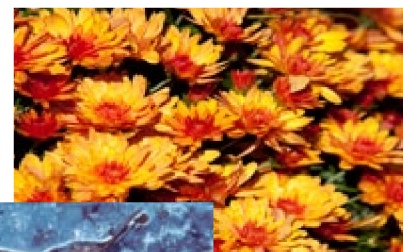


# Town of Oakville

## STATE OF THE ENVIRONMENT 2010



# DRAFT



# Message From the Mayor



TO BE CONFIRMED

Sincerely,

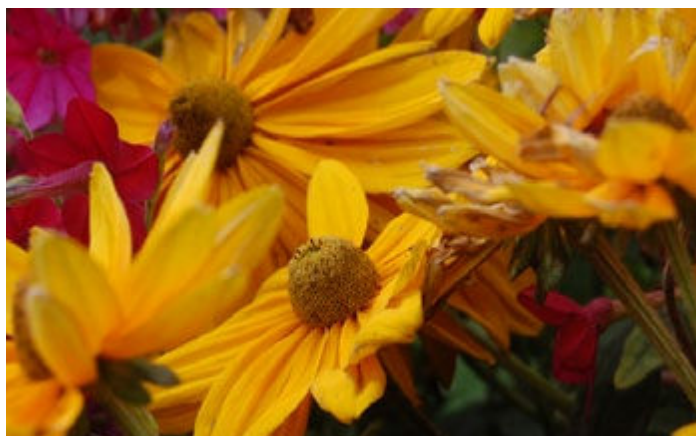
Mayor Rob Burton

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## Overview of the Town's Environmental Indicators Program

In December 2005, Council approved the Town's Environmental Strategic Plan (ESP). This document was developed in partnership with the community and outlines actions to be taken towards achieving specific environmental



goals. One of these actions was to develop a set of environmental indicators and a monitoring program for the town.

Oakville's State of the Environment Reporting (SOER) program was initiated in 2008. The SOER is based on input gathered through public consultation, town staff and partner agencies.

The SOER is designed to report on the six key areas outlined in the ESP, these include: Natural Resources, Resources and Material Use, Transportation, Healthy Neighbourhoods, Community Engagement and Best Practices.

We are continuing to build baseline data to gain a better understanding of the town's current situation. This will help us determine where we are and what our long term goals will be. It will also provide information on what we're doing well and where we need to improve.

With several years of baseline data, we can start to see trends. From here we can start to focus on the specific types of programs and actions that need to be taken to improve our performance.

## Background

This is the third edition of the SOER. The information presented in this report will highlight emerging trends seen in our key indicators over 2009 with some discussion on what these trends might mean for the town. Also included at the back of this year's edition is a short section for educators.

If you've never read a previous year's SOER, don't worry. The information you'll find in this report is informative and will guide

you through each of the indicators to explain what it is, why we're measuring it and what the numbers mean.

## What's Happened Since Last Year?

Since our first SOER was released in 2008, the town has implemented a number of improvements.

The move to Performance Based, Program Based Budgeting (PB2) requires departments to report out on the results of the programs and services offered.

Not only is this valuable to understand where our money is being spent, we will have a better understanding of the value provided. Many of these programs relate to the environment and we will be working with staff to continue to improve and interpret this data in the coming years.

The Ecological Footprint program is also being advanced which will further assist us in measuring the impact of our programs and services.

We hope you will find the information in these pages useful. Together, we can make a difference and we hope you

will join us in finding ways to improve Oakville's environment.





# 2 Ecological Footprint

## Ecological Footprint

New to the environmental indicators program as of last year is the addition of Oakville's ecological footprint. While each indicator can represent a particular aspect of the environment, the footprint combines a broad range of data to give an easy to understand snapshot of the impact of our consumption on the environment.

### Background

The concept of the ecological footprint came to the forefront in the 1990s through the work of two Canadians, Mathis Wackernagel and William E. Rees. It measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes. It is now in wide use by scientists, businesses, governments, agencies, individuals, and institutions working to monitor ecological resource use and advance sustainable development. The town's new official plan incorporates ecological footprint as part of its policy framework as a means of measuring progress towards sustainability.

### Oakville's Footprint Program

This program has been developed in cooperation with the consulting firm that completed the Federation of Canadian Municipalities (FCM) report on the footprints of representative municipalities across Canada. The town's footprint currently sits at 9 ha per person which would mean it would take approximately 1.5 million ha to support the town's population as shown in Figure 1.

With the work recently completed, Oakville is now in the unique position of being a world leader in this field as we have now

brought the footprint down from a community to a neighbourhood level. This is thanks in large part to the monitoring and data collection that the town has been carrying out over the past few years.

An ecological footprint calculated at this level of detail allows the town to more closely analyze what our biggest environmental impacts are and how we might address them. It offers the opportunity to develop tools and consider data in a way that was previously unknown. For example, we can pilot environmental outreach programs at a small scale to compare results at a neighbourhood level before rolling them out to the larger

community.

### Get Involved

Residents and businesses have an important role to play and the town wants to make this even easier. We have added an Ecological Footprint section to the town's environmental website. It features the town's detailed report, the 2004 FCM report and some great features that can help reduce your individual footprint. In partnership with Earth Day Canada, we are also offering the EcoAction program.

Simple lifestyle choices can make a positive difference. With household and personal greenhouse gas emissions representing nearly half of the country's total, there is a lot that we can do to reduce our impact. We'll be updating this site to provide resources and links to make conservation as easy as a click of a button at [www.oakville.ca/environment.htm](http://www.oakville.ca/environment.htm) or email us at [environment@oakville.ca](mailto:environment@oakville.ca) for



*Figure 1: Oakville's Ecological Footprint.  
Source: Town of Oakville.*

more information.

## Focus Area 1: Natural Resources

### Indicator 1.1: Greenspace and Biodiversity



#### What Are We Measuring?

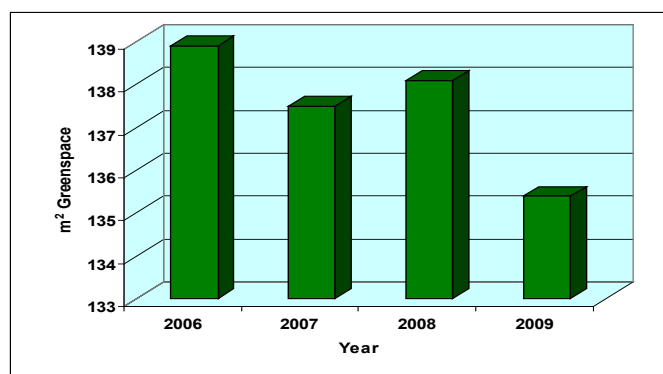
We are measuring the total area (hectares) of publicly owned green space.

#### Why Is It Being Measured?

Protecting and enhancing Oakville's greenspace is important in sustaining our flora and fauna. Publicly owned land provides opportunities for protection and restoration to support biodiversity.

#### Where Are We Now?

A 2009 Community Attitudes Survey, conducted as part of the ESP update, asked residents to respond to questions on Oakville's environment. When asked to rate various environmental features on a scale of 1 to 5, open space topped the list as a favourite. This is not surprising, as Oakville has one of the highest per capita amounts of both green space and trails when compared to similar communities in Ontario.



**Figure 2: Publicly owned greenspace per capita.** Source: Town of Oakville.

In 2009, although the overall amount of parks and trails increased, this did not keep pace with population.

As noted in Table 1, greenspace in Oakville increased marginally in 2009 with 3 ha of space added by the town. Currently, publicly owned greenspace makes up approximately 30% of Oakville's land base of 78.1 km.

Even with additions to our total greenspace, it will be difficult to maintain the current levels of greenspace per capita. The per capita decline is due to the steady population increase. This will become even more significant with the imminent development of North Oakville.

**Table 1: Green space in the Town of Oakville**

Year	Town (ha)	Province (ha)	Conservation Halton (ha)	Total (ha)
2009	1,421	969	10	2,400
2008	1,418	969	10	2,397
2007	1,355	969	10	2,334
2006	1,332	969	0	2,301

*Note: Municipally owned greenspace includes community and neighbourhood parks, tableland woodlots, valleys, and undeveloped parkland. Provincial holdings include Glenorchy Conservation Area and Bronte Creek Provincial Park. Conservation Halton has Wildflower Woods.*

Oakville also contains areas that are of particular importance to conserving biodiversity and ecological health. Environmentally Sensitive Areas (ESA) are defined through specific criteria set out by the Region of Halton. There are a total of 7 ESAs and a portion of 1 candidate ESA within Oakville's boundaries, comprised of both public and privately owned lands.

#### What is Being Done?

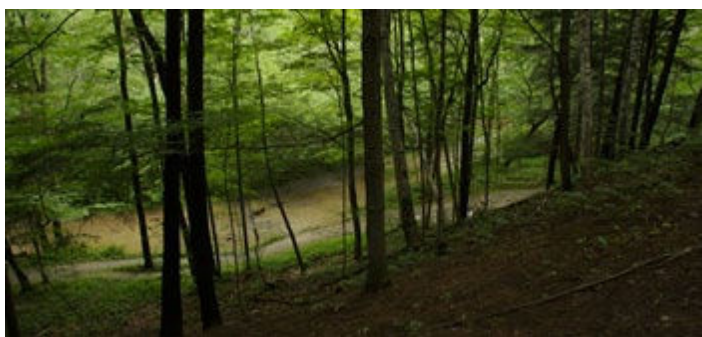
Conservation Halton completed the 20 year master plan for the new 1,000 acre Glenorchy Conservation Area. Recommendations include numerous restoration opportunities including prairies and wetlands.

A Wildlife Management Procedure for the town is underway and due to be completed in 2011.

Five Natural Heritage System signs were installed in November 2009 in North Oakville.

For International Biodiversity Day 2009, the Oakville Horticulture Society and the town partnered with over 100 volunteers in a garlic mustard pull. Over 87 garbage bags of invasive, non-native plants were removed.

## Indicator 1.2: Urban Forest Canopy



### What Are We Measuring?

We are measuring volunteer planting of trees and shrubs on publicly owned lands and the number of trees planted by the town. This includes trees planted along streets and storm ponds, in parks and natural regeneration areas.

### Why Is It Being Measured?

Trees provide many benefits. As outlined in the town's 2006 Urban Forest report (UFORE), trees filter air pollutants and produce oxygen. They provide shelter and food for wildlife and can assist in offsetting impacts from climate change. To maintain a healthy tree population, it is important to continuously plant new trees to ensure the replacement of old and dying ones. This is particularly important in the face of threats such as Gypsy Moth and Emerald Ash Borer.

The town participates in both staff and volunteer tree plantings. Partnerships with volunteer groups help educate individuals about the importance of trees in our community and ensures resources are available to get plants into the ground. The town's Forestry section also engages in an extensive tree planting program.

### Where Are We Now?

Between 2006 and 2009, a total of 1,489 volunteers planted a total of 5,159 trees.

Volunteer groups have included Oakvillegreen, Field and Stream Rescue team, Ontario Streams, local Guide and Scout troops and Evergreen.



*Table 2: Volunteer Planting Events*

Year	Number of Volunteers	Shrubs Planted	Trees Planted
2009	439	839	661
2008	343	3,147	1,712
2007	467	1,992	1,782
2006	240	1,089	1,004
<b>Total</b>	<b>1,489</b>	<b>7,067</b>	<b>5,159</b>

Town staff also plant trees to maintain and enhance the urban forest on public lands and new subdivisions. between 2006 and 2009, a total of 6,322 trees have been planted by Oakville's Forestry section. While community partnered plantings were down in 2009, staff took a more active role in tree planting ensuring that the overall number of plantings increased.

*Table 3: Trees Planted by Oakville Forestry Staff*

Year	Trees Planted
2009	3,130
2008	1,898
2007	1,294
<b>Total</b>	<b>6,322</b>

As part of the town's UFORE report, it was recommended that forest canopy cover be calculated every 4 years. In 2006, the town's canopy cover was found to be 29%. This is comprised of approximately 1.9 million trees. Another study will be conducted in 2010 to update this figure and over time, this can be tracked to review progress. This work supports the Mayor's legacy goal of 40% canopy cover by 2057.

### What is Being Done?

A new North Oakville Urban Forest Strategic Management Plan is being finalized.

In 2009, the town hosted an educational workshop on the town's public and private tree by-laws.

An extensive plan is underway by the town to combat Emerald Ash Borer including a full tree inventory and the application of treeazin to protect healthy ash trees.

A new town standard doubles the depth of topsoil required in new subdivisions from 4 to 8 inches and increases topsoil volumes for new tree pits.



## Indicator 1.3: Air Quality



### What Are we Measuring?

We are measuring annual average ground level ozone ( $O_3$ ) levels and how many times in a year that fine particulate matter ( $PM_{2.5}$ ) exceeded an average of  $15\mu g/m^3$  over a 24-hour period.

### Why Is It Being Measured?

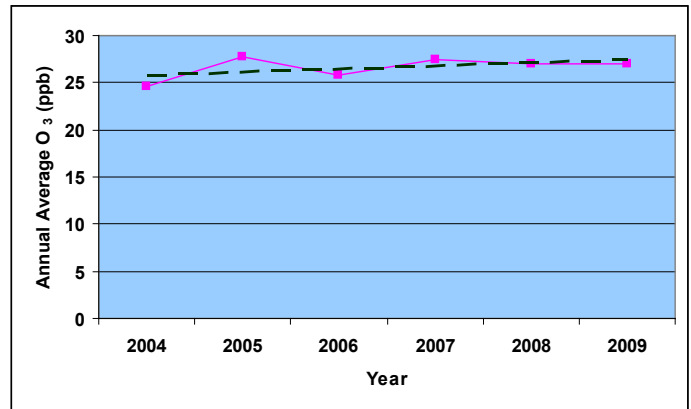
Ground level ozone is responsible for the majority of the smog advisories experienced in the Town of Oakville and has been linked to serious health concerns.

Fine particulate matter ( $PM_{2.5}$ ) consists of fine particles measuring less than 2.5 microns in diameter. When these particles are inhaled, they can penetrate deep into the lungs, causing negative health consequences. Exposure to fine particulate matter has been linked with hospital admissions and severe health concerns, particularly for those with pre-existing respiratory ailments. According to Health Canada, the health reference level for  $PM_{2.5}$  is  $15\mu g/m^3$ . This is the level that has been found to demonstrate quantifiable health impacts in some populations.

### Where Are We Now?

Ozone is a secondary air pollutant that is formed when nitrogen oxides ( $NO_x$ ) react with volatile organic compounds (VOCs) in the presence of sunlight. Therefore, ozone levels tend to vary considerably in response to varying weather conditions. With hotter summers and more cars on the road, ozone levels have been rising steadily as seen in Figure 3.

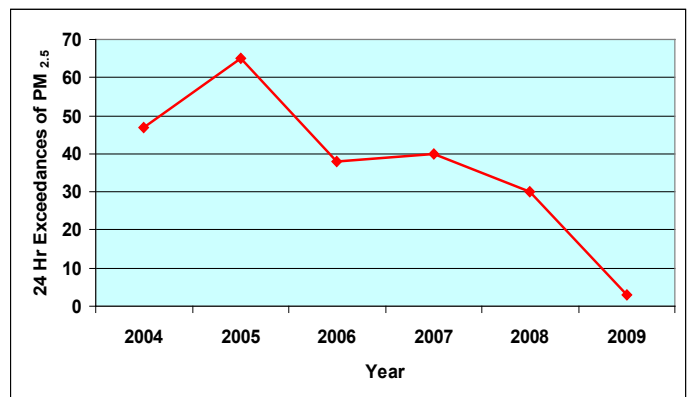
$PM_{2.5}$  is produced when fuels and coal are burned and can also be produced when other air pollutants react with compounds in the atmosphere. Despite the improvement shown in  $PM_{2.5}$  values in 2009, this may be a short lived gain. This trend has been seen across the province and elsewhere and has largely been attributed to the recession and drop in economic



**Figure 3: Annual average ground level ozone in Oakville.**

Source: Ministry of the Environment.

activity (decreased industrial output, fewer cars on the road with fewer workers, etc.). Additionally, the weather in 2009 was cooler and wetter which also impacts the ability of fine particles such as  $PM_{2.5}$  to remain airborne.



**Figure 4: Annual 24 hour exceedance above  $15\mu g/m^3$  of  $PM_{2.5}$**

Source: Ministry of the Environment.

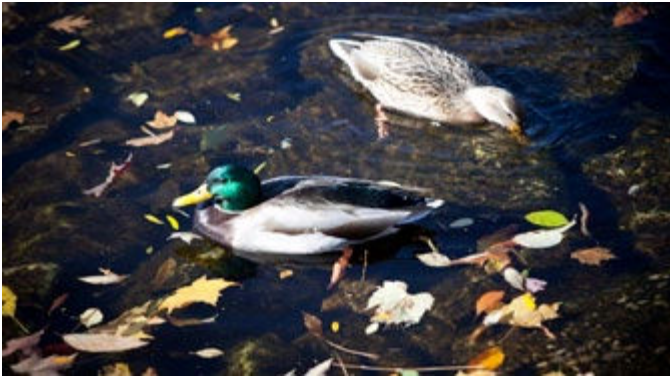
### What Is Being Done?

A by-law to assess and control major emissions of fine particulate matter (PM) in Oakville was passed in early 2010 by town council. The by-law will help protect residents from negative health impacts by monitoring, measuring and regulating fine PM emitters.

Thanks to lobbying from the town and citizens, in November of 2010 the Province initiated a review of its legislation for air quality measures.

The C4CA coalition, along with community groups and the town, successfully convinced the provincial government to drop a planned major gas fired power plant in Oakville.

## Indicator 1.4: Water Quality



### What Are We Measuring?

We are measuring total phosphorus and chloride levels at Sixteen Mile, Fourteen Mile and Bronte Creeks.

### Why is it Being Measured?

Phosphorus is a necessary nutrient for plant and animal life; however, in excess it can promote heavy plant and algae growth and smother small aquatic organisms. Chloride and phosphorus concentrations are important to monitor since these reflect impacts from urban and rural runoff (eg. road salts and fertilizers). The provincial Water Quality Objective (PWQO) for phosphorus to limit excessive plant growth is 0.03 mg/L. For chloride, the PWQO is 250 mg/L.

### Where Are We Now?

Water quality, as shown by phosphorus and chloride levels in Oakville's creeks, has generally been improving since 2007. As of 2009, the phosphorus levels in all three creeks were only slightly above the Provincial Water Quality Objectives (PWQO) of 0.03mg/L.

This may be due in part to various influences such as a significant decline in development activity in 2009, increased consumer awareness of the impact of fertilizers and cleaning products on phosphorus levels and the concerted efforts of the town and region to address phosphorus levels entering local waterbodies.

Chloride levels are also showing a continued downward trend with levels remaining below the PWQO of 250 mg/L. Fourteen Mile Creek is the exception however, showing an upward spike of chloride levels in 2009. A significant contributor to chloride levels is runoff from roadways and salt use during the winter. The high variability of chloride levels in Fourteen Mile Creek may be due in part to the fact that it is a much smaller creek in an urbanized setting and therefore subject to more impact from runoff.

### What is Being Done?

The town updated its Storm Sewer Use By-law (2009-151) which includes regulations for pool water discharges.

The town's new waterless dustless sweepers prevent surface debris, a significant source of pollution, from entering waterways.

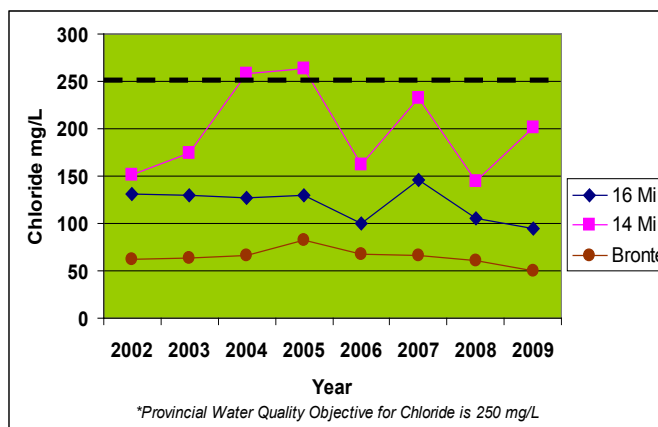


Figure 5: Mean phosphorus levels in Oakville creeks.  
Source: Conservation Halton.

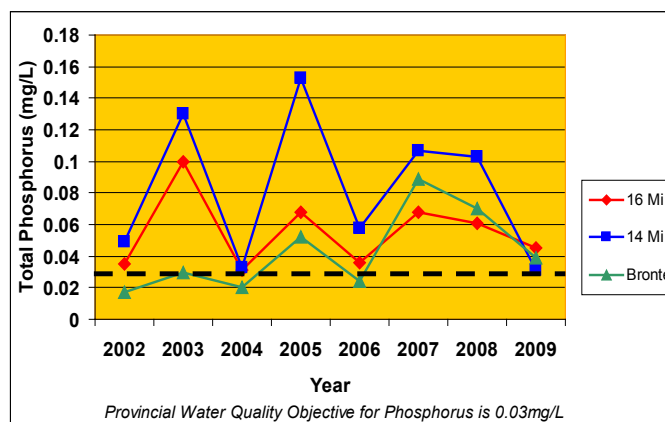


Figure 6: Mean phosphorus levels in Oakville creeks.  
Source: Conservation Halton.

Winter salt spreaders operated by the Town of Oakville have been equipped with pre-wetting capabilities. This technology reduces the amount of

salt required for roads and prevents salt from bouncing off the road into sewers and waterways. Eco-salt (a beet sugar additive) reduces the bounce of salt and is being tested for town-wide implementation.

## Indicator 1.5: Climate Change



### What Are We Measuring?

We are measuring two components of local weather conditions: average annual precipitation and average temperature for summer months and winter months.

### Why Is It Being Measured?

Climate change is expected to lead to greater variations in our weather patterns and an increase in extreme weather events. By measuring rainfall and temperature, we can evaluate some of the changes that are taking place over time.

Averaging annual temperatures may hide the type of information we're looking for since climate change is expected to produce more extreme temperatures (both cold and hot). By taking the average temperature in the summer months (June, July, August) and the winter months (December, January and February) we can better evaluate variations that occur.

Changes in climate need to be looked at over long periods since variations in weather pattern occur naturally and it's important to distinguish between that and the types of changes that may be

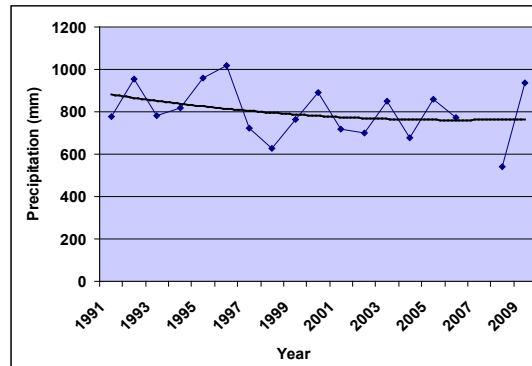
occurring due to human caused increases in GHGs.

### Where are we now?

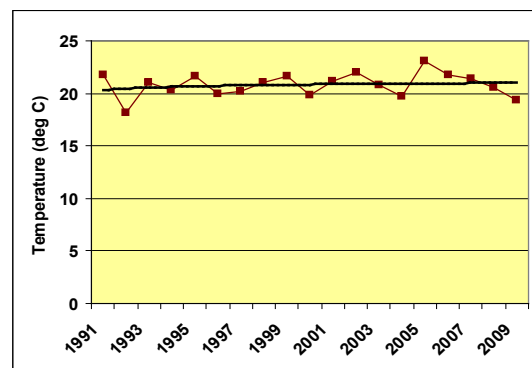
Weather data from 2006 was incomplete and valid precipitation data for 2007 and 2008 in Oakville was not available. These years were therefore excluded.

Generally, the trend towards warmer summers and lower annual precipitation in Oakville are consistent with what is being seen throughout the province. However, there is also a slight trend of decreasing

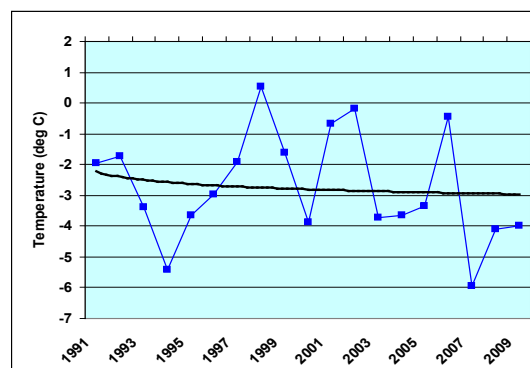
winter temperatures being seen as well. It is important to distinguish between weather and climate. Weather is highly variable and changes from year to year. Climate looks at average weather patterns over decades or centuries to see what trends are occurring. While we are tracking weather from year to year, it will take at least several years to see what changes in the local climate are occurring.



**Figure 6: Oakville Annual Precipitation.**  
Source: Environment Canada.



**Figure 7: Oakville's average summer temperature.** Source: Environment Canada.



**Figure 8: Oakville's average winter temperature.** Source: Environment Canada.

### What Is Being Done?

The town is working towards fulfilling its Partners for Climate Protection (PCP) commitment and has completed a corporate local action plan. A community local action plan is being developed in 2011. The town has committed to reducing its GHG emissions by 20% below 2004 levels by 2014 with a community GHG emissions reduction of 6%.

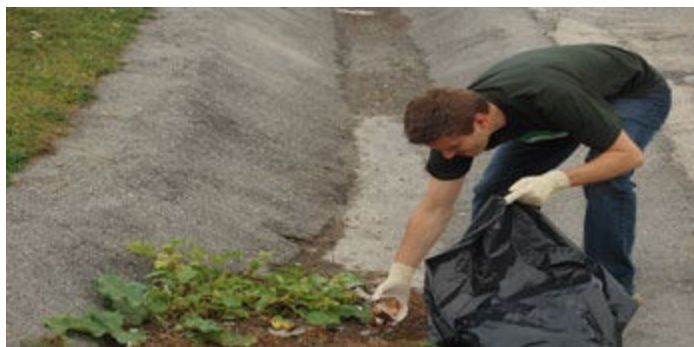
Thanks to energy saving investments at Town Hall, a 17.5% reduction in electricity use and a 26% reduction in natural gas use was realized in 2009.

The town has partnered with Local Governments for Sustainability and the GTA Clean Air Council to develop a comprehensive Climate Change Strategy for Oakville.



## Focus Area 2: Resource Use

### Indicator 2.1: Solid Waste



#### What Are We Measuring?

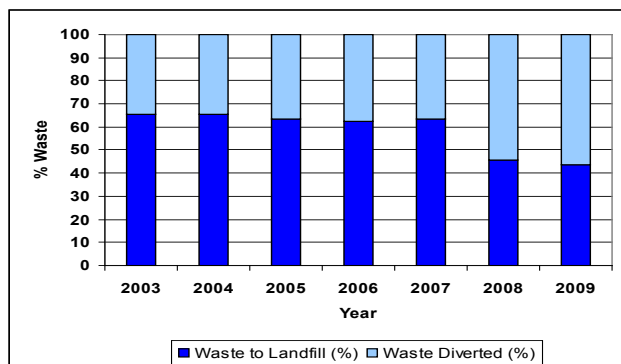
We are measuring the quantity of solid waste diverted from landfills (through the use of recycling and GreenCarts) and the amount of solid waste that was delivered to landfills. We are also measuring the amount of waste generated per capita.

#### Why Is It being Measured?

The amount of waste diverted from landfills provides a measure of the effectiveness of our efforts to reduce, reuse and recycle. Waste going to landfills indicates the degree of inefficiency of human land based activities and the degree to which resources are wasted.

#### Where Are We Now?

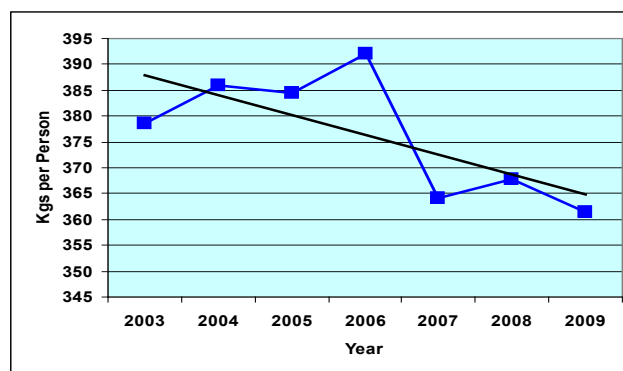
In 2008, Halton Region began the roll out of the GreenCart program for organic waste town-wide. This program was the major contributor to the increase seen in waste diverted dating from 2008. As shown in Figure 9, in 2009, Oakville's diversion rate for residential waste was 56.4% which is an improvement over the 2008 level of 54.1%, however the diversion rate for residential waste in Halton Region was 57.4%. This means that although residents are recycling more, our



**Figure 9: Percent of Oakville's waste to landfill and diverted.** Source: Halton Region.

diversion rate is still not as high as other municipalities in the Region.

On a per capita basis, each Oakville resident generated 362 kg of waste in 2009 which includes both landfilled and diverted waste. As shown in Figure 10, this is an ongoing trend that shows residents are generating less waste overall year to year.



**Figure 10: Oakville total residential waste generated per capita.** Source: Halton Region.

Due to population increases however, the total volume of waste is increasing over time, although in 2009 this was minimal. The slow down in the economy in 2009, coupled with extensive outreach programs by the region and the town are likely to have impacted the trends we're seeing.

**Table 4: Waste to landfill and diverted for Oakville (Tonnes)**

Year	Landfill (T)	Diverted (T)	Total (T)
2009	36,076	27,907	63,983
2008	29,317	34,540	63,857
2007	39,352	22,456	61,808
2006	40,635	24,301	64,937
2005	38,896	22,125	61,021
2004	39,281	20,836	60,118
2003	38,153	19,955	58,108

#### What Is Being Done?

A Zero Waste program was implemented at Town Hall in 2009. This included green bin recycling and a water bottle ban. Each week about 13,756 L of organic waste is collected from Town Hall.

Through the town's battery recycling stations at various facilities, over 1,818 kg of batteries have been collected and sent for recycling through Halton Region.





## Indicator 2.2: Energy Conservation

### What Are We Measuring?

We are measuring natural gas and electricity use by sector. Data on alternative energy use through Halton Enablers of Renewable Energy (HERE) will also be discussed.

### Why Is It Being Measured?

By tracking the amount of energy used by the community, we will be able to assess our energy efficiency over time, and where improvements can be made. We also need to look at reducing the impact of our energy production. Renewables such as wind, solar and geothermal can help. We are therefore looking at what is being done through Halton Enablers of Renewable Energy (HERE), a non-profit organization that provides support to residents interested in installing solar or geothermal energy systems.

### Where Are We Now?

While we expect that population increases will lead to increases in our overall energy consumption, per capita increases provide the best information on behaviours and technology impacts. This is demonstrated in Figure 11 which shows a continuous upward trend in overall residential consumption rates. In contrast, industry consumption has been steadily decreasing. Drivers for this may include increased efficiencies and fewer energy intensive businesses locating in Oakville.

As shown in Figures 12 and 13, 2009 brought decreases in per capita natural gas and electricity use. For natural gas, this is the first time we have seen a decrease. While this is encouraging and may show that consumers are changing behaviours, we also had lower summer temperatures and warmer winter temperatures in 2009, as well as a significant downturn in our economy. Future years will be informative in helping to determine whether this will be a continuing trend.

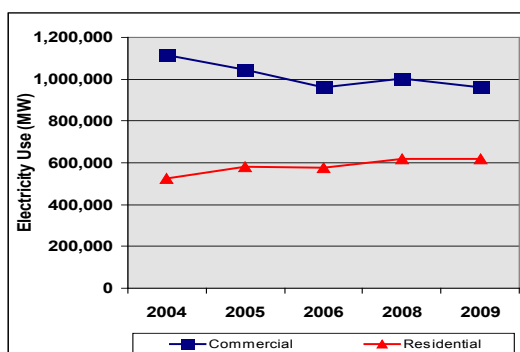
While the town is working towards developing green energy projects to support its own operations, the town also supports HERE by hosting workshops led by HERE members and through promotion of their activities. As of 2010, HERE has facilitated a total of 6 rooftop solar installations in Oakville. The introduction of the province's Green Energy Act in 2009 has been key in encouraging solar installations by providing premium rates to those that sell their power back to the grid.

### What Is Being Done?

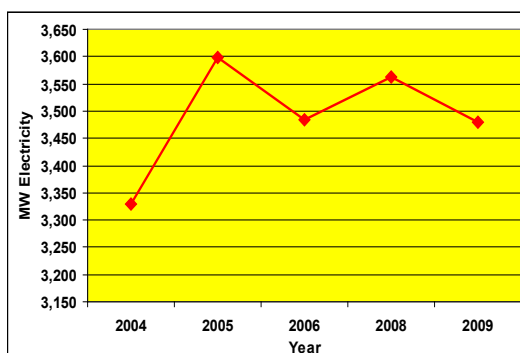
The Town of Oakville purchased 170,000 kWh of green power in 2009 through Oakville Hydro's Green Light Pact program.

Town Hall has upgraded its heating and air conditioning system to automatically go into a stand-by mode after 6 p.m. to reduce energy consumption during hours the building is closed. This will significantly reduce energy consumption in the winter and summer season.

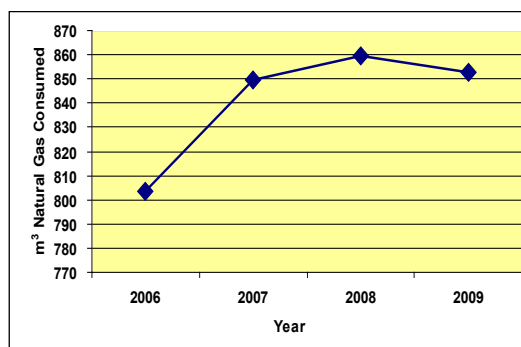
Oakville Hydro has become one of the first businesses in Oakville to install a solar energy generation system, with a 10kW roof system on its building at Fourth Line and Wyecroft Road.



**Figure 11: Oakville natural gas use by sector**  
Source: Union Gas.



**Figure 12: Oakville electricity use per capita.**  
Source: Oakville Hydro



**Figure 13: Oakville natural gas use per capita.**  
Source: Union Gas.



## Indicator 2.3: Water Conservation

### What Are We Measuring?

We are measuring residential water consumption per capita or how much water we use in our homes each year. We are also examining the amount of water

used by the commercial and industrial sector on an annual basis.

### Why Is It Being Measured?

Efficient use of water is good for the environment as it reduces our impact on water resources and reduces the energy required to treat and transport the water.

It is also good for the economy because it is cheaper to conserve water than it is to build new treatment capacity. Studies show that water efficiency can cost less than new infrastructure to provide the same amount of water.

### Where Are We Now?

As shown in Table 5, residential water use based on total volume has increased by 8% between 2001-2009, however, the population has also grown by 20% during this time meaning per capita use has gone down. This is seen in Figure 14. A number of factors may be contributing to this trend, not least of which is the continued water reduction strategies offered by the town and region. These include the

Outdoor Water Use Education Program and the annual rain barrel sale held in the spring. In 2009, we also had a much wetter and cooler summer, resulting in a reduced need to water gardens and lawns.

**Table 5: Oakville Residential Water Consumption (millions of Litres)**

Year	Millions of Litres	Year	Millions of Litres
2009	150.3	2004	153.8
2008	149.3	2003	155.6
2007	165.2	2002	153.0
2006	151.7	2001	151.9
2005	163.3		

While water use per capita is declining, we still have a long way to go. Canadians rank second in the world for the amount of water we use. This, combined with our

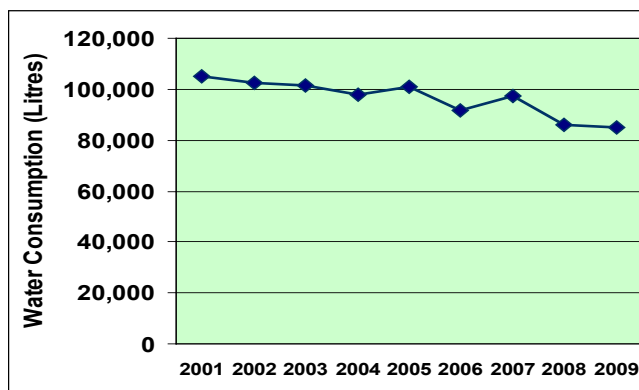
increasing population means conservation efforts need to be a priority.

Overall, Institutional/Commercial/Institutional water use has remained relatively steady since 2000 as seen in Figure 15, however, a downward trend was seen in 2009. This is likely due to the economic recession which caused decreases in industrial production and the related need for process water.

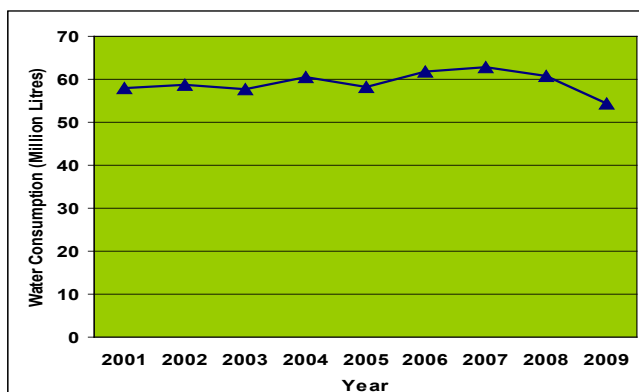
### What Is Being Done?

The town has initiated the Blue W program that supports filling reusable containers over bottled water.

The town now offers a "water bar" program for local events. This is a specialized movable water fountain that allows for easy refilling of reusable bottles with fresh chilled water.



**Figure 14: Residential per capita water consumption in Oakville.** Source: Halton Region.



**Figure 15: Industrial, Commercial and Institutional water consumption in Oakville.** Source: Halton Region.

## Focus Area 3: Transportation

### Indicator 3.1: Transportation Choices



#### What Are We Measuring?

We are measuring the number of personal vehicles registered in Halton Region and total kilometres of dedicated bicycle lanes.

#### Why Is It Being Measured?

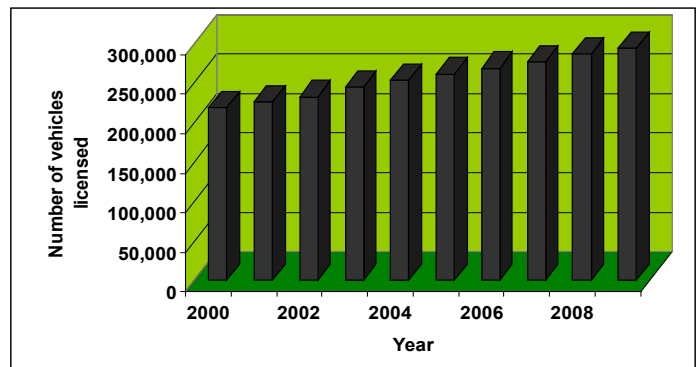
Transportation choices are dependant on how far we have to commute and the accessibility of alternative transportation modes such as bicycle lanes that are safe and convenient. Cars can provide an easy means of travel, however their cost economically and environmentally is high. We are looking at the number of personal vehicles owned to indicate how we're meeting our daily transportation needs and to give us an idea on vehicle ownership trends.

In 2009, the town developed an Active Transportation Master Plan (ATMP). This sets out a plan for increasing the accessibility and use of alternative transportation modes such as walking and bicycling. Measuring the kilometres of dedicated on-road bicycle lanes will provide information on how the ATMP is being implemented to make bicycling a better option.

#### Where Are We Now?

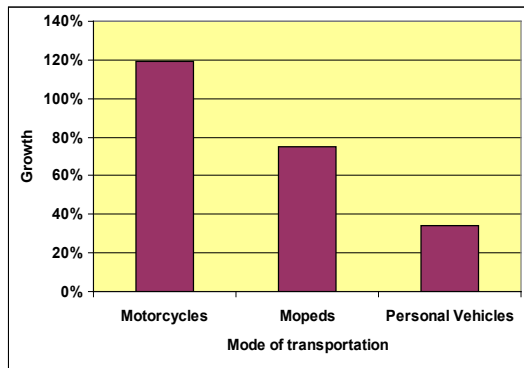
According to Statistics Canada, over 80% of residents use a personal vehicle for their commute. As seen in

Figure 16, the number of personal vehicles registered to Halton residents has steadily increased. Between 2000 and 2009, per capita ownership increased from 0.59 vehicles per person to 0.61. Of interest is the increasing popularity of motorcycles and mopeds. As shown in Figure 17, registrations for these modes have increased at a much greater pace than personal vehicles. These smaller options can offer more fuel efficient means of travel.



**Figure 17: Personal vehicle registrations in Halton.**

Source: Ontario Ministry of Transportation.



**Figure 16: Growth in mode of transportation in Halton 2000-2009.**

Source: Ontario Ministry of Transportation.

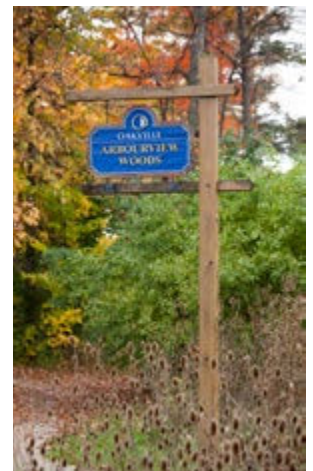
To encourage an even more efficient mode of transportation, Oakville has started adding dedicated lanes for cyclists. In 2008, a total of 14 km of on-road bicycle lanes were put in place and 1 km added in 2009 for a total of 15 km. An additional 71.8 km has been proposed through the ATMP over the next four years.

#### What Is Being Done?

13 new pedestrian/cyclist mid-block crossing facilities were constructed in 2009 to enhance trail and road crossing connections.

In 2009, town council adopted a Pedestrian Charter that supports a vision of a walkable community and actively encourages a walking culture in Oakville.

Oakville participates in the Smart Commute program to discourage single occupancy vehicle commuting.





## Indicator 3.2: Transit

### What Are We Measuring?

We are measuring the number of times a year, on average, residents took Oakville Transit.



### Why Is It Being Measured?

These indicators give us a good measure of the effectiveness of the public transportation system and how choices are changing over time. Generally, public transportation is much more fuel efficient per capita than automobile use. Although an individual bus emits more GHG, the number of people that it transports is greater than a car. Burning 1 litre of gasoline generates 2 kg of carbon dioxide (CO<sub>2</sub>). Using a conservative estimate, the average car commuter generates at least 3,300 kg of CO<sub>2</sub>/year.

### Where Are We Now?

Between 2004-2009, per capita transit trips has slowly but steadily declined since 2005. This is reflected in Figure 18. This demonstrated that Oakville's central based transit system revolving around the Oakville Go Train station was not meeting the needs of residents.

A new design combining a grid system with local service improvements was implemented in September 2009. The new design immediately resulted in an increase in ridership, and it is expected that this

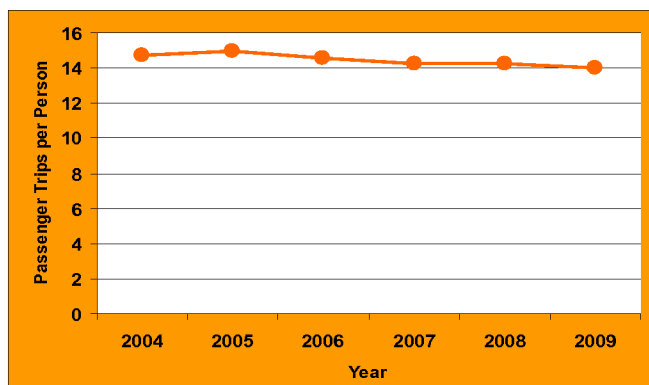


Figure 18: Oakville Transit passenger trips per capita.  
Source: Town of Oakville.

indicator will show a marked change to a positive trend in future years.

The average cost per trip is also being tracked. As seen in Figure 19, the operating costs for transit are increasing. This is due in part to inflation, rising labour and service costs but also to the significant increase in fuel costs. Oakville Transit is actively pursuing the acquisition of hybrid buses which will help to reduce fuel costs in the future. Higher ridership will also help bring these costs down. The introduction of the grid based system, along with the introduction of the PRESTO farecard, the addition of new routes such as the Dundas Bus Rapid Transit and potential partnerships with Sheridan College will support increased ridership in the future.

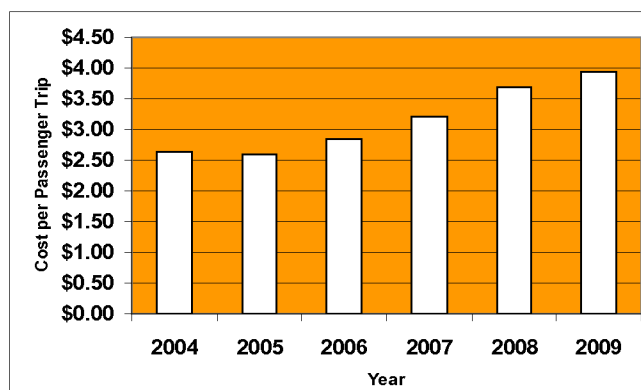


Figure 19: Oakville Transit net cost per passenger trip.  
Source: Town of Oakville.

### What Is Being Done?

To enhance the current transit system, 37 bus shelters were added in 2009 and all bus signs were replaced with a visually appealing and more recognizable design.

A new terminal was completed at Sherdian College in collaboration with GO Transit that includes 5 bus bays and a heated shelter.

The town in partnership with Green Trans hosts the annual Summer Fun Bus and Bike Day to encourage transit ridership. In 2009, over 400 people attended.





## Focus Area 4: Healthy Neighbourhoods



### Indicator 4.1: Greening Our Spaces What Are We Measuring?

We are measuring indicators for initiatives currently in place at the Town of Oakville that will result in more ecologically friendly neighbourhoods. These include community garden plots, the Adopt-a-Trail program and the Adopt-a-Park program.

### Why Is It Being Measured?

These indicators can help assess some of the elements that create visually pleasing and environmentally friendly landscapes. Community gardens offer opportunities for urban agriculture and beautification for residents who might not have access to land. It also offers social opportunities to share a garden with a group of individuals. Produce may be donated to foodshare programs which creates even further societal benefits.

The Adopt a Park/Trail programs are offered through the town to help maintain the health and beauty of Oakville's trails and open spaces. Citizens, schools, community groups and corporations are encouraged to adopt a portion of a trail or park. Participants are asked to provide litter cleanup and inspection of their areas for a minimum of one year. Participants adopting an area for a year or more are recognized by a sign at the entrance of the park or trail.

### Where Are We Now?

There are a total of approximately 150 km of trails and 1,400 ha of parkland available for adoption. As noted

in Table 5, numbers are relatively stable, however, in 2009 there was a slight drop in participants for both programs.

Table 5: Oakville's "Adopt-a" Program for 2009		
Adopt-a Park		
Year	Area (ha)	Participants
2009	195.5	42
2008	187.7	46
Adopt-a-Trail		
Adopt-a-Trail	Length (kms)	Participants
2009	67.22	78
2008	75.8	83

Community garden plots are available through the town and Bronte Creek Provincial Park. For a fee, residents can rent a plot of land on an annual basis. As shown in Figure 20 a total of 189 plots are available at four locations. These programs have been running for many years and are generally well used. Shell Park and Kingsford Gardens are consistently fully rented. In 2009, Lyons Lane was also fully rented, however Bronte Creek Provincial Park is running below capacity. With increasing urbanization and the trend on plot rentals, it can be seen that these amenities will likely be in greater demand in the coming years.

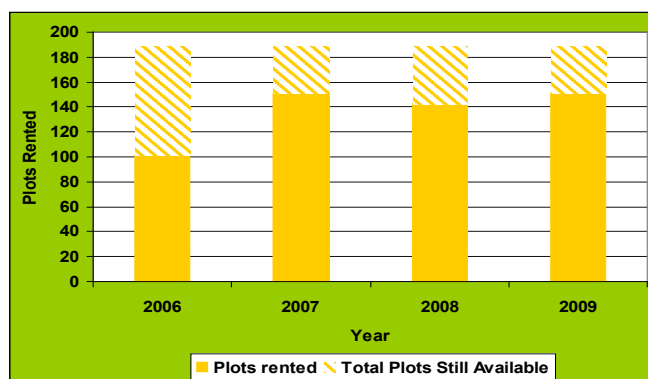


Figure 20: Community Garden Plot Rentals in Oakville.

Source: Town of Oakville and Ministry of Natural Resources.

### What Is Being Done?

Tim Horton's has signed on for a corporate sponsorship of the Adopt-A Road program, and took responsibility for the clean up of 11 km of roadways located on 14 segments around Oakville.

The "Oakville Blooms" program to beautify town streets was expanded in 2009 due to its success.

## Indicator 4.2: Access to Parkland and Recreation



### What Are We Measuring?

We are looking at the availability of trails and outdoor recreational facility space for Oakville residents.



### Why Is It Being Measured?

Access to trails and outdoor recreational facilities provide a refuge from urban life and help to improve the overall quality of life. It can also support and encourage an active and healthy lifestyle.

These indicators are being measured as they will help us determine Oakville's progress towards improving residents' access to outdoor recreation facilities and parkland.

### Where Are We Now?

Oakville has approximately 1,421 ha of town-owned parkland. In surveys conducted by the Environmental Policy department, greenspace and our trail system are consistently cited by residents as a cherished amenity.

The town has worked to add new trails to its system every year. Although our population has been increasing, thanks to these additions our per capita availability of trails has remained relatively constant as shown in Figure 20.

Our outdoor recreational facility space includes built structures used for the purposes of community recreation and leisure such as tennis courts, splash

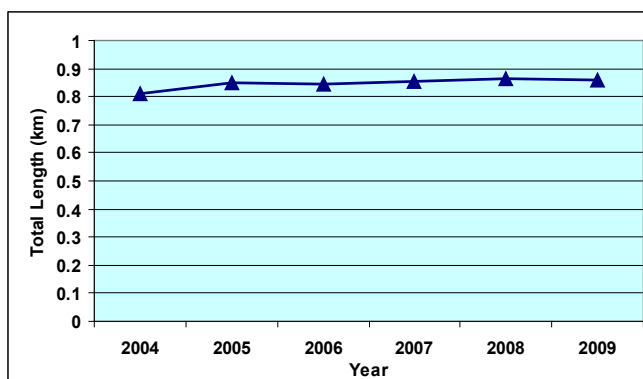


Figure 20: Total Kms of trails per 1,000 people.

Source: Town of Oakville.

pads and outdoor swimming pools. As noted in Figure 21, outdoor recreational facilities per capita have been decreasing. This is in part due to increasing population and the greater focus in recent years on adding indoor sports facilities for soccer and skating.

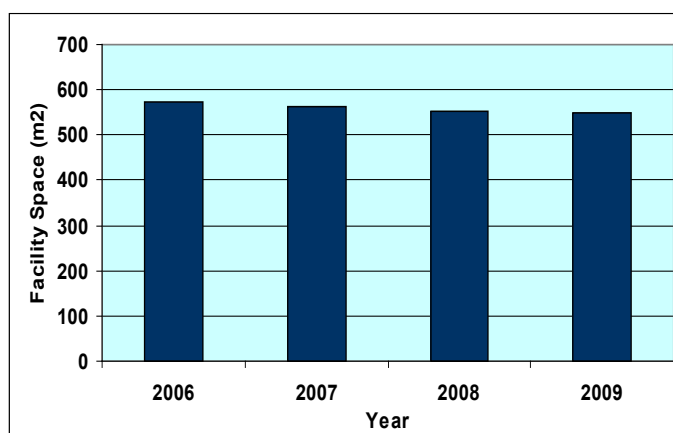


Figure 21: Outdoor recreational facility space per 1,000.

Source: Town of Oakville.

### What Is Being Done?

Four new parks opened in 2009: Millstone Park, Castlebrook Park, Palermo Park and Nautical Park.

Bronte Heritage Park was improved with the addition of pavers, trees and benches.

In 2009, an environmental audit was conducted on Oakville's harbour facilities through the Clean Marine Program. Thanks to improvements such as shrink wrap recycling, the addition of recycling bins and spills response training, Oakville scored 4 out of 5 anchors. This is a marked improvement over the harbour's earlier score of 2 out of 5 anchors in 2008.

## FOCUS AREA 5: Community Engagement



### Indicator 5.1: Outreach Events

#### What Are We Measuring?

We are examining the number of environmentally related public outreach events that are put on by the Town of Oakville each year.

#### Why Is It Being Measured?

This indicator will provide a measure of the quality of the town's environmental education and awareness programs.

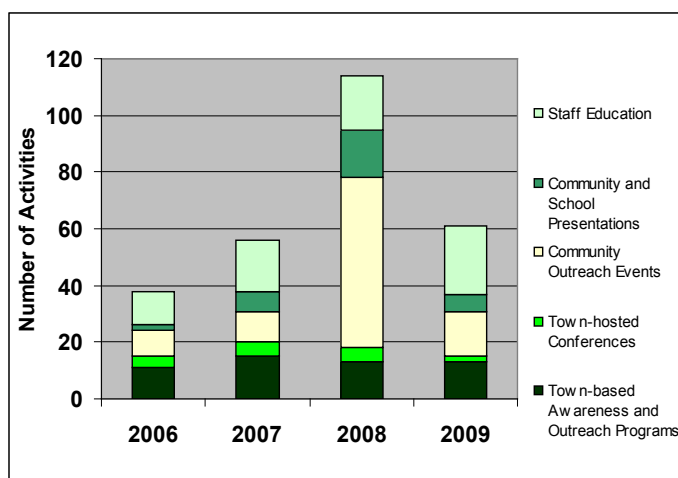
It is undeniable that humans have had a drastic impact on the environment around them. Education and outreach programs are key components towards increasing our community's awareness of environmental issues. This indicator will help assess the town's efforts in raising the profile of the environment and the need for stewardship with residents and businesses.

#### Where Are We Now?

The Environmental Strategic Plan (ESP) approved by Council in December of 2005 recommended the development of an educational environmental outreach program for Oakville. A strategy was prepared in 2007 and various outreach programs and activities have been added each year to implement the strategy.

A significant outreach and education campaign was

conducted in 2008 on pesticide reduction and the town's by-law restricting use. A subsequent survey carried out by the Environmental Policy department in 2009 showed that 83.9% of respondents were familiar with the program. The survey was conducted as a random poll throughout the town. The findings from this survey demonstrate the impact outreach and education activities can have in promoting environmental awareness.



*Figure 22: Environmental Policy department outreach and education activities. Source: Town of Oakville.*

The significant spike in 2008 is largely due to the pesticide program that year, which was a significant project and involved a number of summer students. In 2009, there was an increase in staff education to introduce new programs such as the town's Green Purchasing and Zero Waste procedures.



#### What Is Being Done?

The Environmental Policy Department hosts and takes part in a variety of events, including: Halton EcoFest, OPA's Power Pledge, Midnight Madness, Summer Fun Bus and Bike Day, Earth Hour, Earth Day, Halton Children's Water Festival, the Oakville Conserves Energy Fair, Tim Horton's Environmental Awareness Day, Fire Prevention Safety Week, Building a Greener Oakville Green Building Summit, EcoSchool Celebrations, local farmers markets, energy conservation outreach to local businesses, Yellow Fish Road program, Anti-idling campaigns and March Break eco-camps.



## Indicator 5.2: EcoSchools

### What Are We Measuring?

We are measuring the number of Oakville schools that have obtained a gold, silver or bronze certification level under the Ontario EcoSchools program.

### Why Is It Measured?

The EcoSchools program is an environmental education program that looks at how schools are managed and what the students learn. School boards designed this program to incorporate environmentally friendly actions in the school setting. A full outline of this program is available at [www.ontarioecoschools.org](http://www.ontarioecoschools.org).

This program aims to influence young people during a formative period of their life and bring about an exponential impact as children take their lessons home with them. By looking at how many schools in Oakville have obtained certification (based on a points system), we will be able to examine the commitment the Oakville community has toward incorporating the environment into local education programs.

### Where Are We Now?

At a special board meeting of the Halton District School Board on July 2, 2008, a motion was passed that all schools would be encouraged to work towards achieving Eco-School certification by June, 2010. As shown in Figure 23, significant progress has been made to reach this goal. For the 2009-2010 school year, a total of 11 Oakville schools obtained Gold status



and 10 obtained Silver. Although the total amount of schools participating declined slightly in 2009-2010, the number of schools obtaining gold status increased over 25%.

The Region hosts EcoSchool celebrations in October each year to recognize the achievements of Halton schools. Many positive changes have been realized through the EcoSchool program.

### What Is Being Done?

The town works with Oakville schools on a number of environmental initiatives including Yellow Fish Road, anti-idling campaigns and Active and Safe Routes to School.

The Halton District Catholic School Board is leading the way in green buildings with the new construction of St. Thomas Aquinas Secondary School which will feature a green roof, solar walls, and a rainwater collection system as some of its features.

In 2009, a new EcoArt Camp was developed for the town's March Break program for kids. The program features environmental themes and activities, geared towards 8-14 year olds. This camp has been highly successful and the addition of a summer EcoArt Camp is planned for 2011.

In 2010, 25 large solar panels were installed on the roof of Iroquois Ridge High School. This system is capable of producing 10 kilowatts, or

14 megawatts in the course of a year.

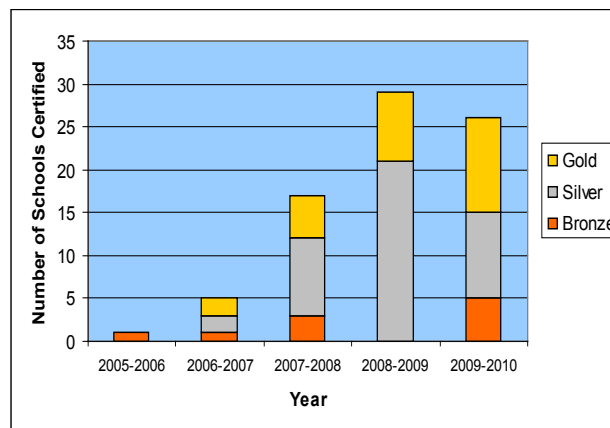


Figure 23: Oakville Certified EcoSchools 2005-2009.

Source: HDSB and HCDSB.





## Focus Area 6: Best Practices

### Indicator 6.1: Innovative Environmental Programs

#### What Are We Measuring?

The town has incorporated a number of innovative environmental programs and continues to incorporate best practices each year. This indicator will provide updates on the measurables for such programs as



Sustainable Green Fleet, the Sustainable Purchasing Procedure and the Zero Waste Program.

#### Why Is It Being Measured?

The town has incorporated a number of innovative environmental programs. Tracking the progress of these programs provides insight into their value and the importance of making changes to town operations to assist in making them more sustainable.

#### Where Are We Now?

The Sustainable Purchasing Procedure was introduced in 2009. This involves an educational and resource program for staff on selecting ☐green☐ products and incorporating sustainable language in contracts with vendors.

Table 6: Green Purchasing Improvements	
Existing Product	Green Replacement
High energy use vending machines	EnergyStar rated vending machines or addition of energy optimizing controls
Standard tools with higher decibel ratings and lower energy and fuel efficiency	Products certified by a third party environmental certification to ensure fuel efficiency, ergonomics and lower noise levels
Standard office supply products	On-line ordering provides suggestions for equivalent green products
Disposal of toxic compact fluorescent bulbs (CFLs) in garbage	Mercury removal and recycling program for all CFLs

Table 6 highlights some of the changes that have been made in 2009 and 2010 as a result of this procedure.



The Sustainable Green Fleet Procedure was also

implemented in 2009. It involves a number of initiatives that save fuel and increase the efficiency of the town's fleet. An associated Guide was also developed to provide specific actions to implement the Procedure. In 2009, 14 out of 22 actions were either implemented or in the process of being implemented. Examples include restricting staff in town vehicles from using drive throughs, implementing a driver training program and enforcing anti-idling rules.

Green Fleet procedures also include supporting the most fuel efficient vehicles, including hybrids and ☐right sizing☐ Right sizing means that the smallest most fuel efficient vehicle is used, based on the task. Figure 24 indicates the number of hybrid and right sized vehicles added to the fleet each year. Since 2006, 12 hybrid vehicles, and 2 right sized vehicles have been added to the Town of Oakville's fleet.

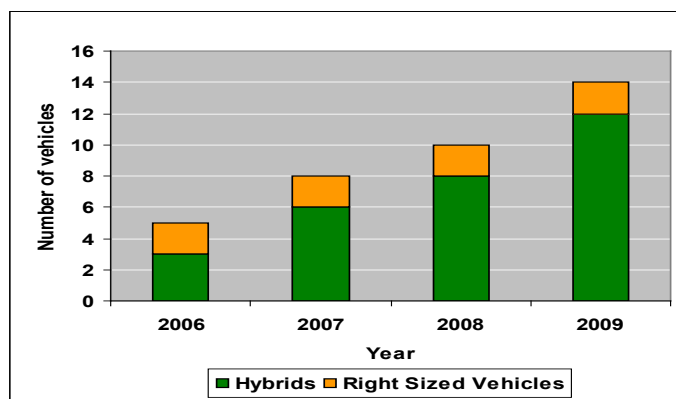


Figure 24: Oakville fuel efficient fleet vehicles.

Source: Town of Oakville.

#### What is Being Done?

All transit drivers have taken the SmartDriver program which aims to reduce fuel consumption, wear and tear, and maintenance costs for transit fleets.

The town is expanding its Zero Waste program to community events. As part of the Fall 2009 Fire Prevention Week kick-off, bottled water was eliminated and recycling and composting facilities were added.

Paper products used by the town are Forest Stewardship Council certified.

## Indicator 6.2: Sustainable Building and Development



### What Are We Measuring?

We are measuring land use patterns by housing type and providing an overview of "green" buildings in Oakville.

### Why Is It Being Measured?

Oakville's development plays a major role in shaping the future of the town's environmental, social and economic health. Development helps generate revenue, new jobs and business. It can also negatively impact our environment if done inappropriately.

More densely populated areas, if planned appropriately, have smaller carbon footprints per person than less dense areas which tend to be car dependant. Ensuring an appropriate mix of housing in Oakville that includes high density will be important in helping protect our environment.

In addition to what and where we build, we also need to look at how we build. Green buildings are becoming more widespread and the town will be monitoring their implementation.

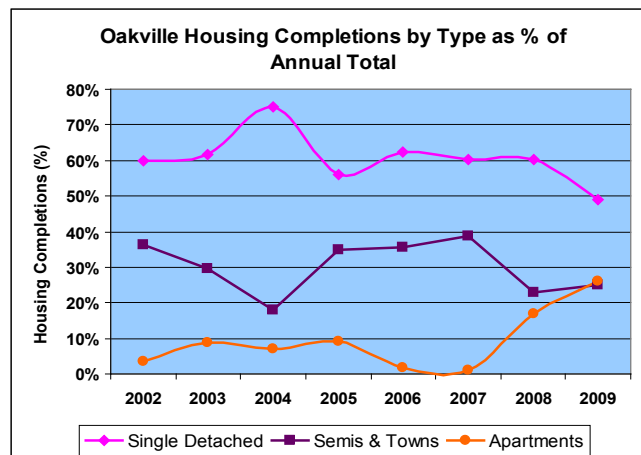
Together, these indicators can help us measure progress toward creating more efficient land use patterns and a greater proportion of sustainable buildings in the town.

### Where Are We Now?

The Environmental Policy department has completed the first Green Building Guide. It profiles over 30 buildings in Oakville that have chosen to adopt a standard of building and/or design that features a sustainable or green practice. Examples range from LEED certified buildings to green roofs and alternative energy features.

In its 2001 Joint Municipal Housing Statement (JMHS), Halton Region set out targets for each of the municipalities for new housing completions. Oakville's targets are low density 50% (single detached houses); medium density 30% (semi-detached houses and row houses) and; high density 20% (apartments).

As shown in Figure 25, since 2007, the housing mix has been gradually improving to more closely reflect the targets set out. Single home construction dropped by nearly 50% between 2008 and 2009, whereas apartment units decreased only marginally. In fact, total housing starts for apartment and townhouse construction outpaced single home construction for the first time since we have been tracking this indicator.



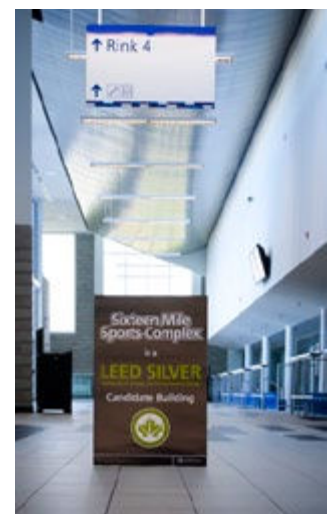
**Figure 25: Oakville housing completions by type.**  
Source: Halton Region.

### What Is Being Done?

The new Livable Oakville Plan requires LEED Silver standards for new municipal buildings.

The town is designing a number of LEED certified buildings including the new Transit facility, QE Park Community Centre and the Sixteen Mile Creek Sports Complex (built).

The new Oakville Hospital is being planned to incorporate an efficient district heating and cooling system.



## Indicator 6.3: Environmental Strategic Plan



### What Are We Measuring?

We are measuring the implementation status of Oakville's Environmental Strategic Plan (ESP).

### Why Is It Being Measured?

On December 5th, 2005 Council received and approved the Environmental Strategic Plan (ESP) with the Vision, Guiding Principles and Goals approved as policy statements for the town.

The ESP was developed to help improve the environment in Oakville. It provides opportunities for residents, environmental groups, commercial interests, industry, community association, educators and all other community interests to identify what they can do to protect and improve their environment, along with the Town of Oakville.

Implementation of the ESP began in 2006 and has been facilitated through the creation of the ESP Advisory Committee (ESPAC).

### Where Are We Now?

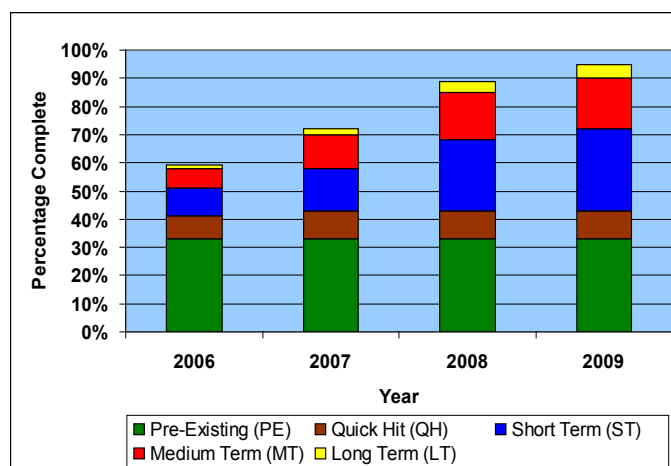
The ESP is structured under six Goals: To sustain and enhance our natural resources; To reduce consumption and increase efficiency in resource use; To establish an environmentally friendly transportation system; To enhance our neighbourhoods; To foster an educated and aware public and; To lead in innovative practices. Each goal has a series of related actions and each action has a series of targets that are recommended to implement the goals. An example of this structure is:



**Goal 1:** To sustain and enhance our natural resources

**Action 1.1:** To protect our natural habitats, including Oakville's urban forest

**Target 1.1.4:** To assess local urban forest cover and to develop and attain targets for urban forest cover based on original assessment.



**Figure 26: ESP Implementation Status.**

*Source: Town of Oakville.*

Each target is further broken down into steps with suggested time frames in which to complete them. These time frames are noted in Figure 26. The implementation of the ESP began in 2006 and the town and its community partners have been working since that time toward completing the recommended steps.

Overall, the implementation progress of the ESP was 59% in 2006, 72% in 2007, 89% in 2008 and 94% in 2009. Almost 100% implementation will be achieved in 2010.

### What is Being Done?

In August 2009, the town conducted a second "Community Attitudes Survey" to help benchmark resident's behaviours and opinions since the ESP was first implemented.

The town is initiating an update to the ESP in 2011 to incorporate the full spectrum of sustainability pillars - environmental, economic, cultural and social. Extensive public consultation is planned to help shape the update.



# 4 Conclusion



## Summary

Oakville is fortunate to have a wealth of natural features such as Lake Ontario, the Niagara Escarpment and numerous creeks and greenspaces within easy reach. Our environment is a key component that goes into making our town vibrant and attractive to businesses and residents. In August 2009, the town conducted a community survey on respondents' awareness and attitudes toward the environment. In general, it was found that respondents were satisfied with the environment in Oakville and a majority (60%) rated Oakville's environment higher than that of other areas in the GTA. Great work Oakville!

However we are still not where we need to be. While we may be doing better in some areas, there are many where we need to improve significantly and quickly. For example, fine particulate matter (PM<sub>2.5</sub>) has shown measurable reductions but is still at levels that can cause impacts to our health. Likewise, per capita use of water is showing improvements but with population increases, our overall water use is increasing. Although some trends show improvement, we need to further understand where we can make small yet significant changes. Some suggestions are provided in the "What You Can Do" section at the back of this book.

We also need to be aware of how our choices have an impact not just on ourselves but on our community and beyond. The town recognizes that while its own efforts are critical, the supportive actions of residents, community partners and other orders of government are crucial in order to see any appreciable improvements. Over time, changes will not likely be the result of one action or program but rather through a combination of effects. In addition to town based programs and initiatives, changing social norms, changes in consumption patterns due to increasing fuel and energy prices, global climate change and changes in federal or provincial policies will play a significant role.

**The actions of individuals, families and businesses are also critically important. For that reason the SOER includes a "What You Can Do" section at the end of the book with a full list of resources that residents can utilize. We hope that you find this useful and do what you can to reduce your environmental impact.**





**Active Transportation-** Any form of human-powered transportation. This includes walking, cycling, wheeling, in-line skating, skateboarding, ice skating (e.g. on a canal). Walking and cycling are the most popular forms of active transportation.

**Canada Wide Standards (CWS)-**In June 2000, the federal, provincial and territorial governments except Quebec signed the Canada Wide Standards for Particulate Matter and Ozone. These standards commit government to make significant reductions by 2010.

**eCO<sub>2</sub>**-A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential. Carbon dioxide equivalents are commonly expressed as □metric tonnes of carbon dioxide equivalents□

**Ecological Footprint-** The ecological footprint of a given population is the total area of productive land and water required on a continuous basis to produce the resources consumed, and to assimilate the wastes produced, by that population, wherever on earth the land (and water) is located.

**Energy & Environmental Management System (EEMS)-** This program tracks and reports on electricity, water, natural gas consumption and related costs, fuel usage for heating, power generation and fleet vehicles. It also tracks and reports greenhouse gas and criteria air contaminant emissions.

**Green Building-** A green building is a home or structure that has taken into it's design and/or construction LEED specifications for certification and/or green/sustainable designs, constructions, programs or initiatives to enhance its operations and environmental impact.

**Greenhouse Gases (GHG)-** Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydro chlorofluorocarbons (HCFCs), ozone (O<sub>3</sub>), hydro fluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>)

**Kilowatt hour (kWh)-**The kilowatt hour is a unit of energy equivalent to one kilowatt (1kW) of power expended for one hour (1h) of time.

**Partners for Climate Change Protection (PCP)-**The PCP program is a network of Canadian municipal governments that have committed to reducing greenhouse gases and acting on climate change.

**Provincial Water Quality Objectives (PWQO)-**These are standards for water quality, set by the Province of Ontario, to protect aquatic life and recreation uses.

**Smart Car-**Smart cars (formerly MCC smart) is a brand of micro cars and superminis based in Germany. They are a subcompact car with room for two people and minimal trunk space. They are fuel efficient due to their small size.

## Acronyms

**ATMP-** Active transportation Master Plan

**CWS-** Canada Wide Standards

**eCO<sub>2</sub>**- Equivalent Carbon Dioxide

**EEMS-**Energy & Environmental Management Systems

**ESP-**Environmental Strategic Plan

**GHG-**Greenhouse Gases

**HEN-** Halton Environmental Network

**HERE** - Halton Enablers of Renewable Energy

**ICI-** Industrial, Commercial & Institutional

**JMHS-** Joint Municipal Housing Strategy

**kWh-**Kilowatt hour

**LEED-**Leadership in Energy & Design

**O<sub>3</sub>**- Ozone

**PCP-**Partners for Climate Protection

**PM<sub>2.5</sub>**-Fine Particulate Matter

**PWQO-** Provincial Water Quality Objectives

**SOER-** State of the Environment Report

**UFORE-** Urban Forest Effects Model

**UFSMP-** Urban forest Strategic Management Plan

**ULSD-** Ultra low sulfur diesel

# 6 What You Can Do



## Helpful tips for **WHAT YOU CAN DO** to reduce your ecological footprint and environmental impact!

Check out the **Earth Day Canada website** at <http://www.earthday.ca> for tips and articles that highlight easy sustainability practices for around the home. Use the EcoAction Calculator to find out new and easy ways to reduce your environmental waste and how much money you can save annually!

Go to <http://www.ecoactionteams.ca> and find out more information and guidance on how to decrease your ecological footprint, and to help the Town of Oakville become a more livable town

To figure out your ecological footprint, see <http://www.myfootprint.org/en/> and take the ecological footprint survey. Find out how your habits impact the environment and compare your results with others.

### Reducing Impact on Natural Environments

- Remove invasive flora species widely found in Oakville such as Dog Strangling Vine and Garlic Mustard. Contact Conservation Halton for more information or see [www.conservationhalton.on.ca/ShowCategory.cfm?subCatID=1114](http://www.conservationhalton.on.ca/ShowCategory.cfm?subCatID=1114).

- Think twice before cutting a tree down. Trees provide shade in the summer and protection from winter winds.

Check out the town's Private Tree By-law at [www.oakville.ca/forestry.htm](http://www.oakville.ca/forestry.htm) if you're thinking of cutting down a tree greater than 15cm diameter

- When draining pool water, ensure chemicals have not been added for at least 10 days prior.

- Don't wash cars on driveways.

- Choose household products with little or no phosphate content.

- In the winter, use ice melt that contains either low or no chloride.

- Don't dump hazardous waste into the water supply. See [www.halton.ca/waste](http://www.halton.ca/waste) to find out proper

disposal locations.

- Visit [www.cleanairday.com](http://www.cleanairday.com) for tips and tools to reducing your GHGs.

### Supporting Healthy Neighbourhoods

- Consider implementing a compost program not only at your home, but at your school or work.

- Grow your own garden for a personal supply of fresh fruits, herbs, and vegetables.

- Participate in one of the town's beautification programs or clean up events.

- Enjoy Oakville's trails. Get out for a hike with family and friends. For great walking resources in the town, visit [www.oakville.ca/walkableoakville.htm](http://www.oakville.ca/walkableoakville.htm).

- Sign up for an outdoor recreation course or activity. The town's Recreation and Culture department offers a catalogue of programs and events twice a year. You can also check it out online at [www.oakville.ca](http://www.oakville.ca).

- Consider adopting a trail or park. Help keep our parks and trails looking great and get outside for some fresh air and exercise. Visit [www.oakville.ca/adoptatrail.htm](http://www.oakville.ca/adoptatrail.htm).

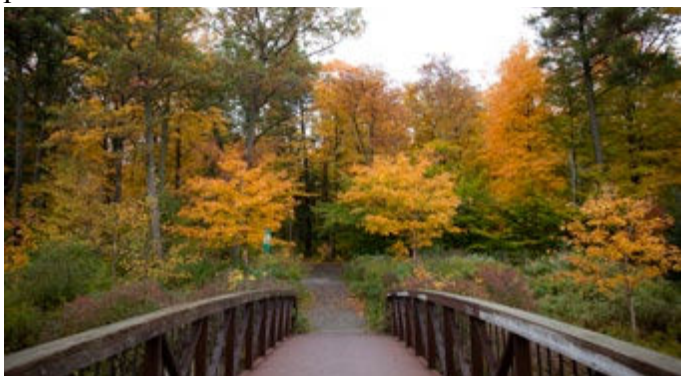
- Add "green" features to your home when doing renovations.



# What You Can Do, cont.

## Reducing Resource Consumption

- Choose washable and refillable containers with little packaging for meals away from home.
- Purchase a stainless steel water bottle in place of disposable plastic bottles.
- Contact Halton Region for recycling and composting bins.
- It is estimated that 17% of a typical garbage bag in Halton is material that could go in the Blue Box. Take the time to separate your garbage into recyclables, compost and garbage.
- Bring your own re-usable bags when shopping.
- Consider belongings you no longer use - can you refurbish or repair them?
- Set your thermostat to 25°C or higher during the summer, and 20°C or lower in the winter.
- Take advantage of the Watt Not Waste Not program offered through Oakville's libraries. Visit [www.oakville.ca/12804.htm](http://www.oakville.ca/12804.htm) to learn more.
- Purchase a portion of your energy through green sources. Visit [www.oakvillehydro.com](http://www.oakvillehydro.com) or [www.bullfrogpower.com](http://www.bullfrogpower.com).
- Consider adding solar energy or geothermal technologies to your home. Both technologies include government incentives and a financial return. Visit [changes.ca](http://changes.ca), or [halton.ourpower.ca](http://halton.ourpower.ca) for information.
- Replace incandescent light bulbs with LED or fluorescent light bulbs to increase energy efficiency and save electricity costs.
- Only use dishwashers and laundry machines when they are full and at night to reduce water waste and save on energy costs.
- Incorporate xeriscaping in your garden (plants and landscaping that don't require much water).
- Install low flow shower heads and toilets.
- When making purchases, choose "green" whenever possible.



## Improving Transportation Habits

- Consider biking or walking to work, school or short errands.
- Choose to live in a walkable neighbourhood with transit access.
- Start a car sharing group in your neighbourhood.
- Ensure the sidewalk in front of your house is cleared in all seasons.
- Take public transportation when possible.
- Purchase a monthly transit pass. You never have to worry about change for the bus and it'll encourage you to use active transportation more often.
- If you commute, look at the options offered with the new PRESTO fare card. Take advantage of seamless inter-regional travel. Visit [www.prestocard.ca](http://www.prestocard.ca)
- Turn the car off when picking people up from school or work.
- Avoid using drive thrus and don't start your car until you're ready to go.
- Keep your car running efficiently to save gas and prevent pollution, keep your tires properly inflated, do regular tune-ups.
- If you're looking into purchasing a vehicle consider a hybrid or fuel-efficient vehicle.

## Getting Involved in the Community

- Support and attend environmental events. Visit [www.oakville.ca/env-events.htm](http://www.oakville.ca/env-events.htm) for a list of events.
- Volunteer at a local school.
- Discuss environmental issues with your family and work together to come up with ways to reduce your ecological footprint.
- Visit the town's EcoAction Teams website at [www.oakville.ca/environment.htm](http://www.oakville.ca/environment.htm) and sign up your family to take part in activities.
- Encourage your children to join your school's environmental group or help start one.
- Find out about and support your school's environmental initiatives.



# 7 Resources

## Air Quality and Climate

Halton Region is one of the pilot communities to roll out the □Air Quality Healthy index□(AQHI). To learn more about this program and other information on air quality in Oakville, visit [www.halton.ca/airquality](http://www.halton.ca/airquality).

For a list of anti-idling resources and information visit <http://idling.gc.ca>.

For tips and tools on reducing you greenhouse gas emissions visit [www.cleanairday.com](http://www.cleanairday.com).

To learn more about climate change in Ontario visit [www.ene.gov.on.ca/en/air/climatechange/index.php](http://www.ene.gov.on.ca/en/air/climatechange/index.php).

## Energy

Interested in learning more about solar or wondering if solar is right for your home? Contact the Halton Residential Solar Project at [solar@the-hen.net](mailto:solar@the-hen.net) or visit their website at <http://halton.ourpower.ca>.

## Healthy Neighbourhoods

For detailed information on Oakville's trails, including maps, photographs and a historical perspective, visit [www.oakvilletrails.com](http://www.oakvilletrails.com).

For information on Halton Conservation's Halton Hikes: 50 Great Trails□visit [www.haltonhikes.ca](http://www.haltonhikes.ca).

Visit one of Halton's many farmers markets and support Halton farmers. Visit [www.halton.ca](http://www.halton.ca) for listings.

## Natural Areas

For information on Halton's conservation areas and waterways, visit Conservation Halton [www.conservationhalton.ca](http://www.conservationhalton.ca) or call (905) 336-1158.

Want to know more about the town's urban forest programs or reports? Visit [www.oakville.ca/forestry.htm](http://www.oakville.ca/forestry.htm)

The Halton Natural Areas Inventory (2006) was completed in partnership with Halton Conservation Authority and local field naturalist clubs. A copy of the report is available through Conservation Halton for a fee.

For a listing of local naturalist clubs, visit [www.ontariobnatures.org](http://www.ontariobnatures.org).

Learn more about Halton's Environmentally Sensitive Areas at [www.halton.ca](http://www.halton.ca).

## Transportation

Need a get a bus schedule or where to buy tickets? Visit Oakville Transit's website site at [www.oakvilletransit.ca](http://www.oakvilletransit.ca).

## Waste

Do you want to drop off a used item or recycle something but don't know where to go? Visit [www.halton.ca/waste](http://www.halton.ca/waste) for an easy to use directory.

## Water

Halton Region provides a number of resources to help you conserve water. Visit [www.halton.ca/toiletrebate](http://www.halton.ca/toiletrebate) to learn about low flush toilet rebates or [www.halton.ca/WaterConservation](http://www.halton.ca/WaterConservation) to access their landscape assessment program, designed to provide information on outdoor water efficiency to Halton residents.

## General

Oakvillegreen is our largest residents association that has been working to protect our environment, promote sustainable planning and make sure that new development pays for itself. Visit [www.oakvillegreen.com](http://www.oakvillegreen.com) for more. For a listing of local environmental organizations, businesses and activities, the Halton Environmental Network (HEN) produces the Halton Enviro Guide: [www.the-hen.net](http://www.the-hen.net).

For information sheets on a variety of environmental topics, visit the town's website at [www.oakville.ca/espdocumentation.htm](http://www.oakville.ca/espdocumentation.htm).

For general environmental information regarding the Town of Oakville pick up a copy of the Environmental Stewardship Guide in the Environmental Policy Department at Town Hall or at one of our many public outreach events.

This is a helpful page for educators picking up a copy of the SOER. Beyond the information provided in the SOER, there are many helpful links to programs and events throughout the Region.

By accessing the “What You Can Do” or the “Resources” section you will find a wealth of programs catering to different topics and audiences.

For links to curriculum information you can contact Trisha Lesczynski ([tleszczynski@oakville.ca](mailto:tleszczynski@oakville.ca)) or Donna Doyle ([ddoyle@oakville.ca](mailto:ddoyle@oakville.ca)) for more information.

For general information from the Environmental Policy department regarding this guide you can email [environment@oakville.ca](mailto:environment@oakville.ca).

The town has partnered with Earth Day Canada to bring you the EcoAction Teams program. We will be building on this program in the future but you can get started with some great resources and classroom ideas by checking out [www.ecoactionteams.ca](http://www.ecoactionteams.ca).

We are always interested and excited when educators use the SOER as an education tool for their classrooms. If you have any additional comments and input for future guides please email the Environmental Policy department and share your ideas!





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