



## **REPORT**

**REPORT TO:** Mayor Rick Bonnette and Members of Council

**REPORT FROM:** Richard Cockfield, Director of Strategic Initiatives

**DATE:** December 9, 2019

**REPORT NO.:** ADMIN-2019-0035

**RE:** Climate Emergency Resolution Course of Action Report

### **RECOMMENDATION:**

THAT Report No. ADMIN-2019-0035, dated December 9, 2019, regarding Climate Emergency Resolution Course of Action, be received;

AND FURTHER THAT Council adopt the Low Carbon Resilience Framework detailed in this report as the basis for consolidating and coordinating the Town's current and future mitigation and adaptation initiatives;

AND FURTHER THAT Council direct staff to proceed with the development of a detailed Low-Carbon Transition Strategy, as detailed in this report;

AND FURTHER THAT Staff report back to Council in early 2020 to present the Terms of Reference for the Climate Change Action Task Force and a Work Plan for the Town's Low Carbon Resilience Framework.

### **BACKGROUND:**

On May 6th 2019, Halton Hills Council passed Resolution No. 15.1 which, among other things:

- Cited Canada's Changing Climate Report 2019 which concluded that Canada's annual average temperature has been increasing at a rate that is double the global average;
- Cited Halton Hills Report No. PLS-2019-0001 which confirms that Halton Hills will experience an increase in heat-stress illness, mortality and productivity in the future under the world's current "business as usual" greenhouse gas emissions trajectory;
- Declared a climate emergency for Halton Hills with the understanding that it is an emergency with no foreseeable conclusion and that addressing it will require permanent changes in the way the Town conducts business;

- Noted that the reduction of greenhouse gas emissions be deemed the highest priority for Halton Hills and that the goals of the Town's departments be realigned accordingly, recognizing that permanent and robust changes are needed in how the Town conducts its business;
- Requested that Town staff prepare a Staff Report for the June 25th 2019 Planning Public Works and Transportation Committee meeting outlining a recommended course of action; and
- Established a target for the Town of Halton Hills to become a net-zero municipality by 2030.

The June 25th Staff Report was deferred in order to allow Town Staff sufficient time to develop a considered response. In addition, a full day workshop was held with Senior Management and Council with a talk by Dianne Saxe, former Environmental Commissioner of Ontario, in order to provide information and context on the climate crisis and the Town's response to date.

### **COMMENTS:**

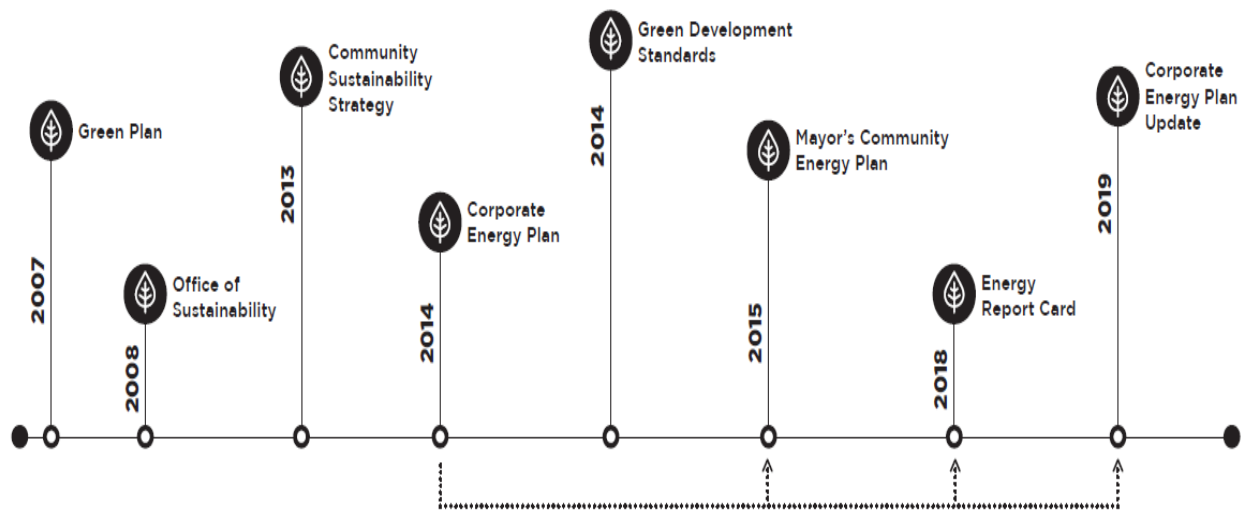
As of September 3, 2019, Halton Hills was among 470 municipal governments in Canada to have issued a climate emergency declaration. The Town is among over 30 Ontario municipalities to have issued climate declarations to date. Furthermore, on June 17, 2019, the Canadian Government passed a motion to declare a national climate emergency in Canada. There is increasing understanding at the national and local level of the urgency of taking action to address the climate crisis.

While we recognize the need for action to mitigate climate change, we must also prepare for the anticipated impacts associated with global warming. This report focuses on actions to reduce or remove greenhouse gas (GHG) emissions (mitigation) as well as actions to prepare for the impacts of climate change (adaptation) and recommends the Town adopt a Low Carbon Resilience Framework. By pursuing climate change mitigation and adaptation strategies through this Framework, the Town of Halton Hills aims to become a low-carbon resilient community.

The following report outlines the Town's longstanding efforts in GHG reduction, climate change adaptation and sustainability, and describes opportunities for accelerated implementation of existing, planned and new initiatives that align with the goals of the May 6th Climate Emergency Resolution.

### **1. Halton Hills Actions to Date**

The Town of Halton Hills has built a strong reputation as a leader in sustainability through the four pillars identified in the Integrated Community Sustainability Strategy: cultural vibrancy, environmental health, economic prosperity and social well-being. Many of the successful initiatives (see Appendix 1) include reducing our impact on the environment and climate change mitigation measures. Below is an illustration of the Town's Sustainability journey.



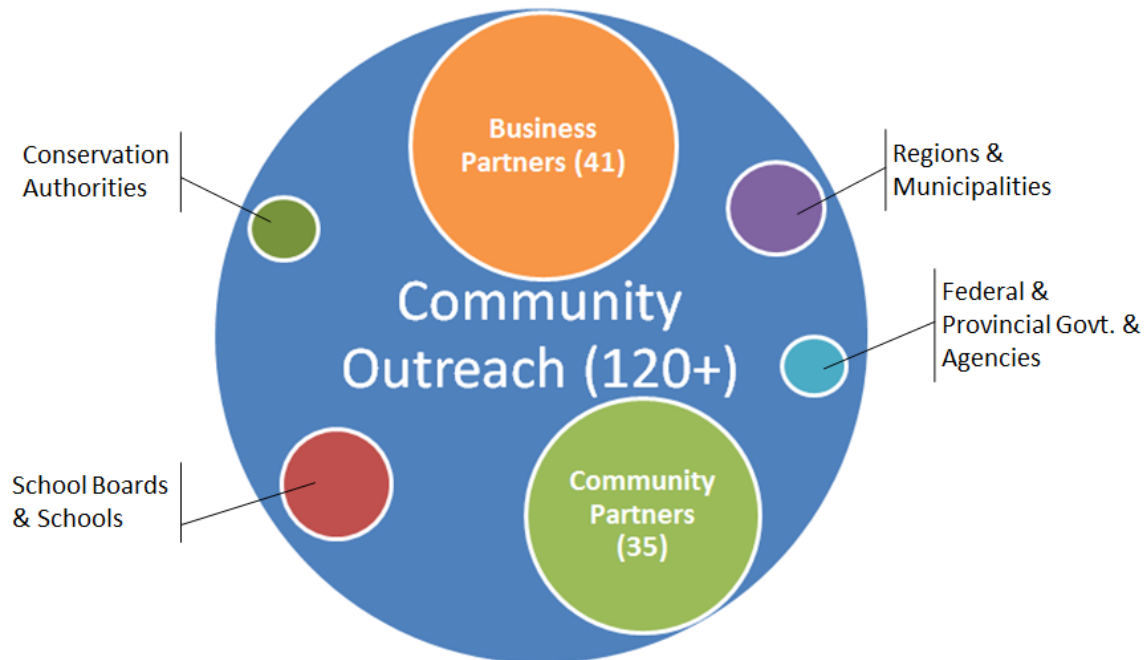
## 2. Accomplishments

Over the years, the Town of Halton Hills has achieved some remarkable accomplishments to make the community more sustainable and a place which has a high quality of life. Many initiatives have been targeting climate change at both the corporate and community levels. In 2017, the Town's leadership was recognized via an invitation for Mayor Bonnette to attend the Global Covenant of Mayors for Climate and Energy meeting of the C40 Cities Climate Leadership Group in Chicago. The Town of Halton Hills was one of only three Canadian municipalities invited to participate because of the Town's demonstrated climate change leadership. On behalf of the Town, the Mayor signed the Chicago Climate Charter committing to achieve a percent reduction in greenhouse gas emissions equal to or greater than Canada's nationally determined contributions to the Paris Agreement and to incorporate the realities of climate change and its impacts into local infrastructure and emergency planning through strategies of adaptation and resilience.

Additionally, through outreach, collaboration, innovation, research, policy development and the leveraging of existing initiatives, the Office of Sustainability has successfully delivered on energy management and conservation, highly efficient green development standards, and corporate and community engagement through education. These successes have been achieved through value-added strategic actions that have created a well-rounded solid approach to creating a resilient community. Some of the key accomplishments of the Town's initiatives are outlined in Appendix 2.

### 3. Strategic Outreach

Throughout the past ten years, the Town has strengthened partnerships and working relationships with different levels of government, community groups, agencies and businesses.



The Town and the community have established a solid foundation to create a sustainable, green, low carbon resilient community.

### 4. Town of Halton Hills' Low Carbon Resilience Framework

Following the May 6th Climate Emergency Declaration, the Town restructured the Office of Sustainability to create a Climate Change and Asset Management division. This new division reports to the Strategic Initiatives Department in the Office of the CAO with main mandate to focus and take action on climate change along with implementing its Corporate Asset Management program.

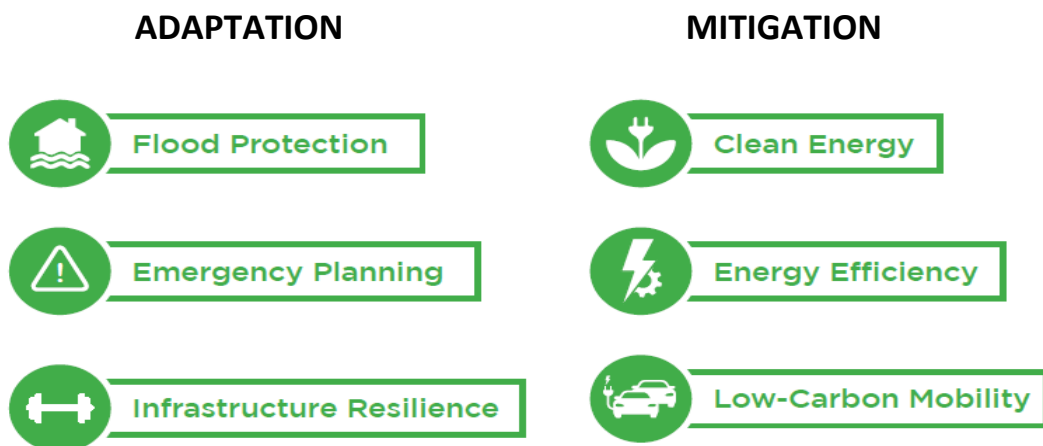
Among the first acts of the new Climate Change and Asset Management Division will be to develop an integrated framework and a work plan that will allow the Town of Halton Hills to put a greater focus on climate change. This framework will assist the Town in meeting the objectives of the Climate Emergency resolution while integrating with the Town's Corporate Asset Management Program and being in compliance with Ont. Reg. 588/17 Asset Management Planning for Municipal Infrastructure. The Town's assets and infrastructure play a critical role in combating climate change and building a low carbon resilient community. The proposed Low Carbon Resilience Framework will allow the Town to put on a climate change lens from both mitigation and adaptation perspectives when managing and making investment decisions on assets and infrastructure.

## **Adaptation and Mitigation**

Adaptation and mitigation are the key components of the Low Carbon Resilience Framework.

- Adaptation means increasing our ability to withstand the impacts that have already occurred and will occur as a result of climate change.
- Mitigation means reducing emissions of pollutants (GHGs) that cause climate change.

Adaptation and mitigation approaches need to be designed to benefit each other as effective mitigation can reduce climate impacts therefore reduce the level of adaptation required by a community. On the other hand, mitigation actions help to adapt to climate change, such as protecting and preserving the Town's natural assets and ecosystem. Each approach will comprise of a set of themes focused towards adaptation and mitigation programs and initiatives.



Collaboration and synergies between the two approaches will help to achieve successes and allow the Town to make the best decisions for the future.

The proposed Low Carbon Resilience Framework establishes a coordinated approach to Climate Change mitigation and adaptation, within two guiding strategies. For mitigation, initiatives will be organized under the forthcoming Low Carbon Transition Strategy (formerly the Mayor's Community Energy Plan), while adaptation initiatives will be organized within the Climate Change Resilience Strategy (formerly the Climate Change Adaptation Plan).

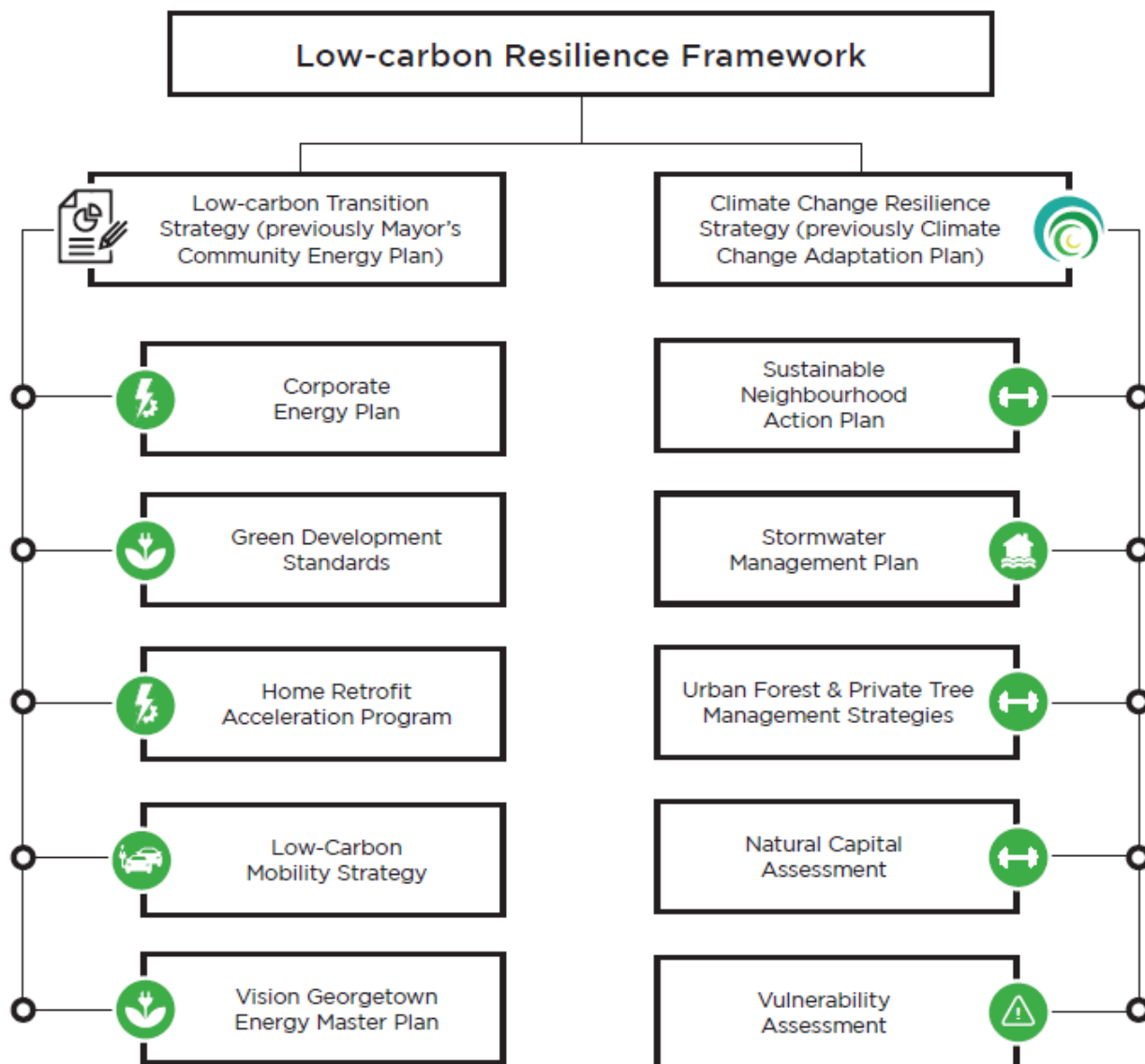
## **5. Implementing the Low Carbon Resilience Framework**

The Climate Change and Asset Management Division is proposing that all current and future initiatives be organized under the Low Carbon Resilience Framework, reflecting the anticipated outcome of a low-carbon resilient community in Halton Hills.

Furthermore, the goal of becoming a low-carbon resilient community will require alignment from all aspects of the Town's operations and decision-making. Therefore it is

proposed that the Town considers the Low Carbon Resilience Framework across all Town operations.

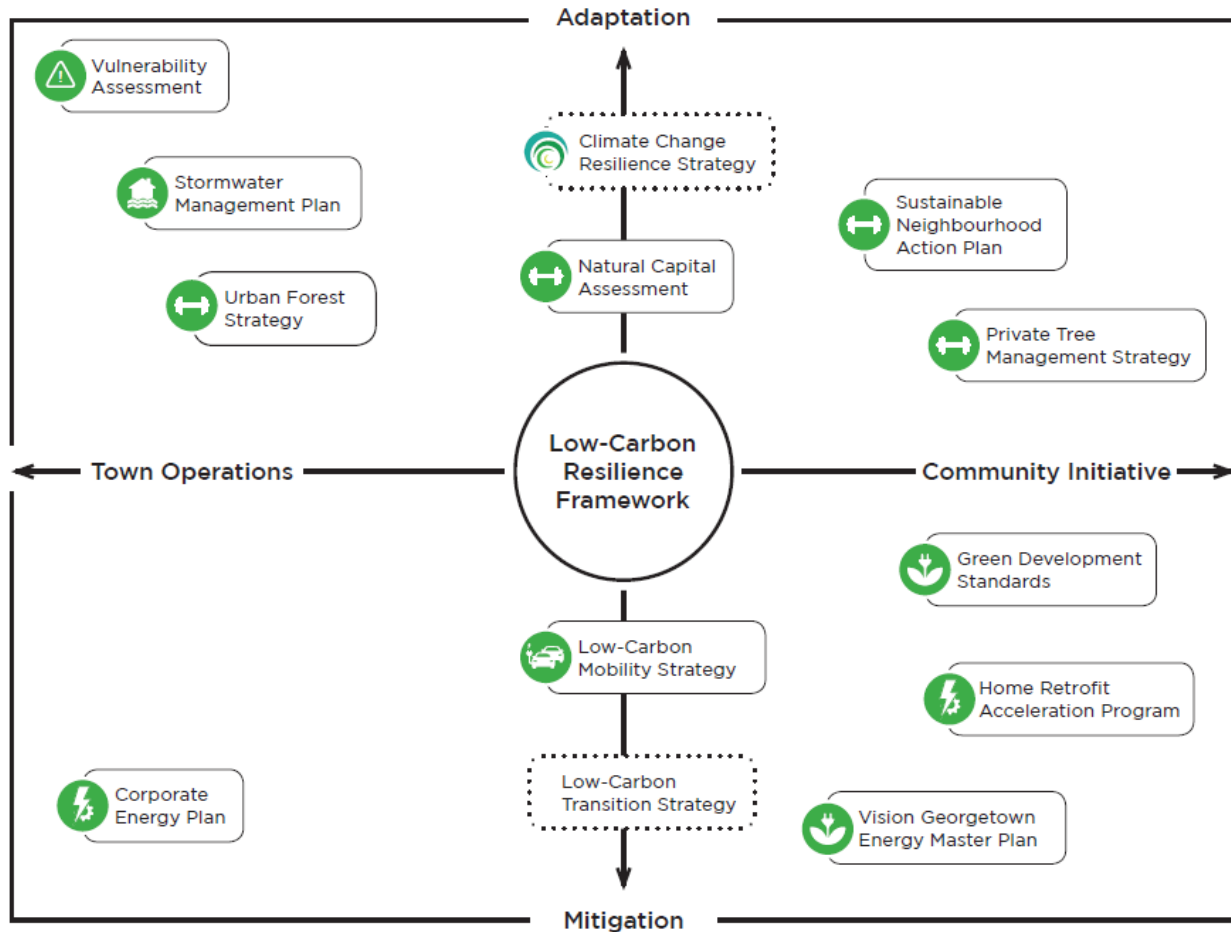
Within each of these guiding strategies the Climate Change and Asset Management Division and the Town will pursue a number of initiatives designed to implement aspects of the framework. Ongoing actions, detailed in Section 6, will be ordered within this framework, and a number of forthcoming initiatives, detailed in Section 7, will be added in the coming year.



Within the proposed Low Carbon Resilience Framework, initiatives and programs have been organized under either the Low Carbon Transition Strategy or the Climate Change Resilience Strategy, depending on the primary area of focus. However, the reality of the cross-cutting impacts of climate change means that all strategies within the framework will consider both mitigation and adaptation to some extent.

## 6. Ongoing Actions

All the initiatives within the framework are based on their relevance to either adaptation or mitigation and are primarily focused on either internal Town operations or community actions which require broader collaborations to implement. The graphic below includes ongoing and planned initiatives mapped according to whether their focus is primarily mitigation or adaptation and whether they primarily address Town operations or community initiatives to address climate change. Key to the success of the community initiatives will be a sustained public education and awareness campaign to engage residents and have citizen champions to advance climate change and take action.



As outlined in Council’s Climate Emergency Declaration, Council has established a target for Halton Hills to become a net-zero community by 2030.

Key ongoing actions and strategies that support the 14 recommendations in the May 6th Climate Emergency Declaration include:

### Urban Forest and Private Tree Management Strategies

Conserving, extending, and restoring healthy soils, forests, and natural heritage systems will allow Halton Hills to remove carbon from the atmosphere and store it as vegetation and soil organic matter. The Town is implementing a number of strategies

aimed at conserving and enhancing the capacity of existing natural systems to absorb carbon.

A key component of this strategy is protecting what is in place, and the Town is developing a Private Tree Management Strategy to ensure that our existing tree canopy is protected. This strategy will allow the community to take a balanced approach to preserving and enhancing our trees and ensuring that a healthy tree canopy continues to play an important role in mitigating and adapting to climate change.

The Town will also be introducing an Urban Forest Management Plan to ensure that the tree canopy on public lands remains healthy and continues to provide important cultural, recreational, and ecological services for residents. A tree planting program will also be initiated in 2020 in order to expand the existing canopy.

### **Vulnerability Assessment**

Through the Climate Change Adaptation Plan, a risk assessment was conducted for ten of the Town's facilities to assist in the identification and prioritization of actions that will increase the resilience of the facilities to future changes in climate. The assessment set out adaptation options for each facility.

### **Low-Carbon Mobility Strategy**

The Town will be pursuing strategies to increase uptake of electric vehicles in its own operations and to support the uptake of electric vehicles by residents. While many of the Town's existing fleet vehicles do not currently have available low-carbon models available – the Town will be closely monitoring emerging technologies and committing to purchase low-carbon technologies as vehicles reach end-of-life. At the same time, The Town will prepare for a future of low-carbon mobility by expanding the availability of electric vehicle charging infrastructure throughout Town owned facilities and parking lots.

### **Vision Georgetown Energy Master Plan**

The Energy Master Plan studied options for achieving the Town's energy and carbon reduction goals in the new Vision Georgetown secondary plan area, including a scenario aiming for net-zero carbon within the new development using a combination of high efficiency new construction, on-site renewables, and an appropriately sized district energy system where suitable demand exists.

### **Sustainable Neighborhood Action Plan (SNAP)**

This neighborhood-scale project will build capacity for residents of the Hungry Hollow areas to take action on their own property to reduce their impact on key natural heritage systems in Halton Hills. SNAP will advance recommendations for action to build resilience to climate change and enhance natural systems in alignment with Town plans, strategies and policies. SNAP will document engagement, restoration, and retrofit opportunities in the Delrex area north of Hungry Hollow.



## **Corporate Energy Plan**

The 2020-2025 Corporate Energy Plan (the Plan) constitutes the Town's second Energy Conservation & Demand Management Plan. It updates the 2014 Corporate Energy Plan and reaffirms the Town's commitment to energy management and efficiency with an emphasis on deep greenhouse gas (GHG) emissions reductions.

The focus of the Corporate Energy Plan is on getting the best out of the Town's existing assets, capital planning and organizational strengths while investing in facility upgrades with the best emissions reduction potential and highest returns on investment. The aim is to systematically introduce no/low-carbon decision-making while demonstrating substantial emissions reductions which position the Town on the right trajectory towards its goals.

The Corporate Energy Plan that sets out an ambitious 5-year program of energy efficiency retrofits, renewable energy projects, and low-carbon mobility strategies aimed at rapidly moving the Town's operations towards net-zero carbon by 2030.

## **7. New Initiatives (2020)**

While the Town has a long history of taking actions on climate change and a number of key ongoing efforts, we know that additional actions are necessary to meet the targets set out in the climate emergency declaration. The following new initiatives will be undertaken throughout 2020 in order to deepen and accelerate the Town's response to the climate crisis:

### **Storm Water Management Plan**

The development of a Stormwater Master Plan will begin in 2020. The Plan will provide an objective approach to sustainability, as well as the implementation and maintenance of stormwater management projects.

### **Climate Change Resilience Strategy (formerly Climate Change Adaptation Plan)**

The Halton Hills Climate Change Resiliency Strategy will establish actions that the community of Halton Hills can take to become more prepared for predicted climate changes and resilient to climate change impacts.

### **Green Development Standards Update**

The Town's Green Development Standards are key to achieving sustainable growth objectives in the community. The Standards are being updated throughout 2019-2020. This provides an opportunity for the Town to develop the tools that can be used to encourage and accelerate building construction that aligns with the Town's climate change goals.

### **Town of Halton Hills Home Retrofit Acceleration Program**

Existing buildings are responsible for nearly 50% of all emissions in the Greater Toronto-Hamilton Area. While the phase out of coal fired electricity has meant that emissions associated with electricity use have fallen, natural gas and other fossil fuels used for heating remain a significant source of emissions.

In order to address this source of emissions, we must develop a program to dramatically scale up the delivery of deep energy efficiency retrofits. To achieve this scale-up, in 2020 the Town will be initiating the deployment of a Home Retrofit Acceleration program, which will use a Property Assessed Payments for Energy Retrofits (PAPER) model to drive the rapid uptake of deep energy retrofits across the community.

### **Low Carbon Transition Strategy (formerly Mayor's Community Energy Plan)**

The Mayor's Community Energy Plan was adopted in 2015 and is planned to be updated in 2020. Staff are proposing to rename the Community Energy Plan to better reflect its function in the overall strategy to address climate change which is to create a low carbon transition strategy for the Town that incorporates both corporate and community actions. The Strategy will reflect the urgency associated with climate change as expressed through Council's Resolution.

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) re-emphasized the necessity of taking urgent action to limit global warming to 1.5 degrees Celsius (c). Keeping global warming at or below 1.5c will require unprecedented changes to global energy and economic systems in order to reduce carbon emissions to zero by at least 2050 and move towards negative emissions by the second half of the century. Such rapid reductions in emissions calls for rapid changes to energy systems, land use, transportation, and buildings. Significantly improving energy efficiency, transitioning away from fossil fuels, and restoring natural systems that sequester carbon are all essential to a rapid transition to a post-carbon future.

While the Town will play a key role in accelerating action in these areas, the Town cannot achieve this transition alone. Local Utility companies, the development and building industry, financial institutions, community organizations, unions, private residents, and other stakeholders will all have a role to play in implementing the necessary actions. The Town will take a leadership role in its own operations, implement plans and policies, provide incentives, and convene key stakeholders – but large parts of the transition will require a collective effort from multiple stakeholders in the community.

In order to achieve the rapid transition to a low-carbon community, the Town will need to develop a detailed implementation strategy that focuses on driving transformative change. With that in mind, the report proposes refocusing the planned update to the Mayor's Community Energy Plan towards a comprehensive Low Carbon Transition Strategy, which will be developed through a collaborative planning effort involving the whole Halton Hills community. This plan will develop a set of strategies that can accelerate action in key areas where we can have the biggest impact such as energy efficiency, low-carbon heating and cooling, low-carbon mobility, and community energy systems.

The main barrier to accelerating action on climate change is not primarily a technical one and the technological solutions are fairly well understood at this point. Rather, failure to put those solutions into place is primarily a challenge of governance. In order to drive the transition in key areas, the Town may have to take on new roles and responsibilities and develop organizational structures and agencies that can empower residents to take action themselves. Therefore, a primary focus of the proposed Low Carbon Transition Strategy will be working with the Climate Change Action Task Force, through a process of citizen driven collaboration and co-creation, to articulate a governance strategy and an institutional framework which can harness the power of social groups, collectives, and networks to drive the deep structural changes necessary to achieve a low-carbon, resilient community by 2030.

## **8. Funding and Governance**

In order to ensure that the goals of the Climate Emergency Declaration are met, the Town will need to focus greater efforts on establishing effective governance strategies for climate action as well as targeting additional funding towards implementation. The initiatives described below set out some initial steps in this direction. Additional funding streams and governance frameworks will be identified through the Low Carbon Resilience Framework and the Low Carbon Transition Strategy as needed.

### **Community Sustainability Investment Fund**

Through the Community Sustainability Investment Fund the Town provides micro grants to local organizations to engage in programs, events, and investments that further the Town's sustainability goals. Moving forward, the selection criteria for this fund will place greater emphasis on climate change mitigation and adaptation actions, and staff will investigate the potential to expand this program to include targeted investment in local efforts to accelerate climate action by community groups, local businesses, and residents in Halton Hills.

### **Climate Change Action Implementation Program**

In light of the May 6th Climate Emergency Declaration, the Town has set aside dedicated funding to undertake climate change mitigation initiatives. While it is important that the Town, residents, and other stakeholders collaborate on a strategic approach to climate action – action is required now to make change. The Climate Change Action Implementation Program ensures that the Town is ready to take swift action to address the climate crisis.

### **Climate Change Action Task Force**

The establishment of a Climate Change Action Task Force will assist Council and the residents of the Town of Halton Hills in promoting the Low-Carbon Resilience Framework. Partnerships will be created with stakeholders, residents and community groups to champion climate change actions in response to the Halton Hills' Climate Change Emergency Declaration signed by Town Council in May 2019.

## **RELATIONSHIP TO STRATEGIC PLAN:**

This report was written in direct response to Council's May 6th Climate Change Emergency Declaration which called for the development of a staff report recommending a course of action and also supports the climate mitigation and adaptation goals contained in Council's strategic plan.

## **FINANCIAL IMPACT:**

The financial impact will be determined once work plan and final approved actions are decided upon.

## **CONSULTATION:**

Senior management, strategic planning and staff were consulted during the development of this report

## **PUBLIC ENGAGEMENT:**

The recommendations in this report if supported by Council, will involve the development and implementation of a comprehensive community engagement process to generate a community of excitement on transitioning Halton Hills to a zero carbon community. Extensive public engagement, marketing, monitoring and reporting will be necessary on an ongoing basis as this transition occurs.

## **SUSTAINABILITY IMPLICATIONS:**

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The recommendation outlined in this advances the Strategy's implementation.

This report supports all the pillars of Sustainability and in summary the alignment of this report with the Community Sustainability Strategy is excellent.

## **COMMUNICATIONS:**

There are no immediate communications impacts associated with this report. As part of the development of the Low Carbon Resilience Framework, staff will report back in 2020 on initiatives to engage, educate and raise awareness in the community on actions to advance the Town's objectives on climate change.

## **CONCLUSION:**

The Town of Halton Hills has now set one of the most ambitious emissions reduction targets in North America. Meeting this goal will involve a series of fundamental shifts. The transition to a post-carbon future will be challenging and will require swift but careful action. Failure to act will have significant impacts on our communities, impacts that are already beginning to be felt in a number of areas.

The good news is that this transition to a low-carbon resilient community will create a healthier, greener, more connected, and more secure future for everyone. In order to achieve this future, there is much that this community will need to figure out collectively over the coming months and years. This report outlines a number of key steps Halton Hills can take to begin this transition together.

Reviewed and Approved by,

A handwritten signature in black ink that reads "Brent Marshall". The signature is written in a cursive, flowing style with a large initial 'B'.

**Brent Marshall, Chief Administrative Officer**