable given high urbanization pressures. Prince Edward County had the highest number of lots created per 1,000 acres (7.55). This may be explained by the proximity of many agricultural designations to the lakeshore. Essex County had the second highest number of lot created per 1000 acres (6.78). Essex drastically reduced residential lot creation after 2005, by permitting 91 fewer lots per year on average from 2006-2009.

Rural municipalities that were adjacent to urban municipalities were the most impacted by changes to provincial policy in 2005. Rural metro adjacent municipalities created on average 71% fewer new lots per year after 2005 (compared to the previous policy period 1997-2005).

The highest concentrations of livestock in the province are also accompanied by the most strict local severance policies. Areas of high livestock concentration in Western Ontario overlap the five lowest rates of lot creation in Perth, Waterloo, Oxford, Middlesex, and Huron.

Finally, during the 2006-2009 policy period, only three municipalities continued to permit more than 30 severances per year and approximately 1/3 of the upper and single tier municipalities in the study area were permitting fewer than 2 severances per year.

These observations are made in general and there are always exceptions to the rule. Full results are available for each municipality and Ontario geographic regions in Report 2: Profiles and Data Summaries. This report is available at www.waynecaldwell.ca.

5.0 Comparative Geographic Case Studies

5.1 Introduction

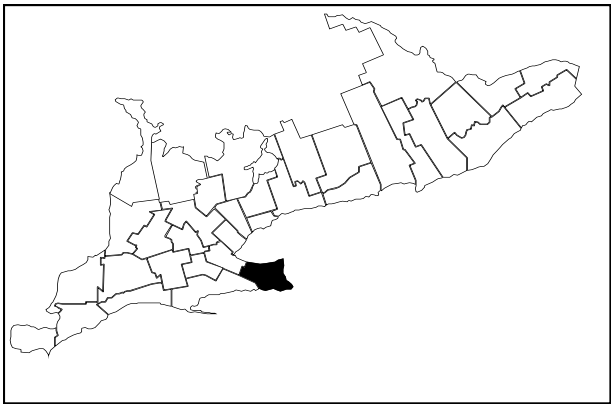
This chapter presents the results of a variety of interviews that were designed to gather information about the impact of rural non-farm development on the viability of the agricultural industry in Ontario. The interviews presented in this chapter represent a follow-up of 'geographic' case studies that were conducted by Caldwell and Dodds-Weir (2003), as well as interviews representing a broader perspective of Ontario overall. Chapter Six includes interviews representing Ontario's agricultural commodity groups. Caldwell and Weir (2003) selected the four 'geographic' case studies for reasons identified in Table 4.1, based on the information collected in Phase I of the research summarized in Caldwell and Weir (2002).

Table 3: Geographic Case Studies

Case Study	Reason Selected
Niagara Region	-Second highest number of rural non-farm lots created during the 1990s -Unique agricultural resource (tender fruit and grape growing lands) -Significant pressure from development
Grey County	-Significant change in severance activity during the 1990s -Changed from granting high number of severances granted per year in early 1990s to low numbers in the late 1990s
Perth County	-Very low number of severances created during the 1990s -Very active agricultural industry
Waterloo Region	-Very low number of severances created during the 1990s -Large urban centre with a high growth rate

5.2 Niagara Region

5.2.1 Introduction



Niagara Region was selected as a case study because of its unique agricultural resource and the high growth rate within the Region. The map to the right illustrates the location of Niagara Region within Southern Ontario.

The soil type in the area, combined with the moderating effect of Lake Ontario, makes Niagara Region the most suitable area in Ontario to produce tender fruit and grapes. As a transportation corridor between the United States and the industrial heartland of Southern Ontario, the Region is also home to 919,000 residents. In 2006, Niagara Region reported 320,963 acres of land in the agricultural designation and farm sales of $2,899/acre, the highest in Ontario.

5.2.2 Trends in Rural Development

Between 1990 and 2009, Niagara Region received a total of 7,957 severance applications:

- 1,151 applications were in the agricultural designation
- The percentage of total applications in the agricultural designation averaged 13% with a peak of 20% in 1994
- Over the 20 year period, 3.6 lots were created in a typical concession block
- 81 new farm lots were created as a result of a separation or division of an existing agricultural parcel
- 1,030 for residential purposes
- 40 for non-residential purposes

Table 4: Severance Activity in Niagara Region 1990-2009

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total 1990-1999
Total severance applications	794	525	478	490	577	432	352	475	444	455	5022
Total severance applications in agricultural designation	134	96	85	95	115	64	44	80	82	67	862
Percentage of total severance applications in agricultural designation	17%	18%	18%	19%	20%	15%	13%	17%	18%	15%	17%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
Total severance applications	463	291	337	271	297	349	308	224	228	167	2935
Total severance applications in agricultural designation	77	50	26	27	37	35	8	11	12	6	289
Percentage of total severance applications in agricultural designation	17%	17%	8%	10%	12%	10%	3%	5%	5%	4%	9%

	Total 1990-2009	Total 1990-1996	Total 1997-2005	Total 2006-2009
Total severance applications	7957	3648	3382	927
Total severance applications in agricultural designation	1151	633	481	37
Percentage of total severance applications in agricultural designation (average)	13%	17%	14%	4%

During the 1990-1996 policy period, Niagara Region received a total of 3,648 severance applications. Applications in the agricultural designation accounted for 633 severance applications and consisted of:

- 40 farm lots
- 69 surplus dwelling lots
- 328 retirement lots
- 7 infill lots
- 166 other residential lots
- 23 non-residential lots

From 1990-1996 the average number of new lots created was 0.280/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period, 1.97 new lots created per 1,000 acres of land in the agricultural designation[4]. This means there were nearly 2 new lots created in a typical concession block in Niagara Region during the seven year policy period of 1990-1996.

During the 1997-2005 policy period, Niagara Region received a total of 3,382 severance applications. Applications in the agricultural designation accounted for 481 severance applications and consisted of:

- 38 farm lots
- 153 surplus dwelling lots
- 143 retirement lots
- 31 infill lots
- 102 other residential lots
- 14 non-residential lots

From 1997-2005 the average number of new lots created was 0.165/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period, there were 1.5 new lots created per 1,000 acres of land in the agricultural designation[5]. This means there were 1.5 new lots created in a typical concession block in Niagara Region during the nine year policy period from 1997-2005.

During the 2006-2009 policy period, Niagara Region received a total of 927 severance applications. Applications in the agricultural designation accounted for 37 severance applications and consisted of:

[4] Calculated using the 2000 agricultural designation land area: 321,092 acres
[5] Calculated using the 2000 agricultural designation land area: 321,092 acres

- 3 farm lots
- 29 surplus dwelling lots
- 2 other residential lots
- 3 non-residential lots

From 2006-2009 the average number of new lots created was 0.028/year per 1,000 acres in the agricultural designation, or, over the entire policy period, there were 0.11 new lots created per 1,000 acres of land in the agricultural designation[6]. This means approximately one ninth of a new lot was created in a typical concession block in Niagara Region over the four year policy period from 2006-2009.

5.2.3 Impact of Severance Activity

In July 2011, a planner in Niagara Region was interviewed to determine the impact of severance activity within the Region. While overall service costs associated with granting new severances were noted to be higher, several benefits were identified. These included facilitating farm consolidation and helping farmers purchase the larger areas of land required to be sustainable in the current economic climate. This planner noted that consolidated farms are prohibited from severing land in the future.

Costs included higher expenses for snow plowing, garbage and recycling pick up, and bussing. This planner noted studies that showed houses must sell for more than $350,000 in order for the municipality to break even on assessment.

In 2003, the regional planner interviewed noted that many of the retirement lots that had been created were no longer used by retired farmers, but had been resold, and about 70 per cent of these lots had become rural non-farm lots.

Planners in both the 2003 and 2011 interviews identified conflict between farmers and non farmers resulting from severance activity. In 2011, the planner identified the presence of incompatible land uses side by side and that severances jeopardize agricultural viability. "As agricultural land gets frittered away, the resulting fragmented ownership of land leaves parcels that are not large enough to be viable." This planner also noted that people tend to have a short-term view without giving consideration to the long-term implications. They see a higher value in a small residential lot than the agricultural land.

Planners in both the 2003 and 2011 interviews were also asked to identify provincial or local policy changes that have impacted decision-making and trends on the ground. In 2003, the planner noted that there had been a trend towards more permissive lot creation throughout the 1990s. This has

[6] Calculated using the 2008 agricultural designation land area: 320,963 acres

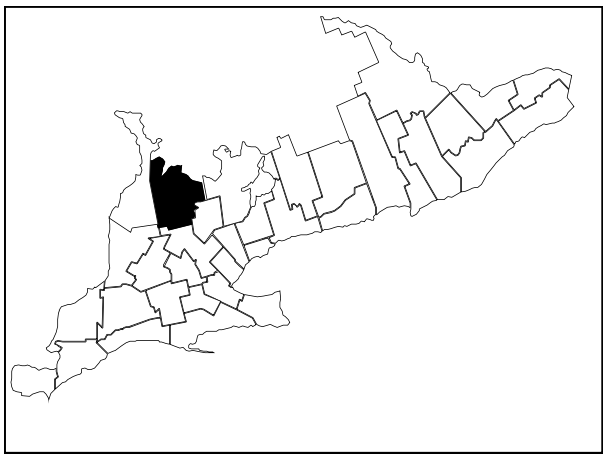
changed and the planner in 2011 noted that several policies have affected trends in the Niagara Region, including the *Green Belt Act*, 2005 Provincial Policy Statement (PPS), and Places to Grow. The planner noted that the PPS has resulted in fewer severances, but there remains a mindset within the Regional councils and Land Division Committees that severances are good and people are entitled to sever lots from their farms.

In 2011, the planner also noted that the Official Plan can be overridden by the Building Code regulations, which impacts how lands are used. Because of available water lines throughout the region for agricultural use and irrigation, there is an increased pressure for severances due to the level of services that are provided.

Planners were asked what changes to current policy they would consider to be beneficial. In 2011, as in 2003, the planner identified that the political will to preserve agricultural land is necessary to make that a reality. While in 2003, the planner suggested that more restrictive policies were required in the Niagara Region, in 2011, the planner suggested that the province needs to enforce the policies that are currently in place. These policies should ensure that local Land Division Committees are not able to make decisions that are counter to the spirit and letter of the law. "Some decisions that have been made by these committees need to be appealed by the province to keep in line with provincial legislation."

5.3 Grey County

5.3.1 Introduction



Grey County was selected as a case study because of the dramatic change in severance activity during the 1990s. The trend in severance activity within Grey County changed from granting high numbers of severances each year in the late 1980s and early 1990s, to low numbers in the late 1990s. The map to the right illustrates the location of Grey County within Western Ontario. The total area of farmland comprises 53% of the County's land area (Monteith Zelinka Ltd., 1995).

Much of the agriculture in Grey County is livestock based. Grey County has a specialization in beef cattle. "Beef production in Grey County tends to be a very low intensity kind of farming." Beef farms require extensive land holdings, which are environmentally benign and aesthetically attractive because of little cultivation and machine use" (Monteith Zelinka Ltd., 1995, p.33). The apple industry in the Beaver Valley is also an important type of agriculture in the County. In 2006, Grey County had farm sales averaging $471/acre. This is the 27th highest dollar value in Ontario. The agricultural designation in Grey County encompasses 286,148 acres of land.

5.3.2 Trends in Rural Development

During the 1980's and early 1990's, a large number of rural non-farm lots were created in Grey County. Many agencies raised objections to the large number of severance applications and the fact that the County Planning Approvals Committee granted "over 70% of those applications to which the Grey County Planning Department had objected" (Ontario Environmental Assessment Advisory Committee, 1990, p.13). This led to the Ministry of Municipal Affairs intervening and conducting an inquiry. As a result, a new official plan came into effect in 1997. Severance data prior to the implementation of the new official plan is not considered by planning staff to be appropriate for comparison or evaluation with other municipalities in the Province. Therefore, data gathered in Grey County, for the purpose of this study, covers the years 1997-2009. Between 1997 and 2009, Grey County received a total of 2,119 severance applications.

- 174 applications were in the agricultural designation
- The percentage of total applications in the agricultural designation averaged 9% with a peak of 31% in 1997
- Over the 13 year period, 1.31 lots were created in a typical concession block
- 144 new farm lots were created between 1997-2009 as a result of a separation or division of an existing agricultural parcel
- 19 for residential purposes
- 11 for non-residential purposes

Table 5: Severance Activity in Grey County 1997-2009

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Total severance applications	45	189	159	173	157	149	184	245	250	172	138	149	109	2119
Total severance applications in agricultural designation	18	31	32	33	2	4	6	10	6	6	13	7	6	174
Percentage of total severance applications in agricultural designation	31%	13%	18%	19%	1%	3%	3%	4%	2%	3%	9%	5%	6%	9%

Please note: Data was not collected for the years prior to 1997; County staff advised that only severances granted under the new Official Plan, which came into effect in 1997, can be fairly evaluated against the other municipalities in the Province.

	Total 1997-1999	Total 2000-2009	Total 1997-2005	Total 2006-2009
Total severance applications	393	1726	1551	568
Total severance applications in agricultural designation	81	93	142	32
Percentage of total severance applications in agricultural designation (average)	26%	6%	12%	6%

During the 1997-2005 policy period, Grey County received a total of 1,551 severance applications. Applications in the agricultural designation accounted for 133 severance applications and consisted of:

- 119 farm lots
- 6 surplus dwelling lots
- 5 retirement lots
- 1 other residential lot
- 2 non-residential lots

From 1997-2005, the average number of new lots created was 0.049/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period, there were 0.23 new lots created per 1,000 acres in the agricultural designation[7]. This means there was less than a 1/4 of a new lot created in a typical concession block in Grey County in the nine year policy period from 1997-2005.

During the 2006-2009 policy period, Grey County received a total of 568 severance applications. Applications in the agricultural designation accounted for 32 severance applications and consisted of:

- 25 farm lots
- 6 surplus dwelling lots
- 1 other residential lot

From 2006-2009, the number of new lots created was 0.028/year per 1,000 acres in the agricultural designation, or over the entire policy period, there were 0.33 new lots created per 1,000 acres in the agricultural designation[8]. This means there was 1/3 of a new lot created in a typical concession block in Grey County in the four year policy period from 2006-2009.

5.3.3 Impact of Severance Activity

A planner was interviewed in 2011 to determine costs and benefits associated with severance activity on prime agricultural land in Grey County. The planner acknowledged that individual farmers could benefit by having greater opportunities to expand their operations with the ability to sever residential lots from the farm. However, the planner also identified more potential for conflict with increased amounts of severances. Given the history of severances in this area, the planner pointed out that there are already many residential lots located in the agricultural areas that have resulted in a steady level of conflict, including conflict

[7] Calculated using the 2000 agricultural designation land area: 286,574 acres
[8] Calculated using the 2008 agricultural designation land area: 286,148 acres

resulting from farm traffic on roads. In addition, the MDS arc hinders land uses involving livestock. These observations are consistent with those identified in 2003.

The planner also identified that rural severances often do not pay for themselves because they incur increased expenses resulting from school bussing, garbage pick-up and snow plowing. "We would prefer to see on-farm businesses rather than rural non-farm severances." Grey County conducted a Growth Management Strategy in 2007 that included a vacant lot inventory. This revealed that the county had a large number of vacant lots that had already been severed. "There is no need for Grey County to add any more."

The planner interviewed in 2003 acknowledged that Grey County had seen a significant decline in the number of severances created during the 1990s. In 2011, the planner indicated that there has been a reduction in the demand for severances. In spite of the fact that there has also been a change in the classification of land from "agricultural" to "rural", there has been a large decrease in the number of lots created.

The planner interviewed in 2011 suggested that the current policy could be clearer with regard to surplus farm dwellings, which was common to many interviewees' opinions. Further, this planner suggested that the current policy has contradictory sections.

The PPS allows new lots for farm-related industrial, but it must be related to the farm operation. This is contradictory. For on-farm industrial or commercial, people need to prove the operation is related to their farm specifically. This should be changed so that the operation benefits the farming community as a whole, but does not specifically be required to be related to one specific farm. Then the question becomes – at what point do you stop expansion of a successful business?

While the planner interviewed in 2003 recommended stronger policies to protect farm land from development, the planner interviewed in 2011 offered a slightly different perspective.

In the opinion of the person interviewed, if the only way to survive in agriculture is to get bigger, severing surplus dwellings may have merit. Some farmers may not be able to afford to buy land – but if they could buy the farm land, sever the house, and pay for the farm land with the proceeds from the sale of the house, that helps farmers expand their operations. If

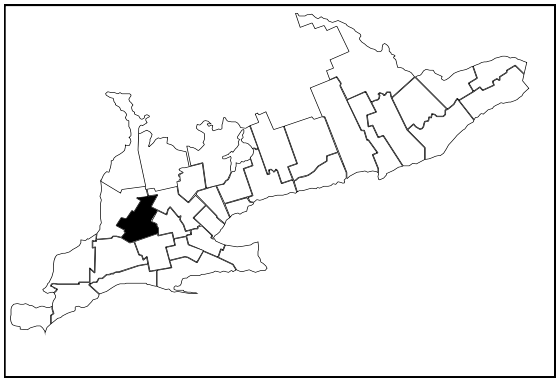
severing surplus dwellings is just a way to create country estates, planners do not support that, especially considering the number of existing vacant lots, the compromises farmers have to make as a result, and the increased number of conflicts.

However a common theme in the opinions of both planners interviewed is that farmers need policies that protect the viability of agriculture.

5.4 Perth County

5.4.1 Introduction

Perth County was selected as a case study because of its very active agricultural industry and low number of severances created during the 1990s and 2000s. The map to the right illustrates the location of Perth County within Western Ontario.



Perth County is a significant contributor to agricultural production in Canada. For each of the agricultural census years, 1985, 1990, and 1995, Perth County's farm gate sales were higher than the farm gate sales recorded for each of the provinces of Nova Scotia, Prince Edward Island, New Brunswick and Newfoundland (Harry Cummings and Associates, 2001). Like many municipalities, Perth County has been subject to increasing average farm size and declining farm numbers.

Perth County has a combination of farm types, including livestock and cash crop. The County reported 484,401 acres of land in agricultural designations. In 2006, Perth County generated $1,411 farm sales per acre. This is the 7th highest dollar value in Ontario.

5.4.2 Trends in Rural Development

During the study period (1990-2009), Perth County received a total of 1,037 severance applications.

- 219 applications were in the agricultural designation
- The percentage of total applications in the agricultural designation averaged 19% with a peak of 35% of total applications in the agricultural designation in 1993 and 1994.
- Over the 20 year period 0.08 lots were created in a typical concession block
- 148 new farm lots were created as a result of the separation or division of an existing agricultural parcel
- 37 for residential purposes
- 34 for non-residential purposes

Also noteworthy, Perth County's Official Plan removed the ability to create surplus dwelling lots post-1997. The last surplus dwelling severance was granted in 1997. Surplus dwelling severances in Perth County only averaged 3 per year from 1990-1996.

Table 6: Severance Activity in Perth County 1990-2009

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total 1990-1999
Total severance applications	97	71	86	68	62	49	54	51	38	48	624
Total severance applications in agricultural designation	31	15	29	24	22	10	14	8	7	14	174
Percentage of total severance applications in agricultural designation	32%	21%	34%	35%	35%	20%	26%	16%	18%	29%	27%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
Total severance applications	35	43	41	41	45	45	54	31	45	33	413
Total severance applications in agricultural designation	5	5	3	5	3	8	6	2	6	2	45
Percentage of total severance applications in agricultural designation	14%	12%	7%	12%	7%	18%	11%	6%	13%	6%	11%

	Total 1990-2009	Total 1990-1996	Total 1997-2005	Total 2006-2009
Total severance applications	1037	487	387	163
Total severance applications in agricultural designation	219	145	58	16
Percentage of total severance applications in agricultural designation (average)	19%	29%	15%	9%

During the 1990-1996 policy period, Perth County received 487 severance applications. Applications in the agricultural designation accounted for 145 severance applications and consisted of:

- 86 farm lots
- 20 surplus dwelling lots
- 16 other residential lots
- 23 non-residential lots

From 1990-1996 the average number of new lots created was 0.045/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period, there were 0.31 new lots created per 1,000 acres of land in the agricultural designation[9]. This means there was less than a 1/3 of a new lot created in a typical concession block in Perth County over the seven years from 1990-1996.

During the 1997-2005 policy period, Perth County received a total of 387 severance applications. Applications in the agricultural designation accounted for 58 severance applications and consisted of:

- 48 farm lots
- 1 surplus dwelling lot
- 9 non-residential lots

From 1997-2005 the average number of new lots created was 0.013/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period there were 0.12 new lots created per 1,000 acres of land in the agricultural designation[10]. This means there was slightly more than 1/8 of a new lot created in a typical concession block in Perth County in the nine years from 1997-2005.

During the 2006-2009 policy period, Perth County received a total of 163 severance applications. Applications in the agricultural designation accounted for 16 severance applications and consisted of:

- 14 farm lots
- 2 non-residential lots

From 2006-2009 the average number of new lots was 0.008/year per 1,000 acres of land in the agricultural designation, or over the entire policy period, there were 0.03 new lots created per 1,000 acres of land in the agricultural designation[11]. This means there was one new lot created for every 30 concession blocks in Perth County in the four years from 2006-2009.

[9] Calculated using the 2000 agricultural designation land area: 470,281 acres
[10] Calculated using the 2000 agricultural designation land area: 470,281 acres
[11] Calculated using the 2008 agricultural designation land area: 484,401 acres

5.4.3 Impact of Severance Activity

A Perth County politician was interviewed in 2011 to determine the perceptions of residential severances on agricultural land. This politician showed a strong preference for preserving agricultural land. "There is a perception that allowing rural residential severances helps populate the land – but we have not seen that in Perth and there are no studies showing any benefit to allowing this to happen."

This politician also noted that there is a huge effect on agricultural land. Severances affect land use by limiting what farmers can do on their land and by restricting where barns can be located. Often people who move to rural areas from cities and towns do not have a good understanding of farming, especially that farmers regularly need to work at night. Sharing the roads with large agricultural equipment is also a source of conflict. Often the original person that severs the house does not cause the problem, but after the residential property is sold and resold, the 2nd, 3rd, or 4th person may raise issues.

Urban people who move to rural areas also have higher expectations on the services provided by the municipality. They demand better roads and other services that the rural residents don't expect. This puts higher costs on the municipality – in either fighting these demands… or trying to provide them. One constantly complaining person can have a big impact on the rest.

These opinions have not changed substantially from those expressed by the planner interviewed in Perth County in 2003. In addition, the planner noted that severances may not affect the current operator running the farm, but can have a negative effect on the future owners attempting to expand the operation. In 2003, farmers indicated that the land values were higher in Perth County because there were fewer restrictions due to severances in that County when compared to other areas.

Additionally, the municipal politician interviewed in 2011 identified several government policies that have affected trends in that municipality.

- MDS I and MDS II: Every time there is a situation where farmers want to build new barns, there is pressure on council to grant a variance.
- PPS effect on Official Plan: "This creates issues by forcing residential development into larger urban centers and will result in the death of villages and hamlets." It is difficult to justify expanding the boundaries of small villages and hamlets. When people ask for severances, they don't realize there are other ways to get population in a rural area other than placing people next to agricultural operations. It is not cost effective to put water and sewage service in small areas.
- Affordable housing: This is also mandated by the province and people try to use this argument to enable them to sever lots. But country estate lots are not considered "affordable housing", so this argument does not hold up.

- Retirement lots: "We saw a lot of these created in the 1970s and have seen how bad that is. The farmer who originally severs this lot tends to only stay 3-5 years, which impacts what the surrounding farms can do."
- Municipal drains: Even though paying for municipal drains is required by law, many urban people who move to the country do not realize this is a cost of country living. There have been examples where people challenge this law and refuse to pay. Not only is this costly to the system, but it also pits neighbours against each other. Non farmers do not know the legislation exists, let alone that it affects them.

Specifically regarding severances, in 2011, the municipal politician pointed out that there are different interpretations in different areas. For example, in Perth South and West Perth, a farmer can consider a house surplus even if two farms are not touching each other. Other regions interpret this differently and insist that a farm unit must only contain properties that adjoin one another. The province should define this more thoroughly so that there is not a patchwork of rules that vary according to municipal interpretation.

The municipal politician in Perth County described some changes to current policy that might prove beneficial. The Anabaptist Community, including Old Order Mennonites and Amish, especially present special needs, in part due to their mode of transportation. There is constant pressure on municipal government to permit religious exemptions to enable construction of "meeting houses" that are within travelling distance for horse and buggy.

> We are directed as councils, by OMAFRA, to help encourage development of strong rural communities, but we are prevented by other legislation from allowing them to develop their communities as they would like. The province should ensure that municipal governments are treating all communities fairly and that rules are being applied in an equitable way across the province and across municipal boundaries.

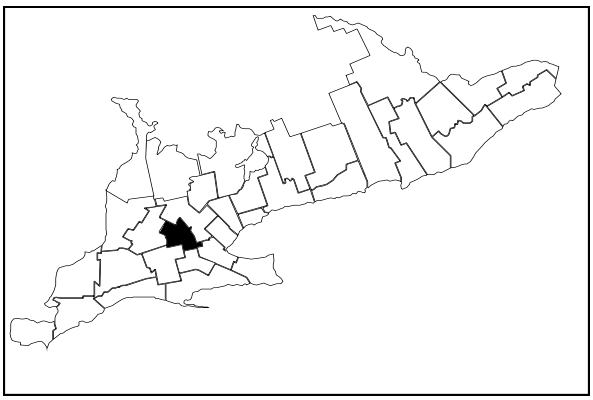
In both 2003 and 2011, Perth County interviewees emphasized the importance of agriculture to the municipality. From 2003, "A municipality must have an understanding of what agriculture means to the local economy, and if the desire is to keep agriculture, staff and politicians must do what it takes to support agriculture." From a 2011 interview:

> Allowing surplus severances is a short sighted policy. If a house is severed from a 100 acre parcel, there are regulations in place preventing a house from ever being constructed on the remaining 99 acres. If the next owner wants to build, the municipality is challenged by the new owner to allow building. Everything passes on. What is surplus to one farmer at

one moment in time does not stay surplus for ever. The municipality needs more teeth to back up the spirit of the policies.

5.5 Waterloo Region

5.5.1 Introduction



Waterloo Region was selected as a case study because of the high growth rate within the Region and the low number of severances granted during the 1990s. The map to the right illustrates the location of Waterloo Region within Western Ontario.

While the Region of Waterloo has been subject to the trend of fewer farms and increasing average farm sizes, the farms in Waterloo Region tend to concentrate on beef, dairy, swine, poultry, and to a lesser extent cash crop production (Regional Municipality of Waterloo, 1998). The presence of a large Mennonite and Amish population, who participate in more traditional types of agricultural production, may partially explain some of the trends in agriculture in Waterloo Region.

Waterloo Region's agricultural designation encompasses 225,674 acres of land. In 2006 the Region generated $1,751 per acre in farm sales. This is the 3rd highest dollar value in Ontario.

5.5.2 Trends in Rural Development

During the study period (1990-2009), Waterloo Region received a total of 3,608 severance applications.

- 97 applications were in the agricultural designation
- The percentage of total applications in the agricultural designation averaged 3% for the entire study period and never exceeded a high of 6% seen in 1998 and 2000.
- Over the 20 year period, 0.25 lots were created in a typical concession block
- 31 new farm lots were created as a result of the separation or division of an existing agricultural parcel
- 58 lots for residential purposes
- 8 lots for non-residential purposes

Table 7: Severance Activity in Waterloo Region 1990-2009

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total 1990-1999
Total severance applications	396	276	217	261	248	245	245	334	272	228	2722
Total severance applications in agricultural designation	3	3	1	7	9	3	7	16	17	5	71
Percentage of total severance applications in agricultural designation	1%	1%	0%	3%	4%	1%	3%	5%	6%	2%	3%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total 2000-2009
Total severance applications	228	87	73	99	82	64	73	74	67	39	886
Total severance applications in agricultural designation	13	3	2	0	1	0	2	2	2	1	26
Percentage of total severance applications in agricultural designation	6%	3%	3%	0%	1%	0%	3%	3%	3%	3%	2%

	Total 1990-2009	Total 1990-1996	Total 1997-2005	Total 2006-2009
Total severance applications	3608	1888	1467	253
Total severance applications in agricultural designation	97	33	57	7
Percentage of total severance applications in agricultural designation (average)	3%	2%	3%	3%

During the 1990-1996 policy period, Waterloo Region received a total of 1,888 severance applications. Applications in the agricultural designation accounted for 33 severance applications and consisted of:

- 16 farm lots
- 1 surplus dwelling lots
- 15 other residential lots
- 1 non-residential lot

From 1990-1996 the average number of new lots created was 0.022/year per 1,000 acres of land in the agricultural designation, or over the entire policy period, there were 0.14 new lots created per 1,000 acres of land in the agricultural designation[12]. This means there was approximately 1/7 of a new lot created in a typical concession block in Waterloo Region in the seven years from 1990-1996.

During the 1997-2005 policy period, Waterloo Region received a total of 1,467 severance applications. Applications in the agricultural designation accounted for 57 severance applications and consisted of:

- 14 farm lots
- 37 other residential lots
- 6 non-residential lots

From 1997-2005 the average number of new lots created was 0.026/year per 1,000 acres of land in the agricultural designation, or, over the entire policy period, there were 0.24 new lots created per 1,000 acres of land in the agricultural designation[13]. This means there was approximately 1/4 of a new lot created in a typical concession block in Waterloo Region in the nine years from 1997-2005.

During the 2006-2009 policy period, Waterloo Region received a total of 253 severance applications. Applications in the agricultural designation accounted for 7 severance applications and consisted of:

- 1 farm lot
- 2 infill lots
- 3 other residential lots
- 1 non-residential lot

[12] Calculated using the 2000 agricultural designation land area: 228,691 acres
[13] Calculated using the 2000 agricultural designation land area: 228,691 acres

From 2006-2009 the average number of new lots created was 0.009/year per 1,000 acres of land in the agricultural designation, or over the entire policy period, there were 0.03 new lots created per 1,000 acres of land in the agricultural designation[14]. This means there was one new lot created for every 30 concession blocks in Waterloo Region in the four years from 2006-2009.

5.5.3 Impact of Severance Activity

Interviews were conducted with a municipal politician in 2011 to identify the viability of agriculture in a Region that has maintained a relatively low amount of rural non-farm development despite significant growth pressure on rural lands.

The Region of Waterloo has had little non-farm development historically because the Region had implemented restrictive severance policies in the 1970s. Fragmentation of agricultural land and potential for increased conflict were identified in both 2003 and 2011as costs associated with rural residential severances. In 2011, the municipal politician also indicated that there are greater costs associated with providing rural services such as firefighting and school bussing. "Planning by assessment doesn't make much sense to me – this argument does not work."

In 2003, the municipal planner said that municipalities must have straightforward and strong severance policies, strong local government, and a clear understanding of the importance of agriculture in their area. This sentiment has not changed much over the decade, with the municipal politician stressing the importance of viable farms within the municipality. "Rural municipalities should not be allowed to threaten the farming community." This politician also pointed out that there is a future danger that severing houses could possibly result in houses left as isolated lots if further land severances occur. This politician sees severances as a threat to long-term viability of agriculture in the area. "We don't want expensive estate homes driving up land prices."

[14] Calculated using the 2008 agricultural designation land area: 225,674 acres

5.6 Ontario

In 2011, several people involved in developing provincial policy were also interviewed to determine their perceptions on the impact of rural severances for the province from their perspectives. Representatives from both the Ministry of Municipal Affairs and Housing (MMAH), and from the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) were interviewed.

From the perspective of the MMAH representative, many people attach a false sense of benefits to rural severances. "While there is a perception that severing allows people to stay in the farming area, research has shown that people, especially farmers who are retiring, often do not stay long, averaging less than five years. There is a false perception that rural severances will help keep rural population levels higher in order to keep schools and churches open. While this is a nice, traditional thought, the reality proves that this does not work."

This representative agreed with the local politicians and planners, saying that severances tend to restrict farming operations, especially livestock production. Normal farm practices are often considered intrusive and bothersome, resulting in a constant level of complaints over the years. "While farmers try to keep peace with non-farming neighbours, some practices that are part of normal activity are considered to be offensive by some people, for example, harvesting crops at night. People who haven't experienced this don't understand." There is also the cost of the direct loss of farmland, which has a much larger cumulative effect.

The MMAH representative noted that changes in the 2005 PPS and subsequent changes in local Official Plans have resulted in more people trying to skew or twist the rules in order to have approval granted for surplus residential severances. For example, one person had a lot approved but did not act on it, allowed the consent to lapse, then appealed to have it reinstated and it was approved by council. Applicants have also been known to apply for a surplus residential severance for derelict farm buildings that may be a pile of foundation rubble. Not only are these incorrect interpretations of provincial policy, they are also going against the spirit of the PPS.

Protecting prime agricultural land is a priority for the MMAH representative. "We need to continue to tighten severance policy and monitor that it is being applied correctly to protect the agricultural industry in the long term from encroachment of non-agricultural uses." Along with protecting the agricultural land base, this interviewee also recommended policies that direct new residential development to identified settlement areas.

In addition to developing policies that protect agricultural land, the interviewee said it is also important to provide the tools that allow for effective monitoring:

> An effort to keep some rural councils honest is required. People hold in their minds that these are idyllic country properties that can save rural communities, but they are really inefficient developments that should not be allowed to use prime agricultural land. These are inefficient because they are mostly unserviced and rely on private wells and septic systems, which require a large area. Municipal costs also increase due to providing other services such as fire, garbage and recycling pick up, and police. Services scattered at a low density throughout the countryside are not economically efficient.

From the perspective of OMAFRA, the interviewee pointed out that benefits and costs should be considered regarding who incurs the costs and who receives the benefits. "While some individuals may see immediate financial benefit, I do not see that as a benefit."

There are significant long-term costs associated with residential lots created in prime agricultural land. These include effects on farm practices, Minimum Distance Separation (MDS) setbacks, potential for increased number of complaints/conflicts, and farmers being forced to adapt practices around residential lots. This is not always accounted for as farmers undertake these adaptations on their own.

The OMAFRA interviewee agreed with most of the other interviewees in that some municipal councillors perceive that there is an economic development benefit to creating lots – but there are a lot of long-term costs associated with scattered residential lots across the municipality as opposed to having them concentrated in villages and hamlets. While there are studies that prove this, they are often discounted as being out of date. This interviewee felt that more current research is required to counter the perception that severances benefit a municipality financially. "People are searching for solutions to maintain vitality and attract people – and are grasping at short, easy answers." The Provincial Government is only marginally effective at communicating the message – it is often perceived as "father knows best" and the message gets tuned out by the local councils. Research conducted by universities that is widely disseminated tends to be seen as being more credible. People respond differently when they hear it from bodies other than government. Ongoing exploration of this is better if it comes from a third party. "I think we have communicated well with the planning community – planners do not think lot creation is good. The planning community needs to engage municipal

councillors and the general public to raise awareness. We need to have local councils on board and broader community engagement."

The interviewee from OMAFRA pointed out that there has recently been more "push back" with regard to severance policy, which is related to economic conditions in the short term, but in the longer term, is related to ongoing population decline in some rural areas. This interviewee also suggested that there is some misinterpretation around the term "growth management". There is a perception, especially in areas where population decline is an issue, that policies are developed with growth areas in mind. "There seems to be a negative reaction to some of the terminology – 'growth management' reflects good planning practices generally and is applicable in both areas where there is growth and where there is decline, in good times and in bad."

Some policy changes might be beneficial, according to the OMAFRA interviewee. Surplus dwelling severance policy needs to be revisited. This interviewee was not sure that surplus residence severances should be banned outright; however, there are interesting interpretations out there that should be examined. Definitions around "dwelling" and "surplus" need to be clarified. The current policy in the PPS is pretty clear, yet there are challenges in implementation. Is there a legislative tool that could be used to enforce the existing policies? Municipalities currently have some tools and some power – but is that the appropriate amount and kind of power? While the PPS gets used, there may be legislative tools that could amend and enhance the spirit of the policy.

This interviewee also indicated that there is an enforcement question here – who will launch an Ontario Municipal Board (OMB) challenge? The current system has an appeals process, but some cases that should have been appealed were not. This is usually the result of lack of resources to launch an appeal.

The OMAFRA interviewee also pointed out that there are places in Ontario where livestock industry would have difficulty establishing. The number of lots already in place makes it more and more difficult to site barns. The livestock industry has to consider places where there isn't potential for more conflict. Farmers are also forced to take more actions to appease neighbours and that sometimes involves changing normal farming operations. How much time do farmers have to accomplish this? Spending extra time appeasing neighbours and changing farm practices can result in a loss in the capability of production.

In addition to Ontario agriculture, allowing rural residences on farm land also has a negative effect on the vitality of towns and villages. The question becomes "Is this what is beneficial to broader rural communities?"

On land that is relatively close to urban areas, the issue of farm splits becomes more prevalent. The OMAFRA interviewee noted that farm splits should be considered in terms of smaller farm parcels – what is the appropriate minimum size of a "farm"? The challenge with this is that there is a huge range in defining the "typical" farm. What is done to help one can often end up with unintended consequences on someone else.

In some parts of Ontario, there is an issue of allowing smaller minimum lot sizes in order to facilitate the entry of new farmers to the industry. However, the number of small lots is not the issue; the smaller lots that may be more affordable are often not available to buy – they are not for sale and it is difficult to have a chance to get them. Helping young farmers get into agriculture means getting the small lots into the hands of people who really want to farm it. Dividing up smaller parcels of land will not guarantee that young people will farm it.

Regarding the role of the Provincial Government – "even if you had a completely profitable agricultural sector, I'm not sure if agricultural interests could outbid the competing interests on the edge of the urban center. Farmers compete with every other interest that is bidding for the same parcel of land."

5.7 Summary

This chapter presents the findings of interviews that were conducted with planners and municipal politicians from Niagara Region, Grey County, Perth County, and Waterloo Region. The purpose of conducting these interviews was to determine the impact of rural non-farm development on the viability of agriculture under a variety of conditions.

This chapter identified individual's perceptions of the trends in rural non-farm development within their County/Region, and their understanding of the impact of rural non-farm development on both the operation and investment within the agricultural industry in the County/Region. Planners and politicians also made a significant number of recommendations on how to lessen the impact of rural non-farm development and what policy changes might be beneficial.

The results of interviews conducted with provincial commodity group representatives are presented and analyzed to determine similarities and differences in the perceived impact of rural non-farm development in Chapter Six.

6.0 Agricultural Organizations

6.1 Introduction

This chapter presents the results of the interviews conducted with commodity groups. This study was designed to gather information about the impact of rural non-farm development on the viability of the different commodity groups within Ontario's agricultural industry. Table 12 identifies the top ten commodity groups for Ontario in 2010.

Table 8: Farm Cash Receipts by Commodity, Ontario 2010

Rank	Commodity	$'000	Percent %
1	Dairy Products	1,780,374	17.3
2	Fruit, veg, and potatoes	1,508,503	14.6
3	Soybeans	1,151,257	11.2
4	Corn	1,013,437	9.8
5	Cattle and Calves	913,643	8.9
6	Floriculture and nursery	867,325	8.4
7	Poultry	790,614	7.7
8	Hogs	762,569	7.4
9	Wheat	274,962	2.7
10	Eggs	275,494	2.7
	Other	977,739	9.5
	Total Receipts	**10,315,917**	**100.0**

Source: Statistics Canada, Catalogue No. 21-011.

The names of the agricultural organizations will be used for the purpose of maintaining anonymity of the interviewees. These include Ontario Cattlemen's' Association (OCA), Ontario Pork, Ontario Federation of Agriculture (OFA), Ontario Fruit and Vegetable Growers' Association (OFVGA), and Ecological Farmers Association of Ontario (EFAO).

THE RESPONSES ARE ATTRIBUTED TO THE AGRICULTURAL ORGANIZATION RATHER THAN THE NAME OF THE INDIVIDUAL INTERVIEWED. THE RESPONSES ARE THE OPINION OF THE INDIVIDUAL INTERVIEWED AND ARE NOT NECESSARILY THE POSITION OF THE AGRICULTURAL ORGANIZATION.

Interviews were conducted with provincial agricultural organization representatives between June 2011 and August 2011. The following discussion presents the results of the interviews conducted with five provincial agricultural organization representatives in comparison with interviews conducted by commodity groups in 2003.

6.2 Costs and Benefits of Rural Non-Farm Severances

While many of the issues reported in 2003 still remain in 2011, there are some differences. One of the biggest differences is that in 2003, of the commodity group representatives interviewed reported that inconsistent rules regarding severances across the province was creating an unlevel playing field. Especially for the greenhouse industry, this resulted in different costs for farmers operating in different municipalities. In 2011, this issue seems to have been largely resolved, with no one reporting this as a cost associated with residential severances.

The OCA interviewee reported in 2011 that the Nutrient Management legislation did put an end to a patchwork of regulations across the province, but it has also resulted in less freedom for farmers to adapt to changing economic conditions. "Farmers are limited – modernizing old 'useless' barns is much more difficult or impossible now because of some of these regulations."

Overall agricultural sustainability is one theme that has remained constant between the interviews conducted in 2003 and those conducted in 2011. In 2003, the representative from the Tender Fruit and Grape Growers Association identified that the margin for profit in their industry is low, and they appreciate having severance policies that allow them to sever a retirement lot or surplus dwelling lot in order to reduce the cost of buying farms. Some commodity group representatives suggested that farmers sometimes rely on severances as a source of income.

In 2011, the interviewee representing the Ontario Fruit and Vegetable Growers' Association said that public policy should ensure that returns are high enough to ensure that farmers do not want to sever land in prime agricultural areas. If returns are good, farmers will be very reluctant to sell for short-term gain. "If public policy allows cheap food from other places, farmers will be struggling and will be more apt to consider survival tactics. Policy needs to eliminate cheap competition so that farmers do not want to sever."

Four of the five interviewees agreed that rural residential severances cost the municipality more than they generated through tax dollars.

> The cost is higher for providing services such as school bussing, school spaces, hydro service, and garbage pickup than the revenue generated by the rural residences. The short term gains cause long term pain. It is far better to say 'No Severances' and encourage expansion of towns and hamlet. (OFVGA interviewee, 2011)

The OCA interviewee reported that urban people who move to the country have a higher expectation with regard to services. "As we add non-farm people, they expect similar services as they enjoyed elsewhere."

One interviewee representing Ontario Pork had a slightly different opinion.

> There is some room for severances on agricultural land that is not considered 'prime'. I think there is an income advantage – the services provided do not cost more – the roads are being plowed and the garbage is being picked up anyway, so there is no increased cost to the municipality to provide this service, and the taxes for a residential lot are higher than for a farm.

However, this interviewee agreed that severing residences on prime agricultural land is very short sighted. "We should save prime agricultural land for agriculture."

Rural conflict caused by residential lots in the middle of prime agricultural land is a theme that remains constant between 2003 and 2011. In 2003, a number of commodity group representatives felt that most people in Ontario had little understanding of agriculture. They believed this lack of understanding of normal farm practices does (or could) lead to complaints from rural non-farm residents about neighbouring farmers.

In 2011, interviewees reported that conflict continues between neighbours over normal farm practices, including noise, odour, and dust. While the number of complaints is more numerous than the number that ends up before the Normal Farm Practices Protection Board, the OFA interviewee reported that OMAFRA does a lot of mediating to keep the complaints from reaching the NFPPB level. "For cases that go to a board hearing, there is a winner and a loser – the people are neighbours and the relationship between those people is impacted. This undermines the overall community."

In 2011, the interviewee representing Ontario Pork stated that since the Nutrient Management Act and Minimum Distance Separation were put into effect, the number of conflicts has decreased since a high rate of conflict that occurred 12 to14 years ago, but this may also be a factor of the state of the hog industry in that there has been little or no new building in the past three or four years.

"Agricultural land is the only land use designation that allows for incompatible uses to be stuck in the middle of it. Industrial, large-scale commercial land uses would never consider putting residential in the middle," said the OFA interviewee.

6.3 Impact of Provincial or Local Policy Changes

In 2011, the interviewee from EFAO stated that the Provincial Policy Statement (PPS), Places to Grow, and the Growth Plan for the Greater Golden Horseshoe (GPGGH) regulations were good planning documents. This interviewee hopes to see the new PPS doing more to protect prime farm land. The new

Official Plan for Brant County reflecting these has not come into effect yet and the county is still operating using the original OP that encouraged severing large estate lots. As people see new rules coming, there is currently a rush on to sever what was designated by the 2004 OP while it is still possible.

While the PPS reduced the number of severances, the OFVGA interview suggested it has done little to resolve the underlying economic conditions that lead to the desire to make more severances.

Having one set of rules with no exceptions is easier to manage, added the OFVGA interviewee in 2011. Province-wide changes were positive and made things more equitable. However, farmers need stricter rules to allow them to conduct their businesses without nuisance complaints. "The Normal Farm Practices Board should not include lawyers or civil servants, instead should only include commercial producers who have over $100,000 in gross revenue. The decisions put before the Normal Farm Practices Board should be made by farmers."

The OCA interviewee stated in 2011 that individuals who are buying rural properties do not want livestock, so they may cash crop. In some cases, marginal land is used to grow trees, especially with government support.

> If they were able to sever five acres it might be better, because as it is, much larger pieces of land are being converted to trees and the area is losing a lot of pasture land. People think farmers are endangering birds, but pasture land was ideal habitat for many species and it is gone now. Getting involved with conservation lands has an effect on farming practices – for example, on Conservation lands, hay is not permitted to be cut prior to July 15 to preserve Bobolink habitat. (OFVGA interviewee, 2011)

Environmental and land use concerns will push toward a smaller beef industry in spite of growth in demand. "We are a land-based farming practice for the cow-calf and backgrounders. The feedlot sector's biggest issue currently is fighting for corn."

6.4 Suggested Changes to Current Policy

The OFVGA interviewee suggested in 2011 that the Normal Farm Practices Board needs to have a broader mandate and the ability to enforce decisions and make policy. There is a considerable amount of conflict at the local level and some farmers are better at working with neighbours than others. There needs to be better communication with non-farming neighbours in agricultural areas. More extension of knowledge to the public would help to offset public anger – very few people understand farming.

Severances should include in the title of the deed that normal farm practices will be taking place in the area.

The interviewee from Ontario Pork stated that the severance issue has become very political and what happens on the ground varies with the changes in municipal government. This interviewee would like to see more emphasis placed on the technical considerations and keep politics out of the decision making process.

In 2011, the EFAO interviewee stated that current regulations around severances discriminate against small, organic and beginning farmers, especially those who market garden, and who can sustain viable operations on small holdings of land.

> I would support severance applications that split large farms into smaller holdings that were kept as smaller farms if there was a way to attach restrictions (conservation easement) to the title of the property that regulated future uses and ensured that the property remained in agricultural production. This is a form of easement that would stay with the farm permanently and could include determination of cropping practices and conservation techniques.

The EFAO interviewee also suggested that regulatory support of a new model of agriculture that enables people to form eco-farms would be beneficial. These are smaller, cooperative holdings with several houses on the farm that would enable farmers to live where they work, share labour and equipment, and have viable, productive farms that differ from the current conventional model. "Repopulation of rural areas depends on making land affordable for smaller farmers. This concept ties in with the new shift to urban agriculture – smaller, viable, local agriculture."

In 2011, the OCA interviewee pointed out that while having equitable regulations across the province, there are some limitations to this approach. "I preferred more local control, but I am not in support of single lot severances on agricultural land. I wonder if the stick was too big." There are hard rules for setbacks in areas that are not prime agricultural land.

The OFA interviewee suggested several improvements to current policy. The first suggestion was to change the definition of "prime agricultural land" in the PPS to include Class 4 land. This used to be included, but was removed about 25 years ago. This desire comes from the federations in Northern Ontario where there is no "prime" land, as a result, there is no attempt at the municipal level to restrict incompatible development in the agricultural land that they do have.

> It makes sense to protect those areas as they are important locally. As the global population grows, everyone will have to figure out how to get more with less. Some of the limitations that

previously were apparent in the area may diminish over time if climate change affects the length of the growing season.

This interviewee also suggested that the definition of "rural" be split into two categories – rural farm and rural non-farm. There are unique policies for rural farm areas. An integrated area of policy unique to farming issues could then be developed.

The third suggestion was a clarification of "secondary uses" of agriculture related uses within agricultural areas. There should be allowances for businesses related to agriculture locating in an agricultural area (e.g. Hensall District Co-op). "Some businesses are better being located here as opposed to on the edge of residential. This does not include secondary uses that are not specifically related to agriculture."

Finally, the OFA interviewee suggested that prohibition of aggregate extraction from agricultural land would also be a beneficial improvement.

> Generally the province is prepared to sacrifice anything to get at aggregates. It rarely happens that rehabilitation takes it back to the original state. Often after aggregates are removed, the resulting space is made into a lake surrounded by residential lots – it is lost to agricultural production. Sand and gravel are usually below the water table – so now we are left with a hole filled with water. (OFA interviewee)

6.5 Implications for Ontario Agriculture

In 2011, the EFAO interview stated that permitting land to be sold for large estate lots removes productive agricultural land and should not be allowed, allowing severances with conservation easements that are mandated by law to remain in agriculture could help the formation of a new type of agriculture in Ontario.

> This is an exciting time for Ontario agriculture. People are being more creative to find ways to begin farming with a different model that allows young urban people, second career people, and new immigrants to Canada get into farming in a way that is not possible under the conventional model. It is a hopeful time, with the formation of organizations such as Sustain Ontario.

Livestock industry representatives were less optimistic about the future of their industry in 2011. The Ontario Pork interviewee, while optimistic about the future of grain crops in Ontario, is really concerned about some of the legislation that has been passed recently, especially the Green Energy Act.

> The Ontario Government does not appreciate farmers the way other countries, such as the U.S., do. The Government needs to take the lead and make rules that allow agriculture to flourish and farmers to conduct their business. Agriculture seems more of an afterthought and legislation such as *Species at Risk* and those affecting pesticide use will continue to provide barriers to farmers. It is important to have a local food supply.

The OCA interviewee also expressed concerns regarding the effects of recently passed legislation on the Ontario livestock industry.

> I think it will be negative for animal agriculture. Pasturing will become a real challenge in order to maintain a cow herd in Ontario. We need access to enough cattle from the west or south to give us year round production. We need a certain feedlot industry scale to maintain slaughter plant in Guelph. Exporting to slaughter raises the costs to producers.

The OFVGA interviewee also expressed concern for the future of agriculture.

> Every new house requires water and when it comes to a fight for water rights, the farmer will lose every time. There are an increasing number of restrictions placed on farmers and what they can do on the land. New barns, spraying, bird bangers, and equipment on roads. These restrictions impinge on farmers' businesses and livelihoods. (OFVGA interviewee)

"Severances are insidious – while each one individually looks like a pinprick, added together, they look more like a gouge that last on the landscape forever," said the OFVGA interviewee. While some issues have changed over the past decade, most notably the need for standard policy across the province, many of the issues, including conflict and the lack of economic sustainability, especially for the livestock sector, remain the same.

7.0 Impacts of Non-farm Lot Creation

The interview results and data analysis presented in this report can be synthesized to describe a number of important impacts connected to severances and changing provincial planning policies. This chapter reviews the impacts of trends identified in the research results on a number of current areas of agricultural and rural interest. It also examines connections between interview results, the broader academic literature, and the data collected across Ontario for this research. This chapter is organized into a discussion of the impacts of severance activity and the meaning of the research results in terms of whether these impacts may increase or decrease. This discussion is followed by an outline of potential policy implications.

7.1 Impacts of lot creation in agricultural designations

Residential lot creation in agricultural designations produces numerous impacts. These impacts occur in a variety of forms, including shifting political and social values, changing land prices, net costs for municipal servicing, loss of agricultural land, restrictions on a range of agricultural commodities, conflict, and lost opportunities in the future value of farmlands.

Perspectives on the impacts of lot creation vary amongst stakeholders. Key stakeholders interviewed include municipal politicians, planners, and farmers from various farm organizations. In the literature, authors have disagreed in their assessments of the impacts of residential development in agricultural areas. Bryant and Russwurm (1979) conclude that non-farm rural development does not have significant impacts, while Rodd (1976) concludes that non-farm development impacts agricultural viability significantly. The difference between these points of view is often whether or not cumulative impacts are being assessed. Caldwell (1995) and Davidson (2007) have made the argument that isolated impacts of residential development may seem insignificant until cumulative impacts are assessed. Different conclusions may be reached when new lots are considered on a case-by-case basis instead of assessing cumulative impacts.

Gillespie (2006) interviewed 16 farmers in Oxford County regarding attitudes towards new lot creation; almost all farmers opposed creation of new lots based primarily on potential conflicts between new non-farm residents and ongoing farm activities. Trespassing was a frequently repeated concern. Despite this, all but one of the farmers had received purchase offers for proposed building lots, and half of them had considered adding additional lots.

Interview results in Chapter 6 indicate similar findings across the province. Farmers acknowledge the general negative impacts of non-farm development, but at an individual farm level it is sometimes difficult to decide between short-term benefits and long-term flexibility on the farm.

Interviewees from different commodity groups do have some differing opinions on the impacts of non-farm lot creation. As discussed by Caldwell and Weir (2002), industries that depend on livestock tend to be more opposed to the creation of new residential lots (Egg Producers, Dairy Farmers, Cattlemen, Pork). In 2002, discussion with Niagara grape growers and the wine industry revealed a complex debate between interests in protecting scarce lands available to produce fruit, and the financial viability of growers as they purchase new farms and sever surplus houses or retirement lots. Soybean and Tender Fruit grower association representatives stated that non-farm lot creation could have both positive and negative impacts on their industries (Caldwell and Weir, 2002). However, from the current and previous interviews, several similar themes were observed. Farmers repeatedly stated that rural residential severances increase the level of conflict in a community and have a high social cost; that severances increase farmers' cost of production; and that residential severances limit a farmer's ability to determine how to use the land.

7.2 Discussion of impacts

7.2.1 Increased restrictions on livestock expansion

In a review of the evolution of agricultural land preservation in Ontario and specifically in Huron County, Caldwell (1995) identified that the long-term welfare of many rural communities is dependent on the preservation of the agricultural land resource. Another impact of lot creation is that prime agricultural land is physically removed from production, either as part of the residential building envelope or in extensive unfarmed acreage within the residential lot (Baden, 1984). Minimum distance separation regulations also require buffer distances between new houses and barns. Caldwell and Weir (2002) estimate that new residential lots created between 1990-2000 in Ontario sterilized or removed over 12,000 acres of productive agricultural land directly, and a corresponding 2,658,260 acres indirectly through minimum distance separation for any livestock operation greater than 500 livestock units. Even without separation restrictions, it becomes increasingly complicated for farmers to work contiguous farm holdings due to physical incursions of residential lots (Caldwell, 1995). The issues are not limited to livestock, however. Non-farm rural residents and farmers from other commodity groups tend to have

different concepts of enjoyment of the rural environment; many disagree over the appropriate timing and amounts of farm activities that create dust, odour, and chemical sprays (Misek-Evans, 1992).

The study results can be used to quantify land restricted for livestock operations as a result of severance activity from 1990-2009. According to the results, 15,505 new residential lots were created from 1990-2009. Using the method developed by Caldwell and Weir (2002), this can be further extrapolated to estimate the area of land where livestock operations are now restricted, based on minimum distance separation in Table 9.

Table 9: Agricultural land restricted by Minimum Distance Separation through residential lot creation

Livestock operation size	MDS setbacks	Total new residential lots	Area restricted by each new lot	Total area restricted
500 Livestock units (2,000 feeder hogs)	527m	15,505	215 acres	3,333,575
1,000 Livestock units (4,000 hogs)	650m	15,505	327 acres	5,070,135
2,500 Livestock units (10,000 hogs)	858m	15,505	570 acres	8,837,850

This example is for feeder hogs on liquid manure. Other types of livestock operations may have different setbacks. It is important to note that each new lot would likely restrict only a portion of the potential restricted area, particular if developed in residential clusters. The estimated total area restricted should therefore be interpreted as an **illustration** of the potential impacts, rather than an **absolute measure** of lands impacted. According to the 2006 census, approximately 9,046,185 acres of land are currently farmed in Ontario. Based on the estimate above, 8,837,850 acres of land would be restricted by new residential lots since 1990 alone. If lots were distributed uniformly across the landscape, livestock operations above 2,500 livestock units would theoretically only be able to locate on 2% of the province's agricultural land. While specific inferences cannot be drawn from the above calculation, it serves to demonstrate the tangible impacts of severed lots through application of MDS to new residential lots.

In the previous report, the strength of the agricultural industry correlated with total numbers of severances (Caldwell and Weir, 2002). Without a strong agricultural sector in a certain area, farm-related severances did not remain connected to agriculture, and thus had a potentially higher impact (Caldwell and Dodds-Weir, 2003). In the current study, it is clearer that a stronger livestock sector does correlate with lower severance activity. The reason for this is connected to the MDS implications.

However, there are other factors that can influence municipal policy such as other agricultural issues and strong urban pressure.

7.2.2 Increased cumulative lands removed from agricultural production

Prime agricultural lands in Ontario have the capacity to produce a wide diversity of agricultural products. Almost half of Ontario's urban land is built on former prime agricultural lands (Statistics Canada, 2005). Once agricultural lands are urbanized they are lost to future production.

As described by Labbé et al. (2007), trends in farmland loss depend on which time period and relative land areas are chosen for reference by the researchers. From 1921-2001, Ontario farm area declined 40% (reliable records are not available before this period). From 1981 to 2001, the decline in farm area was 9.5%, and from 1991 to 2001, farm area increased by 0.27%. About 2 million hectares of farmland have shifted out of agricultural cultivation in Ontario over the last 30 years (Labbé et al., 2007).

Loss of Ontario's farmland is of particular concern given that only 0.5% of Canada's land is Class 1 agricultural land, and more than half of that land is in Ontario (Canada Land Inventory, 1969). Ontario also has 95% of Canada's best climatic zones for diverse production, comprising index 2.4 to 3.0 (Agroclimatic Resource Index, 1975). These geographic zones are indexed by Agriculture and Agri-Food Canada (AAFC) based upon the length of the growing season, temperature, and moisture as measured in hayfields across the country.

Some authors claim that the urgency of farmland loss is exaggerated because rates of farmland loss are leveling off (Edgens and Staley, 1999). This argument ignores the fact that all land lost is added to cumulative lands lost in previous decades (Caldwell and Dodds-Weir, 2003). It also does not acknowledge the fact that demands for agricultural land outstrip supply, as discussed in the literature review.

Although it is clear from the results that yearly residential lot creation has declined since 1990, and quite sharply after 2005, this must be understood in the context of cumulative impacts over time. Historically, severance numbers before 1990 seem to have been higher than in recent decades. An OMAFRA report in 1992 documented 75,113 severance applications relevant to the lands in their jurisdiction from 1979-1989. In 2002, OMAFRA staff indicated that a large percentage of these applications received final approval. According to Penfold (1990, in Misek-Evans, 1992), the Foodland Guidelines of 1978 seemed to reduce severance activity in the early 1980s; but by 1989, about 12,000 rural severances had been granted in Ontario, which was an equivalent rate to severance activity prior

to the Foodland Guidelines. Estimates before 1980 are currently not available in the literature or from MMAH or OMAFRA.

Although it is difficult to generalize based on these figures, if the lots created from 1979-1989 were added to the lots counted in this current research (1990-2009), the total would be 28,475 lots since 1979. Based on the assumption that all residential lots created in agricultural designations are at least one acre in size (an underestimate in a number of cases), it is possible to calculate a minimum number of acres removed from agriculture since 1979. That number is the same as the number of residential lots created, or in other words, 28,475 new lots covering at least 28,475 acres. This is equivalent to an area of 115 square kilometres, which is roughly the size of Kitchener, Ontario. The land efficiency of housing in this case is clearly much lower for rural severances. Whereas Kitchener is home to 204,000 people, the lots created in Ontario 's agricultural designations could house only an estimated 115,000 based on an above average family size of 4. This land area would also be exclusively for residential purposes whereas, the land area of Kitchener includes all designations.

7.2.3 Decreased rates of farm-related lot creation

This research indicates that an average of 2.31 lots have been created in a typical concession block in Ontario's agricultural designations from 1990-2009. While this continues to aggravate the cumulative impacts described above, it is also much lower than would be expected if lot creation had continued at the same rate as in the previous study (1990-1999). This slowing rate has impacts for new farm-related lot creation, farm succession, the real estate sector and municipal financial planning and economic development, as discussed in the following sections.

7.2.4 Decreased rates of non-farm related lot creation

This research found that many municipalities have been permitting lower numbers of non-farm related severances after the 2005 PPS. In fact, one third of the municipalities in the study (12) now permit 2 or fewer new lots per year. The decline in residential lot creation in agricultural designations means that farmers will increasingly need to find other ways to monetize land assets or improve profitability. If the farmer has no need to farm the land, one of the remaining options is to lease it for other agricultural or related uses, until the farm can be sold to another farmer or farm operation.

A related risk may also emerge in which municipalities allow 'creative' lot additions. These lot additions would allow farmers to sell sections of land to expanding residential properties. The tax

assessment base may increase, but the land will be removed from agriculture. Subject to interpretation, this type of lot addition is not permitted under the PPS and should be avoided. While the rate of lot creation has decreased, the cumulative impacts are still important on the landscape. For example, from an agricultural standpoint, as each new residence replaces a farm, the number of customers for farm service centres also declines (Davidson, 1982). Beyond a certain threshold, those agricultural services leave, creating a downward spiral in the agricultural assessment base without any corresponding increase in residential assessment. Speculative values on land for residential purposes begin to interfere with the land values for farmland, often leaving farmers with a choice between cashing out on valuable (and highly taxed) lands or continuing to farm or lease with low returns in an increasingly urbanized context (Zollinger and Krannich, 2002).

7.2.5 Increased farm consolidation

The research results indicate a trend towards further farm consolidation and a declining number of new farm lot creation (farm splits).The number of surplus dwellings permitted per year has increased 25% (comparing the post-2005 average to the pre-1996 average). At the same time, farm splits have decreased by 61% (comparing the post-2005 average to the pre-1996 average). Each surplus dwelling indicates a farm consolidation, although not all farm consolidations require a surplus dwelling severance. Thus the research indicates an increase in farm consolidations and a decrease in farm splits. These results align with Agricultural Census data that indicate a decreasing number of farms and increasing average farm sizes (2006).

A common barrier faced by new farmers is access to affordable land, particularly close to urban areas. As identified in the literature review, smaller farms oriented to direct marketing make up a higher proportion of farms near Census Agglomeration Areas. Although restrictive severance policies may limit the availability of these small lots, it is still possible for landowners to lease land on a long term basis to new farmers and other operations. This may in fact lead to more efficient operations, in which farmers can operate on land near the farmstead, regardless of whether the farmer owns that land. This helps to avoid traffic issues and a host of detrimental impacts from farmers operating distant parcels. Long term leases also encourage investment by farmers in soil health and farm infrastructure. Opportunities exist to create markets in farm leases, allowing farmers to gain a return from improvements made to leased lands (see Section 5.2).

7.2.6 Decreased burden of scattered development on servicing costs

From the municipal perspective, authority to grant consents can be both a blessing and a burden. In a survey of 390 municipal councillors, 62% believed farm severances added to municipal tax base (Caldwell et al., 2004). Yet 55% of councillors stated that the province should take on a greater role in protecting agricultural lands.

Another high impact area is servicing costs. Although many municipal councillors perceive residential development as a positive contribution to tax base, this is often an unfounded assumption. The American Farmland Trust has completed Cost of Community Services studies for over 100 communities in the United States. Across the United States, residential development was found to be a net cost to municipalities from a purely fiscal perspective (American Farmland Trust, 2002). Similar studies in Brighton, Ontario and Red Deer, Alberta have reaffirmed these results in the Canadian context (Red Deer, 2006; MMAH, 1988). In Red Deer, the costs of services to residential development outweighed tax gains by 1.81 times.

The study in Brighton, Ontario, identified a number of ways in which residential development may actually draw negatively from municipal tax base. New lot creation may not serve to offset declining residential property assessment in some rural areas. At the same time, costs of community services may reach new thresholds with greater numbers of residents to serve, without a corresponding increase in assessment. User fees and development charges may not fully cover the costs of providing planning services to new residents. In fact, conflicts between farm neighbours may precipitate costly OMB hearings or Official Plan amendments. The study identified Brighton as a specific example of how scattered residential development does not attract the desired new commercial and industrial investment to improve tax base (MMAH, 1988). As a further negative impact, scattered residential development actually leaves small hamlets and settlement areas without the continual reinvestment required to maintain viable rural communities.

Results in Chapter 4 suggest that new residential lots are increasingly less likely to be created in agricultural designations, provided provincial policies remain equally restrictive. The impacts of this change will vary depending on the municipality, but it does indicate that municipalities will experience fewer pressures to increase services to scattered residential development. This has the effect of lowering the burden of residential servicing costs as a proportion of overall increases in costs. It also removes residential lot creation as a source of potentially higher tax base in agricultural designations. Therefore, municipalities should consider how agriculture can be reinvigorated as a viable contributor to

the tax base. Municipalities can seek to attract value-added activities and small scale agriculturally-related commercial and industrial development that supports existing and future agricultural uses. Food, fur and fibre focused economic development could also expand to include marketing efforts in biomass, biofuels, other forms of renewable energy, and farm based marketing for tourism, education and technology development. All of these forms of agricultural development are available as different approaches to increasing the tax base without depending on residential development.

7.3 Discussion of policy implications

The impacts described in section 7.1 have a number of policy implications. Overall, the province can be assured that the additional restrictions on lot creation introduced in the 2005 PPS did have the desired effect. After 2005, residential lot creation per year decreased across the province by 59% in agricultural designations. The Official Plans of most municipalities now permit only one type of residential severance: surplus dwelling severances (in addition to non-residential severance types). In most municipalities, the number of surplus dwellings increased slightly after 2005. However, the increase was not high enough to indicate that lots which would have previously been labeled 'infill' or 'retirement' were currently being labeled 'surplus'. In short, the introduction of the 2005 PPS is coincident with substantial reduction in the numbers of rural non-farm lots created in Ontario.

A number of policy implications can be drawn directly with respect to severances in prime agricultural areas, as defined in the PPS. However, the impacts of the trends discussed in section 7.1 also have a number of policy implications that relate indirectly to lot creation in agricultural landscapes, but are important nevertheless.

7.3.1 Policy implications for new lot creation in agricultural landscapes

7.3.1.1 Surplus dwelling severances

First, it must be determined whether or not surplus dwellings are indeed 'farm-related' severances. As described by a number of interviewees, surplus dwellings are prone to many of the same detrimental impacts as other residential lots. Solutions for surplus dwellings, which do not involve the creation of new lots, should be further explored. Understandably, farmers do not want to become residential landlords, and it is not always acceptable to destroy houses, especially when given a heritage value. The issue of surplus dwellings remains unresolved at a provincial level, but there are a number of

conditions used by municipalities to ensure that impacts are mitigated and that the severed house is legitimately surplus as a result of farm consolidation. A building date could be required for a farm house to qualify as surplus (the date in the 1996 PPS was 1978, before removal in the 2005 PPS). Clarification is also needed for the definitions of 'surplus farm dwelling' and 'farm consolidation', based on the following considerations:

- Whether the farm consolidation can cross municipal boundaries;
- Whether the farm consolidation must be the action of a bona fide farmer;
- Whether the farm consolidation must involve abutting properties that will merge.

The prohibition of a new dwelling on the remnant parcel following a surplus dwelling consent, as required by Section 2.3.4.1 (c), should be supported by stronger measures. Many municipalities currently rely on local zoning by-laws to protect the remnant parcel, although the by-law could be amended in future – perhaps on the condition that a farmer has submitted a viable business plan. The prohibition should apply whether the house or the farmland is the severed parcel. One creative solution would be to work with land trusts to achieve protection in perpetuity by using conservation easements[15].

7.3.1.2 Agricultural related uses

A number of interviewees noted the need for further clarification of agricultural-related and secondary uses. Section 2.3.4.1 (a) of the 2005 PPS permits severances for agricultural related uses (small-scale industrial operations required in close proximity to the farm). As discussed earlier, municipalities may seek alternative ways to increase their tax base through small scale agriculture-related commercial and industrial uses. This is in response to decreasing opportunities to increase the tax base through residential development, as demonstrated by the results of this research. Further guidance material for what is and is not agriculturally related may be helpful as municipalities explore this area. Adaptability, flexibility and the permanence of proposed developments will be key guiding criteria as municipalities switch from a residential- to an agricultural-development mindset.

Interviewees noted repeatedly that a profitable agricultural sector would be less inclined to sever lots for residential use (although one interviewee also noted it would always be difficult for agricultural and residential land values to compete). To address this need, various levels of government

[15] An easement is a legal tool that can be used to bind all future landowners to specified land use restrictions. In this case, the land use would be restricted to agricultural uses. Farmland conservation easements could provide tax benefits to farm landowners under the Ministry of Natural Resources eco-gifts program. The Kawartha Heritage Conservancy and the Ontario Farmland Trust recently released a factsheet on current tax benefits of farmland conservation easements for land, available online (Kawartha, 2009).

may seek to support a diversity of agricultural related uses such as wineries, small packing plants, and locally-oriented storage and retail facilities, that would serve to add value to new and existing farm operations. Though OMAFRA's current Guide to Lot Creation in Prime Agricultural Areas (OMAFRA, 2008b) does provide useful considerations for appropriate uses, it does not provide considerations for assessing the viability of proposed agricultural related uses that might require new lots, particularly in relation to appropriate lot size[16].

7.3.1.3 Rural Areas

The province is strongly involved in defining what an agricultural or rural area is, and consequently, the province influences where residential development is or is not encouraged. The results of this research indicate improved protection of agricultural lands in Agricultural designations. It does not prove in any way that farms in Rural designations are better protected from residential development. This is especially important in areas which do not have a high degree of Class 1, 2, and 3 soils, but are still committed to protecting the best locally-available farmlands.

The Provincial Policy Statement (PPS) defines rural areas as those which are not in a prime agricultural area and not in a settlement area. This leaves the definition of 'rural' notably ambiguous, compared to the definitions of agricultural and settlement areas. As such, it is somewhat unclear what the PPS means when it states that development must be "compatible with the rural landscape" in Section 1.1.4.1(d). Thus the interpretation of the term 'rural landscape' is at the municipality's discretion.

The PPS permits 'limited development' in rural areas in Section 1.1.4.1(a). This Section allows many municipalities to continue scattered residential development in Rural designations. This impacts existing farm operations in the Rural and neighboring Agricultural designations. Clarification could be added in Section 1.1.4.1(d) of the rural area policies in the PPS to promote development that is compatible with the multifunctional role of natural and agricultural features in rural landscapes. The PPS may also need to be revised to clarify what 'limited development' means in Section 1.1.4.1(a). 'Limited development' is an ambiguous term that could arguably mean a varying number from 1-2 severances or 50 or more severances.

[16] Tools for assessing the viability of innovative farm uses that might require smaller lots would be helpful to municipalities. Additional tools for assessing the impact of agriculture in municipalities have been developed and implemented across Ontario (OFA, 2009). From a land use planning perspective, the BC Ministry of Agriculture and Lands has published a number of supporting documents for municipalities creating agricultural development plans at the municipal level (BCMAL, 2008).

There are also a number of broader policy implications based on interview findings and research results. The PPS is only one of many provincial policies that influence municipal development. Based on Performance Measures reported to the Ministry of Municipal Affairs and Housing (MMAH) in 2007, municipalities influence the degree of new building permits outside the urban boundary through the following activities (MPM, 2007):

- Changing the Official Plan or adopting a new Official Plan
- Designating agricultural land classes in the Official Plan (no class, separate class or multiple classes)
- Measuring and promoting agricultural land use, economics and capacity
- Annexing or amalgamating municipalities
- Facilitating demand for new development and employment opportunities
- Building or widening roads

Provincial policies such as the *Municipal Act* and Places to Grow influence these areas, but are not necessarily designed with an agricultural lens.

7.3.1.4 Intensification in rural areas

Research results indicate that the proportion of severances in agricultural areas has been decreasing during the period 1990-2009. This may indicate that more development is being directed to rural settlement areas, which aligns well with current PPS policies. The PPS contains policies that promote compact and mixed use development (1.1.3.2, 1.1.3.4). These policies require intensification and redevelopment in settlement areas to be in accordance with Sections 2 and 3 (1.1.3.3). Yet housing needs in rural and urban areas are divergent, and may require additional clarification as to appropriate residential development forms within rural settlement areas.

One illustration of these divergent housing needs is illustrated in the Statistics Canada Metropolitan Influence Zones (MIZ). Statistics Canada has determined that rural areas could be considered in three classes of Metropolitan Influence: Strong, Weak, and No Influence. These classes are based on the proportion of residents who commute to work in a nearby urban area. A strong MIZ is heavily influenced by commuters who work in the city. Strong MIZs tend to have higher average incomes, health indicators, and education levels (McNiven et al., 2000). In comparison, Weak- or No-Influence MIZs tend to have lower average incomes and experience greater pressure for affordable housing and support for aging populations. As such, the development pressures and appropriate development forms in each of the MIZs are very different (McNiven et al., 2000). This may need to be reflected in future policy reviews.

The edges of settlement areas were frequently the areas in which severance activity was the greatest in rural municipalities. However, these areas may be increasingly important for new large-scale agriculture-related industrial and commercial uses that require full or partial services and cannot be located on-farm. Such uses include organic waste processing, biogas collection, biofuel production, grain mills, food processing plants, large markets and auctions, and abattoirs. These uses create employment for those living in the settlement area, but must be located an appropriate distance from residential development. Permitting new residential lots in such an area would actually fragment the near-urban lands and reduce the serviced area available for large scale agricultural related uses, while introducing much higher risks for conflicts between residential and agricultural development.

7.3.1.5 Capacity building for planners, farmers and municipalities

Beyond provincial policy, this research identifies several capacity building opportunities within and between municipalities. For example, in many municipalities, a pre-screening process for severance applications proved to be effective in lowering costs to applicants and municipalities. Yet some municipalities still do not use a prescreening process.

Another area for improvement is the methods used by municipalities to consistently track and report on severance information. Such a method would assist municipal staff in updating new committee members on past trends and maintaining quick reference material for comparison to other municipalities. If municipalities used consistent methods across the province, it would streamline data collection for future PPS reviews. Currently, Municipal Performance Measures track the number of building permits granted beyond settlement areas, but within the MPM survey, none of the land use questions distinguish whether or not severances or building permits occurred in Agricultural designations.

Where possible, it may also be advisable for lower tier municipalities to form cost-sharing agreements with upper tiers for updating the parcel fabric with severance information using Geographic Information Systems (GIS). This allows for more accurate decisions based on landscape level characteristics and visual illustration of existing cumulative residential development in proximity to proposed new lots. A similar effect is currently achieved by municipalities that examine property survey information as part of the application package. However, survey information is often not available at landscape scales for small municipalities on tight budgets, which negates the possibility of considering cumulative impacts of new residential lots.

GIS mapping of severance information has proven useful for several municipalities in this study (e.g. Prescott Russell, Renfrew, Hamilton and Huron, which all have updated GIS parcel fabrics). Municipalities can use GIS to:

- Automatically generate biogeographical information as it relates to individual and group parcels.
- Inform decision makers by overlaying policy layers and associated policies with a spatial representation of environmental gradients and the parcel fabric (for example, overlay soil classes with zoning to understand agricultural capacity and related policy).
- Link planning reports and census data to create interactive reports about parcel clusters and inform cumulative, landscape-level thinking.
- Generate cost- and information-sharing platforms between provincial and municipal agencies.

A second issue is that, a number of smaller municipalities with limited or no planning staff experienced spikes in application numbers before the 1996 and 2005 PPS revisions. This may be unavoidable, but additional capacity is needed by staff in these periods to accommodate the disproportionate impacts on small rural municipalities attempting to cope with application overload before policy changes. These same municipalities are also hard pressed to find the funding capacity for Official Plan amendments that incorporate PPS changes, and are thus vulnerable to OMB cases that devastate small municipal budgets and divide communities. Additional capacity is needed in these small rural departments. This could take the form of staff time or other support from the province to compensate for additional costs to municipalities when policies are changed.

One interviewee also noted that severance policies may currently be perceived to limit new farmers and farm innovation, particularly for small scale farms. Support materials should be developed for land use planners to educate new and retiring farmers about succession strategies and alternative land tenure models such as long-term leases (particularly those above 21 years, which require a consent). These models would help to keep agricultural land in production and encourage farm investment while maintaining a parcel fabric free of residential lot boundaries, associated land-price increases and other limitations to agriculture. There will be increasing pressure for models that make land affordable for new farmers as up to half of Ontario's baby boomer farmers seek to retire and sell the farm in the next 15 years (Learmonth, 2011). If the lands are purchased by developers or other non-farm interests, land prices will continue to increase beyond the point where new farmers can enter the industry, particularly close to processing clusters and markets in urban centres (Learmonth, 2011). This trend is already observable in the GGH (Bunce and Maurer, 2005).

A number of alternative models to farm ownership exist that may help to address the challenge of sustainable succession planning in agricultural landscapes. Farmland trusts have developed further

materials indicating success in a number of these models (Ruhf et al., 2004; Learmonth, 2011; Gorsuch, 2009). Ideas for land ownership models that could be considered further include:

- Farmers pooling investments or buying shares to cooperatively manage land
- Leasing agreements between farmers and municipal or institutional landowners and conservation authorities[17]
- Retiring landowner and new farmer partnerships (e.g. 'Sweat equity' - work in exchange for a lower up front purchase price)
- Land trust purchase of land and resale or lease to new farmers

[17] One example is the emphyteutic lease concept. An emphyteusis lessee gains the full use and benefit of the leased real property, on condition that the lessee does not substantially compromise the real property and alters it only by adding constructions, works or plantings that increase its value in a lasting manner. Although this tool is used principally in connection with large condominium and commercial projects of between 10 and 100 years, it has a history in Quebec civil law of being used to encourage cultivation of rural lands. In *Reitman v. Minister of National Revenue* (1967 CTC 368), the Canadian tax court noted the advantages of an emphyteusis lessee compared to a tenant under a commercial lease at common law.

8.0 Conclusions and Further Research

Caldwell and Weir (2002) observed that non-farm development poses serious threats to the sustainability of rural Ontario municipalities. This is no less true at the conclusion of the current study. The rate of non-farm development has decreased substantially. Yet the cumulative impacts continue to grow. Out of the total applications in Ontario's agricultural designations, 15,505 created new residential lots in agricultural designations. Of these, 11,552 occurred from 1990-1999 and 4,923 occurred from 2000-2009 The viability of agriculture depends on producers' ability to adapt and respond to market trends. For this reason, provincial policy must protect the agricultural land base, while encouraging innovation and profitability at the farm scale.

There continues to be a gap between provincial policies outlined in the PPS and the ongoing destruction of valuable agricultural land through residential lot creation in the countryside. However, the results of this research demonstrate that current restrictions on new residential lot creation are closing that gap. Both the 1996 and 2005 policy statements were followed by 48% and 59% decreases in residential lot creation, respectively (based on average number of lots created per year in each policy period). In addition to the detailed policy implications discussed in Chapter 7, this research demonstrates the importance of making informed policy choices based on an understanding of cumulative lot creation trends. If severance applications are considered on a case-by-case basis, the benefits of each lot may seem to outweigh the costs of residential development. Yet this research supports the argument that cumulative residential development in agricultural designations does pose a risk to the viability of many agricultural operations. New lot creation should therefore be considered at a landscape level, not only on a case-by-case basis. This leads to support for policies that encourage landscape-level planning policies and decision making structures. It also supports policies that acknowledge the need for rural municipalities to benefit from agricultural development, as residential development and larger industrial uses are increasingly directed to existing settlement areas.

The National Academy of Science (2010, p.222) states that, "Beyond the boundary of a farm, many elements of sustainability, such as product and market diversity and resilience, water resource quality and use, elements of ecosystem health, and community well-being, are highly influenced at landscape, watershed, and regional scales. Sustainability, thus, suggests and requires in most instances an appropriate mix and location of farming system types ... at the landscape level." In a similar way, managing residential lot creation requires addressing the collective lot creation trends of multiple applicants at a landscape level.

Each application for the division (or consolidation) of land should be understood as a renegotiation of public and private interests with significance at a larger landscape scale. This renegotiation occurs between an individual, the local community, and the broader provincial interests in viable agricultural landscapes. The PPS has effectively influenced Official Plans and zoning by-laws to set a minimum level of protection of the provincial interest in prime agricultural areas. The lot creation process could be improved through refinements to the existing PPS, as discussed in detail in Section 7.3. Beyond changes to the PPS, the effectiveness and efficiency of the severance process could be further improved by continuing to restructure local, regional and provincial interests in agricultural land with appropriate levels of decision making at local, regional or provincial levels. This would have positive effects in allowing local municipalities to pursue agricultural and residential development forms that reflect the landscape in question, while ensuring that provincial interests remain protected.

Beyond the policy minimum, planners can play an active role in improving information storage, GIS capacity, and farm succession knowledge to ensure viable agricultural landscapes. The need for proactive capacity building for farmers and planners is at least as important as the need for policy reform.

The current land division structure in Ontario has resulted in long-standing ambiguities in provincial priorities for residential and agricultural development. This ambiguity continues to facilitate destructive residential and extractive activities in prime agricultural areas. The provincially-led planning approach to identifying and protecting prime agricultural areas at the landscape scale is an important progression towards a viable agricultural industry.

This research strives to illustrate key issues within planning policies for lot creation in agricultural designations. Based on the effectiveness of new lot restrictions in the 2005 PPS, it is apparent that continued planning reform is a valuable approach to ensuring sustainable use of prime agricultural lands. At the same time, more capacity building is required from the province to municipalities, and municipal staff to farmers, if policy reforms are to be implemented in ways that engage communities in defining visions for sustainable agricultural landscapes.

8.1 Further research

8.1.1 Additional applications for 1990-2009 lot creation data

This research provides a comprehensive, multi-layered, verified data set for use by researchers and policy makers. The data collected could be applied in a number of useful ways that were not

possible in the current research due to time and funding constraints. The data prepared in this research could be used alongside other data sets and time series to determine how severance trends in specific municipalities correlate with various factors.

The Ministry of Natural Resources maintains the Land Information Ontario database, which is used by researchers and public servants to access spatial data files that are used in GIS applications. The data from this study could be integrated with the Land Information Ontario database to make it easier for municipalities to access the data in a GIS format.

Further spatial analysis in GIS could be used to better understand landscape patterns and severance trends as they relate to a number of factors. These factors are noted in the following list of data sets that could be mapped alongside the data gathered in this research. Each proposed data set is listed along with the questions that spatial analysis of the data set would address:

- Number and type of severances permitted within zoning by-law boundaries, addressing the question of whether zoning has an impact on severance activity
- Proximity of severances to urban areas, addressing the question of whether more severances are permitted closer to urban areas
- Presence or absence of large industrial developments, addressing the question of whether new jobs generate new real estate pressures and encourage population growth
- Livestock concentration and other commodities, addressing the question of whether different livestock types and concentration affect severance activity in certain areas
- Growth of non-farm population, or increases in the percentage of rural population as measured by the Census, addressing the question of whether more severances means more population growth, while distinguishing rural population growth from related urban trends
- Changes to the number, type and distribution of agricultural services, addressing the question of whether increased fragmentation leads to decreased agricultural services in an area
- Different severance trends in Municipal Influence Zones (using data available at the lower tier level), addressing the question of how commuting patterns impact severance activity
- Distribution of severance activity within GGH Greenbelt Plan and Places to Grow Plan areas, addressing the question of how these broad provincial policies specifically impact severance activity in the plan areas, as compared to the rest of the province

8.1.2 Further research questions

This research has raised a number of additional questions that would require more data collection and interviews. Further research questions could be addressed in a similar way, with graduate students working on long term funding contracts, or in a more collaborative way between universities, municipalities and provincial ministries.

Research results indicate that many municipalities continue to permit surplus dwelling severances. However, there is no comprehensive survey of the approaches municipalities have used to prevent residential development on the remnant parcel of farmland (which remains in production after a surplus dwelling severance). Interviews with planners identified a number of interesting approaches, including zoning by-laws and special agricultural zones, the use of notes on title, revised Official Plan designations, and in one case the proposed use of a conservation easement. However, some of these approaches may work better than others. Further research could use interviews with planners to determine which approaches have been used and how they have worked over a period of years or decades.

As observed in this research, some municipalities continue to permit scattered residential development. In some cases, municipal leaders justify this form of development by claiming that it helps the municipality maintain or grow its population. However, there is no evidence that rural severances generally attract new people to the community. There could equally be a trend for existing members of the community to move from town into a larger lot in the country. This raises the question of demographics in residential areas created through severance activity. What are the demographics of groups attracted to living in surplus dwelling severances? What ages, ethnicities, or occupations predominate in different rural zones? Do these severances attract new population, growing families, retirees returning to the vicinity of former homes, or local residents? What is the average duration of residence in a residential severance? What are the social impacts of surplus dwelling severances, particularly with respect to the representation of agricultural interests at the municipal level? Do residents successfully integrate into the community? What expectations do residents have of the community and rural lifestyle when choosing to locate or settle in an agricultural area?

This research outlines a specific method for measuring fragmentation of agricultural landscapes in Ontario. How does this measure compare to other measures of fragmentation used in planning, ecology and other disciplines? Although this measure of fragmentation also offers an approximation of farmland loss, a more comprehensive measure of farmland loss remains to be developed. This could draw from multiple existing information sources such as the Municipal Performance Measures land use questions, the Census of Agriculture, the Canada Land Inventory, remote sensing applications such as the Southern Ontario Land Resource Information System (SOLRIS), and updated Municipal Property Assessment Corporation (MPAC) parcel fabric information.

This research indicates that farm consolidation continues, and farms are continuing to grow larger in size. It may not seem that there is any great need to consider what a minimum viable farm size

would be, but the reality is that some new farmers or farmers who are attempting to innovate may require a smaller land base in order to afford start-up costs. If these opportunities are not available, the agricultural industry becomes homogenized and vulnerable to economic or environmental shocks. The need for a diverse mix of farm sizes and types leads to the question of whether restricting lot size is an appropriate approach to moderating impacts of non-farm development. This research demonstrates that there are effective ways to restrict non-farm development through specific limits set in the PPS. Perhaps it is therefore not as crucial to focus on viable farm size, but rather focus on permitting viable farm types and intensities. This does not mean that new small lots should be created in the countryside, as these will eventually be purchased by non-farm interests. Rather, further research could identify legal mechanisms that permit farmers long-term rights to operating specific parcels of land that might be smaller than the typical 100 or 200 acre parcel. Further economic research could also identify tools to be used for assessing the economic viability of innovative, untested farm business models.

This research demonstrates that PPS restrictions on residential lot-creation in agricultural designations have been effective. Further research could identify the economic impacts of restricting non-farm lot creation, particularly in terms of who receives the benefits and who pays the costs. A particular cost that is important to consider is time and effort invested in cases at the Ontario Municipal Board or the Farm Practices Protection tribunal. If municipalities or private landowners pay more for the preservation of agricultural land than urbanites, are there opportunities for economic reform? For example, some consumers are willing to pay more for local food. Part of the additional cost could be considered to be a payment for rural amenities and preservation of agricultural land nearby. At the municipal level, there may be opportunities for tax reform in which MPAC adjusts rural non-farm residential taxes to include the higher costs of maintaining rural roads and services for residential use.

This research demonstrates the ability of the province to effectively focus policies on specific geographic areas (in this case, prime agricultural areas). However, the PPS also provides municipalities with considerable discretion in interpreting some policies, such as what 'limited development' means in Rural designations, and what 'agricultural related uses' are in Agricultural designations. It may be useful for the province to actively map the areas it considers to be prime agricultural areas, based on the CLI and additional LEAR type analysis. Further research would be required to determine the feasibility of such a mapping exercise, and its usefulness. This type of agricultural resource mapping may be a useful resource for the province in determining appropriate variations to lot creation policies in municipalities with different agricultural sectors and agroclimatic resource capacities. Further research could overlay existing municipal policies with the map of prime agricultural areas identified by the province. This

overlay would compare how similar lands are being treated differently in various municipalities (or vice versa, how different lands, such as non-prime lands, are being treated the same as prime lands). This further research could reveal whether municipalities continue to apply restrictions in prime agricultural areas, or whether exceptions are made for severances on patches of lower quality soil (for example, until recently, severances on low quality soil were permitted in Ottawa).

One of the underlying assumptions of this research is that scattered residential development is more costly to service than more compact forms of development. This assumption is based on numerous studies of Costs of Community Services carried out in the United States. However, only two such studies have been carried out in Canada. Additional studies in Ontario would help to strengthen this assumption. Ontario municipalities operate in a fiscal context that bases services on a unique mix of property taxes, federal or provincial grants (often conditional), development charges, user fees, private servicing requirements and occasionally other grants. As such, the servicing costs and tax impacts of residential development may compare differently in Ontario as in other jurisdictions.

Many municipal councillors would find it interesting to know the relative costs of servicing various land uses, and the corresponding revenue generated. Thus it would be useful to conduct a number of case studies in Ontario focused on costs of community services. The results of these case studies could be correlated with severance trends recorded in the current research, allowing municipalities to connect higher or lower levels of fragmentation with higher or lower cost/benefit ratios.

Finally, this research identified considerable opportunities for capacity building in municipalities, and a strong need for knowledge transfer and translation of the current research results. Further research could identify what factors most influence consent granting authorities and committee members, and what types of information and research formats would be most desirable to these decision makers. This research could be carried out in partnership with the Ontario Association of Committees of Adjustment, the Association of Municipalities of Ontario, or the Ontario Professional Planners Institute. One example of a potential outcome of this capacity building work is a template summary sheet that could be introduced to municipal staff (e.g. secretary treasurers) during training courses. Staff could then track and report on cumulative severance activity and trends in the municipality. This would further inform committee members considering cumulative impacts. It would also ensure a consistent format across the province for streamlined data collection in future studies.

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10.0 Appendices

10.1 Appendix A: Detailed Methodology

Overview

This research integrates quantitative and qualitative research methods. Quantitative data was obtained through municipal document review (digital and paper) and self-reported by municipalities from their own databases. Descriptive statistics and time series were analyzed to better understand severance activity in each municipality, and comparative measures were developed to compare results across municipalities. Data was integrated with GIS shape files to analyze spatial distribution of severance activity.

This research builds upon and adapts methods used by Caldwell and Weir (2002) for assessing the scale and impacts of lot creation in Ontario's agricultural designations. All of the severance data collected in the previous study period (1990-2000) was entered into a new digital database and combined with new data collected in the current study period (2000-2009). Data categories were kept as consistent as possible between the two periods. Credit for the collection of data prior to 2001 belongs to Dr. Wayne Caldwell and Claire Weir, who pioneered the study methods and analysis.

A verification survey was carried out with a planner or equivalent staff person in each municipality as part of the verification process. These surveys were conducted online, over the phone, and in person where possible. Interviews provided a rich source of qualitative knowledge that revealed contextual layers that could not be captured in quantitative severance trends. A set of semi-structured interview questions were used to filter for the most relevant information to improve research efficiency, based on guidelines in Creswell (2009).

Key informant interviews were conducted regarding interviewees' perspectives on the impacts of severance activity. Each interviewee was given analysed data for his or her municipality. These interviews were conducted between June 12, 2011 and August 15, 2011. Respondents were strategically chosen on the basis of their individual roles in municipal councils, planning offices or agricultural organizations. The interviews were exploratory and were not intended to be a random sample. A total of eleven interviews were conducted, including four interviews with planners (county, regional, provincial, and industry organizations), two with provincial policy advisors, four with industry associations, and two

with regional politicians. Interviewees were selected based on experience and knowledge of the area in question.

These interviews were conducted via telephone and lasted between 15 and 90 minutes. Each interview utilized a consistent set of four interview questions that were uniformly delivered; however, respondents were encouraged to include other relevant thoughts. Respondents were provided with the questions and data relevant to their location prior to the interview to allow time for reflection. The questions were as follows:

1. What are the costs and benefits of rural severances on prime agricultural land?
2. Have you noticed provincial or local policy changes that have impacted decision-making and trends on the ground?
3. What changes to current policy do you think would be beneficial?
4. What are the implications for agriculture in Ontario?

Study area and criteria for inclusion

Study area

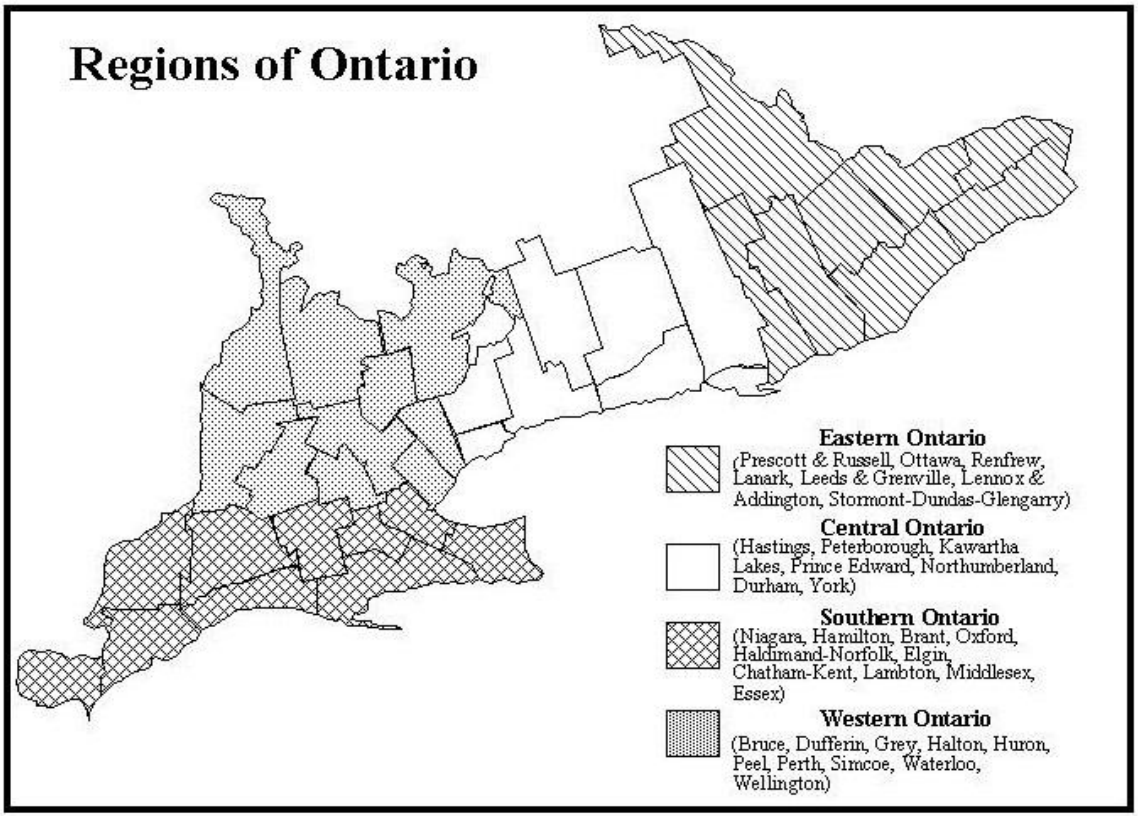
The purpose of this research is to measure lot creation trends and impacts on agriculture. Due to the size and diversity of agriculture across Ontario, it was necessary to define exactly which areas in the province would be eligible to participate in the study. The broadest boundary used to define the study area is the 2006 Agricultural Ecumene, prepared by Statistics Canada (2008). The Agricultural Ecumene is the area populated by a certain intensity of agricultural activity, as measured by three indicators. These indicators are: the amount of agricultural land in a census dissemination area; the proportion of farmed land within each dissemination area's total land area; and the value of farm receipts per acre farmed (Statistics Canada, 2008). Within Ontario, the Agricultural Ecumene does not encompass Muskoka, Parry Sound, or Haliburton. These municipalities were not included in the study. Municipalities further north of these three municipalities were also not included. Some municipalities were not completely encompassed by the Agricultural Ecumene, but still included large portions of the Agricultural Ecumene and were thus eligible for the study. These were the counties of Renfrew, Frontenac, Lennox Addington, Hastings and Peterborough. Data was not collected from Frontenac, which has the lowest amount of prime agricultural lands (see Figure 19).

Furthermore, the study is intended to focus on the impacts of severance policies for prime agricultural areas as defined by Ontario's Provincial Policy Statement (PPS)[18]. Many municipalities define prime agricultural areas through Agricultural designations in Official Plans. Agricultural designations were used as the most accurate boundary available for the study. However, caution is required in using Official Plan designations and zones as boundaries for prime agricultural areas because the protection of prime agricultural areas is by no means consistent or comprehensive across the province. Some municipalities protect all prime agricultural areas and additional lands; others protect only portions of prime agricultural areas within their boundaries. A number of counties distinguish between Rural and Agricultural designations in their Official Plans. Agriculture is a crucial component of land uses in many Rural designations. However, Official Plans are not required by the PPS to provide the same level of protection for agricultural land uses in the Rural designation as in the Agricultural designation. In municipalities with both Rural and Agricultural designations, the research focused on the Agricultural designation rather than the Rural, because the Agricultural Designation is the area in which PPS policies regarding severances are typically applied to the protection of prime agricultural areas.

[18]Boundaries for prime agricultural lands can be mapped using Canada Land Inventory data. However, the distinction between prime agricultural lands and prime agricultural areas is important. Prime agricultural lands are currently defined as being Classes 1, 2 and 3 soils under the Canada Land Inventory. Prime agricultural areas are broader areas in which Class 1, 2, and 3 soils predominate, including associated lower capacity soils with a concentration of agricultural activities.

As a result of the above criteria, the following upper tier municipalities were included (organized by provincial region):

Figure 17: Geographic regions of Ontario



Western	Southern	Central	Eastern
Bruce	Brant	Durham	Lanark
Dufferin	Chatham-Kent	Hastings	Leeds and Grenville
Grey	Elgin	Kawartha Lakes	Lennox and Addington
Halton	Essex	Northumberland	Ottawa
Huron	Haldimand	Peterborough	Prescott and Russell
Peel	Hamilton	Prince Edward	Renfrew
Perth	Lambton	York	Stormont, Dundas and Glengarry
Simcoe	Middlesex		
Waterloo	Niagara		
Wellington	Norfolk		
	Oxford		

Criteria for inclusion of individual severance files

Within each municipality, a set of five criteria were used to determine which severances should be counted, as follows:

1) To be counted, a severance application must have been in a primary agricultural area where the region's Class 1, 2, and 3 soils predominate, including associated lower capacity soils with a concentration of agricultural activities. This agricultural area was typically designated Agricultural in the Official Plan of the consent granting authority (upper- or lower-tier municipality). If an agricultural designation existed, only severances in that designation were counted – the rural designation or lower priority agricultural designation was not included. If an agricultural designation **did not exist**, the designation(s) that contained primary agricultural areas were counted (e.g. some rural lands, Greenbelt Protected Countryside and some lands in the Oak Ridges Moraine). Severances in urban areas, expansion areas or settlement areas were not counted.

2) To be counted, a severance must have created a new lot. The severance application was not counted if it was a lot addition, easement, right of way, or technical adjustment.

3) To be counted, a severance application must have occurred between the years 2000-2009 and it must have been complete. The severance application was not counted if it had been denied, withdrawn, or if it had lapsed. If approval of the application was still pending, it was not counted.

4) Farm splits were counted since the severance resulted in the creation of a new lot. Where feasible, lot size was recorded for these applications.

5) New lots for commercial, extractive, and industrial operations in agricultural designations were counted. Where feasible, lot size and a brief note regarding expected use (e.g. aggregate pit, farm supply outlet) were recorded for these severance applications. Private information was not recorded.

Two other questions frequently occurred in deciding which severances to count in the study:

What if the original (parent) parcel contains multiple designations with different severance policies? Researchers recorded both the original designation of parcels subject to a severance application, as well as the designation of the severed parcel. This allowed the study to record areas that are redesignated or rezoned from agriculture. All severances that removed land from an agricultural designation were counted because they may impact agricultural adaptability. If a severance was strictly made on the boundary of an agricultural designation with another designation, it was not counted because it did not remove land from an agricultural designation (the number of such applications was relatively small).

What if a municipality's Official Plan designations changed in the past 10 years?

A follow-up interview was conducted with each municipality that had experienced significant severance policy changes. If the geographic area of designations moved, but the new designation continued to have very similar policies as the original agricultural designation, the area of the original designation was counted the same as the analogous new designation. If the policies were significantly different on the same geographic area, then that area was not counted for the years following the re-designation.

Other provincial plan overlays

The agricultural designations of a number of municipalities in the GGH overlap with provincial plans such as the Greenbelt Plan, Oak Ridges Moraine Area, and the Niagara Escarpment Plan (NEP). As of 2005, these areas are encompassed by the Greenbelt Area (as defined by Ontario Regulation 59/05) and are governed by the Greenbelt Plan. The Greenbelt Plan section 4.6 outlines severance policies in prime agricultural areas that are very similar to the PPS. Surplus dwellings and farm splits are permitted, to the exclusion of all other lots. Even more restrictive than the PPS, the Greenbelt Plan outlines minimum lot sizes for new farm lots[19].

Affected municipalities are at various stages of bringing their Official Plans into conformity with the Greenbelt Plan. For the purposes of this study, severances were counted where the Greenbelt Protected Countryside overlapped with pre-existing Agricultural designations. This includes lands in the Oak Ridges Moraine. This does **not** include lands in the Niagara Escarpment, because consents in the Niagara Escarpment Plan area are approved by the Niagara Escarpment Commission and thus could not be counted at municipal offices.

The *Places to Grow Act* and associated plans did not directly affect which lands were eligible for this study.

Typical data collection process

Data was collected between June 2010 and June 2011. For each consent granting authority (upper tier or lower tier), a letter was sent to the Planning Director requesting that a key contact person be identified to help with the study. This contact was typically a planner or secretary-treasurer of a consent granting committee. The majority of municipalities did not have sufficient information available in digital

[19] Interestingly, Section 32 of the Oak Ridges Moraine plan includes permission to sever a retirement lot or surplus dwelling.

format. These municipalities required a researcher to physically visit the municipal office and review hardcopy files. The length of time required for research visits varied depending on the level of file organization, staff assistance and the number of eligible files. As often as possible, data was summarized and discussed with planning staff while the researcher was physically present. In each municipality, Official Plan policies, maps and Zoning By-laws were reviewed before collecting data. Municipal Metadata was tracked in each location to note any interesting or missing files and staff comments. Data collection was prioritized for 2002, 2004, 2005, 2006, 2007 and 2009. Data for remaining years was usually collected. However, for some municipalities with a large number of hardcopy files to be collected in a short amount of time, data was collected for alternating years and estimated for in-between years (see Appendix A: Considerations for Interpretation of data).

For a small number of municipalities, a sufficient level of detail for each severance application was available in digital format (e.g. Excel sheet, database). In these municipalities, data was requested via email. Additionally, a small number of municipalities chose to collect their own data, whether from hardcopy or electronic formats, and submit this data via email. Municipalities were fully informed of the study criteria before submitting refined data, often through a written letter and follow-up phone conversations. These criteria were provided to ensure that self-reported data was as consistent as possible. A wide variety of digital formats were received, including PDFs, meeting minutes, planning reports on CD and entire database files.

The following data was collected in each municipality:

- County/Region name
- File number
- Township name
- Land use of retained and severed parcels
- Size of retained and severed parcels (where available).
- Total numbers of severances in all designations
- Official Plan or other documents not available online

Initial Contact Survey

Consent granting authority

Over the year-long period from June 2010 to June 2011, 116 municipalities were contacted to pre-screen for study eligibility. Eligible municipalities were then asked to complete an online survey. This survey collected details about each municipality's severance application process, approval structure and

methods of storing and reporting severance information. Out of the initial 116 municipalities, 102 contained an agricultural designation under either an upper tier or lower tier official plan.

Responsibility for granting severances as of 2010

Table 10: Number of consent granting authorities with agricultural designations

Consent granting authority held at:	Number of consent granting authorities
Upper tier	14 (12 counties and 2 regions)
Single tier	8 (regions)
Lower tier	80 (57 from 8 counties, and 23 from 5 regions)
Total consent granting authorities in agricultural designations	102 (or 35 upper and single tiers)

Several municipalities have delegated granting of straightforward consents to staff, typically the Planning Director or a committee of planners and other municipal staff. Other municipalities have shared arrangements with lower tiers, usually to delegate some or all consent granting authority to urban lower tiers, due to higher numbers of applications in urban areas.

As of 2010, 12 out of 20 counties have retained consent granting authority. Regions are more likely to delegate; only 2 out of 7 regions have retained consent granting authority. A total of 80 lower tier municipalities now hold consent granting authority (57 lower tiers from 8 counties, and 23 lower tiers from 5 regions). The majority of delegations from upper tiers to lower tiers occurred between 1997 and 2001. This makes for an interesting comparison between the two decades of 1990-1999 and 2000-2009, in that delegation occurred roughly around the year 2000 and could influence the number and type of consents observed in the decade 2000-2009. Thus, a comparison of severance activity between the two decades should take into account the different approaches upper tier and lower tier municipalities may take to granting consents.

Severance application storage and reporting methods

Many municipalities have upgraded their severance application storage and reporting methods over the past ten years. The results reported here apply to the most current arrangements as of 2009. Several interesting changes have occurred in comparison with the previous study period (1990-2000).

A major difference between this study and the last is that much of the data is no longer stored at the upper tiers (counties and regions). The previous Initial Contact Survey in 2001 demonstrated that most information was stored at the county or regional level, even though many had recently delegated. As of 2009, almost all regions and counties that delegated consent granting authority early in the decade no longer stored the type of information required for this study[20]. Some basic information may be tracked at each county, but usually not the details required for this study, such as the designation in which a severance occurred, or the policy under which it was permitted. This change added a new level of complexity to the study. In addition to 22 upper or single tiers with severance records, 80 lower tier in 13 municipalities would need to be contacted, surveyed, visited, analyzed, and verified. This more than doubled the administrative effort required for data collection. In addition, many lower tiers had one staff member or none at all. For these small departments, the work required to participate in the study seemed proportionally large. As a result, some municipalities were unable to participate in a timely fashion. At the conclusion of data collection, it was possible to obtain data from 57 of the lower tiers. The remaining 23 lower tiers were estimated based on neighbouring municipalities. Site visits were required for 40 municipalities. Staff were able to submit most of the required information in 29 municipalities. Several other municipalities involved a shared effort between researchers and staff.

Consent granting authorities stored the details required for this study, such as designation and intended use, in an array of different formats. Hardcopy files remain, by far, the most common format in which this information can be found (58%). This is higher than the previous study because of the number of upper tier municipalities that delegated resulting in a higher number of participating lower tiers; many lower tiers stored the necessary information in hardcopy files. Approximately the same percentage of municipalities use a computerized database as in the previous study (24%). The percentage using summary sheets has decreased from 21% to 11%. Several municipalities have recently started compiling digital databases, which may partially explain this change. At least three municipalities were able to identify relevant severance applications through the use of GIS databases linked to updated parcel fabric information.

[20] A small number of counties that have delegated consent granting authority still do store information at the detailed level required for this study. Examples are Grey County, which collects decision information at the county level, Middlesex, and Lambton, which assists three of its rural lower tiers by coordinating a consent granting committee.

Table 11: Methods of storing severance application information

	2001 #	2001 %	2009 #	2009
Hardcopy files	15	43%	42	58%
Digital Database	8	23%	17	24%
Summary sheets	10	29%	8	11%
Other	2	5%	5	7%

The lack of consistent approaches to storing and reporting on severance activity should be an area for further collaboration and consolidation amongst municipalities. Councillors may be able to make more informed decisions if counts of the number and type of severances were available on a periodic basis. Although this research now provides a good deal of that information for the past 20 years, a number of staff contacts noted that it would be more efficient to track this information continuously at the time each application occurred, rather than collecting all the information once every ten years.

Researchers and overall data collection timeline

Dr. Wayne Caldwell served as the research advisor for this project and its encompassing research contract with the Ontario Ministry of Agriculture, Food and Rural Affairs. Data was collected by a number of researchers. In the previous study (1990-2000), Claire Weir and Dr. Caldwell were the lead researchers, collecting and analyzing all project deliverables in the studies published in 2002. In the current study (2000-2009), Arthur Churchyard was responsible for project management, data collection and analysis, and report writing and preparation. Anneleis Eckert was responsible for data management, data collection and analysis, and report writing and preparation. Charlie Toman collected severance data. Kate Procter conducted interviews with farm organization leaders and provincial planners to assess qualitative understandings of severance trends and impacts. Dr. Caldwell continues to be integral in managing the project, adapting methods, and producing written reports. The following timeline relates to the overall funded research.

Table 12: Overall research timeline

Milestones for reporting period	Completion Date (Target)	Completion Date (Actual)
Establish Research Advisory Committee	May, 2010	May, 2010
Initial survey – responsibility for consent granting	June, 2010	March, 2011*
Document the numbers and purpose of lots created within agricultural designations of Ontario (Obj. 1)	July, 2011	July, 2011
Data summarized in report format (data summaries and trends)	July, 2011	August, 2011
Analysis of data, including impact interviews and case studies examining local policies (Obj. 1, 2)	Dec., 2011	Oct., 2011
Develop recommended policy options reflecting the data. The recommendations will be made in light of the Provincial Policy Statement, the *Greenbelt Act* and Places to Grow (Obj. 3, 4)	April, 2012	October, 2011
Identification and KTT of best practices for municipalities in agricultural consents (Obj. 4)	Ongoing	Ongoing

* The initial contact survey was conducted on a continuous basis throughout study period.

Comparing municipalities by accounting for land area

The previous study used an approach to compare lot creation trends in municipalities with different land areas. The approach was to create a ratio by dividing the numerator 'number of severances' by the denominator 'number of acres of land farmed'. At the time of the previous study, the most relevant data set available for the denominator was the Census of Agriculture. However, since that time, Municipal Performance Measurements (MPM) have been collected. After comparing MPM results with Canada Land Inventory and Census datasets, we have determined that MPM are now the most desirable for this particular study. MPM, allows for the use of a more accurate denominator: the number of hectares of land designated for agricultural purposes in each Official Plan. MPM data sets for this denominator are available from 2000-2008. We have obtained the appropriate data sets from the Ministry of Municipal Affairs and Housing. We verified the MPM denominator with each municipality to ensure accuracy.

Data was sorted and summarized based on consistent templates. A verification survey was given to each municipality to identify any inconsistencies, confirm local trends, and collect ideas for research dissemination. Where verification was not received, it was noted in the data summary to maintain appropriate levels of confidence in the data.

Developing a performance indicator for lot creation

It is challenging to compare municipalities across a vast area with diverse economic, political, and environmental contexts. Although there is likely no all-encompassing indicator, a fair comparison would begin by accounting for the types of lots being created and the amount of land available to create lots. This could take the form of a ratio as follows: # lots created / land available. To make the ratio easier to visualize, the ratio can be expressed as the number of lots created per concession block, which is typically 1,000 acres. The revised ratio would be: # lots created / 1,000 acres land available.

This study measures the type of lot being created with a high degree of detail. As described earlier, these types could be new farm lots, new residential development (farm help, surplus, retirement, infill, other) and non-residential lots (commercial/industrial, institutional, other, etc.). There are at least three accessible measures of 'land available'. These measures are: the area farmed from the 2006 Census; the area of prime agricultural lands from the Canada Land Inventory; or the area protected for agricultural uses as reported in the Municipal Performance Measures (MPM) collected by MMAH. Table 13 can be used to compare the values of these measures, and discuss the merits of each. Ultimately, the most recent available Municipal Performance Measures were chosen as the measure of 'land available' in the ratio of lots created per 1000 acres available land. See Table 13 for a summary of the different measures available for agricultural lands.

The previous study used Census data from 1996. This provides a measure of the total number of acres farmed in a census division as reported by farmers. However, this measure of land may not always align with the amount of land in which PPS policies for a 'prime agricultural area' may apply. When a ratio uses census data as the ratio denominator, it may unfortunately be including large areas of poor agricultural productivity. This would lead to an overestimate of lands in the denominator (and a subsequent underestimate of severances per 1,000 acres). This is especially important in a number of municipalities in Central and Eastern Ontario where the amount of land farmed can exceed the amount of land designated for agriculture by two to five times. In Southern Ontario, the predominance of prime agricultural lands often leads to the reverse situation, in which many municipalities have less land being farmed than is actually designated agricultural.

Table 13: Acres of agricultural land: comparing measures

Municipality	Census (2006)	Canada Land Inventory (Class 1, 2, and 3)	Municipal Performance Measure (2005-2008)
Brant	167356	157579	186369
Bruce	613156	435558	537580
Chatham-Kent	553769	530750	584295
Dufferin	190607	191845	221532
Durham	326702	279363	275028
Elgin	393595	326785	406679
Essex	329776	646665	334481
Grey	567212	388198	286148
Haldimand	502698	467531	407724
Halton Region	88899	90287	43179
Hamilton	133205	111855	136620
Hastings	301187	163754	60341
Huron	723533	589981	647997
Kawartha Lakes	356946	176238	328294
Lambton	589407	547877	472567
Lanark	232575	89667	97582
Leeds & Grenville	328040	172223	N/A
Lennox & Addington	185835	104607	104056
Middlesex	617258	564327	648657
Niagara	231728	253649	320963
Northumberland	241159	149630	121022
Ottawa	283366	251556	231800
Oxford	415974	380051	430351
Peel (Town of Caledon)	95289	104059	55319
Perth	498161	435385	484401
Peterborough	249429	122344	137848
Prescott & Russell	296476	243300	287346
Prince Edward	145610	129434	89007
Renfrew	387731	173515	92286
Simcoe	533753	428263	540269
Stormont, Dundas & Glengarry	494589	444063	535594
Waterloo	226384	186607	225674
Wellington	485862	416027	N/A
York	167076	168832	124222
*Note that some MPM numbers for upper tiers are the sum of lower tier MPM numbers			

After the previous study (Caldwell and Dodds-Weir 2003), MMAH started to require Municipal Performance Measures reporting. This included a question to each municipality requesting the number of hectares of land designated for agriculture. This is an excellent measure for this study because, in

theory, it provides a consistent number across the province that accounts for the amount of land actually affected by PPS policies for prime agricultural areas. It allows the ratios to compare 'apples to apples'. MPM data is further desirable because it adapts to changing geographic boundaries of municipal policies on a yearly basis, providing more current information. However, one ongoing issue is that the MPM data could be inaccurate or inconsistently measured across municipalities. To address this issue, the researchers took every possible opportunity to verify with municipalities how MPM data had been calculated. An internal analysis was also conducted in which the numbers were compared for each municipality in the reporting years 2005, 2006, 2007, 2008 (these are the tabulated numbers currently available from the MAH reporting website). Of the 34 upper tier municipalities only 22 reported data for more than one year of these years. Five of those 22 municipalities had changes in their reported MPM numbers. These changes ranged from decreases of 11 to 2,900 hectares, or increases of 6,658 to 41,996 hectares. The largest increase is likely attributable to the splitting of a former municipality into two separate municipalities (Haldimand and Norfolk).

MPM data is only as accurate as the means by which it is collected at the municipal level. In some instances the number of hectares of agricultural land is based on previous measurements from which land taken from the agricultural designation was deducted. This data is only as accurate as the original estimates of agricultural land. In discussion with one municipality regarding significant changes in their reported numbers, it was discovered that the way the municipality arrived at the total hectares of land in the agricultural designation had changed from an old system of estimation to utilizing GIS data.

Each municipality also reports the number of hectares in the agricultural designation for the year 2000. Five of the 22 municipalities examined reported changes in the 2000 baseline data. These five municipalities were the same that had reported changes over the four years. For each reporting year, a baseline of the number of hectares of agricultural land as of January 1, 2000 was recorded. Changes to this baseline ranged from decreases of 27 hectares to 33,785 to a single increase of 41,996.

After examining the hectares reported for each year for the different municipalities it is believed that MPM data has internal consistency, recognizing that these numbers are only as valuable as the original data and that the accuracy of the original data varies between municipalities and their reporting methods.

For a few municipalities, MPM data was deemed to be too inaccurate or, more frequently, was simply not available. In these cases, CLI data was used. The CLI data has been updated by OMAFRA staff to

exclude settlement areas and a number of non-agricultural uses[21]. It may therefore be an underestimate of lands actually designated agricultural. Conversely, in some areas of the province with rapid urbanization, the CLI is an overestimate of lands designated agricultural. CLI data for prime lands and MPM data do vary considerably from each other; in fact, only six municipalities report MPM data that is within 10% of their CLI prime lands area. However, the variation is not as wide as the difference between MPM data and Census data. If an assumption can be made that as much of the prime agricultural land as possible has been included in agricultural designations across the province, the CLI data can serve as the best approximation of lands actually designated for agriculture in cases where MPM numbers are not available. CLI data was used for the counties of Wellington and Leeds and Grenville.

Statistical Analysis

The proportion of farm severances is at the interval level of measurement. As such, de Vaus (2004) recommends the following descriptive statistics for exploration and accurate interpretation of results: minimum, maximum, mean, variation, n=, and standard deviation.

Time series

Beyond the use of simple descriptive statistics, it is also possible to use time series as one to better understand the data. Time series analysis includes both descriptive and inferential techniques. Traditional methods begin with looking for trends in the time series, determining whether seasonal variation plays a role, and understanding irregular fluctuations (Chatfield, 1989). Time series analysis can be used to ask questions about explanation, prediction, and control (Chatfield, 1989). The approach in time series is to look for turning points, where an upward trend turns into a downward trend, and then to develop a different model for different parts of the series. Statistical analysis in this report uses only basic time series techniques in the form of charts and descriptions of trends over time.

Tests of significance are not required in this research because the data is comprehensive for the population of municipalities in Ontario – the data descriptors are for an entire population, not samples.

[21] CLI data updated by OMAFRA in December 2010; non-agricultural land uses were removed by subtracting the following datasets from the CLI polygons: Wooded areas; Water polygons; Wetlands; -Built up areas (based on SOLRIS); Northern Ontario Land Settlements/infrastructure; Active aggregate sites; Golf courses; Ontario road network with a buffer depending on road classification

Considerations for interpretation of data

The following considerations affecting the data will continue to be taken into account for improvement of the analysis and modeling:

1) The impacts of policy changes on economic and land use variables may not be fully realized over a period of 20 years; severance activity today may be a result of economic and land use decisions made 40 years ago. The study will need to be continued for several more decades.

2) The geographic spread of prime agricultural areas may have shifted within the research period due to rezoning carried out by local municipalities. This could potentially be addressed with GIS analysis of CLI classes overlayed by zoning classes, or by analyzing performance measures submitted by municipalities to the Ministry of Municipal Affairs and Housing.

3) Time series analysis may provide a more appropriate technique for describing and predicting severance activity models in future studies.

4) The specific counties have unique political structures for approval of severances. The effect of whether the process is more politically or technically determined will likely also have an impact.

5) Data collection methods may differ from those used in 2000, despite efforts to maintain consistent methods across the two study periods

6) Estimates were created for gaps in data for the calculation of the ratio. In between years were estimated by taking an average of the preceding and following year as a percentage of total severance applications, then multiplying that average by the total application number in the estimated year. Estimates for 2000-2009 data were generally only created for the number of applications in the agricultural designation and the number of farm splits, residential lots, and non-residential lots. Specific types of residential and non-residential lots were not estimated and therefore the graphs depicting residential severances by year are a true representation for the years 2000-2009. Any estimates in the 1990-1999 data are noted in the data interpretation section accompanying each profile. These estimates are type specific and reflected in the residential type graph on in each profile.

10.2 Appendix B: Definitions

The following key terms are used throughout this report. Different municipalities may have definitions which may be more or less restrictive than the definitions used here.

Agricultural designation: Many municipalities have identified an Agricultural designation in their Official Plans. This designation is typically the area within a municipality where Class 1, 2, and 3 soils predominate, and/or a concentration of viable agricultural uses occur. In municipalities where an Agricultural designation existed and was identified in the Official Plan, only severances within that designation were counted. If an Agricultural designation did not exist, the designation(s) that contained prime agricultural areas were counted (e.g. some rural lands, Greenbelt Protected Countryside and some lands in the Oak Ridges Moraine). For the purposes of this study, agricultural designations do not include urban areas, expansion areas or settlement areas.

Agricultural related uses: 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 (PPS 2005, unchanged from 1996).

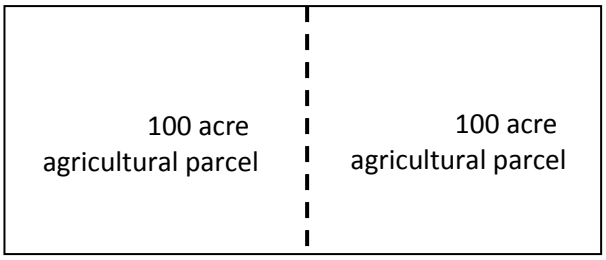
Agricultural uses*:* the growing of crops, including nursery and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including accommodation for full-time farm labour when the size and nature of the operation requires additional employment (PPS 2005; the last sentence was added to the PPS 1996 definition).

Consent: Under Section 53 in Part VI (Subdivision of Land) of the 1990 *Planning Act*, an owner of land or the owner's agent may apply for a consent to create a deed or any other agreement that has the effect of granting the use of or right in land directly or by entitlement to a renewal for a period of twenty-one years or more. Municipal council or the Minister may give consent if satisfied that a plan of subdivision of the land is not necessary for the proper and orderly development of the municipality. The *Planning Act* outlines the right of council to request application information, dispute procedures, responsibility for providing notice of application, public meetings and decisions, the ability to set conditions of consent, and delegation of approval authority.

Farm Help Lot: means a lot severed from an existing and active farming operation for the purpose of providing a building lot for hired farm help. This type of severance was not allowed under the 1996 or 2005 Provincial Policy Statements.

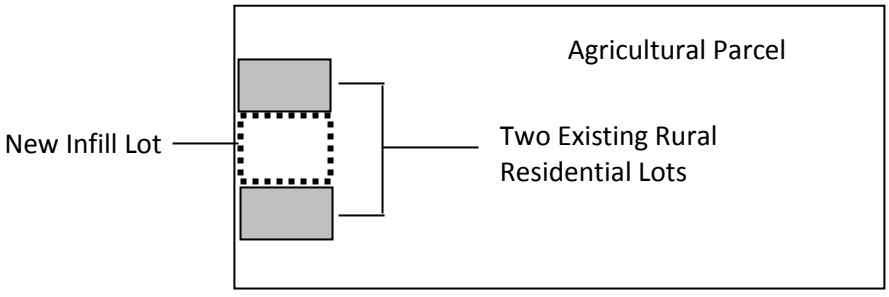
Farm Split*:* means a large farm divided into two farm lots. Farm splitting is a particular form of agricultural related use that is not further defined in the 2005 or 1996 PPS. The diagram below illustrates a farm split. While the diagram illustrates the creation of 100 acre parcels, there is no provincial standard for the minimum size for a new agricultural parcel, except in the Greenbelt, which limits new farm sizes to 100 acres or greater. Some municipalities have set a 100 or 50 acre minimum for new farm parcels, or use these measures as a guideline. Other municipalities base the acceptable size on an assessment of viable agricultural parcels in the area, or even on a case by case basis.

Figure 18: A 200 acre farm split creating two 100 acre parcels



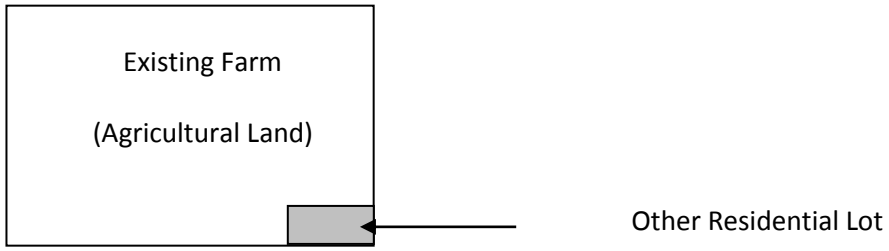
Infill lot: means the creation of a residential lot between two existing non-farm residences which are on separate lots of a similar size, are situated on the same side of the road and are not more than 100 metres apart (PPS 1996). The 2005 PPS no longer permits or defines residential infilling.

Figure 19: Residential infilling between two existing lots



Other Residential Lot: means a lot created for a residential purpose, unrelated to agriculture, that does not meet the definition for other types of residential uses defined here (i.e. Other residential means the lot is not farm help, surplus, retirement, or infill).

Figure 20: Other residential lot



Prime agricultural area: means 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, Food and Rural Affairs 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 (PPS 2005). This definition adds to the 1996 definition by including local, viable farm concentrations, and identifying OMAFRA as the ministry responsible for identifying prime agricultural areas.

Prime agricultural land: means land that includes *specialty crop lands* and/or Canada Land Inventory Classes 1, 2, and 3 soils, in this order of priority for protection (PPS 2005; unchanged from 1996).

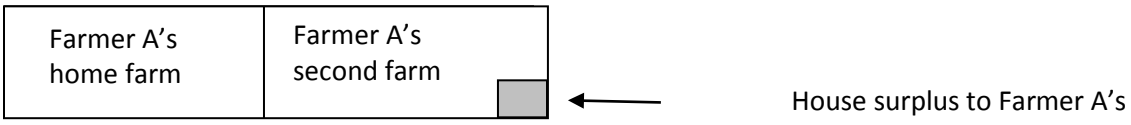
Retirement Lot: means a lot separated from a farm operation for a full-time farmer of retirement age who is retiring from active working life, was farming on January 1, 1994 or an earlier date set out in an existing Official Plan, and has owned and operated the farm operation for a substantial number of years (PPS 1996). The 2005 PPS no longer permits or defines retirement lots.

Severance: A severance is the authorized separation of a piece of land to form two new adjoining properties. The term is used in the 2005 and 1996 PPS, but not in the Planning Act. The terms consent and severance are very similar. A severance is required to sell, mortgage, charge or enter into any agreement for a portion of land. Severances do not always create new lots; severances include easements, corrections of deeds, and minor boundary adjustments. In other regions of Canada and the United States, this terminology varies. A severance may be known elsewhere as a split, new lot, division or subdivision.

Surplus dwelling: means an existing farm residence that is rendered surplus as a result of farm consolidation (the acquisition of additional farm parcels to be operated as one farm operation) (PPS 2005). Section 2.3.4.1.c permits the creation of new lots for a residence surplus to a farming operation as a result of farm consolidation, provided that the planning authority

ensures that new residential dwellings are prohibited on any vacant remnant parcel of farmland created by the severance. The approach used to ensure that no new residential dwellings are permitted on the remnant parcel may be recommended by the Province, or based on municipal approaches which achieve the same objective (2005). The 1996 PPS included the condition that the existing farm residence be built prior to 1978, but this condition was removed in the 2005 PPS. Some debate exists over whether a farm consolidation should require that consolidating farms be abutting.

Figure 21: Creation of a new lot for a surplus dwelling



10.3 Appendix C: Interviewees

Geographical Case Study Regions

Planner, Niagara Region	June 29, 2011
Planner, County of Grey	June 29, 2011
Warden, Perth County	July 13, 2011
Regional Chair, Region of Waterloo	July 5, 2011

Agricultural Organizations

Manager, Community Planning and Development Municipal Services Office	July 6, 2011
Policy Advisor (Land Use Planning),OMAFRA	June 29, 2011
Senior Policy Analyst, Ontario Federation of Agriculture	June 16, 2011
Ontario Fruit and Vegetable Growers' Association	June 29, 2011
Ontario Pork and Ontario Farm Animal Council (OFAC)	June 30, 2011
Ecological Farmers Association of Ontario	July 6, 2011
Director, Ontario Cattlemen's Association	Aug. 15, 2011