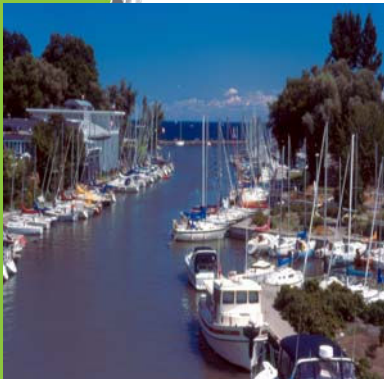


State of the Environment Report (SOER)

2011



Message from the mayor



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1 Introduction

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 making strides in building baseline data for a better understanding of the town's environment. 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 the growing number of years of baseline data, we can start to see trends. We can start to focus on the specific types of programs and actions to take to improve our performance.

Background

This is the fourth edition of the SOER. While much of the background information remains similar to previous years, the "Where we are now" and "What's being done" sections highlight emerging trends seen

in our key indicators over 2010 with discussion on what these trends might mean for the town. Also included at the back of this 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 comes next?

Since our first SOER was released in 2008, the town and the community have implemented a number of actions that have led to positive changes in our environment. There is still a lot of room for improvement and the town is looking forward to working with the community to

improve our performance.

In 2011, the town conducted an update of the ESP. This included reviewing and integrating relevant master plans and policies, incorporating new and innovative

actions based on best management practices from other municipalities and consultation with key community partners. One of the recommendations that came out of this was to undertake a review and update of the State of the Environment Reporting program to align with the 2011 ESP. We will be working to bring you this in 2012.



The Ecological Footprint program is also being advanced which will further assist us in measuring the impact of our programs and services. You can read more about this program on the following page.

We hope you will find the information in this report useful. Together, we can make a difference and we hope you will join us in finding ways to improve Oakville's environment.



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 a human population requires to produce the resources it consumes and to absorb its wastes. It is now in wide use and the town's new official plan incorporates ecological footprint as part of its policy framework to measure progress towards sustainability.

Oakville's Footprint

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 nine ha per person which means it would take approximately 1.5 million hectares to support the town's population as shown in Figure 1.

Oakville is in the unique position of being a 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 continued monitoring and data collection that the town has been carrying out.

An ecological footprint calculated at this level of detail allows us 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.



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

In 2011, the town also began work on a corporate footprint. Similar to the other footprint programs, data from across the town's operations are converted into a value that makes it easier to track where we are efficient and where there is room for improvement in areas such as energy use. This, in turn, helps the town better direct its time and resources.

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 website. It features the footprint reports and 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. Visit the website at www.oakville.ca or email us at environment@oakville.ca for more information.



Figure 2: Oakville's Neighbourhood Ecological Footprint. Source: Town of Oakville.

3 Indicators

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?

In 2010, although the overall amount of parks and trails increased, this did not keep pace with the population. As noted in Table 1, greenspace in Oakville increased marginally in 2010 with 1 hectare of space added by the town.

With steady population increases, it will be difficult to maintain a per capita amount of greenspace as shown in Figure 3. It is recommended that in future, the amount of greenspace as a percentage of the land

base be used to better track this feature. In 2006, 17% of Oakville's land base of 78.1 km² comprised publicly owned greenspace. This number rose to 18% by 2010.

Table 1: Green space in the Town of Oakville

Year	Town (ha)	Province (ha)	Conservation Halton (ha)	Total (ha)
2010	1,422	969	10	2,401
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 (ESAs) are defined through specific criteria set out by the Region of Halton. There are a total of seven ESAs and a portion of one candidate ESA within Oakville's boundaries, comprised of both public and privately owned lands.

What is being done?

The draft Oakville Wildlife Strategy and Conflict Guidelines were approved by Council in June 2011. These documents help clarify roles for dealing with wildlife and provide recommendations to maintain and enhance biodiversity.

In 2005, Conservation Halton initiated the Long Term Environmental Monitoring Program (LEMP). Information and reports are available at www.conservationhalton.on.ca/ShowCategory.cfm?subCatID=1123

As a partner with the Ecological Monitoring and Assessment Network (EMAN), Conservation Halton oversees a site in Oakville. Plant, bird, and salamander abundance and diversity, as well as tree health, regeneration, and the amount of woody debris are monitored at this location.

The town has partnered with the Oakville Horticultural Society, Conservation Halton and Halton Region on the Anderson Parkette, a demonstration project for sustainable gardening and naturalization.

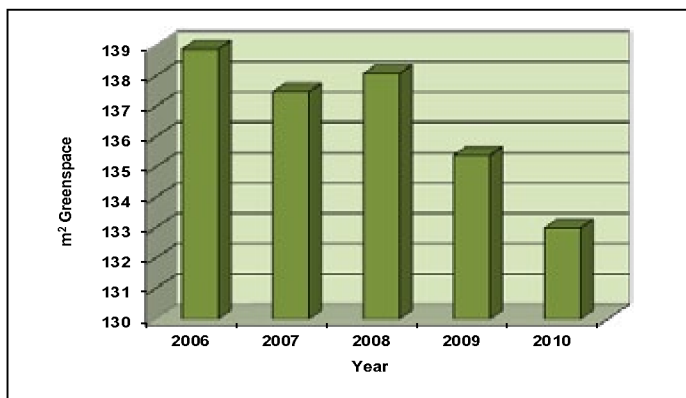


Figure 3: Publicly owned greenspace per capita. Source: Town of Oakville.

Indicator 1.2: Urban forest canopy



What are we measuring?

We are measuring number of trees planted by the town and the percentage of tree canopy cover.

Why is it being measured?

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. In recognition of the benefits trees provide, the town has set a goal to achieve a canopy cover of 40% by 2057. 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 Emerald Ash Borer (EAB) and other invasive species.

Where are we now?

As shown in Table 2, between 2006 and 2010, town staff have planted a total of 7,819 trees. In addition, volunteer groups such as Oakvillegreen/Ground Breakers, Field and Stream Rescue Team, local Guide and Scout troops and Evergreen have also contributed significantly to town tree and shrub plantings.

Table 2: Trees Planted by Oakville Forestry Staff

Year	Trees Planted
2010	1,497
2009	3,130
2008	1,898
2007	1,294
Total	7,819

As part of the town's UFORE report, it was recommended that forest canopy cover be calculated

every four years. In 2006, the town's canopy cover was 29% or approximately 1.9 million trees. Since 2010, staff has been undertaking an extensive tree inventory for all town street trees, as well as trees within tableland parkland (ie. not along trails and woodlots).

The program inventoried all species of trees, but in particular the number, size and condition rating for ash trees. In 2010 the street and park tree component of the municipal inventory was completed. Woodlands are expected to be completed by late 2011. To date a total of 137,000 municipal trees (all species) (101,000 street trees and 36,000 park trees) have been documented.

Of the 137,000 municipal trees, 14,500 street and park trees were recorded as ash trees. This is important because the EAB, an invasive species that kills ash trees, is expected to cause massive losses over the next several years.

What is being done?

As a leader in urban forestry, the town has launched an extensive program to battle the EAB. This program involves: implementation of an EAB trapping project; planting new species of trees; treating select municipal ash trees with TreeAzin; leading-edge EAB research with several partner organizations; an innovative social media campaign for public engagement; and a tree inventory project. For more information, visit the town's website at www.oakville.ca/eab.htm



Emerald Ash Borer

Environmental Policy and Parks and Open Space joined with the Clean Air Partnership to host an workshop on September 8, 2011. "Building Strategic Partnerships to Create Adaptable Urban Forests" was open to GTA municipal staff and their local community groups and was designed to create and strengthen partnership efforts.

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 particles measuring less than 2.5 microns in diameter. When inhaled, they can penetrate deep into the lungs, causing negative health consequences. Exposure to $PM_{2.5}$ 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 4. During periods of widespread elevated levels of ozone, it is estimated that more than 50 per cent of Ontario's ground-level ozone comes from the U.S.

$PM_{2.5}$ is produced when fuels and coal are burned or when other air pollutants react with compounds in the atmosphere. As shown in Figure 5, since 2005 there has

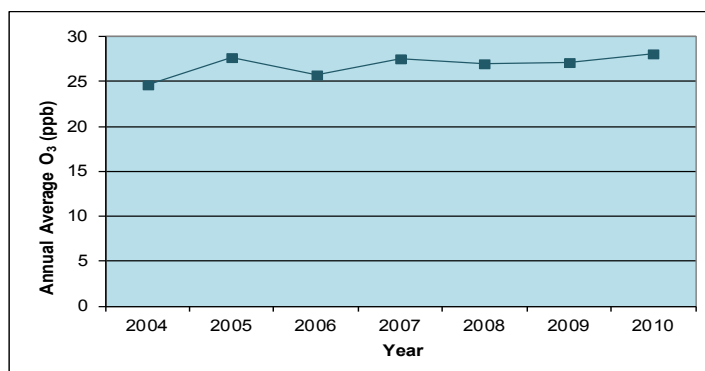


Figure 4: Annual average ground level ozone in Oakville. Source: Ministry of the Environment.

generally been a decreasing trend in $PM_{2.5}$ levels with a significant drop occurring in 2009 which was seen across the province. The increase in 2010 indicates that the 2009 drop can likely be attributed to the economic downturn which was most obvious in that year. Weather also impacts the ability of fine particles such as $PM_{2.5}$ to remain airborne and the hotter summer in 2010 also likely contributed to the higher $PM_{2.5}$ levels.

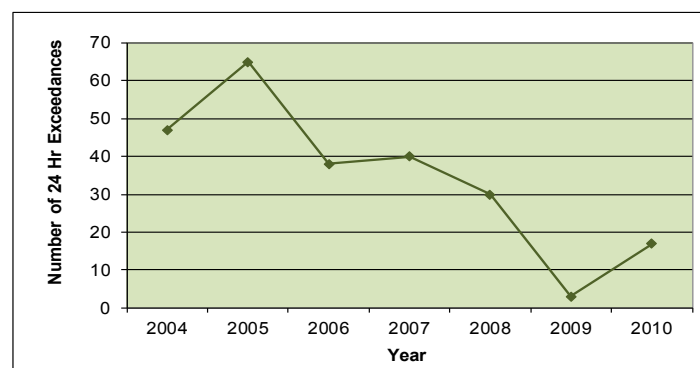


Figure 5: Annual 24 hour exceedance above $15\mu g/m^3$ of $PM_{2.5}$. Source: Ministry of the Environment.

What is being done?

A by-law to assess and control major emissions of $PM_{2.5}$ in Oakville was passed in 2010 by town council. The by-law is currently being implemented in a phased-in process. Visit www.oakville.ca/environment.htm

Citizens For Clean Air (C4CA) is a broad coalition of concerned citizens who are committed to improving air quality in South Western Ontario. Visit www.c4ca.org

In 2011, the province announced the Oakville-Clarkson airshed as the first pilot airzone in Ontario, building on the recommendations of the Southwest GTA Air Quality Task Force

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?

Phosphorus is a significant water quality issue in Oakville's creeks and Lake Ontario. Sources of phosphorus include lawn fertilizers, atmospheric deposition, automobile exhaust, soil erosion, animal waste, detergents and wastewater treatment plants. In

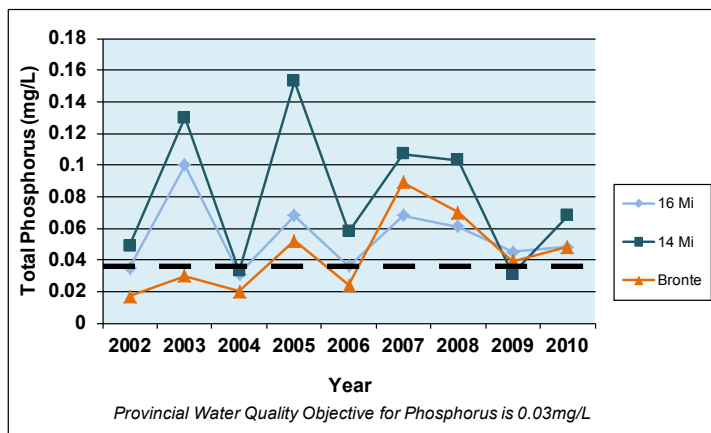


Figure 6: Mean phosphorus levels in Oakville creeks.

Source: Conservation Halton.

2010, phosphorus levels in all three creeks exceeded PWQO of 0.03 mg/L as shown in Figure 6. The lower levels seen in 2009 are likely due in part to influences such as a significant decline in development activity that year.

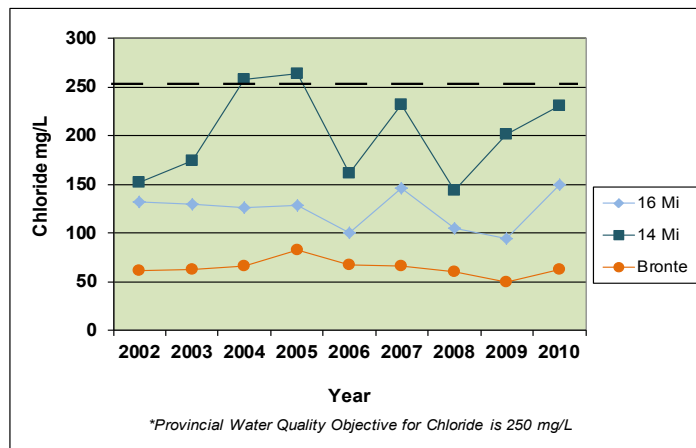


Figure 7: Mean chloride levels in Oakville creeks.

Source: Conservation Halton.

As shown in Figure 7, chloride levels are also showing an increase from 2009, although they remain below the PWQO of 250 mg/L. A significant contributor to chloride levels is runoff from roadways and salt use during the winter.

Generally, 14 Mile Creek is the most affected of the creeks as it is the most urbanized creek and the smallest. These features contribute to a decreased ability to handle contaminants and helps to explain the greater variability in chloride and phosphorus levels.

What is being done?

The town is participating in two provincially mandated source water protection programs with Halton Region, the Conservation Authorities, the provincial government, residents and community groups. Once developed, these plans will ensure current and future sources of drinking water are safe from contamination and depletion

The town continues to improve its salt management operations and reports to Council regularly on enhancements. For example, salt spreaders operated by the town are equipped with pre-wetting capabilities. This reduces the amount of salt required and prevents it from bouncing off the road into sewers and waterways.

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 greenhouse gases (GHGs).

Where are we now?

Generally, the trend toward warmer summers and lower annual precipitation in Oakville is consistent with what is being seen throughout the province. 2010 was a hotter, drier summer than 2009 (Figures 8 and 9). There has also been a trend of decreasing winter temperatures (Figure 10). 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 some time to see what changes in the local climate are occurring. Years where weather data was incomplete have been excluded in the charts.

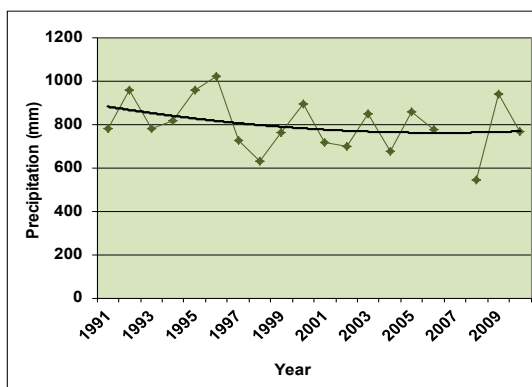


Figure 8: Oakville Annual Precipitation.

Source: Environment Canada.

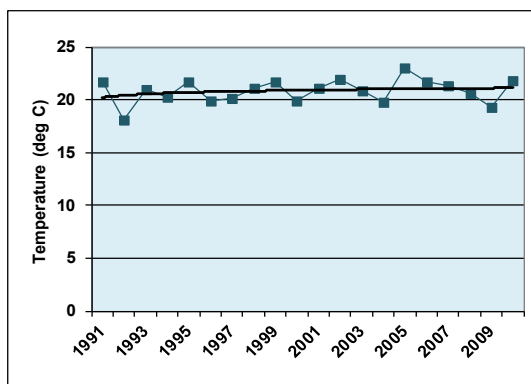


Figure 9: Oakville's average summer temperature. Source: Environment Canada.

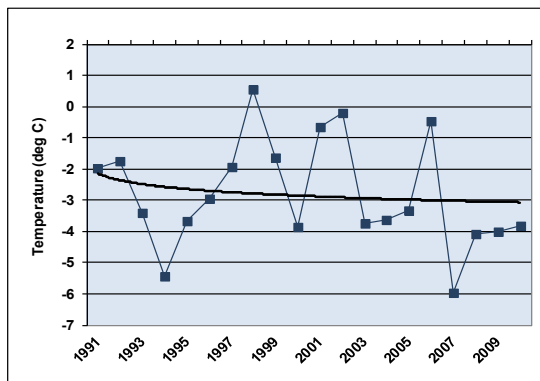


Figure 10: Oakville's average winter temperature. Source: Environment Canada.

What is being done?

The town is working towards fulfilling its Partners for Climate Protection (PCP) commitment. A corporate plan was approved in 2010 and a community 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%.

The town has partnered with Local Governments for Sustainability to develop a comprehensive climate change strategy. This Council approved initiative will be integrated into the town's 2011 Environmental Strategic Plan.

The town has six weather monitoring stations to record detailed climate information. This data will assist in gaining a better understanding of local trends.

Focus Area 2: Resource use

Indicator 2.1: Solid waste



What are we measuring?

The amount of solid waste delivered to landfills, the amount diverted through recycling/composting and the amount of waste generated per capita is being measured.

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. The amount generated per capita helps to show the public's participation in reducing their waste.

Where are we now?

In 2008, Halton Region began the roll out of the GreenCart program for organic waste town-wide. This led to decreases in the amount of waste going to landfill. As shown in Figure 11, in 2010, Oakville's diversion rate is now levelling off at approximately 56.5%. The overall rate for Halton Region also remains at 57.4% for 2010.

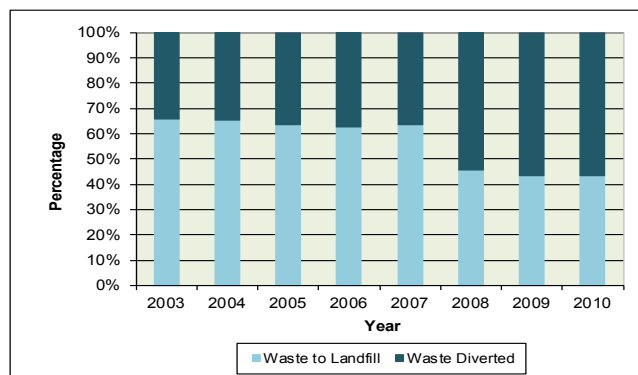


Figure 11: Percent of Oakville's waste to landfill and diverted. Source: Halton Region.

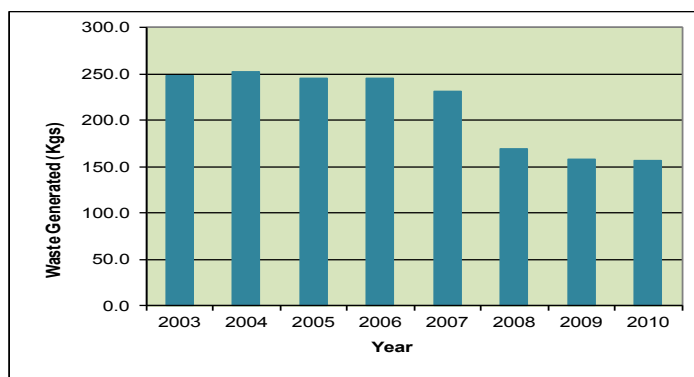


Figure 12: Oakville total residential waste generated per capita. Source: Halton Region.

Similar to 2009, on a per capita basis each Oakville resident generated 362 kg of waste in 2010 which includes both diverted and landfilled (Figure 12). This data indicates that while the introduction of new programs such as the green bin have had a significant positive impact, more work needs to be done to further reduce our total waste. Recent audits of Halton household garbage show an average bag contains 13% recyclable material and 23% organic waste.

Maintaining the status quo or even modest decreases to our waste production will result in continually larger volumes of materials going to landfill due to population increases, as shown in Table 4.

Table 3: Waste to landfill and diverted for Oakville (Tonnes)			
Year	Landfill (T)	Diverted (T)	Total (T)
2010	28,402	36,843	65,245
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

What is being done?

The Towards Zero Waste program implemented for town operations in 2009 has been expanded each year. Features include green bin recycling, waste audits, education and zero waste event policy. A green purchasing program has further reduced waste levels.

In 2011, the town received two silver awards from the Recycling Council of Ontario for Municipal Waste initiatives and communications program.

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 assist. Halton Enablers of Renewable Energy (HERE), a non-profit organization provides support to residents interested in installing solar or geothermal energy systems.

Where are we now?

While we expect that population increases tend to show increases in overall energy consumption, per capita increases provide the best information on behaviours and technology impacts. As seen in Figure 13, between 2006-2009, there has been a continuous upward trend in overall residential consumption rates. In contrast, industry consumption has

decreased. Drivers for this may include increased efficiencies and fewer energy intensive businesses locating in Oakville.

An interesting development in 2010 was the increase in per capita electricity use and the decrease in natural gas use as shown in Figures 14 and 15. Generally, residential gas use is primarily for heating while electricity is more broadly used throughout the home for things such as lighting, appliances and air conditioning. While the

decrease in gas use may indicate that residents are investing more in retrofits for their homes and keeping thermostats lower, future years will be informative in helping to determine whether this trend will continue.

While the town is working on green energy projects to support its own operations, it also supports HERE by promoting their activities and hosting workshops led by HERE members. As of 2011, HERE has facilitated a total of seven 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?

As part of its Partners for Climate Protection commitments, the town has developed a corporate energy plan and is currently working on a community plan.

Oakville Hydro has installed a 10 kW solar generating roof system on their building. They are also test piloting a small group of solar utility poles. There will be eight (8) panels at two separate locations, for a total of 16 panels.

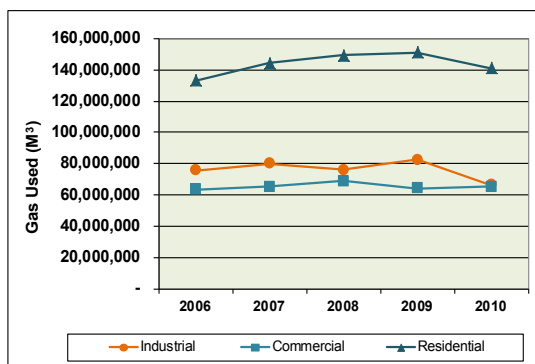


Figure 13: Oakville natural gas use by sector
Source: Union Gas.

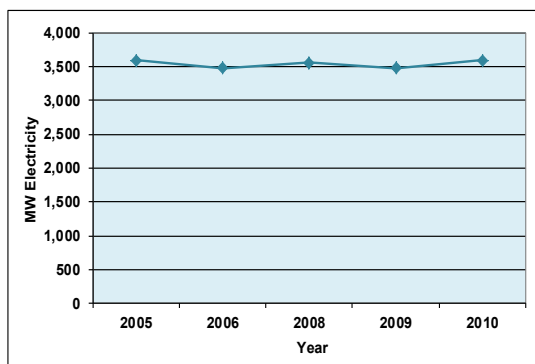


Figure 14: Oakville electricity use per capita.
Source: Oakville Hydro

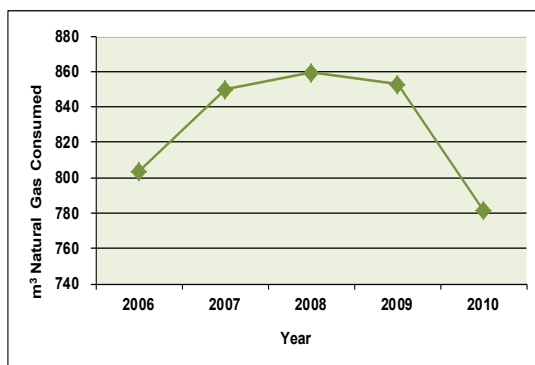


Figure 15: Oakville natural gas use per capita.
Source: Union Gas.

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 annually.

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 4, despite a population increase of 20% since 2001 total residential water use has remained relatively constant over time and per capita use has gone down significantly, particularly since 2007 (Figure 16). A number of factors may contribute to this trend, not least of which is the continued water reduction strategies offered by the region and town. These include the Outdoor Water Use

Education Program and the annual rain barrel sale held each spring. In 2009, we had a much wetter and cooler summer, resulting in a reduced need to water gardens and lawns. It is positive to see that despite a hotter and drier summer in 2010, water use per capita continued to decrease. Halton Region has an Outdoor Water Use Program which helps support the trend being seen.

Table 4: Oakville Residential Water Consumption (millions of Litres)

Year	Millions of Litres	Year	Millions of Litres
2010	151.5	2005	163.3
2009	150.3	2004	153.8
2008	149.3	2003	155.6
2007	165.2	2002	153.0
2006	151.7	2001	151.9

While water use per capita is declining, we still have a long way to go. Canadians rank second in the world for water consumption. With increasing population, conservation needs to be a priority.

In 2009, Institutional/Commercial/Institutional water use declined (Figure 17). This is likely due to the economic recession which caused decreases in industrial production and the decreased need for process water. As the economy rebounded in 2010, water use went up.

What is being done?

The town has initiated the Blue W program that supports filling reusable containers over bottled water and a new water bar program has been introduced for local events.

Halton Region offers a number of water saving programs. Visit them at www.halton.ca

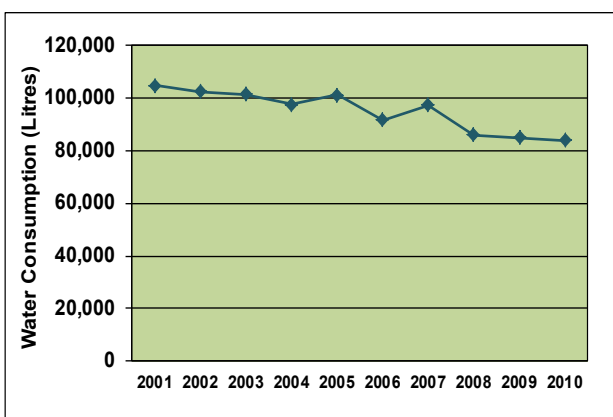


Figure 16: Residential per capita water consumption in Oakville. Source: Halton Region.

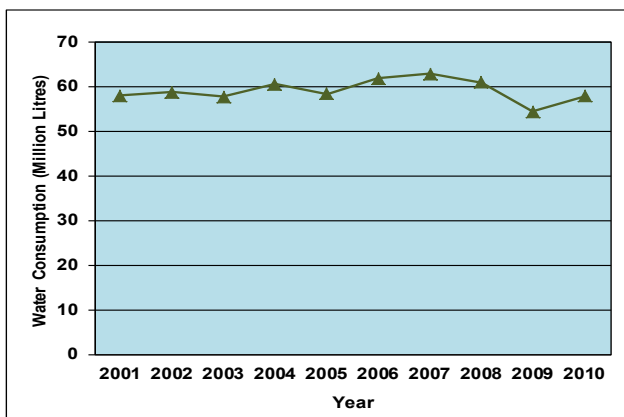


Figure 17: Industrial, Commercial and Institutional water consumption in Oakville. Source: Halton Region.

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 Smart Commute participation at Town Hall.

Why is it being measured?

Transportation choices depend on commuting distance, accessibility of alternative transportation modes such as bicycle lanes and the availability of options such as Transportation Demand Management (TDM). 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 and statistics related to the implementation of the town's Active Transportation Master Plan.

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.

Where are we now?

According to Statistics Canada, over 80% of residents use a personal vehicle for their commute. Figure 18

shows the relationship between population and vehicle ownership. The data shows that car growth has generally outpaced population growth. Between 2009-2010, this has stabilized. However, as seen in Figure

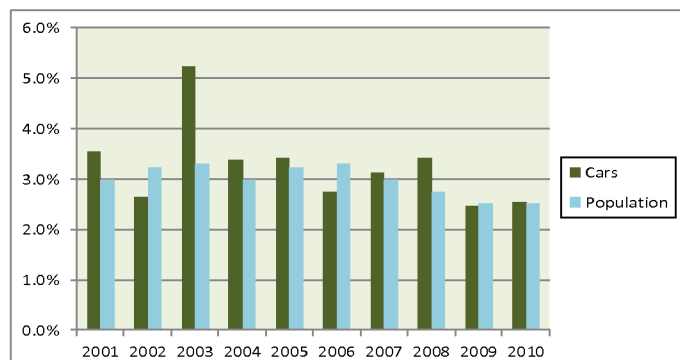


Figure 18: Population growth vs vehicle ownership in Halton.
Source: Ontario Ministry of Transportation/Halton Region.

19, increases in population mean that the overall number of vehicles has still been increasing.

To continue to support a desired level of active transportation (cycling and walking) for Town of Oakville residents and visitors, approximately 30km of active transportation facilities (i.e. on-road cycle lanes, signed cycle routes, multi-use trails) were implemented within the town in 2010 and 2011. An additional 30km has been proposed for 2012.

In total, 266 kms of cycling, sidewalk and multi-use trails projects have been proposed through the ATMP to be completed by 2019.

What is being done?

In 2010, a waterfront trail risk management inspection was undertaken and safety barriers were installed as required.

On October 5, 2011, Halton Region approved its new transportation master plan with objectives to reduce the single occupant vehicle use and promote Active Transportation, Transportation Demand Management and Transit use.

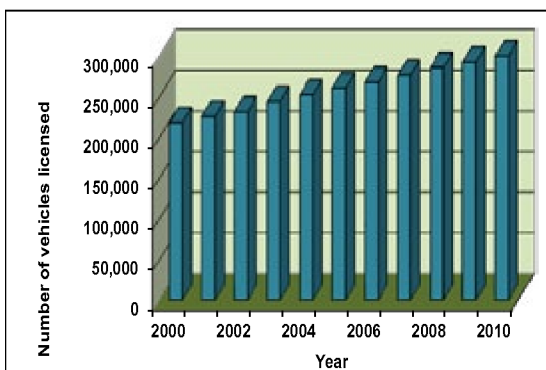


Figure 19: Personal vehicle registrations in Halton. Source: Ontario Ministry of Transportation.

Oakville's Transportation Master Plan (TMP) is being updated in 2011/2012. In addition, the Livable Oakville Plan and North Oakville secondary plans support more sustainable transportation options for future land use planning.

Indicator 3.2: Transit



What are we measuring?

We are measuring the number of times a year, on average, residents took Oakville Transit and the cost per passenger trip.

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, buses are more fuel efficient than automobiles. Burning one litre of gasoline generates two kgs of carbon dioxide (CO₂). Using a conservative estimate, the average car commuter generates at least 3,300 kg of CO₂/year.

Where are we now?

Between 2005-2009, per capita transit trips steadily declined as reflected in Figure 20. 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 2009.

The new design immediately resulted in an increase in ridership, and in 2010 this trend continued. Oakville

Transit set a new single month ridership record in September 2011 when it provided just over 272,000 rides. Ridership over a 12 month period is now over 2.8 million.

The introduction of the grid based system, along with the introduction of the PRESTO farecard and increased service will support increased ridership in the future.

As seen in Figure 21, while operating costs for transit have increased due to rising labour, service and fuel costs, the trend levelled off in 2010. Initiatives such as alternative fuel/hybrid buses, increased

ridership strategies and partnerships with organizations such as Halton Region and Sheridan College will contribute to stabilizing costs in the future.

What is being done?

Oakville was the first municipality to fully implement the PRESTO card system, a "one stop" method to pay for transit across the GTA.

Oakville's partnership with Halton Region in a pilot project called Subsidized Passes for Low Income Transit (SPLIT) ensures that low income residents have access to affordable transit.

All 92 of Oakville's buses are equipped with bike racks to encourage flexible

transportation options.

In October 2011, Halton Region approved their new Transportation Master Plan that envisions 20% of all peak period trips will be provided by local and provincial (GO transit) by 2031.

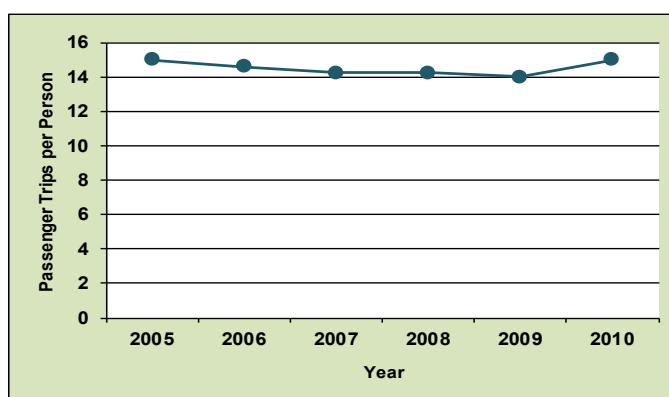


Figure 20: Oakville Transit passenger trips per capita.

Source: Town of Oakville.

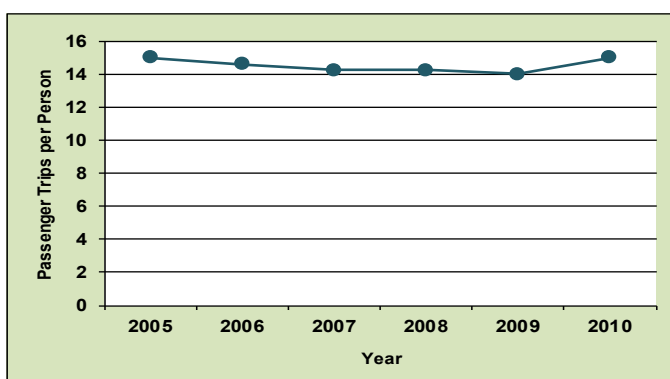


Figure 21: Oakville Transit net cost per passenger trip.

Source: Town of Oakville.

Focus Area 4: Healthy neighbourhoods

Indicator 4.1: Greening our spaces



What are we measuring?

We are measuring indicators for initiatives 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 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 trail or park. Participants are asked to clean litter and inspect 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 approximately 150 km of trails and 1,400 ha of parkland available for adoption. As noted in Table 5, numbers are relatively stable. In 2010 the number of people involved in these programs increased slightly as shown in Table 5.

Table 5: Oakville's "Adopt-a" programs

Adopt-a Park		
Year	Area (ha)	Participants
2010	212	46
2009	195.5	42
2008	187.7	46
Adopt-a-Trail		
Adopt-a-Trail	Length (kms)	Participants
2010	71.57	83
2009	67.22	78
2008	75.8	83

Community garden plots are also 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 22, in 2010 a total of 179 plots were available at four locations. These programs have been running for many years and are generally well used. While the town plots are fully rented with a waiting list, Bronte Creek Provincial Park has excess capacity. As population increases and there is a greater focus on local food, it is likely future demand will only increase.

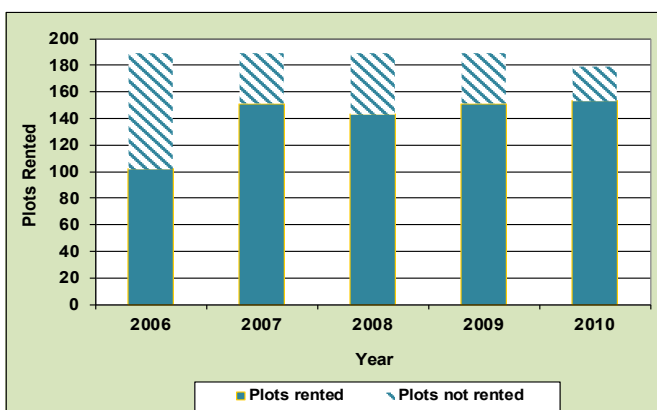


Figure 22: Community Garden Plot Rentals in Oakville.
Source: Town of Oakville and Ministry of Natural Resources.

What is being done?

The Oakville Centre for Peace Ecology and Human Rights organizes a town-wide Earth Day community clean up each year. In 2010, over 37 sites were cleaned.

The Oakville Sustainable Food Partnership is a local organization with a mandate to support local eating and ecological farming in partnership with the community.

Visit <http://oakvilleorganicmarket.com> to learn more.

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.

Where are we now?

Oakville has approximately 1,422 ha of town-owned greenlands. 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 (Figure 23).

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

splash pads and outdoor swimming pools. Outdoor recreational facilities per capita have been decreasing (Figure 24), in part due to increasing population and the greater focus in recent years on adding indoor sports facilities for soccer and skating.

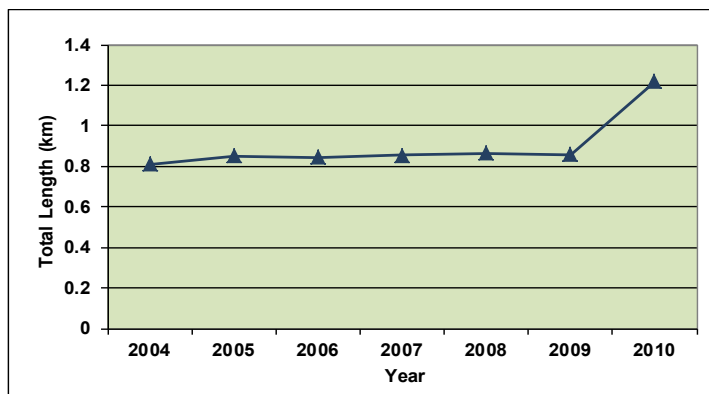


Figure 23: Total Kms of trails per 1,000 people.

Source: Town of Oakville.

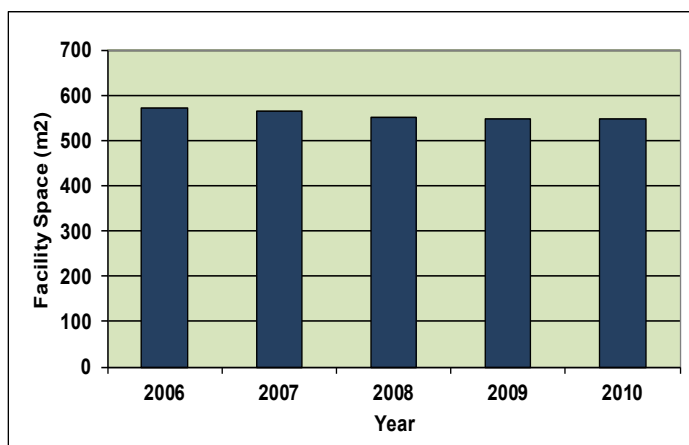


Figure 24: Outdoor recreational facility space per 1,000 people. Source: Town of Oakville.

What is being done?

The Anderson Parkette, a sustainable demonstration garden, was developed through a partnership with the Oakville Horticultural Society. The official opening of the garden will take place in 2012.

The North Oakville East Trails Plan was approved by Council in June 2008. An implementation plan is being developed that establishes an interconnected network that minimizes impacts through the Natural Heritage System.

Coyotes play an important role in Oakville's ecology. They are sometimes seen along trails and the town has developed an education package to ensure a peaceful co-existence. For information on how to stay safe on the trails visit www.oakville.ca/environment.htm. Also make sure your pet is leashed at all times as per Oakville's Animal By-law 2010-157.

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.

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.



Green Building Summit 2010.
Source: Town of Oakville.

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. A subsequent survey carried out by the Environmental Policy department in 2009 showed that 83.9% of respondents were familiar with the program which helps demonstrate the impact outreach and education activities can have in

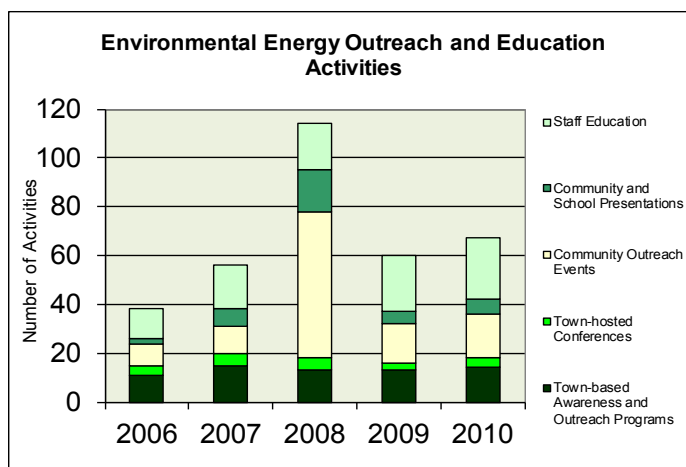


Figure 25: Environmental Policy department outreach and education activities. Source: Town of Oakville.

promoting environmental awareness.

The spike in 2008 (Figure 25) is largely due to the pesticide program that year, which was a significant project and involved a number of summer students. In 2010, there was a focus on staff education for new programs such as the town's Green Purchasing, Drive Smart and Towards Zero Waste procedures.

What is being done?

The Environmental Policy department takes part in a variety of community events, including: Halton EcoFest, Midnight Madness, Summer Fun Bus and Bike Day, Earth Hour, Earth Day, Halton Children's Water Festival, Oakville Conserves Energy Fair, Tim Hortons Environmental Awareness Day,

Fire Prevention Safety Week, EcoSchool Celebrations, local farmers markets, energy conservation outreach to local businesses, Yellow Fish Road, Ant-idling campaigns and March Break eco-camps.

As part of the wildlife speaker series, in 2011 the town hosted a community event to provide information on coyotes. Future presentations on wildlife topics are planned for 2012. See www.oakville.ca for details.

An urban forest protection workshop was held at the town in May 2011 for municipalities and their partners.

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.

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 EcoSchool certification by June, 2010. As shown in Figure 26, significant progress has been

made to reach this goal. For the 2010-2011 school year, a total of 42 Oakville schools were certified which represents a 62% increase over the previous year. A total of 18 schools achieved Gold status, 16 achieved Silver and 8 obtained Bronze.

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

What is being done?

The town works with Oakville's 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 newly constructed St. Thomas Aquinas Secondary School which features a green roof, solar walls, and a rainwater collection system as some of its features.

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. Other schools that feature green energy include solar panels at Holy Trinity Catholic Secondary School and a geothermal heating system at St. Mildred's-Lightbourn School.

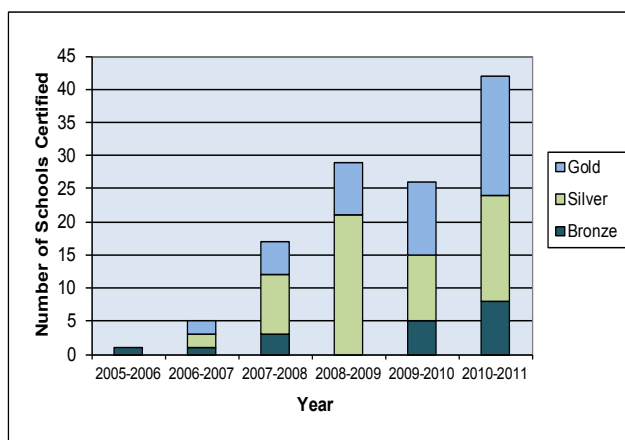


Figure 26: Oakville Certified EcoSchools 2005—2009.

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 programs such as Sustainable Green Fleet, the Sustainable Purchasing Procedure and the Towards 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.

What is being done?

The **Towards Zero Waste** procedure was implemented in 2009 and is a comprehensive waste reduction strategy for the town's operations. A major stride was the addition of organics (food waste) collection at Town Hall in 2010. Town Hall has increased its waste diversion rate by 60% through the green bin program and as shown in Figure 27, when combined with blue box recycling, only 7% of the town's garbage goes to waste. A staff education and outreach program accompanies this strategy.

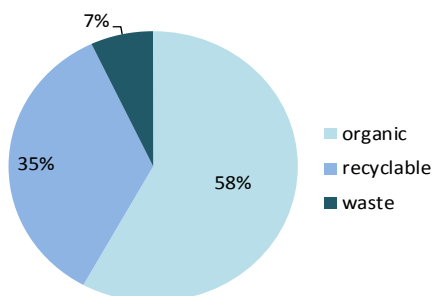


Figure 27 - Current waste diversion at Town Hall. Source: Town of Oakville.

The **Sustainable Purchasing Procedure (SPP)** 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. In 2010, the purchasing by-law was amended to allow local goods to be purchased (over "lowest price") for the purchase if going towards LEED certification. The SPP has resulted in many positive changes, some that are outlined in Table 6.

Table 6: Green purchasing improvements

Existing product	Green replacement
High energy use vending machines	EnergyStar rated vending machines or addition of energy optimizing controls
Cafeteria products	Recycled content napkins without bleach; Fair trade/ organic coffee and tea; Compostable coffee cups, stir sticks and take-out food containers; Reusable water pitchers; organics collection
Fertilizer, compost and paint	Bulk purchase of items in reusable, refillable containers
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

The **Sustainable Green Fleet Procedure** was also introduced in 2009. It involves a number of initiatives that save fuel and increase the efficiency of the town's fleet. Examples include restricting staff in town vehicles from using drive throughs, implementing a driver training program (DriveSmart) 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. Since 2006, 12 hybrid vehicles, and two right sized vehicles have been added to the Town of Oakville's fleet. In 2011, a pilot program was introduced to monitor tire pressure to assist in safety and higher efficiency of the vehicles and in 2012, subject to budget approval an electric vehicle will be added to the town's green fleet.

Indicator 6.2: Sustainable Building and Development



What are we measuring?

We are measuring land use patterns by housing type and total annual housing construction through the gross floor area of building permits issues.

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.

Denser development, if planned appropriately, use less resources, are transit friendly and support a vibrant community. Ensuring an appropriate mix of housing is important in protecting our environment.

How we build is also important. Green buildings - those that have a lower impact on the environment - are becoming more widespread and the town is monitoring their implementation. A major green building certification systems is LEED which is administered in Canada through the Canadian Green Building Council (CAGBC).

Where are we now?

In 2010, there were 583 housing completions in Oakville, of which 318 (54.5%) were singles and semi-detached, and 265 (45.5%) were row dwellings. There were no apartment completions. As shown in Figure 28, since 2002 housing densities have been moving away from single family to more dense forms. While there was a turn away from apartments in 2010, townhouse development increased significantly and was almost on par with single detached construction. The Halton Regional Official Plan (ROPA 38) introduced a housing density target for new housing, stating that at least 50% of new housing units produced annually in Halton be

in the form of townhouses or multi-storey buildings. Depending on the lot size and type, townhouse densities can rival that of high rise densities.

As shown in Figure 29 by the number of building permits issued, building activity resumed in 2010. As volume increases, it will be even more important to ensure we build in an efficiently.

What is being done?

The new LEED Silver Oakville Transit Facility was officially opened in 2011 and in 2012, the Queen Elizabeth Park Community Centre will officially be opened as a LEED certified building.

In December, 2010 the town hosted a Green Building Summit featuring guest speakers and the town's new Green Building Standards.

The town has produced a book highlighting green building in Oakville. Visit www.oakville.ca/environment.htm

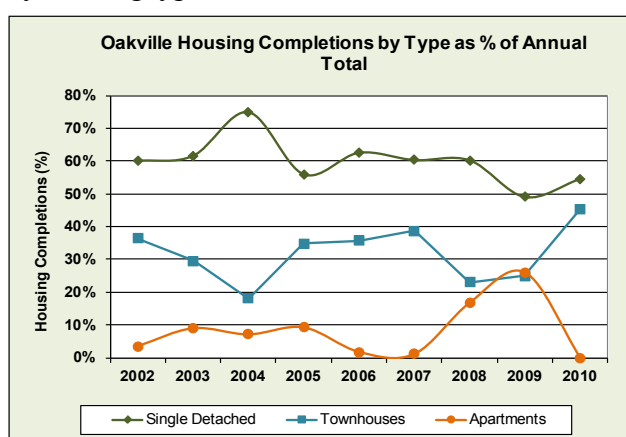


Figure 28: Oakville housing completions by type.
Source: Halton Region.

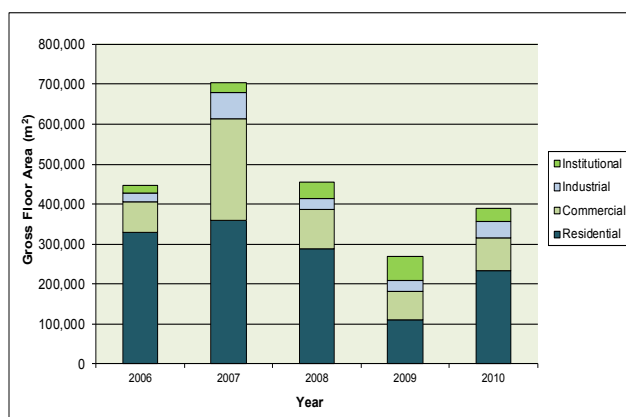


Figure 29: Building permits issued by gross floor area.
Source: Town of Oakville.

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). The ESP was developed to help improve the environment in Oakville and 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.

Where are we now?

The ESP is structured under six goals related to: natural resources, resource use, transportation, healthy neighbourhoods, public engagement and 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.

Each target is further broken down into steps with suggested time frames in which to complete them. These time frames are noted in Figure 30.

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 of the ESP was 59% in 2006, 72% in 2007, 89% in 2008 and 94% in 2009. Almost 99% implementation was achieved in 2010.

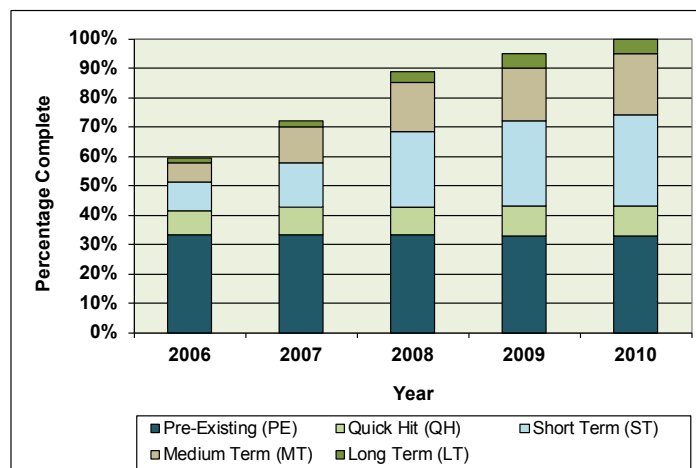


Figure 30: ESP Implementation Status.

Source: Town of Oakville.

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 initiated an update to the ESP in 2011 to incorporate new master plans and policies, refresh the document and set out a plan of action for the environment over the next five years.



As part of a comprehensive framework, the town has started work on the "Oakville Sustainability Plan" which includes both a corporate and community component.



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!

The SOER can assist us in continuing to improve our environment by highlighting where we are seeing positive changes and where we need to do more. In 2009, air and water quality improved, however, as we saw from the 2010 data these gains were short lived. This provides some evidence that the decline in the economy in 2009 was likely the driving force behind the better air and water quality that year. This correlation is not unexpected and provides evidence of the impact that our actions can have on our environment. While there were losses in some areas, gains were seen in others – particularly transit use, natural gas consumption, water consumption and ecoschool certification. The positive message from this is that as a community, we are making greater efforts towards making – greener – choices and engaging in behaviours that will help the environment in the future.

We also need to be aware of how our choices have an impact not just on ourselves but also beyond our community. The town recognizes that while its own efforts are critical, the supportive actions of residents, community partners and other levels 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.



5 Glossary and Acronyms

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 □ 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.

eCO₂ □ 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 and Environmental Management System □ 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 its 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 □ Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro chlorofluorocarbons (HCFCs), ozone (O₃), hydro fluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆).

Kilowatt hour □ 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 □ 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 □ 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

eCO₂ □ 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

O₃ □ Ozone

PCP □ Partners for Climate Protection

PM_{2.5} □ 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

What you can do 6



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 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.

Reduce your impact on natural environments

- Remove invasive 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
- Think twice before cutting a tree down. Trees offer shade in the summer and protection from winter winds
- Check out the town's Private Tree By-law at 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.
- In the winter, use either low or no chloride ice melt.
- Don't dump hazardous waste into sewers or drains. See www.halton.ca/waste to find out proper disposal locations.
- Visit www.cleanairday.com for tips and tools to reducing your GHGs.

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



What you can do, cont.

Reduce your 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 to learn more.
- Purchase a portion of your energy through green sources. Visit www.oakvillehydro.com or 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 or 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.

Improve your 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
- 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.

Get involved in the community

- Support and attend environmental events. Visit 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 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.



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
- For a list of anti-idling resources and information visit <http://idling.gc.ca>
- For tips and tools on reducing your greenhouse gas emissions visit www.cleanairday.com

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 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
- For information on Halton Conservation's *Halton Hikes: 50 Great Trails* visit www.haltonhikes.ca
- Visit one of Halton's many farmers markets and support Halton farmers. Visit www.halton.ca for listings.

Natural areas

- For information on Halton's conservation areas and waterways, visit Conservation Halton 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
- 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
- Learn more about Halton's Environmentally Sensitive Areas at www.halton.ca

Transportation

- Need a bus schedule or where to buy tickets? Visit Oakville Transit's website site at 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 for an easy to use directory.

Water

- Halton Region provides a number of resources to help you conserve water. Visit www.halton.ca/toiletrebate to learn about low flush toilet rebates or www.halton.ca/WaterConservation to access their information on water efficiency.

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 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
- For information sheets on a variety of environmental topics, visit the town's website at 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.

8 Note for educators

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) or Donna Doyle (ddoyle@oakville.ca) for more information.

For general information from the Environmental Policy department regarding this guide you can email 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

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 at environment@oakville.ca and share your ideas!

