

*Rural Severances:
Challenges & Opportunities for Landscape
Productivity in Prince Edward County*

Technical Report Prepared for the Prince Edward Lennox-
Addington Community Futures Development Corporation

by

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INTRODUCTION

To sum up its material advantages in a very few words, we may truthfully say that as to varied and delighted scenery, magnificent roads, pleasant drives, interesting natural and historical landmarks, and an intelligent, refined, and hospitable people, Prince Edward beyond question claims a foremost position; while in everything which tends to make a country prosperous, its people contented with their lot, and others contented with them, it occupies no second place (Belden, 1878).

Often implicated as a key driver of urban sprawl, rural severances are a common strategy for municipalities to increase their tax base and for retiring farmers or large landholders to benefit financially from the sale of a portion of their land. Severances are widespread in the municipalities of the Greater Toronto Area, throughout the southern Ontario landscape, and commonplace within the urban shadow of major cities in Canada. However, there are a number of negative effects associated with the increasing parcelization of a previously agricultural landscape. These include the ecological costs of habitat fragmentation, a loss of the rural character and the cultural heritage of traditional landscapes, and decreased agricultural production and capacity as lands are re-zoned from agricultural to residential. In short, rural severances have the overall effect of changing (and in some cases reducing) the productive capacity of the landscape – ecologically, agriculturally, and culturally. However, there is no evidence that suggests rural severances are in decline. In fact, the evidence suggests an increasing tendency of municipalities to permit rural severances, despite potential long-term costs. Given this, there is a timely need for applied research to explore potential opportunities and benefits that rural severances might afford for a new type of landscape productivity. To this end, this research considers the effects of rural severances on the landscape of Prince Edward County, Ontario, one of Canada’s oldest settled landscapes under continuous agricultural production, and a landscape with a strong heritage identity that is both spatial and cultural.

This paper serves as a broad literature review to give an introduction into the impact of land fragmentation from rural land severances, a common problem in many rural communities across North America and in particular, on the rise in Prince Edward County. This paper has five main objectives:

- To provide an overview of the state of rural severances in Prince Edward County, Ontario, drawing on existing and secondary data only as provided by the municipality and other sources obtained through or with municipal assistance;

- To provide background research on the costs and benefits of rural severances as necessary for context, obtained through secondary research in the Canadian and US contexts as needed;
- To explore the potential opportunities and challenges associated with encouraging, permitting and fostering productivity on severed lands in the pursuit of a “working landscape” not unlike that of Toronto’s Greenbelt in terms of permitted uses (not necessarily policy).
 - “Productivity” in the scope of this study may mean ecological as well as agricultural and cultural-agricultural productivity: i.e., small, scale, value-added agricultural practices, including those practices related to agriculture as defined in the Provincial Planning Act and associated Policy Statement;
- To make recommendations for further research and appropriate trajectories of continued research on the subject of productive rural severances.

The paper follows the main objectives of the project, with the first section reviews a brief modern history of Prince Edward County. The following section focuses on the policy framework in which the County is situated, which impacts how severances are allowed and how the County can work to slow this process, from the provincial and county levels. The next section considers other policy challenges that play a role in fragmenting the landscape, followed by a section on the costs and benefits of land fragmentation from a wider scope of policy in United States and Canadian examples. The paper concludes by looking at opportunities for encouraging a productive landscape across the county and recommendations for further study in the County are provided.

PART 1: MODERN HISTORY OF PRINCE EDWARD COUNTY

Early County to Present

The modern history of Prince Edward County is characterized by its relationship with its resources, as a place of fertility and harvest, where several generations of family farms have continuously tilled since the early nineteenth century. Wheat was the first main cash crop, exported to Britain and then the United States, beginning during the American Civil War. The reliance on these crops was expressed by a customary saying in the area: "Wheat bought the farm and barley paid the mortgage" (Prince Edward County, 2011). The Prince Edward Agricultural Society was formed in 1831, and these two staples played a key role in the economy of the county for several decades. Noting that Prince Edward County was pre-eminently an agricultural jurisdiction, in 1878 it was said that "in regard to the amount of production, the distribution of the chief staples-notably barley and rye-is so scattered among the many storehouses which line the shores on all sides, that any accurate figures are not to be arrived at, and an approximate estimate would be simply conjectural..." (Belden, 1878). The nature of agriculture in Prince Edward County was to change, however with the McKinley Tariff of 1890 limiting exports to the United States, and forcing change on the local market.

Farming in Prince Edward County proved resilient however, transitioning to an economy of dairy, and canning crops. With 30 butter and cheese operations manufacturing at the same time during the height of production, it is also noted that "by 1902, it is estimated that one third of all Canada's canned fruits and vegetables came from "The Garden County". Like elsewhere, the depression hit Prince Edward County hard, with rum running providing an economic base from which the county was able to withstand the rigours of the era (Prince Edward County, 2011).

Several factors have negatively affected industry in Prince Edward County during the second half of the twentieth century. The County's once impressive canning sector was hard hit, and by the late twentieth century such things as the relatively poor quality of soil and shorter growing season (compared with other areas of Ontario) was a competitive disadvantage for Prince Edward County, "and small, obsolete factories, simply couldn't compete with the new factories built elsewhere. The increased ownership of the industry by multinational corporations, the introduction of frozen food in the 1950s, the buying practices of national grocery store chains, the introduction of new worker and health regulations and the changing work attitudes of Canadians all took

their toll on the canning industry of Prince Edward County” (Lockyer, 1991). Lockyer noted in 1991 that there were few traces of a once prominent canning industry.

Despite this, natural resources continue to remain the County’s economic and cultural base. Some mineral extraction has provided employment, and tourism, from day-trippers to wine-tasters, have supported the County’s economy. The County’s heritage, both economic and cultural, is inseparable from the production of these local resources. The consequence of fire destroying the Black River Cheese Co., in 2001 was summarized in *McLean’s Magazine*. “But when it turned 100 years old this year, everyone from dairy farmers to hotel owners to cabinet ministers to just-plain-local-folks came to celebrate – with good reason... Its loss would be catastrophic for local residents' morale, and for the county's economy...In a community where locals trace roots to United Empire Loyalist days more than 200 years ago, the outcome will, in varying degrees, affect tens of thousands of people” (Wilson-Smith, A, 2001).

The Changing County

Demographics are also changing: Prince Edward County is becoming popular amongst urbanites looking to retire, or supplement their income with a range of farming operations. Prince Edward County acknowledges the benefits these residents have brought to the county: “These residents make considerable investments in real estate and bring their cultural wealth and well as their financial capacity and business acumen to the County, contributing to the business and cultural wealth and helping to perpetuate the evolution of this island cultural landscape” (Prince Edward County, 2011). The County continues to change, industries adapting as best as possible, and its character as a result. It is difficult to imagine, however, a Prince Edward County whose identity is not tied to provenance, to place, to local production. Maintaining this character is to find progressive solutions to land use policy and practice.

To be brief, - a drive through the county, in any or all directions, is to be delighted with it; not simply the excellent carriage roads and pleasantly shaded avenues, but the comfortable homes, beautiful groves, romantic lakes, well kept farms, fine schools, handsome churches, and general air of thrift and prosperity... (Belden, 1878).

The Prince Edward County Agri-food Markets 2007 paper from Ryerson University’s School of Management, surveyed producers and processors of agricultural and animal products; the commercial businesses (lodging, foodservice, retail; and, residents and visitors who purchase locally produce at county farm gates (Wade et al., 2007). It found

that the agri-food industry relies more and more on farm gate income, where 25% of the producers and processors surveyed received more than 80% of their annual income (Wade, et al., 2007). Creative agri-tourism businesses are important part of the economy of PEC. This creative rural economy has been highlighted by the University of Guelph in Caldwell's Resource Material for Community Economic Development: *Prospering with a Stable or Declining Population* (2010); as well as *Growing the Creative-Rural Economy in Prince Edward County*, lead by Donald, Beyea and Christmas (2008) for the P.E.L.A. Institute for Rural Development; and, the *Cultivating Rural Creativity in Prince Edward County Report* by Ryerson University's Urban Planning students under the supervision of Lister (2009).

The reports find that Prince Edward County is moving towards innovative value added activities to support its main economy, while maintaining its cultural heritage landscape. The Heritage Advisory Committee's Heritage Conservation Strategy and the County's strategic plan that prioritizes protecting the "culture, identity and quality of life" (Heritage Advisory Committee, 2011, 2), because as their guiding principle states, "heritage is fundamental to our sense of place" (Heritage Advisory Committee, 2011, 2). In finding creative and innovative ways of supporting rural economic development, the County is giving the chance to its citizen to be able to make a living within their own community.

However, value added activities are not always supported by Provincial planning legislation and by the counties own by-laws, which are currently under review. The County is working to preserve its cultural landscape through initiatives from its heritage advisory group as well as its agricultural advisory committees. The Official Plan is being updated to ensure that its rural character is maintained and at the same time its economy is supported. Caldwell (2010) identifies Prince Edward County as having a stable population, unlike many rural communities that are either losing their population base or that are experiencing high levels of urban-rural migration. Prince Edward County's Creative agricultural innovations are helping to improve its economy, despite the legislative barriers that are exposed in the previous studies that have been done on the county.

Currently, the County is trying to balance its desire to encourage creative growth with its desire to maintain the rural heritage landscape. Prime agricultural land is protected under the County official plan and Provincial legislation (PPS, 2005), but rural land that is used for agriculture is not protected in same way. A University of Guelph (2010) study on rural land severances tracked the changes of large agricultural lots to smaller

residential lots. It showed that between the period of 2000 until 2009, a total of 227 severance applications that were made involving agricultural lands, 195 of those were made with the purpose of creating a residential use in an agricultural area, see Appendix 1-1.2 (University of Guelph, 2010). These land severances have the potential of fragmenting the landscape of Prince Edward County overtime.

Although the peak of the severance applications were made between 2003 to 2005 (University of Guelph, 2010), with a decline in recent years most likely due to the recession (Personal Communication, Betsy Donald, August 2011), the County has recognized that the change from rural to residential land will have an impact on the County, if it is not address and responded to appropriately (Personal Communication, Brendan O'Connor and Debra Marshall, August, 2011). Rural to residential purposes are part of a larger trend across Canada and the United States, which sees the rural migration by urbanites seeking a pastoral idyll (Swaffield & Fairweather, 1998). The University of Guelph (2010) study shows that between 2000 and 2009 697.4 acres of farmland was lost to residential land severances, significant in an area that once was the most important source of fruit and vegetables in the nation (Wade, et al., 2007, p.12). With the loss of these lands comes the loss of the ability of the agricultural and residential users to have productive smaller lots because of County Bylaws that restrict the agricultural uses to agricultural/rural lots.

PART 2: POLICY FRAMEWORK

Land Severance Policy

A land severance, also known as a consent, is an authorized separation of a parcel of land in order to create a new parcel. Many farmers find land severances advantageous as a means of gaining liquidity from their land, perhaps upon retirement, or in the event they would like to leave a parcel to the next generation of family farmers (Ministry of Municipal Affairs and Housing, 2010). (See Appendix 2: Current Land Division Process in Ontario)

Municipalities will have specific policies that outline the process for land severances in their Official Plan. Prince Edward County is no different in this regard, and several requirements for land severances are outlined with their subtleties dependent on land designation: Rural, Prime Agricultural, Residential, etc.. Often, a plan of subdivision is appropriate should several land severances be required in the same area. This is often not appropriate for traditionally rural areas like Prince Edward County, who are trying to maintain a rural character. In any event, should a property owner wish to sell, mortgage, charge, or enter into any agreement (for at least 21 years) a parcel of their land, a severance is required.

Once a severance has been approved, the new lands may be resold without further approvals. The process for land severances in Prince Edward County is detailed in the County's Official Plan. In certain instances, the County may not accept an application for severance, should it fail to provide all the necessary information, or if it conflicts with principles in the Official Plan. In such a case, the applicant may make a motion to the Ontario Municipal Board (OMB), though it is encouraged that both parties come to a mutually acceptable solution before appearing before the Board. In any event, the OMB's decision is final.

According to Prince Edward County's Official Plan, consents for limited residential, commercial and industrial development may be permitted provided that no more than a total of 3 lots are created and the lots (severed and retained) are of a size and configuration that would not lend themselves to further subdivision. Those lots, which would involve four or more lots, shall take place according to a registered plan of subdivision (Consolidated Official Plan, 2006, 4.4.1).

Development that proposes a severance of four or more lots is subject to a plan of subdivision, unless these lots are within Urban Centre and Village designations, or within Hamlets with water servicing in place, where up to 5 lots may be created. It should be noted that where different land uses abut one another, it may be deemed necessary to create buffering or screening “for the purpose of reducing or eliminating the adverse effects of one land use upon another” (Consolidated Official Plan, 2006, 1.1.6). Prince Edward County has several general strategies in place detailing consents. (See Appendix 3: General strategies – Part V)

Land Use Policy

As described above, consents in the County are nuanced depending on land use designation. The County maintains that the predominant land use will be agriculture, forestry, conservation projects, farming operations (including animal and poultry farms, and residential uses accessory to farming). In the Prime Agricultural designation, the most protected land use according to the Provincial Policy Statement (PPS, 2005) the permitted uses are more restricted. Agriculture (as defined within the Official Plan), limited farm-related residential uses, limited infilling of residential uses within built-up areas, limited agriculturally related commercial and industrial uses such as farm produce processing and storage warehouses, equestrian centres, abattoirs and cheese plants which require close proximity to farming operations, as well as farm and estate winery, as defined by the Official Plan. Home businesses, wayside pits and quarries and portable asphalt plants are also permitted uses, with several listed restrictions. Development will be kept low density in Prime Agricultural designations (Consolidated Official Plan, 2006, 5.3.1).

See Appendix 4: Prime Agricultural General Policies – Part IV (5.4.1)

See Appendix 5: Residential on Prime Agricultural Lands - Part IV - (5.4.2)

See Appendix 6: Commercial on Prime Agricultural Lands – Part IV (5.4.3)

Wineries are permitted uses on Prime Agricultural lands, however there is a distinction made between ‘Farm Wineries’ and ‘Estate Wineries’. The Farm Winery provision ensures local production: “The fruit used in the annual production of wine at a Farm Winery shall consist predominately of fruit grown in the County of Prince Edward by that Farm Winery Operation. This may be reduced in any on year due to crop failure or damage resulting from causes beyond the control of the winery, such as climate and precipitation abnormalities, with the balance being from Ontario fruit. Estate Wineries shall be required to locate with direct access and frontage onto an improved public

roadway maintained year round with sufficient capacity to accommodate the anticipated traffic” (Consolidated Official Plan, 2006, Part IV, 5.4.4). Estate Wineries are subject to site Plan Agreement Approval, and must meet certain criteria to the satisfaction of the municipality, such as parking, entrances, patios, and water and waste disposal. Key differences between the two can be seen in the following table:

Farm Wineries	Estate Wineries
A minimum 2 hectares (5 acres) must be planted with a minimum of 4,000 vines on-site.	A minimum 8 hectares (20 acres) must be planted with a minimum of 16,000 vines on-site.
The retail sale of wine produced on-site shall be permitted. Provided that it does not conflict with any minimum floor area requirement for licensing approval, on-site tasting rooms and retail floor space shall not exceed the lesser of 75m ² /800ft ² or 25 percent of the total winery floor area (excluding any below ground floor area). The on-site retail floor space for non-agricultural and/or non-Prince Edward County agricultural products shall not exceed 5% of the total retail floor space.	The retail sale of wine and wine related products, and a hospitality room where food and wine is prepared and served, will be permitted when such uses are accessory to and complement the Estate Winery. The maximum total floor area for retail and hospitality uses shall be 400m ² /4,300ft ² so as not to detract from the main use of the land and not adversely affect other uses permitted in the area.

On lands designated as Rural, Farm Wineries are also permitted, as part of the farm operation. The same minimum hectare and on-site vines as those located on Prime Agricultural lands are in effect, and apply to existing lots, not the creation of new lots. The same criteria apply to Farm Wineries on Rural designated lands as those on Prime Agricultural lands, as noted in the above table.

In areas designated as Rural, agricultural activities still exist, but are more dispersed, and “where soils are predominantly shallow and where non-agricultural development has taken place over time” (Consolidated Official Plan, 2006, p.130). They have a different soil make up than of Prime Agricultural lands, and the Official Plan intends to maintain the scenic and natural qualities of these areas. Development must be limited and consistent with the overall vision of Prince Edward County as stated in the Official Plan. The same permitted uses as Prime Agricultural Lands are allowed, but commercial and industrial uses related to the rural economy are allowed, such as antique shops,

farm market stands, service centres, motor vehicle repair garages, machine or welding shops and eating establishments. Wineries and community, healthcare and recreation and educational facilities are also permitted, as well as limited residential. The Commercial uses will be encouraged in nodes, and development will be at low density. Rural industrial uses must be separated and screened from residential uses on this designation.

See Appendix 7: Rural General Policies – Part IV (6.4.1)

See Appendix 8: Residential on Rural Lands –Part IV (6.4.2)

Consents for the uses be they commercial or industrial within a Rural designation are permitted provided the lot is large enough to meet all servicing requirements of the County, local Health Unit and/or the Ministry of the Environment and is a minimum of .8 hectares. The location of all the subject uses will be controlled by placing them in separate zoning categories in the implementing Zoning By-law. As well, one residential unit may be permitted in connection with a commercial or industrial use. Property owners are also encouraged to incorporate certain design criteria. Other criteria specific to commercial and industrial uses on rural lands are outlines in the Official Plan (Consolidated Official Plan, 2006, Part IV - 6.4.3).

Severance and Consent in the PEC Comprehensive Zoning Bylaw:

See Appendix 9: 3.116 LOT

See Appendix 10: 4.6 EXISTING UNDERSIZED LOTS

Impact of Land Use Changes

Smithers (2005) recognizes the importance of the role of family farms in Ontario and the heightened risk of the loss of these farms to either residential lots or to large farming operations, as Pope (1985) has observed with his bimodal distribution of the midsize farmer. As non-rural development occurs in rural areas through land severances, rural in-migrants who run part-time, niche or hobby farms require additional study (Smithers, 2005, 199). In the same text, on the potential positive role that rural in-migrants can play in shaping the rural productive landscape,

“Agriculture remains one of the most easily accessible ways of participating in the shaping narratives of the rural landscape, where, Rural in-migrants who participate in productive land uses, especially those who balance their productivity with an interest in environmental sustainability, help to challenge the illusions both of sustainability

without effort land elsewhere and also of an effortless rural idyll" (Essex, 2005, 226).

Irwin, Bell, Bockstael, Newburn, Partridge and Wu (2009) write, "when rural land is developed, it typically results in a fragmented pattern of interspersed developed and undeveloped land, often referred to as scatter, low-density, sprawl, or leapfrog development" (p.442). Rural land fragmentation is described by Kjelland, Kreuter, Clendenin, Wilkins, Wu, Gonzalez Afanador and Grant (2007), as, "overall decline in rural property sizes appears to be the product of changes in demand for rural land, driven by regional, social and economic dynamics, combined with other factors such as declining agricultural returns, environmental regulations, increasing age of rural land owners and the high cost of intergenerational land transfers" (p.231). Brabec and Smith (2002), using Heimlich's (1989) and Lapping's et al.'s (1989) work, suggest that rural land fragmentation erodes the farm base, which leads to a loss of farming support operations and facilities in one area, leading to higher operating costs; and loss of the traditional farming economic base, leading to the change of character and visual quality of communities (p.255).

According to an Ontario Farmland Trust report, the *Places to Grow Food Blueprint*, lead by Somerville, Churchyard, Mackenzie and Setzkorn (2011), Ontario currently imports three dollars of food products for every two dollars exported. Ontario's legislation supports for large contiguous blocks of prime agricultural land, but does not have many provisions in the legislation for smaller scale farms (Somerville et al., 2011). The Ontario Farmland Trust recognizes that there is importance to supporting farms of all production types and sizes. The report identifies the strong role that smaller farms play in communities to encourage the farmer and buyer relationships at the community level, rather than the global commodity level, contributing to higher ability of farms to adapt to demands and to use more environmentally sound practices (Somerville, et al., 2011,15).

Ontario Municipal Board Case Studies: Rural Land Severances

The following are examples of cases that have gone in front of the Ontario Municipal Board regarding rural land severances. These cases exemplify the challenges that both the applicant of severances and the County have when faced with creating new lots.

Wilson Road Case OMB Case #1 - August 10, 2009.

Charles De Bourbon wants to redesignate the land under the Official Plan from Prime Agriculture to a site-specific special Prime Agricultural designation in order to facilitate a severance of 2 acres for residential purposes. The county opposes this action. Mr. De Bourbon's land is 5.5 acres containing one single detached dwelling. The land use designation is Prime Agriculture, zoned as Rural 1. This land was created by consent in 2004 as one of two lots. The County's planner, Mr. Leary says (referring to 1.3.1b) the lands have reached their severance limit and in order to avoid subdivision by the consent process, approval would lead to a fourth lot. On land such as this farm, activities are to be protected, (2.6.3) and Prime Agricultural lands are to be preserved (5.5.1). Mr. Leary is concerned that creating an additional residential lot would add to the liner strip development on Wilson road. The Provincial Policy Statement (PPS) supports this treatment of Prime Agricultural lands. Local farmer Bert Mulder testifies that the land is not suitable for farming because it is too small and has too many trees, but the County argues that Prime Agricultural can include trees, and the PPS prohibits the creation of new residential lots to protect agricultural uses in the long term. Mr. De Bourbon notes permitted uses on Prime Agricultural lands allow for minor infilling (5.2.2) but the County successfully argues this would not be infilling, but an extension of liner development. That, and the fact that the support of the PPS, which requires agricultural uses on this land is enough for the OMB to side against Mr. De Bourbon's appeal, and it is dismissed (OMB, 2009).

MMAH Case OMB Case #2 - August 3, 2007.

Conditions were returned to their pre-existing situation, as lands at 615 County Road 3 were designated Prime A and zoned A1. Randall Kerr had applied for two consents, making a three way split into a retained parcel plus two new residential lots. As well, a zoning amendment was applied for. The County granted two provisional consents, from A1 to Rural Residential RR, and rezoning the retained parcel (with farmhouse and barn) from A1 to special prime A (A1-x and Environmental Protection (EP with a watercourse). However, the Ministry of Municipal Affairs and Housing (MMAH) objects on the grounds of the proposal being contrary to the provisions for Prime Agricultural under the PPS and the Official Plan. MMAH appeals to the board, and an agreement is reached between the applicant and MMAH to request that the Board issue an order granting the appeals and refusing the approvals granted by Prince Edward County initially, without future prejudice. The County in this case does not object (OMB, 2007).

Right to Farm Legislation

Besides the Ontario Municipal Board, the Normal Farm Practice Protection Board (NFPPB) exists to mediate formal complaints, which cannot be resolved through mediation. Experts are called to determine whether a practice is indeed 'normal' or not.

The Farming and Food Production Protection Act (FFPPA) passed as Bill 146, in May 1998 as a way to ensure the rights of all rural Ontario residents are respected, given the changing demographics and economy that make up rural Ontario. The agricultural community's concern was that they needed to be protected from complaints against nuisance lawsuits and the existing Farm Practice Protection Act (1988) was out of date. Alternatively, rural, non-farm residents felt that farming practices needed to be more clearly defined. The main themes of the FFPPA are that farmers are protected from nuisance complaints made by neighbours, provided they are following normal farm practices, and no municipal by-law applies to restrict a normal farm practice carried on as part of an agricultural operation

The FFPPA broadened the definition of an agricultural operation to an: "agricultural, aquacultural, horticultural or silvicultural operation that is carried on in the expectation of gain or reward" (Fraser, H.W., and Desir, F., 2005, p.2). Some examples include: draining, irrigating or cultivating land, growing, producing or raising livestock, poultry and ratites, fur-bearing animals, bees, cultured fish, deer and elk, game animals and birds, or any additional animals, birds or fish prescribed by the minister, the production of agricultural crops, greenhouse crops, maple syrup, mushrooms, nursery stock, tobacco, tree and turf grass, and any additional agricultural crops prescribed by the minister, the production of eggs, cream and milk, the operation of agricultural machinery and equipment, the application of fertilizers, soil conditioners and pesticides, ground and aerial spraying, the storage, handling or use of organic wastes for farm purposes, the processing by a farmer of the products produced primarily from the farmer's agricultural operation activities that are a necessary but ancillary part of an agricultural operation such as the movement of transport vehicles for the purposes of the agricultural operation, and, any other agricultural activity prescribed by the minister conducted on, in, or over agricultural land.

The Act defined a Normal Farm Practice as one which: "(a) is conducted in a manner consistent with proper and acceptable customs and standards, as established and followed by similar agricultural operations under similar circumstances, or (b) makes use of innovative technology in a manner consistent with proper advanced farm

management practices" (Fraser, H.W., and Desir, F., 2005, p.2). What is normal, or not, varies depending on location, type of farm, method of operation, and timing of the farm practice. Normal is site specific for a given set of circumstances, and may change over time. Under the Nutrient Management Act (NMA, 2002) any practice that is consistent with a regulation made under the NMA is a normal farm practice. Similarly, any practice, which is inconsistent with the NMA regulation, is not a normal farm practice. The NFPPB must be consistent with any directives, guidelines or policy statements issued by the Ministry of Agriculture and Food.

7 Nuisances Outlined in the FFPPA:

Odour from manure handling (The majority of cases)
Light from greenhouses or farm equipment used at night
Vibrating from trucks, fans, or boilers.
Smoke from burning tree prunings, or other organic waste
Flies from manure or spilled feed
Noise from crop drying fans and irrigation pumps
Dust from field tillage equipment, or truck traffic.

(Fraser, H.W., and Desir, F., 2005, p.3)

The FFPPA states, "No municipal by-law applies to restrict a normal farm practice carried on as a part of an agricultural operation" (Fraser, H.W., and Desir, F., 2005, p.3). A farmer who feels that a municipal by-law is restricting his/her normal farm practice may apply to the board for a hearing. A farmer who has the intent of engaging in normal farm practices can also use the legislation if they are restricted by a municipal bylaw. When a hearing is held, anyone who owns property within 120m of the site is entitled to be notified. This act is often incorrectly known as the "right to farm" act. It protects them from nuisance complaints, but that is not to say that the complaints will not occur. The act as well does not allow farmers to violate the EPA, Pesticides Act or the Ontario Water Resources Act (Fraser, H.W., and Desir, F., 2005).

PART 3: COSTS AND BENEFITS OF LAND FRAGMENTATION: LAND PRESERVATION STRATEGIES IN UNITED STATES AND CANADA

Land Fragmentation and Land Value in the United States

Many studies have come out of the United States to review agricultural and natural land fragmentation due to urbanization pressures. The Heimlich and Anderson, et al. (2001) Agricultural Economic Report for the US department of Agriculture outlines some of the positive impacts that can result from urbanization of rural areas for agricultural operations, finding that urban centres offer a larger labour base especially during peak harvests for high value crops. Additionally, there are more employment opportunities off farm for the farmer and their family for additional sources of income, where in 1999, 90% of average farm household income was from off-farm sources (Heimlich, Anderson, et al, 2001, 39). Niche farms by urbanizing areas can offer a variety of profitable crops, like fruits and vegetables that can be sold at farmers markets, restaurants, grocery stores, roadside and at u-pick on farm operations (Heimlich, Anderson, et al, 2001, 39). However, these positive impacts do not prevent the negative impacts of land fragmentation from urbanization on rural areas (Heimlich, Anderson, et al, 2001).

According to a study by White, Morzillo and Alig (2009) the inconsistent monitoring of land-use data at the national, regional and local levels makes recognition of land use change difficult, where as at the national level, data that was available was more than 10 years old and yet rapid rural development is expected to continue. The study shows that, “goods and services associated with rural landscapes likely will continue to be threatened by rural development, placing additional pressure on natural resource managers to incorporate the changing rural landscape in resource planning” (White et al, 2009, 47). But Shrestha, York, Boone, and Zhang (2011) examine the urbanization and subsequent rural land fragmentation by using the US National Land Cover Database to determine that it is a reliable source for measuring land use patterns, for the Phoenix Metropolitan Area, despite proving unreliable for detecting exurban development in eastern United States by other studies.

Alternatively Munroe, Croissant, York (2005) reviewed the relationships between fragmentation variables (socioeconomic, biophysical and spatial) and land use zoning at the privately owned land parcel scale. Their findings suggest that land use variety increases in areas that have higher zoning densities. However, Irwin, et al. (2009) review of Fischel’s (1985) hypothesis of using large lot residential zoning to deter development actually does the opposite of its intended effect of slowing development,

when using the McConnell et al. (2006) study that shows that other factors than zoning contribute to subdivision density (Irwin et al, 2009, p.444).

Furthermore, Kjelland, et al.'s (2007) study focused in the rapidly urbanizing landscape of Texas, where the average market value of rural land grew by 2.7% per year from 1992 to 2001, but the average agricultural value of rural land grew only by 0.4%, this difference is called the non-agricultural value (NAV) (p.232). The NAV in Texas has a positive correlation with population density near urban centres, meaning that rapid growth increases the NAV of farms inciting farms to sell or subdivide land for non-agricultural development for high returns than they would received through their operations (Kjelland, et al., 2007, p.232).

Pope (1985) discusses the bimodal distribution of farm size in relation to increases to non-agricultural value on farms. Kjelland, et al (2007) agree with Pope's (1985) finding of the change farm size to be twofold; when non-agricultural value of a farm rises, then the size of the of the farm either increases by consolidation with industrial farming operations for the benefit of economies of scale; or it decreases in response to the demand from non-producers, leading to fragmented farmland that is erasing mid-size farm operations in the United States (Kjelland, et al., 2007, p.232). Additionally, Kjelland, et al. (2007) use Munroe and York's (2003) definition of productive value of rural land and in turn, form a definition of consumptive value. Where productive value of rural land is the "value of land for agricultural (including native rangeland) or forestry products and can be quantified as the present discounted value of expected returns from land" (Kjelland, et al., 2007, p.235). Consumptive value then, is defined as,

"The value placed on land according to aesthetic and recreation appeal, i.e., the value of land if it were "consumed" for non-agricultural purposes...If the most profitable use of the land is nonagricultural, or if it is purchased for nonproductive purposes, such as enjoyment of open space, then its market value tends to be higher than its agricultural value"(Kjelland, et al., 2007, p.235).

Nelson (1992) suggests that policies attempting to minimizing land fragmentation should increase the productive value of rural land, stabilize the consumptive value, and eliminate speculative value. Likewise Irwin, et al. (2009) observe,

"Land ownership and land use are often at odds with each other in these urban-rural regions, farmland may be rented for agricultural production while being owned by a land speculator or development company that is waiting for the right time to develop. The fact that development is

irreversible and can be delayed and that uncertainty exists over future payoffs makes development analogous to the exercise of an option (Dixit & Pindyck 1994). In the presence of uncertainty, the option of waiting has value, so that the expected returns necessary to induce immediate development are higher than those without uncertainty. In the land use context, the volatility inherent in future returns to farming or residential development can influence the option value of postponing" (p.442).

Agricultural Preservation Strategies

The Sustaining Agriculture in Urbanizing Counties Report, sponsored by the American Farmland Trust and produced by the University of Nebraska Lincoln, outlines the similar pressures on American farmers to sell their productive land because of the increased consumptive value. The American Farmland Trust recognizes four main threats on the average American Farmer in the study to retain land:

1. The actual supply of farmland is diminishing because of the conversion of land to residential and other non-farm uses;
2. Inflated land purchase prices for existing farmland due to speculations, hobby farmers and large commercial farmers;
3. The potential for increases to property taxes because of the rising market value;
4. Local government bylaws and nuisance complaints from non-farmers (Esseks, Oberholtzer, Clancy, Lapping, Zurbrugg, 2009, p.6).

The report also identifies some of the policy initiatives implemented by the counties of the study to combat some of these threats, which include introducing agricultural protection zones, urban growth boundaries, purchase of development rights and transfer of development rights. Additionally, policies have included: agricultural use-values assessments for property taxes and state and local "right to farm" policies to mediate nuisance complaints (Esseks, et al., 2009, p.61).

Upon examining 15 counties, the report recommended several points for maintaining viable farms:

- Conflicts should be minimized by local governments between farmers and non-farmers;
- Zoning policies such as minimum lot requirements, cluster zoning policies and growth boundaries should be established to preserve agricultural land;
- State legislation should support the ability of local governments to provided purchase development rights programs;

- Transfer of ownership and management programs should be established to help farmers pass land on to relatives or children, helping to ensure the future of the farm operation and livelihood of farming family;
- Encouragement of farm enterprises' profitability on urban fringes, allowing for smaller farm operation lot size and direct marketing and assistance programs;
- Attracting adaptation of agri-service business to reach new markets through alternative marketing techniques like internet purchasing;
- New ways for increasing farm labour supply through guest worker program reform. (Esseks, et al., 2009, p.11-12)

Irwin, et al. (2009) have recognized that recent contributions to planning literature are pointing more towards the importance of not treating land use policies, particularly when referring to growth control (through urban growth boundaries, adequate public facility ordinances, minimum lot zoning, clustering, purchase or trade/transfer of development rights), as exogenous. Brabec and Smith (2002) have examined the 3 most popular tools used for minimizing rural land fragmentation in the United States: Purchase of Development Rights (PDR); Clustering; and, Transfer of development rights (TDR). The US federal government Department of Agriculture's Natural Resources Conservation Service's Farmland Protection Program uses purchase of development rights as a main tool to preserve agricultural land and farm uses (USDA ERS, 2006).

Introduced in 1996 by the Federal Agricultural Improvement and Reform Act, the Protection Program supports local governments and agencies' ability to offer up to 50% of fair market value to private farmland for a conservation easement (USDA ERS, 2006). As of the 2002 Farm Act, funding for the program across the United States has been increased to about \$100 million per year (through to 2007) and has allowed for unlimited acreage enrolment (USDA ERS, 2006). The 2006 Agricultural Resources and Environmental Indicators Report found that there were nineteen States and 41 local jurisdictions that used PDR programs (Nickerson & Barnard, 2006, 216). An estimated \$123 million is spent annually overall on the program, preserving close to 1 million acres of farmland (Nickerson & Barnard, 2006). These savings have come at a 1.4 billion dollar cost to the federal government since the 1970's (Nickerson & Barnard, 2006, p.216).

However, the land saved by the PDR programs is only two percent of the total cropland that is subjected to development pressures, with an estimate of \$130 billion to preserve the total land that is pressured (Nickerson & Barnard, 2006). The average cost of

conservation easements in the US for State PDR programs are about \$1,400 per acre, but that amount jumps to \$2,000 per acre in the locally run PDR programs (Nickerson & Barnard, 2006, p.216). The high costs of the PDR program at all governmental levels makes it a difficult program to continually sponsor in the face of economic recession, despite its longer rate of preserved land return when compared to other methods of land preservation (Nickerson & Barnard, 2006, p.218).

Transfer of Development Rights programs became popular in the 1970's and since have been received in communities as a preservation tool with varying degrees of success (Kaplowitz, Machemer & Pruetz, 2007). Brabec and Smith's (2002) study finds that although PDR preserved more total farmland, TDR was the most successful in preserving more contiguous blocks of farmland, reducing fragmentation. The Agricultural Resources and Environmental Indicators Report (Nickerson & Barnard, 2006) found that since Purchase of Development Rights programs incur high costs for all levels of governments, there is increasing interest in Transfer of Development Rights programs. As of the 2006 report, 50 local authorities adopted TDR programs, but only 15 of those programs have preserved above 100 acres each (Nickerson & Barnard, 2006, p.218). This slow success is attributed to the difficulty in gaining local taxpayer support in the areas that will have the higher urban densities transferred within, despite the overall savings gained by the local government (Nickerson & Barnard, 2006, p.218).

Nickerson and Barnard (2006) observed that TDR programs are used with in conjunction with downzoning efforts to reduce the overall housing density in an area, resulting in the slowing of development in an area that is not officially designated as agricultural reserved land (220). In this sense, TDR is an effective tool because zoning changes are easier on individual parcels, but more difficult on large contiguous blocks, so that TDR acts as a preservation tool for downzoning farmland in contiguous blocks (Nickerson & Barnard, 2006, p.220).

Kalopwitz, Machemer, and Pruetz (2008) reviewed 52 TDR programs in the United States, surveying planning professionals who administered the programs. The study finds that TDR programs are more successful if they are established with an existing PDR program because the PDR program allows the landowner to look to an established easement value for the land and can be a sign of the existing commitment of a community to want to preserve land (Kalopwitz, Machemer & Pruetz, 2008). The study also finds that TDR success increases with the introduction of a TDR bank in the community, as well as when the community undertakes appropriate background studies before the introduction of the program (Kalopwitz, Machemer & Pruetz, 2008).

What Brabec and Smith (2002) found was that the most effective way to minimize land fragmentation was the use of several land conservation tools all at once, but found that in terms of parcel preservation with active farming remaining, PDR resulted in more farms being maintained, followed by TDR which actually was more effective at preserving larger proportion of land. PDR and TDR programs result in longer-term restrictions than other farmland preservation tools, but the true effect has not yet been verified. Nickerson and Barnard (2006) suggest that the programs may actually be harming the land that development is being transferred to and protection of the land for the actual length of the easement may not be enforced. PDR's ability to minimize land fragmentation is also questioned by the report because parcels preserved are not necessarily contiguous; resulting in fragmented preserved land amongst severed land that is not subjected to PDR (Nickerson & Barnard, 2006, 220). Brabec and Smith (2002) suggest to minimize rural land fragmentation,

“emphasis on protecting larger parcels is critical to reducing fragmentation...using adjacency and contiguity criteria in making preservation decisions improves the ability to protect large contiguous blocks of land and are key in ensuring that farming can continue effectively in the targeted area...severing all development rights from the land will ensure the continued viability of farming, lessening the potential of conversion to residential uses. In cluster programs, effectiveness is also influenced by the amount of review discretion granted to the site plan approval board, and the threshold of open space protection required in the ordinance. Finally, the analysis and comparison of the three land preservation strategies reinforces the importance of utilizing and coordinating a variety of protection tools to achieve optimum protection of the land base” (p.267).

Irwin, et al. (2009) use the example of the study by Lynch and Liu (2007) that looked at the impact of a Rural Legacy land preservation program in Maryland that sought to maintain contiguous blocks through voluntary easement purchases. The findings showed that although the easements preserved land in the Rural legacy areas, it did not reduce new development overall (Irwin, et al. 2009). The Irwin et al.'s (2009) review comments that examples like Lynch and Liu (2007) are important because it used spatially disaggregate data and so the studies best show the impact of growth controls on the spatial distribution of new development. However, matching the scale of analysis to the scale of policy, the specific area studied cannot be applied to other regions using similar policy controls (Irwin, et al., 2009). Irwin et al. (2009) conclude by stating,

“Growth controls and land preservation often achieve their targeted goal of constraining or preventing land development in designated areas, but they have also had unintended consequences, such as land preservation crowding out private land conservation and generating spatial spillovers that exacerbate sprawl and increase ecological damages” (p.453).

Canadian Preservation Strategies

Agriculture plays a large role in Canada’s Gross Domestic Product (GDP), with 8% of goods and services produced by agriculture and food industries in 2008 (Saha & Mitura, 2009). But according to the 2006 Census of Agriculture, farm population continued to decline by 6.2% to 684, 260 from the 2001 levels (Statistics Canada, 2008). With this decrease, there was also a 9.5% decrease in the number of farm families on unincorporated farms to 175, 810, with a median income of \$56, 412, or \$7434 less than the median income of families in the general population (Statistics Canada 2008). Additionally, the 2006 Census saw that while the overall number of farms decreased 7.1% to 229,373 farms since the 2001 Census, the average farm size has increase from 676 acres to 728 acres (Statistics Canada, 2008). This is reflected in the decrease in farms with less than \$250,00 in receipt by 10.5% and increase of gross farm receipts for farms over \$250,000 since 2001 (Statistics Canada 2, 2008).

Unlike the Niagara Region, Prince Edward County does not fall under the Greenbelt or the Golden Horseshoe legislation and subsequent plans. Prince Edward County, however, does still face the real threat of losing its natural, cultural and agriculturally rich landscape. Its prime Canadian Land Inventory (CLI) Class 1-3 land is protected from fragmenting severances and subdivisions, but it is the rural land with lower soil classification that is being lost. Much land in Prince Edward County is classified as rural and not prime agricultural, but this rural land can still support productive uses and is being lost to non-farm residential uses, putting a strain on the County’s resources, infrastructure, cultural and natural heritage and the agricultural lifestyle.

The Canada Land Inventory uses data collected from the 1960’s to the 1980’s in order to create an inventory of rural land in the Country (Agriculture and Agri-Food Canada, 2011). The inventory is meant to account for the land capability to support agriculture, forestry, wildlife, and recreation over 2.5 million square kilometers including waterways (Agriculture and Agri-Food Canada, 2011). The land is classified into seven categories; Class 1 has the highest capability and Class 7 has the lowest (Agriculture and Agri-Food Canada, 2011). Agriculture and Agri-Food Canada (2011) recognizes that much of the

data is not accurate or the most recent information available for land. Soil surveys are often produced by land developers that challenge the classification of many parcels (Personal Communication, Brendan O'Connor, August 2011). Yet, many municipalities rely on the CLI for planning purposes.

The Provincial Policy Statement of 2005 requires the protection of Prime agricultural land that is defined as, "land that includes specialty crop lands and/or Canada Land Inventory Class 1, 2 or 3 soils in this order of priority for protection growth policy." Lands that are below Class 3 are subjected to lower legislative protection, as they are not seen as capable for production. However, according to the Neptis Foundation's Review of Agriculture in Central Ontario Zone, the CLI classification system is flawed because it is only based on the ability to grow common field crops and it does not consider local conditions or demands for other crops that are suitable for lower Classes of land (Wilson, 2003, p.13). In addition, the Neptis Foundation report points out that Class 1-3 lands are not necessarily contiguous blocks of land, which can lead to fragmented development, where in between parcels of Class 1-3 land, there could be Class 4 to 7 scattered throughout, making the provinces' attempt to secure large contiguous lots of prime agricultural land from development inconsistent (Wilson, 2003).

Additionally, the CLI soil maps can be challenged by development applicants that produce soil survey reports to discount the classification of prime agricultural land (Personal Communication, Brendan O'Connor, August, 2011). When land is changed from the prime agricultural land designation and from the rural land designation its productive capacity is removed, as by-laws for residential lots often do not support for small lot production or livestock, such as Prince Edward County's Comprehensive Zoning By-law 1816-2006. The Neptis Foundation report highlights alternative land classification systems, like the Agroclimatic Resource Index which considers the growing season length, temperature and moisture as related to crop yields (Wilson, 2003, p.15). The Land Evaluation and Area Review (LEAR) System for Agriculture was developed by the Ontario Ministry of Agriculture and Food to rate soil within a particular service area by using social, economic and environmental factors. Despite its consideration of these additional factors, the LEAR system is meant for comprehensive planning reviews, rather than for specific applications (Wilson, 2003). The LEAR system is not used however as broadly as the CLI for municipalities, which is still used by OMAFRA to evaluate farmland designations and property assessments by MPAC (personal communication, Brendan O'Connor, August, 2011).

In Prince Edward County, there is no formal tracking of land that is challenged from Prime Agriculture or Rural and has successfully been approved by OMAFRA to a lower designation (personal communication, Brendan O'Connor, August 2011). Land that is approved for redesignation because of a soil survey that disproves the CLI is then forever lost and is no longer seen as having productive capability, despite the inability of the CLI to account for other important factors for productive land (Wilson, 2003). Challenging land purely based on a soil survey does not account for exactly what the CLI is said to be at fault for. Wilson (2003) points to other important factors of productive viability such as temperature, orientation, wind, erosion, presence of microclimates, and levels of precipitation that are important to grow *certain* crops. In addition, economic and social conditions are as important to ensuring productive agricultural land as its soil quality, but the CLI, and in turn, the soil surveys that can disprove the CLI, do not account for these conditions when defining productive land. Wilson (2003) includes amenities and resources that are associated with the land such as "proximity to market; transportation resource; a critical mass of agricultural operations and activities; access to services, markets and research facilities; the presence of a skilled work force; and lack of conflict" (p.21) as being an important consideration of the productive capability of land. Finally, the CLI assumes that the knowledge base of farmers is transferrable to other parcels of land, but as the report states, "once the location is lost, the ability to produce is also lost" (Wilson, 2003, p.21) as farmers have location specific knowledge that is not easily relocated once a farmer leaves the land so does the skillset - losing productive knowledge (Wilson, 2003).

Provincial Snapshot: British Columbia's Agricultural Protections

Much of the literature looks to British Columbia's model for agricultural land preservation as a way of minimizing urbanizing impacts on rural and agricultural land. British Columbia has highly concentrated urbanized areas that push up against its agricultural lands (Ministry of Agriculture, British Columbia, 2011). Edge planning is of high importance to help recognize incompatible land uses and to minimize loss of farmland to nonfarm uses lands (MOA, BC, 2011). Local officials have legislative tools to help determine if a subdivision or severance is suitable. It requires specific buffering, infrastructure and stormwater management between farmland and non-farm land lands (MOA, BC, 2011). As part of this process, there are agriteam members for local officials to consult for subdivision guidance lands (MOA, BC, 2011). The province has released a subdivision guide for both local officials and for developers of non-farm land to

consider the possible conflicts that might arise from the farm and non-farm uses so close in proximity (MOA, BC, 2011).

The British Columbian government has been proactive in its protection of farmland out of necessity because of its topography lands (MOA, BC, 2011). Under its Strengthening Farming Program, there are two main initiatives: Farm Practice Protection and Planning for Agriculture lands (MOA, BC, 2011). The initiatives are meant to make farm planning accessible to farmers, developers, community members and local municipalities lands (MOA, BC, 2011). Similar to Right to Farm policies across Canada, the United States and in Ontario in particular, the Farm Practices Protection (Right to Farm) Act in British Columbia protects farmers' ability to operate using normal farming practices, as defined by the act, without being subjected to complaints and liability from any person or municipal by-laws lands (MOA, BC, 2011). Any complaint about farming nuisance goes through the Farm Industry Review Board to resolve complaints. The protection works in conjunction with the Agricultural Land Reserve and the Land Title Act that reserves current land and future lands for agricultural purposes to protect from urban encroachment lands (MOA, BC, 2011).

The second main initiative of the Strengthening Farming Program is Planning for Agriculture. Its focus is in establishing relationships between government (local, regional and provincial) to the farming community lands (MOA, BC, 2011). Under this arm, there was the introduction of the Local Government Act and the Land Title Act to give local governments the chance to establish strong policy to protect farmland lands (MOA, BC, 2011). The Ministry of Agriculture provides examples of what local plans for agriculture can include, such as the ability to designate Development Permit Areas to improve farm and non-farm land use compatibility and the ability for official plans, zoning by-laws and farm by-laws to provide legislative support to farmers in edge planning (Ministry of Agriculture BC, 2011).

Recognizing that agricultural production is not the only impetus for agricultural preservation in British Columbia, Stobbe, Cotteleer and van Kooten (2009) point to the underlying wish of communities to preserve the cultural, aesthetical, ecological, recreational and educational quality of the land. These additional values of the farmland are referencing the increasingly popular term 'multi-functionality of agricultural land' to describe its attributes and its function as a public good (Stobbe et al 2009; Brouwer and van der Heide, 2009). Stobbe, et al. (2009) review the use of zoning as a land use instrument in British Columbia's Agricultural Land Reserve, questioning whether hobby farms in BC are either a positive step towards slowing development on

agricultural land or if they are a step toward urbanizing agricultural land (Stobbe et al, 2009).

Stobbe et al. (2009) state that lower taxes on agricultural land has some impact on the increasing number of hobby farms and rural estates, where, “the threshold for qualifying for preferential taxation rates is set deliberately low in order to make agriculture an attractive land use, although this have the unintended consequence of subsidizing sometimes wealthy landowners pursuing a rural lifestyle in proximity to the urban area” (Stobbe et al, 2009, p.394). Finding that within the Agricultural Land Reserve in BC, hobby farms actually increase the value of the land, but outside the ALR land, the hobby farms are often worth less per hectare than larger farm operations. Stobbe et al. (2009) concludes that hobby farms do take advantage of incentive property tax treatment of agricultural land, seeking lots smaller than 0.8 hectares to avoid the higher tax bracket to enjoy a productive, yet mainly rural lifestyle. This result could be leading to the conversion of land within the ALR to residential, despite its designation as a small farm operation (Stobbe et al., 2009).

Preservation Segregation

The literature on land fragmentation, as seen in the United States with PDR and TDR land preservation efforts, in British Columbia and their Agricultural Land Reserve and in Ontario with the Greenbelt act, work towards preserving Prime Agricultural land as separate from other developed land. Rural land however, is often classified as being less capable with lower soil quality or other factors making it less ideal for certain types of agriculture, therefore subjecting it to consumption for residential or urbanizing purposes, fragmenting it. Much of the action taken by governments at all levels tries to direct development to other non-agricultural areas, which are not suitable for agriculture for a variety of reasons (environmental, but mostly by economic forces). Taking the steps to secure preservation of prime agricultural land despite economic pressures that give higher land value to residential properties is a bold step to secure the food security and cultural landscape in the long term. But what about land not classified as Prime? As mentioned earlier, much of the prime agricultural land preservation in Ontario is based on the flawed and outdated Canadian Land Inventory that can be challenged based on the narrow definition of Prime Agricultural land through simple soil surveys. And so rural land, or land deemed incapable of being as productive for the large-scale agriculture industry, which consumes most of the contiguous prime agricultural land in Canada, is left vulnerable to another kind of consumption.

What if all land was viewed as productive rather than a consumptive? Prince Edward County has an opportunity to work towards a more inclusive productive landscape, where there is no separation from land that has productive capability and land that have development capability, where both have potential that does not need to be put in silos. The point here is not to exploit land for its development potential, nor its highest and best use that is often sought in urban centres, but to ensure that land is seen at its full potential from a holistic and self-sustaining perspective.

PART 4 OPPORTUNITIES AND CHALLENGES FOR A PRODUCTIVE LANDSCAPE

Many opportunities arise in the literature for creating or maintaining productive landscapes. For instance, Ngo and Dorff (2009) report that rural areas are attractive to young adults who are seeking more affordable housing and open space; where as youth are leaving rural areas because of a lack of jobs, postsecondary educational opportunities and amusements. However, another group that are attracted to Canada's rural areas are early retirees, ages 55 to 69 years old. Rural communities have an opportunity to attract and to provide resources to these migrants who might not have the skills to use the land productively but otherwise are willing. Moreover, rural communities should work towards retaining the youth that leave rural communities. Prince Edward County, according to Caldwell (2010), has a stable population but should consider providing broader resources to newcomers and to youth, especially by utilizing the creative rural economy.

Furthermore, Dan Taylor, Economic Development Officer for Prince Edward County, has been working towards evolving a 'creative rural economy' strategy for the County (Caldwell, 2010, p.96). Looking at opportunities to create a productive landscape, it becomes clear that this type of strategy is in line with many agricultural trends in the County, which has seen 'a creative renewal of agriculture', by way of organic agriculture, culinary tourism, local cheese-making and a strong and growing wine industry. "In fact, since the year 2000 the County has gone from less than 20 acres of high quality European vines planted to over 600 acres under vine, making Prince Edward County the second largest viticultural area in Ontario" (Caldwell, 2010, p.98). The county has seen \$100 million invested in both the wine and tourism industries since 2000, and Caldwell argues that the increased number of organic farms in Prince Edward County is a potential advantage because of Toronto's growing specialty-food sector. Betsy Donald (2009) has found that the specialty-food sector in Prince Edward County was expected, in 2009, to be the fastest growing sector by 2011. Caldwell finds that these specialty agriculture sectors significantly contribute to tourism in the county.

The movement towards this creative rural economy is based largely on the work of Richard Florida, as applied to rural communities, and influenced by the Memphis Manifesto (2003, See appendix, 11). Backed up by the work of Peck (2005), a Queen's University report in 2008 highlighted certain areas where Prince Edward County may fall into gaps in this theory, such as the need for universities and a concentration of gay households. "It is not clear that the 'Bohemian factor' is applicable to rural regions or if

there may be other factors that drive rural economic development. It is important here to trouble the term 'creative class' and to realize that creativity means forward thinking, idea generation, and sustainable innovation. Creativity can and must be embraced by all sectors of the economy and across all socio-economic levels" (Donald, B. et al., 2008 in Caldwell, 2010, p.102). Predicting the County's ability to create a truly creative economy will be largely dependent on creating a productive landscape, one where the best opportunities are afforded to alternative or specialty farmers, where barriers are removed from value-adding activities, and where more traditional farmers are not marginalized from the global market. The Community Futures Development Corporation found that Prince Edward County has done an excellent job of promoting a regional brand, by marketing the 'Taste Trail'. "Providing a product that the region can feel good about supporting is vital. For instance, utilizing local produce, if possible, and as available, would be an important step in gaining credibility and fostering consumer loyalty" (FRONTENAC, 2005, p.15). It is these types of agri-tourism strategies that would benefit Prince Edward County's attempt at becoming a Creative Rural Economy.

In June, 2010, the Metcalf Foundation released a series of papers intending to address food security. The series is broad-ranging, and addresses substantial barriers and opportunities for farmers in Ontario, including urban farming in Toronto, of which some insight can be made concerning barriers faced by smaller or alternative agricultural markets in Prince Edward County. One can see both similarities and differences between urban and rural farmers, but many areas, such as zoning and taxation, affect both groups. As urban farming expands in places like Toronto, the traditional balance between urban and rural is likewise changing. Suburbanization and land fragmentation have forced governments, including the government of Ontario to address much land in rural settings differently, especially when concerning those designated as Prime Agricultural.

Minimum Distance Separation

Euclidean zoning, though it protects users from noxious uses, prevents policy makers and users themselves from being able to incorporate a multiplicity of seemingly different, but for the farmer complementary uses of residential, agricultural and processing/manufacturing uses. For the external, more urban or suburban user, this multiplicity can be confusing and can lead to a perception of uncomplimentary nuisances that are compulsory to the farmer's livelihood.

“Right to Farm” legislation and Minimum Distance Separation are examples of this segregation mindset. Minimum Distance Separation (MDS) has been used for three decades in Ontario, though guidelines developed by the Ontario Ministry of Agriculture, Food, and Rural Affairs, which succeeded the 1976 Agricultural Code of Practice (OMAFRA, 1976). Ontario is coming out of an era of MDS policy which has been criticized as being subjective and unscientific, cumbersome and difficult to use and understand, as well as also being unable to “quantitatively account for odour control technologies, such as biofilters and manure treatment systems” (MacMillan and Fraser, proceedings of the American Society of Agricultural and Biological Engineers conference, 2003). Two sets of MDS guidelines exist, MDS-I is for siting new residences from existing livestock operations while MDS-II is for siting new livestock operations from existing residences. The models determine setbacks based on animal species, numbers and manure handling systems. (Guo et.al, 2004).

MDS Case OMB Case #3 - March 15, 2010.

Rosa McLeod owns lands and is looking to sever two lots from the existing 29.2 acre landholding, north of Black River. The two lots would be 9.8 and 9.5 acres with 430 feet frontage on Morrison Point Road. That would leave another lot of 9.9 acres with a 400 feet frontage. An accompanying rezoning would amend the R1 to Special Rural -85 and -97. The Land Division Committee refused the consent application and Council refused the rezoning. McLeod has appealed to the OMB. The OMB finds the proposal to be good planning. The proposed lots are large enough to meet Minimum Distance Separation (MDS) Formula 1. Private water and sanitary systems will service all three lots. There is a new well policy that is adopted in the condition for the consents. Current Official Plan designation is Shoreland. This permits the creation of 3 lots through a consent process and sets a smaller minimum lot size of 2 acres. As well, residential uses are permitted. An accompanying zoning bylaw will set a minimum lot areas of 9 acres for the 3 lots. The revised zoning will provide for increased set backs on the front yard and western interior side yard on the remainder lot to protect neighbouring livestock structures. The Board finds that the consents have appropriate regard for section 51(24) of the *Planning Act* as well as consistency with the PPS. The Board allows both appeals (OMB, 2010).

In 2009 the County of Prince Edward passed an Amendment (OPA 30) on the basis that lands designated Shore Land join those designated Prime Agricultural and Rural to “avoid or reduce the potential negative impacts of new lot creation on lands designated Shore Land adjacent to livestock farming operations located on lands designated Prime Agricultural and/or Rural” (OPA 30, 2009, p.5). Shore Lands then join Prime

Agricultural and Rural as requiring the application of MDS formulae for all new development, and to allow setbacks to be measured “from the nearest point of the livestock facility and the nearest point of residence” (OPA 30, 2009, p.4). The application of MDS especially on this newly designated Shore Lands, on local farmers requires further study.

When a consent is granted on accordingly designated lands, MDS may affect a start-up farming operation’s productive potential, just as it may have consequences concerning existing operations. Minimum Distance Separation requirements make it difficult for part-time farmers to maintain the agricultural status when developers of land to be severed nearby survey land during the off-season to report the status of the farmer. The result is that the not only is the severed land lost to non-farm or residential uses, but the nearby farm is rendered obsolete because it was not active when the survey was completed. Further study is required to understand how MDS has contributed to severances in Prince Edward County.

Value added Activities

Niagara Region experienced a period of innovation after the Greenbelt Plan and Act placed a hold on developing on farmland within its boundaries. Gayler (2010) examined the impact on farmers who had planned to sell off their farmland as a retirement security. For these farmers the, “topdown land conservation was seen as the ‘final straw that broke the camels back’ for farmers because it froze land and what could be done with it” (Gayler, 2010, p.81). The Greenbelt plan essentially depressed the value of land that was already having difficulty competing (Gayler, 2010). The perception found by Gayler (2010) was that the preservation of land was not for the long term benefit of food security nor was it for the preservation of land, but rather it was for the idyllic and recreational enjoyment of people from urban areas. What has come out of the Greenbelt boundary is the drive towards adding value to farming operations in Niagara, where efforts of farm gate stalls and providing produce to local supermarkets increased (Gayler, 2010). Additionally, farm operators in the region faced another hardship with the closing of the canning plant- the last of its kind for peaches and other locally produced fruit, leaving these farmers with produce that could not be sold at farmers markets because they were meant for processing (Gayler, 2010). Niagara Region is working towards creating policy that is supportive of on farm value added activities, which currently the PPS limits. Gayler (2010) found without this support the farmers in Niagara Region would have been left with little competitive value.

Currently its agro-wine tourism allows farmers some flexibility, where secondary activities are permitted with zoning and site plan approval.

The Niagara Review of Land Use Policy and Related Implementation Measures (Value Added Activities) recognizes the need to expand the definition of value added activities, which often is defined as,

“In general terms, “Agricultural value added activities” are considered to be agriculturally related sectors of the agricultural economy. Such activities may be “on farm” endeavors undertaken by the owners and operators of a farm or agricultural operation. Such activities may also include “off farm” activities, directly complementary to and supportive of the agricultural economy, but located on a separate site, and not necessarily operated by farmers. The critical element in the consideration of “off farm” agricultural value added activities is that they be land uses which service the agricultural economy only and which are not more appropriately directed to settlement areas. In addressing off farm uses, policies must be consistent with the Provincial Policy Statement.” (Planscape, 2009, p.2)

The report highlights that, “Section 2.3.3 of the PPS regulates uses permitted in Prime Agricultural Areas and restricts them to agricultural uses, secondary uses and agriculture related uses” (Planscape, 2009, p.3). The Planscape (2009) is of interest to Prince Edward County, because the overarching need in the agricultural industry, especially at the mid-small farm level to remain competitive, so that farmland is not only valuable as fragmented residential lots. The report calls for flexibility in policies and in how statutory planning tools can be used to encourage agricultural value to increase beyond the large farming operation and the small unproductive residential lot (Planscape, 2009, p.4). The report provides a breakdown of what Agricultural value added activities can do for farming operations and what they can include to mean. (See Appendix 12 for examples of value-added activities from the production, marketing and experiential/educational sides of agricultural-related activities.)

Nurturing Fruit and Vegetable Processing in Ontario, another of the Metcalf Foundation series of papers on food security, “examines the structural, legislative, economic, and regulatory frameworks that have led to an Ontario food-processing sector that is inadequate for many small and medium-scale farmers” (Carter-Whitney and Miller 2010, p.7). Reviewed are the missed opportunities in the food processing sector, with potential solutions developed, many of which would benefit local farmers in Prince Edward County. The paper addresses the following questions:

- 1) How did economic and historical trends and pressures lead to the current problems in Ontario's food-processing sector?
 - 2) What new trends, opportunities, technologies, and markets offer solutions and strategies to create sustainable food processing?
 - 3) What positive supports and networks already exist for local food processing?
 - 4) What challenges and barriers exist to rebuilding the middle?
 - 5) What structures and models can help to catalyze a sustainable food economy?"
- (Carter-Whitney and Miller 2010, p.7)

Maureen Carter-Whitney has been an active contributor to food security in Ontario, the recommendations from *Nurturing Fruit and Vegetable Processing in Ontario* are helpful to policy makers in Prince Edward County, amongst the most pertinent being to immediate help for farmers in Prince Edward County are strengthening co-operative legislation and support for investment in co-operatives, identifying marketing strategies and planning appropriate to regional food production, stimulating agricultural processing enterprise zones to extend tax relief and credits to food processors and creating support for food processors in paying employment costs.

With *Bringing Local Food Home* written on behalf of the Canadian Institute for Environmental Law and Policy, Carter-Whitney makes recommendations within the following sectors: Food distribution systems, food labeling (country of origin and local food labeling regulations) health regulations, farmland property tax assessment, and supply management systems. By conducting interviews with farmers as well as a literature scan, Carter-Whitney was able to identify various barriers faced by farmers, specifically by those in Ontario's Greenbelt. As well as farmers of crops as diverse as beef and flowers, interviews were also conducted with representatives from the Ontario Fruit and Vegetable Grower's Association, the Ontario Fruit and Vegetable Grower's Association, the Ontario, the Ontario Federation of Agriculture, and Local Food Plus. "For each of the barriers identified, the report considers specific actions that could be taken by government regulators to overcome these barriers, and promote and provide the conditions for a more sustainable local food economy in the Greenbelt" (Carter-Whitney, 2008, p.5).

Relevant to the value-adding production, the report finds that mandatory local food labeling should be developed, in consultation with farmers and stakeholders. The CFIA should eliminate their interpretation of "local food" which it uses on its website. Speaking in particular of the Greenbelt, such specific labeling as "Greenbelt Grown"

has seen support within the Greenbelt. Prince Edward County would be well serviced to follow-suit, even if Greenbelt-like policies are not pursued.

The Golden Horseshoe Greenbelt Background Discussion Paper by the Ontario Property and Environmental Rights Alliance has been prepared for advocacy of the rights of private landowners in the Greenbelt. It is concerned that the protective legislation which created the Greenbelt will cause farmers to be unable to maintain productivity through generations, as farms on lower-class lands will be turned into 100-acre estates and take off-farm jobs. Without programs to protect farmers included within the legislation, cash croppers will move in. This paper is extremely critical of the legislation, calling it “unprecedented” and at the “behest of urbanites and environmentalists.” While some of the language is incendiary [“The purpose of this paper is to bring Ontario citizens knowledge of the theft of 1.8 million acres of private property by the legislature of Ontario” (OPERA, 2004, p.2)] its claims should be valued appropriately, and a recognition that a Greenbelt-type approach will not appease all stakeholders.

In Supply-Management Systems, local farmers are unable to obtain necessary quotas. “Supply management, while a boon to farmers who participate in the quota system, may pose economic challenges where the cost of acquiring a quota is very high and therefore not feasible for a small farmer, or where a farmer wishes to move from solely production to value added to sell locally on a small scale” (Carter-Whitney, 2008, p.32). Supply-managed commodities in Ontario include chicken, eggs, dairy and turkey, and farmers must meet a quota set by a marketing board that specifies the amount they are authorized to produce. These quota requirements do have exceptions, however. The quotas are perhaps seen as more of a barrier currently because there is a new consumer market not being met by production from those currently with the plant supply quota” (Carter-Whitney, 2008, p.33). Dairy Farmers of Ontario have launched a program for artisan cheese makers using traditional methods, making available a pool of milk outside of existing plant supply allocations. Carter-Whitney also looks at the case of Chicken. Writes Carter-Whitney: “The Dairy Farmers of Ontario are to be commended for recognizing that providing for some production outside of the supply management system will not affect the integrity of the overall system, but can help meet new and/or different market demand for locally grown products” (Carter-Whitney, 2008, p.35). It is recommended that the Ontario government continue work to this end.

New Farmers and Alternative Markets within the Supply Managed System by Young and Watkins (2010) of FarmStart:

“Non-conventional farmers depend on their ability to differentiate themselves in the market, and they do their own marketing to let customers know about what they do differently. They do not benefit from economies of scale to the same degree, and they cannot justify the market price for quota given the production methods they use. Many of them sell their products through alternative markets, such as farmers’ markets, farm shops, or Community Shared Agriculture (CSA). New farmers, on the whole, cannot easily access the capital required to get into supply-managed commodities. For this reason, those who do not have a family farm operation to “buy” into over time generally tend to enter non-traditional markets” (Young and Watkins, 2010, p.6).

Poultry and eggs on a small scale may be exempt from quotas, but this is not true of milk. Prince Edward County has a significant milk industry and this could prove problematic. The paper includes the following options, which would help accommodate the needs of non-conventional farmers within these supply-management systems. They are (p.7): increasing quota exemptions, developing alternative markets that are not subject to quotas, decreasing minimum quota levels, establishing separate quotas for specialty products, offering exemptions for specialty products, offering exemptions for producers who sell through direct marketing, setting aside a certain amount of processing capacity for alternative producers. “(in) Ontario and some other jurisdictions, the minimum amount for quota exceeds the quantity that is subject to an exemption from quota by a significant amount, so, in effect, a particular range of farm sizes is ruled out” (p.10). Farm Start recommends:

1. Raise quota exemption levels to facilitate additional alternative production.
 2. Phase alternative market development program into the supply- managed system.
 3. Decrease minimum quota holdings and allow for increased self- marketing initiatives.
 4. Establish separate quota for specialty product.
 5. Create an exemption for specialty products.
 6. Create an exemption for direct marketing.
 7. Target specialty markets in allocating processing.
- (Farm Start, 2010, p.30).

“The first step in resolving these latent conflicts is recognizing the differences and needs of new producers supplying alternative products and producers supplying commodity products” (Lauren Baker, Philippa Campsie & Katie Rabinowicz, 2010, p.36). Menu 2020: Ten Good Food Ideas for Ontario is equally critical of supply-management

systems, such as the Ontario Milk Marketing Board, which act as intermediaries between producers and sellers. This paper suggests that supply-management does not work well for alternative or non-conventional farming. They are unable to meet quota regulations, and their production becomes muted. This must be seen as a very real barrier to providing value-added farming practices.

Ryerson University has been prominent in exploring food security measures in Ontario, and several projects and studios have focused exclusively on the state of agriculture in Prince Edward County. *Cultivating Rural Creativity* (2009) looks to Retain Prime Agricultural Land, Intensify Urban Areas, Promote Rural Innovation, Explore and institute progressive zoning options and Encourage Public Engagement. With an overview of Creative Class concepts, primarily Richard Florida's (which has influenced Prince Edward County's economic development plan) and is sufficiently critical of his approach. The report follows with a comparison against trends in the rural economy and a literature review of rural creativity (Class Consultants, 2009, p.32) as well as the agricultural sector broadly. Class Consultants looked at the prevailing land use policy and zoning in the county and proposes 4 zoning alternatives: cluster zoning, performance zoning, transfer of development rights, and density bonusing.

Focusing on several case studies, the Class Consultants found that they "reflected a trend of inflexibility in planning definitions on the part of the municipal government. Alternative Zoning measures could alleviate some of those challenges in the future" (Class Consultants, 2009, p.57). The Carriage House Cooperage, Robert Thomas Estate Vineyard and the Mill Pond Cannery all are valuable inclusions and relevant to understanding how land use policy affects the sustainability of local agriculture in Prince Edward County.

Food and Farm Innovation in the Creative Age is another Ryerson studio report that sees Prince Edward County as being opportune for as Betsy Donald calls the 'creative food economy'. This are meant to describe 'niche' food products, including local, ethnic, organic and specialty foods (Britten, H. et al., 2009). Donald has found the 'creative food economy' has grown by 15 to 25% in the last decade, adding that this market is a key to sustainable agricultural growth. This provides necessary balance to Richard Florida's creative class approach, noting, "...rural and peripheral areas also may exhibit high levels of creative occupations and conditions favourable for the creative class. These include a level of vibrancy, diversity and crucially innovation and adaptability to changing market needs" (Britten, H. et al., 2009, p.5).

Taking advantage of value adding would benefit farmers, diversifying their products and securing a place within new markets. (Barlas et al, 2001; Charlebois, 2008; Donald, 2009.) Yet, the report notes that Value Adding has faced a set of policy obstacles. Lands must remain agricultural, and problems arise if requiring industrial designation. But by allowing on-farm value adding, niche products increase consumerism and encourage direct farm sales, such as farm gate sales. The obstacles of Value Adding are denied in the absence of practicing 'place-based planning'.

The government of Nova Scotia describes the purpose of value-adding as increasing the *perceived* value of goods, which should result in a rise in sales. "Ideally, value-adding will boost your revenue by a higher proportion than the added expenses it requires. Value-adding can also result from simply processing your primary products" (Government of Nova Scotia, 2010, p.1). The Product and Quality Development Division of the Nova Scotia Department of Agriculture lists several ideas for value-adding: "packaging different root vegetables together in a soup/stew 'medley'; making hay and straw bales small enough to fit in the trunk of a car to appeal to urban consumers; changing food and packaging functionality (e.g. boil-in-bag rice); turning cow manure into particle board" (Government of Nova Scotia, 2010, p.1). The Product and Quality Development Division also works with farmers in value-added development. The division is mandated to support turning value-added ideas to reality. The Department uses counseling, networking, resource and support programs into this end. It works with farmers to make sure their idea viable, test the product, promote the product, sustain the innovation and demand and connect the farmer with the "right people" (Government of Nova Scotia, 2010, p.2). This type of place-based approach could benefit farmers in Prince Edward County. The federal government has recognized the need for farming operations to expand, and Agriculture and Agri-Food Canada's Planning and Assessment for Value-added Enterprises (PAVE) program is meant to provide value-added activities. "Under PAVE, the government helps to fund the cost of business planning advice related to a value-added business opportunity such as separating, grading, cleaning or packaging produce in order for farmers to adapt and to connect with local marketing opportunities" (Cater-Whitney, 2008, p.29). Operations under PAVE may have to engage in value added activities, which could include different kinds of processing.

Because of the many regulations involved with food processing, some people may choose to add value in other ways. Born and Bachmann (2006) note that in rural America, many regulations move operations to add value in different ways. Larger scale

value adding has included processing for energy and fibre, and smaller scale operations such as flower arrangement, or willow basket weaving are examples provided. "In addition, ideas for providing entertainment, information, and other services associated with direct marketing are abundant" (Born, H. and Bachmann, J., 2006, p.1-2). As it has been argued, value-added products open new markets, and are seen as positive contributions to a local economy. It is a long-term approach, not a 'quick fix'. "It requires the willingness and ability to take on risk, as well as adequate capital, management skills, and personal skills – such as the ability to interact with the public – to succeed" (Born, H. and Bachmann, J., 2006, p.1,2).

From within the industry, concerns have been raised regarding the sustainability of Ontario's agricultural landscape. In *Municipal Impacts on Agriculture*, Ron Bonnett, Vice President of the Ontario Farmer's Association (OFA) see the demographic changes, exemplified by Prince Edward County, as presenting new challenges to the industry. "The obvious problems resulting from this shift include increasing interference by the non-farm population in rural Ontario with farming practices. Farmers have historically operated their farms, conscious of neighbours and their rights. Rarely would a livestock farmer apply manure when winds or location would make that chore offensive to a neighbour. Yet, farmers are experiencing more and more complaints of this nature, most likely as a result of the expansion of the non-farm resident population in rural Ontario." Bonnett also argues that a challenge to agricultural producers is a shift that has occurred at municipal councils in rural Ontario as they have shifted power away from those in the farming industry. Some of the decisions made by non-farmers are increasingly difficult for farmers to live with. Bonnett has argues that these include regulations on livestock operations, as well as well as "bylaws that restrict use of pesticides, define accepted livestock management practices, and unduly delay farm business expansion plans" (Bonnett, 2003).

Preserving Small Scale Farming Communities

Gayler's (2010) examination of rural policies in Ontario recognized the influence of the local and governmental policies have on land use plans, without effective implementations strategies. What was recognized in examining the example of the Niagara region and the Greenbelt act is that there is a tension between the protection of agricultural and the private interests of farmers who wish to sell because of inability to remain competitive in the agricultural industry (Gayler, 2010).

Bennett (2003) worked closely with the Old Order Amish Community in Ontario to help

secure small scale farming practices that are integral to their way of life and religious and cultural beliefs. In this case, the local municipality's by-laws did not support smaller family farms, mostly due to MDS and other by-laws that supported large scale industry farming. Bennett (2003) found that in the Old Order Amish Community in Ontario, around 75% of families rely on agriculture for a living – 73% more than the national average (158). In addition the size of the farm lots are rarely larger than 80 to 100 acres and in fact, rather than increasing the size of their farming operations, it is often more preferable to diversify operations and not uncommon for young farmers to start only with 10 acres of vegetable crops (Bennett, 2003,159). The community fought to operate a CSA cooperative because of the smaller sizes of their farms. Highlighting the necessity to support smaller family farmers Bennett explains that in this community, like many other small-scale farmers in Ontario,

“A farmer who wishes to produce meat chickens would have to purchase a minimum of 15,000 units of quota at a cost of \$45 per unit (February 2000 market figures). In other words, it would cost a farmer approximately \$750,000 for the quota alone... [the] community are likely to want to farm family-style on a small scale and have diversified farms. They do not want the large-scale or specialized farm operations that the purchase of 15,000 units of quota would require, even if they can afford it...The CSA has helped in our efforts to influence land-use policies because it demonstrates the efficacy of small-scale farm strategies as a counterpoint to the dominant social norms in agriculture” (p.165).

The Old Amish Community was forced to appeal the decisions of their local government that had inflexible farming by-laws, which seriously threatened their way of life, at the Ontario Municipal Board. Here, the local government's decisions were turned over based on human rights violation. What this case shows is the inflexibility at the local level to support the small farmer, because of local and provincial policies that support larger farms on protected prime agricultural lots, leading to the loss or increased barriers to operation of the smaller operation (Bennett, 2003). Reducing quotas and allowing some flexibility with MDS for smaller farmers with uses that are not as potentially noxious as larger farming operations on nearby residential lots (Bennett, 2003). Though the Old Amish community won their case on human rights grounds, their way of life operating small scale farming is analogous to many farmers in Ontario that are struggling to operate competitively among residential uses.

Farmland Property Tax Assessment

Farmland Property Tax policies have been discussed as a major factor in the ability to strengthen long-term sustainable agricultural activities (Wegener, 2009; Stoneman, 2007) in Ontario, as well as nurturing opportunities for Value-Adding activities (Petrie et al., 2008). In Ontario, property tax assessment processed under by The Municipal Property Tax Assessment Corporation (MPAC), both the valuation of real property and the classification of the property's value into one (or more) of seven property tax classes. *Food and Farm Innovation in the Creative Age* (2009) found barriers with regard to farm property being ones of transparency, productive value, and consideration of non-farmer occupied farm residences. Insufficiently detailed calculations, unclear guidelines from MPAC (such as soil types and drainage) during assessment, assessment rules that are based on the selling prices of neighbouring farm properties in a farmer-to-farmer sales approach rather than the farm's productive value. Under the circumstances, is it questionable whether the farmer-to-farmer sales data is reliable and accurate enough for assessment purposes" (Britten, H. et al., 2009, p.19) and that farm residence is defined as being one acre of land beneath the residence as classified as residential.

Food and Farm Innovation in the Creative Age (2009) also notes that the criteria surrounding the classification of farmland as being contentious. The Assessment Review Board (2006) found that "farmland" was interpreted as the land area on the ground however excluding buildings. This implies that operational agriculture facilities such as standalone greenhouses, mushroom operations, and livestock buildings, could be disadvantaged while they are being taxed at a regular residential rate disregarding their contribution to value-adding farm operations" (Britten, H. et al., 2009, p.19). As well, the definition of "farm purposes" and the purpose of "producing or processing" is unclear. "As a result, not only is property tax treatment of the on-farm value-retention activities being unrecognized, on-farm value-adding activities are inevitably being discouraged through a significant shift in the property tax burden to the farmers" (Petrie et al., 2008 in Britten, H. et al., 2009, p.20). Continues Maureen Carter-Whitney: "As well, there is concern about increased taxation levels for buildings used for on-farm value-added and value-retention activities. Consistent and appropriate taxation is lacking" (Carter-Whitney, 2008, p.28).

A 2005 report on on-farm marketing suggested that it is a growing business in Ontario that was estimated as representing almost "\$50 million in value-added at the farm" (FRONTENAC, 2005, p.29). "The concern among farmers is that MPAC assesses parts

of some farm properties at industrial or commercial rates when facilities have been built to conduct value retention activities...As a result, the "net-benefit of on-farm value-added activities are often marginalized or, in some circumstances, negated by an adjustment in taxation levels that results in a ten-fold increase in taxation on the building in which the activity takes place" (CFFO, 2008, p.2). Oregon has introduced zones where agriculture is encouraged, and value-added activities will be assessed at the reduced taxation rate. Oregon may provide some encouragement for value-added taxation equality.

"Value added activities are an extension of the farming operation by taking a marketable farm commodity produced on land owned or controlled through rental, lease and/or sharecropping arrangements by the same farmer or farmers and increasing its value by further preparing it, and/or storing it, and/or selling it directly to the consumer" (Carter-Whitney, 2008, p.31). As well, special treatment for Ontario-grown products, and definitions clarifying which activities that fall into agriculture and non-agriculture tax classes. It should be possible for the province to work collaboratively with producer organizations, municipalities, and other stakeholders to develop a property tax assessment policy and associated definitions to remove this barrier to making local food "market ready" (Carter-Whitney, 2008, p.31). The Christian Farmer's Federation of Ontario (CFFO) in 2008 released a Position Statement of On-farm Value-Added Property Taxation. Two primary concerns were raised, that MPAC assesses value-adding activities as either industrial or commercial, regardless of its ties to agriculture, and that their benefits are then marginalized, or taxation increases on the building that hosts the activity (CFFO, 2008).

Caldwell (1995) lists fairness in the property tax system as needed, and one principle for Best Practices to meet fair and objective land use policy decisions, benefitting both municipalities and producers. Speaking to Urban Agriculture, Nasr. et al. have suggested Agricultural Land Taxation reform suggesting OMAFRA examine whether small-scale urban farms need a different minimum gross annual income to be eligible for a Farm Business Registration number. MPAC and OMAFRA should study the implications of establishing a small-scale urban farm designation. As well, The City of Toronto Finance Department should study the tax revenue implications of permitting urban farm property tax reductions on an extensive set of properties available for cultivation. As part of these studies, the City should explore the potential of engaging a coordinating and facilitating body to help with processing applications for zoning changes and for land taxation reconsideration. Nasr. et al. and others (Carter-Whitney, 2008) have noted tax assessment as being significant barriers to both urban and rural

farming operations. Significant steps are required to understand how land severances have an effect on MPAC's assessments. In Toronto, *The GTA Agricultural Action Plan* addresses this taxation concern: "2.2.4 Taxation: It will not be possible to sustain agriculture over the long term if the industry is not financially viable. Taxation and tax assessment are significant parts of equation for farmers" (Province of Ontario, 2005, p.13). Interestingly, Caldwell, W., and Weir, C., (2002) have suggested that in a local municipality "may now be perceived as providing preferential tax status to farmland and, consequently, generating less revenue from farmland than has occurred historically." (Caldwell, W., and Weir, C., 2002, p.A5.2)

PART 5 RECOMMENDATIONS

Prince Edward County should formally track the changes over time of prime agricultural and rural designated land to residential land, when soil surveys challenge the quality of the land. This tracking will help the County keep a spatial inventory of how the landscape is changing over time and what this change does to its cultural, economic and environmental character over time. This tracking should provide information on lot size, property value and taxation assessments, at-risk heritage/natural features, change in land use designation, and so forth.

Currently there is no formal process to challenge the land designation of prime agricultural land (Class 1-3) and rural land to residential other than the provision of a soil sample to OMAFRA that shows that the soil is not of the same CLI quality as previously thought. As mentioned, the literature shows that the criteria for CLI does not fully account for all factors that encourage a successful productive land. The County is allowed to enforce more stringent criteria to protect this land (Wilson, 2003). This criteria would allow the County to have more say in how severance have an impact on rural land, without enforcing an agricultural land reserve. Working with OMAFRA and MPAC will help to gather the data required for such an inventory.

The Ontario Farmland Trust recommends that conditions of consent be used more widely in Ontario, under section 51.25 of the Planning Act. Conditions of consent would allow the county to work with landowners to create farmland conservation easements on vulnerable agricultural land. Although the County is working towards ensuring that rural land remains free from the hold of an agricultural reserve, conditions of consent would help to manage the rate of land fragmentation from severances. Additionally, the Ontario Farmland Trust sees that rural capacity can be built through the use of Community Improvement Plans, where land qualifies if there is previous underinvestment on a lot, there is a decline in agricultural use on the land, and there are external pressures to use the land other than how the OP stipulates (p27 OFT, recommendations). Using these statutory planning tools to create flexibility within county rural/agricultural planning may lead to further innovation that the County is already recognized for.

Flexibility in zoning by-laws and MDS regulations, like in the case of the Old Amish Order, can be an opportunity for the county to preserve rural character and mid to small size farm competitiveness in new ways. The county should continue to work towards attracting younger people from diverse backgrounds who may be looking to work in agriculture or a related value-adding industry. Hobby farms can be seen as a

threat to contiguous blocks of farm land, but are an opportunity to keeping the land productive if the alternative is a residential lot. Incentives like taxation and educational and resource support can help to encourage new farmers. Small farms should be supported just as much as larger farms. Prince Edward County can move to seeing land on a more holistic level, rather than segregated parcels.

Working towards preserving its rural character and cultural heritage, Prince Edward County will need to continue supporting agriculture in the longterm. Already the County has taken steps to create a creative rural economy, but more policy support is needed for Value Added activities on farmland. Cooperatives have played a long role in agricultural industry. To help mid to small farming operations, the County may consider creating shared space for the community to be able to add value to their produce. This could come in the creation of a community industrial kitchen for processing, preserving and baking produce that could be sold at farmers markets, local supermarkets, farm gates, restaurants and so for. With this would have to come supporting policy that comes from the provincial and the county level. The creation of County standards and monitoring of these shared spaces and the products that are processed at them, would ensure the quality and marketability of the produce.

Additionally, the PPS 2005 has expanded the term cultural heritage landscape to include,

“as “a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. A landscape involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a *significant* type of heritage form, distinctive from that of its constituent elements or parts. Examples may include, but are not limited to, heritage conservation districts designated under the Ontario Heritage Act; and villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, railways and industrial complexes of cultural heritage value.”

In conjunction with the cultural mapping project, the Heritage Advisory Committee’s Heritage Conservation Strategy, and the County’s review of the Official Plan, an the heritage inventory of should be expanded to include significant and potentially significant heritage features in the county’s rural landscape. Land that is severed that exhibits the rural character, as defined by the heritage advisory committee and the planning department, through the priority to, “Protect the County’s culture, identity, and

quality of life”, and recognizing that, “heritage is fundamental to our sense of place”. Land fragmentation studies in Europe have long observed the impact that land fragmentation has on cultural features overtime. Having a long term strategy that includes severed residential parcels will help to protect the valuable hedgerows, lot characteristics and the built form like barns and other out buildings.

Further study is required to understand how severances in Prince Edward County have affected the tax assessment of individual properties – to the dis/advantage of both county revenues and/or farm productivity. Look at the feasibility of introducing zones where value-added activities are assessed at a reduced taxation rate, such as has been observed in Oregon has introduced zones where agriculture is encouraged, and value-added activities will be assessed at the reduced taxation rate. Related to this, exemption levels for current alternative farming operations in Prince Edward County (p.34) should be considered. Further study is also required to understand how Minimum Distance Separation has been affected by severances in Prince Edward County. Along with this, more consultation with farmers to understand how the FFPPA has affected operations in the County, if at all, and how nuisance concerns have been addressed recently in the County.

The County should also look to adopt the Metcalf Foundation’s recommendations of strengthening co-operative legislation and support for investment in co-operatives, Identifying marketing strategies and planning appropriate to regional food production, stimulating agricultural processing enterprise zones to extend tax relief and credits to food processors and creating support for food processors in paying employment costs. The OFA recommends that the whole land parcel should be taken into consideration when determining the value of one acre – rather than leaving the farmers to experience unrealistic assessment values” (Farm Property Class Tax Rate Program Q&A, 2000-2009) As well, the OFA recommends that the whole land parcel should be taken into consideration when determining the value of one acre – rather than leaving the farmers to experience idealistic assessment values.”

Prince Edward County is facing similar pressures on its rural landscape that has been seen across North America. Many important preservation efforts have been made through local, regional and provincial policy efforts to protect prime agricultural land that would otherwise be lost to market forces that place higher value on non-agricultural uses. Prince Edward County has recognized already the importance of adding value to its main industry through creative rural innovations. This paper has found that there is still more that can be done to help the County change in a positive direction over time

when faced with urbanizing forces, while still protecting its cultural, natural and historical landscape. Because this paper is an overview of literature, most of the recommendations here are for future study. Overall, Prince Edward County has the opportunity to go a step beyond preservation, by working towards a truly productive landscape that recognizes the value of seeing the multiplicity of layers that exist on one parcel of land. Rural land severances symbolize the myopic view of landscape that is predominant in land use policies, where only one use has been recognized and where the dichotomy of productive versus consumptive uses means that the value of land is only seen in one iteration, excluding the many layers of use that already exist. This often leads to the loss of the productive value of land. By shifting the focus from the conflict of multiple uses, and by creating room for flexibility, rural parcels will have more value, allowing for a balancing of consumptive and productive values.

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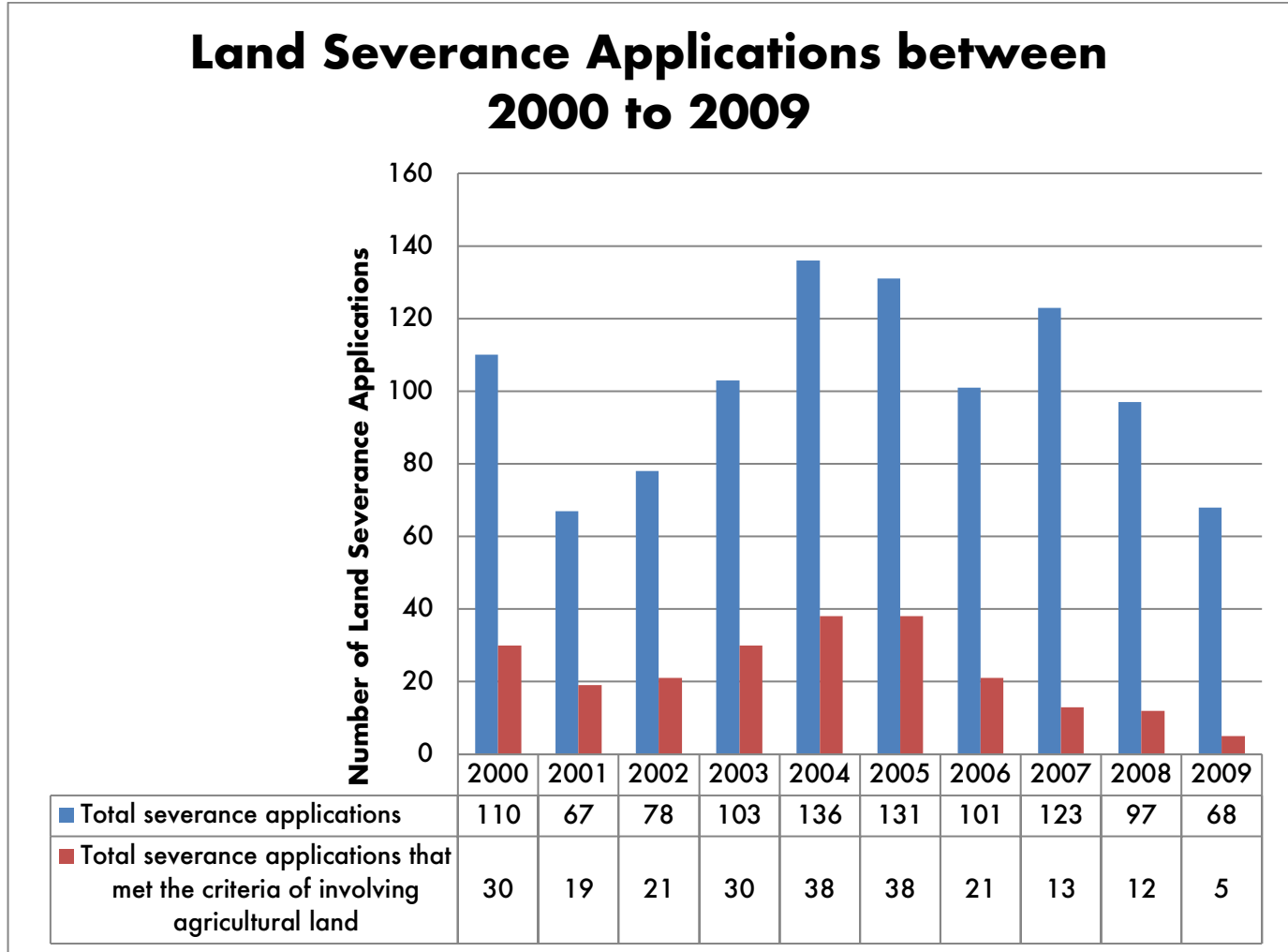
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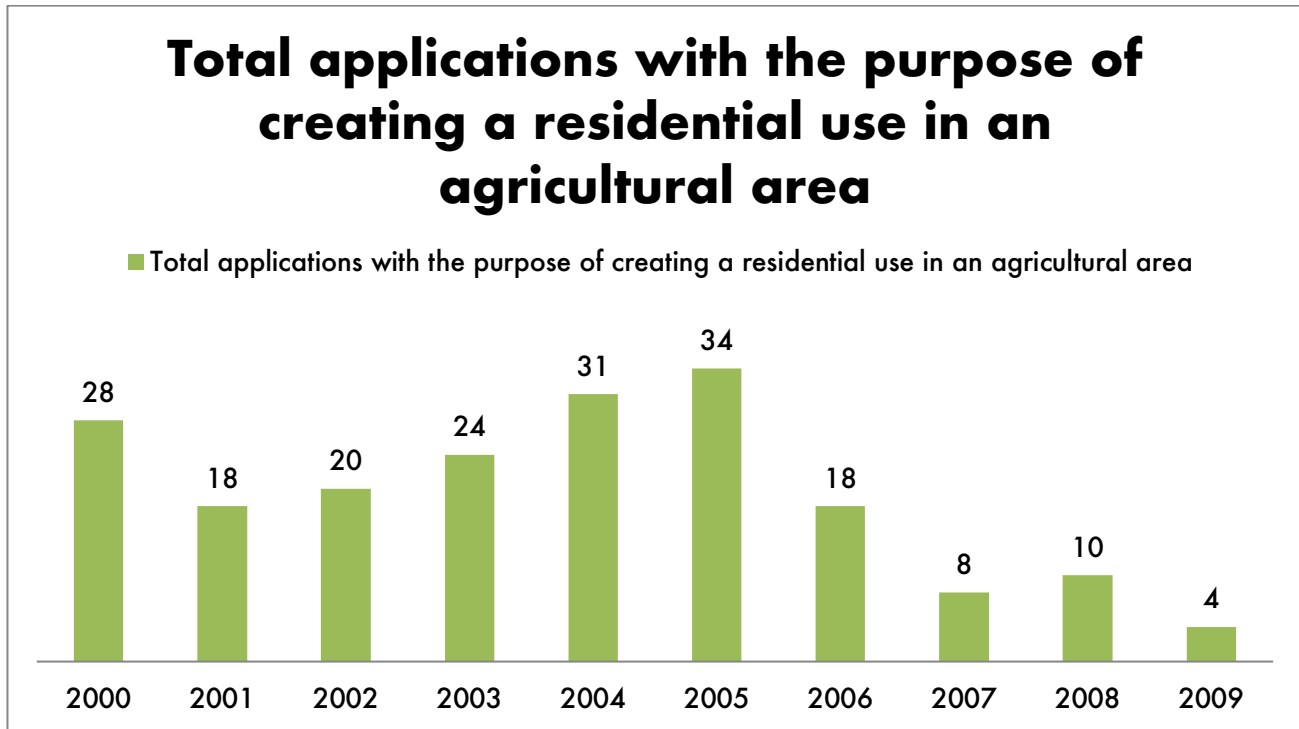
APPENDICES

Appendix 1 - Land Severance Application between 2000 to 2009 in Prince Edward County



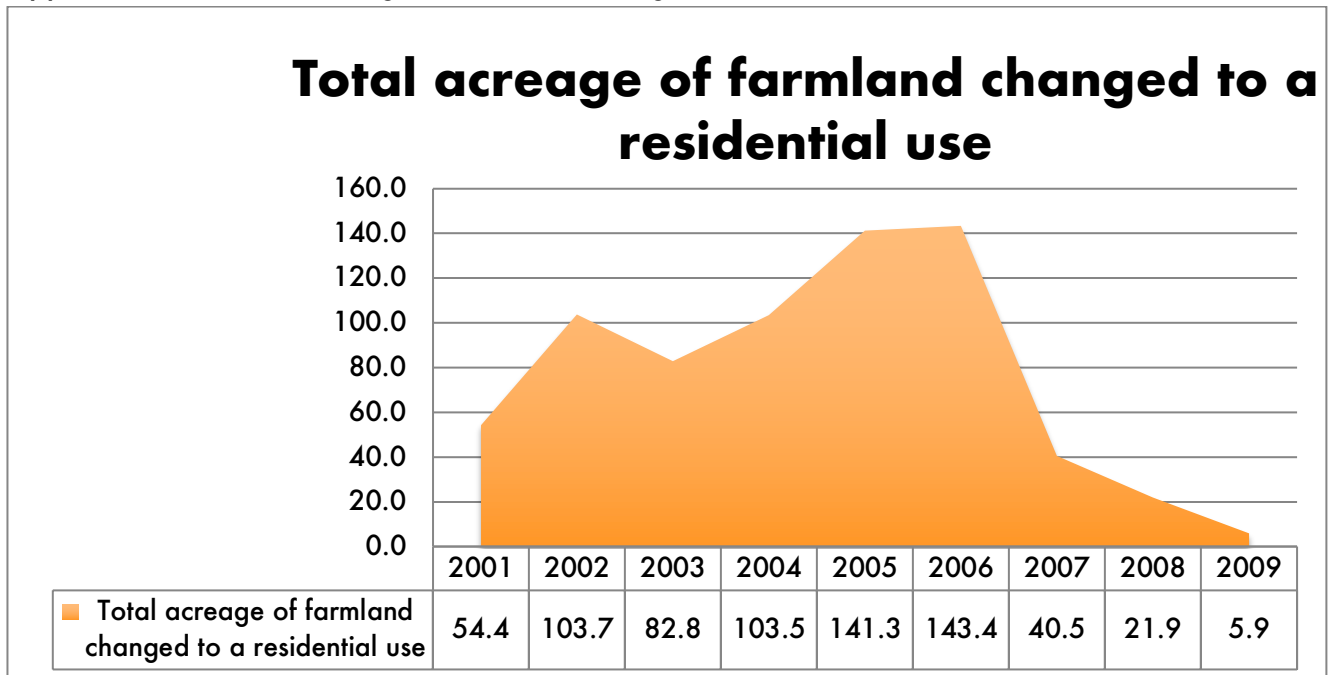
Source: University of Guelph, 2010

Appendix 1.1 – Total application with the purpose of creating a residential use in an agricultural area chart



Source: University of Guelph, 2010

Appendix 1.2 – Total acreage of farmland changed to a residential use



Source: University of Guelph, 2010

Appendix 2 – Current Land Division Process in Ontario



Source: Ontario Ministry of Municipal Affairs and Housing, 2010

Appendix 3 – General Strategies – Part V

General strategies – Part V (1.3.1)

Consents shall only be granted when it is clearly not necessary in the public interest that a Plan of Subdivision be registered.

In order to avoid creating a subdivision by the consent process, the County will not allow a land holding to be fragmented over time. In this respect, except as may be permitted by Part V, Section 1.1.3, a maximum of three lots (including the retained lot) may be created by consent from any land holding. A land holding is defined as any property as it existed as of January 23, 1998, the day the Ministry approved the Official Plan.

Notwithstanding Part V, Section 1.3.1 b) of this Plan to the contrary, consents for the purpose of severing large farm and rural holdings of generally 36 hectares or larger, both severed and retained, shall not be subject to any limitation on the number of consents permitted.

Where a land holding contained more than one detached dwelling at the time of adoption of this Plan, the severance of a parcel of land including the additional dwelling may be permitted subject to all other policies of this Plan.

The size of any parcel of land created by consent shall be appropriate for the uses

proposed. No parcel of land created as a result of a consent shall be less than that prescribed in the respective land use designations in Part IV of this Plan, except for parcels created as lot additions or for technical reasons.

The configuration of both the severed and retained parcels shall be appropriate for the existing and proposed uses and will avoid the creation of parcels that are long and narrow or parcels that have a small amount of frontage resulting in development occurring behind existing houses.

The area and frontage of any parcel of land created by consent will be compatible with the pattern of surrounding parcels.

The strategies and policies of Part III and Part IV shall be followed when assessing consent applications in order to ensure compatibility of land usage, an appropriate level of water and sewage services and general compliance to this Plan.

Adequate on-site services for sewage disposal and water supply for all uses must be provided to the satisfaction of the County, the Ministry of the Environment and Energy and/or the local Health Unit.

No consent shall be given where residential development on the severed lot will take place in such a manner as to contravene the Minimum Distance Separation Formula as amended from time to time.

Residential lots created by consent shall be set back from all rail lines at a distance that is acceptable to the appropriate rail authority, in order to ensure public health and safety and the efficiency of rail transport across the County.

No consent shall be given for a parcel of land, which is subject to flooding or erosion, or other physical hazard, when the use of the parcel requires that a building be erected. The advice of the local Conservation Authority and/or the Ministry of Natural Resources will be sought in this regard.

For applications for consents on lands adjacent to Aggregate, Aggregate Reserve and Outdoor Recreational Land designations, the advice of the Approval Authority will be sought.

No consent shall be given where a use, by reason of its type or location, would be detrimental to the preservation of scenic areas within the community.

Minimum Distance Separation (MDS)1 Formulae will not be applied to the creation of a new lot around an existing dwelling located on a lot separate from the livestock facility.

Source: Prince Edward County Consolidated Official Plan, 2006

Appendix 4 – Prime Agricultural General Policies – Part IV (5.4.1)

Prime Agricultural General Policies – Part IV (5.4.1)

Where consents for limited farm-related residential, commercial and industrial development are permitted in accordance with Part IV, Sections 5.4.2 and 5.4.3, no more than a total of 3 lots shall be created and the lots (severed and retained) shall be of a size and configuration that would not lend themselves to further subdivision.

All development in the Prime Agricultural designation will be required to meet the Minimum Distance Separation formula of the Agricultural Code of Practice, as amended from time to time.

New developments shall not be located where they endanger or may hinder any existing farming operations.

In the zoning by-law, a farm may be permitted a second residence in the form of a conventional single detached dwelling to provide living accommodation upon the farm for workers including family members who are employed full-time thereon.

For the purposes of calculating the Minimum Distance Separation 11 (MDS 11) Formulae, lands designated Shore Land will be considered a Type A land use unless zoned to permit land uses identified as Type B land uses in the MDS Formulae Implementation Guidelines, as amended from time to time.

Source: Prince Edward County Consolidated Official Plan, 2006

Appendix 5 – Residential on Prime Agricultural Lands - Part IV - (5.4.2)

Residential on Prime Agricultural Lands - Part IV - (5.4.2)

Consents for limited farm-related residential uses will be permitted in the Prime Agricultural designation for the following reasons:

- i) for a full-time farm employee required to reside close to the farm;
- ii) for a retiring farmer who is retiring from active farming life, who has farmed for a substantial number of years, who has sold the farm and wishes to retain a lot for a residence of his/her own occupancy.
- iii) for a farmer who enlarges his farm by acquiring an additional farm and as a result, owns a parcel of land upon which an existing residence made surplus through farm consolidation may be severed provided the surplus house is not required for farm help or retirement purposes. The farm consolidation may occur between adjacent parcels or where a farmer owns other lands in the County but not adjacent to the newly acquired land;
- iv) for technical or legal reasons such as boundary adjustments, easements, rights-of-way or other purposes that do not create a new lot.

Consents for limited infilling of residential uses will only be permitted within built-up areas where there is 100 metres or less of frontage between two non-farm residences on the same side of a road.

The minimum lot area for farm-related residential lots and infill residential lots shall be 0.4 hectares.

Farm-related residential consents will be encouraged to locate in woods, at edges of farm fields, at crossroads and on poorer soil pockets, in order to buffer themselves from farm operations and keep farmlands open and unobstructed.

In order to conserve lands for agricultural purposes, lots should be restricted to a maximum size of approximately one hectare, except where larger lot sizes are required due to environmental or other constraints.

Source: Prince Edward County Consolidated Official Plan, 2006

Appendix 6 – Commercial on Prime Agricultural Lands – Part IV (5.4.3)

Commercial on Prime Agricultural Lands – Part IV (5.4.3)

Consents for agriculturally related commercial and industrial uses may only be permitted if:

- i) the proposed use needs to be in close proximity to agricultural operations;
- ii) the new lot is appropriate for the use and has a minimum area of 0.4 hectares;
- iii) the lot frontage is appropriate for the use and the area in which the lot is being created; and
- iv) the new lot can be serviced appropriately and with the approval of the local Health Unit.

The physical structure of commercial buildings should be in keeping with the scale and form of buildings in the rural area.

The on-site parking, outside storage of goods or materials and the buffering and landscaping of the site should be provided for as per a site plan agreement so as to minimize the visual impact of such uses from adjacent roads and properties.

Entrances, exits and trucking routes to service commercial development shall be acceptable to the County.

No uses considered to be a health hazard under the Health Protection and Promotion Act shall be permitted and all requirements of the Ministry of the Environment related to water supply and disposal for waste materials, and all emissions including noise, dust and vibration must be satisfied.

Source: Prince Edward County Consolidated Official Plan, 2006

Appendix 7 – Rural General Policies – Part IV (6.4.1)

Rural General Policies – Part IV (6.4.1)

Consents for limited residential, commercial and industrial development may be permitted provided that no more than a total of 3 lots are created and the lots (severed and retained) are of a size and configuration that would not lend themselves to further subdivision.

All development in the Rural designation will be required to meet the Minimum Distance Separation formulae of the Agricultural Code of Practice, as amended from time to time.

New developments shall not be located where they endanger or may hinder any existing farming operations.

For the purposes of calculating the Minimum Distance Separation 11 (MDS 11) Formulae, lands designated Shore Land will be considered Type A land use unless zoned to permit land uses identified as Type B land uses in the MDS Formulae Implementation Guidelines, as amended from time to time.

Appendix 8 – Residential on Rural Lands –Part IV (6.4.2)

Residential on Rural Lands –Part IV (6.4.2)

Residential development by Plan of Subdivision is not permitted in the Rural designation.

Residential development by infilling as defined in this Plan, shall be permitted between two houses separated by not more than 100 metres.

Severances for single detached units shall have a minimum lot area of approx .8 ha.

Property owners are encouraged to incorporate the following design principles into the development of a residential property:

- i) maintain a treed buffer of diverse native species between the residence and the roadway;
- ii) place residences and buildings at the edges of fields or forests as opposed to open fields, in order to reduce visual impact, to provide shelter from natural elements and to maintain open views and scenic areas; and
- iii) place driveways along hedgerows, stonewalls or cedar fences, or at edges of fields and use a common shared driveway to lessen the development impact, wherever practical.

Farm-related residential consents will be encouraged to locate in woods, at edges of farm fields, at crossroads and on poorer soil pockets, in order to buffer themselves from farm operations and keep farmlands open and unobstructed.

Source: Prince Edward County Consolidated Official Plan, 2006

Appendix 9 – 3.116 Lot

3.116 LOT

i. Shall mean a parcel of land under distinct and separate ownership from abutting lands; and either (a) described in a deed or other legal document which is legally capable of conveying title to such land; or (b) described as a lot or block on a registered Plan of Subdivision; or (c) created by the consent provisions, s 53 of Planning Act RSO 1990, c.P.13 as amended, regardless of whether the parcel is severed or retained.

ii. Notwithstanding the provisions of subsection (i.) above, a “lot” created by a scheme or method intended to avoid the consent and subdivision requirements of the Planning Act R.S.O. 1990, c.P. 13 as amended (including, without limiting the generality of the foregoing, a “checkerboarding” scheme of “lots” created by reference deposit plans or registrar’s deposit plans) or any predecessor or successor thereof, shall not be recognized as a lot for the purposes of this By-law.

Source: Prince Edward County Comprehensive Zoning Bylaw

Appendix 10 –4.6 Existing undersized lots

4.6 EXISTING UNDERSIZED LOTS

4.6.1 Where a lot having a lesser lot area and/or frontage than required in this By-law, but no less than 3 m of frontage, existed prior to the date of passing of this By-law or where such lot was conditionally approved by the consent granting authority prior to the passing of this By-law, such smaller lot may be used and a building or structure may be erected, altered or used on such smaller lot, provided that where approval of the sewage disposal facilities is obtained from the appropriate approval authority and all other provisions of this By-law are complied with.

Source: Prince Edward County Comprehensive Zoning Bylaw

Appendix 11 – The Memphis Manifesto

THE MEMPHIS MANIFESTO
1. Cultivate and reward creativity. Everyone is part of the value chain of creativity. Creativity can happen at anytime, anywhere, and it's happening in your community right now. Pay attention.
2. Invest in the creative ecosystem. The creative ecosystem can include arts and culture, nightlife, the music scene, restaurants, artists and designers, innovators, entrepreneurs, affordable spaces, lively neighborhoods, spirituality, education, density, public spaces and third places.
3. Embrace diversity. It gives birth to creativity, innovation and positive economic impact. People of different backgrounds and experiences contribute a diversity of ideas, expressions, talents and perspectives that enrich communities. This is how ideas flourish and build vital communities.
4. Nurture the creatives. Support the connectors. Collaborate to compete in a new way and get everyone in the game.
5. Value risk-taking. Convert a "no" climate into a "yes" climate. Invest in opportunity-making, not just problem-solving. Tap into the creative talent, technology and energy for your community. Challenge conventional wisdom.
6. Be authentic. Identify the value you add and focus on those assets where you can be unique. Dare to be different, not simply the look-alike of another community. Resist monoculture and homogeneity. Every community can be the right community.
7. Invest in and build on quality of place. While inherited features such as climate, natural resources and population are important, other critical features such as arts and culture, open and green spaces, vibrant downtowns, and centers of learning can be built and strengthened. This will make communities more competitive than ever because it will create more opportunities than ever for ideas to have an impact.
8. Remove barriers to creativity, such as mediocrity, intolerance, disconnectedness, sprawl, poverty, bad schools, exclusivity, and social and environmental degradation.
9. Take responsibility for change in your community. Improvise. Make things happen. Development is a "do it yourself" enterprise.
10. Ensure that every person, especially children, has the right to creativity. The highest quality lifelong education is critical to developing and retaining creative individuals as a resource for communities.

Source: http://www.norcrossga.net/user_files/The%20Memphis%20Manifesto.pdf

Appendix 12 – Examples of examples of value-added activities from the production, marketing and experiential/educational sides of agricultural-related activities

Production Side	Marketing Side	Experiential/Education Side
<ul style="list-style-type: none"> • Washing, sorting and packaging product; 	<ul style="list-style-type: none"> • “pick your own” facilities; 	<ul style="list-style-type: none"> • “working vacations” on farms, cooking schools.
<ul style="list-style-type: none"> • Processing activities (wineries, canning, abattoirs); 	<ul style="list-style-type: none"> • retail facilities for the sale of products; 	<ul style="list-style-type: none"> • Fairgrounds/special events facilities/educational facilities;
<ul style="list-style-type: none"> • Distribution activities (storage, warehousing and shipping). 	<ul style="list-style-type: none"> • outlets that “feature” local products, cafes, “tasting” facilities; 	<ul style="list-style-type: none"> • Research facilities;
	<ul style="list-style-type: none"> • tourist accommodations (bed and breakfasts, inns, spas) that focus on the “agricultural” and rural experience. 	<ul style="list-style-type: none"> • “Local Food” initiatives.

Source: Planscape, 2009 (p.9)