
2024

SUSTAINABILITY ANNUAL REPORT



Summary

The Town of Whitby (Town) is committed to sustainability and environmentally responsible practices at both the community and corporate levels. Many sustainability projects and initiatives were accomplished in 2024. Key highlights include:

- The West Lynde neighbourhood was approved as Whitby's first Sustainable Neighbourhood Action Program (SNAP) in partnership with Central Lake Ontario Conservation Authority and Durham Region;
- In 2024 Whitby community members planted over 800 trees through the LEAF spring and fall community planting events and 38 trees were planted through the Backyard tree planting program;
- Fourteen new EV chargers were installed throughout Whitby in 2024 including the first level 3 – DC fast charging station; and
- In 2024, the Town offered an additional incentive of up to \$5,000 through the Federal Housing Accelerator Fund grant for Whitby residents participating in the Durham Greener Homes Program to support home energy retrofits.

A key Zero Carbon Whitby Project that has been completed in 2025 includes the transition of the Combined Heat and Power (CHP) unit at the Whitby Civic Recreation Centre to backup heating. This will save 454.4 tCO₂e of GHG emissions annually, which is equivalent to taking 98 cars off the road.

Additional actions to support Whitby's sustainability journey will be undertaken in 2025 with some of the priority initiatives including:

- Developing a Corporate Waste Management Strategy;
- Delivering emergency preparedness workshops;
- Implementing Zero Carbon Whitby projects; and
- Developing an incentive program to support the implementation of the Whitby Green Standard.

Introduction

The Town of Whitby recognizes that sustainability is a priority, both corporately and within the community. The Town has the following Council-endorsed strategic plans to guide the implementation of sustainability actions:

Community Strategic Plan (2023)

The Community Strategic Plan provides a shared vision and objectives for how the Town Council and Staff will work together to deliver on community priorities. Within Whitby's Community Strategic Plan are four strategic pillars with the second strategic pillar focusing on Whitby's Natural and Built Environment. The actions outlined in this report specifically align with the first objective of this pillar: Demonstrate environmental leadership in sustainability and addressing climate change.

Climate Emergency Response Plan

The Whitby Climate Emergency Response Plan is the primary mechanism to respond to a changing climate across the community. Due to the complexity and different approaches necessary to fully understand the response needed to address climate change, the Whitby Climate Change Master Plan has been divided into two phases:

- Phase 1: Resilience
- Phase 2: Mitigation

Phase 1 – Resilience (2022)

Phase 1 involved the development of a Resilience Plan, which was approved by Council in September of 2022. The purpose of the plan is to address the climate changes we already experience in Whitby and expect to experience in the future even with the adoption of GHG emissions mitigation measures. Risk and vulnerability modelling was done by developing two future scenarios for the Town of Whitby:

- An **adapted scenario**, where measures to reduce the direct and indirect risks of climate change are applied across the community; and
- A **business-as-usual scenario**, which includes growth and development without a climate adaptation lens.

To support the achievement of the adaptation actions, a detailed five-year community-led implementation plan has been developed.

Phase 2 – Mitigation (2023)

In December 2023, Climate Emergency Response Plan, Phase 2: Mitigation was completed and endorsed by Council. Phase 2 focused on climate mitigation and identified the sources of GHG emissions in Whitby and provided recommendations to reduce GHG emissions. The Mitigation Plan was developed to help prevent climate

change from occurring in the future through the elimination of community greenhouse gas (GHG) emissions.

The development of the Mitigation Plan included modelling the size of the climate challenge in Whitby. The Mitigation Plan provides low-carbon pathway and recommendations to meet the Town's community-wide GHG emissions reduction targets. Implementing the Mitigation Plan's low-carbon scenario will result in improved energy efficiency in all sectors (i.e., residential, institutional, commercial, and industrial buildings; transportation; and municipal operations) and will create opportunities for economic growth and community development.

Whitby Green Standard (2020)

The Whitby Green Standard was endorsed by Council in September 2020 and is aimed to develop a more sustainable community and support Whitby's goal to reduce GHG emissions. It applies to all new development in the Town that requires a Site Plan or Draft Plan of Subdivision Application.

Council endorsed that all new Town Facilities are built to achieve Tier 3 of the Whitby Green Standard.

Zero Carbon Whitby (2021)

Zero Carbon Whitby was endorsed by Council in March 2021; this plan serves as the Town's Corporate Energy Management Plan and Corporate Climate Adaptation Plan.

Zero Carbon Whitby has been developed as a framework for implementing a low carbon decision mechanism across the organization. The Plan derives the amount of emissions that Whitby's corporate operations must reduce to support global GHG emission reduction targets. Embedded in this framework, the Town of Whitby has identified the following short, medium, and long-term corporate GHG emissions reduction targets (relative to 2019 levels):

- 20% GHG emissions reduction by 2025
- 40% GHG emissions reduction by 2030
- 100% GHG emissions reduction by 2045

These targets were developed to reflect the Town's contribution to limiting the global annual average temperature increase to 1.5°C.

Embedded within Zero Carbon Whitby is a Carbon Reduction Framework, an overarching framework for GHG emissions management, extending over multiple years and all aspects of municipal operations. This framework empowers staff to develop and implement actions from the bottom up to meet GHG reduction targets by aligning capital and operating budgets with GHG reduction targets.

Zero Carbon Costing Study (2022)

As the first step of the implementation of the Zero Carbon Whitby Framework, the Zero Carbon Whitby Costing Study was completed. The Study was one of the main

recommendations of the Zero Carbon Whitby Framework. The Zero Carbon Costing Study provides a detailed implementation plan for the Town to remain within its carbon budget and reach zero emissions by 2045. The Zero Carbon Costing Study provides a schedule and incremental budget for the Zero Carbon Whitby Plan that optimizes the Town's corporate carbon budget with its existing capital budget and asset management plans. It also provides guidance on the establishment of the Zero Carbon Revolving Reserve Fund.

The estimated incremental cost of this work between 2022 and 2045 is \$63.7 million. In return, over the same period it estimated there will be \$75.3 million in total savings and avoided costs.

The Study proposes that this incremental cost could be paid for entirely from a Zero Carbon Revolving Reserve Fund, seeded with an initial \$34.8 million in funding and then utilizing cost savings from energy, carbon tax, and select capital projects to fund the balance of the program in later years.

Council endorsed the Zero Carbon Whitby Costing Study in September 2022.

Reporting Framework

The Climate Emergency Response Plan and Zero Carbon Whitby Framework both have stipulated annual reporting requirements. This Annual Report is the mechanism for reporting on the Town's progress towards those plans and on other sustainable actions taken across the organization.

This Annual Report follows the 10 principles of the One Planet Living Planning Framework. This international framework consists of the following ten simple principles, which provide clear goals and guidance to help ensure that the Town advances all aspects of social, environmental, and economic sustainability:

	Health and Happiness	Encouraging active, social, meaningful lives to promote good health and well-being.
	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 that 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.

Projects listed within the report that include a \$ have or are in the process of being considered for subsidization by an external funding opportunity. For more details, please view **Appendix A**.

2024 Accomplishments

The following section discusses the Town's accomplishments towards the Council-endorsed strategic plans discussed above.

Community Strategic Plan

The Community Strategic Plan actions under Objective 2.1; *Demonstrate environmental leadership in sustainability and addressing climate change* that were completed in 2024 include:

2.1.2 Explore partnership opportunities to advance alternate energy systems designed to reduce Green House Gas (GHG) emissions of new developments.

The Geothermal Exchange System has been incorporated into the construction of the Whitby Sports Complex to provide heating and cooling for the facility. More information on the Whitby Sports Complex can be found in the Health and Happiness section of the Report on page 16.

2.1.6 Promote the use of electric vehicles and lead by example by implementing electric vehicles in the Town's municipal fleet.

14 EV charging stations were installed, including the Town's first Level 3 DC fast-charging stations at the Operations Centre and Iroquois Park Sports Centre. More information on the expansion of the Town's EV Charging network can be found in Travel and Transport section of this Report on Page 32.

2.3.4 Implement enhanced street design to improve walkability.

The new enhanced street design standard is in place and has been consistently applied to all new developments. More information on the enhanced street design standard can be found in Travel and Transport section of this Report on page 32.

Actions 2.1.1 and 2.1.3 of the Community Strategic Plan were also both achieved in 2024 as the associated measures of progress have annual targets that have been met.

The measures of progress for Action 2.1.1 is to implement a minimum of one action annually from the Climate Emergency Response Plan – Phase 2: Mitigation. As further discussed below in 2024, 10 new actions were started in 2024, and six actions were completed.

The measures of progress for Action 2.1.3 is to implement a minimum of three actions annually from the Climate Emergency Response Plan – Phase 1: Resilience. As further discussed below in 2024, 12 actions were started, and one action was completed.

Climate Emergency Response Plan

Phase 1 – Resilience

In 2024, 10 of the 106 total actions in the Phase 1 – Resilience Implementation Plan were started. In addition, 11 actions are currently in progress, having been initiated during the first year of implementation in 2023. Two actions were completed in 2023, and six actions were completed in 2024. This reflects a total of 29 actions with progress to date.

Further information on the 11 actions started and the two actions completed in 2023 can be found in the [2023 Sustainability Annual Report](#).

In 2024, the actions from the Phase 1 – Resilience Plan listed below were implemented. The actions reflect several of the 10 principles of the One Planet Living Planning Framework, as such are discussed throughout the report. The following provides a high-level summary of the progress to date for each action started in 2024, and where further information in this Report can be found on the action.

- 1.1.1 Update the asset management policy and plan to incorporate climate risk and mitigation into asset management, following the province's asset management mandate.

The updated Town's Asset Management Plan includes a Climate Change section with a focus on strategies for climate resilience and mitigation, and Whitby's Zero Carbon Budget. More information on the Asset Management Plan can be found in the Materials and Products section of this Report on page 34.

- 1.5.1 Develop a communications strategy that includes a baseline assessment of knowledge and identifies education needs.

A communications strategy was finalized in 2024 based on the Emergency Preparedness and Climate Change survey that was released in Fall 2023. More information can be found in the Culture and Community section of this Report on page 22.

- 1.5.3 Develop proactive education and information campaigns with partners the public trusts and who can distribute information (libraries, non-profits, businesses, radio stations, etc.).

- 1.5.4 Complete a review of existing emergency communication protocols and identify strengths and weaknesses and assess the need for new communication tools such as an app that alerts residents of climate- and weather-related risks and closures.

1.5.5 Develop a community-level education program on the importance of developing emergency preparedness plans for a variety of climate emergencies.

These actions were considered in the development of the communications strategy for Action 1.5.1 above. More information can be found in the Culture and Community section of this Report on page 22.

2.1.1 Utilizing the 'Durham Region Climate Resilience Standard for New Houses', develop policies and site plan permitting requirements that direct development applicants to address basement flooding and extreme heat protection. Priorities include:

- Sewer backflow prevention policy/requirement
- Site grading, drainage, and low impact development requirements
- Limiting and sealing foundation openings guidelines
- Foundation drainage, sump pump, and downspout drainage and discharge policies and guidelines
- Net-zero run-off guidelines and/or policy
- Design guidelines for passive cooling including siting, shading, glazing, and window operability
- Cool roof guidelines
- Landscaping guidelines including maintaining existing trees and adding addition trees and native plant species
- Energy efficiency components including insulation, windows, doors, and high-efficiency heat pumps (overlaps with Whitby Green Standard)

In 2024, a consult was hired to develop Version 2 of the Whitby Green Standard. A criterion has been included that requires measures related to flood risk reduction and extreme heat. More information can be found in the Zero Carbon Energy section of this Report on page 37.

2.1.2 Utilizing the 'Durham Region Climate Resilience Standard for New Houses', develop education materials and support programs for residents to complete resilience upgrades in their home to protect against basement flooding and extreme heat. Priorities should include actions that can be completed within existing buildings such as:

- Cool roof guidelines
- Landscaping guidelines including maintaining existing trees and adding addition trees and native plant species
- Energy efficiency upgrades including insulation, windows, doors, and high-efficiency heat pumps

- Sealing foundations
- Foundation drainage, sump pump, and downspout drainage and discharge (see more in Action 2.4)

In 2024, Durham Region, in consultation with Whitby and other Local Area Municipalities, worked to expand the Durham Greener Homes program to include a resilience (Weather Ready) component, which will offer residents opportunities to assess and improve their homes' ability to withstand extreme weather events. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.1.3 Include climate resilience measures as part of the mandatory tier of the Whitby Green Standards and note the adaptation benefits for efficiency actions such as landscaping, air tightness, windows and doors, insulation, and efficient heating and cooling systems.

In 2024, a consult was hired to develop Version 2 of the Whitby Green Standard. A climate resilience measures has been included as part of the baseline tier of Version 2 of the standard. More information can be found in the Zero Carbon Energy section of this Report on page 37.

2.1.4 Evaluate the need and ability to provide additional incentives and funding programs for energy-efficient new buildings and building upgrades.

Through the Housing Accelerator Fund, the Town of Whitby offered to match Region funding, up to an additional \$5,000 top-up, bringing the total incentive to \$10,000 for Whitby residents participating in the Durham Greener Homes program. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.3.4 Provide guidelines and incentives for lot-level stormwater management including rain barrels, native species planting, and grass swales.

This action is currently being considered as part of the new resilience component within the Durham Greener Homes program. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.6.2 Utilizing the 'Durham Region Climate Resilience Standard for New Houses', develop site plan permitting requirements that direct development applicants to address basement flooding.

In 2024, a consult was hired to develop Version 2 of the Whitby Green Standard. Version 2 which will direct development applications to mitigate basement flooding

through its increased performance measures. More information can be found in the Zero Carbon Energy section of this Report on page 37.

2.8.1 Complete detailed calibration and cost-analysis studies for flood mitigation measures in neighbourhoods identified as being at risk of flooding and integrate findings into the Town's Asset Management Plan.

A five-year stormwater flow monitoring study was ongoing in 2024, including recommendations for detailed monitoring and calibration of flow rates at several critical areas vulnerable to flooding. The final study is to be completed by the end of 2025. The implementation of this five-year monitoring program is to commence in 2026, subject to approval of budget.

2.9.6 Incentivize and encourage the installation of high-efficiency heating and cooling options, such as heat pumps to minimize disruptions stemming from over peaking.

The Town promoted the Durham Greener Homes program, which provides incentives for homeowners to improve energy efficiency through upgrades such as heat pumps. More information can be found in the Zero Carbon Energy section of this Report on page 38.

3.1.1 Assess current canopy cover in the Town, as a whole and separately in more and less developed areas of Whitby, and with an equity lens (e.g. are there at-risk communities with less canopy cover that could lead to increased heat risk?).

Whitby's canopy cover was assessed to help inform the development of the Urban Forestry Management Plan. More information can be found in the Land and Nature section of this Report on page 26.

3.1.3 Set an urban canopy cover target of at least 40% and an overall natural cover target that includes wetlands and tall grass prairies of 60%.

An urban canopy target will be determined through the development of the Urban Forestry Management Plan. More information can be found in the Land and Nature section of this Report on page 26.

3.1.4 Develop an urban forest management strategy with recommendations on the following:

- Meeting the canopy cover target and number of trees planted, focusing on both individual plantings (street trees) and opportunities for creating new urban forests.
- Identifying trees resilient to expected changes in climate and build resilience through diversified plantings throughout the Town.

- Maintaining a town wide inventory and monitoring and tracking tree conditions.
- Introducing improved soil standards for new plantings for trees, as well as other plants.
- Monitoring for and managing climate-related risks to trees such as diseases, pests, invasive species, and heat stress and identifying the introduced species that can be planted to maintain canopy targets, as well as ways to manage habitat loss for birds and animals reliant on current tree species in Whitby.
- Identifying roles for the Town, local organizations, and citizen scientists including considering a collaborative tree monitoring program throughout the community.

The Town is working on developing an Urban Forestry Management Plan. The recommendations mentioned above have been considered during its development. More information can be found in the Land and Nature section of this Report on page 26.

Phase 2 – Mitigation

In 2024, 12 of the 61 total actions in the Phase 2 – Mitigation Implementation Plan were started, and one action was completed. In addition, eight actions were already in progress prior to the plan's formal approval in 2023, and one action was completed at the time of Council's approval. In total, 21 actions have seen progress to date.

In 2024 the actions from the Phase 2 – Mitigation Plan listed below were implemented. The actions reflect several of the 10 principles of the One Planet Living Planning Framework, as such are discussed throughout the report. The following provides a high-level summary of the progress to date for each action started in 2024, and where further information in this Report can be found on the action.

1.2.3 Track, update, and share annual progress and reporting on CERP Phase 2: Mitigation Plan's implementation. Activities can include tracking the annual progress on each of the Implementation Plan's tracking metrics and GHG inventories in the Annual Sustainability Report, investigating opportunities to update implementation actions, and submitting applications for third-party certification programs (i.e., Carbon Disclosure Project).

The Town of Whitby is tracking the annual progress on each of the Implementation Plan's tracking metrics through this Report. In addition, all actions are being submitted through the Carbon Disclosure Project, a third-party certification program.

1.3.1 The Town's Climate Change Coordinator position will monitor and apply for funding and grant opportunities.

The Climate Change Coordinator along with Senior Manager of Government Relations & Grants actively monitors funding and grant opportunities. A list of grants that the Town was successful in securing in 2024 are included in Appendix A.

2.1.2 Investigate the development of a residential Property Assessed Clean Energy (PACE) program. Similar programs have been implemented across Canada, including the City of Edmonton's Residential Clean Energy Improvement Program (CEIP), Toronto's Home Energy Loan Program (HELP), and Nova Scotia PACE, which can be used as a guide and precedent for the creation of a Whitby PACE program. Allow building owners to stack PACE loans with the Durham Greener Homes program.

In 2024, Durham Region, in consultation with Whitby and other Local Area Municipalities, developed a PACE/ Local Improvement Charge (LIC) program to support the implementation of the Durham Greener Homes program. In April 2025, Regional Council provided approval to move forward and implement the PACE/LIC program. Whitby will work with Durham Region to promote this program to residents to increase the number of households completing deep energy retrofits.

2.1.3 Investigate additional financing opportunities for residents to make retrofits and potentially stack with the Durham Greener Homes Program.

Through the Housing Accelerator Fund, the Town offered an additional \$5,000 top-up, bringing the total incentive up to \$10,000 for Whitby residents applying to the Durham Greener Homes program. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.1.5 Educate residents on energy retrofits that can be completed in their homes, and the benefits of energy retrofits and heat pumps. For example, education materials/initiatives could include a video series of community members successfully undertaking home retrofits.

In December 2024, Durham Region and Windfall Ecology Centre hosted a Durham Greener Homes Heat Pump Workshop in Whitby to educate residents about the program and the energy retrofits they can take. There were 42 people in attendance, participating both online and in-person. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.1.6 Clearly communicate and promote existing programs and incentive stacking opportunities that residents can take advantage of to complete energy retrofits through federal, provincial, regional, utility, and other local government programs.

Throughout 2024, the Town communicated and promoted incentive opportunities such as Durham Greener Homes and the Oil to Heat Pump Affordability Program via social media channels to its residents. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.3.2 Support the Region of Durham in investigating opportunities to expand the Durham Greener Homes and Durham Greener Buildings Program incentives and funding for heat pump and electric water heater retrofits.

Through the Housing Accelerator Fund, the Town of Whitby offered an additional \$5,000 top-up, bringing the total incentive to \$10,000 for Whitby residents for the Durham Greener Homes program. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.3.4 Develop and implement a communications and engagement plan to educate the community about the benefits and feasibility of electric heat pumps and water heaters, and federal, provincial, and regional rebates and grant programs. For example, engagement events and campaigns can include open houses hosted at locations with electric heat pumps and water heaters, speaker-series and educational webinars, and social media campaigns.

Throughout 2024, the Town communicated and promoted incentive opportunities such as Durham Greener Homes program and the Oil to Heat Pump Affordability Program via social media channels to its residents. In addition, Durham Region and Windfall Ecology Centre hosted a Durham Greener Homes Heat Pump Workshop to educate residents about the program and the energy retrofits they can take. More information can be found in the Zero Carbon Energy section of this Report on page 38.

2.4.2 By end of 2024, update the Whitby Green Standard's (WGS) minimum requirements to Tier 2 and develop a Terms of Reference (TOR) outlining specific requirements for each performance criteria.

A consultant was hired in 2024 to update the Whitby Green Standard to Version 2, in which Tier 2 will become the baseline performance measure. Staff are working to finalize the Whitby Green Standard Version 2 documents, including the Terms of Reference. Pending Council approval, it is anticipated that version 2 of the Whitby Green Standard will come into effect in late 2025. More information can be found in the Zero Carbon Energy section of this Report on page 37.

2.4.3 Educate developers, planners, and builders on the WGS and opportunities to achieve higher performance standards.

During the update of the Whitby Green Standard Version 2, developers, planners and builders were engaged to inform the updates and changes happening to the standard and the requirements needed to achieve higher performance standards. More information can be found in the Zero Carbon Energy section of this Report on page 37.

2.5.1 Complete construction of three new facilities (the Whitby Sports Complex, the Fire Station Training Tower/Fire Training Complex, and new Animal & Community Services Building). Complete the Operations Centre Phase 2 Expansion to a net-zero standard as identified in the Zero Carbon Whitby: Costing Study to Eliminate Greenhouse Gas Emissions 2022-2045.

The construction of the Whitby Sports Complex, which will be LEED (Leadership in Energy and Environmental Design) Gold and CaGBC Zero Carbon Building Design certified, started in 2023 and continued in 2024. More information on the Whitby Sports Complex can be found in the Health and Happiness section of this Report on pages 16 and 17.

In 2024 the final design of the Fire Training Tower project was completed. Construction is planned to commence in spring of 2025. As this project is not a building and has no occupancy the Whitby Green Standard does not apply.

The design process for the Operations Centre Phase 2 Expansion started in 2024. An update was provided to Council in October 2024, stating that the expansion will achieve Tier 3 of the Whitby Green Standard and will use CaGBC Zero Carbon Building Design Standard. The contract document phase will be occurring in spring 2025 and tendering is planned to occur in the fall of 2025.

In 2025, the Design Development phase for the Animal & Community Services Building Project will be commencing. The Animal Service Building will be designed to Tier 3 of the Whitby Green Standard and to the CaGBC Zero Carbon Building Design Standard.

4.6.3 Promote active transportation and educate residents on the benefits. Promote new routes, trails, programs and initiatives.

In 2024, the Town of Whitby promoted active transportation and educated residents on the benefits through its social media channels.

Whitby Green Standard

In 2024, Sustainability reviewed 91 unique Tier 1 Whitby Green Standard applications at various stages in the development application process. Further information on the Whitby Green Standard can be found in the Zero Carbon Energy section of this Report

on page 37. In addition, the Whitby Sports Complex is the first development in Whitby to be constructed to achieve Tier 3 of the Whitby Green Standard.

Zero Carbon Whitby

The net total GHG emissions reduction is 509.7 tCO₂e. This accounts for 46% of the Town's short-term 2025 reduction goal of 1,105 tCO₂e of GHG emissions.

To support progress toward the Town's medium-term GHG reduction target, a Deep Energy Feasibility Pathway Study is scheduled for 2025. This study will focus on seven of the Town's highest-emitting facilities. As a result, a more substantial decrease in greenhouse gas emissions is expected in the following years, positioning the Town to make significant strides toward achieving the 2030 goal of a 40% reduction.

Further information on Zero Carbon Whitby can be found in the Zero Carbon Energy section of this Report on pages 39 to 43.

The following is a list of Town wide 2024 accomplishments grouped by the 10 principles of the One Planet Living Planning Framework:

Health and Happiness

Encouraging active, social, meaningful lives to promote good health and well-being.

Park and Playground Redevelopments

To support exercise and play, several park redevelopment projects were in the planning, construction or design stages in 2024, including:

- Baycliffe Park Multi-skills Court Redevelopment – design underway
- College Downs Park Playground Redevelopment – design underway
- Cullen Central Park – Led by CLOCA (Central Lake Ontario Conservation Authority) Lynde Creek concrete dam removal and creek rehabilitation completed in summer 2024 to improve fish habitat through the removal of a physical barrier within the creek.
- D’Hillier Park North Playground Redevelopment – design completed, scheduled for construction in spring 2025
- Jeffrey Park Practice Cricket Pitch – construction completed and open to the public in September 2024
- Glenayr Park Redevelopment – design completed, scheduled for construction in spring 2025
- Grass Park Accessibility Improvements – construction completed and open to the public in May 2024
- Myrtle Station Half Basketball Court Installation – design completed, scheduled for construction in summer 2025
- Powell Park Playground Redevelopment – design completed, scheduled for construction in spring 2025
- Sato Park Playground Redevelopment – design underway
- Vipond Park Playground Redevelopment – design underway

New Parks

The Town oversaw the development of the following new parks:

- Lazy Dolphin Park completed in March 2024
- The design of West Whitby Holdings Park is underway; construction has been scheduled to commence in 2028

Whitby Sports Complex (\$)

In the fall of 2023, the construction on the Whitby Sports Complex officially started to help meet our growing community's immediate and future recreational needs. The new complex will be located on the west side of Baldwin Street South, south of Highway 407, and will include the Town's largest park investment to date. Park facilities include a full-size lit outdoor artificial turf sports field, three (3) lit tennis courts, fourteen (14) lit

pickleball courts, a skateboard park and pump track, three (3) lit multipurpose courts, a playground, open greenspace, plazas, extensive native meadow, and tree plantings.

In terms of sustainability, the Whitby Sports Complex will be one of the first of its kind in Canada to achieve Zero Carbon Building Design & Leadership in Energy and Environmental Design (LEED) Gold Certified. Additionally, the complex will be the first building in Whitby constructed to Tier 3 of the Whitby Green Standard. Constructing the Whitby Sports Complex to achieve LEED Gold and Tier 3 of the Whitby Green Standard supports Action 2.5.1 of CERP Phase 2 – Mitigation and aligns with the Zero Carbon Whitby Plan. In 2023 the Town was awarded \$25,000,000 through the Green and Inclusive Community Buildings Program from to fund sustainable and accessible features included in the design, including the construction of the geothermal system.

The construction of the geothermal system will achieve Action 2.1.2 of the Community Strategic Plan, as the measure of progress for this Action 2.1.2 is “one alternate energy system introduced”.

Further funding was provided by Zero Emission Vehicle Infrastructure Program (ZEVIP) and EV Charge ON Program to offset the cost of the EV charging stations that will be installed as part of the construction of the Whitby Sports Complex.

As of December 2024, the arena and gym structural work and pool foundations have been completed (Figure 1). Mechanical and electrical work is still underway and progressing. One of the larger milestones regarding the geothermal system has been achieved with the vertical piping being installed.



Figure 1. Construction of the Whitby Sports Complex

Parks, Trails and Wayfinding Signage Design Project

The Wayfinding and Signage Study was adopted by Council in 2022. In 2024 the Town has installed seven (7) park signs using the new standard. The Town will continue installing wayfinding signage in parks and along trails in 2025, 2026 and 2027.

Parks and Recreation Master Plan

The Town completed a Parks and Recreation Master Plan to identify actions to support future recreational services and infrastructure. The Plan contains 79 recommendations that will guide decision making related to parks and recreation services in the Town for the next 10 years. This Plan was finalized and approved by Council in October 2024.

It addresses:

- The type and location of future park and recreational opportunities and amenities required to support Whitby's quality of life;
- Service standards, policies, and programs for recreation and parks facilities and services; and
- Required improvements to parks, trails, and open spaces.

The Plan considers sustainability throughout, such as:

- Ensuring the standards established for the design of parks, trails and open spaces support and include climate change mitigation and adaptation measures, such as standards for shade structures and use of permeable paving for hard surface areas;
- Examining current operations and maintenance practices for parks, trails and forestry to identify and implement changes to facilitate reduction of greenhouse gas emissions and improved climate change mitigation and adaptation; and
- Specifying that consideration should be given to designing splash pad amenities such as shade structures and integrating water-saving measures.



Culture and Community

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

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 2024, WSAC achieved various initiatives, including a presentation to staff and Senior Leadership on sustainable procurement, exhibitors at the Official Tree Event in April and Harvest Festival in September, and gave a delegation to Council requesting Council support the Ontario Energy Board's Decision to end the Gas Pipeline Subsidy. Members also attended the Durham Climate Roundtable Fall forum to support the Town in talking to participants and providing information about the committee.

Alveole Beekeepers Presentations (\$)

As a part of the Town's Urban Rooftop Beehive Program sponsored by Elexicon Energy, Alveole Beekeepers delivered a hands-on educational workshop. The workshop was titled *Bee the movement: an introduction to the urban agriculture movement* and was held to celebrate World Bee Day (May 20), the Town partnered with the Whitby Public Library's Rossland Branch, to deliver a program. An Alveole Beekeeper shared their knowledge on rooftop gardening, vertical farming and community building. The participants were invited to ask questions and engage in discussions throughout the presentation.



Figure 2. Participants listening to the Bee the movement presentation presented by Alveole.

Earth Week Themed Programming

Throughout Earth Week (April 21 – April 27, 2024), in partnership with the Whitby Public Library, several activities were available to help residents and family members learn about ways to help our Earth and to get involved, including:

- Earth Day Storytime and Craft
- Garden Club: Read, Know, Grow!

Bird Conservation Presentation

In celebration of Earth Month, on April 16, 2024, the Town partnered with the Whitby Public Library's Rossland Branch, to deliver a program on bird conservation. Kawartha Bird Control provided information on best practices for helping keep wild birds safe and thriving in Whitby's local community and beyond, while also bringing in a live bird of prey, Steve Rogers, the kestrel. 35 participants attended the event.

Durham Climate Roundtable Fall Forum

On October 19, 2024, the Town of Whitby attended the Durham Climate Roundtable Fall Forum at the Regional Municipality of Durham Headquarters as an exhibitor booth. This event brought together leaders, sustainability advocates, and Durham residents to create a resilient, climate-conscious future for Durham Region. At least 50 participants visited the Town's booth. They had the opportunity to talk with staff about sustainability initiatives while also taking home resources such as native seed packets and portable chargers.

The Hive

In the spring of 2024, the Town commissioned tree carver Ryan Locke, to bring his expertise and passion to turn the trunk of a dead century-old black walnut tree in Whitby's historic downtown into a honeycomb with intricately carved bees (Figure 3).

This piece of public art celebrates environmental conservation and recognizes Whitby's designation as an official Bee City in 2022. Further information about Whitby being an official Bee City can be found on Page 25 in the Land and Nature section.



Figure 3. The carved honeycomb bee art in downtown Whitby.

Climate Emergency Response Plan – Phase 1 – Resilience

Sustainable Neighbourhood Action Plan

As identified in Whitby's Climate Emergency Response Plan, Phase 1: Resilience, the Town started developing a Sustainable Neighbourhood Action Plan (SNAP) Program in partnership with the Central Lake Ontario Conservation Authority and Durham Region. This project is a neighbourhood-scale community resilience and engagement program involving the community in identifying and developing an action plan for neighbourhood revitalization to integrate local community interests and sustainability objectives.

In October 2024, Whitby Council endorsed the West Lynde neighbourhood as Whitby's first pilot SNAP project. This community is home to over 7,000 residents living in blocks of single-family, semi-detached houses, townhomes and high-rise buildings. Staff distributed a survey asking residents for feedback on what sustainability actions are important to them. Over 130 residents participated and identified the following priorities, ranked in order of importance:

1. Sustainability improvement to parks, roads, and other public spaces
2. Stormwater management and flood protection
3. Water and energy conservation programs
4. Local food production
5. Health and wellness

Whitby's Community Wide Education Campaign on Climate Risks, Preparedness and Recovery

Identified as Action 1.5 in Whitby's Climate Emergency Response Plan (CERP), Phase 1: Resilience, the Town initiated an education campaign on climate risks, preparedness and recovery in the fall of 2023. As the first step, a community survey was conducted to establish a baseline assessment of Whitby's knowledge and educational needs of climate risks, preparedness, and recovery.

The results of this survey informed the development of a communication strategy (Action 1.5.1), which outlines specific actions such as workshops, webinars, social media campaigns, and the use of available communication channels and partners. It also includes key performance indicators to track the strategy's impact.

The strategy integrates relevant actions from the CERP, specifically Actions 1.5.3, 1.5.4, and 1.5.5, to ensure a coordinated and comprehensive approach to the overall goal of creating a community wide education campaign.

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

Local Enhancement & Appreciation of Forests (LEAF) Backyard Tree Planting Program

2024 was the start of the fifth year of the Council approved five-year contract for 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. From July 2023 to June 2024, 37 trees were planted in Whitby and from July 2024 to December 2024, 20 trees were planted (Table 1). Since July 1, 2020, Whitby has the highest cumulative number of trees planted in Durham Region at 384 compared to other local municipalities.

Table 1. By the numbers - LEAF Backyard Tree Planting Program

Planting Season	Trees Planted	Sequestered CO2 (kg)	Stormwater Mitigation (L)	Air Pollution Removed (kg)	Equivalent Gas Vehicles Taken Off the Road*
July 2023 to June 2024	37	101,784	14,028,475	2,022	23
July 2024 to December 2024	20	46,545	7,694,775	1,155	10

* Based on an average of 4.6 metric tons of carbon dioxide produced per year.

LEAF Community Greening Program

2024 was the second year of implementing the Community Greening Program, which involved partnering with LEAF to deliver the following events:

- LEAF Earth Day Tree and Shrub Planting at Whitby Civic Park on April 20, 2024, through which, 140 participants planted 300 trees and shrubs.
- LEAF Community Stewardship Maintenance event at Rosedale Park on June 22, 2024, through which, 28 bags of unwanted/invasive plants were collected and approximately 100 trees/shrubs were mulched. At this event there were four (4) LEAF volunteers, six (6) community participants and four (4) staff (LEAF and Whitby combined).
- An in-person LEAF Tree Tour at Whitby Civic Park was conducted on April 20, 2024, with a total of 30 participants. The attendees were led on a guided walk through the park where they were given the opportunity to learn more about native tree species, their invaluable benefits, and the ways that they can help the

urban forest thrive. The tour taught about the difference between native, non-native, and invasive species and how to identify them.

- The LEAF Tree and Shrub Planting event at Kelloryn Park on September 28, 2024, during National Forest Week included 140 participants who planted 510 trees and shrubs (Figure 4).

The total 867 trees planted as part of LEAF programs in 2024 will save approximately 3,737 tCO₂e through sequestration and reduced air pollution. This is equivalent to taking 812 cars off the road for one year.



Figure 4. Participants planting trees at Kelloryn Park on September 28, 2024.

National Forest Week and National Tree Day

The Town celebrated National Forest Week (September 22 to 28, 2024) by promoting the LEAF Native Tree and Shrub Planting Event at Kelloryn Park, a Forest Therapy Walk at Heber Down Conservation Area and encouraging residents to plant trees in their backyard through the LEAF's Backyard Tree Planting Program.

The Forest Therapy Walk was held on September 21, 2024, Kristie Virgoe, a Certified Forest Therapy Guide, through the Association of Nature and Forest Therapy Guides, led 24 participants on a guided walk. This event was held in partnership with the Whitby Public Library, Rossland Branch.

Town of Whitby's Official Tree

In the fall of 2023, Whitby residents were invited to cast their vote for one of the four following native tree species: Tamarack, Tulip tree, Kentucky coffee tree, and Honey locust. The trees were selected based on their abundance and significance in Whitby while also taking into consideration species that are not already recognized as official trees nationally, provincially, or near neighboring communities.

On April 20, 2024, Whitby residents were invited to attend the official tree planting event at Town Hall. At this event, the Tulip Tree was announced as Whitby's Official Tree and was planted behind Town Hall (Figure 5).



Figure 5. Planting a Tulip Tree Town's Official Tree.

Free Conservation Lands and Ontario Park Passes

In partnership with CLOCA and Ontario Parks, the Whitby Library lends passes that grant free day-use access to the conservation areas and provincial parks. These loans encourage residents to explore and appreciate our local natural assets and sustainable outdoor activities.

Durham Meadowway

The Meadowway is a regional trail network proposed to link Greater Toronto Area communities between the Don River and Oshawa. The Region of Durham Planning Division (Transportation Planning Section) is coordinating the Durham Meadowway Visioning Study in partnership with the City of Pickering, the Town of Ajax, the Town of Whitby and the City of Oshawa. One of the preliminary guiding principles of the Study is the Natural Environment. The Meadowway will protect sensitive plant and animal habitats and seek opportunities to enhance biodiversity, provide opportunities for visitors to learn about the natural environment and encourage community stewardship. In 2023, the Durham Meadowway Visioning Study involved identifying a preferred route, and developing a concept plan while engaging with the community. The Visioning Study was approved by the Regional Council on June 26, 2024.

Bee City

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 declare to protect pollinators and their habitat through action and education. In 2024, the Town undertook several measures identified in this report to maintain the Bee City status including

educational seminars, community plantings, and provided native wildflower seed packets.

Pollinator Week

Pollinator Week (June 17 to 23, 2024) is a time to celebrate the vital role of pollinators like bees, birds, bats, and butterflies in our local ecosystem and support global food production. The Town is committed to protecting pollinators and their habitat through action and education as a designated Bee City of Canada. As part of that commitment, the Town planned one stewardship event in partnership with LEAF and one staff event to support the Seeds to Bees program. Further information regarding these initiatives can be found throughout the Land and Nature section.

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 200 cities Worldwide. Whitby was successful in our 2024 Tree Cities of the World application as we continued to maintain, manage and celebrate our forest and trees through several initiatives that can be found in the Land and Nature section of this report.

Urban Forest Management Plan

In late 2023, the Town started developing its first Urban Forest Management Plan (UFMP), directly responding to Action 3.1.4 in CERP, Phase 1. This comprehensive plan will offer recommendations aimed at enhancing tree health and diversity, increasing tree cover, addressing the challenges posed by climate change, mitigating risks to public safety, and maximizing the benefits of a sustainable, healthy, and secure urban forest. As part of this process, in 2023 the consultants completed an inventory of the Town's trees. While a street tree inventory was previously conducted, a park tree inventory had not been completed. This inventory supports CERP, Phase 1 Action 3.1.1 and 3.1.3, which calls for setting an urban canopy target.

In June 2024, consultants engaged with First Nations, Councillors, Town staff, external organizations, and members of the Whitby community to shape the UFMP's vision, guiding themes, and strategic goals. Public input opportunities included an online survey conducted from June 3 to 24 and a public engagement session held on June 12, 2024. The first draft of the UFMP is currently underway with the UFMP expected to be finalized in early 2026.

Seeds to Bees

The Seed to Bees native plant nursery has been growing this past year. One staff event was planned during pollinator week (June 17 to 23, 2024) to assist the Horticultural Team with the nursery. On June 18, 2024, Town Staff helped repot 1134 native plants. These plants were then planted in the fall at Lynde Creek Park, Chelsea Hill and Guthrie Park. Each of the 22 staff who participated were gifted with a native plant to plant in their own garden.

Mayors' Monarch Pledge

The Town continued their efforts to protect pollinators through participation in the Mayors' Monarch Pledge in 2024. This is a program led by the National Wildlife Federation. Through this initiative, Whitby is committed to creating habitat for the monarch butterfly and pollinators and educating residents about how they can make a difference at home and in their community. To participate, the Town must commit to at least three action items (out of 30) that the community will initiate throughout the year. In 2024 the Town committed to the following actions:

- Launch or maintain a public communication effort to encourage residents to plant monarch gardens in their homes or neighbourhoods.
- Launch, expand, or continue an invasive species removal program to support the re-establishment of native habitats for monarch butterflies and other pollinators.
- Display educational signage at monarch gardens and pollinator habitats.
- Increase the percentage of native plants, shrubs and trees that must be used in city landscaping ordinances and encourage the use of the milkweed, where appropriate.



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

Harbour Dredging/Flooding Mitigation

The federally owned Whitby Harbour and provincially owned Pringle Creek are contaminated with dioxins and furans at levels above provincial and federal standards. The source of contaminants is not fully known; however, they are believed to have entered the harbour via Pringle Creek in approximately the 1970s. The Department of Fisheries and Oceans Canada (DFO) began remedial dredging in the fall of 2024 based on a Remedial Action Plan (RAP) developed in 2023 and the project is expected to be completed in the first half of 2026. The remediation is intended to reduce potential risks to the health of people, fish and wildlife, that are associated with long term exposure to Whitby Harbour contaminants. An overview of the remediation project can also be found on the DFO website: [Whitby Harbour Remediation Project](#).



Local and Sustainable Food

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

King Street Cooperative Community Garden

The King Street Cooperative Community Garden (KSCCG) celebrated its second season in 2024. This year, KSCCG received a generous grant from the Mayor's Community Development Fund and was awarded a grant from TreeMobile Toronto. The grant from TreeMobile Toronto came in the form of grapevines, raspberries, strawberries, asparagus plants as well as a pear tree and two cherry trees. KSCCG also planted annual vegetables and donated nearly 60 pounds of fresh produce to Feed the Need Durham and to the Muslim Welfare Home in Whitby.

In 2024, KSCCG held an Earth Day cleanup event in April and a Summer Celebration Event in August. Funding received from ParkPeople/Amies des Parcs was used to support the Summer Celebration event which included music by Brian Gordon and face painting by GoFacepaint. Over 50 people attended this.

The season concluded in December with a workshop by Sayeh Beheshti on Winter Sowing Native Plants held at the Whitby Public Library. Extra planting kits were donated to the Whitby Public Library's seed bank program.

The focus for 2025 will be introducing more native plants into the garden to promote biodiversity and pollinator health.

Whitby Civic Community Garden

The Town of Whitby received a community garden application from Mannahelp which is a registered non-profit organization operating in Canada and Nigeria, focused on providing food support to Durham Region residents. Through their Food Program, they assist local families in need by supplying essentials such as breakfast items, healthy snacks, fresh produce, canned protein, and hygiene products. The purpose and goals of the proposed garden include fostering community engagement, promoting sustainability, enabling community access to fresh produce and provide youth with learning opportunities. Mannahelp will oversee all aspects of the community garden, including planning, construction, maintenance, and resource management, ensuring the space remains functional and sustainable. They will also engage the community through volunteer programs, workshops, and events while providing regular updates to stakeholders on the garden's progress and impact. The community garden will be located west of the Whitby Civic Recreation Centre's parking lot and construction will begin in June of 2025.

We Grow Food Cooperative Community Gardens

We Grow Food is a grassroots organization that promotes the importance of growing food and connecting community members to each other through growing and sharing natural, fresh produce in an urban environment. Supported by the Mayor's Community

Development Fund, in May 2024 they planted gardens at Perry Terrace, 220 Perry Street and Dryden Heights, 90 Waller St and 1635 Dundas Street East. The gardens enable community members to cultivate their own food by establishing a shared space where everyone can contribute to enhancing their own food security. We Grow Food also hosted community workshop and a cooking class in 2024.

Whitby Public Library Seed Share

Seed Saving is a growing movement that supports sustainable gardening practices and a healthy lifestyle by preserving genetic diversity and fostering an awareness of nature. The Whitby Public Library Seed Share provides access to locally saved seed and knowledge for anyone interested in growing food, attracting pollinators, saving their own seed and contributing to this public resource. For more information visit www.WhitbyLibrary.ca/seedshare.

Durham Master Gardeners

The Town of Whitby, in partnership with the Durham Masters Gardeners, delivered a webinar series in 2024 featuring the following topics: Edible Flowers on March 6, Garden Myths on March 13, and Seed Saving on April 3.

Brooklin Whitby Garden Club

The Town of Whitby, in partnership with the Brooklin Whitby Garden Club, delivered an in-person speaker series in 2024 featuring the following topics: Rethinking Beauty: Inspiring Gardeners in a Changing World on March 27, 2024 The Language of Gardening on April 24, 2024 and Little Forests – Big Results on May 22, 2024.

Urban Rooftop Beehive (\$)

The Town has an urban beehive (Figure 6) on the rooftop of the Whitby Civic Recreation Centre, sponsored by Elexicon Energy and maintained by Alveole Urban Beekeepers. The Town extracts approximately 10 kilograms of honey from its rooftop beehive each year. The honey is bottled into 100 small jars and gifted to volunteers and handed out as prizes during community events.



Figure 6. Bees on the Town's urban rooftop beehive.



Travel and Transport

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

Active Transportation Plan

The Town's Active Transportation Plan (ATP) encourages people to use transit, walk and cycle more often and strives to make our community more connected, accessible, and safer for everyone. The Town's ATP identifies the active transportation facilities to support pedestrians, cyclists, etc. The projects in the program are for roadway active transportation facilities, which include on-road bike lanes, sharrows, paved shoulders, and in-boulevard multi-use paths. In 2024, the following projects were completed:

- Installation of Pedestrian Crossovers (PXO) at 10 locations
- Installation of centerline, users' symbols and signage on Multi-Use Paths (MUP)
- Design and construction of Multi-Use Path (approx. 150 m) along Garden Street between Julie Payette Public School driveway and Mary Street.
- Design and construction of a cycle track (approx. 150 m) on Cochrane Street south of Taunton Road West, to transition cyclists between on-road and a MUP.

New Enhanced Street Design

The new enhanced street design standard is in place and has been consistently applied to all new developments. Developers reconstructing major roads are also adhering to the new standard by placing sidewalks on both sides of all new subdivision roads. Additionally, in areas where schools, parks, and high-density residential areas exist, all sidewalks have been made wider to accommodate larger pedestrian volumes. This is also happening for multi-use paths and cycling facilities (on and off road) identified in the Transportation Master Plan. In 2025, the priority will be adding new sidewalks and multi-use paths through new developments without impact on the Town's capital budget.

Electric Vehicle Charging Stations (\$)

In 2024 The Town of Whitby installed 14 new electric vehicle charging stations as part of the Zero Emission Vehicle Infrastructure Program (ZEVIP) administered by Natural Resources Canada. Combined with the existing 10 charging stations, the Town now possesses 24 EV charging stations with 47 ports in total. Among these new installations are Whitby's first level 3 charging stations. These stations offer much faster charging capability than level 2 stations.

Between January 1, 2024, and December 31, 2024, there have been 2,091 charging sessions across the 24 EV chargers. These sessions have resulted in 25.6 tCO₂e GHG savings.

Grant Funding was secured via Elexicon Energy Sponsorship to help offset the cost of operations and maintenance of the stations.



Figure 7. EV Charging Station at a Town of Whitby facility.

Trail Construction, Improvements and Expansion (\$)

In 2024, the Town constructed new trails and made several trail improvements to Whitby's existing active transportation infrastructure projects, including:

- Lynde Creek Trail – construction has started in West Whitby to connect Bonacord Road and Rossland Road.
- Trails of Country Lane in northwest Whitby – trail construction within this new neighbourhood is underway and will be ongoing into 2025. Opening date is to be determined.
- Great Lakes Waterfront trail safety enhancements:
 - A centreline was installed on over 4 km of existing waterfront trail to enhance community safety and encourage trail users to share the trail.
 - Trail safety signs have been designed and are planned to be installed along the waterfront trail in 2025.
- Great Lakes Waterfront Trail – Corbett Creek Waterfront Trail Improvements Project:
 - In September 2024, Whitby began upgrading the eastern section of the Great Lakes Waterfront Trail in the Corbett Creek area. Improvements include an 80-meter pedestrian bridge, a 145-meter boardwalk, and widening over 600 metres of trail from 3 to 4 metres. The enhanced trail, funded in part by a \$2.6 million Federal Active Transportation grant, will reopen in Spring 2025.

Water St. Environmental Assessment (EA)

An EA has been undertaken to assess road re-alignment options, streetscape enhancement and geometric modifications to address parking and drainage issues and to promote active transportation to attract more Whitby residents to enjoy the waterfront. The EA study is anticipated to be completed by the end of 2025.



Materials and Products

Using materials from sustainable sources and promoting products that help people reduce consumption.

World Sustainable Procurement Day

World Sustainable Procurement Day (March 21) is a day to empower and equip Procurement Practitioners with knowledge, best practices, and practical solutions to sustainable procurement challenges. To celebrate this day, Whitby Staff were invited to a one-hour lunch and learn presented by Bob Willard from Sustainability Advantage.

Asset Management Plan

In 2024, the Municipal Asset Management Plan was updated to provide a high-level overview of the condition of Town infrastructure, the levels of services the Town is providing through its infrastructure, risk assessments as a means of prioritizing capital spending, and projected financial needs over the short, medium, and long-terms. As part of the update, a section on climate change including resilience and mitigation was incorporated per Action 1.1.1 in CERP, Phase 1: Resilience. Specifically, the Plan examined challenges and opportunities for climate resilience and mitigation on various assets such as road surfaces, stormwater systems, facilities, and more. It also accounted for Whitby's Zero Carbon Budget recognizing that carbon output reduction is crucial for capital project planning.



Zero Waste

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

Provincial Day of Action on Litter

In Ontario, the Provincial Day of Action on Litter is celebrated on the second Tuesday of May. In recognition of this day, in 2024 community members were encouraged to complete a one-time cleanup or to adopt public spaces through the Anti-litter App:

www.whitby.ca/cleanup.

Earth Week Staff Lunch and Learn

On April 24, 2024, Sustainability partnered with the Waste Division to deliver a 30-minute presentation at the Town of Whitby's Operations Facility on the new enhanced green bin program (Figure 8).

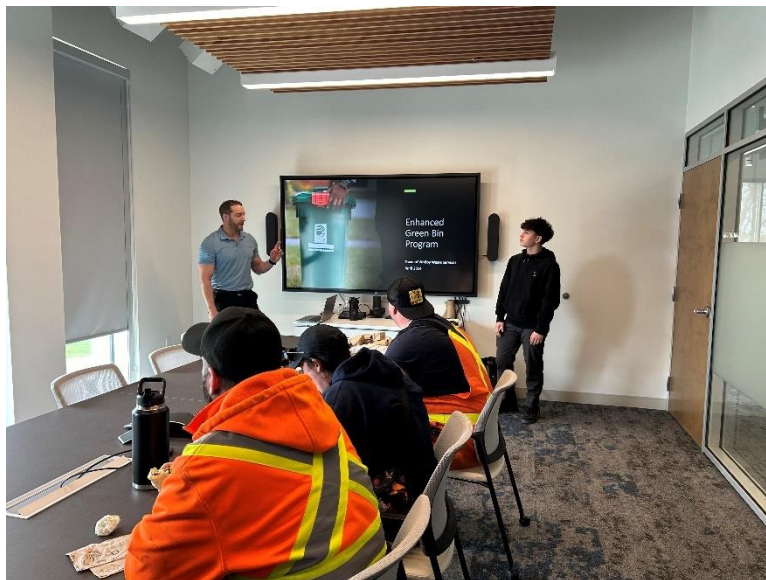


Figure 8. Waste Staff delivering a presentation on the new Enhanced Green Bin program in April.

Waste Reduction Story and Craft Time

The Town, in partnership with the Whitby Public Library, hosted a waste-themed story time on October 26, 2024, that focused on the importance of reducing waste, reusing items, and recycling materials. After the story time, children were provided with an opportunity to put their new knowledge to work by taking part in a reuse craft to repurpose waste materials and prevent them from going to landfills.

Repair Café

The Town hosted two pop-up Repair Cafés at the Whitby Central Library. The first occurred on April 27, 2024, during Earth Month with 22 participants in attendance. The

second Repair Café occurred on October 26, 2024, during Waste Reduction Week with 15 participants in attendance. The Repair Café consisted of volunteers who shared their repair knowledge and helped community members fix their household items such as computers, electronics, small appliances, small furniture, clothes, jewellery, books, bikes and more. This event created a platform for knowledge sharing and prevented items from ending up in landfills.

Waste Diversion Drop-off

In partnership with the Rotary Club of Whitby and the Whitby Public Library, on April 27, 2024, and October 26, 2024, members of the community were invited to recycle “hard-to-recycle” items and help reduce their impact on our planet. Items such as Brita filters, printer ink cartridges, disposable razors, and pens, markers and highlighters were collected to be recycled through Terracycle.

Community Cleanups

The Town launched the Anti-Litter App in May of 2021 to support the Provincial Day of Action on Litter. The app allowed residents to pre-register for a one-time community cleanup or make a longer-term commitment to adopt and clean a road, park or trail. From April to November 2024, a total of 60 parks were cleaned up, along with 9 adopted parks. Throughout this period, 2,373 volunteers participated, with volunteer numbers ranging from 2 to 600 per park. Notably, one group contributed to the cleanup of 14 separate parks with a total of 390 volunteers.

Curbside Giveaway Pilot

Following a successful pilot that the Town ran in partnership with the Region of Durham in 2023, the Town ran two Curbside Giveaway/Swap Days in 2024. This initiative invites residents to place unwanted items in good condition – clearly marked FREE – on their curb for anyone to pick up. At the end of the Giveaway Day, residents were instructed to return unclaimed items to their home. These Giveaway Days were on May 4, 2024, and September 14, 2024, and were promoted in the community using large curbside signage and social media. Similar to the previous year, this program received great community feedback about the opportunity for residents to reduce waste and take part in the circular economy.

Curbside Battery Collection Pilot

In the fall of 2024, the Region collected over 9,000 lbs of batteries in the Town through their curbside pilot collection.

Enhanced Green Bin Program

Starting July 1, 2024, the Town’s green bin program was expanded to include additional materials such as pet waste and diapers. These items are now sent to an anaerobic digester, where they contribute to generating electricity and nutrient-rich fertilizers. By diverting more materials through the green bin stream, residents can significantly reduce waste sent to the Durham-York Energy Waste facility and continues to offset energy production resources sustainably.

Zero Carbon Energy

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

Community Mitigation

Whitby Green Standard

The Whitby Green Standard is an existing framework that allows for a flexible approach for addressing climate change and sustainable design criteria in all new buildings. In 2024, Sustainability reviewed 91 unique Whitby Green Standard applications at various stages in the development application process.

In addition, the Town worked closely with a consultant to update the Whitby Green Standard to Version 2. The purpose of this update is to reflect new policies and plans at, while also aligning with industry best practices in environmental and social sustainability. For example, as part of CERP, Action 2.1.1, the updated Whitby Green Standard includes measures related to flood risk reduction and extreme heat, incorporating components such as green infrastructure and stormwater management to enhance climate resilience in new developments. Additional updates respond to several other key actions in CERP, Phase 1 and 2, including:

- CERP, Phase 1 - Action 2.1.3: Version 2 incorporates climate resilience measures into the baseline performance tier, with co-benefits such as improved landscaping, air tightness, and energy efficiency.
- CERP, Phase 1 - Action 2.6.2: Version 2 will ensure that new development applications address basement flooding risks.
- CERP, Phase 2 - Actions 2.4.2 and 2.4.3: The Whitby Green Standard proposes updating the baseline performance requirements to Tier 2 and developing a Terms of Reference. Additionally, developers, planners and builders were educated on opportunities to achieve higher performance standards, and this work will continue in 2025.

Furthermore, throughout this process, Town staff, the building industry, neighbouring municipalities and other stakeholders were consulted on the updates for their feedback to strengthen the standard. The Whitby Green Standard Version 2 is anticipated to be completed in late 2025.

Durham Greener Homes Residential Retrofit Program (\$)

Since 2022, 472 homes in Whitby have enrolled in the Durham Greener Homes Program. This program aims to stimulate energy retrofits in existing residential buildings, encouraging homeowners to improve energy efficiency through upgrades such as insulation, windows, and heating systems. This supports CERP, Phase 1 Action 2.9.6, by incentivizing and promoting the installation of high efficiency heating and cooling options.

In 2024, the Town offered an additional \$5,000 top-up through the Housing Accelerator Fund, bringing the total incentive up to \$10,000 for Whitby residents aligning with Action 2.1.4 in CERP, Phase 1 and Action 2.1.3 and 2.3.2 in CERP, Phase 2. In 2024, 256 Whitby residents signed up for the program and 28 heat pumps were installed in Whitby through the program.

The Town continued to promote and encourage Whitby residents to participate using its social media channels supporting Action 2.1.6 and 2.3.4 in CERP, Phase 2.

The Regional Municipality of Durham also conducted a Durham Greener Homes Heat Pump Workshop in Whitby on December 2, 2024, with a total of 42 people participating online and in-person. This workshop aligns with Action 2.1.5 and 2.3.4 in CERP, Phase 2.

Furthermore, Durham Region, in collaboration with Windfall Ecology Centre, is working to expand the Durham Greener Homes program to include a resilience-focused component (Weather Ready). This program will support residents in Durham Region assess and improve their homes' ability to withstand extreme weather events. This project aligns directly with Action 2.1.2 and 2.3.4 in CERP, Phase 1.

Race to Resilience and Race to Zero

Race to Resilience and Race to Zero are global campaigns run by the COP26 Presidency and high-level Climate Champions. The purposes of these campaigns are to rally leadership and support from cities, regions, businesses, and investors to help frontline communities build resilience and adapt to the impacts of climate change while also reducing GHG emissions to stay within the 1.5°C global temperature increase as outlined in the 2016 Paris Agreement.

In 2021, Council endorsed joining these campaigns. By joining Race to Resilience and Race to Zero, Whitby joined cities worldwide in committing to be catalysts for change while also demonstrating the commitment to and delivery of the goals of the Paris Agreement and COP26. In 2024, to meet the requirements of this campaign, Whitby reported all its climate actions through the Carbon Disclosure Project.

Oil to Heat Pump Affordability Program

The Oil to Heat Pump Affordability (OHPA) program is administered by Natural Resources Canada and helps homeowners who are currently heating their homes with oil, transition to eligible electric heat pump systems. Eligible homeowners can receive a grant of up to \$10,000. The Town communicated this program to residents online through its available social media channels. Promoting this program to residents helps support Action 2.1.6 and 2.3.4 in CERP, Phase 2.

Corporate Mitigation

Global Covenant of Mayors

The Town joined the Global Covenant of Mayors (GCoM) in 2019. GCoM is a global network of more than 10,000 cities spanning 139 countries worldwide. These local governments all recognize that ambitious climate initiatives need to be taken to keep global temperatures from rising more than 1.5°C. Whitby's participation in the Global Covenant of Mayors commits the community and Town to the following milestones:

- Develop a GHG emissions inventory;
- Assess climate risks and vulnerabilities of the Municipality;
- Define ambitious climate mitigation, resilience and energy targets; and
- Create, prioritize, complete, and monitor climate action plans.

As part of the annual Broader Public Sector (BPS) Reporting, a GHG emissions inventory has been developed and is updated annually. Further information about BPS reporting can be found below under Energy Star Portfolio Manager section on page 43.

For more information about the Global Covenant of Mayors, please visit globalcovenantofmayors.org.

Zero Carbon Whitby

The Zero Carbon Whitby Plan indicates Whitby's 2019 GHG emissions (baseline) were 5,525 tCO₂e. Accordingly, Whitby's short-term GHG reduction goal is 1,105 tCO₂e by 2025.

The implementation of the Zero Carbon Whitby Plan and its associated projects began in 2023, with twelve Zero Carbon projects being carried out. These projects collectively resulted in an estimated GHG savings of 99.1 tCO₂e¹.

Please refer to Table 2 for details on the Zero Carbon Whitby projects scheduled for 2024. One 2024 Zero Carbon Whitby project has been completed, with a projected GHG savings of 2.6 tCO₂e. There are several projects that were scheduled for 2024 that are still in progress that are projected to result in GHG emissions savings of 206.2 tCO₂e once fully implemented. In addition, there are Zero Carbon Whitby projects that were scheduled for 2023 that are anticipated to be completed by the end of 2025 that are projected to result in an additional GHG emissions savings of 19.5 tCO₂e.

In addition to the Zero Carbon Whitby projects below, in 2024, 14 new electric vehicle charging stations were installed throughout the Town. This was a significant project that was prioritized as it was funded through the federal Zero Emission Vehicle Infrastructure Program (ZEVIP) which has a set project completion date that had to be met. Staff's involvement in this project limited their ability to implement additional Zero Carbon Whitby projects included in the 2024 carbon budget. Although this project does not result in initial GHG savings, the use of the chargers will result in future GHG savings at a corporate level and across the community.

¹ In 2023 there were GHG emissions savings as the CHP system at the CRC was offline for most of the year due to the construction at the CRC. The savings from the CHP at the CRC were initially included in the 2023 Annual Sustainability Report. However, the CHP system was permanently transitioned to serve as a back-up power system in March 2025 which resulted in an estimated savings of 454.4 tCO₂e. The reporting of GHG emissions reductions from the CHP has been moved from 2023 to 2025. This adjustment ensures clarity and prevents any double counting of emissions savings associated with the CHP.

Table 2. 2024 Zero Carbon Whitby Projects and Initiatives

Facility	Project	GHG Emission Savings (tCO₂e) *Annualized over a calendar year	Status
Lynde House	Furnace replaced with Heat Pump	(2.6) ²	Complete
Civic Recreation Centre	Site Lighting Conversion and Bollard Lights	(5.9)	Ongoing
Iroquois Park Sports Complex	Cold-Water Flooding System	(152)	Ongoing
McKinney Centre	Cold-Water Flooding System	(25.6)	Ongoing
Brooklin Community Centre and Library	VFDs For Heating Pumps(S)	(0.2)	Cancelled
Lynde House	Design and Construction of New Parking Lot Lighting	(0.5)	Cancelled
Port Whitby Marina	Air Source Heat Pumps - Materials & Installation	(11.1)	Ongoing
Fire Hall #4	Air Source Heat Pump - Materials & Installation	(10.2)	Ongoing
Fire Hall #5 (Headquarters)	Solar PV - Materials/Installation	(1.4)	Deferred
Town Hall	Solar PV - Materials/Installation	(1.5)	Ongoing
Completed Project Total		(2.6)	
Ongoing Project Total		(206.2)	
Cancelled Project Total		(0.7)	
Deferred Project Total		(1.4)	

² This figure varies from the 2024 budget book because the initial model showed savings related to the use of a heat pump to support the domestic hot water tank on site. This building does not have domestic hot water tank, so these savings have been subtracted.

Progress Towards 2025 GHG Emissions Reduction Target

Table 3 compares the yearly GHG emissions savings identified in the Carbon Budget based on the proposed projects and the savings from the projects that have been implemented since 2023.

Table 3. Zero Carbon Whitby – GHG Emissions Savings (tCO₂e) Listed in the Carbon Budget Compared to the Savings from the Implemented Net Zero Projects

	GHG Emissions Savings from Projects Proposed in Carbon Budget (tCO ₂ e)			GHG Emissions Savings from Implemented Projects (tCO ₂ e)		
Year	GHG Emissions Savings from Approved Projects	Fleet Growth Related GHG Emission Increases	Net GHG Emissions	GHG Emissions Savings from Implemented Net Zero Projects	Fleet Growth Related GHG Emission Increases	Net GHG Emissions
2023	(165.3)	14.5	(150.8)	(99.1)	14.5	(84.6)
2024	(213.6)	22.8	(190.8)	(2.6)	22.8	20.2
2025 (CHP Unit Transition at CRC)	(548.8)	9.1	(539.7)	(454.4) ³	9.1	(445.3)
Total	(927.7)	46.4	(881.3)	(556.1)	46.4	(509.7)

In March of 2025, the Combined Heat and Power (CHP) system at the Civic Recreation Centre (CRC) was permanently transitioned to serve as a back-up power system which resulted in an estimated savings of 454.4 tCO₂e (Table 3). The large savings from CHP transition to back-up power has contributed significantly towards the Town's 2025 GHG emissions reduction target.

As shown in Table 3, the total net GHG emissions savings to date is 509.7 tCO₂e. This accounts for 46% of the Town's short-term 2025 reduction goal of 1,105 tCO₂e of GHG emissions (Table 4). If the remainder of the 2023 and 2024 are implemented by the end of

³ 2025 actuals include only one Zero Carbon Whitby project approved in the 2025 Carbon Budget- the transition of the CHP unit to back up at the Civic Recreation Centre that was completed in March of 2025. The savings from the additional Zero Carbon Whitby projects scheduled for 2025 and have not been included as the data will not be available until the end of 2025.

2025 the Town would achieve approximately 75% of our 2025 short-term GHG reduction target.

Table 4. Zero Carbon Whitby – GHG Emissions Reduction Progress Towards Short-Term Target

	GHG Emission Savings (tCO₂e)
2025 Target	1,105
Savings to Date (2023-2025)	(509.7)
Progress to 2025 Target (%)	46%

Pathway Forward to 2030 Target

While the Town will not be meeting the ambitious short-term target of a 20% GHG emissions reduction by 2025, significant upfront investments have been made in analysis and design projects. These efforts are crucial in informing future initiatives and moving the Town toward the 40% GHG emissions reduction target by 2030. For example, a deep energy retrofit design and feasibility analysis of the Iroquois Park Sports Centre is underway and a GHG savings of approximately 639 tCO₂e is projected to be realized in 2027 and beyond, subject to project funding. In addition, a Deep Energy Feasibility Pathway Study is planned to take place in 2025 for seven of our largest GHG emitting facilities. Consequently, a larger decrease in GHG emissions is anticipated in the coming years, aiming to move us closer to our 2030 target of a 40% reduction compared to 2019 levels.

Furthermore, in 2026 the Zero Carbon Whitby Plan will be updated to determine the projects that need to be prioritized and other actions that should be taken to progress towards the target of 40% GHG emissions reduction by 2030. Through this update, the anticipated project costs will be reviewed to ensure the budgets put forth for the projects are realistic so they can be carried out within budget. The update will establish the pathway required to achieve the ultimate goal of net Zero Carbon by 2045.

Measurement and Verification Strategy (M&V)

Measurement and verification strategies are used to confirm the accuracy of the initially projected greenhouse gas emission reductions from completed Zero Carbon Whitby projects. Given the unique characteristics of each project and facility, a variety of strategies are required to conduct this analysis.

Initial energy and GHG savings estimates for Zero Carbon Whitby projects were taken from a series of 2019 Energy Audits conducted by Efficiency Engineering (3rd party consultant) on all municipally owned properties. When possible, individual project savings were verified using submeter or utility bill data to determine energy and GHG savings pre and post project implementation. In facilities where submeter data or a large enough sample size of utility data was not available an alternate approach was taken using RETScreen energy modelling software. By inputting building design specifications, the software can model energy consumption and GHG emissions savings. By isolating the

specific building systems/equipment of the project a base and proposed case can be created to determine energy and GHG savings.

Zero Carbon Revolving Reserve Fund (ZCRRF)

In support of Zero Carbon Whitby, a Zero Carbon Revolving Reserve Fund (ZCRRF) was established in September 2022 to facilitate the implementation of the zero carbon projects. The ZCRRF provides a way to help pay for zero carbon retrofits, pilot projects and to fund incremental retrofit project costs of zero carbon options. Operational savings from 2024 Zero Carbon projects will be directed into the fund to help pay for future projects. The current uncommitted balance in the ZCRRF is approximately \$136,000.

Energy Sub Metering

The submeters installed at Iroquois Park Sports Centre, McKinney Centre and Town Hall continue to provide real-time monitoring of utility consumption at the equipment/system level to give an in-depth overview of energy consumption at each facility. Sub-meters will continue to be installed at all main Town facilities. These submeters will help to track and monitor Zero Carbon Whitby initiatives at these facilities.

Energy Star Portfolio Manager

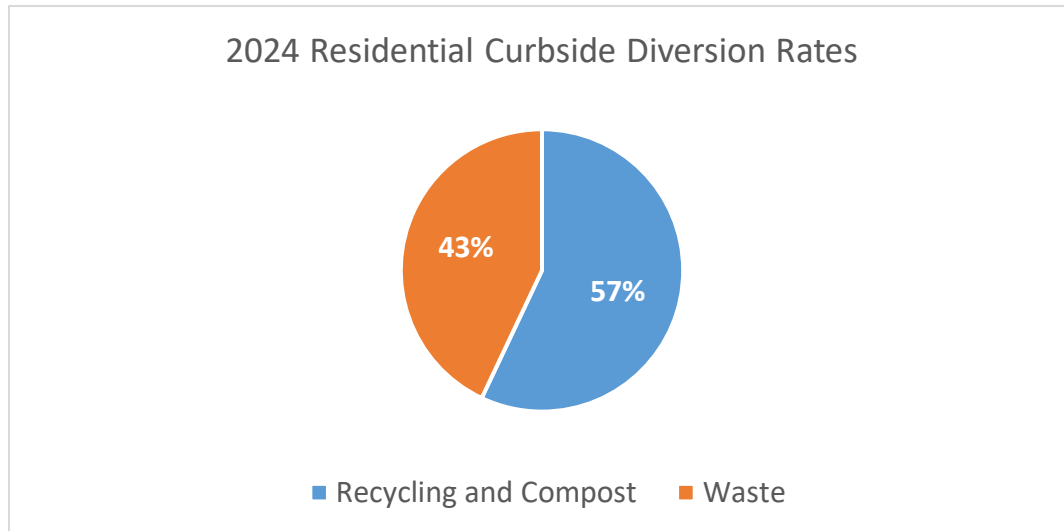
In 2022, the Town began tracking energy consumption data through Energy Star Portfolio Manager for all major Town facilities. Energy Star accounts were continually updated throughout 2024 to monitor utility consumption and flag anomalies. Energy Star Portfolio Manager is also used to report under Ontario Regulation 25/23 Broader Public Sector. This regulation helps to identify energy and greenhouse gas saving opportunities, establish benchmarks, and measure improvements over time. This platform is an interactive resource management tool that benchmarks the energy use of any building and allows users to:

- Identify underperforming buildings to target for efficiency improvements;
- Identify best practices from efficient buildings;
- Set investment priorities;
- Verify savings and prevent snapback;
- Share and report performance;
- Earn recognition; and,
- Benchmark and track energy and water consumption, waste, and GHG emissions.

Appendix A: Funding Received in 2024

Grant Name	Town of Whitby Project	Grant Value Awarded	Funder Type
Elexicon Energy Sponsorship	Urban Rooftop Beehive Program (Including Alveole Beekeepers Presentation)	\$5,000	Local Distribution Company
Elexicon Energy Sponsorship	Operation of Existing EV Charging Stations	\$10,000	Local Distribution Company
ZEVIP Round 4	EV Charging Station Installation	\$350,000	Federal
EV ChargeON Program 2023-2024	EV Charging Station Installation at the Whitby Sports Complex	Up to \$300,000	Provincial
Housing Accelerator Fund	Durham Greener Homes Retrofit Incentive Top Up	\$250,000 of the total HAF grant \$24,990,435	Federal
Green and Inclusive Community Buildings Program	Whitby Sports Complex	\$25,000,000	Federal
Federal Active Transportation Grant	Corbett Creek Waterfront Trail Improvements Project	\$2,599,377	Federal

Appendix B - Residential Waste Diversion Rates



2019-2024 Residential Curbside Diversion Rates

Year	Total Waste Generated (MT)	Total Waste Diverted (MT)	Curbside Diversion Rate (MT)
2019	37,674	21,372	57%
2020	41,489	23,894	58%
2021	41,312	23,798	58%
2022	36,894	20,964	57%
2023	37,604	20,243	54%
2024	39,048	22,268	57%

Appendix C - Greenhouse Gas & Energy Consumption

Town of Whitby Buildings

Corporate Buildings - Energy Consumption*

Energy Type	ekWh 2019	ekWh 2024	Difference between ekWh 2019 and 2024	% Difference between 2019 and 2024
Electricity	12,944,006	12,670,247	(273,759)	(2%)
Natural Gas	18,174,969	15,971,595	(2,203,374)	(12%)
Total	31,118,975	28,641,842	(2,477,133)	(8%)

Corporate Buildings - Greenhouse Gas (GHG) Emissions

GHG (tCO ₂ e) 2019	GHG (tCO ₂ e) 2024	GHG Change (tCO ₂ e) 2019-2024	% Change 2019-2024
3,782	3,150	(632)	(17%)

2024 Corporate Waste

Waste Generated (MT)	Recycling (MT)	Organic Waste (MT)	Diversion Rate (%)	GHG (tCO ₂ e) 2024
358	47	13	14%	107.56

2024 Corporate Fleet GHG Emissions

GHG (tCO ₂ e) 2019	Diesel (L) 2019	Gasoline (L) 2019	GHG (tCO ₂ e) 2024	Diesel (L) 2024	Gasoline (L) 2024	GHG Change (tCO ₂ e) 2019-2024	GHG % Change 2019-2024
2,233	543,507	333,037	1,874	511,831	256,845	(359)	(16%)