

LAND ACKNOWLEDGMENT

We acknowledge the City of Hamilton is situated upon the traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee, and Mississaugas. This land is covered by the Dish With One Spoon Wampum Belt Covenant, which was an agreement between the Haudenosaunee and Anishinaabek to share and care for the resources around the Great Lakes. We further acknowledge that this land is covered by the Between the Lakes Purchase, 1792, between the Crown and the Mississaugas of the Credit First Nations.

Today, the City of Hamilton is home to many Indigenous people from across Turtle Island (North America) and we recognize that we must do more to learn about the rich history of this land so that we can better understand our roles as residents, neighbours, partners, and caretakers.





TABLE OF CONTENTS

Executive Summary	4
Introduction	9
About the Office of Climate Change Initiatives (OCCI)	10
OCCI Priority Focus Areas	11
OCCI Priority: Climate Governance and Innovation	12
OCCI Priority: Carbon Budget & Accounting Framework	14
OCCI Priority: Green Buildings	15
OCCI Priority: Urban Greening	17
OCCI Priority: Community Climate Outreach	18
OCCI Priority: Climate Justice	20
Hamilton's Greenhouse Gas (GHG) Inventories	21
Hamilton's Climate Action Strategy	23
Low-Carbon Transformation #1: Innovating Our Industry	25
Low-Carbon Transformation #2: Transforming Our Buildings	
Low-Carbon Transformation #3: Changing How We Move	29
Low-Carbon Transformation #4: Revolutionizing Renewables	31
Implementing Hamilton's Climate Action Strategy —Gaps, Barriers, Challenges	32
Low-Carbon Transformation #5: Growing Green	
Climate Action Highlight—Hamilton International Airport	34
Resilient Theme #1: Built Environment	35
Resilient Theme #2: People and Health	36
Resilient Theme #3: Natural Environmental, Agriculture and Water	38
Resilient Theme #4: Energy and Economy	39
Conclusion	40

Executive Summary

This is the third annual report from the Office of Climate Change Initiatives (OCCI) and is meant to provide a fulsome update on the status of climate action across the Corporation of the City of Hamilton and the broader community.

The OCCI was created following Council approval of Hamilton's Climate Action Strategy in August 2022. The OCCI includes 5 full-time staff and has a mandate to:



- Oversee and track the implementation of Hamilton's Climate Action Strategy;
- Report on progress to Council, the public and the <u>Carbon Disclosure Project</u>, as part of its membership within the Global Covenant of Mayors;
- Provide expertise in reviewing policies, programs and actions from both internal and external parties;
- Guide or lead the development of climate related policies, programs and projects across the City and Community.

The OCCI established priority focus areas on high impact policies and programs, which were approved by Council in 2023 through staff report <u>PED23064</u>, and include the following:

Climate Change Governance and Innovation	Carbon Budgeting
Green Buildings	Urban Greening
Community Climate Outreach	Climate Justice

Every year the OCCI provides a comprehensive update on matters related to climate action across the City and the community. The 2025 update includes several reports:

- 1) Staff Recommendation Report PED25129
- 2) Hamilton's Climate Action Strategy Annual Update 2025 (this report);
- 3) Hamilton's Climate Action Strategy Implementation Update (Appendix "B" to Report PED25129);
- 4) Sustainability Solutions Group's Net-Zero Acceleration Briefing Note (Appendix "C" to Report PED25129); and
- 5) Hamilton's Community-wide Greenhouse Gas Emissions by Sector (Appendix "D" to Report PED25129).

CLICK HERE for more information on Hamilton's Climate Action Strategy and associated reports and resources.

Executive Summary Cont'd...

Hamilton's Community-Wide Greenhouse Gas Emissions Inventory

The City of Hamilton follows the <u>Global Protocol for Community-Scale Greenhouse Gas Emissions Inventory</u>. Hamilton's Climate Action Strategy (HCAS) sets Greenhouse Gas (GHG) reduction targets of:

- 50% reduction by 2030; and
- Net-zero emissions by 2050.

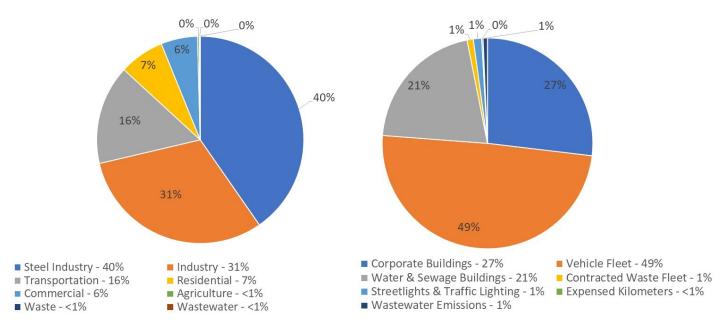


Figure 1.0 Community-Wide GHG Emissions Inventory Percent Breakdown 2023

Figure 2.0 Corporate GHG Emissions Inventory Percent Breakdown 2024

Sector	2023 (tCO ₂ e)
Steel Industry - 40%	4,470,665
Industry - 31%	3,438,051
Transportation - 16%	1,719,333
Residential - 7%	779,025
Commercial - 6%	633,672
Agriculture - <1%	30,999
Waste - <1%	14,690
Wastewater - <1%	*33,295
Total	11,8119,729

Table 1.0: Community-Wide Gl	HG Emissions
by Sector 2023	

Sector	2024 (tCO ₂ e)
Corporate Buildings - 27%	22,461
Vehicle Fleet - 49%	41,200
Water & Sewage Buildings - 21%	17,284
Contracted Waste Fleet - 1%	793
Streetlights & Traffic Lighting - 1%	1,073
Expensed Kilometers - <1%	171
Wastewater Emissions - 1%	*565
Total	83,948

Table 2.0: Corporate GHG Emissions by Sector 2024

*Wastewater emissions differ between corporate and community due to calculation methodology.

The City's corporate emissions are included in the Community-Wide Inventory totals, and represent less than 1% of total emissions. For further information about Hamilton's Community and Corporate GHG emissions, including more detailed sector and fuel breakdown, see Appendix "D" to Report PED25129.

Executive Summary (Cont'd...)

Hamilton's Climate Action Strategy Implementation Update

HCAS is a community-wide strategy that sets out actions for every sector and resident across Hamilton to take. The Strategy consists of two complementary and integrated plans:

- ReCharge Hamilton—Our Community Energy and Emissions Plan: Based on a technical low-carbon scenario model of a set of targets and corresponding actions required for Hamilton to decarbonize and achieve net-zero greenhouse gas (GHG) emissions by 2050. These mitigation actions are organized into five Low-Carbon Transformations.
- Hamilton's Climate Change Impact Adaptation Plan: Based on the <u>Science of Climate Change</u> study which forecast future climate scenarios in Hamilton, identifying climate risks and corresponding actions to address those risks. These adaptation actions are organized into four Resilient Themes.

Below are some highlights of progress with implementation of Hamilton's Climate Action Strategy. For a comprehensive update, it is recommended that Report PED25129 and its appendices be reviewed. Of particular note is Appendix "B" which provides a status update on each of the actions in the mitigation and adaptation plans.

Low-Carbon Transformation #1: Innovating Our Industry

Actions within this Low-Carbon Transformation include working with industry to establish a net-zero industrial working group, and to form a clean-tech accelerator and a commercial fleet decarbonization working group. In late 2024, the City learned that efforts to secure federal funding for the net zero industrial working group - referred to as the Hamilton Region Decarbonization Hub - were unsuccessful. An internal effort is now underway to determine a new pathway forward, led by the Economic Development Division and supported by the Office of Climate Change Initiatives.

Low-Carbon Transformation #2: Transforming Our Buildings

There has been important work completed with Low-Carbon Transformation #2. The City has progressed significantly on its innovative Better Homes Hamilton Pilot Program, which is offering up to 50 homes access to \$20,000 in 0% interest loans to undertake energy efficiency retrofits. City staff have also advanced Hamilton's Green Building Standards (GBS) with initial approval in October 2024 and direction to enhance energy performance metrics. However these revised GBSs and the Implementation Plan were referred back to staff to further investigate the short-term costs and long-term benefits to the development community on implementing the GBS.

Low-Carbon Transformation #3: Changing How We Move

Transformative actions are 'Changing How We Move'. During 2024, a total of 13.6km of bike lanes were added to the network through 10 cycling infrastructure projects, bringing the total kms of active transportation infrastructure installed to 590km or 60% of the planned 970km network. During 2024, the HSR extended service and frequency on several core routes as part of the implementation of Year 8 of the City's 10-year Local Transit Strategy. HSR ridership levels increased during 2024, reaching 21.84 million riders, a 14.5% increase over 2023, surpassing prepandemic ridership levels. Combined with sustainable mobility programs like **Bike Share** which continues to grow with the addition of more pedal bikes and a pending e-bike pilot, and the expanding E-Scooter system, these actions are helping Hamilton residents make sustainable transportation choices.

Executive Summary (Cont'd...)

Low-Carbon Transformation #5: Growing Green

Under this Low-Carbon Transformation is an ambitious target to plant 50,000 trees community-wide every year, in recognition of the climate benefits that trees bring. Tracking of tree-planting is done on the City-side by the Forestry Division, while the Office of Climate Change Initiatives tracks the planting efforts of community partners. An estimated 55,482 trees were planted in 2024. This was the result of planting efforts by our City Forestry Division, area Conservation Authorities, local environmental not-for-profits, and institutional partners, with some contributions of community volunteer planting power.

Resilient Theme #1: Built Environment

To protect our community from the impacts of flooding caused by climate change, important Green Standards and Guidelines for Site Services (Stormwater Management) were approved and took effect on January 1, 2025. Another important action to help deal with stormwater management and flooding was the approval of the residential Stormwater Rate Structure and the subsequent residential rebate program 'Rain Ready' which launched in April 2025.

Resilient Theme #2: People and Health

Actions being coordinated and led by Hamilton Public Health Services, such as the <u>Heat Response Strategy</u>, and corresponding actions are helping to address risks to our community from extreme heat events. This includes actions for many divisions across the City to advance regarding air conditioning subsidies, free HSR bus passes, distribution of cool kits, and population health surveillance of emergency department visits. However, there is uncertainty on the timing related to the previous direction from Council on staff developing an 'Adequate Temperature By-law' for rental apartments.

Resilient Theme #3: Natural Environment, Agriculture and Water

Important strategies have been approved by City Council to help protect and grow Hamilton's natural environment and protect important water resources, including the <u>Urban Forest Strategy</u> (UFS), <u>Biodiversity Action Plan</u>, and the <u>Watershed Action Plan</u>. The UFS includes 2 full-time employees with the first 'State of the Forest' report expected later in 2025. Additional staff positions were approved through the 2025 Municipal Budget to support the implementation of the Biodiversity Action Plan, with recruitment for these positions taking place in 2025.

Resilient Theme #4: Energy and Economy

To help local businesses prepare for climate change and improve sustainability Economic Development staff initiated a formal public review of the 'LEEDing the Way' Community Improvement Plan. This CIP provides incentives towards the construction of LEED certified buildings city-wide. One of the goals of the review and update is to provide property owners and developers with effective financial assistance that encourages more sustainable development, including the reduction of GHG emissions.

Executive Summary (Cont'd...)

Net-Zero Acceleration to 2040

In order for the City of Hamilton to continue to be a leader on climate action, staff is recommending that City Council approve the acceleration of our community net-zero target from 2050 to 2040.

This is a very ambitious target, but it is a target that is rooted in the most recent scientific evidence recommended by the Science-Based Target Initiative (SBTi) and it has been endorsed as best practice by leading global organizations and initiatives, including but not limited to:

- C40 Cities;
- The Carbon Disclosure Project;
- Global Covenant of Mayors;
- ICLEI Local Governments for Sustainability.

The recommendation to accelerate net-zero to 2040 aligns with a global 1.5°C pathway and represents a fair share of global emission reductions, based on historic emissions or current economic development level. Approving Science-Based Targets (SBTs) is an essential requirement for achieving an "A" score from the <u>Carbon Disclosure Project</u>—a global non-profit that runs the world's only independent environmental disclosure system for companies, capital markets, cities, states and regions to manage their environmental impact.

The preliminary analysis completed by Sustainability Solutions Group (SSG), author of Re-Charge Hamilton—Our Community Energy and Emissions Plan, confirms it is technically feasible to achieve net zero by 2040 in Hamilton by focusing on accelerating the following:

- Adoption of Electric Vehicles (EVs)
- Efforts to mode shift away from vehicles to active transportation and public transit
- Build on the foundational investment to decarbonize steel by phasing out natural gas and increasing access to scrap steel.
- Secure access to green hydrogen for steel production by 2025
- Secure access to 100% green electricity by 2030 2035

2024

NATIONAL WINNER

Conclusions

The City of Hamilton can continue as a leader in climate action by adopting more ambitious GHG reduction targets, while continuing with implementation of the significant actions already underway within Hamilton's award-winning Climate Action Strategy.

The global scientific community has determined that we have already surpassed some of the earth's system boundaries, and if we do not reverse course, irreversible tipping points and widespread impacts on human well-being will be unavoidable. It will take every level of government, every business, and every resident to take collective action. There will be necessary upfront investments; however, many leading economists and organizations are showing that over the long-term it will result in overall savings from energy security, efficiencies, and avoided costs.

The time to choose is now.

Introduction

Last year, this introduction began by sharing the confirmation from the World Meteorological Organization (WMO) that 2023 was the hottest year on record based on measured global mean temperature. In January 2025, the WMO confirmed that 2024 is now the warmest year on record, based on 6 international datasets that show the global mean temperature for the year at approximately 1.55 degrees Celsius above the 1850 – 1900. The WMO also noted in its January announcement that the past decade from 2015 – 2024 represents the ten warmest years on record. These warming trends underscore the on-going and urgent need for communities across the globe, including our own community, to take aggressive action to address the climate emergency, including accelerating efforts wherever possible.

While average global temperature measurements continue to confirm disturbing trends in planetary warming, greenhouse gas emissions data for the year 2024 confirm increases in both fossil CO₂ emissions and land-use change CO₂ emissions at the global level. At the local level, greenhouse gas inventory data shows that emissions increased from local sectors including buildings and industry during 2023 - the most current year for which local data was available.

Meanwhile, examples of extreme weather events and other serious climate-related impacts continue to emerge across the globe. In Canada during 2024, the Town of Jasper, Alberta battled wildfires that engulfed over 6000 hectares of surrounding forested lands and destroyed 30% of the structures in the town. An August 2024 hailstorm in Calgary came with an estimated \$2.8 billion in damages, and Torontonians faced more than \$1.0 billion in losses when the equivalent of over a month worth of rain fell on one day in July of last year. That last extreme rainfall event also impacted on the City of Burlington and western parts of the City of Hamilton.

Climate change is dragging down Canada's economy and making life less affordable

- 'Damage Control: Reducing the Costs of Climate Impacts in Canada'.

While the data trends and on-the-ground impacts are discouraging, this annual update on the implementation of Hamilton's Climate Action Strategy shares many hopeful examples of local progress being made with climate mitigation and adaptation efforts ranging from the actions of individuals to the collective work of the City and community partners, and the progressive efforts of private sector players. In Hamilton work is being rooted in climate justice, to ensure consideration and supports are being provided to Hamiltonians who face greater impacts from climate change but who may lack the resources to protect themselves from these impacts.

Hamilton's Climate Action Strategy is a community-wide strategy that requires support from all levels of government and action needed from everyone across Hamilton. In a time of global uncertainty, competing priorities and increasing costs, it continues to be well understood from leading experts across Canada and the world that climate change, and not addressing the climate emergency, is going to cost everyone a lot more! The low-carbon energy transition is well underway, however the urgency across mainstream understanding of the climate crisis is decreasing as other emergencies arise. It is imperative that we continue accelerating climate action not only for the benefit of the environment, but also for the benefit of our economy and the livelihood of all Hamiltonians.

¹ Canadian Climate Institute (2022). Damage Control: Reducing the Costs of Climate Impacts in Canada. Retrieved from: https://climateinstitute.ca/reports/damage-control/

About the Office of Climate Change Initiatives

The Office of Climate Change Initiatives (OCCI) was established in November 2022 with a mandate to oversee the implementation of Hamilton's Climate Action Strategy. The Strategy recommended establishing this office to focus efforts and commit resources to enable immediate and impactful climate action.

The OCCI is staffed by five full-time professionals with expertise in a range of areas including climate change, environmental science, planning, policy analysis, building codes, landscape architecture, communications and community engagement.

For more information about Hamilton's Climate Action Strategy, to request a presentation or explore collaboration opportunities, contact the OCCI at:

climate.change@hamilton.ca

You can also connect directly with members of the Staff Team using the contact details below.



Pictured left to right: Trevor Imhoff, Lynda Lukasik, Beatrice Ekoko, Cathrin Winkelmann

Table 3.0 Office of Climate Change Initiatives Contact Details

Name & Title	Telephone	Email
Beatrice Ekoko Project Manager	(905) 546-2424 x6885	Beatrice.Ekoko@hamilton.ca
Trevor Imhoff Senior Project Manager	(905) 546-2424 x1308	Trevor.lmhoff@hamilton.ca
Lynda Lukasik Director	(905) 546-2424 x3169	Lynda.Lukasik@hamilton.ca
Cathrin Winkelmann Senior Project Manager	(905) 546-2424 x3916	Cathrin.Winkelmann@hamilton.ca







OCCI Priority Focus Areas

In April 2023, the OCCI received Council approval to focus on a number of key and high impact priority focus areas in order to get efforts to implement Hamilton's Climate Action Strategy moving forward as quickly as possible. Priority focus areas include efforts focused on establishing and continuing to administer necessary governance structures, to creating a Carbon Budget and Accounting Framework and facilitating urban greening. OCCI efforts in these priority focus areas have continued during 2024 and into 2025.

Climate Justice and the associated development of a Climate Justice Framework has been included as a priority focus area to help to realize the City's commitment to ensuring that climate mitigation and adaptation efforts benefit everyone, especially those most impacted by climate change but least able to protect themselves from these harms. Critical work will unfold in 2025 that involves engaging frontline community members and working to co-design the Climate Justice Framework that will guide municipal efforts moving forward.

Climate Change Governance and Innovation

Carbon Budgeting

Green Buildings

Urban Greening

Climate Communications and Outreach

Climate Justice



Panel from 'All Our Relations' art installation created by Cree/ Metis artist Angela DeMontigny & Team

OCCI Priority: Climate Governance and Innovation

Hamilton's Climate Action Strategy (HCAS) is both corporate - involving nearly every City Division and Department - and community-wide. Effective internal and community coordination is essential.

The Office of Climate Change Initiatives (OCCI) leads climate governance and innovation to deliver the Strategy across Hamilton. To do so, the OCCI has established internal and external committees to coordinate actions. The Office was charged with setting up a framework for administering and managing the City's Climate Change Reserve— a sustainably-funded resource for supporting climate actions committed to by the City, including piloting new technologies and processes as well as innovative climate mitigation and adaptation solutions. Table 4.0 below outlines governance updates and 2024 achievements.

Table 4.0 Hamilton's Climate Action Strategy Governance and Innovation Updates

Governance/Innovation Elements	Status Update
City of Hamilton Director-Level Climate Change Initiatives Steering Committee	ACTIVELY MEETING - This steering committee comprised of Directors from key City departments and divisions was established in September 2023 and has been meeting monthly since then—providing guidance on Climate Action Strategy implementation efforts and review of Climate Change Reserve funding.
City of Hamilton Climate Change Initiatives Extended Leadership Group	DELAYED - This group has been delayed in forming due to work capacity issues and competing priorities. Determination of structure and mandate, in order to negotiate internal work loads will need to be identified in 2025.
Climate Change Advisory Committee	ACTIVELY MEETING – See Page 13 for a full update.
Climate Change Reserve	OPERATIONAL – Council approved a sustainable source of funding for the City's Climate Change Reserve as part of the 2023 municipal budget. The latest report (PED24165) recommended 13 City-led projects which were approved by Council in 2024 with total funding of \$2,501,000 and with an estimated greenhouse gas reduction of 6,864 tCO2e, or an 8.7% reduction of the City's 2023 corporate greenhouse gas emissions.

OCCI Priority: Climate Governance and Innovation (Cont'd...)



The **Climate Change Advisory Committee (CCAC)** is a diverse group of Hamiltonians who play an essential role in advising on and guiding the implementation of Hamilton's Climate Action Strategy. In 2024, the CCAC held a total of seven meetings, including its first meeting on April 30, 2024. Six Working Groups were formed, and each developed its own terms of reference and work plans.

During 2024, the CCAC, both as a full committee and through its Working Groups, contributed to the following key initiatives:

- Green Building Standards (Planning Division). The Buildings Working Group wrote and presented to the Planning Committee a Citizen Committee Report respecting Adopting More Ambitious Green Building Standards. This Working Group is now actively working with Planning Division staff on this file.
- Urban Boundary Expansion Framework (Planning Division). Committee Members provided input on the proposed framework.
- LRT Sub-Committee Report (LRT Project Office). The Community Engagement and Climate
 Justice Working Group provided extensive feedback on governance options to bring the voices
 of frontline communities to the LRT Sub-Committee.
- Carbon Budgeting & Accounting Framework engagement survey (Office of Climate Change Initiatives). Committee members completed the survey and offered feedback on the framework.
- Climate Justice Framework Project Charter (Office of Climate Change Initiatives). The Community Engagement and Climate Justice Working Group provided feedback on the Project Charter.
- OCCI Priority Indicators (Office of Climate Change Initiatives). The *Governance and Technical Working Group* provided feedback on the existing and proposed priority indicators.
- Climate Change Reserve (Office of Climate Change Initiatives). With advice from the Committee, the internal process for applying for Climate Change Reserve funding for city-led initiatives was further refined to enhance the consideration of community resilience and climate justice in the 2025 intake application.

OCCI Priority: Carbon Budget & Accounting Framework

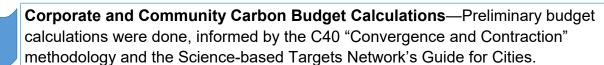
The Office of Climate Change Initiatives continues to lead the development of the Carbon Budget and Accounting Framework, with direct support from staff across the City of Hamilton. This project is supported through an internal Technical Advisory Committee comprised of Divisions/Departments including:

- Finance and Administration, Corporate Services;
- Procurement, Corporate Services;
- Information Technology, Corporate Services;
- Corporate Facilities and Energy Management, Public Works; and
- Corporate Asset Management, Public Works.

Figure 3.0 Illustration of a Carbon Budget and Accounting Framework



Important work was completed throughout 2024 on Hamilton's Carbon Budget and Accounting Framework including:



Carbon Offset Policy—Extensive research to inform the development of a Carbon Offset Policy to guide the City's commitment to achieve Net Zero greenhouse gas emissions using best practices and procedures for carbon offsets.

Auditing Community Greenhouse Gas (GHG Inventory) —Third-party auditing and verification of Hamilton's Community GHG Inventory was completed that aligns with the *Global Protocol for Community-Scale Greenhouse Gas Inventories*.

Change Management through Awareness and Training—Completed several internal meetings and two Focus Group Sessions with Finance and Senior Leaders to socialize carbon budget concepts, methodologies and frequently asked questions.

OCCI Priority: Green Buildings







The Better Homes Hamilton (BHH) Pilot Program is an innovative program that is helping up to 50 homeowners reduce greenhouse gas emissions and enjoy a more comfortable home. City Council approved up to \$1 Million in loans to homeowners to implement energy-efficiency retrofits. For full details on the BHH program, including a list of eligible retrofit measures, helpful resources and energy-efficiency rebate programs, see Better Homes Hamilton Program | City of Hamilton.

Launched in December 2023, 150+ homeowners applied to be selected for a loan up to \$20,000 at the introductory rate of zero-percent interest to be paid back to the City annually through property taxes



A BHH portal was launched in 2024 to administer the BHH program. Participants are currently submitting their funding requests and required documents for the energy-efficiency measures they intend to install in their homes to reduce GHG emissions and increase home comfort.



Research on the feasibility of expanding the BHH program has begun and a City Staff report will go to Council in 2025 on if and how best the program can be scaled up.

Tenants living in homes that are participating in the program are being informed by the BHH program of the responsibilities of their landlord and the City to tenants and are being provided with information on their rights.

The BHH Program Coach continues to provide one-on-one guidance for participants and has made themselves available to any tenants that have questions or concerns.

OCCI PRIORITY: Green Buildings (Cont'd...)

Corporate Net-Zero Emissions/Zero Carbon Standard



OCCI Priority: Urban Greening

Greening urban areas is an essential way to both adapt to and mitigate climate impacts. This is becoming more urgent as our community struggles with warming temperatures brought on by climate change. The OCCI continued during 2024 to support and to initiate work to advance urban greening efforts in our community.

Administering funding for community partner Green Venture's depaving efforts along Barton Street and in other Ward 3 locations continued during 2024. The collaboration OCCI helped to facilitate between the City's Forestry and Horticulture Division and community partner the Hamilton Naturalists' Club enabled a more efficient and effective delivery approach for the City's 2024 Tree Giveaway, resulting in 5,003 trees being distributed to community members for planting on private property. The City's Tree Giveaway is an essential component for realizing the 40% urban canopy cover target in Hamilton's Urban Forest Strategy, as 60% of an urban area's canopy cover comes from trees planted on private property.



The OCCI continued to track numbers of trees planted by community partners in order to assess whether the collective community target of 50,000 trees was reached, and handed out native tree seeds at community events, along with instructions on how to germinate these seeds to help interested residents contribute to community tree numbers in a very hands-on way.

Finally, in Fall 2024, OCCI convened a cross-divisional working group to test a new framework for inter-departmental collaboration to advance innovative green infrastructure projects. Guided by a climate justice lens, the first project being explored involves selecting and depaving an underutilized municipal parking lot to implement a multi-objective nature-based green stormwater infrastructure project. The working group is currently applying for grants to fund a technical and financial feasibility study on candidate sites identified by preliminary GIS analyses in vulnerable communities facing multiple climate challenges and seeks to leverage further funding for implementation.

OCCI PRIORITY: Climate Communications and Outreach

Climate communications and community outreach is a key OCCI priority, aimed at raising awareness of Hamilton's Climate Action Strategy, providing scientific information on climate projections, and promoting collective action. In 2024, engagement included in-person presentations, pop-ups, and participation in community events with groups across all sectors.

By the Numbers 2024 Update:

- **2,000+** residents reached via **27** community presentations, pop-ups and other events;
- **96,25K** impressions from **33** social media posts and **105,000** online engagements;
- 14 climate-related stories from local media outlets.

By the Numbers for January - April 2025:

- 350 residents reached via 10 community presentations, pop-ups and other events;
- 20,1K impressions from 4 social media posts and
 529 online engagements.

Climate communications consisted of an on-going public awareness campaign for Hamilton's Climate Action Strategy conducted through the City of Hamilton's social media channels, webinars, and various newsletters. The Strategy's webpage was revamped, and its content was expanded and updated. The OCCI also reviews and supports several other climate-related public messaging campaigns including Public Health's heat messaging and Public Works' stormwater education campaign.

The City continues to collaborate with the City of Burlington, Mohawk College and a variety of community partners through the Bay Area Climate Change Council (BACCC). The City benefits from BACCC's community-based implementation team focused on Buildings. In 2024 BACCC was successful in leveraging the funding it receives from Hamilton and Burlington to secure a grant from The Atmospheric Fund (TAF) to support research to implement Green Development Standards across the two cities.

OCCI PRIORITY: Climate Communications and Outreach Cont'd...

Internal Climate Communication and Engagement

OCCI continues to work with Departments and Divisions across the City of Hamilton including Public Works, Public Health, the LRT Project Office, Corporate Facilities and Energy Management (CFEM), Asset Management, and more, to help implement climate considerations in project work. In 2025, the OCCI has been hosting 'Learning Sessions' focused on Hamilton's Climate Action Strategy that also include details to help staff in specific sections and divisions understand how the Strategy is directly relevant to the work that they do.

Beyond its core work, the OCCI routinely reviews reports, policies, plans and strategies for divisions seeking guidance on centering a climate-lens in their work. Finally, in 2024, OCCI engaged with and, in some instances, collaborated with numerous internal and external partner groups as outlined in Table 4.0 below.



OCCI PRIORITY: Climate Justice

Climate change does not affect everyone equally. Hamilton's Climate Action Strategy includes a strong commitment to ensuring that climate action implementation is guided by climate justice principles. Climate justice centres social justice and equity in our understanding of climate change, including its causes and impacts, as well as in climate mitigation and adaptation efforts.

In 2024, OCCI staff engaged with over 20 local organizations serving frontline communities—equity-deserving populations disproportionately impacted by climate change. A work plan was developed, and a call for proposals was launched for compensated partnerships with select organizations to colead engagement and co-design a Climate Justice Framework which will be used to guide the implementation of the Strategy and other climate-related municipal work.

The Framework is based on three equity dimensions of climate justice:

Procedural Equity

Ensures municipal decisions reflect community needs by involving diverse voices in fair and inclusive decision-making processes.

Distributive Equity

Addresses how the benefits and burdens of climate action are shared across communities, ensuring fair outcomes and transparent decisionmaking.

Recognitional Equity

Considers who should be included and prioritized in climate action decisions by identifying the most vulnerable or historically underrepresented communities.

Oacts WHAT DOES CLIMATE JUSTICE

A **Technical Advisory Committee** (**TAC** of City staff was established in November 2024 to support project development and implementation. The project also connected with staff from other Canadian municipalities to learn best practices. OCCI staff established a partnership with the **Indigenous Relations Team** at the City, to work together on Indigenous engagement.

Additionally, a **Climate Justice and Engagement Working Group**—volunteers from the Climate Change Advisory Committee— is actively advising on climate-related projects as these initiatives emerge. For example, the group provided input on governance options to bring the voices of frontline communities to the LRT Sub-Committee. They also reviewed and gave feedback on potential 'change tracking' indicators for the LRT corridor.

Currently, those who have least contributed to the climate crisis are being disproportionately affected by it. Climate justice suggests that the responsibilities in addressing climate change should be divided according to who is contributing most to the problem, while addressing systemic, socioeconomic, and intergenerational inequalities. Source—United Nations Development Program

Low-income communities, people of colour, indigenous people,

HAMILTON'S COMMUNITY- WIDE GREENHOUSE GAS INVENTORY 2006 – 2023

Since 2008, the City of Hamilton has been tracking and annually reporting community-wide greenhouse gas (GHG) emissions from sectors including: buildings (broken down by residential, commercial and industrial), transportation, industrial process emissions, waste, wastewater, and agriculture. Compared to the 2006 baseline, emissions in 2023 dropped by 36.1%, from approximately 17.35 to 11.09 million tonnes of CO_2e .

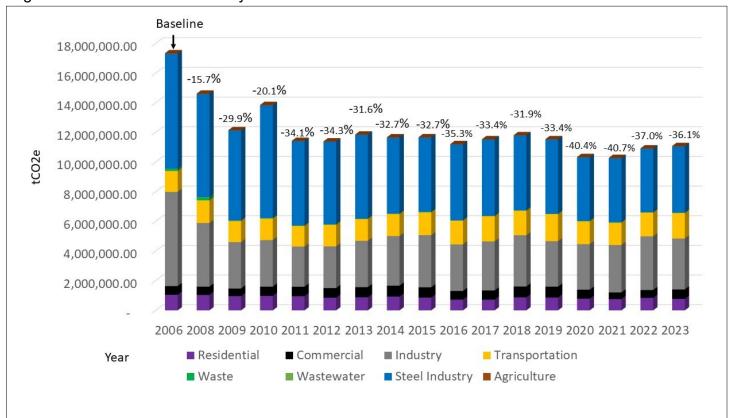


Figure 4.0 Hamilton's Community-Wide Greenhouse Gas Emissions 2006-2023

Major Sources of Community-Wide Greenhouse Gas Emissions

The City of Hamilton follows the Global Protocol for Community-Scale Greenhouse Gas Inventory and this requires tracking emissions from the major sources across Hamilton. The GHG inventory is reported two years in the past due to reliance on other levels of government for data and timelines associated with their data collection and verification cycles.

Table 5.0 to the right shows the breakdown of GHG emissions by major sectors including both the tonnes of carbon dioxide equivalents (tCO₂e) and as a percent of the total.

NEW—See Appendix "D" to Report PED25129 for further analysis of Hamilton's Community GHG Emissions by Sector.

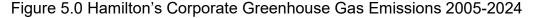
Table 5.0 Hamilton's GHG Emissions Breakdown 2023

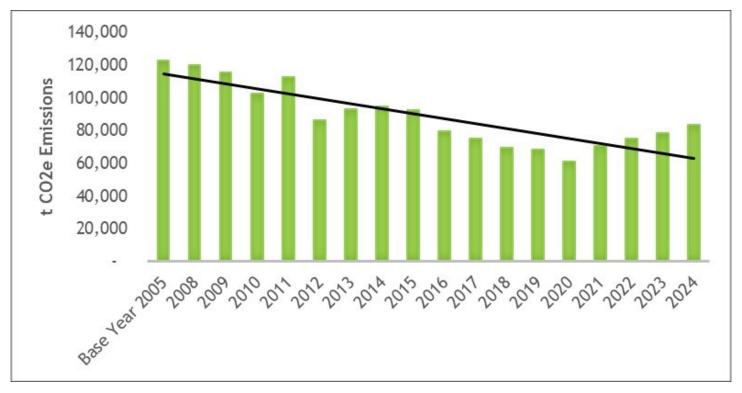
Sector	GHG (tCO₂e)	Percent (%) of Total *
Industry	7,908,716	71.3%
Transportation	1,719,333	15.5%
Buildings	1,412,697	12.7%
Wastewater	561	0.01%
Solid Waste	14,690	0.13%
Agriculture	30,999	0.28%
Total	11,086,995	*Totals may not equal 100% due to rounding

HAMILTON'S CORPORATE GREENHOUSE GAS INVENTORY 2005 – 2024

Through the Corporate Facilities and Energy Management Division, City staff report on Corporate GHG emissions each year, and have recently completed the inventory for 2024.

Overall Hamilton's corporate emissions have seen a total reduction of 36% in 2023 and 32% in 2024 when compared to the 2005 baseline.

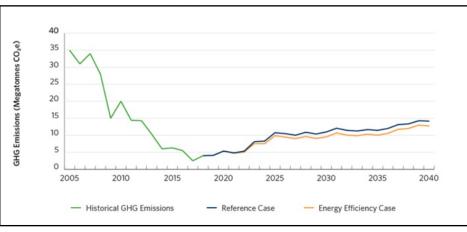




In 2024, corporate GHG emissions rose by 7.0%, following a 4.9% increase between 2022 and 2023. These continued increases are mainly due to:

- The increasing emission factors from electricity generation within Ontario's provincial grid. As shown in Fig-ure 6.0, the provincial grid has been increasing in GHG emissions since 2016 as the province uses more fossil fuel based electrical generation—mainly natural gas.
- Rising transit fleet emissions as service levels increase with new routes and more frequent service on existing routes.

Figure 6.0 IESO Electricity Emissions Forecast



(Graph Adapted from: https://www.ieso.ca/Powering-Tomorrow/2020/The-IESOs-Annual-Planning-Outlook-in-Six-Graphs)

HAMILTON'S CLIMATE ACTION STRATEGY

Hamilton's Climate Action Strategy (HCAS) is the City's most ambitious and detailed climate strategy to date. It was developed between 2018 and 2022 through extensive research, technical modelling, community-wide engagement, and consultation. The HCAS includes both a climate mitigation plan to achieve net-zero GHG emissions by 2050, and a climate adaptation plan to help our entire community reduce, prepare, and recover from the unavoidable impacts of climate change.

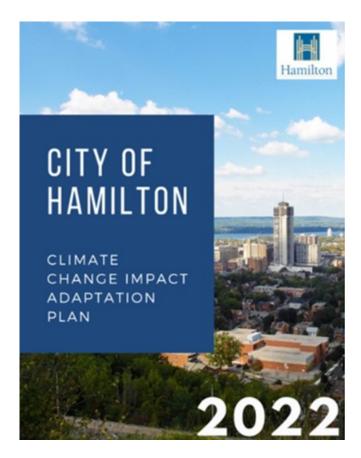






Vision:

"ReCharge Hamilton identifies a pathway to net zero GHG emissions by 2050 that increases the resilience of the energy system and improves economic prosperity for all. Drawing on a history of work, policies, and initiatives in this area, ReCharge Hamilton builds on Hamilton's historic and current strengths as an industrial leader in the midst of a rich natural environment, and as a caring community."



Hamilton's Climate Change Impact Adaptation Plan

Vision:

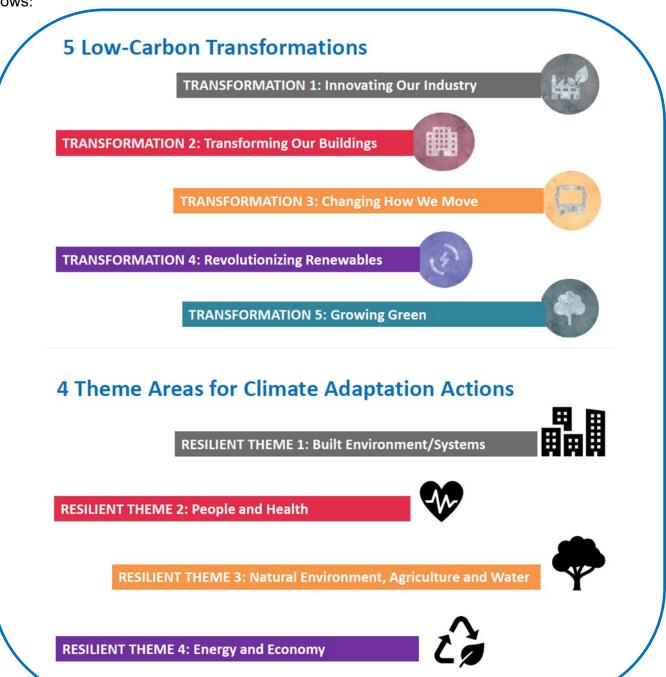
"The City of Hamilton will be a national leader on climate adaptation: a healthy, equitable, vibrant, and sustainable community that responds to the needs of residents, businesses and institutions, and is resilient in the face of a changing climate"

Low-Carbon Transformations and Resilient Themes— Annual Update 2025

The remaining sections of this report are broken out into the Low-Carbon Transformations and Resilient Themes as outlined and approved within 'ReCharge Hamilton' and 'Hamilton's Climate Change Impact Adaptation Plan'.

The following sections include major and impactful actions within each Low-Carbon Transformation and Resilient Theme. For a complete list and status update for all of HCAS' specific actions see Appendix "B" to Report PED25129.

The Five (5) Low-Carbon Transformations and Four (4) Resilient Theme Areas are broken out as follows:



Low-Carbon Transformation #1: Innovating Our Industry

Monitoring Trends of Large Industrial Emitters of Greenhouse Gases

Hamilton's greenhouse gas emissions profile is dominated by industrial emitters. That is why our Climate Action Strategy includes a focus on innovating our industry to mitigate greenhouse gas emissions from this sector. Part of this work involves tracking industrial greenhouse gas emission trends. In Canada, industries emitting greater than 10,000 tonnes of carbon dioxide equivalents (tCO2e) annually must report these emissions to the federal Greenhouse Gas Reporting Program (GHGRP).

In Hamilton, 19 industrial facilities are included on this list in 2023, the most recent year for which verified reporting data is publicly available through the GHGRP. The levels of emissions from these facilities range from 9,252 tCO2e to 4,168,284 tCO2e. Two of the facilities on the list reduced their emissions to below the 10,000 tCO2e federal reporting threshold in 2023. Of the 19 facilities reporting, 7 reported an increase in emission levels compared to 2022, with two facilities reporting emission levels that surpass 2017 levels and continue to rise.

Table 6.0 Industrial GHGRP Reporting Trends in Hamilton 2017—2023

	% Change	GHG		
Facility	(*tCO2e)		2023 vs	Emissions
	2022	2023	2022	Trend
				2017 to 2023
ArcelorMittal Dofasco – Main Plant	3,960,611	4,168,284	+5.2%	-15.2%
Carmeuse Lime	434,050	426,286	-1.8%	-9.7 %
Stelco Inc (Cleveland Cliffs)	279,095	254,754	-8.7%	+0.3%
Birla Carbon	202,082	205,995	+1.9%	-12.2%
Bunge Canada	49,866	48,780	-2.2%	-1.7%
RAIN Carbon	30,080	29,230	-2.8%	+1.9%
**Bartek Ingredients – Plant #2	30,037	26,645	-11.3%	+4.8%
Baycoat	29,303	32,247	+10%	+25.4%
Darling Ingredients (Rothsay)	23,416	22,060	-5.8%	+2.1%
Max Aicher North America	19,242	20,426	+6.1%	+56.2%
Maple Leaf Foods – Heritage Plant	16,243	15,216	-6.3%	-16%
ArcelorMittal Long Products	15,380	15,596	+1.4%	-41.6%
***Bimbo/ Canada Bread	12,110	12,073	-0.3%	-2.6%
NATT Tools Group	11,103	9,252	-16.7%	-44.4%
Air Liquide Canada	10,548	10,436	-1.1%	-11.1%
Mondelez Foods	10,078	9,782	-2.9%	-2.1%
Bartek Ingredients – Plant #1	8,694	9,344	+7.5%	-21.5%
BIOX Canada Limited	3,049	6,208	+104%	-51.5%
GFL Stoney Creek Landfill	1,394	1,377	-1.2%	-97.4%

^{*}For reference, 1 tCO2e represents the greenhouse gases emitted from driving an average internal combustion engine vehicle 2,500 miles or 4,023 kms.

^{**}Bartek Ingredients Plant #2 started reporting to GHGRP in 2019 – increase is since 2019.

^{***}Bimbo/Canada Bread plant opened in 2011 and started reporting to GHGRP in 2020, decrease reported is since 2020.

^{****} Total emissions stated here are different than total industrial emissions stated on page 17 due to methodology.

Low-Carbon Transformation #1: Innovating Our Industry

Eight facilities report continuing success with reducing their emission levels over time, with emission levels below 2017 levels, and continuing to decline from 2022 to 2023. Overall, greenhouse gas emissions reported by these 19 facilities have increased by 3.5% or ~185,566 tCO2e when compared to 2022 emission levels. The bulk of the overall increase is due to increasing greenhouse gas emissions at ArcelorMittal Dofasco, although the company remains below its pre-pandemic emission levels.

The City's Office of Climate Change Initiatives will continue to track annual GHG emission levels from facilities required to report to the federal Greenhouse Gas Reporting Program. In addition, the Office continues to gather information regarding current or emerging efforts being undertaken by large industrial emitters to develop plans for achieving net zero on or before 2050 at their local industrial operations. This information will be used to inform the collaborative efforts emerging through the Hamilton Regional Decarbonization Hub to support and, ideally, to accelerate industrial decarbonization in our community.

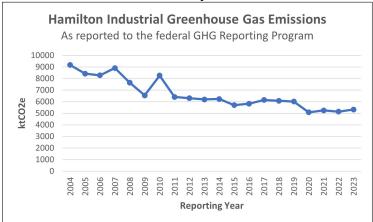


Figure 7.0: Hamilton Facilities Reporting to HGRP 2004-2022 (kt CO₂e)

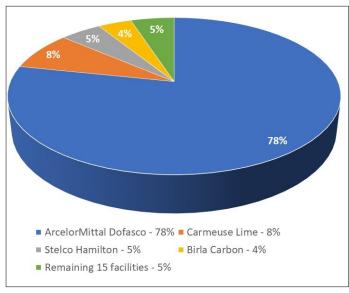


Figure 8.0: Facility Contributions GHGRP Reporting, 2023

Additional Large Emitters in Hamilton

Although not classified as industrial, there are four (4) additional large emitters in Hamilton that report to the federal Greenhouse Gas Reporting Program. The chart below provides GHG emissions reported by these facilities in 2023.

Table 7.0 Non-Industrial Large Emitters Hamilton, 2023

Facility	GHG Emissions (tCO2e)						% Change 2022 to 2023	GHG Emissions Trend
_	2022	2023		2017 to 2023				
McMaster University	41,975	42,124	+0.35%	+80%				
Woodward Sewage Treatment Plant	25,687	33,295	+29.6%	+75%				
Glanbrook Landfill Site	16,169	14,690	-9.1%	-50%				
Juravinski Hospital Co-Generation	11,292	10,742	-4.9%	-45%				

Low-Carbon Transformation #2: Transforming Our Buildings

GREEN BUILDING STANDARDS



City-Wide Green Building Standards are considered a pillar action in Hamilton's Climate Action Strategy and were endorsed by the Planning Committee in October 2024. The Climate Change Advisory Committee requested an

opportunity to review and recommended enhanced energy performance requirements that better align with what other Ontario municipalities have adopted.

A final set of Standards was taken to Planning Committee on April 29, 2025, and an an Implementation Strategy went to General Issues Committee on April 30, 2025. Both reports were referred back to staff to further investigate both short-term costs and long-term benefits associated with achieving the standards. Staff were directed to report back by the end of 2025.



HAMILTON COMMUNITY **ENTERPRISES**

Focus on Smart Buildings — Building on progress made last year, HCE continues to advance its efforts to transform local buildings for a low-carbon future.

HCE has proposed a decarbonization plan for the Hamilton Convention Centre, including advanced variable volume and temperature controls, variable frequency drives, and a new

building automation system. These measures aim to optimize heating and cooling, improve energy efficiency, enhance ventilation, and reduce GHG emissions.

The project is expected to save \$182,500 annually and reduce GHG emissions by 25%. Similar proposals have also been produced for two of Hamilton's Public Libraries and the Art Gallery of Hamilton, aiming to achieve similar energy efficiency and GHG reduction

goals.

Contact Ryan Rogers, Vice President, Corporate Development, Hamilton Community Enterprises at ryan.rogers@hce.net to learn more.





A special 'Thank You' to David Inkley, former HCE Vice President of Engineering and Development, who has recently retired. David's work on advancing HCE's District Energy System and related efforts to decarbonize that system has contributed significantly to local efforts to transform our buildings across Hamilton. (Photo courtesy of HCE)

Low-Carbon Transformation #2: Transforming Our Buildings

Community Spotlight—New Horizon Development Group 870 Queenston Road Project



New Horizon Development Group (NHDG) is redefining sustainable building practices, setting new standards for environmentally responsible development in the Greater Toronto and Hamilton Area. Their commitment to sustainability is embodied in their 870 Queenston Road project, a 14-storey, purpose-built rental building in Stoney Creek.

Project Highlights:

- Hamilton's first open-market, multi-residential high-rise targeting LEED certification;
- A signature feature of NHDG's mid and high-rise buildings is the inclusion of a geothermal heating and cooling system, combined with an Energy Recovery Ventilation, which reduces reliance on fossil fuels, cutting carbon consumption by an average of 60%;
- A tri-sorter waste diversion system allows residents to easily recycle glass, plastic, metal and cardboard which supports waste reduction and landfill diversion; and,
- Working with Hamilton Conservation Authority to rehabilitate degraded ravine lands adjacent to Battlefield Creek and restore biodiversity by improving local ecosystem functions.

The project also includes electric vehicle chargers, provisions for future solar panels, and low volatile organic compound materials to improve indoor air quality. Sustainability extends beyond construction at 870 Queenston Road—it is about fostering an eco-conscious lifestyle. NHDG equips residents with knowledge and resources to embrace sustainability in their daily life through marketing materials, property management initiatives, and community engagement programs.

There are a total of 218 rental suites at 870 Queenston Road, 20% of which are dedicated to offering below market, geared-to-income rental rates. NHDG's 870 Queenston Road project is the epitome of the *People*, *Planet*, *Profit* model.

Low-Carbon Transformation #3: Changing How We Move

Active and Sustainable Mobility: Hamilton Bike Share System

Transportation Planning and Parking Division, Planning and Economic Development Department

The City of Hamilton supports the shift to more sustainable travel options. Since 2015, it has partnered with the non-profit organization, Hamilton Bike Share Inc (HBSI) to launch and operate the Hamilton Bike Share transit system. This popular system continues to grow. As of December 2024, HBSI operates 900 bicycles across over 150 hubs. In 2024, the eastern service area boundary was expanded from Ottawa Street to Kenilworth Avenue with the addition of 5 new hubs.

With over **32,000** active members and **6** membership types (Pay as You Go, Monthly, McMaster Student Monthly, Seasonal, Pedal Pass, or Tandem), unique trips taken in 2024 almost **doubled** from 2023, and total kms travelled increased by 42% from 668,000 in 2023 to 950,000 in 2024. With a proposed model in 2026-2027 of only **\$62 per bike** going towards operations and running the system, the Hamilton Bike Share transit system is helping our city avoid further carbon emissions and doing so in a healthy way.

Table 7.0 Hamilton Bike Share Transit System User Statistics 2023-2024

2023		202	24
 Activ 	ve members: 19,800	•	Active members: 32,000 with
• Uniq	ue trips taken: 245,364		8,500+ undergrad students activating U-Pass*
• Total	travel: 567,479 km		Unique trips taken: 508,997
• Carb	Carbon avoided: 166,025 kgtCO2e	•	Total travel: 949,927 km
		•	Carbon avoided: 236,095 kgtCO2e

(*Mac U-Pass, a heavily discounted student pass paid through tuitions fees, was launched in September 2024)

Equity-Based Programming HBSI's Everyone Rides Initiative (ERI) removes barriers to cycling and makes active travel more equitable through bike access, subsidization, education, and outreach. In 2024, 425+ public pedal passes were used at a cost of \$0 - \$15 for 3 hours daily. Julia Hamill, Programs & Partnerships Director works with various local organizations and groups that use the Everyone Rides Initiative including CityHousing Hamilton, Acorn Hamilton, Daily School Route, Compass Community Health, Welcome Inn, YWCA, and Hamilton Regional Indian Centre. Hamill helps train staff in these organizations to do outreach to their clients, "(M)any of whom have language barriers, don't have credit cards or bank accounts, or even cell phones."

Low-Carbon Transformation #3: Changing How We Move

Equity Based Programming (Cont'd...)

Special programs like the <u>Adaptative Bike Program</u> create opportunities for residents with disabilities to ride safely. The fleet is growing with **13 bikes** including three upright adult tricycles, three recumbent tricycles (including one with e-assist), three hand-cycle tricycles, two passenger cargo tricycles, a low step-through e-assist two-wheeled bike, and a side-by-side tandem trike. The adaptive bikes are stored in shipping containers located in Gage Park and Bayfront Park. "We are seeing a lot of growth in recreation, with over **1000 rides** in adaptive bikes in 2024," Hamill said.

Table 8.0 Everyone Rides Initiatives User Statistics 2023-2024

Outcome	2023	2024	Year over Year %Change
Subsidized passes distributed	300	426	42%
Total annual trips by ERI Riders	27,208	43,571	60%
Distance travelled by ERI Riders	73,097km	103,883km	42%
Total # of adaptive bike trips	561	1,049	87%

City of Hamilton Corporate Electric Vehicles and Charging Infrastructure

The City of Hamilton has committed to reducing corporate GHG emissions and achieving net zero emissions by 2050. A big part of the City's corporate emissions are from its fleet of vehicles.

The City is tackling this, in part, through its <u>Green Fleet Strategy</u> by replacing fossil-fuel powered internal combustion vehicles with battery all-electric vehicles in its light duty fleet of vehicles.

Year	Counts
2021	2
2022	0
2023	13
2024	73

Table 9.0 City of Hamilton EV Count 2021-2024

Table 10.0 City-Owned Electric Vehicle Infrastructure Operational as of Q4 2024

of City Facilities Containing EV # of EV Pedestals # of Level 2 Charging Stations
Charging Infrastructure Connectors

13 38 74

Low-Carbon Transformation #4: Revolutionizing Renewables

<u>Hamilton Community Enterprises</u> (HCE) — an award-winning, purpose-driven technology company owned by the City of Hamilton — is helping local residents, businesses and institutions benefit from low-carbon, high-efficiency building heating.

HCE is leading the Steelport Energy Advantage initiative, leveraging both public and private sector investment to decarbonize Hamilton's portlands, while also driving economic prosperity.

The initiative is expected to generate:

- \$3.8 billion in economic value;
- 23,000 jobs across the Greater Toronto and Hamilton Area.

HCE is currently working with Steelport's Project Partners to develop an Integrated Energy Strategy that will reduce peak energy demand, enhance power resiliency, decarbonize operations, and increase energy affordability.

The initial results of both projects are expected in late 2025 and will be shared with the Office of Climate Change Initiatives.









HCE's Decarbonization Plan for Hamilton Convention Centre

Building off the progress made last year, HCE continues to advance its efforts in transforming buildings for a low-carbon future.

HCE has proposed a decarbonization plan for the Hamilton Convention Centre, including advanced variable volume and temperature controls, variable frequency drives, and a new building automation system. These measures aim to optimize heating and cooling, improve energy efficiency, enhance ventilation, and reduce GHG emissions.

The project is expected to save \$182,500 annually and reduce GHG emissions by 25%. Similar proposals have also been produced for two of Hamilton's Public Libraries and the Art Gallery of Hamilton, aiming to achieve similar energy efficiency and GHG reduction goals.

Implementing Hamilton's Climate Action Strategy - Gaps, Barriers & Challenges

With each Annual Update on the implementation of Hamilton's Climate Action Strategy (HCAS), consideration is given to gaps, barriers, and challenges related to climate mitigation and adaptation efforts. The Office of Climate Change Initiatives (OCCI) assesses the progress made with the actions found in the Strategy's detailed mitigation and adaptation plans, an exercise that highlights areas requiring more attention.

Key areas where there have been challenges with progress to date include:

Support for Industry Decarbonization – Several actions found within the Community Energy and Emissions Plan under the *Innovating Our Industry* transformation have been slow to move forward, partly because of unsuccessful attempts to secure funding to support these efforts. These include establishing important innovative governance pieces to help facilitate advancement of clean technology for industry decarbonize, among others. City Staff from OCCI and Economic Development continue to work to determine viable pathways forward.

Generating More Local Renewable Energy – Barriers and challenges continue to persist where the City's efforts to generate more renewable energy are concerned. The major challenge for the corporation continues to be a lack of funding to support projects that are ready to proceed, including the installation of rooftop solar arrays on municipally-owned facilities. On the community-side, there continue to exist both municipal and provincial policy gaps that need to be addressed to facilitate more renewable energy generation.

Food Security and Food Waste – Hamilton's Climate Change Impact Adaptation Plan includes actions that highlight the importance of local food security, including local agriculture and urban opportunities for food growing, and the need to prevent food waste. While the OCCI continues to support and help to expand the City's network of community food gardens, there is more work to be done to promote local food security and to tackle the challenge of food waste more broadly.

Innovative Municipal Financing of Climate Actions – The Community Energy and Emissions Plan includes two 'enabling actions' focused on generating new revenue sources to facilitate corporate climate action. These include expanding the City's Corporate Energy Reserve revolving fund, and an assessment of the potential for municipal and community green bonds to support climate action. Work on these enabling actions has been slow to progress and has yet to result in increased funding to support corporate climate action.

Also important to note is that concerns have been raised by the City's Climate Change Advisory Committee, regarding a general need to focus more attention on acute climate impacts. With particular focus to ensure that those most impacted, but lacking in resources to respond in a manner that protects them from harm, need to be prioritized. In response, the City's 2025 round of Climate Change Reserve funding aims to prioritize applications that address identified gaps, challenges and barriers, including the need for more focus on climate adaptation to ensure human health and well-being is protected and enhanced.

Low-Carbon Transformation #5: Growing Green

Getting to Our 50,000 Tree Planting Target

Hamilton's Climate Action Strategy calls for the community to plant at least 50,000 trees each year to help to mitigate the impacts of climate change.

The 50,000 trees-per-year target is a community-wide goal; the City's Forestry and Horticulture Division has committed to getting 20,000 of these trees planted, while other community partners, including conservation authorities, not-for-profit groups, and institu-

In 2024, a total of 55,482 trees were planted, surpassing the annual target by 11%.

tions like McMaster University, Mohawk College and the Royal Botanical Gardens also contribute to planting efforts. Planting trees on both public and private property is essential if we hope to achieve outcomes like the 40% urban forest canopy cover goal set by the City of Hamilton. Tree planting is a great hands-on climate action that residents of Hamilton can get involved with by planting trees on their own properties or participating in a community tree-planting event. Growing native trees from seed is another great way to make a difference.

During 2024, the City's Forestry and Horticulture Section continued with efforts to get more trees planted across the community. The following tree planting numbers for 2024 reflect these efforts:

- The Forestry Operations Group planted 6,500 trees in parks and cemeteries, along streets, and at City facilities.
- Forestry also planted 1,381 trees through naturalization tree planting.
- The City's Annual Tree Giveaway program distributed 5.003 native trees and shrubs to residents for planting on the privately owned portions of their properties.
- The City's Community Tree Planting Events saw volunteers work with staff to plant 6,775 trees
 on City land, increasing the number of trees planted by 92% compared to 2023 numbers.

The Office of Climate Change Initiatives collects data each year on tree planting efforts by community partners. In 2024, partners planted a total of 35,823 trees. The four conservation authorities with portions of their watersheds within Hamilton's municipal boundaries planted 58.2% of the 55,482 community-wide total planted, while other external organizations planted 6.3%.

Conservation Authorities – 58.2%

City of Hamilton Forestry – 35.4%

Other External Organizations – 6.4%

It should be noted that these counts do not include plantings of tree stock purchased by residential, commercial, industrial and most institutional property owners and, as a result, annual numbers are likely higher than what is being reported here.

CLIMATE ACTION HIGHLIGHT – John C. Munro Hamilton International Airport



In September 2024, the City of Hamilton signed a new 49-year lease with Tradeport International, a wholly owned subsidiary of Vantage Group, for the private operation of Hamilton's John C. Munro International Airport.

This landmark agreement is setting the stage for a bold environmental commitment from Vantage Group: achieving Net Zero Carbon by 2030. As part of this agreement the operator will invest \$20 million in climate action initiatives focused on eliminating Scope 1 emissions under direct control of the operator, and Scope 2 emissions that are

generated indirectly through the operator's energy use. Emissions outside of the operator's direct control - such as aircraft operations - are considered Scope 3 and are not included in this target.

The operator also finalized a comprehensive five-year Environmental Strategy and Climate Resiliency Plan in 2024. Plan highlights were presented to the City's Airport Sub-Committee and the Plan will be incorporated into future updates of the Airport Master Plan.

Key Climate Actions in 2024:

- Began installation of a geothermal loop for the operations building.
- Installed two EV chargers ,with plans for further expansion.
- Completed sustainable diesel trials for summer and winter operations.

Looking Ahead (2024 - 2029):

- Transition to sustainable diesel fuels and electrified ground equipment.
- Upgrades to heating and cooling systems for greater efficiency.
- Completion of a new airport stormwater treatment facility.
- Collaboration with airlines and service partners to support ESG goals, including Sustainable Aviation Fuel (SAF) transition and equipment electrification.

Vantage Group airports are also participating in the global Airport Carbon Accreditation Program; an initiative designed to track and verify the decarbonization efforts of airports around the world (See airportaccreditation.org). The John C. Munro Airport has achieved accreditation to Level 1 – Footprint Measurement - in this program.

Emissions Snapshot for Hamilton International Airport (Scope 1 and 2):

- 75% from natural gas used to heat airport buildings.
- 16.6% from airport fleet vehicles used to maintain airport surfaces
- 8.4% from remaining activities, incluing airfield lighting

Source – Vantage Group 'Community Connections ESG Report – 2023'

Tonnes per CO ₂ equivalents	2022	2023
Scope 1	1,234	1,298
Scope 2	103	99
Combined	1,337	1,397

Table 11.0: Scope 1 and 2 Greenhouse Gas Emissions at John C. Munro International Airport

Resilient Theme #1: Built Environment

COMMUNITY HIGHLIGHT - Building Community, Depaying for Green Spaces

Adele Pierre has been working with Green Venture for years on depaving projects—the removal of asphalt in favour of pockets of green spaces and gardens. A landscape architect, Pierre and the Green Venture team came up with the idea of creating a string of habitat along Barton Street—boulevard sites all on the City's right of way. The plan was to remove the pavement—10 to 15 feet of asphalt between the building and the street—and put in plants so that "you actually have an ecosystem there, because the sites are close together," Pierre said.



From participation in community consultation to implementation and maintenance of the installations, residents play a key role. It starts with Pierre creating a conceptual plan; neighbours are then invited to say what they want to see. Engagement can be as simple as voting via Instagram.

"Planting day generates a lot of enthusiasm," Pierre said. "People are so excited about planting, and it's so satisfying for them to see that transformation." While the goal is to use native plant species as much as possible, many tend to be big—6 to 9 feet. When you're down-town, that's a safety issue. Pierre balances this with species like Dogwood and Asters.

Beyond planting day, Pierre said it can be difficult to get people to maintain the installations. Weeds are also an issue, as is the unsightly garbage that accumulates on any urban site. To get around these challenges, participants must sign a contract with the City saying that they will take care of the

gardens, and regular 'maintenance days' are held. During 2025, the team plans to focus on maintenance and monitoring how well the gardens are doing.

While for Pierre part of depaving is about creating green spaces, getting more plants in, and managing stormwater, "the huge thing for me is the sense of community."

Referring to community building and place-making—how people desire beautiful spaces to sit and linger or read the news— "I am always looking"

for opportunities even just to put in a boulder for seating", Pierre said. "These are the things that make you feel like you're creating community."

Resilient Theme #2: People and Health



Villages of Glancaster Community Event

The Villages of Glancaster residents came together with the City of Hamilton's Office of Climate Change Initiatives and Hamilton Fire, along with a private company focusing on innovative financing and sustainability strategies for condominiums.

Held on December 5th, 2024 the turnout was exceptional with every seat filled with interested residents. Led by Richard Koroscil, Chair of the Bay Area Climate Change Council and a resident of the condominiums, everyone learned about and discussed how collectively they could:

- 1) Reduce greenhouse gas emissions;
- 2) Reduce operational costs while investing in upkeep of the buildings;
- 3) Learn about the science of climate change;
- 4) Prepare for extreme weather events and other disasters.

Following the formal presentations and a question and answer period, the residents broke out into four different facilitated discussions. These break-out sessions included topics on:

- Different types of building retrofits that can be implemented on both individual residential buildings and larger condominium-operated buildings;
- Condominium financing and partnership structures;
- Sustainable modes of transportation;
- Emergency Preparedness, including 72

 hour emergency preparedness plans
 and climate resiliency.











Resilient Theme #2: People and Health

Hamilton Public Library: A Commitment to People and Sustainability

Hamilton Public Library (HPL) serves 2.6 million annual visitors through 23 branches, two bookmobiles, and up to 10,000 free programs. With a circulation of 4.7 million items (51% physical and 49% digital), HPL supports lifelong learning, social connection, and innovation—while committing to sustainability.

A shining example of HPL's commitment to sustainability is the Valley Park Branch. Valley Park achieved LEED Gold Certification in 2023 with its efficient mechanical methods, solar installation

HPL Sustainability in Action:

- Bike racks and repair stations
- Recycling and reducing paper usage
- Installing LED lighting
- Planting community vegetable gardens
- Establishing butterfly way and bird friendly windows
- Battery and pens drop
- Installing a green roof
- Building envelope retrofits

and robust drought-proof landscaping and pollinator garden. This branch has reducded its utility bills and water consumption considerably and has seen a 61% energy costs saving.

Valley Park Branch created a popular environmental education program for patrons to learn about its innovative sustainability features. Local partners offer ongoing climate programming including Green Venture and Bay Area Restoration Council, helping residents understand how they can be a part of the solution

Chad <u>Roglich</u>, HPL's Director, Facilities and Sustainability, hopes to encourage more emphasis on sustainability throughout the entire Library system. "We need everyone to have a shared vision, aligned with the City of Hamilton's Climate Change Action Strategy," <u>Roglich</u> said.

In February 2025, a Sustainability Steering Committee was formed—with Roglich at the helm—solidifying HPL's commitment to greening operations.

Partnering with local organizations to achieve these objectives is important. For example, Indwell, an affordable housing developer-built housing in Parkdale. Through a unique partnership with HPL, they added the Parkdale Branch for tenants and residents, providing free access to Wi-Fi, computers, materials, and programs.

HPL is looking ahead to design and construct Mount Hope Branch as potentially one of the first working examples of a net-zero library. Partnering with Invizij Architecture Firm and City partners on renovations for this repurposed heritage site, is expected to reduce GHG emission by 80% and improve energy efficiency by 70% from pre-renovations. This will be achieved through high-performance building envelope, air-source heat pump, efficient ventilation heat recovery, roof-mounted-and potentially wall-mounted-solar PV systems, to name a few.

This is great news for the community and for the climate. HPL branches are often used as cooling and warming centers during every-increase weather from climate change. Hamilton City Council has requested HPL to add open hours during these events. Roglich is mindful of the challenges this poses: "It's hard to be the community's 'third space' when we are that 'first space' for many," he said.

Resilient Theme #3: Natural Environment, Agriculture and Water

Adaptation Action 9.1 in Hamilton's Climate Change Impact Adaptation Plan calls for the City

to actively educate and encourage community members to participate in growing food locally at the lot level or in urban farms and gardens. In late 2023, the responsibility for supporting the City's network of 18 community food gardens was transferred to the Office of Climate Change Initiatives, along with a staff person whose role includes doing this work.

Hamilton's network of community food gardens is part of a larger and growing number of food gardens across the city that are part of the Hamilton Community Garden Network administered by local not-for-profit Neighbour to Neighbour.



Central Park Community Gardens is one of the newest in the network, established as part of the Central
Park makeover. Pictured is Michael Allgoewer, a
core volunteer with the garden.

Providing space for people to grow their own food is becoming increasingly important as the City of Hamilton intensifies and more residents require access to land to grow food for themselves and their families. Anyone in the community interested in accessing a garden plot at a garden listed in the Network's Garden Directory can reach out via the contact information provided and learn if there is a plot available for use. Plot use generally comes with an annual fee for use that typically ranges from \$15 - \$20. Fees are charged to cover basic operating costs of the gardens, including insurance fees.

Looking ahead to 2025 and initiatives emerging through the City's network of food gardens, work has started with the expansion of the Riverdale Community 'Salad Bowl' Garden, and support will be provided to several other community garden locations that have expressed interest in expanding. There has also been community interest expressed for the establishment of new garden locations. The OCCI will be improving the City of Hamilton website to provide easier access to information about community food gardens located on City property and how residents can access space in these gardens.

Finally, the OCCI intends to leverage the community networks that exist at the City's community food gardens, in order to engage community in neighbourhood-level climate mitigation and adaptation efforts that will eventually be supported through OCCI's proposed Neighbourhood Climate Action Small Grants Program.

Resilient Theme #4: Energy and Economy

Resilient and Environmentally Sustainable Hamilton Community Improvement Plan

A comprehensive review of Hamilton's LEEDing the Way Community Improvement Plan (LEED CIP) has now been completed. It is now referred to as "Growing a Resilient and Environmentally Sustainable Hamilton Community Improvement Plan".

Within this Community Improvement Plan Staff have created three programs that include:

GREEN Hamilton Study Grant Program

- To support completion of a sustainabilityrelated study (e.g. energy modelling report).
- Available city-wide for commercial, industrial, multi-residential sites not subject to the City's Green Building Standards.
- Incentive includes 50% of cost of an eligible study to a maximum of \$10,000.

GREEN Hamilton Bayfront Industrial Area Retrofit Grant Program

- To support physical improvements to existing industrial and commercial buildings within the Bayfront Industrial Area
- Incentive includes 50% of the cost up to the programs maximums to achieve the GHGI metric:
 - \$150k for a min 25% GHGI reduction
 - \$400k for a min 50% GHGI reduction

GREEN Hamilton Development Tax Increment Grant Program

- To provide grants for developments that are subject to the City's Green Building Standards and are available city-wide
- Tax increment-based grant and is rela-tive to the actual increase in municipal property taxes genrated as a result of the site's development.
- Program maximums based on achieving one of three grant levels in the program.

These grant programs as part of the updated Community Improvement Plan were referred back to Staff at the General Issues Committee on April 30th, 2025 for further investigation. For more information on these and other grants and incentive's that Economic Development offers, see:

PLANNING & DEVELOPMENT

Community Improvement Plans and Financial Incentives - CLICK HERE

Conclusion

This third Annual Update from the OCCI highlights the progress made in 2024 by the City of Hamilton and the broader community with climate mitigation and adaptation efforts. Each year there are wonderful stories of progress to share under every Low-Carbon Transformation and Resilient Theme. With each passing year, there is also visible and measurable progress being made with efforts to normalize climate-friendly approaches to the City's corporate operations. And through municipal plans, policies and strategies, like the City's Urban Forest Strategy or the Heat Response Strategy, the normalization of climate mitigation and adaptation efforts continues to spread right across the community as implementation proceeds.

There are also challenges and barriers to transitioning to a post-carbon future. An ongoing challenge is determining how to finance the City's corporate climate commitments, and how to support community in its efforts to invest in required changes to our buildings, the way we move, and to our local businesses and industries. The financial cost of climate actions is often cited as a major barrier, even though financial investments made up front yield many benefits over the long term - including financial savings, healthier communities, and avoided costs from future climate impacts - by working to mitigate impacts in a more timely, if not accelerated manner. Transition to a post-carbon city brings huge opportunities, including the potential to create more green jobs and establish or expand local green industries and businesses.

Looking to 2025 and beyond, the OCCI will continue to enhance the methods used for publicly tracking and reporting on progress with efforts to implement Hamilton's Climate Action Strategy. In addition, the OCCI will continue to advance work falling under its priority focus areas identified within the OCCI Priority Focus Areas section of this report. This will include key policies to advance the City's effort on systematically incorporating both climate mitigation and adaptation into how it does business and provides services to the residents of this great City. We will require bold, forward thinking leadership from decision-makers with a vision to multi-solve complex socio-economic-environmental issues.

Hamilton's Climate Action Strategy is our community-wide pathway to a net-zero future by 2050 or sooner. The climate emergency is real, and our community is already experiencing impacts from more frequent and intense summer heat events, to wetter, wilder rain storms capable of causing flooding and erosion that can put people and property at risk. We all need to do what we can to help our community mitigate greenhouse gas emissions and to adapt to the impacts we are already experiencing. Our collective future depends on it!

