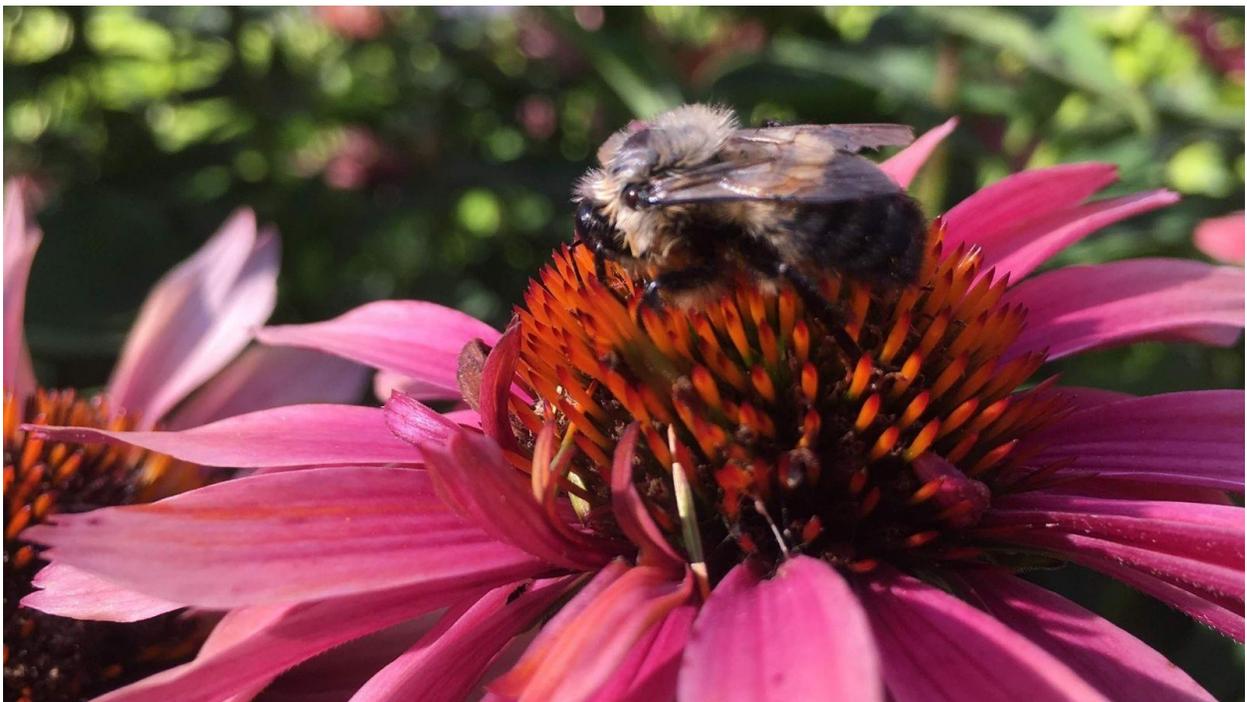


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# 2020

## SUSTAINABILITY ANNUAL REPORT

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# Introduction

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The Town of Whitby continues to implement its Corporate Sustainability Plan. The plan outlines the sustainability goals for the corporation and is focused on understanding the challenges and opportunities the entire community faces today.

This Annual Report follows the ten principles of the One Living Planning Framework. The ten principles guide the Town of Whitby in its efforts to meet its overall vision for Whitby to be a healthy, sustainable and complete community.

In 2020, the Town of Whitby saw a busy year for sustainability. Key highlights include:

- Approval of the Whitby Green Standard;
- Launch of the LEAF subsidized Backyard Tree Planting Program;
- Recognition as one of the first Tree Cities of the World;
- Initiation of the corporate Zero Carbon Whitby Plan – a plan to address the elimination of greenhouse gas emissions in Town Operations.

It is anticipated that 2021 will further Whitby's journey to sustainability with some of the priority initiatives including:

- The adoption of Zero Carbon Whitby - the Town's corporate Carbon Framework;
- The initiation of Whitby's first climate change plan;
- The completion of a District Energy Pre Feasibility Study;
- Supporting the launch of a home energy retrofit program.

# One Planet Living

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This report follows the One Planet Living Framework. This international framework consists of ten simple principles, detailed goals and guidance to help ensure that the Town of Whitby advances all aspects of social, environmental and economic sustainability.

-  **Health and happiness** Encouraging active, social, meaningful lives to promote good health and wellbeing
-  **Equity and local economy** Creating safe, equitable places to live and work, which support local prosperity and international fair trade
-  **Culture and community** Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
-  **Land and nature** Protecting and restoring land and marine systems for the benefit of people and wildlife
-  **Sustainable water** Using water efficiently, protecting local water resources and reducing flooding and drought
-  **Local and sustainable food** Promoting sustainable, humane farming and healthy diets which are high in local, seasonal organic food and vegetable protein
-  **Travel and transport** Reducing the need to travel, encouraging walking, cycling and low carbon transport
-  **Materials and products** Using materials from sustainable sources and promoting products which help people reduce consumption
-  **Zero waste** Reducing consumption, reusing and recycling to achieve zero waste and zero pollution
-  **Zero carbon energy** Making buildings and manufacturing energy-efficient and supplying all energy with renewables



# Culture and Community

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.

## 2020 Initiatives

### Community

#### Whitby Sustainability Advisory Committee

The Whitby Sustainability Advisory Committee (WSAC) is a community-based committee of Council whose role is to promote sustainability, support environmental management, and respond to climate change.

In 2020, the WSAC completed a number of initiatives including hosting a Native Plants Webinar, delivering a new waste sorting game to residents as well as reviewing and commenting on a number of Town initiatives including the Active Transportation Plan and the Whitby Green Standard.

#### Culture Plan

Whitby Council approved the Town's first Culture Plan – Culture Connects Whitby – a 10-year plan (2021 – 2031) which serves to position arts and culture as a key economic driver through investing in our people, programs, services and facilities to promote and strengthen our relationship with local arts, culture, heritage and the creative sector. The Plan includes sustainability as one of five Guiding Principles and has environmentally sustainable recommendations interwoven throughout the plan.

#### Youth Challenge International (YCI)



In 2020, the Town supported YCI's "Innovate MY Future" initiative and served as the Durham host of the program in partnership with the Region of Durham. "Innovate MY Future" offers Canadian youth the opportunity to take action on local climate issues and make a real difference in their communities.

In 2020, [Youth Roots Durham](#) formed through this programme. This team of Durham youth set out in 2020 to increase knowledge on Food Security and Climate Change during the COVID-19 pandemic. Their efforts resulted in a weeklong virtual event in January 2021 called "Does Your Meal Plan Cover Climate Change?" which consisted of a series of virtual workshops and resources.

More details of their achievements and access to their resources can be found on the [Durham Food Policy Council](#) website.

## Corporate

### Corporate Sustainability Team

In 2020, the Corporate Sustainability Team was reorganized to better represent the recent changes to the Town's organizational structure. The team meets quarterly to develop and deliver work plan priorities. These work plan priorities were developed with the new team and include:

- Electric Vehicles;
- Corporate Sustainable Building Policy;
- Corporate Waste Management;
- Environmental Education.

### Corporate Energy Team

In 2020, Whitby's Senior Leadership supported the creation of a Corporate Energy Team, which includes staff from across the organization who are involved in initiatives dealing with energy management and consumption that impact greenhouse emissions.

The purpose of this integrated team is to support the implementation of the Town's 2014 Corporate Energy and Greenhouse Gas Reductions Plan. In 2020, this team supported initiatives including:

- Corporate energy audits;
- Annual energy and emissions reporting;
- Dollars to Sense Energy Saving Training;
- Development of the Zero Carbon Whitby Plan.

## 2021 Initiatives

### Community

#### Earth Day Scavenger Hunt

During the week of Earth Day, residents were invited to celebrate and help make a positive impact on the environment with the Town's virtual Earth Day Scavenger Hunt. Leveraging the locally developed Goose Chase App, residents virtually competed against each other by completing eco-friendly missions around their homes. Each completed mission resulted in points and the highest points earned eco prizes.

### Corporate

#### New Parks

The Town is overseeing the development of three new district parks and one local park including:

- Lynde Creek Park

This new district park located within West Whitby will include a playground, splash pad, multiscale court, illuminated soccer field with LED lights, walkways, tree plantings and a large naturalized meadow area with pollinator plantings and created wetland.

- Micklefield Park

This new local park located within the West Whitby Heathwood Development will include a playground, splash pad, soccer field, walkways, tree plantings and a large naturalized meadow area with pollinator plantings.

- West Whitby Mattamy Development

The park will be themed for bees and nature with 5,000 square meters of native plantings, a bee and pollinator-themed playground and a splash pad. Connections to trails will be added throughout the neighbourhood as well as interpretive signage about native bees. Sports opportunities include a multi-skills court, an illuminated multi-use field with LED lights and pickle ball courts.

Protecting and restoring land and aquatic systems for the benefit of people and wildlife.

## 2020 Initiatives

### Community

#### LEAF Backyard Tree Planting Program

In 2020, the Town of Whitby launched the subsidized Backyard Tree Planting Program to property owners of Whitby. This program is delivered by the not-for-profit organization LEAF, and is in partnership with the Region of Durham.



#### Invasive Species Management

The Town in partnership with Central Lakes Ontario Conservation Authority has been working along the Heber Down Trail and in the drainage channel adjacent to Rosedale Park in order to manage and remove invasive species including Common Reed (*Phragmites australis*) and Dog Strangling Vine (*Cynanchum rossicum*).

#### Fleet to Trees

The 'Fleet to Trees' program was launched in summer 2018. Since then, for every new vehicle purchase, the Town requires the successful supplier/manufacturer to supply a set amount of trees to be planted. The number of trees is dependent on the total cost of the project.

In November 2020, the Town joined service vehicle manufacturers in the planting of 25 new trees in Bradley Park. The purpose of the 'Fleet to Trees' program is to help offset greenhouse gas emissions created by Town vehicles, such as fire, waste collection and winter maintenance trucks that service the community.



### **Tree Planting Requirements**

Town of Whitby Tree Protection Requirements have been updated and promote the education, awareness and investment in the protection of the Town's urban tree canopy. The update provides a comprehensive and convenient reference for residents, staff and the development industry.

The information in the guidelines has been expanded to address previous gaps, reflects policy and legislation updates, provides general information about best practices and describes the requirements supporting the protection of existing trees in the Town of Whitby. The goal of the Tree Protection Requirements is to minimize damage and removal of the Town's existing urban tree canopy and woodlands.

### **Tree Planting**

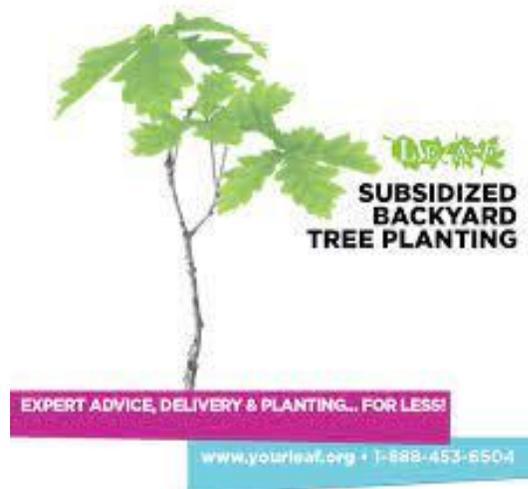
Despite the COVID-19 pandemic, the Town of Whitby remained committed to maintaining and enhancing the urban forest. This included pruning 9,121 trees, removing 350 declining trees and planting 402 new trees in Town parks and along streets.

## 2021 Initiatives

### Community

#### LEAF Community Tree Planting Program

Town staff will be seeking approval from Council to continue supporting the LEAF Backyard Tree Planting program for the next five years. If approved, this will enable residents to continue to participate in the subsidized Backyard Tree Planting as well as access to other programs that LEAF offers including native plant kits and a number of educational tools.



#### Invasive Species Removal

Invasive species removal will be completed in Nichol Park along with the adjacent open space. We are working with Urban Forest Associates (UFORA) to remove Buckthorn, Manitoba Maple and Black Locust.

#### Urban Forest Management Plan

In 2021, the Town of Whitby will be developing its first Urban Forest Management Plan.

The Plan will provide recommendations to improve tree health and diversity, increasing tree cover, coping with climate change, reducing risk to the public, and

increasing the wide-ranging benefits provided by a sustainable, healthy, and safe urban forest.

#### Community Tree Planting

The Town will be collaborating with LEAF to deliver a community Tree Planting Event in the fall of 2021 at Rosedale Park. This event will encourage volunteers to come out and assist with the planting of over 200 trees to help increase and enhance Whitby's urban forest.

#### Climate Conversations Webinar Series

The Whitby Sustainability Advisory Committee hosted Climate Conversations - a four-part webinar series to help increase knowledge and awareness of the natural environment and how it is impacted by climate change. Topics covered in the spring of 2021 included local food, the importance of wetlands, invasive species and Bees Love Trees. Climate Conversations are presented in partnership with Durham Farm Fresh, Central Lake Ontario Conservation (CLOCA), Ontario Federation of Anglers and Hunters (OFAH) and Local Enhancement and Appreciation of Forests (LEAF).

#### National Tree Day

National Tree Day is on Wednesday, September 22, 2021. National Tree Day serves as a celebration for all Canadians to appreciate the great benefits that trees provide us. Whitby will be assisting in the celebrations by hosting an educational seminar on native trees.

## Corporate

### Staff Tree Planting (\$)

In the fall of 2021, Town staff will be invited to participate in the Canadian-wide Earth Day tree-planting relay and will be planting 50 native trees in celebration of the 50th anniversary of Earth Day.



### Tree Replacement

The Town is planning for the protection and replacement of boulevard trees along Brock Street as part of the right-of-way improvements between Rossland Road south to the Whitby Curling Club, including replacement of roughly 52 unavoidably removed trees, the installation of 125 new boulevard trees, as well as the establishment of new tree plantings to enhance the sloped banks north and south of the CP Rail underpass.

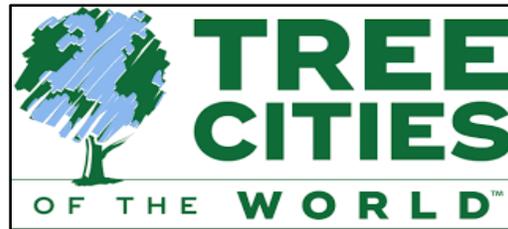
### Tree Protection

The Town is planning for the protection, replacement and enhancement of existing boulevard trees along Garden Street as part of the continuation of the Garden Street right-of-way improvements north of Rossland Road to Taunton Road, which

also includes the continuation of the multi-use pathway connection.

### Pollinator Habitat Expansion

In 2021, the Town is looking to install native, naturalizing plant material to enhance and expand the natural heritage system provided as compensation due to required culvert upgrade works on Ashburn Road over Lynde Creek, a protected red-side dace habitat area.



### Tree Cities of the World

[Tree Cities of the World](#) is an international effort through the Arbor Day Foundation, the Food and Agriculture Organization of the United Nations alongside its Canadian partner, Tree Canada to recognize cities and towns committed to ensuring that urban forests and trees are properly maintained, sustainably managed, and duly celebrated.

When the program launched in 2019 Whitby was one of only 59 cities worldwide to receive this designation. Since then the program has increased to 120 cities Worldwide. Whitby continues to meet the commitments of the programs and will reapply in 2021.

## **Funding (\$)**

### **Species at Risk (Unsuccessful)**

In March 2020, the Town submitted a grant application to the Ministry of Environment, Conservation and Parks under the Species at Risk Stewardship Program to support the creation of Brown Bat habitat. This application included funding to support:

- Community tree planting (approximately 6,000 trees);
- Community Build a Bat Box workshop;
- Educational material on Whitby Species at Risk;
- Interpretive signage;
- Community monitoring program.

In June 2020, the Town was notified that they were unsuccessful in their application due to oversubscription in the program.

### **Earth Day 50th Anniversary (Successful)**

In 2020, Earth Day Canada provided the Town of Whitby \$1,500 to plant 50 trees as part of the 50th anniversary of Earth Day. The fund is part of a nationwide tree relay. Due to COVID-19 restrictions, the tree planting has been postponed until late 2021.

Using water efficiently, protecting local water resources, reducing flooding and drought.

## 2020 Initiatives

### Corporate

#### **Drinking-Water Stations**

Starting in 2019, the Town of Whitby began to expand drinking water stations throughout a number of municipal facilities to promote the use of reusable water bottles. In 2020, water fill stations were added to the Fire Headquarters.

#### **Waterfront Master Plan Survey**

In 2020, staff reported to Council the outcomes of a survey conducted in 2019 to guide the implementation of the Waterfront Parks and Open Space Master Plan. The results of the survey identified that the majority of respondents (74%) want the waterfront protected, with additional investment into playgrounds, parks, trails and event spaces.

#### **Vanier Park Dry Storm pond**

In 2020, over 1000 m<sup>2</sup> of native plants were installed in a newly constructed dry storm pond on the west side of Vanier Park to help manage stormwater runoff.

#### **Michael Boulevard Flood Mitigation Assessment (\$)**

This project is partially funded by the National Disaster Mitigation Program to protect 45 houses from 100-year flooding risk. This project reviews past recommendations to find a new socio-economically acceptable solution and completes a conceptual design of the recommended solutions. The project report has been filed with the Ministry of Environmental Conservation and Parks.

#### **Bridge/Culvert Master Plan – Hydraulic Capacity Assessments (\$)**

This project is partially funded by the National Disaster Mitigation Program to assess the Town's culverts and bridges compliance with the Town's current engineering standards, flood resiliency, assessment of climate change's impacts, and potential future capital/mitigation expenditure prioritization. The project report has been filed with the Ministry of Environmental Conservation and Parks for record retention.

## 2021 Initiatives

### Corporate

#### **Lake Ontario Shoreline Erosion and Protecting Critical Infrastructure (\$)**

This project is funded by the National Disaster Mitigation Program to assess the 100-year flood hazard risk along the Town's Lake Ontario shoreline, inundation zone and erosion risk. The project will enable the informed risk assessment of existing public and private lands and infrastructure along the Town's waterfront. The project is planned to be complete by mid 2021.

#### **Update of 1988 Lynde Creek Master Drainage Plan (\$)**

This project is funded by the Town to develop environmentally sustainable watershed guidance for the management of the creek watershed and stream corridors in terms of flows, erosion, and flooding and to provide an opportunity for retrofitting stormwater systems, wetlands, and land development in the watershed. This project was funded by the National Disaster Mitigation Program.

### Community

#### **Cullen Central Park Multi-Use Path**

This new trail connection from Taunton Road along the east side of Cochrane, parking lot construction includes advanced design low impact development techniques to manage stormwater runoff including a bioswale, structural soil plantings within parking lot islands and native plantings.

### Funding (\$)

#### **National Disaster Mitigation Program**

In 2019, the Town of Whitby received notification of grant funding from the National Disaster Mitigation Program to support two projects including:

- Corbett Creek Floodplain Mapping and Master Drainage Study
- Lake Ontario Shoreline Erosion and Protecting Critical Infrastructure
- Town-Wide Urban Flood Study
- Update of 1988 Lynde Creek Master Drainage Plan



# Local and Sustainable Food

Promoting sustainable, humane farming and healthy diets, which are high in local, seasonal, organic food and vegetable protein.

## 2020 Initiatives

### Community

#### Community Garden Workshops

In January 2020, the Town hosted “How-To” sessions to encourage the start-up of community gardens within Whitby.

#### Pollinators

In 2018, Whitby was designated the 10th Bee City in Canada and the first in Durham Region. The Bee City designation is awarded to municipalities that make a declaration to protect pollinators and their habitat through action and education. In 2020, the Town undertook a number of actions to maintain the Bee City status as outlined below.



#### Native Plant Workshop (WSAC)

As part of Whitby’s Pollinator week celebrations in 2020, the Whitby Sustainability Advisory Committee hosted a virtual webinar called Creating Naturalized Gardens.

This well-attended presentation led by Durham Master Gardeners shared tips on how to create a naturalized garden: what they are and how to plan a garden and evaluate your planting space. The discussion included the types of natural gardens, with a review of a list of native plants for each of the garden types.

#### Urban Beehive Workshops

In 2020, the Town easily transitioned in-person workshops into online and virtual presentations for the Urban Beehive Workshops. Whitby’s urban beehive is located on the roof of the Whitby Municipal Building. These sessions included a Facebook Live event called “From Hive to Jar” as well as a number of short videos released through social media sharing our beekeepers and our bees to the community.

## 2021 Initiatives

### Community

#### **Climate Change Webinar Series - Local Food & Climate Change**

Kicking off the Climate Conversations webinar series on Earth Day 2021, (April 22nd) was a presentation from Durham Farm Fresh called “Buy Local, Buy Fresh - why buying local is good for you and our climate”. This presentation identified ways to buy local all year round, reduce food waste, and support local farmers all while helping reduce the impacts of climate change.

#### **King St. Parkette Community Garden**

The Town is working with a local community group interested in creating a community garden at the King Street Parkette that will demonstrate permaculture methods of gardening. Public consultation started in April and is continuing.

#### **Mayor’s Monarch Pledge**

The Town of Whitby continues to be committed to the Mayor’s Monarch Pledge. This is a program led by the National Wildlife Federation. Through this initiative, Whitby is committed to create a habitat for the monarch butterfly and pollinators and to educate residents about how they can make a difference at home and in their community. In order to participate, the Town must commit to at

least three action items (out of 30) that the community will initiate throughout the year.

#### **Native Bee Seminars**

Early in 2021, the Town hosted a successful virtual presentation with our volunteers at 55+ Community Centre. The presentation by Alveole beekeepers focused on native bee species. The volunteers were given kits ahead of time that allowed them to construct their own bee hotels.

### Corporate

#### **Urban Rooftop Beehive (\$)**

The urban rooftop beehive has a new sponsor for the 2021 season – Elexicon Energy. We are looking forward to collaborating with our local energy supplier to further extend the educational opportunities to our community on the importance of native pollinators.

### Funding (\$)

#### **Elexicon**

The Town of Whitby received funding to support the installation of the Urban Beehive and for education of Our Native Pollinator sessions.

# Travel and Transport

Reducing the need to travel, encouraging walking, cycling and low-carbon transport

## 2020 Initiatives

### Corporate

development, the connection of the Rossland Road and Taunton Road MUPs via a new MUP on Brock Street, the opening of the Stellar Drive MUP, and the completion of the Rossland Road MUP between McQuay Boulevard and Lake Ridge Road. In total, 11 km of new active transportation facilities were either opened or constructed in 2020.

### Community

#### Increase in Active Transportation Use

In 2020, the continued COVID-19 pandemic saw families and individuals looking for new ways to travel and explore the Town while maintaining social distancing. There was a significant increase in active transportation in Whitby.

#### Active Street Zone along Henry Street

In order to support the increase in active transportation, the Town piloted an Active Street Zone along Henry Street. The daylong closure encouraged all active transportation modes to travel along

Henry Street to connect the south and north sides of Highway 401 and enjoy the network connections along its corridor.

### Multi Use Path Improvements

Whitby continued to improve the active transportation network with additions to our Multi Use Paths (MUP) and Park facilities including MUP and trail construction to support the West Whitby

### Draft Active Transportation Plan

In 2020, the Draft Active Transportation Plan was presented to the public and to Committees of Council to receive feedback and toward refining the final report. The plan includes construction of a complete spine network and ongoing maintenance and expansion of the active transportation network and a culture of active travel over a 20-year plan horizon.



## 2021 Initiatives

### Community

#### EV Charging Stations (\$)

In September 2019 and in 2020, the Town of Whitby partnered with the Region of Durham, Town of Ajax, City of Oshawa, Oshawa Public Utility Corporation, and the Municipality of Clarington in an application to Natural Resources Canada, to support 50% of the cost to purchase and install charging infrastructure at a number of locations across the Region.

The funding application was approved and the Town of Whitby will move ahead with installing charging stations at the following locations for public and employee use:

- Brooklin Community Centre & Library;
- Iroquois Park Sports Centre;
- McKinney Centre;
- Centennial Building/1855 Accelerator;
- Whitby Civic Recreation Complex;
- Operations Centre;
- Whitby Marina;
- Fire Headquarters;
- Town Hall.

This program supports the implementation of the Durham Community Energy Plan specifically Program #4 - Electric Vehicle Joint Venture.

#### Trail Expansions

The Town will be expanding the Whitby trails network in a number of locations in 2021 including:

- Hydro Electric Power Corridor (HEPC) Trail from Longwood Park to Thickson Road will be expanded by approximately 520m;
- Bradley Park Trail connection from the Ash Creek trail to Brock Road (approximately 175m length);
- Heber Down to Country Lane approximately 950 linear metres of new trail, including rest areas, boardwalks and native plantings;
- Florence Drive to Garden Street Trail connection (approximately 425m).

#### Trail Improvements

In 2021, a number of improvements to Town trails will take place including:

- Pringle Creek Trail improvements – trail section and bridge over Pringle Creek is being added to provide an accessible connection that allows users to cross under Manning Road;
- HEPC Trail from operating north to William Stephenson works include upgrading existing granular pathway upgraded to asphalt;

- Cullen Central Park multi-use path connection from Taunton Road along the east side of Cochrane; parking lot construction with bioswale, structural soil plantings within parking lot islands and native plantings.

### **Waterfront Trail**

From South Blair Street to the waterfront boardwalk west of Boundary Road, existing 2.5m wide trail will be replaced with a 4m wide asphalt surface. Sections of the trail are being moved north to protect against the eroding bluffs. Native plantings, rest areas as well as interpretive signage providing information about the native milk snake is being added.

### **Active Transportation Plan**

The Active Transportation Plan is expected to be adopted in 2021. Staff are excited to continue to encourage Active Transportation in the community and to continue building the active transportation network.

## **Corporate**

### **Fleet Master Plan (\$)**

The Town of Whitby will be completing a Fleet Strategic Master Plan to address long-term fleet needs in order to deliver services to the community. The final plan will highlight actions, strategies, and benchmarks that can be implemented to support the Town's current needs with the flexibility and resilience to adapt to changes in future growth in the Town of Whitby. Considerations will include emerging technologies, zero-emission vehicles, and climate change.

## **Funding (\$)**

### **Natural Resources Canada - Energy Program (energy audits, staffing support, fleet analysis)**

In September 2019, the Town of Whitby applied to the Natural Resources Canada Energy Manager Program to support:

- Facility Energy Audits;
- Fleet Master Plan
- Energy Manager Plan.

The Town was successful in its application to the program and has been moving forward with completing these three initiatives in 2021.

### **Zero Emissions Vehicle Infrastructure Program**

In 2019 and 2020, the Town partnered with the Region of Durham and local partners to submit a funding application to Natural Resources Canada to install electric vehicle chargers. The applications were successful in both rounds resulting in \$100,000 in funding for Whitby.



Reducing consumption, reusing and recycling to achieve zero waste and zero pollution

## 2020 Initiatives

### Community

#### Extended Producer Responsibility

The Town of Whitby eliminated the collection of tires as part of its household waste collection services in 2020 as the producers now have the appropriate infrastructure in place to recycle them directly where new tires are purchased. This means that suppliers of tires have the responsibility of collecting and disposing waste products directly without having to go through the municipal waste program. Extended Producer Responsibility programs like tire collection supports waste reduction, reuse and recycling activities.

#### Waste Sorting Game (WSAC)

In 2020, the Whitby Sustainability Advisory Committee helped to deliver a Waste Sorting Game Play that can be accessed through the Town's website and through the Whitby Waste App. The game allows residents to test their knowledge of how waste is sorted in Whitby. Each level becomes more challenging!



### Corporate

#### Waste Award (Silver)

In 2020, the Town of Whitby was the Silver Award Winner - 2020 Municipal Waste Association Public & Engagement Awards for our waste calendar. These awards celebrate the creativity and innovation that go into advancing public engagement in waste diversion.

## 2021 Initiatives

### Community

#### Community Cleanup Online Tool

The Town of Whitby is working on a tool to help make it easier for volunteers who want to adopt a Park, Road, or Trail, or schedule a one-time community cleanup. This tool was launched in May 2021.

#### Waste Reduction Week

The Town of Whitby will be celebrating Waste Reduction Week (October 18-24).

2021 marks the 20th anniversary celebration for this recognition, which focuses on the principles of circular economy, resource efficiency, and waste reduction.

# Zero Carbon Energy

Making buildings, manufacturing energy-efficient, and supplying all energy with renewables.

## 2020 Initiatives

### Community

#### Whitby Green Standard

The Whitby Green Standard is born of the Town's vision for a healthy, sustainable and complete community as outlined in the Official Plan. It is a tool to assist the Town in implementing and achieving the vision for a sustainable community through the land development planning process. The Whitby Green Standard defines the minimum and advanced sustainability expectations for all new development and redevelopment in Whitby. The standards have been endorsed by Council and are now used as a component of the development review process to assess the sustainability of new development in the Town of Whitby. For more information visit [whitby.ca/greenstandard](http://whitby.ca/greenstandard).

#### CDP Global Climate Reporting Scorecard

The Carbon Disclosure Project (CDP) is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

The annual evaluation report is used as a tool for gaining an overview of environmental performance and how the Town's response can be improved in the future. Reporting through CDP meets annual reporting requirements as a member of the Global Covenant of Mayors.

2020 is the Town's second year for reporting climate performance. Whitby scored an **A minus in Leadership for climate adaptation** which demonstrates that the Town is at a leadership level demonstrating a clear understanding of future climate risks, and are in the process of implementing climate adaptation actions.

Whitby scored a **C in Awareness for climate mitigation**. "C" grade is the North American average and indicates an awareness level". It is anticipated that this scoring will be improved in 2021, as there are a number of climate actions scheduled to take place. The full Carbon Disclosure Project report is available online at [whitby.ca/sustainability](http://whitby.ca/sustainability).

#### Whitby Sports Complex

The Town has started the design and planning for the Whitby Sports Complex. The project will include sustainability principles including LEED Gold and the new Zero Carbon Building Standard. The design firm of Perkins & Will has started the process of exploring these opportunities through design options and engagement workshops.

## Corporate

### Energy Audits (\$)

The Town of Whitby completed 20 energy audits on major municipal facilities to identify energy and greenhouse gas emission upgrades. This work was completed as a result of funding from Natural Resource Canada's Energy Manager Program. The outcomes of these audits are being leveraged to develop the Town's Corporate Climate Plan entitled Zero Carbon Whitby.

### Global Covenant of Mayors

The Town of Whitby joined the Global Covenant of Mayors (GCoM) in 2019.

GCoM is a global network of more than 10,000 cities spanning 139 countries around the world. These local governments all recognize that ambitious climate initiatives in their communities need to be taken in order to keep global temperatures from rising more than 1.5 degrees.

Whitby's participation in the Global Covenant of Mayors commits the community and Town to the following milestones:

- Develop greenhouse gas (GHG) emissions inventory;
- Assess climate risks and vulnerabilities of your city;
- Define ambitious climate mitigation, resilience and energy targets;
- Create full climate action plans.

The Global Covenant of Mayors provides badges to reward achievement and progression within the different phases of participation of a city in the GCoM initiative – from commitment, to planning, to implementation and monitoring. The badge system provides an overview of the engagement of a city “at a glance,” and can be used by signatories as a communication and promotion tool. The badges can also connect cities with opportunities, resources, and with cities engaged in the same steps or processes. In 2020, the Town obtained two badges for its efforts in climate change including:



Mitigation Badge

This badge is awarded as soon as one of the steps (i.e. Inventory, Target, or Plan) is accomplished.

Actions that enabled the Town to achieve this badge include the implementation of the community greenhouse gas reduction target of 80% by 2050, and the endorsement of the Durham Community Energy Plan in 2019.



Adaptation Badge

This badge is awarded as soon as one of the steps (i.e. Assessment, Goal, or Plan) is accomplished.

Actions that enabled the Town the completion of the Durham Climate Ensemble model outlining climate projections to the year 2100 and the adoption of the Durham Community Climate Adaptation Plan in 2017.

For more information about the Global Covenant of Mayors, please visit: [globalcovenantofmayors.org](http://globalcovenantofmayors.org)

### **Energy Sub Metering**

The Town of Whitby has initiated a project to install energy sub-metres at the McKinney Centre. These meters will provide real-time monitoring of gas, electricity and water equipment, at the panel and building level and will provide an in-depth overview of energy consumption in the facility.

### **Facility Upgrades**

In 2020, a number of energy efficiency upgrades were made to Whitby facilities including: replacing an ammonia chiller and highly efficient boilers at the Iroquois Park Sports Centre; a number of LED lighting retrofits including exterior lighting at the Animal Services Building; and the Brooklin Community Centre & Library.

### **Park Upgrades**

In 2020, Pringle Creek Park was upgraded with the replacement of existing metal halide baseball field lighting system with high efficiency LED fixtures.

As part of the new splash pad at Jeffery Park, renewable solar energy has been incorporated to help power the water equipment.

## 2021 Initiatives

### Community

#### **Whitby Green Standard Demonstration Project (S)**

The Town is working with partners to complete a Demonstration Project that measures the costs and benefits of integrating advanced sustainability criteria outlined in the Whitby Green Standard. This will include monitoring the design construction and occupancy stages for the development of 3-6 low-rise residential homes. The outcome of this project will be used to inform an incentive program that can be applied to promote advanced environmental performance in new home development.

#### **District Energy Pre-Feasibility Study**

In 2021, the Town completed a pre-feasibility study to determine the technical and financial viability of establishing a geothermal district energy system in North Whitby. If successful, this project has the potential to provide clean low carbon heating and cooling to a large portion of development lands including the future Whitby Sports Complex. Whitby Council has since directed staff to work with Elexicon Group to explore next steps.

#### **Whitby Climate Change Plan**

In the fall of 2021, the Town will be initiating a three-year project to develop both a climate adaptation and climate

mitigation plan for the community. It is anticipated this project will be completed in the fall of 2022.

#### **Whitby Weather Station**

The Town is partnering with CLOCA (Central Lake Conservation Authority) on their Smart Watershed program. This project will enable CLOCA to install a weather station at the Brooklin Community Centre and Library. With the weather station in place, data collected will support various mitigation efforts to address the weather changes due to climate change.

#### **Home Energy Retrofit Program**

The Region of Durham is exploring ways to develop a “Deep Retrofit Program” as identified within the Durham Community Energy Plan. This program will help stimulate energy retrofits of existing residential buildings. The Town of Whitby is working with the Region of Durham and the Carbon Advancement Support Centre, which is a group of municipalities led by the Clean Air Partnership who are working together to develop financial tools to help implement Home Retrofit Programs within the community. It is anticipated that a draft program will be completed by the end of 2021.

## **Funding (\$)**

### **Natural Resources Canada - Energy Program (energy audits, staffing support, fleet analysis)**

In September 2019, the Town of Whitby received funding from Natural Resources Canada Energy Manager Program to support:

- Facility Energy Audits
- Fleet Master Plan
- Energy Manager Plan

### **The Atmospheric Fund Grant**

The Town of Whitby was successful in obtaining \$250,000 to support the completion of the Whitby Demonstration Project. These funds will be used to support the hiring of consultants to oversee the project.

# Greenhouse Gas & Energy Consumption

## Town of Whitby Buildings

### Corporate Buildings - Energy Consumption

Energy Type	ekWh 2012	ekWh 2018	ekWh 2019	Difference between 2012 and 2019	(%)
Electricity	15,518,808	13,329,812	12,944,006	(385,806)	(3%)
Natural Gas	13,581,738	17,530,176	18,174,969	1,444,793	8%
Total	29,100,546	30,859,988	31,918,975	1,058,987	3%

### Corporate Buildings - Greenhouse Gas Emissions

GHG (tCO <sub>2</sub> ) 2012	GHG (tCO <sub>2</sub> ) 2018	GHG (tCO <sub>2</sub> ) 2019	Change 2018-2019	(%)	Change 2012-2019	(%)
3,921	3,358	3,782	424 tCO <sub>2</sub>	+11%	-139 tCO <sub>2</sub>	-3%

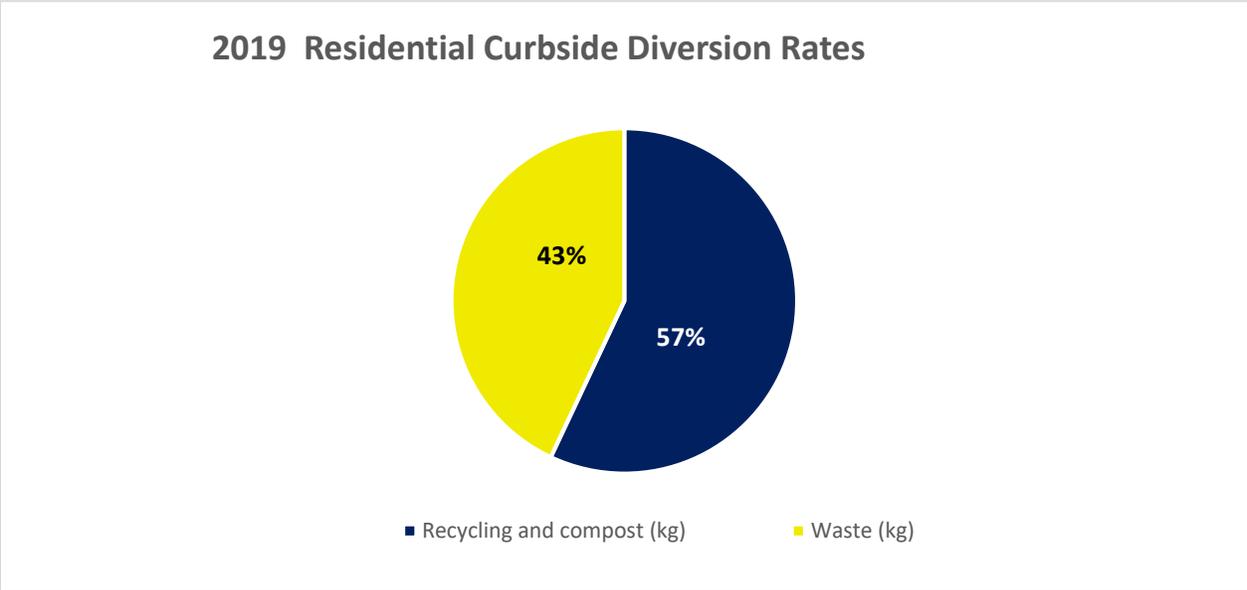
### 2019 Corporate Waste

Waste Generated (ton)	Recycling (ton)	Organic Waste (ton)	Diversion Rate (%)	GHG (tCO <sub>2</sub> ) 2019
305	32	9	13%	146 tCO <sub>2</sub>

### Corporate Fleet GHG emissions

GHG (tCO <sub>2</sub> ) 2017	Diesel (l)	Gasoline (l)	GHG (tCO <sub>2</sub> ) 2017	Diesel (l)	Gasoline (l)	GHG (tCO <sub>2</sub> ) 2019	Change 2017-2019	%
1,956	493,997	259,659	3,358	543,507	333,037	2,233	277 tCO <sub>2</sub>	12%

# Residential Waste Diversion



**2014-2019 Residential Curbside Diversion Rates**

Year	Total Waste Generated	Total Waste Diverted	Curbside Diversion
2014	44,610	27,854	62%
2015	40,551	23,919	59%
2016	39,398	22,915	58%
2017	39,124	22,639	58%
2018	38,247	21,740	57%
2019	37,674	21,372	57%

**Town Hall**

575 Rossland Road East

Whitby, ON

L1N 2M8

905.430.4300

E: [sustainability@whitby.ca](mailto:sustainability@whitby.ca)

W: [whitby.ca/sustainability](http://whitby.ca/sustainability)