



Staff Report for Committee of the Whole Meeting

Date of Meeting: June 19, 2018

Report Number: SRPRS.18.147

Department: Planning and Regulatory Services

Division: Policy Planning

Subject: **SRPRS.18.147 – Proposal to Advance Richmond Hill’s Climate Change Mandate**

Purpose:

The purpose of this staff report is to outline a proposal for advancing Richmond Hill’s climate change mandate through the development of a Climate Change Framework and a Community Energy & Emissions Plan.

Recommendation(s):

- a) That Council endorse the advancement of Richmond Hill’s climate change mandate, as outlined in SRPRS.18.147, through the development of a:
 - (i) Climate Change Framework; and
 - (ii) Community Energy & Emissions Plan;
- b) That Council approve a capital budget of \$510,000 from the Cash to Capital Reserve Fund to develop the Climate Change Framework and the Community Energy & Emissions Plan in accordance with SRPRS.18.147.

Contact Person:

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Report Approval:

Submitted by: Kelvin Kwan, Commissioner of Planning and Regulatory Services

Approved by: Neil Garbe, Chief Administrative Officer

All reports are electronically reviewed and/or approved by the Division Director, Treasurer (as required), Town Solicitor (as required), Commissioner, and Chief Administrative Officer. Details of the reports approval are attached.

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Introduction:

Once considered a global issue, the impacts of climate change are being felt in cities and towns around the world including Richmond Hill. In Canada, all levels of government have established legislation and programs to reduce greenhouse gas emissions (mitigation) and increase resiliency among communities (adaptation)¹. Richmond Hill Council's support for addressing climate change is well established. Since 2000, Richmond Hill has been a member of the Federation of Canadian Municipalities' Partners for Climate Protection Program and Council has endorsed declarations by the Association of Municipalities of Ontario (Council C#06-16, February 22, 2016) and the Clean Air Council partnership (Council #42-15, October 13, 2015) to recognize the role municipalities play in addressing climate change. While the Town has made great strides in environmental protection, conservation and sustainability, a coordinated approach and direction for tackling climate change is needed.

The purpose of this staff report is to outline a proposal to advance Richmond Hill's climate change mandate. The staff report identifies: why climate change is important to Richmond Hill; the proposed initiatives to advance Richmond Hill's climate change mandate; and the resources needed to develop these initiatives. By undertaking the development of a Climate Change Framework and a Community Energy & Emissions Plan (CEEP), the Town will be able to consider local impacts, meet our legislative and municipal obligations, become eligible for funding, and better manage our resources and risks.

Why Climate Change is Important to Richmond Hill

There are a number of reasons why acting on climate change is important to Richmond Hill: 1) local impacts; 2) legislative requirements; 3) grant funding eligibility; and 4) wise management of resources and risks.

Local Impacts

From a municipal leadership and stewardship perspective, the Town is responsible for the well-being of its community and services including how we manage local impacts from climate change. While environmental issues have always been on the community's radar, most of our policies and actions have focused largely on environmental protection and conservation. Public consultation and community survey feedback over the past decade have shown that Richmond Hill's residents value an environmentally sustainable community while maintaining their quality of life and services. Protecting the environment, parks, pathways and open spaces rank highly along with services

¹ Climate change 'mitigation' refers to actions (e.g. pedestrian and transit-oriented development, cycling, renewable energy and conservation) that reduce greenhouse gas emissions so that we can lessen the rate of global warming and impacts from climate change. Climate change 'adaptation' refers to actions (e.g. stormwater management, urban forest restoration, resilient building design, emergency warming and cooling centres) that help prevent or reduce damage and risks from climate change such as severe weather events and environmental stress.

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such as fire protection, libraries, water systems, waste collection, recreation facilities and programs, roads and sidewalks. Corporate plans and programs, such as the Strategic Plan, Official Plan, Environment Strategy and ISO 14001 Environmental Management System, have been responsive to those environmental goals and priorities and related actions have been successfully implemented.

More recently, however, local impacts from climate change have become a reality and threaten the Town's ability to maintain future service levels and the health of our community and environment. In the past five years, Richmond Hill and surrounding areas have been affected by severe weather events such as ice storms, heat waves, sporadic freeze-thaw cycles, wind storms and heavy rainfalls. According to the Climate Trends and Future Report for York Region and other climate projection studies in the Greater Golden Horseshoe, by the year 2050 maximum summer temperatures will increase to about 39-40°C and minimum winter temperatures will continue to increase and fluctuate causing more snow-rain-ice mix. By the year 2080, the frequency of extreme heat days (over 30°C) will increase five times from the current average of 12 days per year to 62 days annually, while extreme precipitation events will increase by as much as 22%. Impacts such as damage to infrastructure, power outages, heat stroke, vector-borne diseases, flooding and extra strain on staff and resources have already been felt under current conditions and are anticipated to grow under changing climate conditions. From a municipal perspective, climate change will increase: our risks to health and safety of life and property; our need to respond to emergencies and service disruptions; the frequency and cost of capital repair and maintenance; and liabilities related to the above.

Legislative Requirements

As a local government, Richmond Hill is obligated to meet statutory and regulatory requirements to help address climate change. Federal and provincial policy direction now requires municipalities to play a key role in addressing climate change. As part of Ontario's Climate Change Strategy and Action Plan, the Province has established greenhouse gas (GHG) reduction targets and requires a climate change lens to be applied to a variety of government policies and programs. For instance, under Ontario Regulation #588/17, municipalities are required to update their Municipal Asset Management Plans by January 1, 2022 and incorporate risk analysis and lifecycle management strategies that consider climate change impacts and actions.

Under the provincial land use planning system, climate change has been declared a provincial and municipal interest (changes to the *Municipal Act* enable municipalities to pass by-laws in support of climate change). Accordingly, the *Planning Act* and Provincial Policy Statement, 2014 (PPS) require planning authorities to have regard for climate change when making policies and decisions. Under the Growth Plan for the Greater Golden Horseshoe, 2017 municipal Official Plans (OP) are required to incorporate climate change policies supported by GHG inventories and targets by July 1, 2022 (upper-tier and single-tier) and July 1, 2023 (lower-tiers).

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Grant Funding Eligibility

From a financial perspective, taking action on climate change would help broaden the Town's eligibility to receive grants from the federal and provincial governments. Currently, the Province has a Municipal Energy Plan (MEP) program to help supplement up to \$90,000 of eligible costs to develop a Community Energy & Emissions Plan. The Federation of Canadian Municipalities (FCM) Innovation Fund is a relatively new program that is periodically available to help supplement staff costs to develop municipal climate change action plans. This latter program has received substantial interest from municipalities which led FCM to release and close the first round of applications in the fall of 2017 early. Due to overwhelming demand, the second round released in the spring of 2018 has been limited to smaller size municipalities with populations less than 100,000. It is hoped that the next submission window will open up eligibility again to mid-size municipalities such as Richmond Hill.

Another important consideration is the availability of funding for municipalities to implement projects linked to a municipal climate action/energy plan and which impose funding deadlines. The Province's Municipal GHG Challenge Fund, for instance, gives higher scores to municipalities that have completed a community-wide GHG emissions inventory, target and plan and to projects that align with municipal GHG emissions planning. The Challenge Fund has received a large number of applications, and projects granted under the current submission window must begin by July 2019 and be completed by 2022.

Wise Management of Resources and Risks

Last but not least, the wise management of resources and risks necessitates applying a climate change lens to the Town's policies, practices and programs. In addition to conformity requirements for our Municipal Asset Management Plan and Official Plan, other provincial guidelines direct municipal plans and activities to incorporate climate change considerations. Some of the current updates to corporate plans and studies that could mutually benefit from climate change data and direction include the Sustainability Metrics Update, the Environmental Management System registration under the new ISO 14001 standard, the Transportation Master Plan, the Urban Forest Management Plan, the Comprehensive Zoning By-law, and the Emergency/Business Continuity Plan. Examples of other guiding documents to be updated in the coming years include the Environment Strategy, the Strategic Plan, and other initiatives flagged for further investigation such as the Stormwater Vulnerability Risk Assessment.

Recently, staff representatives from all departments participated in a high-level corporate climate change risk scan and a scoping workshop led by the Town's Sustainability Section in partnership with the Toronto Region and Conservation Authority's Ontario Climate Consortium. These exercises revealed the types of risks and stresses the Town has begun to experience and will likely continue to experience as a result of climate change impacts. Significant consequences, if not addressed, included rising financial costs and threats to business continuity. Discussions from these workshops also underscored the need to develop a central and coordinated approach to

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climate change that would provide direction for both adaptation and mitigation. While high priority risks for adaptation were identified, it was recognized that more information is needed to understand how Richmond Hill's community uses energy and produces GHG emissions in order to develop effective mitigation policies and practices. The Province's new guideline for municipalities to develop a Community Energy & Emissions Plan works to address this gap and is consistent with updated requirements under the Growth Plan and under FCM's Partners for Climate Protection Program.

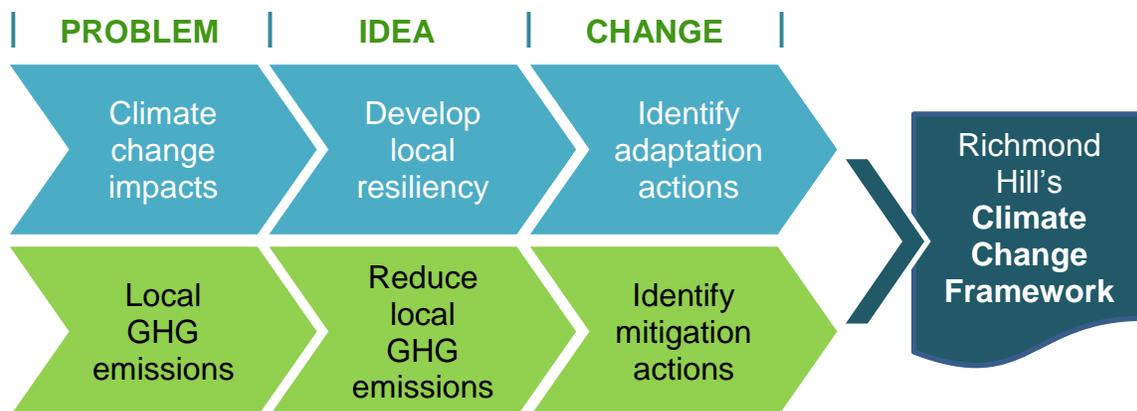
Proposed Initiatives to Advance Richmond Hill's Climate Change Mandate:

In addition to the reasons noted above, background work completed through several inter-departmental workshops confirmed the need to advance Richmond Hill's climate change mandate through two proposed initiatives: 1) Climate Change Framework; and 2) Community Energy & Emissions Plan.

Climate Change Framework

In order to advance Richmond Hill's climate change mandate, we need to develop a Climate Change Framework that identifies priorities for adaptation and mitigation. Figure 1 illustrates how the main problem is two-fold.

Figure 1 – Richmond Hill's Climate Change Mandate



First, we know that climate change conditions are causing impacts to infrastructure, services, health and safety, and natural habitat. In order to address this problem, we need to understand how to develop resiliency to climate change impacts. By identifying where the Town is most at risk, we can develop and establish 'adaptation' actions to make our community more resilient.

Second, we know that our activities and the way we plan our communities result in greenhouse gas (GHG) emissions that contribute to climate change, which threatens our quality of life. In order to address this problem, we need to understand how to reduce GHG emissions corporately and within our community. By identifying the best

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opportunities for ‘mitigation’ of GHG emissions, Richmond Hill’s actions can help lessen the impacts of climate change.

The proposed Climate Change Framework would be a simple, umbrella document that outlines:

- Key messages (why it’s important, what we want to achieve);
- Municipal obligations (legislative requirements, municipal stewardship); and
- Priorities for adaptation and mitigation (what we already do, major gaps to address through updates or new initiatives).

The main purpose of the Climate Change Framework would be to articulate and document Richmond Hill’s central and coordinated approach to addressing climate change. Although the Town has undertaken several initiatives that benefit GHG reduction and resiliency, it lacks official direction and guidance on climate change priorities and how to address municipal obligations through our various plans and programs. The framework will help inform and align other corporate initiatives against a climate change lens and provide a foundation for pursuing resources and funding as needed. By prioritizing our adaptation and mitigation actions, the framework will help us better manage our risks, reduce GHG emissions and achieve savings and limit costs in the long run.

Community Energy & Emissions Plan

According to FCM, municipalities have direct/indirect control over 50% of Canada’s GHG emissions. Local matters, such as land use planning and regulation, building design, parks and open space, public transit, roads and stormwater infrastructure, all have an impact on the way our community produces GHG emissions. The Province has established provincial GHG reduction targets of 15% (by 2020), 37% (by 2030) and 80% (by 2050) below 1990 levels and municipalities are expected to play a key role in helping to meet those targets. To support municipalities in meeting their obligations under the Growth Plan and under Ontario’s Climate Change Action Plan, the Province released *Community Emissions Reduction Planning: A Guide for Municipalities* to help municipalities develop their own Community Energy & Emissions Plan (CEEP).

The proposed CEEP would be a comprehensive municipal study and action plan to reduce GHG emissions through six stages and outcomes:

- 1) Preparation (terms of reference, situational analysis, current planning context);
- 2) Inventories (GHG corporate and community inventory, spheres of influence analysis, financial inventory);
- 3) Target setting (GHG targets);
- 4) Actions and alternative scenarios development (actions catalogue, scenarios, analysis of co-benefits);

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- 5) Implementation (policies and mechanisms analysis, integration with OP and other municipal plans/policies/strategies, investment strategy); and
- 6) Monitoring and evaluation (monitoring and evaluation plan).

The main purpose of the CEEP is to help municipalities understand their influence on GHG emissions and plan their communities to reduce emissions in alignment with other community goals. Building on the Town's current GHG reporting and previous milestones for FCM's Partners for Climate Change program, the CEEP would establish a framework for taking inventory of Richmond Hill's corporate and community emissions but with a comprehensive approach to identifying patterns, trends and opportunities through mapping and spatial analysis. The proposed CEEP approach would consider the relationship between land use planning and community energy use and emissions, including the long-term impacts (e.g. 30-100 years) of community development patterns and changes in transportation.

As part of fulfilling Richmond Hill's climate change mandate, the CEEP would enable the Town to develop climate change mitigation policies and actions required in the Official Plan, the Municipal Asset Management Plan, and other major corporate initiatives such as the Sustainability Metrics. Currently, the Town is not eligible for grants under funding programs that require up-to-date GHG inventories, targets and policies. Development of a CEEP would strengthen the Town's funding applications for projects that reduce GHG emissions and which may also have co-benefits (e.g. energy retrofits in existing buildings, supporting transportation alternatives such electric vehicles, enhancements to the urban forest canopy, etc.).

In the Greater Golden Horseshoe, the majority of upper and single-tier municipalities (e.g. Durham, Peel, Toronto, Hamilton) have completed a climate action plan to address adaptation and/or mitigation. York Region has initiated the development of a Regional Climate Change Action Plan and the development of a Community Energy & Emissions Plan as part of its municipal comprehensive review. Lower-tier municipalities in York Region that have completed a climate action plan and/or community energy plan include Vaughan, Markham, Newmarket, East Gwillimbury and Aurora (underway). Most of these municipalities were able to take advantage of federal and provincial funding and have since leveraged those plans to obtain grants for pilots and other implementation projects.

Resources Needed to Develop a Climate Change Framework and Community Energy & Emissions Plan:

In order to develop a Climate Change Framework and Community Energy & Emissions Plan (CEEP), this staff report proposes the following considerations and requests for resources: 1) staff and consulting resources; 2) cost; and 3) timing.

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Staff and Consulting Resources

Since the development of Ontario's Climate Change Strategy in 2015, the Town's Sustainability section has monitored and prepared responses to emerging legislation, shared information about new requirements, and participated in climate change networks such as York Region's Joint Municipal Climate Change Working Group, the Clean Air Council of the Greater Toronto and Hamilton Area, and the Clean Air Council Summits. In the past nine months, the Sustainability team has worked with the Ontario Climate Consortium in collaboration with other Town staff on background work to identify high priority risks for the Town, opportunities for adaptation, and major functional areas to focus mitigation and adaptation efforts.

Further advancing Richmond Hill's climate change mandate in addition to the group's other corporate priorities (e.g. Environment Strategy, environmental education and outreach) is not feasible under the group's existing structure. The Sustainability Section's current staff complement includes one manager, one full-time environmental education & engagement coordinator, and a part-time intern. Staff resources and consulting expertise are required to undertake: the more detailed review and consultation to develop Richmond Hill's Climate Change Framework; and the comprehensive inventory, consultation and data analysis required for the CEEP.

This staff report proposes the hiring of a contract Project Manager to oversee the advancement of Richmond Hill's climate change mandate and the hiring of a consultant to help the Town develop its Community Energy & Emissions Plan.

Cost

The estimated cost of a Project Manager on contract for two years to oversee both initiatives is \$310,000. In addition, the Province's Community Emissions Reduction Planning guideline indicates that a Community Energy & Emissions Plan for a mid-size municipality like Richmond Hill would cost approximately \$200,000. Anticipated expenses for the CEEP include hiring a consultant, acquiring data for the inventory, carrying out public and stakeholder consultation, developing energy mapping and analysis, preparing the report and recommendations, and establishing a monitoring framework. The Sustainability Section's existing consulting contracts budget is \$15,000. This amount is typically used to pay for design and publishing of educational materials, research assistance and ad hoc workshops. Even without these costs, the current amount is insufficient to cover the cost of developing a Climate Change Framework and CEEP.

This staff report proposes a total capital budget of \$510,000 to cover the cost of developing the Climate Change Framework and the Community Energy & Emissions Plan, including the cost of hiring a Project Manager for two years as well as a consultant.

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Timing

Representatives from the Ministry of Energy and the Ministry of Environment & Climate Change advise that it takes approximately two years for a municipality to complete a CEEP. Formerly identified as the Community Energy Plan, the CEEP was first flagged as a capital project following adoption of the Town's OP and is identified in the Strategic Plan Implementation Plan and Environment Strategy to begin in 2019. A related Project Manager position was also identified for 2019 in the three-year staffing outlook. The request to obtain budget and staffing for the proposed initiatives, however, is being brought forward as a mid-year ask to enable the projects to commence in the fall of 2018 and be completed by the fall of 2020.

This staff report recommends that the capital budget required to begin the proposed initiatives be approved in 2018 for the following reasons:

- a) Timing and availability of funding programs – Due to unexpected demand from municipalities developing and implementing their own climate change action/energy plans, some of the available funding programs have begun to limit their application windows and impose stricter criteria. Initiating the Climate Change Framework and CEEP sooner would enable the Town to take advantage of these funding programs and begin the foundational work necessary to qualify future implementation projects for climate change funding;
- b) Timing of conformity deadlines - The Town's Official Plan and Municipal Asset Management Plan are required to incorporate climate change policies and considerations into their updates. Given the two-year timeframe to develop a CEEP, starting the projects in 2018 would ensure that any recommendations for climate change policies and actions will be available to inform the start of these updates; and
- c) Timing of York Region's Climate Change Action Plan and CEEP – The Region began their climate change initiatives in 2017 and expects to complete them by the end of 2019. Starting the Town's climate change projects earlier would allow Richmond Hill's framework and CEEP to align with regional direction, while still providing an opportunity for input into the Region's process.

Summary of Proposals and Next Steps:

The proposal to advance Richmond Hill's climate change mandate, as outlined in this staff report, includes the following:

- Development of a Climate Change Framework to provide a coordinated approach to identifying priorities for adaptation and mitigation;
- Development of a Community Energy & Emissions Plan to understand and recommend opportunities for reducing GHG emissions in the corporation and within the community;

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- Budget request for \$510,000 to hire a Project Manager on contract for two years and a consultant to develop the Climate Change Framework and the Community Energy & Emissions Plan.

If Council approves the recommendations outlined in SRPRS.18.147, the following steps would be taken throughout the summer/fall of 2018:

- Staff submission of funding grant applications to help supplement the cost of developing the framework and CEEP;
- Posting and recruitment for the contract Project Manager position;
- Preparation of work plans for the proposed initiatives as well as a draft Terms of Reference for the CEEP;
- Initiation of procurement process to hire a consultant for the CEEP.

Financial/Staffing/Other Implications:

As outlined in the previous sections, the proposed initiatives described in SRPRS.18.147 have financial implications.

The estimated total cost of developing the Climate Change Framework and the Community Energy & Emissions Plan (CEEP) is \$510,000. This amount would cover the cost of developing both projects, hiring a consultant for the CEEP, and hiring a Project Manager on contract for two years to oversee the development of these initiatives. Although the CEEP and a related Project Manager position are identified in the Strategic Plan Implementation Plan and three-year staffing outlook to begin in 2019, there is currently no dedicated funding source for these initiatives. It is recommended that the Cash to Capital Reserve Fund be used to cover the \$510,000 cost and that, if MEP funding becomes available, the equivalent amount of the funded portion be returned to the Reserve Fund.

Relationship to the Strategic Plan:

Richmond Hill's efforts to advance climate change mitigation and adaptation measures in the Town support the Strategic Plan's goal of *wise management of resources* and *better choices*. By promoting initiatives that reduce GHG emissions, the proposal to advance Richmond Hill's climate change mandate encourages the planning of energy efficient buildings, renewable energy, water conservation and low emissions vehicles. As a co-benefit, it also supports the creation of improved live-work balance and quality of life through the planning of sustainable, low carbon communities with access to sustainable transportation alternatives, greenspace and a healthy urban canopy. Likewise, proposed initiatives to increase resiliency against the impacts of climate change demonstrate the Town's willingness to prepare for necessary infrastructure projects, ensure residents have continued access to Town services, and act responsibly as a role model for municipal management.

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Conclusion:

As outlined in this staff report, SRPRS.18.147 recommends that Council approve the advancement of Richmond Hill's climate change mandate through the development of a Climate Change Framework and a Community Energy & Emissions Plan (CEEP). By advancing the Town's climate change mandate, Richmond Hill will be better equipped to manage local impacts from climate change, meet new legislative requirements, become eligible for funding grants, and ensure the wise management of resources and risks. While Council support to address climate change has been evident throughout the years, a central and coordinated approach to identifying priorities for climate change is needed. The proposed Climate Change Framework would be a simple umbrella document that clarifies the Town's interests, our municipal obligations, and our priorities for adaptation and mitigation through key functional areas. The proposed Community Energy & Emissions Plan (CEEP) would be a comprehensive municipal study and action plan to help Richmond Hill understand and reduce greenhouse gas emissions within the community and our corporation. The CEEP is the Province's recommended approach for municipalities to meet new Official Plan conformity requirements under the Growth Plan for the Greater Golden Horseshoe and to help meet emission reduction targets under Ontario's Climate Change Action Plan. To develop these proposed initiatives, a capital budget of \$510,000 is recommended to cover the costs of developing the proposed initiatives including the cost of hiring a Project Manager on contract for two-years and a consultant. If approved, staff will proceed with submitting funding grant applications, initiating the recruitment process, and preparing the workplans and draft terms of reference.

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Report Approval Details

Document Title:	SRPRS.18.147 - Proposal to Advance Richmond Hill's Climate Change Mandate.docx
Attachments:	
Final Approval Date:	Jun 1, 2018

This report and all of its attachments were approved and signed as outlined below:

Patrick Lee - Jun 1, 2018 - 12:53 PM

Kelvin Kwan - Jun 1, 2018 - 12:55 PM

David Dexter - Jun 1, 2018 - 2:13 PM

Neil Garbe - Jun 1, 2018 - 3:45 PM