



Greener Collingwood

Corporate Climate Change Action Plan

Town of Collingwood

Version 1 | 2023

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Message from the CAO

It is with the encouragement, advocacy, and stewardship of Councils and an outspoken community that we present to you the Town of Collingwood's Corporate Greener Collingwood Climate Action Plan.

The Plan is comprised of intelligent and impactful actions that will achieve greenhouse gas reductions and shift the Town's corporate culture towards a more sustainable future.

I am encouraged by the commitment to climate action from all levels – our students, community, staff, Council, businesses and more - and am optimistic that we will achieve our goals.



A handwritten signature in blue ink that reads "Sonya Skinner". The signature is fluid and cursive.

Sonya Skinner
CAO, Town of Collingwood

Acknowledgements

The Town of Collingwood would like to acknowledge the individuals, local organizations, and youth who have helped push climate change considerations to the forefront of decision making.

We would also like to acknowledge Collingwood's 2018-2022 Council who unanimously declared a Climate Crisis in October 2019 to "deepen our commitment to protecting our economy, our community, and our eco systems, from the climate crisis".

Indigenous Land Acknowledgement

For more than 15,000 years, the First Nations walked upon, and cared for, the lands we now call home. Anishinaabek, Haudenosaunee, Ojibwe, and many others who were families, friends, and communities, the way we are today. The Town of Collingwood acknowledges the Lake Simcoe-Nottawasaga Treaty of 1818 and the relationship it establishes with the original inhabitants of Turtle Island. We acknowledge the reality of our shared history, and the current contributions of Indigenous people within our community. We seek to continue empowering expressions of pride amongst all of the diverse stakeholders in this area. We seek to do better, and to continue to recognize, learn, and grow, in friendship and community, Nation-to-Nation.

Glossary and Acronyms

The following terms and acronyms are used within climate conversations and are necessary for navigating Collingwood's Corporate Climate Change Action Plan. Many definitions are adopted from the Intergovernmental Panel on Climate Change (IPCC), an international body established under the United Nations to assess the science, impacts, and response to climate change.

Key Terms:

Abiotic: A non-living part of the ecosystem that shapes the environment (e.g. temperature, light, water, salinity, etc.).

Adaptation: The process of adjustment to the actual or expected climate and taking actions to reduce the impacts while also taking advantage of new opportunities provided under a changing climate.

Anthropogenic: Environmental change, directly or indirectly, caused or influenced by humans.

Biotic: A living part of the ecosystem that is present in a certain environment (e.g. plants, animals, bacteria, etc.).

Deep Energy Retrofit: Greenhouse gas emissions and energy conservation measures in existing buildings which lead to an overall improvement in the building's performance.

Carbon Dioxide Equivalent Unit of measure used in a greenhouse gas inventory. This value represents different greenhouse gasses and their varying global warming potentials converted into equivalent tonnes of carbon dioxide. Commonly abbreviated to CO₂e.

Climate: Climate, in a narrow sense is defined as the average weather. More rigorously, as the statistical description of weather in terms of the mean and variability of relevant quantities over a period ranging from months to thousands of years (typically at least 30 years). The relevant quantities are most often surface variables such as temperature, precipitation, and wind.

Climate Change: The change in average weather patterns that persist over long periods of time – at least 30 years or more. Climate Change typically refers to human-caused climate change that has been taking place since the Industrial Revolution.

Climate Projection: The simulated response of the climate to a scenario of future emissions or concentrations of greenhouse gasses and aerosols.

Co-Benefits: The potentially large and diverse range of benefits associated with climate action initiatives that go beyond direct contributions to climate change mitigation or adaptation.

Decarbonization: The process by which countries or other entities aim to achieve a low-carbon economy, or by which individuals aim to reduce their consumption of carbon.

Greenhouse Effect: A process that occurs when gases in Earth's atmosphere traps the Sun's heat. This process makes Earth much warmer than it would be without an atmosphere. The greenhouse effect is one of the things that makes Earth a comfortable place to live.

Greenhouse Gas (GHG): Gases in the atmosphere including water vapor (H₂O (g)), carbon dioxide (CO₂), and methane (CH₄) that absorb and emit infrared radiation, contributing to the greenhouse effect.

Intergovernmental Panel on Climate Change: An international body established under the United Nations to assess the science, impacts, and response options to climate change.

Mitigation: A human intervention to reduce emissions or enhance greenhouse gas sinks.

Net-Zero: Net-zero is achieved through the reduction of anthropogenic emissions of greenhouse gases with the goal of balancing emissions produced and emissions removed from the atmosphere. It is important to note net-zero emphasizes a commitment to reducing greenhouse gas emissions as much as possible.

Offset: The reduction of greenhouse gas emissions to compensate for (“offset”) emissions made elsewhere.

Paris Agreement: An international agreement to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit temperature increase even further, below 1.5 degrees Celsius.

Resilience: The capacity of social, economic, and environmental systems to respond, cope, and rebound from a hazardous event, trend, or disturbance.

Sequestration: The uptake of carbon containing substances, in particular carbon dioxide (CO₂), in terrestrial or marine reservoirs.

Acronyms:

CO ₂ e	Carbon Dioxide Equivalent
FCM	Federation of Canadian Municipalities
GHG	Greenhouse Gas
GMF	Green Municipal Fund
IPCC	Intergovernmental Panel on Climate Change
PCP	Partners for Climate Protection
tCO ₂ e	Tonnes of carbon dioxide equivalent (unit of measurement)

Executive Summary

The Town of Collingwood is a progressive community located in the heart of a four-season recreation area on the southern shore of Georgian Bay. The area is well known for its many natural amenities and its rich heritage. Collingwood is a destination for tourism and many business, sporting, and cultural events. Collingwood acts as gateway to the South Georgian Bay region, with stunning landscapes that encourage an active lifestyle, and inspire the local arts and culture community.

The Town's leading-edge staff support Council and community decisions that are progressive, accountable, and sustainable, protecting and leveraging Collingwood's core strengths: a vibrant downtown and community, a healthy natural environment attractive in all seasons, an extensive waterfront interconnected with the town, and our strong cultural and built heritage.

With a portfolio of over 45 buildings under municipal operation and a fleet of over 100 on- and off-road vehicles, the Corporation of the Town of Collingwood maintains and provides many services to the local community and visitors including parks, an active transportation network, public transportation, water and wastewater treatment, recreational facilities, and community spaces.

The Town of Collingwood recognizes that it plays a role in maintaining a healthy environment and a sustainable future. Collingwood Council unanimously declared a Climate Crisis in October 2019 to demonstrate the Town's commitment to protecting the community, economy, and ecosystems from the effects of climate change.

In response to Collingwood's Climate Crisis declaration, the Town joined The Partners for Climate Protection (PCP) program, which outlines a five Milestone framework to guide municipalities through acknowledging and reducing emissions produced from corporate operations and community sources.

To date, the Town of Collingwood has achieved recognition for Corporate Milestone 1 and Community Milestone 1. The Greener Collingwood Corporate Climate Change Action Plan serves as the framework for the Town to follow to reduce corporate greenhouse gas emissions and will be submitted to PCP program administrators to satisfy the requirements of Corporate Milestones 2 and 3.




Results of corporate milestone 1: Develop a Greenhouse Gas Inventory illustrated that in 2019, the Town of Collingwood produced approximately 3,370 tonnes of carbon dioxide equivalent (tCO₂e) from corporate operations. Buildings and transportation are the largest contributors to corporate GHG emissions, accounting for 38.9% and 33.5% of GHG emissions, respectively.

With an estimated 2.5% annual population growth rate, the Town of Collingwood's corporate GHG emissions are expected to increase 31.2% by 2030 if no actions are taken to reduce GHG emissions. This will result in corporate GHG emissions totaling 4,422 tCO₂e in the year 2030.

Climatic changes can result in a variety of unintended consequences based on location. In Collingwood, risks could include, but are not limited to, human health concerns, social equity

risks, biodiversity loss, increased presence of invasive species, reduced water quality, increased natural disasters, economic challenges, and infrastructure damage.









































The Greener Collingwood Corporate Climate Change Action Plan aims to achieve the following three goals to address the Town’s corporate responsibility and dedication to mitigating climate change in Collingwood.

Icon	Goal
	Integrate climate change and sustainability into the Town of Collingwood’s corporate culture.
	Reduce greenhouse gas emissions by a minimum of 30% below 2019 levels by 2030.
	Become a corporate and municipal leader in sustainability initiatives and greenhouse gas reduction measures in the region.

In addition to the 2030 visions, the Town of Collingwood, with the anticipated support of the public and Council, pending available funding, is committed to the adoption of federal guidance currently set at achieving net-zero emissions by 2050.

The following table outlines the actions and activities the Town of Collingwood should implement to achieve the vision of the Greener Collingwood Corporate Climate Change Action Plan. In completing these actions, the Town of Collingwood aims to integrate sustainability into corporate culture, reduce corporate greenhouse gas (GHG) emissions by a minimum of 30% below 2019 levels by 2030, and become a regional sustainability leader.

Table 7: Summary of corporate actions

Corporate Actions	Vision(s) Achieved	Corporate GHG Reduction by 2030
Buildings and Facilities: Deep Retrofits of Existing Buildings		
❖ GHG Reduction Pathway Feasibility Study	  	
❖ GHG Reduction Pathway Retrofits	  	25%
❖ LED Lighting Retrofits		< 1%
❖ Staff Training and Education		NE
Buildings and Facilities: New Buildings		
❖ Near Net Zero Emissions Designs	 	Minimal Increase(s)
Fleet and Transportation: Fleet Decarbonization		
❖ Zero-Emissions Fleet	  	4%
❖ Corporate Vehicle Charging Stations		--
❖ Equipment and Off-Road Fleet	  	< 1%
Fleet and Transportation: Public Transportation		
❖ On-Demand Transit	 	TBD* (2024)
❖ Transit Fleet Electrification		TBD* (2024)
Solid Waste Reduction		
❖ Waste Audits and Staff Education	 	2%
Environment and Biodiversity		
❖ Measuring and Monitoring Environmental Indicators	 	--
❖ Carbon Sequestration		NE
❖ Environmentally Protected Land	  	NE
Behaviour and Culture Change: Climate Change Integration		
❖ Climate Lens Assessments	  	NE
❖ Green Procurement Practices	  	NE
❖ Integration into Policies, Procedures, and Plans	  	NE
Behaviour and Culture Change: Staff and Council Education		
Behaviour and Culture Change: Intergovernmental and Interagency Collaboration		
Summary	  	31%

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

1. A Greener Collingwood

1.1 Town of Collingwood

The Town of Collingwood is a progressive community located in the heart of a four-season recreation area on the southern shore of Georgian Bay. The area is well known for its many natural amenities and its rich heritage. Collingwood is a destination for tourism and many business, sporting, and cultural events. Collingwood acts as gateway to the South Georgian Bay region, with stunning landscapes that encourage an active lifestyle, and inspire the local arts and culture community.

Downtown Collingwood might just surprise you with 30 plus restaurants, 60 plus boutique shops, spas for relaxing, live music for grooving...all in the only downtown core recognized in Canada's Registrar of Historic Places! More recently, the harbourfront area is emerging as an extension to the downtown district. Plans for expanding the amenities and events in the harbourfront area promise to make this a much more prominent tourism destination.

The Town of Collingwood is the second largest employer within municipal boundaries with a staff of over 250 employees. The Town's leading-edge staff support Council and community decisions that are progressive, accountable, and sustainable, protecting and leveraging Collingwood's core strengths: a vibrant downtown and community, a healthy natural environment attractive in all seasons, an extensive waterfront interconnected with the town, and our strong cultural and built heritage ([Town of Collingwood 2020-2023 Community Based Strategic Plan](#)). The municipality also contains many natural assets including Provincially significant wetlands and a strong connection to the Georgian Bay Harbour.

With a portfolio of over 45 buildings under municipal operation and a fleet of over 100 on- and off-road vehicles, the Corporation of the Town of Collingwood maintains and provides many services to the local community and visitors including parks, an active transportation network, public transportation, water and wastewater treatment, recreational facilities, and community spaces.

1.2 Collingwood's Climate Change Commitments

The Town of Collingwood recognizes that it plays a role in maintaining a healthy environment and a sustainable future. Collingwood Council unanimously declared a Climate Crisis in October 2019 to demonstrate the Town's commitment to protecting the community, economy, and ecosystems from the effects of climate change.

In response to Collingwood's Climate Crisis declaration, the Town joined The Partners for Climate Protection (PCP) program run by the Federation of Canadian Municipalities (FCM) and ICLEI – Local Governments for Sustainability Canada (ICLEI Canada). The program is a national network of over 500 municipalities with the shared goal of acting to reduce local greenhouse gas (GHG) emissions and act on climate change.

The PCP program outlines a five Milestone framework to guide municipalities through acknowledging and reducing emissions produced from corporate operations and community sources. The program is split up into separate inventory systems for corporate and community-scope emissions. The five PCP milestones are as follows:


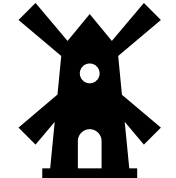

- Milestone 1: Create a Baseline Inventory
- Milestone 2: Set Emission Reduction Targets
- Milestone 3: Develop a Local Action Plan
- Milestone 4: Implement the Local Action Plan
- Milestone 5: Monitor Progress and Reporting Results

To date, the Town of Collingwood has achieved recognition for Corporate Milestone 1 and Community Milestone 1. The Greener Collingwood Corporate Climate Change Action Plan serves as the framework for the Town to follow to reduce GHG emissions and will be submitted to the PCP program administrators to satisfy the requirements of Corporate Milestones 2 and 3.

In addition to Collingwood's commitment to the Partners for Climate Protection Program, the 2020-2023 Community Based Strategic Plan (CBSP) identified environmental preservation and acting on climate change as important parts of Collingwood's strategic vision.

1.3 2030 Vision

The Greener Collingwood Corporate Climate Change Action Plan aims to achieve the following three goals to address the Town’s corporate responsibility and dedication to mitigating climate change in Collingwood.

Icon	Goal
	Integrate climate change and sustainability into the Town of Collingwood’s corporate culture.
	Reduce greenhouse gas emissions by a minimum of 30% below 2019 levels by 2030.
	Become a corporate and municipal leader in sustainability initiatives and greenhouse gas reduction measures in the region.

By implementing the measures outlined in [Section 4. Corporate Climate Actions](#), the Town will be well positioned to achieving these three goals by 2030. In addition to the Corporate plan, the Town of Collingwood has committed to the creation of a Community Climate Change Action Plan to empower and enable residents, business, industry, and developers to play a role in reducing environmental impacts ([Section 8.2 Community Plan](#)).

1.4 2050 Vision

In addition to the 2030 visions, the Town of Collingwood, with the anticipated support of the public and Council, pending available funding, is committed to the adoption of federal guidance currently set at achieving net-zero emissions by 2050.

2. Climate Change 101

Climate change is the long-term shift in temperature and weather patterns caused by natural cycles and human activity. Since the industrial revolution beginning in the 1800's, human activity has been the main driver of climate change, primarily due to the burning of fossil fuels which produce greenhouse gas (GHG) emissions. GHG's are gases such as carbon dioxide (CO₂), methane (CH₄), and water vapor (H₂O (g)), which trap heat within Earth's atmosphere amplifying the atmosphere's natural greenhouse effect. As atmospheric GHG concentrations rise, global average surface temperatures begin to increase, causing changes in local climates and more variable weather patterns. Climate change can be measured over extended periods of time by changes in temperature, precipitation, and snow cover, as well as changes in the frequency and severity of extreme events including storms, floods, drought, and heatwaves.

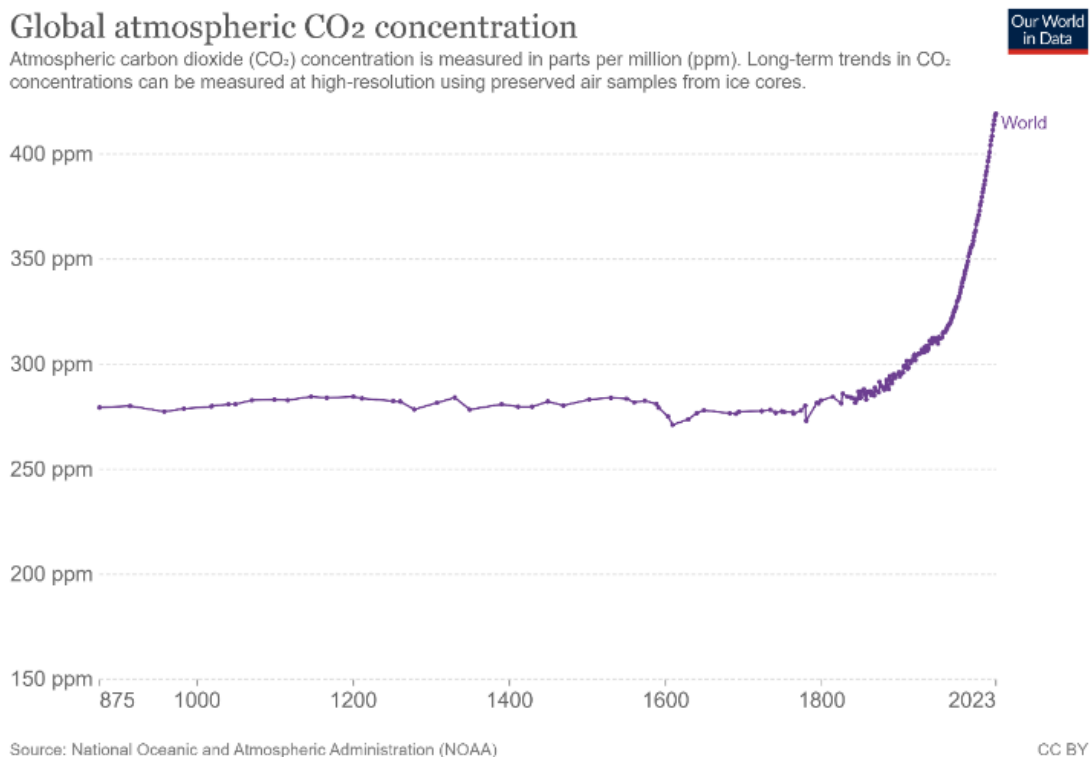


Figure 1: Global atmospheric carbon dioxide concentrations measured in parts per million from 875 to 2023.

The Mauna Loa Volcanic Observatory in Hawaii has been continuously measuring global atmospheric carbon dioxide concentrations since 1958. Atmospheric carbon has historically been removed and stored in oceans, forests, and soil, however, human activity is now releasing more carbon dioxide than natural processes can remove. This surplus of carbon dioxide causes atmospheric concentrations to rise. Carbon dioxide concentrations exceeding 300 ppm are the highest measured for at least 800,000 years (Bereiter, et al., 2015). **In 2021, atmospheric carbon dioxide reached 414.72 parts per million (ppm), setting a record high** (Lindsey, 2022).

2.1 Why do emissions matter?

There is a strong correlation between increased atmospheric carbon dioxide concentrations and higher global average temperatures. As more GHG emissions, specifically carbon dioxide, continue to be released into the atmosphere, global temperatures will continue to rise, causing worldwide effects on quality of life, food production, availability of freshwater, occurrence and/or intensity of extreme weather events, sea level rise, ocean acidification, etc.

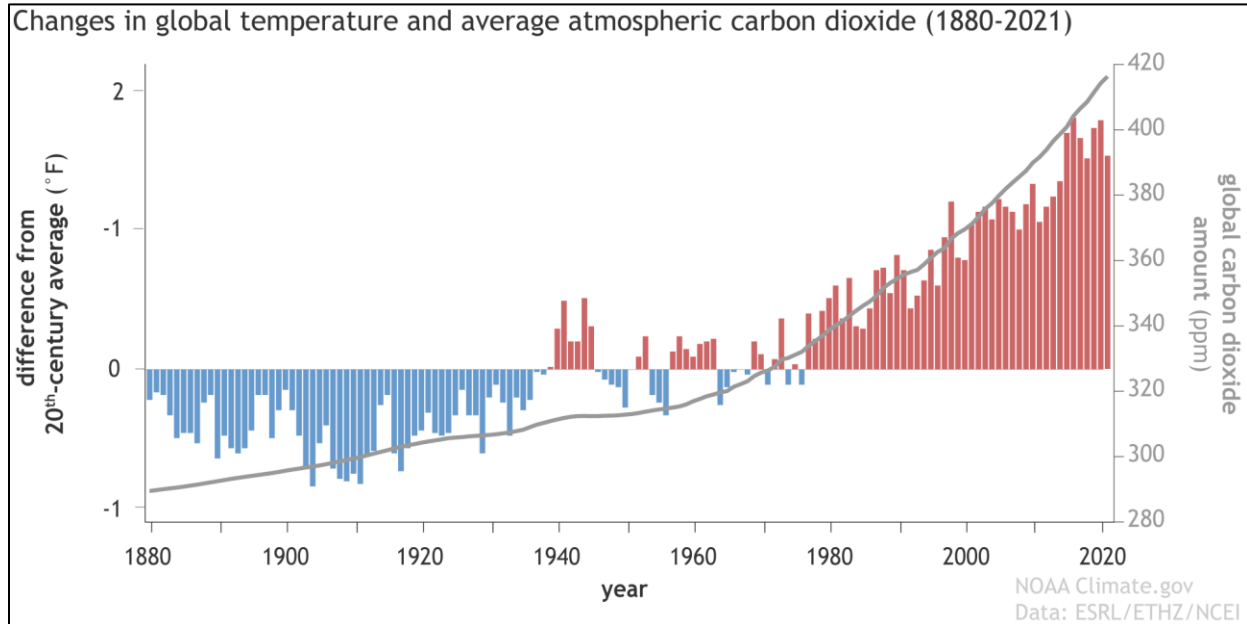


Figure 2: Yearly temperature compared to the twentieth-century average (red and blue bars) from 1880–2021, based on data from NOAA NCEI, plus atmospheric carbon dioxide concentrations (gray line): 1880-1958 from IAC, 1959-2019 from NOAA ESRL. Original graph by Dr. Howard Diamond (NOAA ARL) and adapted by NOAA Climate.gov.

2.2 Scientific and Government Response

With the goal of reducing human impact on the environment, the Paris Agreement, an international treaty on climate change, was signed in 2019 by 196 countries, including Canada. The agreement aims to substantially reduce global GHG emissions in effort to limit global temperature rise well below 2°C above pre-industrial levels, and preferably limit the increase to 1.5°C. To be in compliance with the Agreement, each country is expected to submit an updated national climate action plan – known as a Nationally Determined Contribution (NDC) every five years.

In 2022, the Intergovernmental Panel on Climate Change (IPCC) highlighted that near-term increases in global warming reaching 1.5°C would cause unavoidable increases in multiple hazards and present multiple risks to ecosystems and humans. However, by limiting global warming close to 1.5°C, some risks could be substantially reduced compared to those at higher warming levels.

2.3 Canadian Context

The Canadian federal government submitted [Canada's 2021 Nationally Determined Contribution under the Paris Agreement](#) to be in accordance with Article 4, paragraph 12 of the Paris Agreement, and more recently released the [2030 Emissions Reduction Plan: Canada's Next Steps for Clean Air and a Strong Economy](#). The 2030 plan outlines the actions that the government will take to reach Canada's nationally determined contributions of 40-45% emission reductions below 2005 levels by 2030.

The Province of Ontario's 2018 [Made-in-Ontario Environment Plan](#) commits to reducing emissions by 30% below 2005 levels by 2030.

Since 2019, thousands of individuals across Canada have participated in local climate strikes, marches, and walkouts to pressure governments and industry to take action in addressing the causes and impacts of climate change and to demonstrate support for climate action. These public displays have been largely influenced by youth and Indigenous perspective who are vocalizing the need for current decision makers to protect the environment for future generations.

In response, many upper and lower-tier municipalities in Ontario have chosen to take action by passing Climate Emergency and Climate Crisis declarations and creating local climate change action plans. Action plans are created for the purpose of setting local GHG emissions reduction targets and establish actions to guide municipal decision-making.

3. Climate Change in Collingwood

Located on the southern shore of Georgian Bay, Collingwood falls within Great Lakes and St. Laurence Lowlands ecoregion. The region was carved by glacial activity and is traditionally characterized by rolling hills, rich fertile soils, mixed wood forests, and a mild climate. As global temperatures rise, climate change has the potential to alter the distribution of terrestrial ecoregions and biomes, resulting in changes to social and ecological systems (Elsen, et al., 2022).

Collingwood’s mean annual temperature between 1971-2000 was 7°C. In a business-as-usual, or high emissions scenario (SSP5-8.5), models estimate that annual temperatures could rise to 9.4°C in 2030, 10.6°C in 2050, and as high as 14.9°C in 2100. Rising annual temperatures will have various environmental, health, and economic impacts in Collingwood.

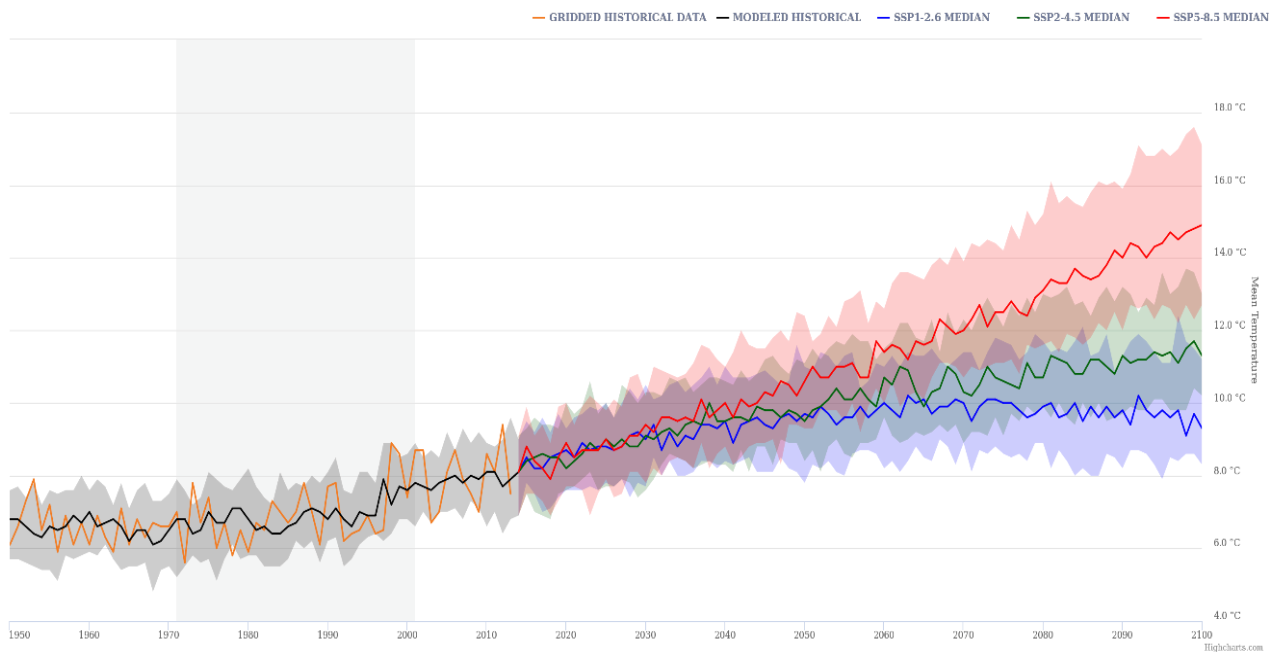


Figure 3: Collingwood historical and projected mean annual temperature under CMIP6 modelling (<https://climatedata.ca>, 2023).

3.1 Impacts & Risks

Climatic changes can result in a variety of unintended consequences based on location. In Collingwood, risks could include, but are not limited to, human health concerns, social equity risks, biodiversity loss, increased presence of invasive species, reduced water quality, increased natural disasters, economic challenges, and infrastructure damage. Three consequences have been detailed below; however it should be acknowledged that there are many additional issues associated with climate change which have varying degrees of urgency and importance. Impacts and risks also have the ability to evolve as the climate changes and new information is discovered.

Human Health:

The Simcoe-Muskoka District Health Unit outlines the health related consequences of climate change in the region in their 2017 report titled, *A Changing Climate: Assessing health impacts and vulnerabilities due to climate change within Simcoe Muskoka*. The document describes health implications associated with extreme temperatures, extreme weather, air quality, contamination and availability of food and water, vector-borne disease, and exposure to ultraviolet radiation. In addition, mental health and “eco-anxiety” are of growing concern specifically among youth, with 80% of young Canadians reporting that climate change impacts their overall mental health, and 40% reporting that feelings about climate change negatively impact daily functioning (Galway & Field, 2023).

Ecosystem Changes:

In addition to human health impacts, ecosystems are also influenced by changing temperatures. Ecosystems operate in highly interconnected webs that can be easily influenced by changes in the composition of living species (biotic composition) and physical conditions such as temperature, sunlight, precipitation, and wind (abiotic factors). Ecosystems provide many seemingly ‘free’ services to humans including maintaining water quality, providing shade, capturing carbon, and facilitating pollination. However, as the climate changes, the introduction of new species, or the emigration of existing species, can drastically affect the plant, animal, and aquatic species previously native to the municipality. As changes in ecosystems occur, abiotic factors such as water quality, carbon capture ability, and canopy cover also have the potential to change, potentially leading to changes in ecosystem productivity.

Infrastructure Damage:

“Economies and society depend on well-functioning and resilient infrastructure for the continued delivery of critical services” (Douglas & Pearson, 2022). Changes in temperature, wind, and precipitation resulting from climate change can lead to flooding, erosion, mechanical failures, cracking of concrete during freeze-thaw cycles, and damage to hydro lines, all which are risks to Collingwood’s roads, buildings, and critical infrastructure. In order to reduce and respond to increased risks, many municipalities have begun to incorporate climate adaptation into internal asset management practices to address vulnerabilities that may be caused by climate change. Considering climate change in the lifecycle planning of infrastructure assets can ensure safety and longevity for the community and can assist in managing risk for the municipality.

Multiple studies have been conducted to demonstrate the risk of climate change to Ontario’s infrastructure including: *Canada’s Regional Perspectives Report* (Chapter 3: Ontario), The International Institute for Sustainable Development’s *Advancing the Climate Resilience of Canadian Infrastructure*, the Canadian Institute for Climate Choices’ *Under Water: The Costs of Climate Change for Canada’s Infrastructure*, and the Financial Accountability Office of Ontario’s *Costing Climate Change Impacts to Public Infrastructure Project*.

3.2 Corporate Greenhouse Gas Emissions

In March 2022, the Town of Collingwood completed a corporate greenhouse gas (GHG) inventory for the baseline year of 2019. The Town’s corporate inventory contains a detailed list of emission sources generated directly under municipal control for the purpose of understanding the Town’s current situation and developing strategies and policies to reduce GHG emissions from corporate operations.

In order to create the Town of Collingwood’s Corporate GHG inventory, Town staff followed FCM and ICLEI Canada’s Partners for Climate Protection Program, which follows the [PCP Protocol](#), a document outlining a clear set of accounting and reporting guidelines for developing corporate and community-level GHG inventories.

The Town of Collingwood’s corporate GHG inventory identifies and quantifies the sources of GHG emissions from corporate activities and establishes a baseline from which future emissions reductions and progress can be measured. The 2019 inventory results are as follows:

Table 1: Town of Collingwood 2019 Corporate Greenhouse Gas Inventory (tCO₂e)

Sector	Emissions (tCO ₂ e)	Percentage (%)
Building & Facilities	1,311	38.9 %
Municipal Fleet & Transportation	1,130	33.5 %
Solid Waste	347	10.3 %
Streetlights	25	0.8 %
Water & Wastewater	557	16.5 %
Total Corporate Emissions	3,370	100.0 %

2019 Greenhouse Gas Emissions Inventory

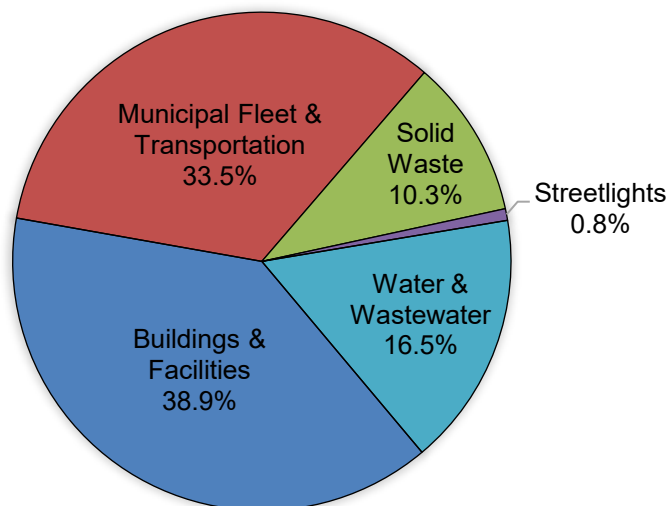


Figure 4: Town of Collingwood 2019 Corporate Greenhouse Gas Inventory by Sector

In 2019, the Town of Collingwood produced approximately 3,370 tonnes of carbon dioxide equivalent (tCO₂e) from corporate operations. Buildings and transportation are the largest contributors to corporate GHG emissions, accounting for 38.9% and 33.5% of GHG emissions, respectively.

Data presented in this report is the most accurate available information as of March 2023. If more information becomes available in the future, or emission calculation methods change, there is potential for Collingwood’s corporate 2019 baseline and forecast to be adjusted in response. Any future changes will be documented as amendments to all applicable documentation.

3.3 Corporate Business-as-Usual Scenario

Following the completion of a corporate greenhouse inventory, a business-as-usual forecast was created to estimate emissions in 2030 if no emission reduction practices are incorporated into corporate operations. The year 2030 was used as the forecast year to allow for adequate time to implement emission reduction measures while also maintaining alignment with provincial and federal climate change targets.

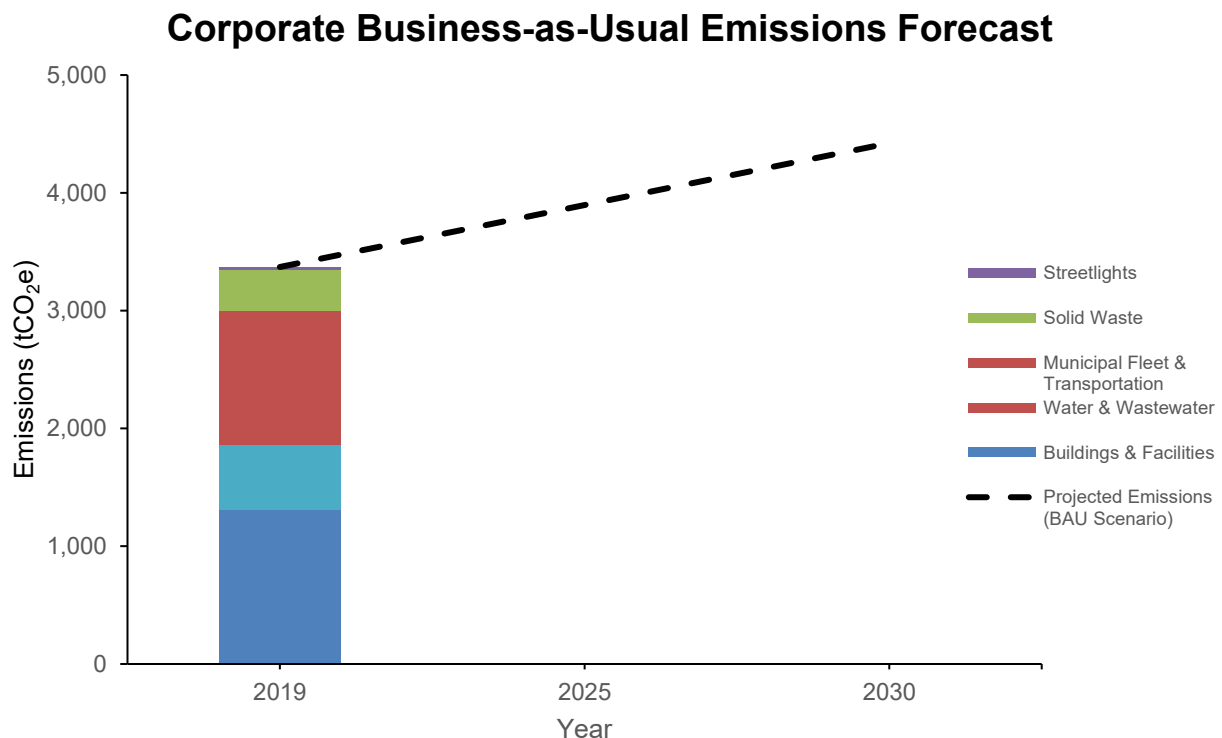


Figure 5: Town of Collingwood’s Corporate Greenhouse Gas Business-as-Usual Forecast: 2019-2030

With an estimated 2.5% annual population growth rate, the Town of Collingwood’s corporate GHG emissions are expected to increase 31.2% by 2030 if no actions are taken to reduce GHG emissions. This will result in corporate GHG emissions totaling 4,422 tCO₂e in the year 2030.



Figure 6: PCP Program Corporate Milestone 1 Achievement Badge

The results of the corporate GHG inventory and business-as-usual scenario have been reviewed and approved by the Partners for Climate Protection program, who have awarded the Town of Collingwood with the following achievement badge for Corporate Milestone 1: Creating a baseline emissions inventory and forecast.

For a more detailed understanding of 2019 corporate emissions, a detailed methodology document can be made available upon request.

3.4 Community Greenhouse Gas Emissions

The Town of Collingwood has also received recognition from the PCP program for the successful completion of a community GHG inventory (Community Milestone 1).

The Town of Collingwood's community GHG inventory identifies and quantifies the sources of GHG emissions occurring within municipal boundaries and establishes a baseline from which future emissions reductions and progress can be measured. **In 2019, the Town of Collingwood produced approximately 207,218 tonnes of carbon dioxide equivalent (tCO₂e) from community sources.**

Although this plan focuses on initiatives to reduce corporate emissions, it is important to note that the Town's corporate emissions contribute to overall community emissions. Specifically, **corporate emissions account for 1.6% of total community greenhouse gas emissions** produced within municipal boundaries.

With direct influence over only 1.6% of emissions produced within municipal boundaries, corporate initiatives are not the sole solution to reducing GHG emissions within Collingwood. While it is important for the Town to implement internal GHG reduction initiatives, increased resources and financial investments in community programs have greater potential to reduce overall GHG emissions. In response, the Town of Collingwood is in the process of developing a Community Climate Change Action Plan to outline actions that Collingwood residents, business, developers, and visitors will be encouraged to adopt, in order for the municipality to reduce community greenhouse gas emissions.

While corporate emissions contribute a small amount to overall emissions, the 2020-2023 Community Based Strategic Plan (CBSP) identified environmental preservation and acting on climate change as important parts of Collingwood's strategic vision. Under the goal of enhancing community well-being and sustainability, the CBSP highlights the importance of demonstrating the Town as a 'Green Leader' in its own operations. As the second largest employer within municipal boundaries, the Town has a large influence over the type of education current employees receive and best practices that are adopted by other employers. By implementing the measures within this document, the Town will also demonstrate the case for sustainability to residents and other employers in the region, including neighbouring municipal governments.

4. Corporate Climate Actions

The following sections outline actions and activities the Town of Collingwood should implement to achieve the vision of the Greener Collingwood Corporate Climate Change Action Plan. In completing these actions, the Town of Collingwood aims to integrate sustainability into corporate culture, reduce corporate greenhouse gas (GHG) emissions by a minimum of 30% below 2019 levels by 2030, and become a regional sustainability leader.

The 'categories of action' identified in this section were chosen to comply with the Partners for Climate Protection program (Sections 4.1, 4.2, and 4.3), in addition to ensuring that the broader vision of environmental management, corporate culture change, and corporate leadership are equally considered and achieved (Sections 4.4 and 4.5).

4.1 Buildings and Facilities

Collingwood's corporate GHG inventory indicates that 38.9% and 16.7% of corporate GHG emissions come from buildings and water/wastewater facilities, respectively. In total, this accounts for 55.4% of all corporate emissions and highlights the largest area for improvement.

For the purposes of this document, buildings and facilities refers to GHG emissions associated with the use of energy in corporately owned and operated buildings and facilities including water and wastewater infrastructure. Water and wastewater facilities managed by the Town of Collingwood have been incorporated under buildings and facilities within this document due to the similar nature of projects required to reduce GHG emissions.

In order to reach a corporate goal of a minimum 30% GHG emission reduction, the following actions should be taken in order to reduce building and facility emissions by 50% in 10 years and 80% in 20 years, the targets set by the Federation of Canadian Municipality's Greenhouse Gas Pathway standards.

4.1.1 Deep Retrofits of Existing Buildings

Deep energy retrofits are broadly defined as GHG emissions and energy conservation measures in existing buildings which lead to an overall improvement in the building's performance.

In 2019, the Town's buildings and facilities account for 55.4% of corporate emissions, most of which comes from the use of natural gas for heating. In addition, heating and cooling can be lost to the outdoors from insufficient building envelopes. Building retrofits work towards minimizing energy loss, reducing total energy use, and converting fossil fuel powered equipment to lower carbon-intensive solutions.

Energy performance of buildings is also influenced by the behaviour of operators and occupants. In conjunction with energy retrofits, appropriate operator and occupant engagement sessions will help educate and ensure occupants understand how they can contribute to lowering GHG emissions.

The following actions need to be taken to reduce emissions associated with existing buildings.

Greenhouse Gas Reduction Pathway Feasibility Study

The Greenhouse Gas Reduction Pathway Feasibility Study will enable the Town of Collingwood to identify a sequence of GHG reduction measures, a “GHG reduction pathway,” that will help to reduce GHG emissions from Town buildings by at least 50% within 10 years and by at least 80% (i.e. near net-zero GHG emissions) within 20 years.

The targets being explored as part of the Greenhouse Gas Reduction Pathway Feasibility Study are some of the most aggressive GHG reduction goals Town staff have encountered when searching for climate change funding opportunities.

Anticipated Results:

A document outlining the capital projects that will be required by the Town to reduce GHG emissions from corporately owned buildings and facilities by at least 50% within 10 years and by at least 80% within 20 years. In addition, at least one of the two following scenarios must also be modeled:

- A short-term deep retrofit scenario outlining a plan to reduce GHG emissions by 80% over a 5-year timeline, and
- an aggressive decarbonization scenario outlining a plan to reduce GHG emissions by at least 80% over a significantly shortened timeframe.

The results of the study will provide Council with multiple implementation options (pathways) and could lead to a more aggressive GHG reduction target by 2030. Project recommendations will be based on cost, staff capacity, GHG reduction potential, and the Asset Management Plan.

Due to the nature of the targets, the final Greenhouse Gas Reduction Pathway Feasibility Study report will position the Town to apply for most grants aimed at reducing GHG emissions in buildings, including the Green Municipal Fund’s Greenhouse Gas Reduction Pathway Retrofit grant.

Timeline and Funding:

An RFP to complete this study has been released in a public open market competition. Completion of the Greenhouse Gas Reduction Pathway Feasibility Study is contingent on funding approval. Collingwood is currently being considered to receive funding from FCM’s Green Municipal Fund (GMF) Community Buildings Retrofit (CBR) Fund to complete the study. Upon funding confirmation and consultant selection, the study will begin and is anticipated to be completed within 8 months of award to the successful proponent of the RFP.

Following report completion, the project team, will present the results to Council which will include a prioritized list of projects that can be implemented throughout Town facilities, the GHG reduction potential, and the estimated cost of facility retrofits. The completion of this study will position the Town to achieve building and facility GHG reductions of at least 50% within 10 years and by at least 80% within 20 years, in addition to exploring additional, more aggressive corporate GHG reduction pathways.

Greenhouse Gas Reduction Pathway Retrofits

Upon completion of the Greenhouse Gas Reduction Pathway Feasibility Study, capital projects will need to be implemented following the recommendations in order to reduce GHG emissions from Town owned buildings by at least 50% within 10 years and by at least 80% (i.e. near net-zero GHG emissions) within 20 years.

Projects identified as part of the Greenhouse Gas Reduction Pathway Feasibility Study will be prioritized based on the Town's Asset Management Plan and equipment life-cycle analyses to minimize waste and additional funding opportunities will be explored to reduce financial implications to the Town.

Prioritization of projects will also consider the adaptation potential of buildings to cope with more frequent extreme weather and temperature events in Collingwood. The ability of critical infrastructure to withstand severe weather events, ability to act as warming/cooling centers, or shelter for residents and visitors during emergencies, plays a crucial role in community health and wellbeing.

Anticipated Results:

Corporate Culture: The final report and discussions with the consultant will provide staff and Council with a greater understanding of solutions that can be used to reduce GHG emissions from buildings and facilities.

Greenhouse Gas Reduction: Capital projects resulting in a decrease in GHG emissions from corporately owned buildings of at least 50% within 10 years and by at least 80% within 20 years.

Corporate Leader: As projects identified in this report are implemented, the Town will be positioned to share solutions, experiences, and case studies with local businesses and neighbouring municipalities.

Timeline and Funding:

Full costing of the capital projects will be available upon completion of the Greenhouse Gas Reduction Pathway Feasibility Study. Individual or portfolios of projects will be considered on an annual basis in alignment with the budget process beginning as early as 2024.

Funding opportunities to complete GHG reduction retrofits are available through FCM's Green Municipal Fund, Natural Resources Canada, Infrastructure Canada, and Environment and Climate Change Canada. Additional funding opportunities will be considered as programs are released.

LED Lighting Retrofits

LED lighting retrofits offer many benefits including longer lifespans, higher energy efficiency, and improved environmental performance. As directed by Collingwood Council in 2022, LED lighting retrofits has been adopted as part of the 2023 budget and implementation is expected to be complete by 2024.

Installing LED lighting is considered a best practice for energy efficient and low emissions buildings; however, it will not result in a significant reduction in corporate GHG emissions. LED lighting retrofits are expected to decrease building energy use, reduce lighting maintenance and replacement, and in some cases, increase employee comfort through the use of selective dimming technology.

Anticipated Results:

The transitions of all appropriate lighting in corporate buildings to LED.

Greenhouse Gas Reduction: LED lighting retrofits are expected to decrease energy use and GHG emissions associated with buildings and facilities. However, the associated GHG emissions reduction is anticipated to be minimal and not contribute significantly to the minimum 30% corporate GHG reduction target.

Timeline and Funding:

The replacement of all remaining facility lights to LED alternatives has been scheduled to occur over the next two years. The 2023 budget has allocated \$600,000 for this project, and an additional \$200,000 is estimated for 2024. Lighting replacement is expected to be completed by the end of 2024.

Staff Training and Education

As consultants are engaged and greenhouse gas reduction projects are implemented throughout Town owned buildings and facilities, continuous training and staff education will be important to ensure new systems and technologies are used to their full potential.

Anticipated Results:

Corporate Culture: Staff training and education on lower-carbon intensive technology is not anticipated to have a direct impact on energy or GHG emissions savings; however, it will ensure proper use of new equipment and technologies to ensure full energy and emissions savings are realized throughout the lifecycle of the system.

Timeline and Funding:

Staff training and education will occur throughout the implementation of all building and facility retrofits. As contractors are selected to complete projects, consideration will be made towards proponents who include time and resources for staff training on new technologies and systems.

4.1.2 New Buildings: Near Net Zero

As Collingwood's community grows, the need for new buildings and large remodels of older infrastructure will arise. If built using traditional archetypes that rely on power generated from fossil fuels, corporate greenhouse gas emissions will increase significantly as new buildings and facilities are constructed.

Near Net-Zero Emissions Designs

To avoid increases in GHG emissions as new buildings are constructed and large renovations occur, new Town owned facilities should strongly consider near net-zero emissions design standards to ensure lowest possible impact on the corporate GHG inventory. Near net-zero designs will include considerations for renewable energy production, tight building envelopes, highly insulated walls and roofs, decreasing energy demand, and minimizing the use of fossil fuels.

A variety of design standards are available for near net-zero building designs. At this time, the Town is not subscribing to one standard, but can consider design options from any reputable standard whose goal is to reduce GHG emissions. Examples of acceptable standards are the Toronto Green Standard, LEED Zero, Zero Carbon Building Standards, etc.

Anticipated Results:

Greenhouse Gas Reduction: By designing and building under near net-zero emissions standards, the Town will mitigate the release of GHG emissions from corporate operations and be better positioned to meet 2030 goals.

Corporate Leader: By requiring that new construction projects consider near net-zero emissions designs, Collingwood will exhibit the ability and opportunity to design new buildings to a non-traditional standard that reduces impacts on the environment.














Timeline and Funding:

High energy performance and near net-zero emissions designs of new buildings should be considered for all new buildings.

New builds considering near net-zero emission designs are anticipated to increase the upfront costs of construction, however, there are currently a variety of opportunities for funding for low emissions buildings including through the Federation of Canadian Municipalities Green Municipal Fund, and Infrastructure Canada's Green and Inclusive Community Building Fund. In addition, near net-zero emissions buildings could benefit from reduced annual and lifecycle operational costs. Additional funding options and total lifecycle costs should be considered during the planning phase before construction occurs to optimize project designs.

4.1.3 Building and Facility Summary

Table 2: Summary corporate of actions for buildings and facilities

Actions	Vision(s) Achieved	Sector GHG Reduction by 2030	Corporate GHG Reduction by 2030
Deep Retrofits of Existing Buildings			
❖ GHG Reduction Pathway Feasibility Study	  		
❖ GHG Reduction Pathway Retrofits	  	50%	25%
❖ LED Lighting Retrofits		< 1%	< 1%
❖ Staff Training and Education		NE	NE
New Buildings			
❖ Near Net Zero Emissions Designs	 	Minimal Increase(s)	Minimal Increase(s)
Sector Summary	  	50%	25%

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

By adopting actions to minimize emissions associated with future building projects and completing deep retrofits on existing Town owned and operated buildings and facilities, the Town aims to reduce at least 50% of greenhouse gas emissions produced by buildings and facilities which will result in a decrease in overall corporate greenhouse gas emissions of 25% below 2019 levels by 2030.

4.2 Fleet and Transportation

The Town of Collingwood currently owns a fleet of ninety-one (91) on-road vehicles and over ninety (90) off-road vehicles/equipment to support daily operations and services provided to the community. The 2019 greenhouse gas inventory highlighted that the municipal fleet is the second highest contributor to corporately produced greenhouse gas emissions, at 33.5%.

The following actions should be taken to achieve the goal of reducing light-duty and heavy-duty fleet emissions by 30% below 2019 levels by 2030. This goal is equivalent to reducing greenhouse gas emissions from the transportation and fleet sector by 11.6%.

4.2.1 Fleet Decarbonization

To reduce GHG emissions associated with Collingwood's municipal fleet, Town staff should continue to decarbonize the fleet and off-road equipment wherever feasible. Investing in corporate fleet decarbonization will assist in lowering GHG emissions and reduce air pollution in the community.

The Town's on-road fleet currently consists of SUV's, light-duty trucks, heavy-duty trucks, and busses. Off-road vehicles and equipment include light machinery such as handheld tools, lawn maintenance equipment, and off-road vehicles such as tractors, ATVs, and boats. GHG emissions from this sector come from the burning of diesel and gasoline.

Current automotive and equipment trends are leaning towards the adoption of electric vehicles, however as new technologies emerge, there is potential for the Town to choose alternative low-carbon options while still maintaining the goal of reducing greenhouse gas emissions.

Zero-Emissions Fleet

Collingwood's on-road fleet consists of ninety-one (91) vehicles supporting operations under departments including: Public Works, Building, By-law, Corporate Services, Parks, Recreation and Culture, Water, and Engineering.

As light-duty and heavy-duty Town vehicles are due for replacement between 2023 and 2030, strong consideration will be given to zero-emission vehicles where possible, with the goal of reducing light-duty and heavy-duty fleet emissions by 30% below 2019 levels by 2030.

Zero-emissions vehicles, or ZEVs, are defined as vehicles that can operate without producing tailpipe emissions. Examples include battery-electric vehicles and hydrogen fuel cell vehicles. By switching to zero-emissions vehicles, the Town will reduce reliance on fossil fuels and decrease associated GHG emissions and air pollution.

Given the 2022/2023 vehicle market, it will not be feasible for all vehicle replacements to be zero-emissions, however, with higher demand for electric vehicles, and the Canadian federal government's zero-emission vehicle (ZEV) sales targets, the Town is optimistic that additional opportunities for fleet decarbonization will arise.

The Canadian federal government has introduced the zero-emission vehicle sales target on the purchase of new vehicles beginning in 2026 with the goal of ending the use of polluting light-duty vehicles by 2050 (Government of Canada, 2023). The targets are as follows:

- At least 20% of new light duty vehicle sales will be zero-emissions by 2026;
- at least 60% of new light duty vehicle sales will be zero-emissions by 2030, and;
- 100% of new light duty vehicle sales will be zero-emissions by 2035.

Following the Canadian zero-emissions regulation, all new light-duty vehicles purchased by the Town after 2035 will be zero-emissions.

The decarbonized heavy-duty vehicle market is still evolving and full heavy-duty fleet decarbonization is not anticipated to be fully adopted by 2030. Additional opportunities to explore the decarbonization of heavy-duty fleet should be incorporated into the 2024 Metrolinx Transit Procurement Initiative (TPI) for electric busses (further detailed in the [Transit Fleet Electrification](#) section).

Anticipated Results:

Corporate Culture: Switching to zero-emission vehicles will require small changes in the way drivers break, conserve momentum, and refuel. Allowing staff to practice and understand the nuances of zero-emission vehicles in the workplace is anticipated to promote the personal adoption of zero-emissions vehicles and lower community greenhouse gas emissions.

Greenhouse Gas Reduction: The following actions will be taken achieve the goal of reducing light-duty and heavy-duty fleet emissions by 30% below 2019 levels by 2030.

Corporate Leader: By advancing fleet decarbonization, Collingwood will demonstrate zero-emission vehicle reliability among staff, the community, and businesses with similar fleets.

Timeline and Funding:

Zero-emissions vehicles will be purchased in alignment with the Town's current vehicle replacement strategy with funding considerations to come through the regular budget cycle. In 2023, the purchase of 4 plug-in electric hybrids or electric vehicles are budgeted.

Although current zero-emissions vehicles are priced higher than traditional internal combustion engine vehicles, consideration should be given to lifecycle costs of vehicle ownership. Electric vehicles have a lower cost of energy and different maintenance requirements, potentially resulting in decreased annual operating costs. As new technologies are introduced to market, lifecycle costs should be considered in addition to the purchasing price to better understand the overall investment.

Corporate Vehicle Charging Stations

As the Town continues to purchase zero-emissions vehicles to meet GHG reduction goals, consideration must be given to municipal charging capabilities. The Town currently operates six (6) electric vehicle (EV) charging stations for public use in Pine Street parking lot and an additional four (4) EV charging stations in the Ste Marie Street parking lot adjacent to the Eddie Bush Memorial Arena. The Town does not currently operate any zero-emissions or electric vehicle charging stations specific to municipal fleet charging.

As renovations and new builds are designed, placement and capacity to install zero-emission vehicle charging stations should be considered where appropriate to meet the future demand of Town owned zero-emissions vehicles. Designs for chargers should consider the duration of time municipal fleet vehicles are parked at specific locations, the demand at the facility, and type of zero-emission charging required.

Staff will also consider future charging incentives for employees who purchase zero-emissions vehicles for personal ownership. As the second largest employer in Collingwood, providing incentives to reduce the cost of charging could encourage staff to purchase zero-emissions vehicles, and be a benefit in staff retention.

Anticipated Results:

Greenhouse Gas Reduction: Installation of zero-emission vehicle charging stations will not have a direct reduction in GHG emissions produced by municipal fleet, however charging stations are important infrastructure in maintaining a fleet containing zero-emission vehicles.

Timeline and Funding:

Installation of zero-emissions vehicle charging stations will be considered as the corporate fleet demand evolves. Installation of two level-2 EV charging stations is included in the 2023 budget and funding requests will continue to be incorporated into the budget process as required.

Equipment and Off-Road Fleet

In addition to the decarbonization of on-road fleet vehicles, there are also opportunities to reduce GHG emissions from light machinery such as handheld tools, lawn maintenance equipment, and off-road vehicles such as tractors, ATVs, and boats.

In 2019, the Town of Collingwood purchased two electric ice resurfacers, with a third added in 2022, to reduce GHG emissions associated with former propane powered equipment. Following the successful exploration, all three of corporate ice resurfacers are electric and maintain ice at Central Park Arena and the outdoor rink, Collingwood Curling Club, and Eddie Bush Memorial Arena. The Parks Division has also purchased the following electric equipment to reduce GHG emissions: stand up riding mower, pole saw, chain saw, leaf blower, and hedge trimmer.

The continued electrification of light machinery and off-road fleet will be considered where feasible in attempt to reduce GHG emissions, air pollution and noise pollution. A common observation of electric powered equipment (e.g. lawnmowers, leaf blowers, etc.) is increased weight and reduced operating time when compared to fossil fuel powered options. These observations are important to consider in maintaining staff safety and current levels of service. In determining feasibility of incorporating this equipment, it will be important to ensure that at a minimum, staff maintains the current level of service, unless otherwise directed by Council.

Anticipated Results:

Corporate Culture: Decarbonizing equipment will allow staff to become more comfortable with new technologies and is anticipated to promote continued corporate and personal adoption of electric equipment such as lawnmowers, handheld tools, snowblowers, etc.

Greenhouse Gas Reduction: By electrifying equipment and off-road fleet where feasible, the Town is expected to reduce GHG emissions formerly associated with the burning of fossil fuels, however, changes are anticipated to be gradual and have not yet been accurately estimated. In addition to a reduction in GHG emissions, electrification of equipment and off-road fleet can also result in additional environmental benefits including reductions in noise and air pollution associated with internal combustion engines.

Corporate Leader: Investing in the decarbonization of equipment and off-road vehicles will allow the Town to share experiences with other municipalities, businesses, and the community. As an early adopter of electric ice resurfacers, the Town has already acted as a case study for other municipalities and ice rink operators to purchase electric ice resurfacing equipment. By advancing the decarbonization of equipment, Collingwood will continue to demonstrate the ability to electrify operations with the purpose of decreasing GHG emissions and noise pollution, while subsequently increasing air quality.

Timeline and Funding:

Equipment and off-road vehicle replacement with electric and zero-emissions alternatives will be considered in alignment with the Town's current equipment and off-road vehicle replacement strategy. Similarly, to the adoption of zero-emissions vehicles, consideration should be given to the total lifecycle cost of ownership to determine feasibility and return on investment.

4.2.2 Public Transportation

The Town of Collingwood owns a fleet of eight (8) transit busses to support public transportation within the region. In the 2019 corporate GHG inventory, transit busses account for 44.9% of transportation and fleet emissions and 15.0% of total corporate emissions. The Town's transit bus fleet is the largest contributor to GHG emissions within Town operations.

Collingwood's public transportation system, Colltrans, has been running since 1982 and serves an estimated 200,000 rides annually. Although Collingwood's public transportation system is a significant contributor to corporate GHG emissions, the availability of safe and reliable public transportation in communities is an important aspect of reducing community GHG emissions by removing the need for single occupancy vehicles.

The Town of Collingwood completed a [Transit Service Review and Optimization Study](#) in 2021 which included a detailed review of Colltrans' service and provided nine (9) recommendations to improve public transportation in Collingwood. The following two (2) recommendations have the potential of reducing corporate GHG emissions: On-demand transit, and electrification of busses.

On-Demand Transit

On-demand transit is a shared-ride service, operating in a defined service area, which is characterized by dynamic routing and flexible pick-up/drop-off locations along a corridor or within an overall area. On-demand transit does not have fixed routes, but rather, the routing of transit vehicles are dynamically determined in real-time following the shortest path, with the most possible pick-ups/drop-offs for efficiency, while minimizing travel times.

One of the benefits of implementing an on-demand transit system is the potential for GHG emission reductions due to the possible decrease in vehicle-kilometers-travelled (VKT) and as a result, lower fuel consumption, compared to an equivalent fixed route service.

The Town's current strategy is to introduce on-demand transit through a phased approach throughout 2023, beginning with off-peak hours. Any changes in GHG emissions associated with the transition to on-demand transit have not been estimated and are not anticipated to be realized until the system has been fully implemented.

Anticipated Results:

Greenhouse Gas Reduction: Implementation of on-demand transit has the potential to reduce corporate GHG emissions associated with public transportation due to a decrease in VKT. Staff will continue to monitor emissions from the bus fleet as the program is implemented and report back to Council as appropriate.

Corporate Leader: On-demand transit is a relatively new strategy for transit delivery among Ontario municipalities. If the on-demand transit system is successful, and demonstrates a decrease of GHG emissions, Collingwood will be able to share successes and opportunities for improvements with other municipalities and public transit providers.

Timeline and Funding:

Financial implications of on-demand transit have been included into the 2023 operating budget and future reports on timeline and funding will be provided by the Public Works Department.

Transit Fleet Electrification

The second recommendation provided in the Transit Service Review and Optimization Study, which had the potential of reducing corporate GHG emissions, is to electrify Collingwood's bus fleet.

The Town of Collingwood, in partnership with Metrolinx's Transit Procurement Initiative (TPI), will complete a transportation electrification study scheduled to occur in 2024, to determine the feasibility of electrifying the Colltrans fleet in attempt to reduce GHG emissions. In addition to exploring the feasibility of electric busses, it is recommended that this study expand the scope to include the feasibility of electrifying the Town's heavy-duty fleet to support the zero-emissions fleet goal of reducing light and heavy-duty vehicle emissions by 30%.

Anticipated Results:














Greenhouse Gas Reduction: By converting Colltrans' busses to electric powered vehicles, there is a large opportunity to reduce corporate GHG emissions, while maintaining current public transportation service levels throughout the region. Detailed emissions savings will be better known after the Metrolinx electrification study is complete.

Timeline and Funding:

The Metrolinx electric bus and heavy-duty vehicle feasibility study is anticipated to begin in 2024. The costs of the feasibility analysis, which will be procured by Metrolinx, qualifies for the Federal Zero Emission Transit Fund in addition to funding provided by the Investing in Canada Infrastructure Program (ICIP). The study will detail the cost and GHG reduction potential of converting the current bus fleet and heavy-duty vehicles to electric powered alternatives. Upon the completion of the study, results will be presented to Council to provide direction on whether electric busses should be incorporated into the Greener Collingwood Corporate Climate Change Action Plan.

4.2.3 Fleet and Transportation Summary

Table 3: Summary corporate of actions for fleet and transportation

Actions	Vision(s) Achieved	Sector GHG Reduction by 2030	Corporate GHG Reduction by 2030
Fleet Decarbonization			
❖ Zero-Emissions Fleet	  	12%	4%
❖ Corporate Vehicle Charging Stations		--	--
❖ Equipment and Off-Road Fleet	  	< 1%	< 1%
Public Transportation			
❖ On-Demand Transit	 	TBD* (2024)	TBD* (2024)
❖ Transit Fleet Electrification		TBD* (2024)	TBD* (2024)
Sector Summary	  	12%	4%

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

By minimizing emissions associated with Collingwood’s fleet and public transportation service, described actions have the potential to reduce light-duty and heavy-duty vehicle emissions by 30%. This will result in a decrease in overall corporate greenhouse gas emissions of 4% below 2019 levels by 2030. In addition, a transit fleet electrification study will be conducted in 2024 through Metrolinx to provide more detailed estimates on opportunities to decarbonize Collingwood’s public transportation.

4.3 Solid Waste

Emissions associated with solid waste represent the impact of methane (CH₄) released through the decomposition of organic material in landfills. Collingwood's corporate operations produced approximately 214.71 metric tonnes (MT) of garbage in 2019, resulting in an estimated 347 tCO₂e, or 10.3% of corporate emissions.

Solid waste that is diverted through composting or recycling initiatives are excluded from this sector as directed by the PCP protocol. The efficacy of the recycling and composting programs is typically measured by the building's diversion rate – the proportion (%) of all material diverted away from landfill, measured by weight. In 2019, the Town's diversion rate from landfill was estimated to be 7%, most of which came from co-mingled and cardboard recycling.

4.3.1 Waste Reduction

The most effective ways to reduce greenhouse gas emissions from the solid waste sector, are to decrease the amount of waste produced, and where not possible, diverting the waste away from landfill through reuse, composting, and recycling.

Waste Audits and Staff Education

A better understanding of the types of waste produced at each facility will be necessary to inform unique strategies to decrease waste and increase diversion rates at municipal buildings and facilities. Completion of waste audits at all Town facilities will confirm the amount of waste produced, describe the composition of waste, and detail actions for the municipality to implement to increase the diversion rate.

The outcome of waste audit reports commonly includes a recommendations section which should be shared with facility managers and used to educate staff and visitors on how to actively assist in reducing waste and increasing diversion rates. Implementation of the recommendations, such as increased signage, staff education sessions, and waste receptacle right-sizing analyses, will assist in reducing the amount of waste sent to landfill.

In addition to the completion of waste audits, corporate purchases and activities should begin to consider how to best implement circular economy principles. The circular economy is a model of production and consumption which retains and recovers as much value as possible from resources by reusing, repairing, refurbishing, remanufacturing, repurposing, or recycling products and materials. Adoption of circular economy practices have the ability to slow down nature degradation by reducing demand for virgin materials.

Anticipated Results:

Corporate Culture: By increasing awareness of the types of waste produced at each facility, staff will be better equipped to identify, recommend, and implement strategies to achieve waste reduction and how to implement circular economy principles.





Greenhouse Gas Reduction: Waste audits will provide strategies to increase waste diversion, leading to a reduction in emissions produced from the decomposition of organic material in landfills. The goal of this sector is to decrease solid waste emissions by 20% by 2030.

Timeline and Funding:

Waste audits will be recommended as part of the 2024 budget process. In addition to reducing GHG emissions, secondary benefits of waste reduction may include decreased operational costs associated with waste hauling.

4.3.2 Solid Waste Summary

Table 4: Summary corporate of actions for solid waste reduction and diversion

Actions	Vision(s) Achieved	Sector GHG Reduction by 2030	Corporate GHG Reduction by 2030
Solid Waste Reduction			
❖ Waste Audits and Staff Education	 	20%	2%
Sector Summary	 	20%	2%

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

The Town aims to reduce 20% of greenhouse gas emissions associated with waste, resulting in a decrease in overall corporate greenhouse gas emissions of 2% below 2019 levels by 2030.

4.4 Environment and Biodiversity

In addition to climate change affecting human health and the built environment, it can also trigger negative consequences on the environment such as local changes in species composition, availability of proper habitat, and extinction. According to the International Union for Conservation of Nature (IUCN), the approximate 1°C rise in mean global temperature is causing serious impacts on species, affecting behaviour, genetic composition, abundance, and survival. The IUCN estimates that “Climate change currently affects at least 10,967 species on the IUCN Red List of Threatened Species, increasing the likelihood of their extinction” (International Union for Conservation of Nature, 2019) .

To mitigate the impacts of climate change on biodiversity, environmental policies aimed at reducing carbon dioxide emissions are an essential step. In addition to reducing the amount of anthropogenic carbon emissions being released into the environment, the Town of Collingwood should also take the following actions to better understand and monitor the municipality’s evolving environmental circumstances.

Environmental Snapshots: Measure & Monitor Environmental Indicators

To better understand the municipality’s natural environment, the Town should continue progress on measuring and monitoring the following environmental indicators:



Monitoring Invasive Species and Species at Risk



Tree Canopy



Enhanced Stream Health Monitoring



Plastic Pollution (including composition and abundance of microplastics)



Develop a high-level natural asset management roadmap



Quantity of protected land

To gain a wholistic natural snapshot of Collingwood, collaboration between the Town and local environmental groups will be essential in measuring and monitoring the identified indicators. The Town of Collingwood already has connections and partnerships with local environmental organizations who may be willing to assist in monitoring such as Georgian Bay Forever, Pollinate Collingwood, Nottawasaga Valley Conservation Authority, the Environment Network, and the Blue Mountain Watershed Trust, among others. The monitoring of invasive species and species at risk will be explored further based on priorities and resourcing requirements identified throughout the plan. Where expertise is not already present in-house or throughout the community, the Town should continue to provide resources to better understand Collingwood's environmental conditions going forward.

Carbon Sequestration

Carbon sequestration is the process of capturing and storing carbon (particularly atmospheric carbon dioxide) to remove it from the environment. Carbon dioxide is naturally sequestered carbon sinks such as oceans, forests, and wetlands, however, anthropogenic (human produced) greenhouse gas emissions have exceeded the sequestration potential of natural sinks.

Greenhouse gas sequestration is one method of offsetting the emissions produced through corporate operations. Collingwood's natural sequestration potential through trees, wetlands, and water have not yet been estimated. Studies into the sequestration potential of Town owned land should be investigated between 2023 and 2030, as it will play a role in helping Collingwood reach net-zero targets.

Environmentally Protected Land

Allowing for protected natural habitats and connecting wildlife movement pathways are important aspects in maintaining native biodiversity in Collingwood. Environmentally protected land also provides benefits to the community including a connection to nature, flood protection, and acting as carbon sinks.

Under the Town of Collingwood's consolidated 2019 Official Plan, 15.1% of land in Collingwood is designated as environmentally protected, of which 3.4% represents Town owned public parks. A further 6.4% of land is designated as Recreation, which may also contain important habitats and corridors.

The specific framework for the intended types, use, quantities, and environmental preservation of the Town owned public parks is found in the Town of Collingwood PRC Master Plan.

The environmentally protected areas typically include significant sensitive ecosystem features or functions that are vulnerable to human impact, such as Provincially significant wetlands. Parcels within the Environmental Protection or Recreation designations may also include lands unsuited for development due to inherent natural hazards such as susceptibility to flooding or erosion, poor drainage, organic soils, or steep slopes.

Collingwood is currently in the process of updating the Town's Official Plan which is expected to be adopted in late 2023. Updates to the Plan are anticipated to include an increase in environmentally protected areas. Upon the approval of Collingwood's 2023 Official Plan by the

County and Province, the Town may choose to further explore how additional land could be protected, with regards to climate change and biodiversity benefits. However, it should be recognized that the Town has a shared responsibility with private landowners, conservation authorities, different levels of government, land trusts, ordinary citizens, and other stakeholders in protecting environmentally sensitive lands and local biodiversity. To that end, strategic partnerships to increase the percentage of protected land will be key, as well as a clear understanding that focusing growth and development within primary settlement areas such as the Town of Collingwood avoids sprawl and allows for larger tracts of environmentally sensitive rural and waterfront lands to be conserved.

Anticipated Results:

Corporate Culture and Community Leadership: Through environmental monitoring, discovering carbon sequestration potential, and protecting environmentally sensitive land, the Town of Collingwood will be better positioned to understand the important role and services the environment and biodiversity provide to the community. In addition to increased understanding, the Town will be able to promote and enhance natural environments in which primary and secondary benefits felt by the community including increased mental wellbeing, clean air, connection to nature, etc.










Greenhouse Gas Reduction: As staff begins to better understand the carbon sequestration potential in Collingwood, offsets can be measured and used to reduce Collingwood's future greenhouse gas inventories.

Timeline and Funding:

Many of the actions listed under '[Environmental Snapshots](#)' are already underway and being funded through private organizations or included in the 2023 municipal budget. More detailed investigations into environmentally protected land and carbon sequestration in Collingwood will continue to be discussed following the release of the updated Official Plan and review of Canopy Cover in Collingwood.

4.4.1 Environment and Biodiversity Summary

Table 5: Summary corporate of actions to maintain (and enhance) the environment and biodiversity.

Actions	Vision(s) Achieved	Sector GHG Reduction by 2030	Corporate GHG Reduction by 2030
❖ Measuring and Monitoring Environmental Indicators	 	--	--
❖ Carbon Sequestration		NE	NE
❖ Environmentally Protected Land	  	NE	NE
Sector Summary	  	NE	NE

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

The actions identified in this sector will help staff and the community to better understand the municipality’s evolving environmental circumstances and how to best maintain and support Collingwood’s natural environments.

4.5 Behaviour and Culture Change

The Greener Collingwood Corporate Climate Change Action Plan aims to achieve the goal of integrating climate change and sustainability into the Town of Collingwood's corporate culture. The intersectionality of climate change makes the topic relevant to all projects and jobs within Town operations. In order to achieve this goal, staff and Council must be educated about climate change to be equipped to integrate sustainable thinking and planning into every department and team.

While behavioural and cultural change of staff and Council will not necessarily result in numerical GHG reductions, it will help allow critical thinking about where the Town can reduce the operational environmental footprint.

4.5.1 Climate Change Integration

Climate Lens Assessments

Applying a Climate Lens Assessment to staff reports and major projects will allow environmental impacts of projects and corporate actions to be more transparent for staff, Council, and the community. These assessments will also ensure alignment with the triple bottom line framework, a philosophy committed to equally considering the social (people), environmental (planet), and financial (profit) implications of decision making.

In its broadest form, Climate Lens Assessments are designed to provide a preliminary, qualitative understanding of whether a municipal decision will affect the climate, through the production of GHG emissions, or be affected by the climate, through increased exposure to temperature or precipitation. Integrating a Climate Lens is intended to evoke behavioral change, consideration, and incorporation of climate impacts into the planning of projects, in addition to enabling municipalities to better communicate anticipated outcomes to potential funders.

A variety of climate lens assessment templates and guidance documents have been created including Infrastructure Canada's [Climate Lens – General Guidance](#) Document and the Clean Air Partnership's [Municipal Climate Lens Tool](#).

Integration of Climate Lens Assessments on staff reports should follow the Clean Air Partnership's Municipal Climate Lens Tool, designed to be used by all staff in a municipality, take less than 10 minutes to complete, and be broadly applicable to any decision. This template has been successfully integrated into the staff reports of other Ontario municipalities including the District Municipality of Muskoka. As implementation of Climate Lens Assessments on staff reports occur and feedback is received, there will be opportunities to provide feedback to the Clean Air Partnership and refine the tool to reflect unique considerations in Collingwood.

For larger projects including construction and re-design projects, teams should undertake a Climate Lens Assessment following Infrastructure Canada's guidelines. In addition to providing meaningful insight into the climate impacts of projects, Infrastructure Canada's Climate Lens

Assessment is required for a variety of funding opportunities facilitated by Infrastructure Canada.

Anticipated Results:

Corporate Culture: The integration of Climate Lens Assessments will encourage the incorporation of climate change considerations into the analysis and development of decision-making. By systematically evaluating the climate change considerations, staff will become increasingly familiar with key considerations, risks, and mitigation strategies, which will facilitate better long and short-term decision making.

Greenhouse Gas Reduction: Highlighting the effect on climate change in a consistent and transparent manner could allow for greater GHG reductions dependent on Council direction.

Community Leadership: By integrating Climate Lens Assessments into staff reports and major projects, the Town will be showing strong support for climate conscious decision-making.

Timeline and Funding:

For staff, Council, and the community to fully understand the climate change implications of projects and corporate actions, the Town should begin integrating Climate Lens assessments into staff reports through a phased approach beginning in 2023. Integration on staff reports will require training informal training from the Climate Change Specialist to staff responsible for producing staff reports.

Larger projects requiring Infrastructure Canada's Climate Lens Assessment should budget for the expense of hiring a consultant to complete the assessment on behalf of the Town.

Green Procurement Practices

Municipal governments can make contributions to sustainability goals through purchasing powers, by establishing critical requirements that can lead to the procurement of goods and services with reduced environmental impacts.

All departments within the corporation, are responsible in seeking additional ways of achieving the goal of being environmentally sustainable and responsible. By implementing green procurement practices, staff can help ensure that, wherever possible and financially feasible, the Town's solicitation documents include specifications that consider environmental and climate change impacts of solicited goods and services.

Greenhouse gas emissions associated with most procurement documents are classified as Scope 3 emissions – emissions that are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value change. Collingwood's 2019 corporate GHG inventory only considers Scope 1 and Scope 2 emissions, following industry standards. Future updates to GHG inventory standards could expand to include Scope 3 emissions, at which point, Collingwood will have to reconsider the baseline inventory and actively monitor and measure Scope 3 emissions associated with procurement.

Anticipated Results:

Corporate Culture: By incorporating green procurement practices, all departments will be responsible for considering how to solicit goods and services with minimal effects on the environment and climate change.

Greenhouse Gas Reduction: Scope 3 emissions have the opportunity to decrease in response to the Town adopting green procurement practices. However, any reduction in Scope 3 GHG emissions will not be reflected in the 2019 GHG inventory, which only considers Scope 1 and Scope 2 emissions, as per industry standards.

Community Leadership: In adopting green procurement practices, the Town will ensure that purchasing power is spent in a manner that promotes sustainability principles. Collaboration with neighbouring municipalities in creating a green procurement standard can also result in industry shifts to support more environmentally conscious practices.

Timeline and Funding:

Multiple municipalities throughout Simcoe County have expressed interest in developing a standardized set of practices to be implemented throughout the region. Focused discussions between County of Simcoe municipalities on green procurement best practices could begin as early as 2023.

At this time, there are minimal financial implications associated with the exploration of green procurement best practices. Future procurement costs could be influenced if additional green standards for solicited goods and services are included in procurement documents.

Integrating Climate Change into Policies, Procedures and Plans

Municipalities are at the front line of climate change impacts and the most accessible level of government for most residents and visitors. Applying Climate Lens Assessments and the development of green procurement standards are a first step in broadening the climate change discussion to all departments. However, to incorporate climate change most effectively into Collingwood's corporate culture, environmental impacts should be considered and incorporated into all applicable policies, procedures, and future master plans produced by the Town.

To ensure that the goals and actions described in the Greener Collingwood Corporate Climate Change Action Plan are realized by 2030, future feasibility studies, policies, procedures, and plans should align with visions described in this document. This should include climate change considerations being integrated into the following upcoming new and updated plans: Pollinator Strategy, Energy Conservation and Demand Management Plans, Community-Based Strategic Plan, Master Transportation Plan, Arts Centre Feasibility Study, Hybrid Work Policy, etc.

Integration of climate change and sustainability considerations into corporate policies, procedures, and master plans is a method of ensuring compliance with the actions outlined in this plan. By incorporating climate change sections into official documents, it will become increasingly clear to staff and the community, the importance that Council has placed on mitigating and adapting to climate change for the benefit of the environment and community.

Anticipated Results:

Corporate Culture and Community Leadership: Incorporation of climate change considerations in all official documents will highlight the importance that Council has placed on mitigating and adapting to climate change for the benefit of the environment and community.

Greenhouse Gas Reduction: Highlighting the effect on climate change in a consistent and transparent manner have the potential to result in greater GHG reductions dependent on Council direction.

Timeline and Funding:






Integrating climate change into all official documents should be phased in as documents are up for review or under consideration.

4.5.2 Staff and Council Education

The intersectionality of climate change makes the topic relevant to all projects, jobs, and departments within the corporation. All staff and Council members are encouraged to support this plan through asking questions and seeking additional ways of achieving the goal of being an environmentally sustainable and responsible government.

The goal of increasing staff and Council education on climate change is to solidify the understanding that all jobs are responsible and can have positive and/or negative impacts on climate change and sustainability. By increasing education on climate change and sustainability, there are additional opportunities to reduce corporate greenhouse gas emissions and consider where operational sustainability improvements can be made.

The following actions should be implemented to increase the climate change education and literacy of staff and Council:

Icon	Action Description
	Producing onboarding material for new hires and future Councillors which outlines the goals and actions presented in this plan and describes how to help support the objectives of the Greener Collingwood Corporate Climate Change Action Plan.
	Ensuring opportunities are available for staff and Council to participate in climate change education and climate justice training. This can be achieved through formal professional development opportunities, or informal discussions, lunch-and-learns, webinars, etc.
	Continue to allow and encourage staff participation in the internal Collingwood Green Team, a volunteer team which discusses and provides solutions to increase sustainability in the workplace.
	Sharing and creating educational resources (how-to guides, readings, videos, podcasts, etc.) to support a sustainable and environmentally conscious corporate culture.
	Increase climate change communication between departments through an open-door culture. This will allow individuals/teams/departments to discuss projects, ask questions, suggest solutions, etc. related to climate change with members of the fleet and facilities team.

Availability of climate change training is already being implemented on small scales. Since 2019, 40+ staff members have been engaged in informal climate change trainings and discussions including participation in Climate Neutral's Talk Climate to Me program, the Tamarack Institute's Climate Transitions Cohort, internal team meetings, and the Collingwood Climate Action Team's Climate Footprint Challenge.

Anticipated Results:

Corporate Culture: By deepening staff and Council's understanding of climate change, sustainability, and environmental topics, there is potential for staff and Council to think more critically about how and where improvements can be made within the corporation, careers, and personal lives. With additional information, the Town will also be enabling individuals to become community champions for green initiatives throughout the community.

Greenhouse Gas Reduction: No GHG reduction estimates have been calculated based on increased staff and Council education. It is unclear whether increased climate education will result in significant decreases in GHG emissions, however it may highlight opportunities that have not yet been considered.

Community Leadership: Encouraging staff and Council to participate in climate change education and any resulting benefits, could encourage other municipalities and local businesses to also support the creation of climate change action plans and increased staff education.

Timeline and Funding:

Promotion and development of staff and Council resources are anticipated to be an ongoing project. Additional financial impacts are expected to be minimal or offset through the acquisition of grants.

4.5.3 Intergovernmental and Interagency Collaboration

In addition to integrating climate change considerations into municipal corporate culture, the Town of Collingwood also has a role to play in county, provincial and federal discussions surrounding climate change and the environment. In order to support the actions and initiatives outlined in this plan, Collingwood Council should be prepared to submit requests to higher levels of governments as appropriate.

Examples of anticipated requests include, but are not limited to:

- ❖ The protection of environmentally sensitive wetlands and ecosystems.
- ❖ Lobby the Province of Ontario to decarbonize the electricity grid to assist in reaching Net-Zero Emissions.
- ❖ Request additional provincial and federal funding to support greenhouse gas emission reduction initiatives.

Strategic collaborations and partnerships between the Town of Collingwood and external agencies such as Conservation Authorities, non-profits, charities, and businesses will also be important in environmental monitoring, lobbying, and demonstrating support to upper tiers of government, the community, and additional stakeholders.

Anticipated Results:

Greenhouse Gas Reduction: No GHG reduction estimates have been calculated based on intergovernmental and interagency collaboration. Certain requests and collaborations have the potential to decrease GHG emissions.


















Community Leadership: Requests from Collingwood to higher-level governments will allow for increased communication and collaboration between governments and could encourage other municipalities to follow suit.

Timeline and Funding:

Intergovernmental and interagency collaboration is anticipated to be ongoing and requested of Council as necessary. No negative financial impacts are expected. Additional funding opportunities could arise from increased intergovernmental and interagency communication and collaboration.

4.5.4 Behaviour and Culture Change Summary

Table 6: Summary corporate of actions to integrate climate change and sustainability into corporate culture.

Actions	Vision(s) Achieved	Sector GHG Reduction by 2030	Corporate GHG Reduction by 2030
Climate Change Integration			
❖ Climate Lens Assessments	  	NE	NE
❖ Green Procurement Practices	  	NE	NE
❖ Integrating Climate Change into Policies, Procedures, and Plans	  	NE	NE
Staff and Council Education	  	NE	NE
Intergovernmental and Interagency Collaboration	 	NE	NE
Sector Summary	  	NE	NE























NE – Not estimated due to minimal impact.

























*Estimates will become available as projects are developed and presented to Council for consideration.

By incorporating climate change and sustainability into the Town's corporate culture, there will be greater potential for staff to consider new ideas to reduce the corporate impact on the environment and climate change.

5. Corporate Plan Summary

Table 7: Summary of corporate actions

Corporate Actions	Vision(s) Achieved	Corporate GHG Reduction by 2030
Buildings and Facilities: Deep Retrofits of Existing Buildings		
❖ GHG Reduction Pathway Feasibility Study	  	
❖ GHG Reduction Pathway Retrofits	  	25%
❖ LED Lighting Retrofits		< 1%
❖ Staff Training and Education		NE
Buildings and Facilities: New Buildings		
❖ Near Net Zero Emissions Designs	 	Minimal Increase(s)
Fleet and Transportation: Fleet Decarbonization		
❖ Zero-Emissions Fleet	  	4%
❖ Corporate Vehicle Charging Stations		--
❖ Equipment and Off-Road Fleet	  	< 1%
Fleet and Transportation: Public Transportation		
❖ On-Demand Transit	 	TBD* (2024)
❖ Transit Fleet Electrification		TBD* (2024)
Solid Waste Reduction		
❖ Waste Audits and Staff Education	 	2%

Corporate Actions	Vision(s) Achieved	Corporate GHG Reduction by 2030
Environment and Biodiversity		
❖ Measuring and Monitoring Environmental Indicators	  	--
❖ Carbon Sequestration		NE
❖ Environmentally Protected Land	  	NE
Behaviour and Culture Change: Climate Change Integration		
❖ Climate Lens Assessments	  	NE
❖ Green Procurement Practices	  	NE
❖ Integration into Policies, Procedures, and Plans	  	NE
Behaviour and Culture Change: Staff and Council Education	  	NE
Behaviour and Culture Change: Intergovernmental and Interagency Collaboration	 	NE
Summary	  	31%

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

Anticipated Results:

By implementing the actions identified in [Section 4](#) of the Greener Collingwood Corporate Climate Change Action Plan between 2023 and 2030, the Town will be positioned to reduce greenhouse gas emissions by a minimum of 30% below 2019 levels. In addition, the Town will continue to make strides towards integrating climate change and sustainability into the Town’s corporate culture and becoming a municipal leader.

Timeline and Funding:

The following graph illustrates the greenhouse gas savings opportunity available to the Town of Collingwood following the targets laid out in this plan between 2023 and 2030. In addition to saving greenhouse gas emissions and negative environmental consequences, by 2030, every tonne of emissions saved avoids the Town \$170 in carbon pricing implemented by the Canadian Federal government to recognize and account for the cost of pollution in daily decision making (Government of Canada, 2022). Actions occurring within the 2023 fiscal year have already been included in the Town's 2023 budget are available in [Appendix A](#). A budget forecast will be developed as additional information becomes available.

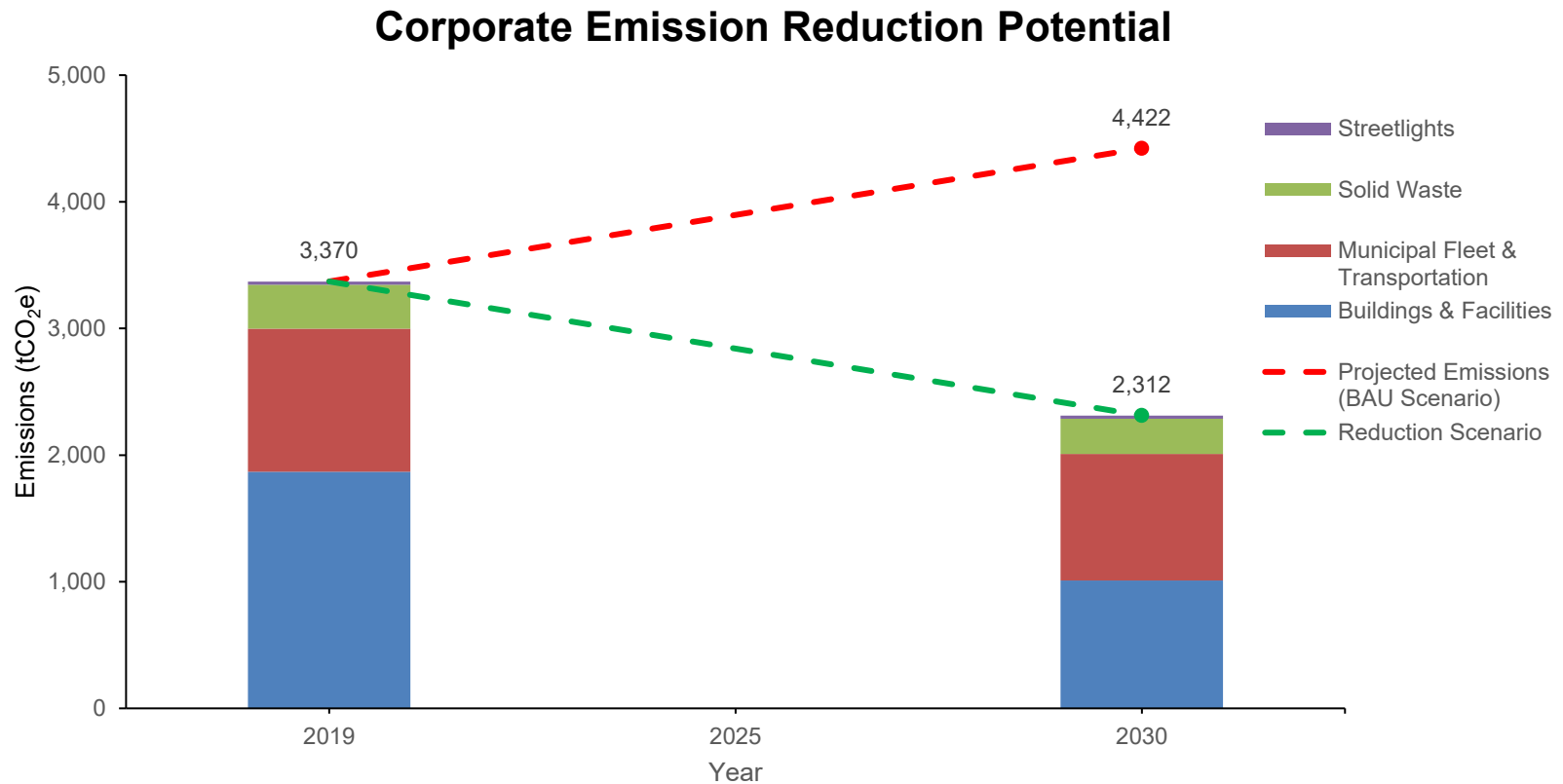


Figure 7: Collingwood's Corporate Emission Reduction Potential by 2030 compared to the 2019 baseline inventory and business-as-usual scenario.

6. Net-Zero

In addition to the 2030 visions, the Town of Collingwood, with the anticipated support of the public and Council, pending available funding, is committed to the adoption of federal guidance currently set at achieving net-zero emissions by 2050.

A pathway to reach net-zero will be explored following the completion of the Greenhouse Gas Reduction Pathway Feasibility Study and the Metrolinx Transit Procurement Initiative's transportation electrification study.

Both studies are anticipated to be completed by the end 2025, at which point, staff will be better positioned to outline the actions required to achieve net-zero corporate emissions by 2050.

We expect the pathway to achieve net-zero emissions may include the purchase of carbon offsets, investment into clean power generation, and carbon sequestration at a minimum.

7. Implementation Considerations

The following actions are important in ensuring that the Greener Collingwood Corporate Climate Change Action Plan's goals are realized, and Collingwood continues to comply with registered programs and Ontario Regulations.

7.1 Continued Monitoring of Energy and Emissions

Continuous monitoring, verification, and reporting is an integral part of ensuring the goals outlined in the Greener Collingwood Corporate Climate Change Action Plan are realized. To ensure actions identified in the plan are in alignment with their anticipated results, Town staff will ensure that the following monitoring and verification activities are completed:

1. Continue to progress through the Partners for Climate Protection (PCP) Program's corporate milestones (Milestones 4 and 5).
2. Adhere to the PCP program's requirement of providing updates at least every 2 years.
3. Continue tracking natural gas and electricity usage and costs monthly.
4. Begin tracking amounts spent on carbon pricing from utilities to provide annual comparisons.
5. Continue to complete annual Broader Public Sector (BPS) Reporting to adhere with Ontario Regulation 507/18.
6. Update Collingwood's 2019 Energy Conservation and Demand Management (ECDM) Plan in 2024 to adhere with Ontario Regulation 507/18. When developing the updated plan, staff should integrate the GHG reduction goals of the Greener Collingwood Corporate Climate Change Action Plan and the results of the Greenhouse Gas Reduction Pathway Feasibility Study.

7.2 Plan Renewal and Updates

The Greener Collingwood Corporate Climate Change Action Plan should be considered a living document, which can be updated and adapted based on advancing knowledge, technologies, upper-level government regulations, and available funding opportunities. Goals of this plan should also be considered minimum goals, meaning that GHG reduction initiatives should not slow or stop once a 30% GHG emission reduction is realized.

Renewal of the Greener Collingwood Corporate Climate Change Action Plan should occur at a minimum of five-year intervals, with the first update expected to be released in 2028.

In addition to the ongoing monitoring and reporting initiatives listed in section [7.1 Continued Monitoring of Energy and Emissions](#), corporate progress reports will be prepared for Council on a biennial basis at minimum. As progress reports are developed, the underlying assumptions of the Corporate Plan will be re-assessed to ensure that any major developments are reported and integrated into the analysis.

8. A Path Forward

The Town of Collingwood is committed to integrating climate change and sustainability into corporate culture, reducing greenhouse gas emissions associated with corporate operations, and becoming a corporate and municipal leader in sustainability initiatives and GHG reduction measures in the region.

Collingwood's management and leadership staff are supportive of the vision and actions outlined in the Greener Collingwood Corporate Climate Change Action Plan. Staff support that the GHG emission reduction target of a minimum of 30% reduction below 2019 levels by 2030 is realistic and achievable with support. Additional resources required will be proposed as part of annual budget discussions.

As feasibility study results are determined and analyses are reassessed, GHG emission reduction targets have the potential to increase. Adequate resources and the support of future Councils will be required to meet the GHG emissions reduction target of at least 30% below 2019 levels by 2030. Any changes in GHG emission reduction targets, and their anticipated resource requirements, will be communicated Council at every opportunity for direction.

8.1 Community Engagement

Town staff will continue to promote corporate climate change and environmental initiatives through public engagement opportunities such as Earth Day, Farmers Markets, Town organized Festivities, and Climate Marches to showcase Collingwood's commitment to making a difference and supporting the community.

In addition to promotion of the plan at public events, engagement with individuals, community groups, and virtual communications will continue to ensure the community is aware of corporate climate change initiatives.

Community engagement also offers the benefit of receiving additional insights into community interests and priorities that will help to inform the future Community Climate Change Action Plan.

8.2 Community Plan

The Town of Collingwood's community greenhouse gas inventory identifies and quantifies the sources of GHG emissions occurring within municipal boundaries and establishes a baseline from which future emissions reductions and progress can be measured. The Town of Collingwood has received recognition from the Partners for Climate Protection (PCP) program for the successful completion of a community GHG inventory (Community Milestone 1). The community GHG inventory estimates that in 2019, the Town of Collingwood produced 207,218 tonnes of carbon dioxide equivalent (tCO₂e).

In response, the Town of Collingwood is in the process of developing a Community Climate Change Action Plan to outline actions that Collingwood residents, business, developers, and

visitors will be encouraged to become involved with, for the municipality to reduce community GHG emissions. To develop the community plan, the Town of Collingwood is participating in the Tamarack Institute's Climate Transitions Cohort program from February 2023 and November 2023. The Climate Transitions Cohort is a 10-month learning journey designed for changemakers inside and outside local governments looking to develop community plans for a just and equitable climate transition. Collingwood's team is comprised of staff and community members who will work in collaboration between to determine community priorities and interests, including a community GHG reduction target.

Discussions on the following topics in relation to the Community Climate Change Action Plan have already begun and will continue to be explored for feasibility.

- ❖ Community Efficiency Financing program through FCM's Green Municipal Fund
- ❖ Green Development Standards

Progress on the community climate action plan will be communicated to Council and the community as engagement opportunities become available, direction is required, and as milestones are reached.





















9. References


























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10. Appendices

Appendix A: Budgeted items for 2023.

Table 8: Budgeted items for 2023

Corporate Actions	Vision(s) Achieved	2023 Budget
Buildings & Facilities: Deep Retrofits of Existing Buildings		
❖ GHG Reduction Pathway Feasibility Study	  	\$ 250,000
❖ GHG Reduction Pathway Retrofits	  	\$ 0
❖ LED Lighting Retrofits		\$ 600,000
❖ Staff Training and Education		NE
Buildings & Facilities: New Buildings		
❖ Near Net Zero Emissions Designs	 	TBD*
Fleet & Transportation: Fleet Decarbonization		
❖ Zero-Emissions Fleet	  	\$ 280,000
❖ Corporate Vehicle Charging Stations		\$ 25,000
❖ Equipment and Off-Road Fleet	  	\$ 0
Fleet & Transportation: Public Transportation		
❖ On-Demand Transit	 	\$ 0 [†]
❖ Transit Fleet Electrification		\$ 0

Solid Waste Reduction			
❖ Waste Audits and Staff Education			\$ 0
Environment and Biodiversity			
❖ Measuring and Monitoring Environmental Indicators			
❖ Carbon Sequestration			\$ 0
❖ Environmentally Protected Land			
Climate Change Integration			
❖ Climate Lens Assessments			
❖ Green Procurement Practices			
❖ Integration into Policies, Procedures, and Plans			
Staff and Council Education			
Intergovernmental and Interagency Collaboration			
Summary			
			\$ 1,160,000

NE – Not estimated due to minimal impact.

*Estimates will become available as projects are developed and presented to Council for consideration.

Op† Incorporated into annual operating budget.

A budget forecast will be developed as additional information becomes available.

