



2017
Measuring Sustainability Report
Reporting on key indicators of
sustainability in Pickering



Executive Summary

Pickering is on a journey to becoming a more sustainable city. Collecting and tracking data on our progress is key to the success of this transformation. This is the third report measuring sustainability in our community.

Where we started: setting the baseline

In 2010, the City produced its first report on measuring sustainability, which included baseline measurements for 19 of the 32 indicators identified in consultation with staff, stakeholders, and residents.

In 2012, the City engaged in further technical working group discussions and carried out a community survey to provide insight into individual perspectives toward sustainability and household actions that support sustainability. The corresponding 2012 Measuring Sustainability Report expanded on certain indicators that had not been covered in the first report, generating 55 indicators of sustainability and providing baseline information to track the City's relative progress towards becoming a more sustainable city.

Where we are today: reporting on progress

The 2017 Measuring Sustainability Report outlines the progress on existing indicators, and introduces new indicators reflecting the evolving sustainability objectives in our community.

There are a total of 52 indicators, which are grouped into 5 sections:

Healthy Environment

Healthy Economy

Healthy Society

Responsible Development

Responsible Consumption

This report summarizes the status of each indicator and what actions have been undertaken by the City and its partners to positively impact the indicator. We also provide tips for community members to use in their daily lives as we work together towards a more sustainable Pickering for all.

We welcome your comments, questions, and suggestions. Please contact the City's Sustainability staff at sustainability@pickering.ca.

Alternate formats available upon request at 905.683.7575 or customercare@pickering.ca.

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Join us on the journey to become one of the most sustainable cities in Canada. There are lots of fun and inspiring ways to make our lives and community more sustainable. Get involved!



Healthy Environment



A healthy environment refers to the well-being and integrity of the air we breathe, the water we drink, the food we eat, and the natural areas we enjoy.

To measure the health of Pickering's environment, we reported on:

- Clean Air 6
- Clean Water 8
- Urban Forest 11
- Watershed Biodiversity .. 13
- Health of Frenchman's Bay..... 20
- Health of Altona Forest .. 22

What can you do to promote a Healthy Environment in Pickering?
Go to page 24 for a range of suggestions.

Healthy Environment

Clean Air

Indicator

Number of days when the Air Quality Health Index (AQHI) is above 7 (high risk)

The Air Quality Health Index (AQHI) measures the air quality in relation to human health on a scale from 1 to 10. The higher the number, the greater the health risk associated with the air quality. When air pollution is extremely high, the number is reported as 10+. A range of weather conditions affect air quality, including wind, heat, and light.

The AQHI measures a combination of common air pollutants known to harm human health:

- ozone (O₃) at ground level
- particulate matter (PM_{2.5}/PM₁₀)
- nitrogen dioxide (NO₂)

Health Risk	AQHI Number
Low health risk	1–3
Moderate health risk	4–6
High health risk	7–10
Very high health risk	10 +



Among the 38 AQHI (Air Quality Health Index) monitoring stations across Ontario providing real-time air quality data and an AQHI reading for each location, two are close to Pickering:

- Toronto East (Kennedy and Lawrence)
- Oshawa (Durham College)

We have used air quality readings at the Toronto East Monitoring Station. The following represents the number of days at which the AQHI reached a certain level.

	Moderate Risk (4–6)	High Risk (7–10)	Very High Risk (10+)
2015 (Baseline)	70 days	0	0
2017	34 days	1 day	0

Source: Government of Canada. [Air Quality Health Index \(2017\)](#).

Healthy Environment

What is the City doing to promote better air quality?

Working with staff to lead by example: As an active member of the [Smart Commute Durham](#) program, Pickering staff are invited to participate in events that encourage sustainable transportation options such as transit, carpooling, walking, and cycling. In particular, staff support Carpool Week, Clean Air Commute, Bike to Work Day, and Smart Commute Week. The City provides priority parking spots for carpoolers. As a result of this commitment, the City of Pickering was awarded Durham's Employer of the Year in 2012, and was a Smart Commute Gold Workplace from 2013 to 2016.



City staff celebrating Bike to Work Day

Collaborating with other municipalities

in Ontario: The City of Pickering is a

member of the [Clean Air Council](#) and has signed the Intergovernmental Declaration on [Clean Air and Climate Change](#). This Council is a network of 27 municipalities and health units across Ontario. Since 2000, Clean Air Council members have been working collaboratively to develop and implement actions on clean air, sustainability, and resilience.

Passing an anti-idling by-law: In 2004, Pickering adopted a by-law to discourage idling vehicles (By-law 6297/04).

Acquiring cleaner vehicles for the City fleet: The City has invested in alternative fuel options for its fleet by purchasing many hybrid-electric vehicles. The City also ensures that vehicles are right-sized for their purpose, and has purchased trucks with smaller engines.

Using cleaner property maintenance tools: The City has bought battery-powered property maintenance tools such as lithium-ion powered line trimmers, hedge trimmers, handheld blowers, and chainsaws. These products are so visitors to parks and splash pads can enjoy these facilities without being bothered by emissions and noise.

Ensuring new development supports sustainability: Pickering has Sustainable Neighbourhood Development Guidelines for all new development in south Pickering, and Sustainable Placemaking Guidelines for Seaton. The City also ensures that new developments are designed for enhanced pedestrian connections and accessibility.

Healthy Environment

Clean Water

Indicator

Surface Water Quality Index (WQI) for key watersheds

The Water Quality Index (WQI) information was extracted from the Toronto and Region Conservation Authority's (TRCA) [2016 Living City Report Card](#). The WQI is a tool that summarizes water quality conditions from multiple measurements into a single indicator of water quality. The WQI is a representation of the number of indicators that exceed the recommended guidelines, as well as the frequency and magnitude of those exceedances. Values range between 0 and 100, with higher values indicating water that tends to meet the guidelines more frequently, and that is considered to be of higher quality (TRCA, 2011). The WQI measures the levels of eight key pollutants sampled at the main rivers and creeks around Pickering:

1. chloride (i.e., road salt)
2. *Escherichia coli* (*E. coli*)
3. phosphorus
4. nitrogen
5. ammonia
6. nitrate
7. copper
8. zinc



Surface Water Quality Index (WQI) for key watersheds				
	Duffins Creek	Rouge River	Carruthers Creek	Petticoat Creek
2010 (Baseline)	>70	60 - 70	60 - 70	No available data
Comment	Best achievable and at target	Good with minor action	Good with minor action	N/A
Five-year average, 2009–2013	>70	60 - 70	60 - 70	60 - 70
Comment	Best achievable and at target	Good with minor action	Good with minor action	Good with minor action

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

Source: Toronto and Region Conservation Authority (TRCA). 2011. Regional Watershed Monitoring Program: Surface Water Quality Summary 2006-2010.

Healthy Environment

Indicator

Percentage of swimming days posted as unsafe

Beach postings indicate the number of days a beach is considered unsafe because of high bacteria levels. This indicator shows those days as a percentage relative to the total number of days a beach is open for swimming. The highest numbers are for beaches close to river mouths, where most of the contaminants are discharged.

Percentage of swimming days posted as unsafe		
	Frenchman's Bay West (Rotary Frenchman's Bay West Park at the foot of Westshore Boulevard)	Frenchman's Bay East (Beachfront Park at foot of Liverpool Road)
Five-year average, 2005–2009 (Baseline)	13%	13%
Five-year average, 2012–2016	21%	11%

Source: Durham Region Health Department (2016). Weekly Beach Closure Archive.

What are the City and others doing to improve water quality in Pickering?

Improving Duffins Creek water quality: In 2003, the Toronto and Region Conservation Authority (TRCA) prepared a [Watershed Plan for Duffins Creek and Carruthers Creek](#) in consultation with government, non-government, and community stakeholders. The plan identified 10 key management actions. Progress has been made on a few actions, such as the removal of some fish barriers and the elimination of pollution from an old water pollution control plant. Other actions still require attention, such as providing stormwater quantity and quality controls and managing pollution from urban land uses.

Improving Frenchman's Bay water quality: In 2010, City Council endorsed a [Frenchman's Bay Stormwater Management Master Plan](#) containing projects, programs, and policies to restore and enhance the ecological health of Frenchman's Bay. Implementation projects include a new stormwater management pond in the Krosno Creek watershed; erosion control measures along Amberlea Creek, Pine Creek, and Krosno Creek; and the installation of oil and grit separators to the stormwater system south of Kingston Road. In particular, restoration of the eroded valley wall along Amberlea Creek, recommended as a high-priority erosion control project in the Master Plan, will provide long-term protection against slope instability and channel erosion and reduce sediment levels in Frenchman's Bay.

Healthy Environment

Monitoring water health: The City reviews Source Water Protection Area Assessment Reports and Protection Plans prepared under the [Ontario Clean Water Act](#). These reports and plans assess the risks and specify how to protect the quality of sources of municipal drinking water.

Identifying potential pollutants: The City, in association with the Province, the Region of Durham, and TRCA, participate in a [Regional Watershed Monitoring Program](#). Since 2002, TRCA has partnered with the Ontario Ministry of the Environment and Climate Change to [monitor surface water quality](#) across the region's watersheds. Water quality samples are collected monthly at TRCA properties as well as sites that are part of Ontario's Provincial Water Quality Monitoring Network. The water quality samples are analyzed for standard water quality indicators, including heavy metals, nutrients, and bacteria. TRCA monitors Lake Ontario water quality near the intake for Durham Region's Ajax Water Supply Plant and the outfall pipe for the Duffin Creek Water Pollution Control Plant.

Raising public awareness: The City partners with TRCA to deliver the [Yellow Fish Road program](#), which educates the public and school children about the impact of pollution entering storm drains and how storm water pollution can harm fish and wildlife and reduce the quality of water intended for human use.

Managing road salt: Pickering's Salt Management program ensures the efficient use and storage of road salt to minimize the amount of road salt entering the groundwater system. All City salt trucks are equipped with a salt controller with settings that allow the salt to be applied at one of ten different rates. The pre-determined rate is decided based on the severity of the snowfall. All salt trucks have GPS units that record the amount and location of salt application, allowing the City to track a total for each snowfall and for the season as a whole.



Yellow Fish Road program

Did you know?

Developers applying to build in the City must submit certain reports as a condition of approval, including a Functional Servicing and Stormwater Report, an Environmental Monitoring Report, and a Natural Heritage Compensation Report. In some cases, developers are required to contribute to a Fish Habitat Restoration Fund, a Watershed System Monitoring and Management Fund, and an Adaptive Management Fund. The City of Pickering also administers a Fill and Topsoil Disturbance By-law to prevent sediment from entering the City's watercourses.

Healthy Environment

Urban Forest

The urban forest includes all trees, shrubs, and understory plants that grow on public and private property in Pickering, as well as the soils that sustain them. A healthy and resilient urban forest benefits the community, as trees absorb carbon dioxide, improve air quality, moderate climate, help control erosion, and provide recreational, health, and social benefits. These benefits increase as trees grow larger. Over the past five years, invasive insect pests (including the Emerald Ash Borer) and extreme weather (including the 2013 ice storm) have depleted Pickering's urban forest.

Indicator

Number of trees planted during a particular year by the City of Pickering and partners (including TRCA, OPG, and TD Tree Days)

	Trees planted
2010 (Baseline)	6,180
2015	5,354
2017	16,243

Source: City of Pickering (2017)



Bicentennial Arboretum

What are the City and others doing to promote tree cover?

Planting new trees: The City's spring and fall tree planting programs are offered in partnership with local businesses such as the TD Tree Day program, and with schools, community groups, and the Toronto Region Conservation Authority (TRCA). "Take Pride in Pickering" is a joint venture of the City of Pickering, Ontario Power Generation (OPG), TRCA, and other partners. At these events, community members help plant trees, shrubs and other plants, clean up litter, and maintain existing plantings or planting areas. Since 2000, under the "Take Pride in Pickering" initiative, OPG has planted more than 12,000 trees and shrubs and 2,000 native wildflower plants in Alex Robertson Park as part of a biodiversity program. New sites are also enhanced; in 2017, 6,235 trees were planted in the Duffin Heights area north of Concession 3.

Preventing the loss of trees: The City administers Tree Protection By-law 6108/03. In addition, as a condition of draft plan, re-zoning, land division, and/or site plan approval, developers are required to prepare a tree inventory and protection plan. Where tree cover is removed, the developer must provide compensation in the form of replanting or a cash-in-lieu payment applied to replacement plantings elsewhere in the neighbourhood.

Healthy Environment

Protecting trees at risk: The City is working with TRCA and other partners to create a more diverse urban forest that will be resilient to stresses such as pests, disease, and climate change. Because of the Emerald Ash Borer infestation, approximately 3,500 boulevard trees have been removed and replaced. In an effort to retain some ash trees in the City, hundreds of trees were originally treated with TreeAzin, a naturally occurring bioinsecticide, to help these trees survive; long-term survival of the ash trees, however, was very limited.

Educating the public: The City has been working with its community partners to educate the public about trees at Bicentennial Arboretum, Amberlea Park, and Maple Ridge Park. Many different species of native deciduous and coniferous trees and shrubs have been planted in these locations with the help of schoolchildren. Interpretive signs that identify trees species and explain the importance of biodiversity have been installed as part of these projects.

A digital interactive park map has also been developed that identifies all the trees in Amberlea Park and provides information on each species. Visit pickering.ca/trees.

Educational 'Tree Trail' in Amberlea Park



Bench hand-carved by City staff from a 92-year-old tree felled by the Emerald Ash Borer



Local high school students helping at one of the many tree planting events

Healthy Environment

Watershed Biodiversity

Biodiversity is a measure of the number and variety of species living in a particular environment. Biodiversity improves ecosystem productivity and supports healthy ecosystems that are more resilient and adaptable to change. Biodiversity can be reduced by climate change, invasive species, pollution, and habitat loss.

The information in this section was extracted from the Toronto and Region Conservation Authority (TRCA) [2016 Living City Report Card](#). Species richness and function information was gathered for three areas:

- fish
- terrestrial plants and animals
- natural cover

Indicator

Percentage of expected native fish species in four of Pickering's waterways

Changes in fish biodiversity reflect changes in the function and health of aquatic and terrestrial ecosystems. In most cases, these changes are directly linked to urban conditions.

The number of native fish species collected at each monitoring station was compared to the number of native species we would expect to find in a healthy river or stream and the results expressed as a percentage. A wider range of native fish species generally indicates a higher quality aquatic habitat. A high percentage of expected species in the nearshore environment generally indicates a healthy aquatic system. Greater species diversity ensures natural sustainability for all life forms, including humans. A score of 50% implies that this particular river contains only half of those fish species as compared to healthy rivers and streams across southern Ontario.

	Percentage of expected native fish species in four of Pickering's waterways			
	Duffins Creek	Rouge River	Carruthers Creek	Petticoat Creek
2001–2009 (Baseline)	68%	80%	53%	60%
2007–2012	73%	90%	71%	63%

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

Source: Toronto and Region Conservation Authority (TRCA). 2011. RWMP Fish Community Summary 2001-2009.

Healthy Environment

While the scores increased for each watershed, improvements in fish community are not as dramatic as they appear. Fish communities are influenced by weather (hot, dry, wet, cold) and the results do not take into account fish “sensitivity.” For example, if one sensitive fish species was displaced by two species that are more tolerant of degraded conditions in a stream, the number would increase, but the water quality might be poorer.

Redside Dace (an endangered minnow) and Brook Trout (a native cold water fish) have been consistently found in Pickering. Atlantic Salmon (considered extinct in Lake Ontario) is being re-introduced and the stocked fish are consistently found within the municipal boundaries of Pickering. Round Goby (an invasive species) has been found near the mouths of Carruthers Creek and Duffins Creek, but not within the municipal boundaries of Pickering.

What are the City and others doing to increase the number of native fish species?

Protecting endangered species and their habitat: Toronto and Region Conservation Authority (TRCA) is working with the Ontario Ministry of Natural Resources (MNR) and Fisheries and Oceans Canada to protect two endangered fish species (Redside Dace and Atlantic Salmon).

Increasing the number of salmon in waterways: Duffins Creek is one of three creeks in Ontario selected for the release of salmon as part of the Lake Ontario Atlantic Salmon Restoration Program. In an annual project called “Bring Back the Salmon,” the City, in partnership with the Ontario Federation of Anglers and Hunters (OFAH), Pickering Central Library, and Ontario Power Generation (OPG), sets up a salmon hatchery in the library stocked with 100 Atlantic Salmon eggs. A school group is invited to an educational workshop at the end of which they put the salmon eggs into the hatchery. The same students participate in a salmon release in the spring. OPG also annually sponsors a hatchery to be placed in one school. During the “Salmon Festival,” families participate in guided hikes by TRCA and OFAH staff to learn about salmon migration and conservation efforts.

Salmon fry



Bring Back the Salmon program

Healthy Environment

Collaborating on wetland and waterfront improvements: Over the last five years, municipalities, the Province of Ontario, and federal partners have invested approximately \$20 million in coastal wetland and estuary improvements, and in waterfront fisheries habitat associated with waterfront park development. TRCA is also working on the Toronto and Region Remedial Action Plan to eliminate environmental impairments and reverse the loss of fish and wildlife habitat.



Annual Tackle Share event

Encouraging community involvement: Community groups, such as the OFAH, Trout Unlimited, and Ontario Streams, invest money and thousands of volunteer hours every year to protect and restore habitats. In partnership with OFAH, the City supports “Tackle Share,” where families learn about native and invasive fish species in Lake Ontario and how they can contribute to lake health; families can then fish for a day using rods, reels, and bait provided by the partners.

Planning for recreational fishing: The Lake Ontario North Shore Urban Recreational Fisheries Management Plan, developed with federal and provincial partners and conservation authorities, incorporates planning tools to improve the access to the recreational fishery.

Rehabilitating degraded streams: Over the last five years, municipalities and TRCA have invested up to \$5 million to implement natural channel design concepts and restore highly degraded or altered streams at more than 30 project sites. Specifically, 13 of these projects were in Pickering, at varying scales, totalling almost 1 kilometre in length. TRCA is also developing a guidance document for designing valley and stream crossing structures that maintain habitat connectivity for fish and wildlife populations throughout our watersheds.

Healthy Environment

Indicator

Species richness and sensitivity of plants, birds, and frogs

Toronto and Region Conservation Authority (TRCA) inventories are completed in different areas every year, therefore it is difficult to draw direct comparisons between different years.

Plant species, Pickering			
	Total number of species	Number of native plant species	Number (percentage) of Species of Regional Conservation Concern*
2001–2015	1,047	641	295 (28%)

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

Bird, reptile, and amphibian species, Pickering			
	Total number of species	Number of native plant species	Number (percentage) of Species of Regional Conservation Concern*
2006–2015	164	157	76 (46%)

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).



Blackburnian Warbler (photo credit: Alexis Hayes)



Green Frog (photo credit: Mikal Lawton)

***Species of Regional Conservation Concern (SRCC)** are plant and animal species that are disappearing from the regional landscape, primarily because of habitat loss caused by changes in land use, draining of wetland areas, or the destruction of forests. Invasive non-native species have also displaced native species over the past century.

Healthy Environment

While the decline in plant biodiversity is not as severe as the decline among bird and frog species, plant biodiversity is still a concern. When conditions become unfavourable, animals can leave to search out more appropriate habitat. Plants are not mobile, and while some may persist for a time, they will eventually disappear.

Did you know?

Introduced non-native plants make up 39% of all the plant species found in Pickering today. Invasive plants and animals can displace many native species and transform large areas into unhealthy monocultures (areas in which a small number of species dominates the vegetation).

What are the City and others doing to promote the health and diversity of terrestrial plants and animals?

Helping support pollinators: Pollinators such as butterflies, birds, bats, and bees play a vital role in maintaining a healthy environment and a sustainable food system. Unfortunately, many of these species are under threat. Over the past several years, the City has partnered with the Pickering Rotary Club, Toronto and Region Conservation Authority (TRCA), and SoRo Good Neighbours to install five pollinator units to support bee habitat at Rotary Frenchman's Bay West Park. The City has also installed nine pollinator-supportive gardens, most with the official Monarch Watch designation; these are maintained by dedicated community groups and schools. Each spring the City hosts educational workshops to educate the public about protecting pollinators and distributes packages of common milkweed seeds (milkweed is essential to monarch butterfly survival). Previously mowed greenspace throughout the City has been naturalized to encourage pollinators.

Taking the Monarch Pledge: In the last 20 years, the monarch butterfly species has declined by 90%. In 2016, Pickering joined the National Wildlife Federation's Mayors' Monarch Pledge. This program encourages cities in Northern America to take at least three actions in one year to address issues that contribute to the loss of this



Solitary bee habitat in Rotary Frenchman's Bay West Park



Pollinator-friendly garden with Monarch Watch designation

Healthy Environment

species. Municipalities that pledge to complete eight or more actions are recognized as part of the Mayors' Monarch Leadership Circle. Pickering's goal of completing nine made it one of the first Canadian Cities to earn this distinction.

Developing habitat protection plans: Pickering is using TRCA's Terrestrial Natural Heritage Systems Strategy to update its natural heritage designations and policies to better protect habitat for plants and animals from the impacts of urban development and agriculture. TRCA is also undertaking Integrated Restoration Planning (IRP) and preparing Restoration Opportunity Plans, and prioritizing locations where transportation planning can maintain and even enhance habitat and wildlife connectivity.

Monitoring climate change and invasive species: TRCA is developing an assessment framework to identify, monitor, and manage risks associated with climate change. TRCA is also working with the Ontario Invasive Plant Council and other conservation authorities on invasive plant management plans. The City and its community partners are replacing invasive non-native plants with native plants in Altona Forest and Alex Robertson Park.

Protecting endangered wildlife: The Ontario Ministry of Natural Resources and Forestry (MNRF) is working on recovery planning for species at risk in the province. Through the City's review of development proposals, the City implements the requirements of the provincial *Endangered Species Act*.

Reducing wildlife deaths: Roads act as barriers between habitats, and animals may be killed trying to cross a road. Local and regional governments are working with TRCA on habitat and wildlife connectivity through the Road Ecology Project. The Valley and Stream Corridor Crossings Guidelines, developed in partnership with the University of Toronto and the Canadian Water Network, help create safe passageways for terrestrial and aquatic species throughout the jurisdiction. The Ontario MNRF is mapping landscape connectivity across southern Ontario. The Ministry of Transportation also has a wildlife mitigation strategy to meet the requirements of the *Endangered Species Act, 2007*, by protecting at-risk amphibians and reptiles using fencing, crossing structures, or other mitigation measures.

Contributing to public education programs: The City and many community groups such as the Pickering Naturalists, Altona Forest Stewardship Committee, Ontario Power Generation, Environmental Stewardship Pickering, and TRCA provide relevant education programming to students and residents.

Source: Ministry of Transportation. 2015. [Environmental Guide for Wildlife Mitigation](#). Final report by Eco-Kare International to the Ministry of Transportation.

Healthy Environment

Indicator

Percentage of natural cover along four of Pickering's waterways

Natural cover is the percentage of land with forest, meadow, wetland, or beach bluff habitat. The quality, quantity, and distribution of natural cover are linked to water and air quality, climate change, and levels of biodiversity.

Currently the City of Pickering has 8,792.7 hectares of natural cover. This indicator identifies the percentage of natural cover in the creek and river valleys that traverse the City.

Percentage of natural cover along four of Pickering's waterways				
	Duffins Creek	Rouge River	Carruthers Creek	Petticoat Creek
2007–2008 (Baseline)	41%	23%	25%	28%
2013	43%	24%	26%	30%
Rating SRCC*	Good to excellent – supports communities and SRCC*	Fair – supports communities and SRCC*	Fair – supports communities and SRCC*	Good to excellent – supports communities and SRCC*

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

*SRCC - Species of Regional Conservation Concern

What are the City and others doing to increase the percentage of natural cover?

Replacing trees lost to development: When development intrudes into treed areas, the City requires developers to provide funds to reforest an area of land equivalent to the treed area that is lost.

Working with the Province and the Toronto and Region Conservation Authority (TRCA) to protect natural cover: The Government of Ontario protects natural cover through the Provincial Policy Statement, the Oak Ridges Moraine Conservation Plan, and the Greenbelt Plan. TRCA's Terrestrial Natural Heritage Systems Strategy provides the data, scientific models, mapping, and guidance to help achieve natural heritage protection objectives. TRCA developed the Integrated Restoration Prioritization (IRP) process and mapping



Healthy Environment

tool that analyzes environmental data to guide ecological restoration. IRP is a consistent and repeatable process that identifies restoration opportunities at the catchment level based on multiple objectives and benefits. The process helps guide restoration planning and resource investment to provide healthier functioning ecosystems throughout the Greater Toronto Area.

Promoting stewardship of land: TRCA is implementing its Terrestrial Natural Heritage Systems Strategy through land acquisition and stewardship. The strategy recommends restoration activities to improve the size, shape, and function of natural cover throughout the region, including Pickering. TRCA is also continuing to monitor the quantity and quality of natural cover to track changes over time.

Health of Frenchman’s Bay

Frenchman’s Bay is a shallow, provincially significant coastal lagoon on the Lake Ontario shoreline. It is protected by a natural sand and gravel barrier beach, with a maintained navigational channel connecting it to Lake Ontario. Four main tributaries (Amberlea, Dunbarton, Pine, and Krosno creeks) feed the Bay. Just east of Frenchman’s Bay is the provincially significant Hydro Marsh.

Frenchman’s Bay is a popular multi-use area of parks, beach areas, playgrounds, marinas, restaurants, and the Waterfront Trail.

Indicator	
Number of fish species in Frenchman’s Bay	
	Number of fish species
2008 (Baseline)	31 (26 native; 5 non-native)
2008–2015	31 (26 native; 5 non-native)

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

Source: Toronto and Region Conservation Authority (TRCA). 2011. RWMP Fish Community Summary 2001-2009.

This figure has been consistent since 1991. Annual species richness varied across all habitat sites studied, but in general, species richness increased over time with a peak observed between 2013 and 2015.



Invasive Round Goby

Healthy Environment

Indicator

Presence of wild celery plants on the shoreline of Frenchman's Bay

The health of a wetland is also measured by the type of plants that survive in it. Wild celery (*Vallisneria americana*) is an aquatic plant species that is sensitive to muddy or clouded water. Its presence indicates that portions of the Bay are generally clear.

2008 (Baseline)	4 of 5 locations studied had more than 100 wild celery plants
2012	4 of 7 locations studied had more than 1% wild celery cover
2013	2 of 7 locations studied had more than 1% wild celery cover
2014	4 of 7 locations studied had more than 1% wild celery cover
2015	2 of 10 locations studied had more than 1% wild celery cover

Source: Toronto and Region Conservation Authority. [Living City Report Card 2016](#).

Although water celery was observed in each survey year, quantities varied considerably. A significant decline in species richness and density was recorded in 2015, possibly due to the harsh conditions of the previous winter in combination with higher water levels in the Bay in 2015. However, these changes may also be a result of the new sampling procedure. Sampling was originally conducted at strategically placed survey stations where dense pockets of vegetation were known to exist. In 2015, the Toronto and Region Conservation Authority moved to a strategy of sampling randomized sites that were often sparsely populated.

What are the City and others doing to promote the health of Frenchman's Bay?

Supporting Environmental Stewardship Pickering (ESP): ESP is an outreach and educational resource for all residents of Pickering. Between 2013 and 2017, ESP held more than 130 events in the Pickering area, engaging more than 6,600 residents in hands-on environmental initiatives.

Controlling stormwater run-off into the Bay: In 2010, City Council endorsed a [Frenchman's Bay Stormwater Management Master Plan](#) containing projects, programs, and policies to restore and enhance the ecological health of Frenchman's Bay. Implementation projects include a new stormwater management pond in the Krosno Creek watershed; erosion control measures along Amberlea Creek, Pine Creek, and Krosno Creek; and the installation of oil and grit separators to the stormwater system south of Kingston Road. In particular, restoration of the eroded valley wall along Amberlea Creek, recommended as a high-priority erosion control project in the Master Plan, will provide long-term protection against slope instability and channel erosion and reduce sediment levels in Frenchman's Bay. The City also works in

Healthy Environment

partnership with other groups to naturalize the Lake Ontario shoreline, which has resulted in the planting of thousands of native plants near Frenchman's Bay.

Managing the Canada goose population: A single Canada goose can eat up to 1.4 kg of vegetation and produce more than 0.5 kg of feces every day. The City funds a Goose Control Program that includes egg oiling (to prevent eggs from hatching) and goose round-ups to reduce shoreline contamination problems caused by Canada geese droppings.

Health of Altona Forest

Altona Forest is bordered by Altona Road to the west, Rosebank Road to the east, Finch Avenue to the north, and Sheppard Avenue to the south. It is situated within the Petticoat Creek watershed and covers about 53 hectares (102 acres). In 1982, the forest was designated an environmentally significant area because of its ecological and historic importance. The forest is owned by the Toronto and Region Conservation Authority (TRCA); maintenance and monitoring are carried out in partnership with the volunteer Altona Forest Stewardship Committee and local schools.



Setting up a monitoring station

Monitoring is limited within Altona Forest at this time, therefore, no indicator specific information can be provided. However, work is being done to improve the health of Altona Forest.

What are the City and others doing to promote the health of Altona Forest?

Improving the Altona Forest trailhead: Through the City's Celebrating Sustainable Neighbourhoods program, the Altona Forest trailhead was enhanced in 2017. The Altona Forest Stewardship Committee worked with the City on \$10,000.00 worth of enhancements to raise the profile of the neighbourhood entrance, located off Autumn Crescent. This included the installation of an accessible pathway from the sidewalk to the Altona Forest entrance; the planting of seven native trees with species identification signs along the pathway; the addition of a bench made of recycled plastic, waste receptacle, trailhead sign, and an educational sign with photos of wildlife within the forest; and the creation of a pollinator-friendly garden, planted by students, with species identification markers, and edged with armour stone.



Interpretive hike in Altona Forest

Healthy Environment

Protecting wildlife habitat in the forest: In 2017, with a grant from the Province of Ontario through its Great Lakes Guardian Community Fund, students planted 150 trees in recognition of Ontario and Canada's 150th anniversary. Fourteen habitat boxes for a variety of song birds, bats, and owls, as well as an educational interpretive sign, were installed.



Gold Finch (photo credit: Larry Noonan)

Studying wetlands for potential improvements: The Amphibian Pond, which was built with support from the Toronto and Region Conservation Authority (TRCA), Ontario Power Generation, the Toronto Zoo, TD Friends of the Environment, and the Altona Forest Stewardship Committee, for many years supported wood frogs, green frogs, spring peepers, American toads, and gray tree frogs. Unfortunately, over the last two years this pond has become grown over with cattails and another unidentified plant; the surface area is much smaller, reducing both the number of frogs and number of species of frogs. In 2016, no spring peepers were heard at the Amphibian Pond. TRCA will examine this pond to determine the best course of action. Lacey's Pond, which is also suffering from cattail encroachment, is a source of concern and its depth may need to be increased.

Planting trees: In 2016, TRCA supplied volunteers with dozens of trees to plant in Altona Forest to replace ash trees destroyed by the Emerald Ash Borer.

Coordinating environmental stewardship programs: Members of the Altona Forest Stewardship Committee have developed information and educational guides available on the website altonaforest.org. More information and photos of Altona Forest can be found on the "My Altona Forest" Facebook page. Cleanups and rehabilitation projects are regularly carried out with the participation of members of the public.

Supporting community engagement: TRCA supports the Altona Forest Stewardship Committee in the planning and delivery of free community stewardship events in Altona Forest. Stewardship activities include interpretive hikes, tree and shrub plantings, invasive species pulls, trail maintenance, and litter cleanups. These events engage residents of all ages in the protection and restoration of Altona Forest.

Did you know?

Since Altona Forest was acquired by TRCA, nearly 5 km of trails have been installed, along with interpretive signs. The trails help people enjoy the forest, which builds awareness and fosters appreciation.

Healthy Environment

What can you do to promote a Healthy Environment in Pickering?

- join Pickering's Celebrating Sustainable Neighbourhoods program
- help clean up litter and garbage by participating in the 20-Minute Makeover, the Great Canadian Shoreline Cleanup or by hosting a Pitch-in Party
- adopt a park
- report illegal dumping, litter, or graffiti to Customer Care by phone, email, or using the PingStreet app, available for free downloading
- participate in the City's Tree Dedication program
- think about how you can integrate sustainability into your day-to-day actions, choices, and purchases; many small actions add up to big changes
- get involved in tree plantings, educational workshops, film screenings, interpretive hikes, and stewardship programs
- visit the [Take Action](https://pickering.ca/sustainable) section at pickering.ca/sustainable for ideas and program information on air quality, energy, food, lawn and garden care, natural environment, pollinators, waste, and water quality; there is also a section with "Ideas for Teachers"

Educational workshops for Pickering's Earth Month program



Shoreline litter cleanup by a local parish



Local elementary students planting a butterfly garden

Healthy Economy



Vibrant economies support a mix of economic activities and help residents enjoy a high quality of life. By creating economic security and financial stability, local governments can contribute to positive social outcomes, improve access to basic needs, enhance meaningful employment, and support local job markets.

Therefore, we reported on:

- Labour Force Participation 26
- Family Income..... 30



How can you support
a Healthy Economy in Pickering?
Go to page 32 for a range of suggestions.

Healthy Economy



Did you know?

The City of Pickering has been recognized as one of the 2017/2018 American Cities of the Future by *fDi magazine*. Pickering was ranked in the top 10 among micro cities – placing fourth for connectivity and sixth for business friendliness.

fDi magazine is published bi-monthly by the Financial Times Ltd. and is the world's premier publication for globalization. *fDi* shortlisted more than 421 locations across North and South America in five categories: economic potential, business friendliness, human capital and lifestyle, cost-effectiveness, and connectivity.

Labour Force Participation

Indicator

Employment rate

The employment rate is the total number of residents working full-time or part-time for pay, expressed as a percentage of the total population 15 years of age and over. This indicator provides a measure of the size of the City's employed labour force relative to all residents (except children). It helps determine the proportion of people who have an increased ability to improve their living standards and meet their needs.

The following table compares Pickering's 2011 and 2015 employment rate with that of Durham Region as a whole.

	Employment rate, Pickering	Employment rate, Region of Durham
2011 (Baseline)	66.3%	65.4%
2015	70.0%	66.6%

Source: Manifold Data Mining Inc (2016). City of Pickering Data Set.

Healthy Economy

Indicator

Unemployment rate

The unemployment rate represents the percentage of people in the labour force who are not working for pay. It helps determine whether the economy is resilient to changes in some or all sectors and reflects the ability of an economy to create employment.

	Unemployment rate, Pickering	Unemployment rate, Region of Durham
2011 (Baseline)	8.64%	9.10%
2015	6.61%	7.05%

Source: Manifold Data Mining Inc (2016). City of Pickering Data Set.

What can the City do to address employment rates?

Reducing red tape: The City has reviewed the proposed intensification of the City Centre and has nearly completed a consolidated zoning by-law that will simplify approval processes for development in the City Centre.

Supporting a farmers' market: In 2016, the City took over the operation of the City Centre Farmers' Market to enhance the City Centre as a place to live, work, gather, and inspire. The market encourages residents to shop local and provides local farmers, artisans, and food vendors a place to sell their goods.

Improving Internet access: To keep pace with technology infrastructure, 35 Wi-Fi hotspots have been installed, increasing the equity of access to the Internet for all residents and businesses. This action contributed to the City's designation as a [SMART21 Community](#) for 2017 and 2018 by The Intelligent Community Forum.

Zoning land for employment: The City Centre and Seaton employment lands are targeted for substantial growth and job creation. The City Centre is planned to achieve the highest intensity of residential and commercial growth in Pickering. The City Centre is to be redeveloped and intensified at a density of 200 residents and jobs combined per hectare, and at a resident-to-job ratio of 1:1. In Central Pickering, nearly 800 acres of greenfield employment land is soon to come on stream for prestige industrial and office development. Dubbed the Pickering Innovation Corridor, zoning is in place to support construction of new businesses that will employ highly skilled labour force, with the intent that the ratio of jobs per hectare will meet the significant employment targets set out in the Central Pickering Development Plan.

Healthy Economy

Conducting business analysis: In 2016, Pickering completed a Sector Analysis study to determine which sectors are best suited for investment in the Pickering Innovation Corridor. As a result, investment attraction efforts in the Pickering Innovation Corridor are concentrated in the sectors of Industrial Integrated Technology, and Information and Communication Technology. Investment by businesses in these sectors will ensure an intensive level of development in the Innovation Corridor, resulting in the creation of a concentration of well-paid jobs potentially available to Pickering residents.

Planning for an entertainment district: The City was successful in approving the zoning for over 100 acres of land for a regional entertainment district. With over 25 permitted uses, the Durham Live development has the potential of creating nearly 10,000 new jobs for our community. The entertainment district is expected to attract thousands of visitors annually, providing a significant opportunity for local business growth.

Protecting employment lands: The City is working to maintain uses in lands designated as “employment lands” to protect local jobs and spur growth.

Promoting partnerships: The City works with partners such as the [Ajax Pickering Board of Trade](#), and the Durham Economic Development Partnership to promote business and create opportunities for economic development.

Offering incentives for investment attraction: While the *Ontario Municipal Act* constrains the ability of a municipality to offer financial incentives to new business, in the fall of 2017, the City responded to a Request for Proposal released by Amazon to build a second headquarter office. On October 10, 2017, City of Pickering Council endorsed staff report CAO 01-17 which detailed the City’s interest in submitting land located within the Pickering Innovation Corridor as a candidate for Amazon’s second North-American Headquarters. They further requested that the Federal and Provincial Governments provide financial incentives including land, corporate tax exemptions, education property tax exemption to attract multinational prospects like Amazon, and to compete with other Canadian and American senior level government economic incentives.

Building infrastructure to attract new business: The ease and affordability to move people and goods is critical to support a growing economy that creates jobs. In October of 2017, Council endorsed a motion to request that VIA Rail Canada and Metrolinx move forward with identifying, planning and implementing high frequency rail service on the CP Havelock rail corridor, which in turn will help attract key investment to the Pickering Innovation Corridor and the Federal Pickering Lands site; and that the appropriate Environmental Assessment (EA) process for high-frequency rail service on the CP Havelock rail corridor commence no later than September 30, 2018. Council further endorsed that the Federal Government be advised

Healthy Economy

that the City of Pickering supports the development of an airport in Pickering, subject to the results identified in the Aviation Sector Analysis — Pickering Airport Study and the appropriate Environmental Assessments.

Did you know?

While Ontario Power Generation is still the largest employer in Pickering's energy sector, employment numbers have dropped due to the impending closure of the Pickering Nuclear Generating Plant, forecast for 2024. Many of these jobs will be eliminated through attrition (as employees retire) and some workers will be transferred to the Darlington Nuclear Plant in Clarington, retaining these jobs within Durham Region. Approximately 1,500 jobs will be retained to conduct the decommissioning work.

Some of the job losses have been offset by two new businesses in Pickering: RCM Technologies and Trench Canada. RCM Technologies employs approximately 250 highly skilled administrators, salespeople, and engineers. Their work in the nuclear industry includes support to the Pickering station and includes the Darlington facility and the Bruce Nuclear station. Trench Canada is a division of Siemens that in 2015 took occupancy of a new, 190,000-square-foot, purpose-built plant that now houses approximately 325 employees. Trench Canada carries out on-site research and development, testing, manufacturing and assembly of large-capacity transformers.



Healthy Economy

Family Income

Indicator

Average family income of economic families

This indicator measures how well families in Pickering are doing financially and how secure they are in providing a family's basic needs. The total income of economic families is the sum total income of all members of that family. From 2010 to 2015, average family income has increased, indicating improving economic growth and financial security in Pickering households.

	Average family income of economic families, Pickering	Average family income of economic families, Region of Durham
2010 (Baseline)	\$122,218	\$114,665
2015	\$132,860	\$121,085

Source: Manifold Data Mining Inc (2016). City of Pickering Data Set.

The City of Pickering remains well above the 2014 Canadian family income average. According to Statistics Canada's Canadian Income Survey, among economic families, the median market income (that is, employment income, plus private pensions, plus income from investments and other sources) was \$52,100.00 in 2014. The rate of inflation (1.62%) over the course of five years accounts for only a percentage of this increase. The median after-tax income of economic families of two or more people across Canada rose 2.4% from 2013 to 2014.

Indicator

Prevalence of low income households

	Prevalence of low income, Pickering households	Prevalence of low income, Region of Durham households
2005 (Baseline)	7.2%	6.9%
2015	8.9%	11.19%

Source: Manifold Data Mining Inc (2016). City of Pickering Data Set.

Healthy Economy

The incidence of low income, or the after-tax low income measure (LIM-AT), is an internationally used measure of low income. Statistics Canada assumes that any household whose after-tax income is below the median after-tax income is considered low income.

What are the City of Pickering and others doing to increase average family income?

Education and training: The Pickering Library offers a wide range of free training in software, social media, and career management skills, as well as a forum for skills sharing. It also provides access to online tools and directories of business support networks. The City of Pickering is also a member of the Centennial College Program Advisory Committee (PAC), giving input to the development of courses and training needed to build skills and expertise through their Pickering Learning Site campus.



Centennial College and Durham Collage joint Pickering Learning Site

Healthy Economy

What can you do to support a Healthy Economy in Pickering?

- look for and support employment within the area where you live, or create your own business in Pickering
- purchase local products and services to enhance local business prosperity
- promote the benefits of locating a business in Pickering to your contacts; visit pickering.ca/business to check out Advantage Pickering to see the [Top 10 Reasons to Invest in Pickering](#)
- participate in activities sponsored by the Ajax-Pickering Board of Trade
- pursue postsecondary education programs to boost your job and promotion prospects



Shop locally



Pickering Town Centre expansion



Did you know?

The City of Pickering is considered a “film-friendly” community. It lies within the GTA catchment area that provides tax rebates and incentives to the film industry. This, together with our attractive countryside and welcoming neighbourhoods, makes Pickering a location of choice for many high-profile films, TV series, and commercials. Residents and businesses profit directly from the locations and services required by the film industry. Popular productions that have filmed scenes in Pickering include: Suits, Hannibal, Reign, Schitt’s Creek, The Strain, Heroes Reborn, Saving Hope, Taken and most recently, the latest series of Anne (of Green Gables). Next time you watch one of these programs, try to spot the Pickering location!

Healthy Society



A healthy society refers to the physical health and well-being of residents, the ways in which members of the community relate to one another, the viability of the local economy, and the safety and well-being of the people living in the community. A healthy society offers recreational and educational opportunities for residents, as well as access to arts and culture.

Therefore, we reported on:

- Housing Affordability 34
- Occurrence of Crime and Perceptions of Crime and Safety..... 35
- Community Participation 37
- Community Perception of Sustainability..... 43
- Neighbourhood Satisfaction..... 44
- Physical and Mental Health..... 45
- Walking, Cycling Paths, Bikeways 49
- Education and Libraries..... 52
- Community Perception of Climate Change 56



How can you support a Healthy Society in Pickering?
Go to page 58 for a range of suggestions.

Healthy Society



Did you know?

Pickering ranked 35th of 219 Canadian municipalities in *MoneySense* Magazine's annual ranking of best places to live in Canada. Pickering is in the top seven Greater Toronto Area municipalities, and the highest ranked of any Durham municipality.

Housing Affordability

Indicator

Percentage of households that live in affordable housing

Housing is considered affordable if a household spends less than 30% of its gross household income on monthly rent or monthly ownership expenses (mortgage principal, mortgage interest, and property tax).

Percentage of households living in affordable housing, Pickering

2005 (Baseline)	73.8%
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2015	76.4%
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Source: Manifold Data Mining Inc (2017). City of Pickering Data Set.

The following table shows the percentage of households in Pickering that are above and below the 30% affordability threshold.

	Total no. of households	Spending less than 30% of income on housing (housing is affordable)	Spending more than 30% of income on housing (having affordability or severe affordability problems)
2005	28,165	73.8%	26.2%
2015	30,957	76.4%	23.6%

Source: Manifold Data Mining Inc (2017). City of Pickering Data Set.

Healthy Society

What is the City doing to promote affordable housing?

Working with developers to provide a mix of housing types: Development applications across Pickering are reviewed for their mix of housing types, including affordable housing.

Occurrence of Crime and Perceptions of Crime and Safety

Indicator	
Number of crimes against persons and against property, and other Criminal Code violations	
Criminal Code violations (excluding traffic) at Division 19, Ajax-Pickering	
2008 (Baseline)	9,046
2010	6,976 (23% reduction compared to 2008)
2015	6,215 (11% reduction compared to 2010)

Source: Durham Regional Police, 2016. Leaders in Community Safety. Annual Report 2015.

According to the 2015 Annual Report of the Durham Regional Police Service, in Ajax-Pickering (West Division), between 2011 and 2015:

- the absolute number of crimes against persons decreased by 15%
- the absolute number of crimes against property decreased by 12%
- other criminal code violations decreased by 23%

In addition to crime statistics, people's perceptions of crime and safety represent a measure of social health and sense of community. The Sustainability Survey found that 97% of respondents felt "very safe" or "reasonably safe" alone in Pickering during the day (compared to 96% in 2011). However, only 59% of respondents felt safe alone in Pickering's public places after dark (up from 56% in 2011).



Healthy Society

Indicator

Percentage of survey respondents who feel safe being alone in Pickering public places after dark

	“I feel safe alone after dark in Pickering’s public places”	“I feel neutral (neither safe nor unsafe) alone after dark in Pickering’s public places”
2011 (Baseline)	56%	19%
2016	59%	14%

Source: City of Pickering 2016 Sustainability Survey

What are the City and others doing to make the City of Pickering safer?

Implementing crime prevention through design: The City of Pickering incorporates the principles of Crime Prevention through Environmental Design (CPTED) in the design of city parks and facilities and during the review of site plan submissions for private developments. Features such as natural surveillance, landscaping, lighting, access control, and circulation play an important role in creating a safe environment. Appropriate staff in City Development and Engineering Services departments have received CPTED training, giving them the knowledge and skills required to recognize areas of safety concern and provide solutions in site design.

Encouraging the public to report problems: The City of Pickering encourages residents, local business people, and City staff to report problems that affect the quality of life in Pickering, including graffiti, vandalism, and littering. The City provides many opportunities to make reporting easy, including submitting an online [Service Request](#) or contacting Customer Care. You can also report a problem with the City’s Pingstreet app, which allows you to upload a photo of the problem, and report it directly using your location coordinates. Download it from your app store today, or learn more at pickering.ca/pingstreet.



Did you know?

A group of residents in the South Rosebank area of Pickering created SoRo Good Neighbours, which is Durham Region’s largest Neighbourhood Watch group!

Community Participation

Indicator

Survey respondents who volunteer time for community activities within and outside Pickering

Volunteering is a good measure of community health, as it shows that residents want to give back to their communities.

Respondents who had volunteered in the last 12 months	
2011 (Baseline)	44%
2016	60%

Source: City of Pickering 2016 Sustainability Survey

The following table provides a breakdown of the sectors in which community members volunteered.

	Social services and healthcare	Environment	Culture	Sports and recreation	Education (within schools)	Other (business, civic affairs, etc.)
2011 (Baseline)	23%	27%	27%	7%	7%	9%
2016	14%	17%	12%	22%	17%	18%

Source: City of Pickering 2016 Sustainability Survey



Healthy Society

Indicator

Fundraising by survey respondents for Pickering-based organizations and organizations outside Pickering

The following table indicates the extent to which fundraising was directed towards local organizations.

Percentage of residents fundraising for organizations within and outside Pickering			
	Organizations located within Pickering and/or that help Pickering and others	Organizations located within Pickering and/or that help Pickering only	Organizations that help others only
2016 (Baseline)	11%	43%	46%

Source: City of Pickering 2016 Sustainability Survey

According to the survey, 81% of respondents contributed personal funds to community or charitable organizations over the last year.



Indicator

Survey respondents' attendance at facilities, events, and performances within Pickering

The following table indicates support for Pickering community events.

Survey respondents who attended Pickering community events	
2011 (Baseline)	65%
2016	77%

Source: City of Pickering 2016 Sustainability Survey



Healthy Society

The following table tracks attendance at specific events or performances in Pickering.

	Community events	Musical performance	Theatrical performance	Museum or historic site	Cultural or artistic festival	Art gallery or exhibit	Dance performance	Literary event or educational lecture
2011 (Baseline)	65%	57%	54%	38%	34%	27%	22%	14%
2016	83%	32%	12%	24%	32%	27%	10%	25%

Source: City of Pickering 2016 Sustainability Survey

Indicator

Voter turnout for municipal elections

Voter turnout is a measure of civic engagement and societal health. In Pickering, voter turnout in the 2014 municipal election was just over 34.4% of eligible voters. In comparison, average voter turnout for the 2014 Province of Ontario general election was 52.1%.

Percentage of eligible Pickering voters who turned out to vote in a municipal election	
2010 (Baseline)	32.2%
2014	34.4%

Source: City of Pickering City Clerk/Returning Officer (2016)

What is the City doing to encourage civic and community participation and volunteering in programs and organizations within Pickering?

Promoting community engagement: Community engagement has been identified as one of the City's five Corporate Priorities. Pickering's Community Engagement Strategy defines our vision for a more engaged community and identifies key organizational areas of focus to enhance engagement efforts. Since 2016 the City has offered an annual "Pickering 101" course. This popular, free, eight-session course helps participants understand how their local government works and how they can collaborate with City staff on future community engagement opportunities. The "Your City" event annually offers residents another opportunity to connect with members of Council and City staff, while visiting interactive displays such as Touch-a-Truck. An annual one-day community-wide "Your City" bus tour also helps residents better understand their local government and familiarizes them with key places of interest.

Healthy Society

Offering programs: The City offers hundreds of free or competitively priced programs in sports, fitness, recreation, leisure, arts, heritage, and culture. The programs, which are provided in community centres throughout the community, are described in three Leisure Guides produced every year and available online or within facilities.

Reaching out to youth: The City offers free youth programs for Pickering teens aged 13 to 19. More than 5,000 teens participate in these programs each year. In 2017, the City of Pickering achieved Platinum status in the Youth Friendly Community Recognition Program, presented by Play Works and Parks and Recreation Ontario, which celebrates communities in Ontario that actively support the growth and development of youth through play.



Interacting at the Pickering Museum Village

Did you know?

In 2017, Pickering hosted a Youth Forum that was a free, full-day multi-media event in celebration of Canada 150, National Youth Week and local youth. Approximately 1,000 youth attended this event throughout the entire day, actively and inclusively engaging in a variety of activities and presentations. This event celebrated Pickering's past and present and held discussions of Pickering's future from the perspective of local youth. This full day of activities included accessible sports, dance, motivational speakers, cultural food, a fashion show, and an art show.

Working with the school boards: The City of Pickering maintains a strong working relationship with both the Durham District School Board and the Durham Catholic District School Board. Youth staff from the City's "Free Teen Stuff" programs attend presentations and outreach sessions at local elementary and secondary schools. Staff perform break-dancing exhibitions to attract participants, as well as handing out promotional giveaways and program schedules to youth.

Providing training and networking opportunities: The City offers a Camp Councillor in Training Program for youth 13 to 14 years old. Participants learn about healthy play and childhood development and how to be active within their community. The program includes sessions on goal-setting, volunteer opportunities, networking, leadership, and conflict resolution.

Promoting events and programs: The City promotes events and programs to its residents and businesses through the City's website and Leisure Guides, local print and radio advertising,

Healthy Society

newsletters, banners, trade shows and on social media. Most of the City's events are free and open to the public.

Supporting living history at Pickering Museum Village: [Pickering Museum Village](#) (PMV) has placed a greater focus on community engagement over the past five years. Data are collected at the museum entry, which help staff create a profile of users. New programs are developed with clear target audiences and goals to measure success. PMV's recent five-year Exhibition Plan was developed in collaboration with the public, encouraging input through surveys, and public voting on the final theme selections. Its recently developed Social Media Plan was created with targeted audiences and goals to increase public reach and engagement, in line with the Museum's vision, mission, and goals. Public attendance and social media engagement and reach have steadily increased over the last five years. PMV currently has more than 250 active volunteers and eight special-focus volunteer clubs. In 2015, the total hours contributed by volunteers to PMV was valued at \$347,940.00.

Encouraging volunteerism: The City coordinates two volunteer programs; one for general volunteer opportunities (at City programs or events), and one for museum volunteerism (specifically at the PMV).

Promoting community beautification: The City sponsors community beautification initiatives for residents, schools, organizations, and businesses that are designed to help foster civic pride and provide volunteer opportunities. Through the Pickering Blooms program, residents can volunteer to refurbish and enhance their neighbourhoods with sustainable perennial plantings.

Challenging residents and City staff to get involved in sustainability initiatives: Sustainability is embedded in the City's Corporate Priorities. There are two interrelated components: Building a Sustainable City and Living and Working in a Sustainable City. The award-winning Sustainable Pickering program hosts free events and educational opportunities for the community. Details about the City's efforts can be found at pickering.ca/sustainable. Pickering staff are also encouraged to lead by example and look for opportunities to reflect sustainability in their day-to-day decision making. Staff are also given opportunities to volunteer for community initiatives such as the 20-Minute Pickering Makeover, contribute to Pay it Forward fundraisers for local charities, and participate in corporate events such as Smart Commute Week.

Challenging residents to create positive and meaningful change: The Celebrating Sustainable Neighbourhoods program challenges neighbourhood groups to complete activities that help make Pickering a better place environmentally, socially, and economically. Groups consist of immediate neighbours, schools, community groups, places of worship, and

Healthy Society

businesses. The program runs from March to November, and is followed by a Celebration Event to recognize neighbourhood group efforts and allow participants to share their successes. A peer vote by fellow neighbourhood groups decides “Best Group Effort,” awarding one deserving group the opportunity to work with the City on a community enhancement project valued up to \$10,000.00. Since 2013, more than 350 community-building initiatives have been completed.

The neighbourhood groups have carried out activities such as community gardening, charity fundraising, litter cleanups, volunteering, community safety initiatives, youth programs, waste and energy reduction, tree planting, eco-education, and international aid. Their actions create positive and meaningful changes within Pickering and beyond.

Recognizing those who contribute: The presentation of Civic Awards is another way for the City to recognize those who have made a significant contribution to the community. Award categories include: environment, sustainability, cultural diversity, youth leadership, amateur sport, heritage, economic development, the arts, etc.

Establishing internet/telephone voting: The City is setting up internet/telephone voting in time for the 2018 municipal election. The option is designed to encourage participation by those who may be less inclined to visit a physical voting place in order to vote; provide additional voting opportunities for students and vacationers who are unable to visit a voting place; and enhance accessibility and privacy for voters with disabilities.



Summer concert series at the waterfront

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Community Perception of Sustainability

In the 2016 Sustainability Survey, residents were asked about health and safety, community services, public participation, and sustainability. Residents were also asked if they are aware of and satisfied with Pickering's sustainability efforts. Follow-up questions asked residents about the extent to which they make sustainable choices in their lives.

Indicator

Percentage of survey respondents who believe they are making sustainable choices in their household

Percentage of survey respondents who believe they are making sustainable choices in their household	
2011 (Baseline)	96%
2016	95%

Source: City of Pickering 2016 Sustainability Survey

When asked "How often do you make sustainable choices in your household?" 95% of respondents replied "often" (27%) or "very often" (68%). Only 5% of respondents stated "sometimes," and only 5 of 661 respondents chose "rarely" or "never."

What is the City doing to make our community more sustainable?

Spearheading sustainability initiatives through Sustainable Pickering: Pickering is a recognized leader in municipal sustainability and was the first in the Province of Ontario to establish an Office of Sustainability. Pickering staff are often called upon by community groups, organizations, and other municipalities for information and advice on sustainability. In 2017, Pickering was one of only six Canadian cities to be invited by the Commission for Environmental Cooperation to present the Mayors' Monarch Pledge efforts at a Tri-National Workshop for Canada, United States, and Mexico held in Texas.



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Sustainable Pickering Day

Did you know?

The City's sustainability efforts focus on energy, sustainable development, local food, pollinator support, waste diversion, habitat enhancement and naturalization, community beautification, climate change adaptation and mitigation, community and internal outreach, engagement and education. Information on the City's Sustainable Pickering program can be found at pickering.ca/sustainable.

Neighbourhood Satisfaction

Neighbourhood satisfaction is a key driver behind residential mobility and neighbourhood stability. Those who are satisfied with their neighbourhood are not only less likely to move, but are also more likely to have a higher quality of life, feel a greater sense of connection with their neighbours, and are more likely to come together during a crisis. Feeling a sense of place, having social relationships, and being able to access services and amenities are contributing factors behind neighbourhood satisfaction.

Neighbourhood satisfaction 2016 (Baseline)	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I like living in my neighbourhood	67%	29%	1%	2%	1%
My neighbourhood is friendly, and people help their neighbours	46%	45%	6%	3%	1%
I have access to services and amenities in my neighbourhood (parks, shops, banks, restaurants, etc.)	44%	40%	0%	9%	5%

Source: City of Pickering 2016 Sustainability Survey

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Physical and Mental Health

The following indicators allow for comparisons with the averages for the Region of Durham and the Province of Ontario as a whole.

Indicator	
Percentage of Pickering residents (ages 18 +) who report excellent or very good mental health	
Residents over the age of 18 reporting excellent or very good mental health	
2010 (Regional average) (Baseline)	75%
2013–2015 (three-year Pickering average)	74%
2013–2015 (three-year Regional average)	72%

Source: Durham Region Health Department (2016). *The Guide to Healthy Neighbourhoods*.

Residents who self-rate their overall health as excellent or very good	
Residents who self-rate their overall health as excellent or very good	
2009–2013 Pickering (Baseline)	62%
Regional average	60%
Provincial average	60%

Source: Durham Region Health Department (2016). *The Guide to Healthy Neighbourhoods*.



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Indicator

Population with a primary care physician

Percentage of the population that has a primary care physician

2013 Pickering (Baseline)	94.5%
Regional average	95.1%
Provincial average	91.9%

Source: Durham Region Health Department (2016). [The Guide to Healthy Neighbourhoods](#).

Childhood asthma rate in Pickering

Residents under the age of 14 suffering from asthma

2013 Pickering (Baseline)	19.0%
Regional average	19.2%
Provincial average	15.5%



Source: Durham Region Health Department (2016). [The Guide to Healthy Neighbourhoods](#).

Adults over the age of 18 who are obese

2009–2013 (Baseline) (Five-year Pickering average)	18%
Regional average	20%
Provincial average	21%

Source: Durham Region Health Department (2016). [The Guide to Healthy Neighbourhoods](#).

Healthy Society

Indicator

Adult diabetes prevalence in Pickering

Adults over the age of 20 who are diabetic

2013 (Baseline)	10.9%
Regional average	10.4%
Provincial average	9.9%

Source: Durham Region Health Department (2016). [The Guide to Healthy Neighbourhoods](#).

In the Sustainability Survey, residents were asked how many minutes per day and how many days per week they are physically active (walking, swimming, cycling, gardening, or exercising in some other way).

Minutes of physical activity per day

	< 30 minutes	30–60 minutes	60–120 mins	> 120 minutes
2016 (Baseline)	22%	49%	9%	19%

Days per week when physically active

	0	1	2	3	4	5	6	7
2016 (Baseline)	2%	3%	9%	15%	13%	21%	12%	24%

Source: City of Pickering 2016 Sustainability Survey



Pickering Recreation Complex

Healthy Society

What are the City of Pickering and others doing to promote physical and mental health, and access to medical resources?

Encouraging participation in recreation programs: The City of Pickering provides year-round recreation programs for all ages, including squash, tennis, racquetball, learn-to-swim classes, public swimming, and skating. The City has a subsidy program so that qualifying families can enrol in recreation programs at a discounted rate. Free or discounted activities and classes are also offered during holidays and for other special events. Pickering has many summer camp programs for youth and the Pickering Public Library also offers programs and resources that support a healthy lifestyle.

Offering fitness programs: The Pickering Recreation Complex offers high-quality services and programs for the whole family. Certified fitness professionals are on hand to deliver specialized fitness classes, small group training programs, and personal training.

Making space available for sports organizations:

The City encourages local sports organizations to use municipal facilities for practices, programs, and events.

Pickering Swim Club, Durham Synchro, Pickering Master Splashers, Pickering Hockey Association, and Pickering Soccer Club are some current users. As well, the City provides pool space for the Durham District School Board to use for high school physical education programs and swimming teams.



Pickering Soccer Centre

Partnering in sports: The Pickering Soccer Centre, which opened in 2014, is a partnership between the City and the Pickering Soccer Club. The Pickering Soccer Centre includes an 8,300-square-metre FIFA 1-Star full-sized soccer pitch (which can be split into quarter fields) under a 9,000-square-metre air-supported dome, attached to a 700-square-metre clubhouse with change rooms, meeting rooms, and administration offices for the Pickering Soccer Club.

Participating in Durham-wide programs that support fitness and recreation: The City supports the Durham Health Department Grade 5 Action Pass initiative, through which Grade 5 students are entitled to free swimming and skating, during public swim and skate times.

Improving access to health care: Since its inception in 2005, the Pickering Mayor's Gala has raised approximately \$1 million for the Ajax-Pickering hospital. This volunteer-driven event has also raised hundreds of thousands of dollars for other charitable organizations and community agencies such as Scientists in Schools, WindReach Farm, Special Olympics Ontario, Durham West Arts Centre, Young Singers, and Grandview Children's Centre.

Walking, Cycling Paths, and Bikeways

Indicator

Length of walking and cycling paths and bikeways

2009 (Baseline): Pickering had 43.7 km of paths for walking and cycling, and 4.49 km (off-road) and 6.2 km (on-road) bikeways/lanes for a total of 54.4 km.

2017: Pickering had 44.3 km of paths for walking and cycling, and 12.8 km (off-road) and 10.1 km (on-road) bikeways/lanes for a total of 67.2 km.

Source: City of Pickering Engineering Services (2016)

Walking and cycling paths

Waterfront Trail from Ajax-Pickering border to Scarborough	12.0 km
Seaton Trail	11.5 km
Trans-Canada Trail	12.7 km
West Duffins Trail	3.9 km
Pine Creek Trail and bridge	0.9 km
Alex Robertson Park walk	1.4 km
Diana, Princess of Wales Park walk	1.9 km
Total	44.3 km



Enjoying the Waterfront Trail

Healthy Society

Bikeways (off-road)	
Pickering Parkway (Village East Park to Liverpool Road)	1.6 km
Bayly Street (Liverpool Road to West Shore Boulevard)	1.7 km
Brock Road (Pickering Parkway to Third Concession Road)	2.7 km
Brock Road (Third Concession Road to C.P. Railway) both sides of street	3.0 km
Dersan Street / Tillings Road / Zents Drive loop	1.3 km
William Jackson Drive (Brock Road to Earl Grey Drive)	1.0 km
Altona Road from Kingston Road to Strouds Lane	1.5 km
Total	12.8 km

Bikeways (on-road)	
Granite Court (Rosebank Road to Whites Road)	1.6 km
Kingston Road (Liverpool Road to Glenanna Road & Brock Road to Southview Drive)	1.0 km
Kingston Road (Glenanna Road to Glendale Drive)	0.5 km
West Shore Boulevard (Vistula Drive to Oklahoma Drive)	1.2 km
Strouds Lane (Altona Road to Rosebank Road)	1.3 km
Glenanna Road (Pickering Parkway to South Esplanade & Kingston Road to Dixie Road)	0.9 km
Rosebank Road (Sheppard Avenue to Finch Avenue)	2.0 km
Woodview Avenue (Pinegrove Avenue to Finch Avenue)	1.0 km
Liverpool Road – (Sharrows from Annland Street to Krosno Boulevard)	0.6 km
Total	10.1 km

Healthy Society

What is the City doing to increase the number of walking and cycling paths/bikeways in Pickering?

Planning new trails and paths: The following paths are in the planning stages:

Wharf Street to Sandy Beach Road	0.7 km
Bayly Street from Waterfront Trail to GO Station	1.4 km
Bayly Street from GO Station to Church Street (Ajax border)	3.1 km
Brockridge Park (including pedestrian bridge)	0.2 km
Lakeridge Road from 5th Concession to Hwy 7	2.1 km

Creating bicycle lanes on Kingston Road: As part of the Region of Durham Bus Rapid Transit (BRT) program, bike lanes are being constructed on Kingston Road. The first few sections around the Liverpool Road and Brock Road intersections have been completed and the area around the White's Road intersection is under construction in 2017. The sections between these intersections will be constructed as the Region builds out the BRT lanes.



Did you know?

Construction of the Seaton community has begun. Over the next few years, about 5.2 km of planned primary neighbourhood connecting trails, recreational trails, and bikeways will be implemented in the Seaton neighbourhoods.

Healthy Society

Education and Libraries

Indicator

Percentage of residents with postsecondary qualifications

Education levels are a good indicator of societal health. Communities with better educated workforces can attract knowledge-based businesses and better-quality jobs.

Percentage of residents over 15 with postsecondary qualifications

2011 Pickering (Baseline)	54%
2016 Pickering	56%
Region (2011)	50%
Region (2016)	47%

Source: Manifold Data Mining Inc (2017). City of Pickering Data Set.

Community library usage is another good indicator of a healthy society. Active memberships mean that the members used library resources in the past two years.

Residents in Pickering holding active library memberships

2010 (Baseline)	44,038
2015	43,135
2016	41,944

Source: City of Pickering Public Library (2016)

Library uses that do not require membership are also tracked.

Other library uses	Use of library workstations	Use of library wireless	Walk-in traffic
2015	193,766 users	62,908 logins	543,816 persons
2016	253,950 users	96,500 logins	536,595 persons

Source: City of Pickering Public Library (2016)

Healthy Society

Indicator

Annual number of library items checked out, per resident

Library items checked out per resident	
2010 (Baseline)	12.6
2015	13.2
2016	11.5
Total items checked out (2015)	1.21 million
Total items checked out (2016)	1.1 million

Source: City of Pickering Public Library (2016)

What are the City of Pickering and others doing to promote education and use of the library system?

Developing Pickering Public Library (PPL) Connect: PPL Connect, a grant-funded program, facilitates technology access and education. This program brings library services into the community, providing on-the-spot technology training, and access to technology devices, and lending Wi-Fi Internet hotspots to users so that people can access and use online resources from home.

Focusing on outreach: Library staff attend community events, promoting its programs, services, and resources available to clients. As well, the Library partners with community organizations; partners receive support through guided exploration of available resources in an array of formats. Staff visit schools, facilitate presentations at community conferences and workshops, bring materials and resources to older adult residents, and provide children's programs in local parks.

Offering digital services: In addition to using online academic research tools, clients can download music, access eBooks, learn a new language, discover their family's history through ancestry.com, and much more. Knowledgeable staff provide guidance and offer workshops on the tools residents can access with their library card.

Hosting community gatherings: Library-based community events include the "How-To in 10 Festival", Tax Clinics, June is Seniors' Month, Teen Library Lock In, and children's holiday parties.

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Supporting teens: The Teen Advisory Group (TAG) consists of more than 25 local teens who meet monthly to advise Library staff on decisions related to youth programming, services, and initiatives. TAG has demonstrated a commitment to making a difference through members' leadership and advocacy for their peers. With the input and support of TAG, staff have been able to provide effective services and well-attended programs for teens across Pickering, both within and outside of existing Library spaces.

Offering a summer reading club: Pickering Public Library's TD Summer Reading Club won first place in Canada for its 2015 efforts and success. Through this program, more than 1,800 children engage with literacy throughout their time away from school. Teens also benefit from the newly revamped youth summer reading program, called "TGIS," in which more than 300 teens maintain a high level of literacy during the summer season. Both programs offer programs, events, and prizes to encourage reading.

Connecting residents through broadband technology: Pickering is committed to advancing broadband technology to enhance the quality of life for those who live here, and generate economic growth and employment opportunities. The City's Broadband Implementation Strategy will support the development of infrastructure required to provide affordable and accessible internet service throughout Pickering. This commitment has been recognized by the Intelligent Community Forum (ICF), which named Pickering one of the world's [Smart21 Communities of 2017 and 2018](#). The award program recognizes the world's leading municipalities that are successfully leveraging the power of technology to develop inclusive and prosperous communities.



Did you know?

"Access Pickering" features 35 permanent Wi-Fi access points across Pickering, allowing more than 5,000 residents to connect every month.

Healthy Society

Providing digital skills training: The Library's iHelp Service Desk offers free one-on-one advice and training, and is open seven days a week, assisting more than 18,000 clients per year. The Library also offers free instructor-led and online learning opportunities ranging from basic computer skills to more complex topics, such as Computer Security, 3D Printing, and Circuits and Robotics. With a library card, residents can also take part in online learning through partners such as:

- Lynda.com: covers the latest in commercial software, creative and graphic arts, and business skills
- Gale Courses: provides interactive, instructor-led courses including business, accounting, healthcare, and technology
- Mango Languages: provides an intuitive and easy way to learn languages

Planning for further connectivity: Future projects include creating areas within the library equipped with smart technologies to facilitate DIY spaces where people can gather to create, invent, and learn. Along with the spaces, the goal is to provide staff support to facilitate programming centered on technology, such as hackathons, open data projects, podcasting, and video production.



Students enjoying a few of the creative technology teaching tools at the library



Community Perception of Climate Change

Indicator

Attitudes towards climate change and the role of the City in addressing climate change

Climate change will affect each community differently, depending on the sensitivity and capacity to adapt to these changes. All of these impacts have physical, economic, and societal consequences for Ontario Great Lakes municipalities. In southern Ontario, we have already witnessed shorter winters and earlier springs, changes in precipitation patterns, increased weather variability, and more frequent extreme weather events.



	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am concerned about extreme weather events globally	40%	49%	1%	8%	2%
Extreme weather events currently affect Pickering	19%	45%	10%	22%	4%
I am concerned about climate change	42%	47%	2%	6%	3%
Pickering's environment, economy, and/or resident health is affected by climate change	28%	46%	13%	11%	2%
The City of Pickering should do more to reduce the impact of climate change and extreme weather events	26%	41%	18%	12%	3%

Source: City of Pickering 2016 Sustainability Survey

Healthy Society

What are the City of Pickering and others doing to address climate change?

Planning for the future: In 2013, the Region of Durham and all its municipalities, including Pickering, began work on a [Durham Community Climate Adaptation Plan](#). The process identified the impacts of climate change on relevant sectors and determined how these changes relate to the vulnerability of specific areas in the region. Phase 1 began with developing Durham Region-specific future climate projections for 2040 to 2049. Sector-specific stakeholders were engaged to help interpret the impacts from the projected climate changes on community infrastructure, businesses, and residents. A Phase 1 progress report provided an assessment of those impacts and identified medium and high risks to the Durham community. The Phase 2 work resulted in a Climate Adaptation Plan that was approved in principle by Durham Regional Council in 2016. The Plan includes 18 separate climate adaptation programs across multiple sectors, including buildings, roads, flooding, and human health. Durham Region, local municipalities, and other organizations are now participating in Phase 3: Program Approval and Funding.

Developing actions to reduce climate change: The Region of Durham, under the direction of the Durham Region Roundtable on Climate Change (DRRCC), also led a process to develop a [Community Climate Change Local Action Plan \(LAP\)](#) for the Durham community, which received approval from Regional Council in 2012.

Developing policy: Through Amendment 23 to Pickering's Official Plan, the City introduced a policy stating that Council shall identify, evaluate, and introduce appropriate mitigation and adaptation strategies to reduce the effects of predicted climate change and severe weather events, which may include the preparation of a Climate Change Management Plan.



Ice storm damage



Flooding damage

What can you do to support a Healthy Society in Pickering?

You can get involved in your community in the following ways:

- join Neighbourhood Watch, a program that encourages neighbours to work together for community safety; contact Durham Regional Police about participation
- join the Celebrating Sustainable Neighbourhoods program at pickering.ca/csn
- participate in a community beautification program such as: Adopt a Park, 20-Minute Pickering Makeover, Great Canadian Shoreline Cleanup, Pitch in Parties, or the Pickering Blooms program
- think about what you are passionate about and volunteer your time to work with or raise money for an organization or charity that helps that cause
- volunteer to refurbish or create a gateway garden in your neighbourhood
- try to get 30 to 60 minutes of moderate to vigorous intensity aerobic activity each week
- increase the amount of fruits and vegetables you eat and avoid foods and beverages with little or no nutritional value
- enjoy [Pickering's trails](#), such as the Waterfront Trail or the Seaton Trail; go for a walk with your family and friends to explore Altona Forest and the Rouge National Urban Park
- visit pickering.ca/sustainable to learn how to incorporate sustainable choices into your life



Responsible Development



Responsible development promotes the sustainability and livability of the community as a whole. It integrates active transportation networks, strategic urban design, sustainable building practices, land use, as well as access to public spaces and services.

To measure the City's progress in this regard, we reported on:

- Certified Green Buildings60
- Sustainable Commuting.....63
- Agricultural Land65



How can you support Responsible Development in Pickering?
Go to page 66 for a range of suggestions.

Responsible Development

Certified Green Buildings

New non-residential floor area certified under recognized green building programs

Green buildings are designed to use resources such as energy, water, and building materials efficiently, and produce lower emissions of greenhouse gases in their construction and use.

2010 (Baseline)	39,547 m² (425,680 ft²)
2015	169,494 m² (1,824,418 ft²): a 429% increase

Source: Canada Green Building Council (2015)

Between 2010 and 2015, 10 non-residential buildings became Leadership in Energy and Environmental Design (LEED) certified. LEED is an internationally recognized green building certification system for the design, construction, and operation of high-performance green buildings.

Instrument Transformer Manufacturing Facility	2014	Commercial
Target	2013	Commercial
Unit 100 - 670 Kingston Road	2012	Commercial
Pickering Town Centre Office Building and Parking Structure	2012	Commercial
Steeple Hill - 670 Kingston Road	2012	Commercial
Home Depot Store	2010	Commercial
École Ronald-Marion	2015	School Board
Ontario Power Generation Offices	2014	Provincial Government
Pickering GO Station Rehabilitation	2013	Provincial Government
Duffin Creek Water Pollution Control Plant Stage III Dewatering Building	2013	Regional Government

Source: Canada Green Building Council (2015)

Responsible Development

The [Building Owners and Managers Association](#) (BOMA) of Canada administers the Building Environmental Standards (BESt) certification program. Between 2012 and 2016, six other buildings have been certified BOMA BESt. Upon expiry of the building certificate, applicants are required to obtain recertification. As of December 2016, only the Steeple Hill – 670 Kingston Road building is still certified under this program.

What is the City doing to promote green development?

Developing Sustainable Seaton: The Central Pickering Development Plan describes a broad vision for Seaton as a sustainable urban community integrated with a thriving agricultural area and an extensive Natural Heritage System. The City has policies for the development of urban Seaton as a walkable, transit-supportive community at densities that support an attractive community and an active street life, including neighbourhood shops, social facilities, and parks.



2017 Sustainable Seaton event

Planning for renewable energy generation: The City is encouraging developers in Seaton to install conduits to make homes solar-ready. Elsewhere in Pickering, the City encourages the central production and distribution of energy and the use of renewable energy systems.

Educating key stakeholders: To encourage more sustainable home building in Pickering and across Durham Region, the City created the “Sustainable Seaton: Community-Building Series.” The City partnered with Seaton landowners to present the inaugural workshop in 2016, which focused on Net Zero Energy (NZE) Housing. The goal of NZE Housing is to replace non-renewable energy sources used in homes (such as natural gas and electricity), with solar, geothermal, and other renewable energy sources to reduce carbon emissions and mitigate climate change.



2017 Sustainable Seaton event

The second workshop took place in 2017 with a focus on energy collection, storage, and distribution. A panel discussion highlighted Canada’s first microgrid neighbourhood that is proposed to be built in Pickering by Marshall Homes.

Responsible Development



Leed Office Tower

Improving City buildings: The City ensures that retrofits to existing City facilities promote sustainability, consistent with an Official Plan policy that promotes the use of green technologies in the design of community facilities and infrastructure. City Council has also passed a resolution that all new City facilities be built to LEED silver or a comparable standard.

Promoting City Centre revitalization and intensification: Pickering City Centre is identified as an “Urban Growth Centre” in the Province of Ontario’s

[Places to Grow Plan](#). In 2015, through the approval of Amendment 26 to its Official Plan, the City introduced policies to facilitate the redevelopment and intensification of the City Centre, and identified infrastructure improvements to support future population and employment growth. Amendment 26 promotes compatible and attractive built forms and streetscapes; greater mixed use development; small district energy systems; decreased surface parking; improved transit access and connectivity; and improvements to the road, cycling, and pedestrian network.

Promoting sustainable placemaking: The City has comprehensive [Sustainable Placemaking Guidelines for Seaton](#). Outside Seaton, the City has [Sustainable Development Guidelines](#) that are used to measure the level of sustainability of developments in Pickering. Through Amendment 23 to its Official Plan, the City is promoting development that is designed to be sustainable, supportive of public transit, and pedestrian friendly.

Did you know?

The City’s approach to Sustainable Placemaking is founded on 10 principles.

1. Draw on the expertise of the community.
2. Encourage collaboration at all levels.
3. Go beyond design codes; pay attention to function, appearance, and experience.
4. Aim for zero impact as the ideal, in carbon and other footprints.
5. Design and plan for people.
6. Strive to make Pickering a unique and distinctive community.
7. Adapt to change.
8. Learn by doing: use pilot projects and experiments to test new ideas.
9. Keep moving in the right direction; the journey will never be finished.
10. Always strive to achieve the greater public good.

Responsible Development

Sustainable Commuting

Sustainable commuting – such as walking, travelling by bicycle, carpooling, and taking public transit – is not only good for the environment, it’s good for your health and can help you save money. One of many factors influencing people’s choice of modes of transportation, and consequently their carbon footprint, is the commuting distance itself.



Pedestrian bridge connecting a mobility hub with the City Centre

Indicator

Percentage of employed labour force commuting to work by walking, bicycling, transit, and carpooling

Percentage of employed labour force commuting to work by walking, bicycling, carpooling, or public transit

2011 (Baseline)	23.8%
2016	21.7% (2.1% reduction)

Source: Manifold Data Mining Inc (2016). City of Pickering Data Set.

In the 2016 Sustainability Survey, participants were asked how often, within the last year, they did each of the following activities.

Drove alone to work or school in a vehicle	62%	7%
Walked to work or school	11%	7%
When weather permitted, went to work or school by bicycle	5%	5%
Carpooled to work or school	10%	12%
Took public transit to work or school	15%	7%

Source: City of Pickering 2016 Sustainability Survey

Responsible Development

Indicator

Median commuting distance to place of employment

2016 (Baseline)

Between 20 and 30 km

Source: City of Pickering 2016 Sustainability Survey

The 2016 Sustainability Survey shows that 65% of the employed labour force that is not working from home travels between 1 and 30 km (one way) to their place of employment.

Less than 5 kilometres	14%
Between 5 and 10 kilometres	15%
Between 10 and 20 kilometres	18%
Between 20 and 30 kilometres	18%
Between 30 and 40 kilometres	17%
Between 40 and 50 kilometres	11%
More than 50 kilometres	7%

What are the City of Pickering and others doing to promote sustainable commuting?

Developing a transportation master plan: The City of Pickering is currently developing a new Integrated Transportation Master Plan (ITMP), which will incorporate an updated Cycling and Trails plan. The ITMP will define policies, programs, and infrastructure improvements to address transportation needs for the future. The ITMP focuses extensively on walking, cycling, auto travel, goods movement, and connections to transit. The ITMP will also develop a complete streets strategy.



Responsible Development

Working with others on regional transportation issues: Durham Region is also currently updating its Transportation Master Plan and Cycling Plan. City staff are also part of the advisory group working on developing Durham Region’s Transportation Master Plan and provide comments on Metrolinx and other long-range planning studies. Currently staff are reviewing Metrolinx’s Regional Transportation Plan 2041.

Constructing trails: The City of Pickering constructs multi-use paths and sidewalks as part of its capital budget.

Encouraging GO Transit use: Pickering’s fully enclosed [pedestrian bridge](#) spans 14 lanes of Highway 401, Canada’s busiest transportation link, connecting the City’s main mobility hub with the emerging City Centre. Residents and commuters alike now enjoy safe, easy, and sheltered access to an integrated transportation network, as well as shopping and services. The bridge continues to play a significant role in the dramatic transformation of our City Centre, linking the Pickering GO Station to our Class A, LEED-Gold-certified office tower, Durham College/Centennial College Joint Learning Centre, Pickering Town Centre, new City Centre restaurants, and a 500-vehicle GO Transit parking deck.

Agricultural Land

A large proportion of the City of Pickering is rural. Where this land is currently used for agriculture, it represents economic productivity and jobs, and a potential source of locally grown food.



Indicator	
Land area designated for agricultural purposes and percentage in use	
Land designated for agricultural purposes in Pickering’s Official Plan	
2006 (Baseline)	8,850 hectares, of which 4,327 hectares (approximately 49%) are currently used as farmland
2011	8,850 hectares, of which 5,283 hectares (approximately 59.6%) are currently used as farmland

Source: Durham Region Economic Development (2015)

Responsible Development

What is the City doing to protect and promote agriculture in Pickering?

Protecting prime agricultural land from development: Planning for intensification within the existing built-up area of Pickering will reduce the need to expand onto prime agricultural land. Through Amendment 27 to its Official Plan, the City has brought its policies into conformity with the Provincial Greenbelt Plan, the Provincial Policy Statement of 2014, and other policy initiatives. The new policies provide stronger protection to Prime Agricultural Areas and permitted agriculturally related and on-farm diversified uses, and promote vibrant rural settlements and a healthy rural economy.

What can you do to support Responsible Development in Pickering?

You can support responsible development in Pickering in the following ways:

- if you are in the market to buy a home, investigate and find out about potential environmentally friendly and energy-conserving components
- apply for grants to carry out retrofits and enhancements to improve the energy efficiency of your home or business; information about assistance programs offered by the local utilities is available on the City's website at pickering.ca/takeaction in the energy category
- take transit, ride your bike, walk, or try carpooling to get to work
- encourage your employer to participate in the [Smart Commute Program](#), and to encourage sustainable commuting by making priority carpool parking available, offering a telework option, allowing for a compressed work week, providing access to showers, or installing bicycle racks



Responsible Consumption



Responsible consumption refers to the manner in which the community consumes and uses resources, such as water, energy, and food, and the associated amount of waste produced through activities. Responsible consumption seeks to minimize resource use through clean technologies, conservation, energy efficiencies, local food production, recycling, and waste diversion.

To measure responsible consumption, we reported on:

- Municipal Energy Use and Greenhouse Gas Emissions68
- Community Energy Use and Greenhouse Gas Emissions71
- Renewable Energy Generation75
- Residential Water Use.....77
- Residential Wastewater Discharge.....78
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- Value of Agricultural Products83
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How can you support Responsible Consumption in Pickering?
Go to page 86 for a range of suggestions.

Responsible Consumption

Municipal Energy Use and Greenhouse Gas Emissions

Through its involvement in the [Partners for Climate Protection Program](#) (PCP), a joint program between [ICLEI Canada](#) and the [Federation of Canadian Municipalities](#), the City of Pickering has been measuring energy consumption and greenhouse gas emissions for Pickering as a whole, as well as for municipal operations, using 1995 as the baseline year. The City successfully completed the five milestones of the PCP program in 2011. Since then, the City has developed a Corporate Energy Management Plan (CEMP), which provides a five-year roadmap for energy management.

By tracking greenhouse gas (GHG) emissions, the City of Pickering monitors municipal energy use (electricity and fossil-fuel energy).

Indicator	
Energy consumed by municipal buildings, per capita	
Energy consumption from municipal buildings	
2011 (Baseline)	0.41 gigajoules per capita
2015	0.47 gigajoules per capita

Source: City of Pickering City Development Department (2016)

Gigajoules are units of energy used to measure energy content. One gigajoule (GJ) equals 947,817 BTU or 278 kilowatt-hours, which would be enough energy to operate an average household in Pickering for just under three days.

From 2011 to 2015, energy consumed by municipal buildings decreased by 28% in absolute terms with a 25.3% reduction in per-capita usage as population decreased by 3.64%.

Indicator	
Greenhouse gas emitted by municipal operations, per capita	
GHG emissions from municipal operations in equivalent carbon dioxide	
2011 (Baseline)	0.033 tonnes eCO ₂ per capita
2015	0.028 tonnes eCO ₂ per capita

Source: City of Pickering City Development Department (2016)

Responsible Consumption

From 2011 to 2015, GHG emissions from municipal buildings in equivalent carbon dioxide (per capita) have decreased by 15.15% compared with a 25.3% decrease in energy consumption.



LED lighting retrofit at tennis courts

What are the City and others doing to reduce corporate energy use and greenhouse gas emissions?

Taking actions to achieve municipal targets: The City of Pickering's CEMP is designed to help the City comply with the provincial energy Conservation and Demand Management (CDM) planning requirements. The Plan addresses buildings, technology, streetlights, and traffic signals, as well as people, processes, and information. The CEMP recommends a reduction of 12.3% in energy intensity and a reduction of 13.8% in greenhouse gas (GHG) emissions by 2019 compared with 2014 levels.



LED lighting retrofit at Pickering Recreation Complex swimming pool

Did you know?

In 2016, the City was recognized as one of Veridian's Conservation Champions for outstanding electricity conservation results in 2015. Veridian's Conservation Champion Awards pay tribute to customers who make reducing energy consumption an integral part of their business. In 2015, the City was recognized by the Federation of Canadian Municipalities for achieving its fifth and final Milestone in the Partners for Climate Protection Program.

Responsible Consumption

Reducing energy consumption and greenhouse gas emissions in City facilities: All City building and retrofit projects are designed to reduce energy consumption and greenhouse gas emissions. The following are a few of the projects that have been undertaken:

Pickering Recreation Complex	Integrated Energy Project replaced key pieces of equipment with newer, more energy-efficient models, and integrates them using state-of-the-art control systems to recover waste heat from one part of the system to save energy elsewhere	Expected to save approximately \$55,000.00 in annual utility costs
	Retrofitted lighting within the four tennis courts: replaced 61 incandescent 1,000-watt bulbs with 320-watt LED fixtures	Lights have a longer lifespan, use approximately 60 per cent less energy, and double the illumination levels on the playing surface
	Installed a new high-efficiency chiller	Will save close to \$11,000.00 a year in electricity costs
	Retrofitted pool lighting	Saves 27,945kWh annually
Delaney and O'Brien ice rinks	Retrofitted lighting with LED lights	Combined annual electricity savings of over \$32,000.00
14 locations	Installed new energy-efficient air handling units with variable frequency drives and automation controls	
East Shore Community Centre	Upgraded the heating plant, installed a new high-efficiency condenser boiler, pumps with variable frequency drives, and integrated the facility into the Energy Management System	
East Shore, Westshore, George Ashe, and Dr. Nelson F. Tomlinson Community Centres; Civic Complex; Pickering Recreation Complex; Dunbarton Indoor Pool	Introduced or upgraded the Computerized Energy Management System	

Responsible Consumption

Implementing an LED street light program: The City will replace more than 7,000 streetlights with LED streetlights to achieve significant energy efficiency and cost savings, reduced maintenance, improved lighting quality and greater roadway safety. The City expects to save an estimated 3,436,765 kilowatt-hours of energy per year, equivalent to a 63% reduction, compared to our current consumption. LEDs will also help the City reduce maintenance costs by up to 80%. The retrofit will also improve the City's environmental footprint by reducing GHG emissions by an estimated 137 metric tonnes annually.

Developed Seaton community street light guidelines: Guidelines have been prepared to guide the development industry in the design, construction, and installation of a LED street light system in Seaton. The guidelines take into consideration dark sky and nuisance lighting issues, as well as the ability to implement adaptive control technologies.



Streetlights replaced with LED

Community Energy Use and Greenhouse Gas Emissions

Local governments are responsible, either directly or indirectly, for nearly half of all greenhouse gas (GHG) emissions in Canada. While only 4% of GHG emissions in Durham Region come from municipal operations, 96% of emissions come from the community (transportation, homes, industries, businesses, and institutional buildings). The City is partnering with the Region and other Durham municipalities to develop the Durham Community Energy Plan. This 35-year plan – to be completed in early 2019 – will establish the new short-, medium-, and long-term targets for energy in the community.

Indicator

Energy consumed by the community as a whole, per resident

Community energy consumption in GJ (gigajoules), per resident	
1995 (Baseline)	118.0
2010	115
2015	101

Source: City of Pickering City Development Department (2016). Durham Sustainability 2015 Pickering Community GHG Inventory Update Report.

Responsible Consumption

Indicator

Energy consumption by sector, GJ per capita

	Residential	Transportation	Institutional, Commercial and Industrial (IC&I)
2008 (Baseline)	39.1	25.6	50.1
Change relative to 1995	-27%	-12%	+2%
2015	40	24	37
Change relative to 2008	+2%	-7%	-35%

Source: City of Pickering City Development Department (2016). Durham Sustainability 2015 Pickering Community GHG Inventory Update Report.



2017 Energy & Innovation for Business workshop

Indicator

Greenhouse gas (GHG) emitted by the community as a whole, per capita

Community GHG emissions in tonnes eCO ₂ (equivalent carbon dioxide), per capita	
1995 (Baseline)	6.54
2015	4.5

Source: City of Pickering City Development Department (2016). Durham Sustainability 2015 Pickering Community GHG Inventory Update Report.

Responsible Consumption

The following table summarizes energy consumption and GHG emissions by sector for 2015 relative to our 2008 baseline year.

Indicator				
Greenhouse gas (GHG) emissions by sector, Tonnes of eCO ₂ , per capita				
	Residential	Transportation	Institutional, Commercial and Industrial (IC&I)	Waste
2008 (Baseline)	2.0	1.8	2.6	0.2
Change relative to 1995	-41%	-11%	-21%	-93%
2015	1.5	1.7	1.3	0.03
Change relative to 2008	-25%	-5.5%	-50%	-85%

Source: City of Pickering City Development Department (2016). Durham Sustainability 2015 Pickering Community GHG Inventory Update Report.

On a per-capita basis, energy and GHG emissions declined by 14.4% and 31.19%, respectively, between 1995 and 2015.

What are the City and others doing to reduce the energy used by the community and the resulting greenhouse gas (GHG) emissions?

Establishing a Regional plan: The Region of Durham is preparing a Durham Community Energy Plan (DCEP) as a key component of climate change mitigation and adaptation planning for the community. The Region, its eight local area municipalities, and all five local utilities are collaborating, with support from the Ministry of Energy, to develop this plan. The DCEP seeks to improve energy efficiency, reduce energy use and GHG emissions, and encourage green energy solutions at the local level, while helping to plan ahead for future growth and development, energy generation, delivery, and use. The Plan is proposed to be completed by early 2019.

Completed national program: The City was recognized for achieving Milestone Five, the last step of the Partners for Climate Protection (PCP) program. PCP is a network of Canadian municipal governments that have committed to reducing GHG and acting on climate change.

Responsible Consumption

Sponsoring energy consumption events: Pickering hosts energy-related events for the community such as the Durham Partners in Project Green “Energy & Innovation for Business” event, which took place in 2017.

Increasing public awareness: The City is striving to create a culture of conservation. Staff are frequently asked to participate in special energy conservation initiatives and in events such as Sustainable Pickering Day and the Pickering Farmers’ Market to answer homeowners’ energy questions. A section on the City’s website, pickering.ca/energy, is geared to helping the community learn ways to save money by conserving energy. Articles are annually placed on social media and in the newspaper promoting tips and incentive programs available through Enbridge and Veridian.

Promoting energy conservation in new development: Pickering’s [Sustainable Development Guidelines](#) and [Sustainable Placemaking Guidelines for Seaton](#) promote neighbourhood and building designs that reduce overall energy consumption and GHG emissions. The City is also encouraging more sustainable home building in Pickering and across Durham Region through Sustainable Seaton: Community-Building Series workshops focused on Net Zero Energy Housing and Energy Collection Storage and Distribution.



Did you know?

The City of Pickering provided start-up funding over three years to establish the Durham Partners for Project Green program. The program helps businesses reduce energy costs, identify new business opportunities, and address everyday operational challenges in a cost-effective manner. Pickering continued in a sponsorship capacity in 2017.

Responsible Consumption

Renewable Energy Generation

Renewable energy technologies range from wind, to solar, geothermal, and biogas. Renewable energy helps enhance local energy security by diversifying energy supply. It can also contribute to a healthy economy as local energy generation leads to jobs in manufacturing and installation of renewable technologies.

Indicator		
Number of solar panel permits issued by the City		
Year	Type of Building	Square Footage
2012	Industrial	58,770
2012	Industrial	25,200
2012	Residential	506
2013	Residential	328
2013	Residential	1,920
2013	Residential	5,236
2013	Residential	13,596
2013	Residential	407
2013	Residential	1,200
2013	Residential	792
2013	Residential	771
2014	Residential	solar water heater (no panels)
2015	Residential	1,176
2015	Municipal	5,819
2015	Residential	1,025
2015	Residential	551
2016	Residential	1,284
Total		118,581

Source: City of Pickering Building Services (2016)

Responsible Consumption

What are the City and others doing to increase the number of renewable energy projects in Pickering?

Supporting photovoltaic cells on a community centre: A 100kW solar photovoltaic project was installed at the Dr. Nelson F. Tomlinson Community Centre (formerly called Claremont Community Centre), under the FIT 2.0 program. This green energy initiative is a joint partnership between Veridian Connections, Queen Street Solar Co-operative, and Solera Sustainable Energies Company. The City of Pickering provided the space by leasing the roof to the group. Some of the revenue generated by the lease contribute to the City's Green Initiative Fund, which focuses on future green projects. Check out the solar project's performance today via this live feed at claremontcc.solarvu.net.



Integrating renewable energy into municipal buildings: In 2017 Pickering Council passed a resolution that all future municipal facilities built in Seaton include systems complete with rooftop solar array and electric vehicle charging in place, and with energy storage.

Installing solar-powered lights: The City has installed solar-powered lights in the parking lot of Grand Valley Park. The new lights will enhance the safety and security of the parking area, and illuminate the upper leash-free dog park, allowing for extended playtime for dogs and their owners during the winter months.

The photovoltaic panels generate and store solar power in built-in batteries, which then power LED lights during the night in public spaces. The lights are motion-activated, and can be controlled remotely from a computer to allow for optimal light when motion is detected, such as a car pulling up to the parking lot or a person entering the park. Otherwise, light output is controlled to extend battery life and to ensure sufficient lighting when needed.



Due to the success of this initiative, two solar lights were installed in the J. McPherson Park parking lot and four were installed along the new accessible asphalt pathways at Kinsmen Park in 2017.

Responsible Consumption

Residential Water Use

Not only is water a precious resource that should not be wasted, but drinking and using water requires energy for purification, pumping, and distribution. Using water therefore, requires energy, which in turn contributes to greenhouse gas emissions.



Indicator

Daily volume of municipal water used, per person

Litres of municipal water used, per person, per day (LPCD)	
2008 (Baseline)	254
2015 (Pickering)	170
2015 (Region of Durham)	167

Source: Durham Region Water Billing (2016)

New homes in Durham use an average of 190 LPCD and homes fitted with WaterSense/Energy Star toilets, dishwashers, and clothes washers on average use 150 LPCD.

What are the City and others doing to reduce water use in Pickering?

Increasing public awareness of water conservation: Water is managed by the Region of Durham. In 1996, the Region launched Water Efficient Durham to encourage the efficient use of water among all users. Through the distribution of the Fusion Guide to Landscaping and the Fusion Interiors Home Renovation Guide along with distributing dye test strips to identify toilet leaks, the Region educates residents on their role in conserving water both indoors and outdoors. Further water efficiency information is mailed to every Regional household each spring and fall in the Durham Works Newsletter. The City presents displays at events and facilities providing information on water conservation at home and in the garden, and promotes Durham Region's water efficiency programs.

Responsible Consumption



Encouraging reduced water use for gardens and lawns: Pickering hosts several free “Lush Lawns & Gorgeous Gardens” workshops each year. These workshops teach residents about appropriate lawn watering and gardening with native and drought-tolerant plants and grasses. The City uses drought-tolerant plants in its own landscaping efforts, wherever feasible.

Reducing water use in facilities: As replacements are needed, the City installs low-flow restrictors on faucets and showerheads, low-flush toilets, and timed faucets.

Residential Wastewater Discharge

Indicator

Daily volume of wastewater discharged to municipal sewers, per person

Wastewater is managed by the Region of Durham, which tracks the volume of wastewater for each municipality. The more wastewater that is discharged to the sewer system, the more energy is required to pump and process it, leading to increased greenhouse gas emissions.

Litres of wastewater discharged, per person, per day	
2008 (Baseline)	240
2015 (Pickering)	168
2015 (Durham)	164

Source: Durham Region Water Billing (2016)

What are the City and others doing to reduce the volume of wastewater discharged to the sewer system?

Reducing water consumption in Pickering’s Recreation Complex: In 2016, the City installed low-flow shower heads in change rooms at the Pickering Recreation Complex. The new shower heads use 2.0 gallons per minute, compared with the older ones, which used 2.5 gallons per minute. In just one year, this change resulted in \$5,000.00 of savings as well as 365,000 gallons of water saved.

Responsible Consumption

Encouraging reduced water use for gardens and lawns: Pickering hosts several free lawn and garden workshops each year. In addition, the City has planted large showcase gardens so that residents can see native water-efficient plant material they can consider purchasing for their own gardens.



Residential Waste

Waste is anything we throw away that doesn't get re-used. When we throw things out, we also lose potentially valuable resources and the energy that went into making each item. While we cannot eliminate waste, we can produce less of it, and recycle and re-use our products and resources whenever possible.

Indicator	
Total annual amount of residential solid waste generated, per person	
Kilograms of total waste generated, per person	
2008 (Baseline)	336
2010	305
2015	308

Source: Durham Region Works Department (2016)

Responsible Consumption

Indicator

Annual amount of residential solid waste sent for disposal, per person

Kilograms of waste sent for disposal, per person	
2008 (Baseline)	144
2010	131
2015	132

Source: Durham Region Works Department (2016)

Indicator

Percentage of residential waste diverted from landfill

Diversion of waste includes blue box recyclables, green bin, leaf and yard waste compostables, and backyard composters.

Percentage of residential waste diverted from landfill	
2008 (Baseline)	57%
2010	57%
2015	57%

Source: Durham Region Works Department (2016)

Of the 16,113 tonnes of residential waste diverted from landfill in 2015;

- food composting accounted for 4,511 tonnes,
- backyard composters for 832 tonnes,
- leaf and yard waste for 3,504 tonnes, and
- grass-cycling for 526 tonnes.



Responsible Consumption



Did you know?

During special collection events in 2017, Pickering residents dropped off 8.93 tonnes of electronics (68% increase from 2016). In 2017, residents also dropped off 8.16 tonnes of household hazardous waste (62% increase from 2015).

What are the City and others doing to promote the diversion of waste?

Improving waste diversion at City facilities and events: Through the following actions and changes, the City is ensuring that City facilities and City-sponsored events meet or exceed waste diversion objectives. The City:

- has installed battery collection bins for residents to recycle used household batteries at the Pickering Recreation Complex, East Shore Community Centre, George Ashe Library, and the Pickering Central Library
- offers recycling and green bin collection at facilities where feasible
- re-uses office items, prints double-sided, discourages unsolicited sales catalogues, and recycles batteries, printer cartridges, old cell phones
- collects milk bags and provides them to groups to crochet into sleeping mats for people in impoverished nations
- in a 2017 pilot project at the Pickering Central Library, collected old pens, markers, and mechanical pencils to be recycled, earning a cash donation to Earth Day Canada
- has created a staff checklist for sustainable meetings and events
- provides documents online to avoid the need to print paper copies



Battery collection bin at the Pickering Recreation Complex

Responsible Consumption

- uses reusable plates, napkins, and cutlery at events involving meals; when attendance is large, such as for Ribfest, biodegradable options are used and green bins are provided

Increasing public awareness of waste diversion: The City:

- partners with the Region of Durham to offer annual electronic waste and household hazardous waste collection events
- participates in the National Waste Reduction Week every year by carrying out internal and external education campaigns and waste reduction challenges
- encourages the diversion of dog waste from landfill and became the first municipality to turn dog waste into power through the Poop-to-Power program

Educating students and teachers: Durham Region's Waste Management Services provides a variety of in-school waste diversion programs. These free programs teach students from Kindergarten to Grade 12 about the 4Rs of integrated waste management – Reduce, Reuse, Recycle, and Recover. The programs motivate and challenge students and teachers to explore new attitudes and habits to generate less waste in their everyday lives.

Giving away compost: Each spring, the Region of Durham offers free compost to residents as a thank-you gift for diverting source-separated organics, leaf and yard waste from the waste stream.



Did you know?

Our Dog Waste Diversion program is currently in 16 parks, in which the dog waste is collected weekly and delivered to a plant that converts it into electricity, heat, and nutrient-dense fertilizer free of weed seeds and pathogens. This program is in keeping with the *Waste-Free Ontario Act*.

Responsible Consumption

Value of Agricultural Products

Indicator

Total economic value of local agricultural products from Pickering farms

There are currently 68 working farms in Pickering, with a median farm capital value between \$1 million and \$1.5 million. These farms produce cattle, hogs, poultry, and other livestock; dairy products and eggs; fruits and vegetables; greenhouse and nursery products; or field crops such as corn, soy, grains, and oilseeds.

2005 (Baseline)	\$19,931,169
2011	\$19,535,787

Statistics Canada – Agriculture (2011)

What are the City and others doing to promote local agriculture?

Supporting farmers' markets: In 2011, the City supported efforts to establish new farmers' markets at both the Pickering Town Centre and Ontario Power Generation Information Centre. Amendment 27 to the Pickering Official Plan permits farmers' markets within the residential and commercial designations of rural hamlets, and within active recreational areas within the City's Open Space System. In 2016, the City took over the operation of a City Centre Farmers' Market to showcase a rich variety of locally produced, farm fresh food, food products, and artisanal wares. Market vendors were attracted from across Ontario. The City organized weekly entertainment such as live music, face painting, magicians, and Pickering Pro (ask the expert) sessions, to create not only a market but a destination. Consumable goods sold included farm fresh produce, baked goods, eggs, condiments, sauces, jams/jellies, local maple syrup, honey, meat products, handcrafted fibre wear, and locally roasted coffee.



Learning about local food, gardening and the environment at Sustainable Pickering Day

Responsible Consumption

Consumption of Local Food

“Local food” can be defined as food produced or harvested in Ontario, or food and beverages produced in Ontario that use Ontario ingredients. Local food travels shorter distances to get to market and therefore uses less fuel and reduces greenhouse gas emissions. Shorter distribution chains also mean that less food is wasted in processing and distribution.

Food dollars spent on local food support the local economy, encourage diversification of local agriculture, and help maintain farmland and green or open spaces in the community. Local consumption also ensures that the food the community consumes has passed Canadian safety standards regarding additives, pesticides, and herbicides – which also have environmental implications.

Indicator	
Percentage of survey respondents who very often or often buy local food	
Survey respondents reporting that they very often or often buy local food	
2016 (Baseline)	68%

Source: City of Pickering 2016 Sustainability Survey

The 2016 Sustainability Survey provided the following results:

	“Very often” or “often”	“Sometimes”
Bought local food	68%	25%
Shopped at a farmers’ market or bought food direct from a farmer	47%	34%
Grew their own food	40%	13%
Would pay more to buy local food	66%	34%

Responsible Consumption

What are the City and others doing to promote locally grown foods?

Educating the community: Each spring, the City hosts free educational workshops for the public about native plant gardening, organic lawn care, and how to save money by growing your own food. Many local community organizations such as [Valley Plentiful Community Garden](#), [Durham Integrated Growers](#), and [Durham Master Gardeners](#) lend their knowledge to help residents learn how to grow food.

Supporting community gardening: The Valley Plentiful Community Garden in Diana Princess of Wales Park has more than 100 rental plots available – an impressive increase from the eight initially offered. Two raised beds were also constructed for gardeners with accessibility constraints. Through the City’s Celebrating Sustainable Neighbourhoods program, the organizers added new benches, signage, fruit trees, additional garden plots, a large pollinator-friendly garden, wheelchair-accessible seating, and benches crafted by a local high school out of fallen ash trees. Garden beds are rented to residents on a yearly basis, where they can grow food and/or flowers for themselves and their families. A few beds are planted for the food bank by a team of dedicated volunteers.



Raised community garden beds to improve accessibility

Supporting local gardeners: Another participant of the Celebrating Sustainable Neighbourhoods program was the Durham Condo Corporation 57. This condo co-op community has created a communal garden project. To make their project even more sustainable, co-op residents installed rain barrels to collect water for use in the garden, a bench, and used two communal composting stations, as their building was not serviced with the Region of Durham curbside collection.

Making changes to the Pickering Official Plan: The recent Amendment 27 to the Pickering Official Plan permits community gardens within the residential and commercial designations of rural settlements, and within Natural Areas (outside key natural heritage and hydrologically sensitive features), and Active Recreational Areas of the City’s Open Space System.

Supporting food security: Through Amendment 27 to its Pickering Official Plan, the City promotes the availability of local food and value added products, and is recommending that Council develop a local food policy in relation to the Region of Durham Food Charter and food security.

Responsible Consumption

What can you do to support Responsible Consumption?

Visit the Take Action section of the City's website at pickering.ca/takeaction to learn about ways you can save energy and water, reduce waste, and support local food.

Reduce your use of water and discharge of wastewater:

- purchase a front-loading washing machine, which uses 40% less water than top loaders
- install low-flow showerheads and toilets, which use 70% less water than the conventional versions
- use an Energy Star dishwasher instead of hand washing and save up to 19,000 litres of water a year
- install low-flow aerators on kitchen and bathroom taps
- turn off the tap when brushing your teeth
- use low-angle pulsating sprinklers with a timer to water lawns and gardens
- plant water-efficient plants that do not require as much water

Divert waste from landfill:

- buy only what you need
- look for products made from recycled material and avoid overly packaged goods
- recycle electronics and hazardous materials responsibly
- donate older or unused items
- pack a "litterless lunch" using reusable mugs, water bottles, napkins, and containers
- remember to bring reusable bags or grocery bins when shopping
- use the blue box and green bin for proper waste diversion
- use washable plates, glasses, cutlery, and napkins when having a party or meeting

Reduce your energy consumption and resulting greenhouse gas emissions:

- visit veridian.on.ca and enbridgegas.com/rebates to learn about valuable incentives, coupons, programs, and other resources to help you better understand your energy use

Responsible Consumption

- consider “Time of Use” when turning on your dishwasher or doing laundry
- install and use a smart thermostat
- investigate alternative energy sources, such as solar
- investigate green vehicle options and right-size your vehicle for your needs
- speak with your employer about joining Durham Region’s free Smart Commute program at smartcommute.ca/durham
- sign your family and school up to take the “iCANwalk to School Pledge” at saferoutestoschool.ca

Support local food:

- grow vegetables and herbs in your garden or in containers; if you don’t have the room, participate in the community garden program
- buy local food and products from local farmers and merchants, and encourage family and friends to do the same
- ask your grocery store to provide local products
- visit the [Durham Farm Fresh](http://DurhamFarmFresh) website for a listing of local farmers’ markets







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P in ing Process

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Join us on the journey

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