

# Sustainable Halton Community Food Security



May 2007

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>2</b>
<b>1.0 INTRODUCTION</b>	<b>6</b>
<b>2.0 OBJECTIVE AND NATURE OF REVIEW</b>	<b>6</b>
<b>3.0 PRESERVATION OF AGRICULTURAL/RURAL COMMUNITIES AND LAND</b>	<b>7</b>
3.1 The importance of preserving agricultural land	7
3.2 Higher nutritional value	9
3.3 Lower environmental costs	10
3.4 Increased ability to promote high food safety standards	11
3.5 Helps sustain a vibrant local food economy	12
<b>4.0 COMMUNITY DESIGN</b>	<b>14</b>
4.1 Placement of Food Retail Outlets	14
4.2 Planning for Affordable Housing	15
4.3 Allowing for Urban Agriculture	16
<b>5.0 CONCLUSIONS</b>	<b>18</b>
<b>6.0 RECOMMENDATIONS</b>	<b>19</b>
<b>REFERENCES</b>	<b>20</b>
<b>APPENDIX 1 – Eating Well with Canada’s Food Guide</b>	<b>23</b>
<b>APPENDIX 2 – The Price of Eating Well in Halton – 2005</b>	<b>24</b>
<b>APPENDIX 3 – RELEVANT GROWTH PLAN OBJECTIVES AND POLICIES</b>	<b>25</b>

## EXECUTIVE SUMMARY

The definition of Community Food Security that is supported by the Food Security Workgroup of the Ontario Public Health Association is: “Community Food Security is a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice.” Land use planning decisions of the Sustainable Halton process can affect the community’s ability to attain and maintain community food security, and thereby affect the health of the community.

### **PRESERVATION OF AGRICULTURAL/RURAL COMMUNITIES AND LAND**

#### **The importance of preserving agricultural land**

Preservation of agricultural land in Halton cannot be seen in isolation from the loss of agricultural lands in Ontario and Canada. A recent report by Statistics Canada states that dependable agricultural land is a scarce resource in Canada. Only about 5% of Canada’s land is free from severe constraints to crop production. About 15% of Canada’s “dependable” (Class 1, Class 2, and Class 3) agricultural land is in Ontario, and 56% of Class 1 land is in Ontario. In Halton Region there are 98,758 acres (40,000 hectares) of farmland of which 68% is prime agricultural land (Class 1, Class 2, Class 3) and 36% is Class 1.

One of the results of urbanization in Ontario has been the loss of a substantial portion of the province’s Class 1 agricultural land. As of 2001, over 11% of the province’s best agricultural land was being used for urban purposes. The Statistics Canada Report states that agricultural lands can also be used for golf courses, gravel pits and recreational areas. There are approximately 16,800 hectares in Halton that are considered to be in the Primary Study Area and are therefore under great pressure to be developed. These hectares are mainly prime agricultural lands. This loss of dependable agricultural land is a concern given the limited amount of this non-renewable resource in Canada.

The need to preserve prime agricultural land is amplified by future uncertainties. Declining petroleum supplies and climate change are predicted to have an effect on agriculture.

Today’s agricultural productivity is dependent on energy-intensive cultivation methods and material inputs (production of fertilizer and pesticides, irrigation, fuels for farm equipment, etc.) However, we are entering an era of declining petroleum and natural gas supplies. This may lead to a return to a more ecologically sustainable agriculture that requires a more sophisticated understanding of complex systems theory and ecosystems behaviour. This kind of agriculture implies a return to smaller farms and more labour intensive and information-intensive practices. This type of agriculture may not be as efficient and can require more acreage to produce the same amount of food.

Researchers are predicting that opportunities will arise from climate change, notably a northward extension of crop lands and grazing zones. However, agriculture is also vulnerable to the damaging effects of climate change. According to Agriculture and Agri-Food Canada, if changes take place gradually, agriculture may be able to adapt. Sudden changes, however, could have drastic results. The Intergovernmental Panel on Climate Change predicts that there is potential for increased drought in the US Great Plains/Canadian Prairies; citrus fruit yields may decline in southern Florida and Texas because of excessive heat during the winter; Mexico is vulnerable to changes in precipitation. Currently Canada imports about 40% of its vegetables (excluding potatoes) and 80% of its fruit, with most of the imports coming from the USA and Mexico. The effects of climate change may necessitate an increased need for local production as opposed to our current reliance on imported produce.

Supporting and encouraging a strong viable local food supply can also mitigate the effects of future political/economic circumstances that could result in restrictions at the borders between the US and Canada.

Halton is well positioned to develop a local food supply. A local food supply also has health benefits for the community as follows.

#### **Higher nutritional value**

One of the primary reasons to emphasize local food production is food quality. Fresh fruit and vegetables lose their nutritional value over time. From the moment produce is picked its vitamins, minerals, and phytonutrient compounds begin to break down from exposure to heat, light, time, and natural processes. Imported produce is much more likely to have been harvested days or weeks before purchase.

#### **Lower environmental costs**

The global food system requires immense amounts of energy from fossil fuels to move agricultural products from field to table. The concept of “food miles” defines the total distance food travels from where it is grown or raised to where it is ultimately purchased by the consumer or end user. This transportation of food has a major impact on air quality and climate because of the heavy reliance on fossil fuel burning by the transportation sector. The Waterloo Public Health Department studied the environmental implications of food imports to Waterloo Region. They found that 50,000 tonnes of greenhouse gas emissions were generated annually importing 58 foods that could have been grown locally. These emissions are equivalent to 16,000 cars annually.

### **Increased ability to promote high food safety standards**

The Canadian Food Inspection Agency is responsible for the regulation of imported foods into Canada. It has a complex set of procedures in place to regulate fruits and vegetables from other countries. However it is much easier to deal with food produced locally than trying to ensure compliance with imported products. The Canadian government, Ontario Ministries and local health units can use existing regulations to closely monitor and regulate food production practices to ensure foods are being produced in a sanitary manner using potable water. In the event of an outbreak of a food borne illness, a local food system allows for more control over the farm to fork chain. Outbreaks involving Ontario grown fresh fruit and vegetable have not been previously identified.

### **Helps sustain a vibrant local food economy**

A local food system seeks to improve access to healthy food throughout the Region, and at the same time seeks to ensure a viable local agricultural economy. It is one that partners farmers, consumers and communities together to create a more locally based, self-reliant food economy. Emerging trends and initiatives that have the potential to contribute to a community food system and establish alternative markets for farmers with the urban community include: promotion of farm direct sales (e.g., Simply Local Brochure); good food box programs (e.g., the Halton Fresh Food Box Program); farmers markets that promote local farmers; a logo for locally produced foods in food retail outlets; community shared agriculture; farm to city programs; and non-profit organizations that promote local food.

## **COMMUNITY DESIGN**

### **Placement of Food Retail Outlets**

Access to grocery stores is a food security issue. Physical access, either by foot or public transit, is a key access variable. Nutritionally vulnerable sub-populations, e.g., low income, people with disabilities or illness, seniors, and New Canadians, may not have access to cars to travel to grocery stores.

In the absence of a major food retail store, people may rely more heavily on convenience stores. The food available in convenience stores is generally more expensive than food in grocery stores, making financial access an issue. Also, healthy foods, e.g., vegetables and fruits, are less likely to be available.

### **Planning for Affordable Housing**

Access to affordable housing is a component of community food security. Each year the Province mandates that the Halton Region Health Department conduct the *Nutritious Food Basket Survey*. This survey determines an average price of a nutritious diet for Halton households. The results are compared to the average rent in Halton and incomes of low income residents. Each year the results show that low-income households struggle to pay rent, bills, and to buy sufficient nutritious food for their families.

### **Allowing for Urban Agriculture**

Increasingly health professionals, urban planners, environmental activists, community organizers, and policy makers are recognizing the value of urban agriculture for economic development, food security, and preservation of green space. Urban agriculture refers to a wide range of agricultural ventures within city limits, e.g., community gardens, roof top gardens, and backyard gardens. The health benefits of urban agriculture in a community include: increased dietary knowledge and practice; saving food dollars; exercise; mental health; social and community benefits; and environmental benefits.

### **RECOMMENDATIONS**

That Halton Region endorse and implement:

- Measures that will contribute to the health of the community by preserving as much of the Primary Study Area as possible to ensure that Halton residents have access to a local food system
- Community design policies and incentives that ensure all residents have physical access to grocery stores either by foot or transit
- Urban planning that ensures adequate affordable housing for the Region
- Community design that allows for community gardens and rooftop gardens.

## **1.0 INTRODUCTION**

This report is one of a series produced by the Halton Region Public Health Department for the Sustainable Halton process. Sustainable Halton is a process to generate policies leading to implementation of Official Plan policies that will govern development in Halton to the year 2031 and will set the context for the Region's long term future. The current Regional Official Plan sets the policies to 2021. This exercise will build on that, address what should happen during the 10 years between 2021 and 2031 and set the foundation for a mature state Halton.

## **2.0 OBJECTIVE AND NATURE OF REVIEW**

The specific objectives of the Community Food Security and Land Use Planning Report in the Halton study are as follows:

- To review the importance of preserving agricultural lands for food production
- To describe the community health benefits of a local food supply
- To discuss the impact of community design on community food security, specifically placement of food retail outlets; planning for affordable housing, and allowing for urban agriculture.

This report provides an overview of some of the literature in each of these emerging areas of research and will highlight the human health aspects of community food security.

The Sustainable Halton process can affect the food security of Halton residents. Part of the mandate of Public Health is to create an environment in which the population is able to practice healthy eating principles according to Eating Well with Canada's Food Guide (Appendix 1). The concept of Community Food Security helps to define the breadth and depth of that mandate. The definition of Community Food Security that is supported by the Food Security Workgroup of the Ontario Public Health Association is:

“Community Food Security is a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice.” (Hamm and Bellow, 2003)

The Centre for Studies in Food Security, Ryerson University, goes on to outline five components of food security:

- Availability – sufficient supplies of food for all people at all times
- Accessibility – physical and economic access to food all at all times
- Acceptability – culturally acceptable and appropriate food and distribution systems

- Adequacy – nutritional quality, safety, sustainability of available sources/methods of food supply
- Agency – the policies and processes that enable the achievement of food security

Ontario Healthy Communities includes access to food as one of the essential qualities of a healthy community (Ontario Healthy Communities Website).

### **3.0 PRESERVATION OF AGRICULTURAL/RURAL COMMUNITIES AND LAND**

#### **3.1 The importance of preserving agricultural land**

It is widely accepted and recognized that optimal nutritional status is desirable for all the population. One factor that can ultimately affect that status is access to a sustainable supply of healthy foods. The local food supply, one where local producers respond to regional consumers' needs (Peters, 2002), can affect the nutrition environment of the local population, in that the food produced, distributed and sold within the region can play a major role in how well the population eats (French, et al 2001; McCullum, 2004). Strategies that improve diets will contribute to the lessening of the burden of chronic diseases such as obesity, heart disease, and some cancers. The demand for nutritious food in Halton will increase as the population grows. At the same time, the pressure to sacrifice agricultural land to development will be fierce and will threaten our ability to create and maintain a local food system.

The case for the preservation of agricultural land in Halton cannot be seen in isolation from the loss of agricultural lands in Ontario and Canada. A recent report by Statistics Canada entitled *The loss of dependable agricultural land in Canada* (Hoffman, Filoso and Schofield, 2005) described the urban consumption of prime agricultural land. The report states that dependable (also known as "prime") agricultural land is a scarce resource in Canada. Only about 5% of Canada's land is free from severe constraints to crop production. About 15% of Canada's "dependable" (or prime) (Class 1, Class 2, and Class 3) agricultural land is in Ontario, but 56% of Class 1 land is in Ontario (Hoffman, Filoso and Schofield, 2005). In Halton Region there are 98,758 acres (approximately 40,000 hectares) of farmland (Walton, 2003) of which 68% is prime agricultural land (Class 1, Class 2, Class 3) and 36% is Class 1.

The Statistics Canada report goes on to describe the effects of urbanization on agricultural lands. Ontario has the highest concentration of urban land. It grew by 4,300 square kilometres or by almost 80% from 1971 and 2001. It states that growth in urban land has been driven by the automobile. Before the introduction of automobiles, employment in urban areas was concentrated in the central core of towns and houses were located on small lots often with walking distance to work, shopping and other amenities. By the mid 1900's, urban dwellers started to

live away from the central core and to rely on their automobiles for many daily activities. A new urban form emerged, shaped by car-oriented planning and has led to what is commonly referred to as “urban sprawl” (Hoffman, Filoso and Schofield, 2005).

One of the results of urbanization in Ontario has been the loss of a substantial portion of the province’s Class 1 agricultural land. As of 2001, over 11% of the province’s best agricultural land was being used for urban purposes. The Statistics Canada Report states that agricultural lands can also be used for golf courses, gravel pits and recreational areas. Walton (2007) states that there are certain uses that locate in the rural area because of relatively cheap land. She goes on to say that uses such as churches, recreational amenities and cemeteries are more appropriately located in urban areas and that policies should prevent the establishment of intrusive uses and protect the integrity of agricultural areas. There are approximately 16,800 hectares in Halton that are considered to be in the “Primary Study Area” and are therefore under great pressure to be developed. These hectares are mainly prime agricultural lands. This loss of prime agricultural land is a concern given the limited amount of this non-renewable resource in Canada (Hoffman, Filoso and Schofield, 2005). In the GTA farmland is being lost at a rate where, from 1976 to 2026 there will be a 40% reduction (Cosgrove, 2000) if current trends continue.

The need to preserve prime agricultural land is amplified by future uncertainties. Declining petroleum supplies and climate change are predicted to have an effect on agriculture.

Today’s agricultural productivity is dependent on energy-intensive cultivation methods and material inputs (production of fertilizer and pesticides, irrigation, fuels for farm equipment, etc.)(Rees, 2004) but we are entering an era of declining petroleum and natural gas supplies. Several recent studies project global conventional oil production to peak as early as 2010. According to Dr. Rees “This may lead to a return to a more ecologically sustainable agriculture that requires a more sophisticated understanding of complex systems theory and ecosystems behaviour (2004).”

But there is another reason to be concerned about losing agricultural lands. Currently Canada imports about 40% of its vegetables (excluding potatoes) and 80% of its fruit, with most of the imports coming from the USA and Mexico (Desjardins and MacRae, 2005). In Toronto between 50-60% of all produce consumed is imported, mostly from Florida, California and Mexico (Toronto Food Policy Council, 1999).

Researchers are predicting that opportunities will arise from climate change, notably a northward extension of crop lands and grazing zones. However, agriculture is also vulnerable to the damaging effects of climate change. According to Agriculture and Agri-Food Canada (Ileka, J., 2003), if changes take

place gradually, agriculture may be able to adapt. Sudden changes, however, could have drastic results such as: changes in production patterns, increases in crop damage, water shortages, and new, unpredictable changes in the interactions among crops, weeds, insects, and disease. In a review of the potential impacts of climate change on agriculture and food supply Rosenzweig and Hillel, (1995) describe some of the climatic effects such as higher temperatures, changes in rainfall and soil moisture, and increased frequencies of extreme meteorological events as well as the effects of enhanced atmospheric carbon dioxide.

The Intergovernmental Panel on Climate Change (McCarthy, Canzizni, et al, 2001) predicts that food production will benefit from a warmer climate, but there probably will be strong regional effects. There is potential for increased drought in the US Great Plains/Canadian Prairies; citrus fruit yields may decline in southern Florida and Texas because of excessive heat during the winter; Mexico is vulnerable to changes in precipitation. All governments are making plans to mitigate as well as take advantage of the effects of climate change on agriculture, but it remains prudent to protect and support our own local agriculture.

Supporting and encouraging a local food supply can also mitigate the effects of future political/economic circumstances that could result in restrictions at the borders between the US and Canada. During the events of “9/11” the borders between the US and Canada were briefly closed. Carter, et al (2005) states that “times of war and conflict render tenuous our dependence on distant food sources, especially in this post – 9/11 world. A local agri-food system provides a relatively secure and more locally controlled source of food”.

In the face of change and uncertainty, efforts that support maintaining our ability to feed ourselves as a nation, a province and a Region should be taken. Therefore, the Health Department recommends preserving as much as possible of the “Primary Study Area” in Halton Region.

In 2000, a study was completed (Morrow, 2000) addressing the potential to grow Halton’s agricultural cluster and farmland base. The report noted that there are opportunities for agriculture in Halton due to the quality of land, favourable crop heat unit ratings, infrastructure, the availability of water, and proximity to market. These conditions provide the basis for the development of a local food supply. A local food supply also has health benefits for the community.

### **3.2 Higher nutritional value**

One of the primary reasons to emphasize local food production is food quality. Fresh fruit and vegetables lose their nutritional value over time. As soon as a vegetable is harvested, chemical changes begin. Growth stops, but enzymes continue to act, altering nutrient content along with texture and taste (MacNair,

2004). The American Institute for Cancer Research (2006) recommends that consumers purchase locally grown produce since produce at its peak of ripeness contains the highest level of nutrients. This is because from the moment produce is picked its vitamins, minerals, and phytonutrient compounds begin to break down from exposure to heat, light, time, and natural processes. Imported produce is much more likely to have been harvested days or weeks before purchase.

The concept of “food miles” was constructed to demonstrate the difference in distance travelled by local produce as opposed to produce that is brought in from other regions. It can be applied to nutrient loss (George et al 2006). The following examples from a recent summary of some of the literature by George et al, illustrate this:

- Using tomatoes as an example, purchasing fresh-picked foods from local producers result in a higher nutrient content of that food. Evidence suggests that vine-ripened tomatoes are higher in vitamin C than tomatoes picked green and ripened post-harvest during travel to the supermarket or through ethylene gas. The practice of harvesting crops while still green allows the produce to ripen while in transport and serves to prevent over-ripening by the time of arrival at the supermarket. However, green harvested tomatoes ripened at 20 degrees Celsius have been found to contain less vitamin C than those harvested at the table-ripe stage (George et al 2006).
- Due to its sensitive nature, vitamin C is degraded relatively easily by a variety of conditions including extended storage. Vitamin C is available in fruits and vegetables including red and green peppers, berries, tomatoes, broccoli, potatoes, cauliflower, and winter squash to name a few. Studies have shown that vitamin C levels in spinach are lowered significantly following storage periods of 5 to 9 days at 10 degrees Celsius that is, only 0 to 22% retention of vitamin C. (George et al 2006).
- Spinach is an important source of folate. Spinach retains only 53% of its folate content after 8 days of storage, even at an optimal storage temperature of 4 degrees Celsius. Shipping conditions are often not optimal. At 10 degrees Celsius the time to lose that amount of folate is reduced to 6 days and at 20 degrees, only 4 days (George et al 2006).

### **3.3 Lower environmental costs**

Canada imports about 40% of its vegetables (excluding potatoes) and 80% of its fruit, with most of the imports coming from the USA and Mexico. The global food system requires immense amounts of energy fossil fuels to move agricultural products from field to table (MacNair, 2004). The concept of “food miles” defines the total distance food travels from where it is grown or raised to where it is ultimately purchased by the consumer or end user. This transportation of food has a major impact on the quality of our air because of the heavy reliance on fossil fuel burning by the transportation sector. In fact the Leopold Centre for

Sustainable Agriculture estimates that the average distance travelled by food ranges from 1,346 to 2,146 miles (2,154 to 3,434 km) (Lamers-Bellio, K., and Fuller, C., 2003).

The Waterloo Public Health Department studied the environmental implications of food imports to Waterloo Region (Xuereb, 2005). The study is part of a series of studies commissioned by Region of Waterloo Public Health to document the state of Waterloo Region's food system and is part of the Regional Growth Management Strategy, which sets out goals for managing projected population growth for the Region over the next 40 years. They identified 58 foods that could be grown locally and that had been identified in a previous study as representative of items that Waterloo Region consumers eat. They found that foods travelled an average of over 4,500 km and generated an average of 1.8 kg of greenhouse gases for every kg of food imported. Therefore the foods that Waterloo studied in their research generated 50,000 tonnes greenhouse gas emissions annually, equal to 16,000 cars annually. All of the foods studied including beef, pears, lettuce, tomatoes, potatoes, bell peppers, apples, onions, cheese, and carrots could have been produced locally.

### **3.4 Increased ability to promote high food safety standards**

Over the past decade, food safety has emerged as a significant consumer concern. Outbreaks of *E. coli* in spinach from California, and cyclosporiasis in raspberries from South America have gotten consumers' attention in the last few years. According to the World Health Organization the food production chain has become more complex, providing greater opportunities for contamination and growth of pathogens. Many outbreaks of foodborne diseases that were once contained within a small community may now take on global dimensions (WHO, 2002).

The Canadian Food Inspection Agency is responsible for the regulation of imported foods into Canada. It has a complex set of procedures in place to regulate fruits and vegetables from other countries which includes addressing issues such as unwanted animal/insects pests, plant pests, chemical residues, etc. However it is much easier to deal with food produced locally than trying to ensure compliance with imported products. The Canadian government, Ontario Ministries and local health units can use existing regulations to closely monitor food production practices to ensure foods are being produced in a sanitary manner using potable water. It is much more difficult to go outside our borders and impose rules or monitor the safe food standards in other countries.

Researchers at the University of Guelph have worked with partners (including the Ontario Greenhouse Vegetable Growers; Ontario Tender Fruit Producers & Fresh Grape Growers, the Ontario Fruit and Vegetable Growers and the Ontario Government) along the farm-to-fork chain to reduce microbial risk. Ontario producers are proactively implementing programs to increase the safety of our

food and back up their statements with data. The Food Safety Network's on-farm food safety programs are based on Hazard Analysis Critical Control Points, a system to examine food-related risks and reduce bacterial contamination on the farm (Powell, D. 2003).

Outbreaks involving Ontario grown fresh fruit and vegetable have not been previously identified (Chapman, 2003). In the event of an outbreak, a local food system allows for more control over the farm-to-fork chain. If a problem occurs the effect is more localized and allows for enhanced traceability.

Halton's Health Department works with local food producers and farmers markets to ensure locally produced foods offered for sale to the public are safely prepared, handled and stored.

### **3.5 Helps sustain a vibrant local food economy**

Preservation of the land is only half of the issue. Farmers need an economically viable business. Smaller farms are disappearing, and those left are finding it increasingly difficult to compete with larger farms and the subsidized commodities from other countries. As a result of all these factors, farmers are facing a great deal of stress and major financial concerns, resulting in many pursuing off-farm incomes. Farm succession is a concern as well (Xuereb and Desjardins, 2005).

A local food system approach seeks to build healthy communities. A local food system seeks to improve access to healthy food throughout the Region, and at the same time seeks to contribute to the economic viability of farmers. It is one that partners farmers, consumers and communities together to create a more locally based self-reliant food economy. "Local grown foods" can extend beyond Halton Region's borders to include foods that are grown in nearby jurisdictions.

Emerging trends and initiatives that have the potential to contribute to a community food system and establish alternative markets for farmers with the urban community, include:

Existing Halton Initiatives:

- Promotion of Farm Direct Sales (e.g., Simply Local Directory and website)
- Good Food Box Programs (e.g., The Halton Fresh Food Box Program)
- The GTA Agricultural Action Plan (In partnership with the GTA's Federations of Agriculture, the GTA Region, the Provincial Government, the Federal Government, the Agri-food Industry and the City of Toronto)

Other ideas:

- Promotion of local farmers and their products at farmers' markets
- A logo for locally produced foods in food retail outlets
- Community Shared Agriculture (e.g., Plan B Organic Farms)

- Programs that link producers and consumers (e.g., University of Toronto, Local Flavour Plus Program; Gladstone Hotel's Restaurant, Harvest Wednesdays)
- Promotion of local foods via non-profit organizations (e.g., FoodLink, Waterloo Region)

Some jurisdictions have calculated the amount of land required to feed their population according to healthy eating guidelines. For example, Waterloo Public Health conducted a study to answer the following questions:

- What changes would be needed in the consumption of vegetables, fruits, legumes and whole grains by residents in order to meet the recommendations stated in Eating Well with Canada's Food Guide?
- How does current local production of vegetables, fruit, legumes and whole grains compare with the amount needed by its residents to meet recommended dietary requirements?
- What are the opportunities for Waterloo Region agriculture if it attempted to produce as much of the required amounts of these foods as is feasible for the Waterloo Region population in 2006, 2026, 2046?

The criteria used to select the foods for the studied were: suitability to be grown locally in Waterloo Region; availability of reliable data; popularity of food (based on frequency of consumption); and potential to improve dietary quality. Estimation of dietary intake and future need was based on disappearance data from Statistics Canada, Food Statistics 2003.

The Waterloo study found that to meet the dietary requirements of an extra 246,000 people in the year 2046, an extra 12% of current cropped hectares or 9,071 hectares (or 22,405 acres) would be required (Desjardins and MacRae, 2005).

Maintenance of agricultural land and the agricultural sector should be seen as part of a health strategy, as part of an economic strategy, and as part of an environmental strategy. In fact in a companion report for the Rural Cluster of the Sustainable Halton project, Walton states that Halton has a long and established commitment to the support of its agricultural sector. There has been consistent political commitment to strong policies to maintain an agricultural land base, economic development programs to support it and cooperation with the local farming community to respond to identified needs.

## **4.0 COMMUNITY DESIGN**

### **4.1 Placement of Food Retail Outlets**

Access to grocery stores is a food security issue. Physical access, either by foot or public transit, is a key access variable. Nutritionally vulnerable sub-populations e.g. low income, people with disabilities or illness, seniors, and New Canadians, may not have access to cars to travel to grocery stores. In a study conducted by the Region of Waterloo Public Health Department (Lepp, 2004) a reasonable walking distance to a grocery store or to public transit was considered to be 450 metres. Research has shown that this kind of physical access can affect fruit and vegetable intake (Rose and Richards, 2004, Baker et al, 2006.) The ability to walk to grocery stores also affects fitness and air quality.

In the absence of a major food retail store, people may rely more heavily on convenience stores. The food available in convenience stores is generally more expensive than food in grocery stores, making financial access an issue (Lepp, 2004). Also, healthy foods, e.g. vegetables and fruits, are less likely to be available (Lepp, 2004).

Using the same criteria set out by the Waterloo Public Health Department, residents of North Halton that live further away than 450 metres from a grocery store and do not own a vehicle are considered to have limited access to food since there is no public transit system. For example, in Acton there is one grocery store and no public transit and a relatively high density of convenience stores that may be filling the gap.

A Policy Briefing Paper by the Hartford Food System (2006) identified how supermarkets decide where they will locate. It states that it is not a process of deciding which community to serve, but rather which locations can best serve the needs of the store. It found that median income and population density are two factors commonly used to determine suitable locations. This can be an issue for rural areas and low income areas. It goes on to say because access to groceries is too important to be left solely to these market forces, several US cities and states have used economic development subsidies to bring stores into specific neighbourhoods. Under the Planning Act, local municipalities have the authority to regulate the use of land through zoning by-laws. However, zoning a property specifically for food retail use does not necessarily guarantee that a private firm will establish a food store on the property. But zoning and/or financial incentives similar to existing mechanisms used to designate affordable housing units could be used to attract food retail operations to targeted locations. (Xuereb and Desjardins, 2005). Another strategy is to consider ways to make farmers markets and fresh food markets standard features across the Region.

## 4.2 Planning for Affordable Housing

According to the United States Department of Agriculture, Canada ranks 4<sup>th</sup> out of 22 countries in terms of the share of household expenditures spent on food. Only the United States, the United Kingdom and China ranked better. In 2002, 9.9% of Canadians' expenditures were on food, compared to 11.9% for Germany, 14.4% for Japan, 16.7% for New Zealand, and 39.7% for India. In other words, the cost of food for Canadians is affordable for the majority.

However, the cost of housing and income levels can affect the ability of some residents to afford a adequate diet. Each year the Province mandates that the Halton Region Health Department conduct the *Nutritious Food Basket Survey*. This survey determines an average price of a nutritious diet for Halton households. The results are compared to the average rent in Halton and incomes of low income residents. Each year the results show that low-income households struggle to pay rent, bills, and to buy sufficient nutritious food for their family.

Low income households often live in rental housing. The following scenarios (Report MO-01-06) illustrate monthly expenses and income, using the average costs of renting in Halton:

	Ontario Works (Single man)	Ontario Works (Single mother and daughter)	Ontario Works (Family of four)	Ontario Disability Support Program (Single man)	Old Age Security/Guaranteed Income Supplement (Single woman)
Total Monthly Income	\$593.79	\$1,212.92	\$1,604.61	\$1,018.39	\$1,148.74
Rent	\$688.00 (Batchelor Apt)	\$849.00 (1 Bedroom Apt)	\$1,157.00 (3 Bedroom Apt.)	\$849.00 (1 Bedroom Apt)	\$849.00 (1 Bedroom Apt)
Cost of Nutritious Diet	\$188.97	\$236.34	\$501.41	\$183.79	\$128.82
Amount remaining to cover monthly expenses	(-\$283.18)	\$127.58	(-\$53.80)	(-\$14.40)	\$170.92

The following scenarios illustrate the problems for minimum wage earners:

	One Full-time minimum wage earner (Family of four)	Two Part-time minimum wage earners (Family of four)
Total Monthly Income	\$1,797.63	\$2,324.16
Rent	\$1,157.00	\$1,157.00
Cost of Nutritious Diet	\$501.41	\$501.41
Amount remaining to cover other basic monthly expenses	\$139.22	\$665.75

In the above scenarios, housing requires 50 to 116% of the family's income. The Canadian Mortgage and Housing Corporation recommends that monthly housing costs be no more than 32% of the gross household monthly income. These scenarios illustrate that there are families who do not have money left over to pay for heat, hydro, transportation, etc.

According to *A Comprehensive Housing Strategy for Halton Region* (Regional Municipality of Halton, 2006) there was a shortfall in 2004 of 300 to 600 affordable housing units. The Report goes on to discuss eight actions to address this issue including "use planning tools linked to the Province of Ontario's Growth Plan to increase the affordable housing supply".

In reality, people will choose to pay their rents as well as other fixed expenses and treat food as a "discretionary" expense. Some families will turn to food banks for assistance. However, food banks do not have the capability to solve the problem because: they have a limited selection of food since they rely on donations and drives; do not have the facilities to store fresh food such as fruits, vegetables, milk and meat; and the food banks restrict the number of visits per month. In fact according to the Canadian Community Health Survey (2001), in Halton 8.2% or 31,970 residents reported some level of being unsure about or unable to feed their family, but in 2004 only 1,629 families accessed the eight major food banks in Halton. This illustrates a gap between the number of people reporting some level of household food insecurity and the number who use food banks. These forced choices can affect the health and nutritional status of the family. Poor nutrition can result in: poor birth outcomes; reduced learning and productivity; chronic diseases; lack of nutrients (Regional Municipality of Halton, 2005).

Encouraging an adequate supply of affordable housing as the population doubles in size is critical in ensuring that families have the ability to feed themselves a sufficient nutritious acceptable diet that is not based on charity.

### **4.3 Allowing for Urban Agriculture**

The need for urban agriculture will increase with the anticipated population growth and urban intensification. Increasingly health professionals, urban planners, environmental activists, community organizers, and policy makers are recognizing the value of urban agriculture for economic development, food security, and preservation of green space (Brown and Jameton, 2000)

Urban Agriculture refers to a wide range of agricultural ventures within city limits. For the purposes of this paper it will refer mainly to community gardens (where typically a lot is divided among households who tend small plots of land), roof top gardens (where the flat top of a building has been designed or modified to grow vegetation including food), and backyard gardens. (Note: agriculture occurring in

areas in close proximity to large urban centres has also been termed “urban agriculture”, but is more accurately “near-urban” agriculture).

Beyond the obvious benefit of food production, there are many health benefits to the establishment of urban agriculture in a community. They include:

- ***Dietary knowledge and practice*** In a literature review of the effect of urban agriculture on dietary knowledge and behaviours, Carter et al. (2005) found that growing, harvesting, understanding produce varieties and seasonality, cooking and preserving food positively impacts on dietary habits. That is, gardeners generally believe that what they grow is good for them and so they tend to eat it. Gardeners eat more servings of fruits and vegetables per day than non gardeners and fewer sweet foods and soft drinks.
- ***Saving food dollars*** The Carter et al. (2005) review found that urban gardening saves household food dollars and frees up cash for non-garden foods and other items. It states that a US study in 1996 reported that every \$1 invested in a community garden plot yields approximately \$6 worth of vegetables.

Garden yields vary according to condition of land, seed species, weather conditions, reliability of water sources, length of growing season and skill (Brown and Jameton, 2000). But one researcher calculated that for the temperate climates of North America, under average growing conditions in a 130-day growing season, a 10x10 meter plot can provide a household's yearly vegetable needs (Brown and Jameton, 2000).

- ***Exercise*** Even moderate forms of garden exercise increase muscle strength and endurance in activity-reduced persons. According to the literature review by Carter et al. (2005), studies have shown that gardening has been connected to reducing risks of obesity (children and adults), coronary heart disease (women and men), glycemic control and diabetes (adults, elderly men), and occupational injuries (railway workers).
- ***Mental health*** The review by Carter et al (2005) finds that working with plants in the outdoors benefits mental health, mental outlook, and personal wellness of individuals. Health professionals use gardening to help patients of diverse ages with mental illness to improve social skills, self-esteem, and use of leisure time. It induces relaxation and reduces stress, fear and anger, blood pressure, and muscle tension.
- ***Social and community benefits*** The review by Carter et al (2005) discusses the social benefits to the community that urban gardening can bring. It states that participating in beautifying a neighbourhood builds a constructive, collective consciousness. The presence of vegetable gardens in inner-city neighbourhoods is positively correlated with decreases in crime, trash

dumping, juvenile delinquency, fires, violent deaths and mental illness. Gardens link different sectors of a city – youth, elders, and diverse race, ethnic and socio-economic groups. It brings people together, builds community, and improves neighbourhoods.

- **Environmental benefits** A review by Waterloo Public Health (Mazereeuw, 2005) discusses the environmental benefits of urban agriculture:
  - Urban stormwater is the water that runs off surfaces such as rooftops, paved streets, highways, and parking lots during precipitation. It represents water that would be absorbed into the soil if the area was not built up and paved over. Green roofs can reduce stormwater by retaining a portion of the precipitation. In fact, 70 to 100% of urban stormwater that falls on a green roof can be retained by the growing medium in the summer and 40 to 50% during winter months (Mazereeuw, 2000).
  - Urban heat island effect. Causes of urban heat island include vegetation being replaced by asphalt and concrete for roads, buildings and other structures necessary to accommodate growing populations. These surfaces absorb solar radiation and re-radiate it as heat. This results in increased energy requirements for air conditioning and refrigeration and thereby increased air pollution. Green roofs and rooftop gardens reduce the area of dark surfaces and allow for solar radiation to be absorbed by the vegetation and used for photosynthesis.
  - Contributes to better air quality by decreasing the distance food travels from where it is grown to the consumer and by reductions in energy use for cooling as well as by removing air pollutants (Mazereeuw, 2005).

## 5.0 CONCLUSIONS

Agricultural land is a limited and non-renewable resource in Canada. In Ontario it is threatened by expanding urban boundaries. This is the case for the mainly prime agricultural land in the Primary Study Area in Halton Region. However the preservation of this land and the encouragement of a local food system can contribute to the health of our community. It can ensure residents have access to a food supply of high nutritional quality, it can lower the environmental costs due to our reliance on imported foods, it can increase the ability to promote high food safety standards, and it can contribute to a vibrant local food economy.

Access to grocery stores is a food security issue. Physical access, either by foot or public transit, is a key access variable. Nutritionally vulnerable sub-populations

may not have access to cars to travel to grocery stores. In the absence of a major food retail store, people may rely more heavily on convenience stores. The food available in convenience stores is generally more expensive and healthy foods e.g. fresh fruits and vegetables, are less likely to be available. For example, in Acton, there is one grocery store and no public transit and a relatively high density of convenience stores that may be filling the gap.

Access to affordable housing is a component of community food security. The results of the annual Nutritious Food Basket survey for Halton consistently highlights that low-income households struggle to pay rent, bills, and to buy sufficient nutritious food for their families.

Increasingly health professionals, urban planners, environmental activists, community organizers, and policy makers are recognizing the value of urban agriculture for economic development, food security, and preservation of green space. The health benefits of urban agriculture in a community include: increased dietary knowledge and practice; saving food dollars; exercise; mental health; social and community benefits; and environmental benefits.

## **6.0 RECOMMENDATIONS**

It is essential that we integrate the food security needs of our community as we move forward in planning for growth. The Health Department supports the following:

- Measures that will contribute to the health of the community by preserving as much of the Primary Study Area as possible. to ensure that Halton residents have access to a local food system
- The encouragement of a local food production and distribution system
- Community design policies and incentives that ensure all residents have physical access to grocery stores either by foot or transit
- Urban planning that ensures adequate affordable housing for the Region
- Community design that allows for community gardens, and rooftop gardens
- Efforts that build awareness and support for these issues.

## REFERENCES

American Institute for Cancer Research, e - Newsletter, [www.aicr.org](http://www.aicr.org). November 2006.

Baker, EA., Schootman, M., Barnidge, E., and Kelly, C.(2006). *The Role of Race and Poverty in Access to Foods That Enable Individuals to Adhere to Dietary Guidelines*. Preventing Chronic Disease Public Health Research, Practice, and Policy Vol. 3, No. 3.

Brown, K., Jameton, AL. (2000). *Public Health Implications of Urban Agriculture*. Journal of Public Health Policy, Vol.21, No. 1 Pg 20-39.

Carter, AC., Brown, K., Smit, J. (2005). *Health Benefits of Urban Agriculture*. Community Food Security Coalition's North American Initiative on Urban Agriculture.

Carter, A. and Mann, P. (2004). *Farming from the City Centre to the Urban Fringe: Urban Planning and Food Security*. Prepared for the North American Urban Agriculture Committee of the Community Food Security Coalition.

Centre for Studies in Food Security website, Ryerson University. [www.ryerson.ca/foodsecurity/centreFSDefined.html](http://www.ryerson.ca/foodsecurity/centreFSDefined.html)

Chapman B., and Powell, D. (2003). *On-farm food safety update*. The Grower, Food Safety Network website.

Cosgrove, S. Food Secure City: Toronto Food Policy Council Submission to the Toronto Official Plan. Page 22.

Desjardins, E. and MacRae, R. (2005). Optimal Nutrition Environment for Waterloo Region, 2006-2046.

French, S. A. et al (2001). *Environmental Influences on Eating and Physical Activity*. Annual Review of Public Health 22:309-335.

George, J., Porter, C., Werger, A. (2006). Factors Affecting the Nutritional Value of Food: A Report for Farmers' Markets of Nova Scotia. Mount Saint Vincent University.

Hamm, M.W., Bellow, A.C. (2003). *Community food security and nutrition educators*. J. Nutr. Educ. Behav; 35:37-43.

Hartford Food System (2006). *Connecticut's Supermarkets: Can New Strategies Address the Geographic Gaps?* Policy Briefing Paper, Hartford Food System Website ([www.hartfordfood.org](http://www.hartfordfood.org)).

Hofmann, N., Filoso, G., and Schofield, (2005), *The loss of dependable agricultural land in Canada*. Rural and Small Town Canada Analysis Bulletin Vol. 6, No. 1.

Ileka, JW, (2003). *Agriculture and the Environment – Air: Climate Change*. Agriculture and Agri-Food Canada Website.

Lamers-Bellio, K., and Fuller, C. (2003). *How the Food System Contributes to the Quality of the Air we Breathe: A Literature Review, March 2003*. Health Determinants, Planning and Evaluation, Region of Waterloo Public Health.

Lepp, K. (2004). *Food Access Final Report*. Health Determinants, Planning and Evaluation Division, Region of Waterloo Public Health.

MacNair, E. (2004). *A baseline assessment of food security in British Columbia's Capital Region*. Capital Region Food and Agricultural Initiatives Round Table. [www.communitycouncil.ca](http://www.communitycouncil.ca).

Mazereeuw, B. (2005). *Urban Agriculture Report*. Health Determinants, Planning and Evaluation Division, Region of Waterloo Public Health.

McCarthy, JJ., Canzizni, OF., Leary NA., Dokken, DJ., White, KS., Editors (2001). Intergovernmental Panel on Climate Change. *Climate Change 2001: Impacts, Adaptation, and Vulnerability*. Cambridge University Press, UK.

McCullum, C. (2004). Using sustainable agriculture to improve human nutrition and health. *Journal of Community Nutrition*, 6(1): 18-25.

Morrow, D. B., Walton & Hunter Planning Associates (2000), *Growing Halton's Agricultural Cluster and Farmland Base*.

Ontario Healthy Communities Website [www.healthycommunities.on.ca](http://www.healthycommunities.on.ca).

Peters, C., Bills, N., Wilkins, J., Smith, D. (2002) Vegetable consumption, dietary guidelines and agricultural production in New York State – Implications for Local Food Economies. Cornell University, Ithaca, New York.

Powell, D. (2003). The Food Safety Launches another Year of Fresh Fruit and Vegetable On-Farm Food Safety Programs and Research. Food Safety Network Website.

Rees, W. E. (2004). *Eco-Footprint of Agriculture: A Far-from-(Thermodynamic)-Equilibrium Interpretation*. National Agricultural Biotechnology Council Conference 16, University of Guelph.

Regional Municipality of Halton, Health Department (2005). *The Price of Eating Well in Halton – 2005*.

Regional Municipality of Halton, Social and Community Services Department, Housing Division (2006). *A Comprehensive Housing Strategy for Halton Region 2006 – 2016+*.

Report MO-01-06. (January, 2006) Annual Nutritious Food Basket Survey – 2005 Results.

Rosenzweig, C. and Hillel, D. (1995) *Potential Impacts of Climate Change on Agriculture and Food Supply*. U.S. Global Change Research Information Office website [www.gcric.org](http://www.gcric.org), Consequences Vol. 1, No. 2.

Rose, D. and Richards, R. (2004). Food store access and household fruit and vegetable use among participants in the US Food Stamp Program. *Public Health Nutrition*: 7(8), 1081-1088.

Toronto Food Policy Council (1999). *Feeding the City from the Back 40: A commercial Food Production Plan for the City of Toronto*. Toronto Food Policy Council Website.

Walton, M. (2003). *Greater Toronto Area Agricultural Profile: An Update of the GTA Agricultural Impact Study (1999)*. Page 2.3.

Walton, M. (2007). *Rural Cluster: An Agricultural/Countryside Vision*. Page 4.

World Health Organization, *Food Safety and foodborne illness*. Fact Sheet No. 237, revised January 2002.

Xuereb, M. (2005). *Food Miles: Environmental Implications of Food Imports to Waterloo Region*. Region of Waterloo Public Health.

Xuereb, M. and Desjardins, E. (2005). *Towards a Healthy Community Food System for Waterloo Region: Interim Report*. Health Determinants, Planning and Evaluation Division, Region of Waterloo Public Health.

## APPENDIX 1 – EATING WELL WITH CANADA’S FOOD GUIDE

See attached document.

**APPENDIX 2 – THE PRICE OF EATING WELL IN HALTON – 2005**

**SEE ATTACHED DOCUMENT.**

## **APPENDIX 3 – RELEVANT GROWTH PLAN OBJECTIVES AND POLICIES**

### **1.0 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE**

The following policies have been extracted from the Growth Plan for the Greater Golden Horseshoe. These policies will have implications for the development of a health and social issues strategy for the Sustainable Halton Plan. Definitions pertinent to health and social issues have also been extracted.

#### **1.1 Applicable Provincial Policy**

##### "1.1 Context

This Plan reflects a shared vision amongst the Government of Ontario, the municipalities of the GGH and its residents. Successful implementation of this Plan's vision will be dependent upon collaborative decision-making. In preparing for the future, it is essential that planning for the GGH take into account the importance, and the unique characteristics and strengths of its economy. These include:

- Abundant natural heritage features and areas, and prime agricultural areas, and the government's commitment to protecting them, as demonstrated through initiatives such as the Greenbelt Plan, which make our communities more attractive and healthier places to live and work;

This Plan addresses these challenges through policy directions that -

- promote transit-supportive densities and a healthy mix of residential and employment land uses.

##### 2.1 Context

The GGH is one of the fastest growing regions in North America. By 2031, the population of this area is forecast to grow by an additional 3.7 million (from 2001) to 11.5 million people, accounting for over 80 per cent of Ontario's population growth. The magnitude and pace of this growth necessitates a plan for building healthy and balanced communities and maintaining and improving our quality of life.

To ensure the development of healthy, safe and balanced communities, choices about where and how growth occurs in the GGH need to be carefully made.

Strong, healthy and prosperous rural communities are also vital to the economic success of the GGH and contribute to our quality of life. This Plan recognizes and promotes the traditional role of rural towns and villages as a focus of economic, cultural and social activities that support surrounding rural and agricultural areas across the GGH.

Healthy rural communities are key to the vitality and well-being of the whole area.

This Plan is about building complete communities, whether urban or rural. These are communities that are well-designed, offer transportation choices, accommodate people at all stages of life and have the right mix of housing, a good range of jobs, and easy access to stores and services to meet daily needs.

### 2.2.2 Managing Growth

1. Population and employment growth will be accommodated by –
  - c) building compact, transit-supportive communities in designated greenfield areas
  - d) reducing dependence on the automobile through the development of mixed-use, transit-supportive, pedestrian-friendly urban environments
  - g) planning and investing for a balance of jobs and housing in communities across the GGH to reduce the need for long distance commuting and to increase the modal share for transit, walking and cycling

### 2.2.3 General Intensification

7. All intensification areas will be planned and designed to
  - d) support transit, walking and cycling for everyday activities

### 2.2.7 Designated Greenfield Areas

1. New development taking place in designated greenfield areas will be planned, designated, zoned and designed in a manner that –
  - b) creates street configurations, densities, and an urban form that support walking, cycling, and the early integration and sustained viability of transit services

- d) creates high quality public open spaces with site design and urban design standards that support opportunities for transit, walking and cycling.

### 3.2 Policies for Infrastructure To Support Growth

#### 3.2.2 Transportation – General

1. The transportation system within the GGH will be planned and managed to –
  - b) offer a balance of transportation choices that reduces reliance upon any single mode and promotes transit, cycling and walking
  - d) offer multi-modal access to jobs, housing, schools, cultural and recreational opportunities, and goods and services

#### 3.2.3 Moving People

3. Municipalities will ensure that pedestrian and bicycle networks are integrated into transportation planning to –
  - a) provide safe, comfortable travel for pedestrians and bicyclists within existing communities and new development
  - b) provide linkages between intensification areas, adjacent neighbourhoods, and transit stations, including dedicated lane space for bicyclists on the major street network where feasible.

#### 4.2.4 A Culture of Conservation

1. Municipalities will develop and implement official plan policies and other strategies in support of the following conservation objectives:
  - c) Air quality protection, including reduction in emissions from municipal and residential sources.

### 6. Definitions

#### Community Infrastructure

Community infrastructure refers to lands, buildings, and structures that support the quality of life for people and communities by providing public services for health, education, recreation, socio-cultural activities, security and safety, and affordable housing".

## **2.0 RELEVANT 2005 PROVINCIAL POLICY STATEMENT POLICIES**

Provincial Policy Statement policies have implications for the development of a Health and Social Issues strategy for the Sustainable Halton Plan. The following provides excerpts from the Provincial Policy Statement that would be significant in considering a policy for the Sustainable Halton Plan. Definitions pertinent to Housing policies have also been extracted.

### **2.1 Applicable Provincial Policy**

"Part IV: Vision For Ontario's Land Use Planning System

Efficient development patterns optimize the use of land, resources and public investment in infrastructure and public service facilities. These land use patterns promote a mix of housing, employment, parks and open spaces, and transportation choices that facilitate pedestrian mobility and other modes of travel. They also support the financial well-being of the Province and municipalities over the long term, and minimize the undesirable effects of development, including impacts on air, water and other resources. Strong, liveable and healthy communities enhance social well-being and are economically and environmentally sound.

Strong communities, a clean and healthy environment and a strong economy are inextricably linked. Long-term prosperity, environmental health and social well-being should take precedence over short-term considerations.

The fundamental principles set out in the Provincial Policy Statement apply throughout Ontario, despite regional variations. To support our collective well-being, now and in the future, all land use must be well managed.

#### **1.1 Managing And Directing Land Use To Achieve Efficient Development And Land Use Patterns**

##### **1.1.1 Healthy, liveable and safe communities are sustained by:**

- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;

### 1.1.3 Settlement Areas

1.1.3.4 Appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while maintaining appropriate levels of public health and safety.

## 1.5 PUBLIC SPACES, PARKS AND OPEN SPACE

1.5.1 Healthy, active communities should be promoted by:

- a) planning public streets, spaces and facilities to be safe, meet the needs of pedestrians, and facilitate pedestrian and non-motorized movement, including but not limited to, walking and cycling;
- b) providing for a full range and equitable distribution of publicly-accessible built and natural settings for *recreation*, including facilities, parklands, open space areas, trails and, where practical, water-based resources;

### 1.6.5 Transportation Systems

1.6.5.1 Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.

## 1.7 LONG-TERM ECONOMIC PROSPERITY

1.7.1 Long-term economic prosperity should be supported by:

- e) planning so that major facilities (such as airports, transportation/transit/rail infrastructure and corridors, intermodal facilities, sewage treatment facilities, waste management systems, oil and gas pipelines, industries and resource extraction activities) and *sensitive land uses* are appropriately designed, buffered and/or separated from each other to prevent *adverse effects* from odour, noise and other contaminants, and minimize risk to public health and safety;

## 1.8 ENERGY AND AIR QUALITY

1.8.1 Planning authorities shall support energy efficiency and improved air quality through land use and development patterns which:

- a) promote compact form and a structure of nodes and corridors;

- b) promote the use of public transit and other alternative transportation modes in and between residential, employment (including commercial, industrial and institutional uses) and other areas where these exist or are to be developed;

### 2.3 Agriculture

- 2.3.1 Prime agricultural areas shall be protected for long-term use for agriculture.

*Prime agricultural areas* are areas where *prime agricultural lands* predominate. *Specialty crop areas* shall be given the highest priority for protection, followed by Classes 1, 2, and 3 soils, in this order of priority.

## 6.0 DEFINITIONS

**Access standards:** means methods or procedures to ensure safe vehicular and pedestrian movement, and access for the maintenance and repair of protection works, during times of *flooding hazards, erosion hazards and/or other water-related hazards*.

**Special needs:** means any housing, including dedicated facilities, in whole or in part, that is used by people who have specific needs beyond economic needs, including but not limited to, needs such as mobility requirements or support functions required for daily living. Examples of *special needs* housing may include, but are not limited to, housing for persons with disabilities such as physical, sensory or mental health disabilities, and housing for the elderly."

## 3.0 RELEVANT REGIONAL OFFICIAL PLAN POLICIES

The following goals and objectives have been extracted from the Halton Region Official Plan as it relates to Health and Social issues. The goals and objectives will have implications for the development of a Health and Social Issues strategy for the Sustainable Halton Plan. Definitions have also been extracted from the Official Plan.

### 3.1 Applicable Regional Policy

"**31.** In its vision of planning for Halton's future, Halton believes in the development of *healthy communities*. A *healthy community* is one:

- 1) that fosters among the residents a state of physical, mental, social and economic well-being;
- 2) where residents take part in, and have a sense of control over, decisions that affect them;

- 3) that is physically so designed to minimize the stress of daily living and meet the life-long needs of its residents; and
- 4) where employment, social, health, educational, and recreational and cultural opportunities are accessible for all segments of the community.

## The Rural System

### Goal and General Policies

- 91.** The goal of the Rural System is to maintain a permanently secure, economically viable agricultural industry, as well as other resource industries, and to preserve the open-space character and landscape heritage of Halton's non-urbanized areas.

### Agricultural Rural Area

- 99.** The *objectives* of the Agricultural Rural Area are:

- 99(1) To recognize agriculture as the primary activity and land use in the Agricultural Rural area.
- 99(2) To preserve prime agricultural soils.
- 99(3) To maintain as much as possible lands for existing and future farm use.
- 99(7) To promote a diverse, innovative and economically strong agricultural industry in Halton by tailoring its products and marketing to meet local and regional needs and demands.
- 99(8) To promote agriculture-related tourism and direct sales of farm produce and accessory products to visitors and local businesses.
- 99(9) To preserve the farm community as an important part of Halton's rural fabric.
- 99(10) To promote environmentally sensitive and sustainable farm practice.

### Air and the Ambience

- 142.** The objectives of the Region are:

- 142(1) To reduce, in concert with the Federal Government, the Province, other municipalities, public interest groups and the private sector, the emissions of greenhouse gases.

- 142(2) To support the principles of the Kyoto Protocol established in December 1997 by the international community.
- 142(3) To reduce incrementally the overall greenhouse gas emissions and other air pollutants generated by the Region's own corporate activities and functions.
- 142(4) To contribute to the overall improvement of air quality in Halton's airshed through facility management, land use planning, transportation management, roadway design, operation and maintenance, and other complementary programs.
- 142(5) To support urban forms that will reduce long distance trip-making and the use of the private automobile.
- 142(6) To promote trips made by walking, cycling and public transit.
- 142(7) To promote tree planting in both rural and urban areas for the purposes of improving air quality and reducing energy use through shading and sheltering.
- 142(8) To address the impact of noise, vibration and light on land uses.

#### Water

**144.** The objectives of the Region are:

- 144(1) To increase public awareness of the importance and value of an adequate, sustainable supply of clean water for both human use and the natural environment.
- 144(2) To increase our collective knowledge of the water resources in Halton.
- 144(3) To maintain, protect and enhance the quality of groundwater and surface water.
- 144(4) To achieve integrated watershed management in Halton through partnership with all stakeholders within the watersheds.
- 144(5) To support the protection of water quality and quantity, both rate and volume, in accordance with the objectives of Watershed Management Plans and Sub-watershed Studies, where they exist, or through best management practice, where such Plans/Studies do not exist.

- 144(6) To maintain and enhance fish habitat in Halton.
- 144(7) To promote and support water conservation.
- 144(8) To recognize Lake Ontario as a valuable and important natural resource on which Halton relies for drinking water, wastewater treatment, recreation and economic development.
- 144(9) To support the undertaking and implementation of remedial action plans for Lake Ontario, Hamilton Harbour (Burlington Bay) and other existing bodies of water.

#### Land

**146.** The objectives of the Region are:

- 146(1) To protect unique landforms permanently.
- 146(2) To allow a wide range of possible land uses in settlement areas yet maintain an environment free from degradation through various uses of land.
- 146(3) To preserve certain landscapes as part of Halton's heritage resources.
- 146(4) To implement, in part, the environmental goals and objectives of this Plan through strategic land acquisitions;
- 146(5) To promote the concept of a Regional trail system by providing the needed connections, through acquisitions or easements, between local trails and/or inter-regional trails such as the Bruce Trail and the Waterfront Trail.
- 146(6) To protect significant tree-covered areas as a natural resource.
- 146(7) To promote the conservation and wise economic use of trees consistent with the ecological and environmental goals, objectives and policies of this Plan.
- 146(8) To promote a linked system of woodlands in Halton where appropriate.
- 146(9) To maintain a system of Regionally owned forests.
- 146(10) To promote soil conservation and minimize soil erosion.

146(11) To ensure that development takes place on sites that are safe from soil contamination.

146(12) To protect and utilize mineral aggregate resources in accordance with Sections 107 through 112 of this Plan.

## HUMAN SERVICES

### Goals and General Policies

**150.** The goals of the Region are:

150(1) To achieve a sustainable state of health for all on the basis of a clean environment, economic prosperity, social equity, and provision of opportunities for individuals to develop their maximum potential.

150(2) To develop and maintain healthy communities by fostering physical, social and economic conditions that will enhance the state of wellbeing and the quality of life for the residents of Halton.

150(3) To advance health promotion and disease prevention as the primary means of achieving optimal health status, with support and treatment services being the remedial measures.

150(4) To ensure that human services are delivered to meet people's changing needs within available financial resources and in the most cost-effective manner.

**151.** The Region recognizes that the planning and provision of human services involve other levels of government and public agencies, as well as the private and voluntary sector. They require partnership, consultation, coordination and cooperation. The human services goals, objectives and policies in this Plan reflect Regional Council's commitment to the concept of Healthy Communities and its relationship with land use planning. It is not the intention of the Region, through policies of this Plan, to increase its role in the delivery of human services beyond what it currently has. Any reassignment of such responsibilities, if any, should be examined by all partners involved, in the context of efficiency and financial considerations.

**152.** It is the policy of the Region to:

- (1) Develop, jointly with the Local Municipalities, and adopt Development Guidelines for *Healthy Communities*, which include, among other things:
  - a) description of general characteristics of a *healthy community*,
  - b) desirable mix of land uses within the community,
  - c) community design guidelines that will promote integration of the community and accessibility by residents to services within and outside the community,
  - d) physical design features that will promote health and safety of the community's inhabitants,
  - e) zoning, site plan and design guidelines for promoting the shared use of land or facility by compatible uses or activities, and
  - f) suggested level of service and facility requirement for the provision of human services over the full human lifecycle and under special circumstances.
- (2) Require the Local Municipalities in their preparation of Secondary Plans and proponents of major development in submitting their applications, to have regard for the Development Guidelines for *Healthy Communities*.
- (3) Support and participate in the worldwide movement of *Healthy Cities* and encourage the Local Municipalities to do the same.
- (4) Establish and maintain broad-based advisory committees to provide advice to Regional Council and the Province on the delivery of human services,
- (5) Develop, jointly with the Local Municipalities, service agencies, and other human services planning organizations, a region-wide human services information system using local information services.

#### Public Safety

**155.** The objective of the Region is to plan for an environment with the highest level of personal safety and security for its inhabitants.

#### Social Support Services

**157.** The objective of the Region is to identify and support, in coordination with the Province and voluntary agencies and in the

most cost-effective manner, a range of services that will enhance the social functioning of all Halton's inhabitants.

#### Health Services

- 163.** The objective of the Region is to provide opportunities for all inhabitants of Halton to attain a status of optimal health that encompasses a healthy environment, healthy lifestyles and adequate health care.
- 164.** It is the policy of the Region to:
- (1) Monitor the health status of Halton's residents regularly through the State of the Environment Report and other health status reports.
  - (2) Prepare, adopt, and update regularly, in cooperation with other health services planning organizations, strategic plans to coordinate the delivery of health services by the Region and other health care delivery programs.
  - (3) Encourage the Local Municipalities to design their communities to provide ample opportunities for the pursuit of physical activity by all age groups of the inhabitants.
  - (4) Encourage and support information and education programs that focus on accident prevention, health promotion and disease prevention.
  - (5) Support the establishment of environments and policies that promote health and prevent injuries and diseases.
  - (6) Encourage and support the involvement of the community in the development of health promotion strategies and initiatives that enhance the health of the individual and the community at large.
  - (7) Encourage and support community based programs such as home care, meals on wheels, and a mix of home support services to enable individuals to maintain independence and remain at home as long as possible.
  - (8) Encourage and support the establishment, within communities and at locations accessible by public transportation, of facilities that provide a comprehensive range of community health care and support services.
  - (9) Support the Halton-Peel District Health Council in the long term planning of major health care facilities in Halton.

- (10) Support, in conjunction with the Halton-Peel District Health Council, the establishment of an appropriate range and supply of health care facilities in Halton.

#### PART VI DEFINITIONS

- 250.** HUMAN SERVICES means services relating to health, education, culture, recreation, public safety and social services."



## Access Halton

 Dial 311  [www.halton.ca](http://www.halton.ca)