

November 17, 2017

Ms. Kimberley Kitteringham
City Clerk
City of Markham
101 Town Centre Boulevard
Markham, ON L3R 9W3



Dear Ms. Kitteringham:

Re: Creating a Regional Climate Change Action Plan


Regional Council, at its meeting held on November 16, 2017, adopted the following recommendations of Committee of the Whole regarding "Creating a Regional Climate Change Action Plan":

1. Council endorse this report as the Region's framework and timeline (see Figure 2) for developing a Regional Climate Change Action Plan.
2. Council authorize staff to apply for funding to support development of the Regional Climate Change Action Plan.
3. The Regional Clerk forward this report to the Ministry of Municipal Affairs, Ministry of the Environment and Climate Change, Ministry of Energy and the Clerks of the local municipalities.

A copy of Clause 6 of Committee of the Whole Report No. 16 is enclosed for your information.

Please contact Paul Freeman, Director of Long Range Planning at 1-877-464-9675 ext. 71534, Laura McDowell, Director of Environmental Promotion and Protection at ext. 75077 or Teresa Cline, Senior Planner at ext. 71591 if you have any questions with respect to this matter.

Sincerely,



Christopher Raynor
Regional Clerk

/S. Dumont
Attachments

Clause 6 in Report No. 16 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on November 16, 2017.

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Creating a Regional Climate Change Action Plan

1. Receipt of the deputation by Helen Chen and Katherine Gotovsky, iMatter Youth Movement and referral of the proposed “Climate Inheritance Resolution” to staff.
2. Adoption of the following recommendations contained in the report dated October 27, 2017 from the Commissioner of Corporate Services and Commissioner of Environmental Services and Chief Planner:
 1. Council endorse this report as the Region’s framework and timeline (see Figure 2) for developing a Regional Climate Change Action Plan.
 2. Council authorize staff to apply for funding to support development of the Regional Climate Change Action Plan.
 3. The Regional Clerk forward this report to the Ministry of Municipal Affairs, Ministry of the Environment and Climate Change, Ministry of Energy and the Clerks of the local municipalities.

Report dated October 27, 2017 from the Commissioner of Corporate Services and Commissioner of Environmental Services and Chief Planner now follows:

1. Recommendations

It is recommended that:

1. Council endorse this report as the Region’s framework and timeline (see Figure 2) for developing a Regional Climate Change Action Plan.
2. Council authorize staff to apply for funding to support development of the Regional Climate Change Action Plan.

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3. The Regional Clerk forward this report to the Ministry of Municipal Affairs, Ministry of the Environment and Climate Change, Ministry of Energy and the Clerks of the local municipalities.

2. Purpose

This report seeks Council approval regarding a framework and high level timeline for the preparation of a Regional Climate Change Action Plan.

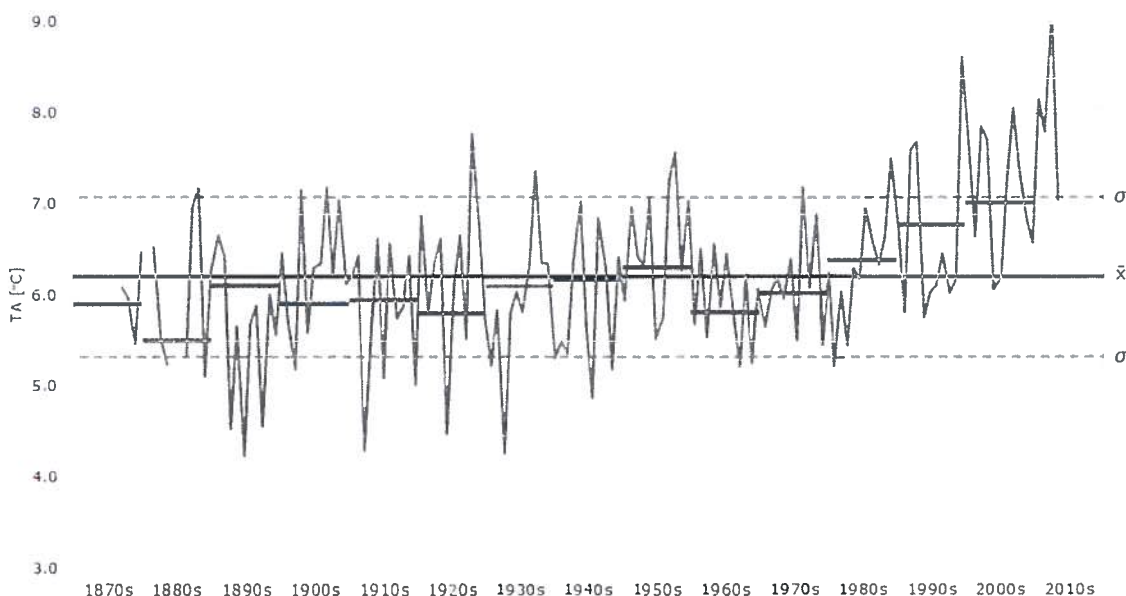
3. Background and Previous Council Direction

York Region is experiencing impacts of a changing climate

York Region is experiencing impacts of a changing climate with winters getting shorter, annual average temperatures growing warmer and an increasing number of extreme weather events. Figure 1 shows the increase in annual average air temperature that has occurred in the Lake Simcoe Watershed over the last thirty plus years.

Figure 1

Annual Average Air Temperature in the Lake Simcoe Watershed



Source: Lake Simcoe Conservation Authority/Environment Canada

Climate information tells us that the frequency and severity of extreme weather

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events will continue to increase over time. Communities in York Region will likely continue to experience impacts and service disruptions as a result of extreme weather events such as intensive storms, heat waves and flooding. For example, the 2013 Ice Storm caused power outages, road closures and tree damage with response to this event costing York Region \$ 2.2 Million.

The Province has elevated the importance of addressing climate change

Ontario's Climate Change Strategy (2016) and Climate Change Action Plan (2017) are driving updates to Provincial legislation. As an example, the *Municipal Act* was amended giving municipalities the ability to pass climate change by-laws and the *Planning Act* was amended to identify climate change as a provincial interest. Policy direction on addressing climate change has also been incorporated into updated Provincial Plans including the Growth Plan, Greenbelt Plan and Oak Ridges Moraine Conservation Plan.

The Growth Plan requires that the York Region Official Plan contain policies that address climate change mitigation, adaptation and community resiliency

The Growth Plan requires Official Plans to include policies that address climate mitigation and adaptation to make communities more resilient to the impacts of a changing climate. These concepts will be a key focus area through the Regional Municipal Comprehensive Review and Official Plan Update. Staff have identified the need to undertake a region-wide Community Energy Plan as a component of the York Region Climate Change Action Plan. The Community Energy Plan will be developed through the Municipal Comprehensive Review and will address energy use and greenhouse gas emissions across a broad range of sectors including residential, commercial, industrial and transportation sources. It will also inform Official Plan policy development to ensure alignment between growth management, built environment and energy planning decisions to support improved community resiliency.

Council's commitment to addressing climate change is well established

York Region Council has demonstrated leadership in addressing Climate Change through endorsement of the Sustainability Strategy (2007) and Corporate Clean Air Strategy (2008). Council's commitment to addressing climate change is identified in Vision 2051 and the York Region Official Plan, 2010 (YROP 2010). In 2016, this commitment was reaffirmed through Council's endorsement of the Energy and Conservation Demand Management Plan Update that sets corporate greenhouse gas (GHG) emission reduction targets to 2051.

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Internal and External Working Groups are working collaboratively to address climate change

York Region staff chair a Joint Municipal Climate Change Working Group that brings together representatives from local municipalities, conservation authorities and regional departments to work collaboratively to address climate change and community energy planning. This group has worked collaboratively to:

- Deliver climate related training to staff
- Develop a vulnerability and risk assessment framework
- Develop York Region specific historical and climate projections
- Coordinate climate change related initiatives between municipalities

In 2016, Corporate Services and Environmental Services partnered to create an Internal Climate Change Working Group. The purpose of the Working Group is to bring together staff from across departments to:

- Identify current, emerging and future actions related to climate change
- Identify opportunities for multi-departmental collaboration to address climate change
- Recommend a framework for developing a Regional Climate Change Action Plan

The Internal Climate Change Working Group includes representatives from Corporate Services, Environmental Services, Office of the CAO, Transportation Services, Community and Health Services and Finance.

Staff have leveraged the experience and expertise of the Ontario Climate Consortium on a framework to develop a Regional Climate Change Action Plan

As a network of academic, public and private sector climate experts, the Ontario Climate Consortium have participated in development of a number of municipal climate actions and vulnerability assessments. Regional staff have collaborated with the Ontario Climate Consortium to develop regional climate projections. York Region staff leveraged this expertise and experience in development of the proposed framework.

4. Analysis and Implications

A comprehensive and integrated Regional Climate Change Action Plan is required

Increasingly, the work York Region undertakes will need to include a climate lens. A majority of York Region's strategic and departmental strategies and plans directly or indirectly address climate change. Alignment will be achieved by applying a climate change lens as these plans and programs are reviewed and updated. The Regional Climate Change Action Plan will identify overarching principles, objectives and information to guide the work York Region and others undertake to address climate change. Proposed principles are included in Attachment 1.

The Regional Climate Change Action Plan will address mitigation and adaptation from a corporate and community perspective

There are two types of actions used to address climate change: mitigation and adaptation. Mitigation is taking action to reduce the amount of greenhouse gases in the atmosphere. Adaptation is taking action that minimizes or avoids the negative impacts of a changing climate. Assessing vulnerability is a process of measuring and characterizing the sensitivity and ability of systems to cope with climate change impacts. Undertaking vulnerability assessments provides the information to identify the adaptation actions required to increase system resiliency.

There is increasing recognition that addressing mitigation and adaptation together results in co-benefits and synergies for communities that support cost-effective implementation and long term resiliency. To leverage these opportunities, the Action Plan needs to address mitigation and adaptation from a corporate and community perspective, as shown in Table 1.

Table 1
Action Plan Components

	Mitigation	Adaptation
Corporate	Energy Conservation and Demand Management Plan	Corporate Risk Assessments, Asset Management Plans and Infrastructure Design
Community	Region-wide Community Energy Plan	Vulnerability and Risk Assessments

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Leveraging climate-related initiatives that York Region, local municipalities and other stakeholders are undertaking is essential to focus efforts on areas of action not already being addressed

On the corporate side, mitigation is being addressed through York Region's Energy and Conservation Demand Management Plan and carbon sequestration through reforestation and tree planting activities. Corporate adaptation can be partially addressed by incorporating a climate lens into existing risk identification and asset management exercises. To the fullest extent possible, the Regional Climate Change Action Plan will address gaps in corporate adaptation activities.

Developing and implementing community action requires engagement and partnerships

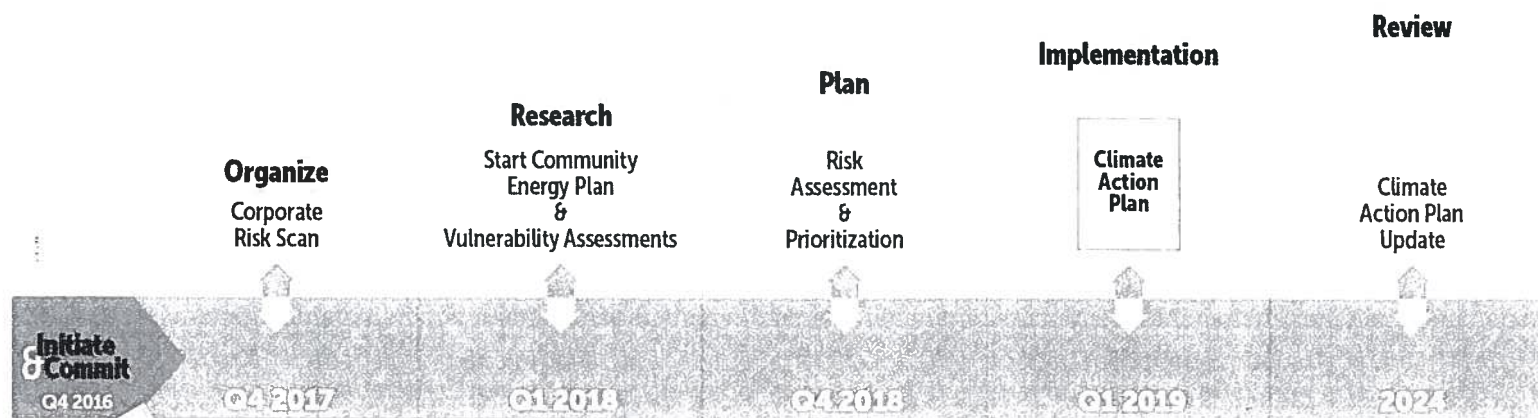
In addition to demonstrating corporate leadership to address climate change for actions directly under York Region's control, York Region is uniquely positioned to ensure that climate change is addressed at the broader community scale. Developing and implementing community actions will require engagement and partnership with others and clear definition of the roles and responsibilities York Region will play through implementation. This can include leveraging existing partnerships to conduct community-scale climate analysis, coordinating consistent climate action at the local municipal level and encouraging and supporting the actions of others.

Staff are targeting Q1 2019 to present a draft Regional Climate Change Action Plan to Council

The proposed framework and timeline for development of a Regional Climate Change Action Plan is shown in Figure 2. The six-stage process provides a structured, progressive approach to development of a Regional Climate Change Action Plan.

Creating a Regional Climate Change Action Plan

Figure 2
Summary of Phases and Schedule for Development of a Regional Climate Change Action Plan



These six stages will involve progressive work as detailed below:

1. The **Initiate and Commit** Phase was commenced in Q4, 2016 through establishment of the Internal Climate Change Working Group. Building on Council's commitment to address climate change, the Working Group began the process of understanding how York Region would be impacted by a changing climate.
2. In the **Organize** Phase, staff have been building internal capacity, identifying and communicating with stakeholders. This includes identifying and confirming information, research and resources required to develop the Regional Climate Change Action Plan.
3. The **Research** Phase will include assessing climatic changes, identifying impacts, undertaking vulnerability assessments and development of a Community Energy Plan.
4. The **Plan** Phase will build on consultation activities and research carried out earlier in the process to address mitigation and adaptation from the corporate and community perspective. This will include prioritizing identified areas of vulnerability and risk, action plan development and consultation as well as the establishment of a monitoring and evaluation strategy.
5. The **Implementation** Phase will start with Council endorsement of the Regional Climate Change Action Plan.
6. In the **Review** Phase monitoring and reporting will occur annually. The Action Plan should be reviewed after 5 years to allow course correction if required.

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A number of studies and assessments will support the Regional Climate Change Action Plan

Staff have identified a number of research activities required to inform development and implementation of a Regional Climate Change Action Plan. One of the first activities in the Organize Phase is to undertake a Corporate Climate Risk Scan to confirm and prioritize vulnerability assessments in areas listed below:

- Health (currently underway)
- Roads, Culverts and Bridges
- Buildings
- Solid Waste
- Water and Wastewater
- Buildings
- Social Services
- Complete Communities
- Natural Systems
- Energy
- Economy
- Technology
- Finance
- Utilities
- Telecommunication

The Corporate Climate Risk Scan will build upon and inform other risk activities occurring throughout the Region including enterprise risk management, corporate and infrastructure asset management planning.

In the Research Phase, staff will develop a terms of reference and apply for any available Provincial funding to undertake a Region-wide Community Energy Plan. The Community-Energy Plan will inform the Municipal Comprehensive Review and Official Plan Update. The Regional Community Energy Plan will leverage and build upon existing community energy plans developed by the Town of East Gwillimbury, City of Markham, Town of Newmarket and City of Vaughan by:

- Establishing an energy use and greenhouse gas emissions profile for York Region
- Setting consistent reduction targets aligned with Ontario's Climate Change Action Plan to leverage federal and provincial funding opportunities
- Identifying common climate mitigation actions implementable at a regional scale
- Informing development of targets and actions for incorporation into Official Plan policy

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- Providing energy planning information for local municipalities without capacity and resources to do so.

Staff will leverage and build upon climate-related initiatives undertaken by local municipalities such as energy conservation, sustainability and environmental strategies. A list showing the current status of climate-related local municipal initiatives is provided in Attachment 2.

Consultation will be coordinated through the Regional Municipal Comprehensive Review

Climate mitigation, adaptation and climate resiliency have been identified as a key underlying theme in the updated Provincial Plans. Guiding principles of the Growth Plan have been amended to include integration of climate considerations in planning and managing growth to support the achievement of complete communities. From a climate change perspective, this means that York Region Official Plan policies should address the following areas:

- Urban structure
- Complete communities
- Transit and active transportation
- Vulnerability/risk assessments and adaptation planning
- Storm water management planning
- Green infrastructure/low impact development
- Watershed planning
- Natural heritage and water resource systems protection
- Energy planning
- Food security
- Protecting the agricultural land base
- Low-carbon communities, with a long term goal of net zero communities

Many of these areas are already addressed in the YROP 2010 but will need to be expanded on through the Municipal Comprehensive Review. Development and consultation on the Regional Climate Change Action Plan will be coordinated with activities and consultations through the Municipal Comprehensive Review and Official Plan Update.

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Development of a Climate Change Action Plan supports Vision 2051 and the York Region Official Plan

Development of a Climate Change Action Plan supports the Living Sustainably and Open and Responsive Governance goal areas of Vision 2051. Development of the Climate Change Action Plan also supports implementation of the Healthy Communities policies in the YROP-2010.

5. Financial Considerations

York Region will apply for funds through federal and provincial funding programs specifically targeting climate change initiatives

The proposed framework for creating a Regional Climate Change Action Plan has been developed within the existing staff complement and budget. Moving forward, staff will develop a detailed work plan and identify budget requirements.

The Federal and Provincial governments have developed funding programs to help municipalities address climate change. Staff will be developing terms of reference and apply to funding programs to support development of the Community Energy Plan and the Regional Climate Change Action Plan, as shown in Table 2.

Table 2
Funding Opportunities

Element	Funding Agency	Funding Program	Amount
Community Energy Plan	Ministry of Energy	Community Energy Plan Program	Up to \$ 90,000 (up to 50% of eligible costs)
Climate Change Action Plan	Federation of Canadian Municipalities	Climate Change Adaptation Plans/ Mitigation Plans	Up to \$175,000 (up to 80% of eligible costs)

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6. Local Municipal Impact

York Region has established the Joint Municipal Climate Change Working Group to work collaboratively on addressing climate change with our local municipal partners. Local municipalities and York Region are working collaboratively to address climate change by advancing best practices and shared experience.

A Regional Climate Change Action Plan will provide information and identify actions that can be implemented consistently across all municipalities. To avoid duplication of effort, York Region will leverage the work local municipalities and stakeholders have already undertaken to address climate change including corporate and community energy plans, sustainability and environmental strategies, vulnerability assessments and climate adaptation action plans.

7. Conclusion

York Region is already experiencing a changing climate and recent Provincial direction has elevated the importance of addressing climate change. The Growth Plan requires that the York Region Official Plan include policies that address mitigation, adaptation and community resiliency. Increasingly, the work York Region undertakes will need to include a climate change lens. A Regional Climate Change Action Plan that identifies priority actions will promote collaborative action with internal and external partners including the local municipalities, conservation authorities and the public.

For more information on this report, please contact Paul Freeman, Director of Long Range Planning at 1-877-464-9675 ext. 71534, Laura McDowell, Director of Environmental Promotion and Protection at ext. 75077 or Teresa Cline, Senior Planner at ext. 71591.

The Senior Management Group has reviewed this report.

October 27, 2017

Attachments (2)

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Accessible formats or communication supports are available upon request

York Region Climate Change Action Plan Proposed Principles

Theme	Principle
Evidence	Use the best available science and evidence at the time, including common climate projections, and review regularly.
Leadership and Culture	Build leadership and enable a culture of everyone taking responsibility; "mainstream" climate change integration into department business versus entirely-new programs and/or projects.
Partnership	Establish and maintain partnerships including local municipalities, expert practitioners, academics, indigenous communities, stakeholders and the public for collective impact across areas of health, the economy and environment.
Alignment	Align with exiting initiatives that provide co-benefits and have compatible goals and objectives.
Adaptive and Flexible	Promote flexible and adaptive approaches that incorporate an iterative nature, leaving a range for future options.
Engagement	Engage the public and stakeholders in consultation and partnerships, promoting social learning.
Implementation	Implement measurable outcome-based interventions (with intent and purpose) with community benefit as the primary purpose. Be mindful of, and include, the unique needs and conditions of people who are most vulnerable.
Review	Promote an ongoing process with commitment to review, including the effectiveness and appropriateness of these principles.

Local Municipal Climate Change-Related Initiatives

Municipality	Corporate Energy and Conservation Demand Management Plan	Community Energy Plans	Climate Change Action Plans	Sustainability/ Environmental Plans
Town of Aurora	Completed 2014	Development begins in 2018	-	Updated 2012
Town of East Gwillimbury	Completed 2014	Completed 2009	-	Updated 2012
Town of Georgina	Completed 2014	-	-	-
Township of King	Completed 2014	-	-	Completed 2012
City of Markham	Completed 2014	In Progress (To be completed by 2017)	-	Completed 2011
Town of Newmarket	Completed 2014	Completed 2016	-	-
Town of Richmond Hill	Completed 2014	Anticipated 2019	Anticipated 2020	Completed 2014
City of Vaughan	Completed 2014	Completed 2016	Completed 2014	Completed 2009 Update in Progress (To be completed 2018/2019)
Town of Whitchurch-Stouffville	Completed 2014	-	-	-