



REPORT

TO: Mayor Lawlor and Members of Council

FROM: Michael Dean, Manager, Climate Change

DATE: May 16, 2023

REPORT NO.: BEC-2023-005

SUBJECT: Environment and Climate Change Feasibility and Implementation Plan

RECOMMENDATION:

THAT Report No. BEC-2023-005, dated May 16, 2023, regarding the Environment and Climate Change Feasibility and Implementation Plan, be received;

AND FURTHER THAT the recommendations and content of this report form part of input into the development of the new Strategic Plan;

AND FURTHER THAT, consistent with the Council Resolution, dated February 13, 2023 regarding Net Zero 2030 Update, Council direct staff to continue to implement feasible and practical environmental and climate change actions, with the goal of continuing to protect the environment and reduce greenhouse gas emissions;

AND FURTHER THAT Council approve the recommended Feasibility and Implementation Plan, as outlined in this report;

AND FURTHER THAT Council endorse, in principle, the proposed Environment and Climate Governance Framework to facilitate internal and external coordination, and to support, enable and leverage community actions;

AND FURTHER THAT, recognizing the significant resource gap and to continue to advance the Town's environmental and climate priorities, Council refer the need for an Environment and Climate Specialist to Budget Committee for review and approval as an inclusion in the 2024 Budget;

KEY POINTS:

The following are key points for consideration with respect to this report:

- Municipalities influence about 50% of all greenhouse gas emissions in Canada.
- Halton Hills has a long-standing commitment to environmental protection, dating back to at least 2007 with the development of the Green Plan.
- Town action on environmental protection and climate is based on extensive community engagement and is driven by data collection, analysis, reporting, and existing best practices.
- The Town plays a crucial role in advancing action by leading, and by supporting and enabling implementation by the community, while acting within its own corporate operations.
- Town's approach is multi-pronged, including a focus on corporate operations, community engagement and partnerships, and nature-based solutions.
- Environmental and climate approaches are increasingly standard private and public sector practices, and operational priorities.
- The Town's climate program is similar to that of other municipalities, and includes the response to legislated requirements of energy reporting, provincial policies and/or legislation related to Asset Management and planning, operational efficiencies - among other factors.
- The Town now has in place the required key strategies to guide efficient and effective implementation, with 2023 having been set as the start of focused implementation.
- For Town operations, action is needed on facility retrofits, renewable energy, and fleet electrification. While significant challenges remain, achieving the net zero target for Town operations by 2030 may still be technically feasible, but would require focused investments and widespread adoption of new/emerging technologies.
- For the community at large, action is required on building retrofits, renewable energy, electric vehicles as well as nature-based solutions. Without a significant scale-up of action from all stakeholders, the 2030 target for community emissions is not feasible.
- Existing Town resources are maximized and fully allocated. The Town does not have adequate resources to implement its existing core environmental and climate workplan, services and priorities, nor to undertake additional initiatives. The lack of the pre-existing "Climate Change Specialist" position, which was originally put in place in 2020, has significantly reduced existing climate staff resources by about 25%.
- Environmental and climate actions have financial (e.g. lower utility costs, local jobs) and non-financial (e.g. environmental health, air quality, efficient development, livable neighbourhoods) benefits for the community.

BACKGROUND AND DISCUSSION:

On March 20, 2023, Council held a workshop in response to a [Council Resolution](#), dated February 13, 2023. The latter directed Town staff to present on investments related to its emission target, prepare a feasibility plan, and for the workshop discussions to form input into the development of the new Strategic Plan. This staff report builds on the Workshop, with a focus on a recommended path forward.

1. History and Context

The Town's commitment to environmental health, sustainability (i.e., economic, environmental, social, and cultural wellbeing), and climate change is based on widespread community engagement and support. It dates back to at least 2007, when Halton Hills was one of the first Ontario municipalities to develop a Green Plan. The [Green Plan](#) was developed by a broad Task Force which included community, business and Council representation.

Since then, as shown in Figure 1, key initiatives, strategies, policies and community partnerships have been put in place to engage the community, protect and enhance the local environment and reduce emissions. This has included extensive community engagement to prepare the [Integrated Community Sustainability Strategy](#) - which outlines a community vision to 2060. Combined, the various plans and strategies, provide a solid roadmap for ongoing action. Focused implementation was to start in 2023.

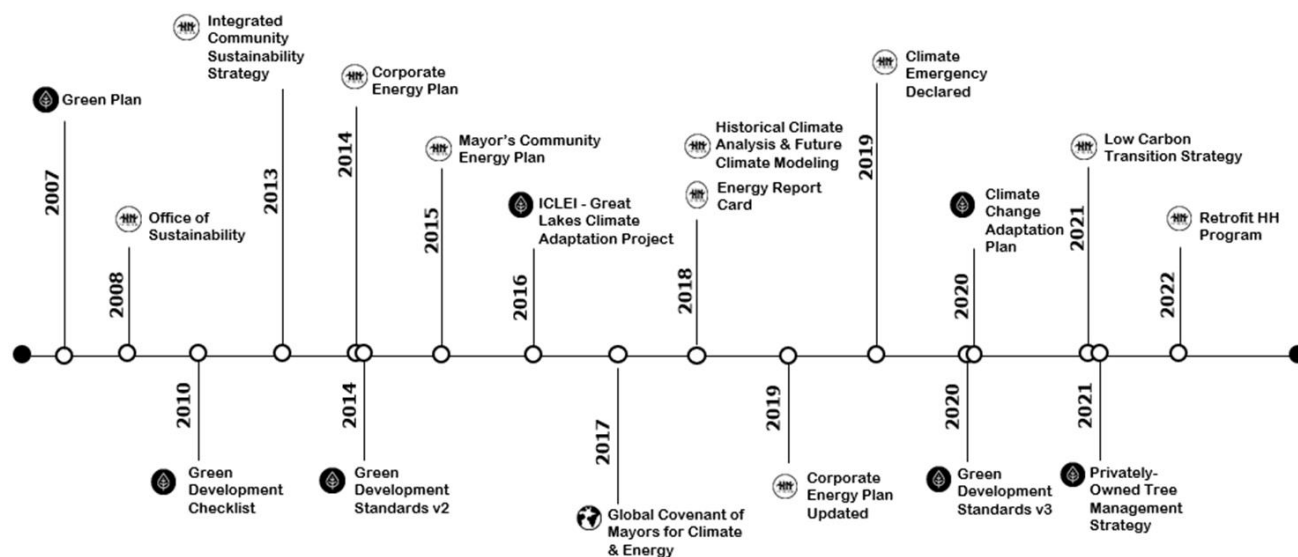


Figure 1. Halton Hills' Long-Standing Environmental Commitment

Similar to other Ontario municipalities, the Town has also been focused on responding to provincially legislated requirements, focused on energy planning and reporting for municipal facilities, as well as aligning with federal strategies and plans.

2. Shared Responsibility

The Town has three main roles when protecting the environment and responding to climate change:

- As a **LEAD**, the Town needs to take action to address climate change in its own facilities and infrastructure, develop policies and meet regulatory obligations. This includes the Provincial Policy Statement which requires municipalities to address climate change.
- As an **ENABLER**, the Town can enable others, such as residents, businesses, investors, volunteers, community groups and organizations, to take action by providing incentives, programs, and information on local climate solutions.
- As a **SUPPORTER**, the Town can support and encourage others to act independently of the municipality. This can involve providing technical guidance for existing initiatives or helping to coordinate resident engagement through programs like Credit Valley Conservation's [Sustainable Neighborhood Action Plan](#) in the Delrex neighbourhood.

All three roles are critical to meaningful progress, managing risks to the Town's assets and infrastructure, and to the delivery of core services to the community. Generally speaking, some of the risks of inadequate action include:

- Municipal infrastructure damage;
- Shortened facility life;
- Community impacts;
- Inability to leverage external funding;
- Inability to take advantage of emerging opportunities;
- Embedded higher utility costs; and
- Escalating insurance costs.

A recent report from the Canadian Climate Institute found that in 2025, Canada will experience \$25 billion in losses compared to a stable climate, rising to as much as \$101 billion annually by mid-century. In addition, the Institute found that every \$1 spent on adaptation measures produced \$5-\$6 of benefits by avoiding direct damages such as premature infrastructure repair and replacement costs, and \$6-\$10 of benefits for the broader economy. At the May 8, 2023 Council meeting, the presentation on 2022 Insurance Claim Activity included information on severe weather impacts and their relationship to rising insurance premiums for municipalities.

3. Existing Town Framework

The Town's approach to environmental protection includes a focus on climate mitigation and adaptation. Mitigation is about reducing emissions. It is addressed through the [Low-Carbon Transition Strategy](#). The focus is on managing the Town's corporate energy use, implementing [Green Development Standards](#), reducing fossil fuel use in the transportation sector, and expending renewable energy such as solar power.

Adaptation is about ensuring that Town operations, infrastructure and the broader community are prepared and more resilient to deal with more frequent and severe weather events, managing natural assets (e.g. tree canopy), and building capacity in the community. This includes assisting the most vulnerable segments of the population, as impacts tend to be disproportionately high on the most vulnerable. Adaptation is addressed by the [Climate Change Adaptation Plan](#).

4. What Has Changed

Since the Town started on its journey on environmental protection, much has changed, including:

- **Federal and Provincial Support and Momentum:** The federal government has increased its commitment to clean technologies. According to the federal government's latest National Inventory Report (NIR), Canada is making progress in reducing greenhouse gas emissions, with emissions down 8% in 2021. The provincial government continues to make significant investments in the clean-tech sector, especially related to the Electric Vehicle supply-chain.
- **Private Sector Uptake:** The private sector has made significant progress in taking climate action. Businesses see the case for investing in efficient development, as that is good for their brand, reputation and ultimately for their customers who will see lower operating costs and better-quality development. According to a recent report by the [Ontario Chamber of Commerce](#), climate change is a growing focus for Ontario's businesses with over 60% saying that climate change is a priority for them. Additionally, new developments in Halton Hills are increasingly adopting low-carbon technologies and environmental practices. For example, major developments in the Premier Gateway employment area are implementing Green Development practices, and some plan to achieve net-zero or zero carbon construction – including the new Enbridge head office and major industrial developments.
- **Regulations and Funding:** Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure, requires all municipalities to integrate climate change impacts in levels of service and report on associated costs. The Federation of Canadian Municipalities (FCM) is shifting its grants to projects that integrate adaptation and mitigation when designing, operating, maintaining, and renewing municipal assets and infrastructure.
- **Awareness and Engagement:** Halton Hills residents, volunteer/community groups, and businesses are aware of the importance of addressing climate change.
- **Internal Processes:** To ensure efficiency, internal processes have been put in place to guide decision making, maximize returns and community benefits, and to have meaningful results.

5. Feasibility and Investments

Despite important progress and major successes (Appendix 1), the Town is not yet on track to meet emission targets for either corporate (Town operations) or community emissions. It is important to note that a focused effort on implementation was to start in 2023, now that community engagement and strategies have been put in place. Hence, it would be anticipated that, as implementation takes place and in parallel with technological changes (e.g. increasing uptake of EVs), measurable emission reductions will be realized. It is too early for this to be realized at this time, pending focused implementation.

For Town operations, action is needed on facility retrofits, renewable energy installation and fleet electrification. While significant challenges remain, achieving the net zero target for Town operations by 2030 may still be technical feasible, but would require focused investments and more widespread adoption of new/emerging technologies.

For community emissions, action is required to scale up building retrofits, efficient new construction, installation of renewables and widespread use of electric vehicles. In addition, new financial tools, supply-chains, and legislative frameworks are required. Without the latter, the 2030 target for community emissions is not feasible.

The section below provides an overview of the investments required across corporate and community sectors. Adequate resources are key to successful implementation and to the maintenance of existing core services.

5.1 Corporate Investment

In the 2023 Town Business Plan, a \$14.6 million capital investment was identified over a period of 10 years for mitigation, based on technical feasibility studies. Most of this investment relates to energy efficiency and clean energy options for municipal facilities, with smaller investments in EVs – among other actions. This represents less than 3% of the Town's total 10-year Capital Plan. Importantly, this excludes any anticipated operational savings as well as any grants that the Town will pursue – thereby further reducing the necessary investment.

This investment largely represents progressively standard business practices. It reflects a proactive approach to business operations by ensuring that Town facilities are built, redeveloped and/or operated in the most efficient manner. These investments are seamlessly integrated into project design, procurement, and operation. They improve user comfort and incorporate technologies that extend facility life.

The Town's annual utility and fuel costs are a significant operating expense and an important opportunity for efficiency and cost savings.

5.2 Community Investment

Similar to other communities, community investments will be undertaken by a wide range of stakeholders – residents, volunteer/community groups and businesses. The Town's role will be mostly as a regulator, facilitator and supporter, without directly making the vast majority of investments. This investment is largely with private residents and businesses, not by the municipality.

Financial and economic analysis shows that reducing emissions will have significant financial benefits. For example, residents and businesses will spend less on energy, pay lower carbon taxes, and see new job opportunities. Currently, Halton Hills residents and businesses pay about \$200,000,000 each year in energy costs. This cost is projected to increase by 200% by 2030.

Growth of the clean technology industry in Canada, with the most significant growth being in Ontario, presents a major opportunity for job creation. In Ontario, the clean-tech sector has over 5,000 companies and 117,000 employees contributing over \$25 billion to provincial GDP. Attracting higher-density employers, such as clean-tech manufacturing and research and development, can increase the local tax base and create quality local jobs. Estimates for Halton Hills indicate the potential for nearly 1400 jobs from energy efficiency and solar renewable projects alone – a significant economic opportunity.

The \$2 billion community investment includes actions such as businesses investing in retrofits, implementing Green Development Standards and/or adding solar power. It also includes residents making their home more energy efficient, more people opting to walk, cycle or take transit rather than driving, purchasing an EV, and/or planting trees. This investment has an estimated net present value of just over \$850 million or 43% ROI. It is also projected to reduce annual household energy costs by 50%.

There are other important benefits, such as a healthier natural environment, larger and healthy tree canopy, better air quality, more active and healthier residents, increased biodiversity, better resiliency to severe weather, and an engaged community.

6. Feasibility and Implementation Plan

The following section provides an overview of the Feasibility and Implementation Plan. To arrive at it, staff completed a high-level Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis to identify key drivers and barriers to success (Appendix 2).

The Plan outlined below is presented on an annual basis. For each year, the work is organized into two categories: (i) a summary of projects anticipated to proceed in each year with the limited existing resources; and (ii) a summary of projects that currently cannot be undertaken with existing resources. Additional information is included in Appendix 3 and 4, respectively. To complete the work, existing contract resources are assumed to continue beyond 2023, subject to the 2024 Budget.

A significant amount of work is not able to proceed based on current resources. There is a critical impact in terms of the Town's inability to implement the Climate Change Adaptation Plan and to make progress towards major emission reductions. With very limited resources, the Town is also not able to advance any new and/or unexpected projects.

In addition to the below projects, Climate Change staff actively support numerous external groups/stakeholders with projects and participate on a variety of internal and external projects/committees/working groups (e.g. Secondary Plan development, Development Review Committee, Halton Climate Collective, Halton Municipal Climate Team, GTA-Clean Air Council, Residential Development Impact Scorecard for the

Environment, Climate Action Accelerator to Net Zero, cross-departmental projects). This work also includes the partnership between the Town and Credit Valley Conservation (CVC) to deliver the [Sustainable Neighbourhood Action Plan](#) (SNAP) program in Hungry Hollow, in the Delrex neighbourhood.

Opportunities for community partnerships are important. To help ensure success, however, they require resources to identify and engage partners, develop workplans, prepare and execute agreements/memorandums, secure and/or manage funding, support organizational capacity building, help coordinate projects, develop communications (e.g. website content, surveys, marketing materials), report to Council, provide staff expertise/resources, hold meetings, organize and/or hold community events, and data collection – among potential other tasks.

With current limited resources, it is not feasible to carry over accumulated work from one year into future years. The Implementation Plan is subject to change based on available resources and Budgets.

2023

Existing resources will advance select projects (Appendix 3). For Town operations, these will be focused on improving the efficiency of municipal facilities so that they last longer and reduce operating costs; completion of the Fleet Electrification Feasibility Study to reduce fuel use and costs; and development of the Building Automation System implementation plan for all facilities to ensure that Town facilities are operated at peak efficiency and comfort. In addition, a strategy to facilitate local renewable energy installation is being prepared, as well as a long-term approach for the RetrofitHH program, and community outreach and education campaigns.

Pending resource availability, a number of key projects are currently not able to proceed (Appendix 4). They include implementation of the Climate Change Adaptation Plan to position Halton Hills to be able to respond to a changing climate and more severe weather; Public Tree Management Plan and Privately-Owned Tree Management Strategy; Vulnerability Assessment of Town Services; and, based on a preliminary review, the advancement of the Bird Friendly Community Resolution.

2024

Existing resources will advance select projects (Appendix 3). For Town operations, these relate to continuing to improve the efficiency of municipal facilities and an update of the Town's Corporate Energy Plan and Green Development Standards. It is anticipated that the new version of the RetrofitHH program will be launched, supplemented by community engagement and education campaigns. A Soil Health Program, which will seek to encourage local farmers to adopt practices that increase carbon sequestration capacity of agricultural lands, is also planned.

Pending resource availability, a number of key projects are currently not able to proceed (Appendix 4). They include the Natural Asset Strategy to support the ability of natural areas to provide valuable ecosystem services such as flood protection; Stormwater

Management Service Review; Low-Impact Development Program; and the Food Security Plan.

2025

Existing resources will advance select projects (Appendix 3). For Town operations these will be related to ongoing facility efficiency improvements, and implementation of planned renewable energy projects. Implementation of the RetrofitHH program will be ongoing, as well as community engagement.

Pending resource availability, a number of key projects are currently not able to proceed (Appendix 4). They include the Water-borne and Vector-Borne Illness Prevention educational and prevention program to help reduce climate-related risks of water-borne and vector-borne illnesses; Halton Hills Emergency Response Plan Updates; and the Critical Local Business Identification Study.

2026

Existing resources will advance select projects (Appendix 3). For Town operations, these will be related to ongoing facility improvements, and implementation of the RetrofitHH program. As appropriate, additional projects may be identified through the update of the Low Carbon Transition Strategy Update in 2025.

Pending resource availability, a number of key projects are currently not able to proceed (Appendix 4). They relate to the update of the Climate Change Adaptation Plan to continue to minimize risks to Town's assets; Climate Change Adaptation Plan Data Collection and Mapping; Facilities Vulnerability Assessment Implementation; Low Impact Development and Water Conservation Evaluation; Local Food Strategy; and a Park Design Review.

7. Implementation Resource

Existing staff resources are fully maximized and allocated. As projects are delayed, the workload accumulates and will become unmanageable. The current staff workload is significant. This has required implementation to be significantly reduced. Delays in implementation are making achievement and/or measurable progress on the Town's targets increasingly challenging.

7.1 Environment and Climate Specialist

The Environment and Climate Specialist position (previously referred to as the "Climate Change Specialist") was an existing full-time permanent position. It started back in 2020. This position had a full workplan associated with it. It was changed to a contract for the 2023 Budget, but was not approved. This position was and is critical to the implementation of the Climate Change Adaptation Plan, Natural Assets Strategy and many other core projects, as noted in Section 6 and Appendix 4.

The lack of the pre-existing position effectively reduced existing climate resources by about 25%. This is a major resource reduction and the main challenge to successful implementation.

It is recommended that Council refer the need for the Environment and Climate Specialist to Budget Committee for consideration and approval as an inclusion in the 2024 Budget.

8. Environment and Climate Governance Framework

To support, guide and champion Town and community action, a new streamlined governance framework has been developed. It replaces the Climate Change Task Force that was sunset in 2022. The latter was Chaired by the Mayor.

The new governance framework recognizes that, supported by the Town, active resident, business, volunteer and community group participation is necessary.

Overseen by an “Environment and Climate Advisory Group”, the new framework will bring together existing key local and regional stakeholders, including:

- *Environment and Climate Advisory Group*: This group would include the Mayor, as Chair, up to three Councillors (to be appointed by the Mayor), Town staff and other members, as appropriate. The Group will provide strategic guidance on implementation.
- *Climate Implementation Team*: This is an existing cross-departmental staff team that coordinates implementation of the Corporate Energy Program, Climate Change Adaptation Plan, and the Climate Lens process.
- *Halton Climate Collective*: This group has existed since 2015 and brings together representatives from Halton Region, local municipalities, school boards, conservation authorities and post-secondary institutions to drive climate action.
- *Halton Municipal Climate Team*: This group will bring together climate staff from the local municipalities and Halton Region to identify, collaborate and align actions.
- *Environment and Climate Advisory and Implementation Group*: A new community-led group to facilitate collaboration between the Town and external stakeholders.

Town staff will bring Terms of Reference for the recommended governance framework through a separate report. At this point, staff are seeking in-principal Council approval to move forward.

STRATEGIC PLAN ALIGNMENT:

This report aligns to the Town’s Strategic plan recognizing the value to preserve, protect and enhance our natural environment for the health benefits and enjoyment it provides to present and future generations.

This report also identifies climate change and the environment as one of the Town’s Strategic priorities.

RELATIONSHIP TO CLIMATE CHANGE:

This report helps address climate change and the Town's target to net zero through climate mitigation and corporate energy savings and helps address the Town's resiliency through climate adaptation.

PUBLIC ENGAGEMENT:

Public Engagement has been conducted throughout the development of the Low Carbon Transition Strategy, the Climate Change Adaptation Plan and other climate initiatives. This has included public workshops and open houses, as well as online surveys.

Extensive community engagement and participation on environmental and climate-related matters dates back to at least 2007.

INTERNAL CONSULTATION:

Internal consultation relating to the Town's environmental and climate change program and workplan is ongoing through project specific committees as well as the Town's Climate Change Implementation Team.

FINANCIAL IMPLICATIONS:

This report has the potential to require funding in a future budget year and therefore needs to be referred to budget committee for tracking purposes.

Reviewed and approved by,

Dharmen Dhaliah, Director of Climate Change & Asset Management

Damian Szybalski, Commissioner of Business, Environment & Culture

Chris Mills, Chief Administrative Officer