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CLIMATE CHANGE ADAPTATION STRATEGY WORKPLAN

The Planning and Economic Development Committee recommends the adoption of the recommendations contained in the following report dated January 11, 2011 from the Commissioner of Planning and Development Services.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council approve the updated Climate Change Adaptation Strategy Workplan.
2. The Regional Clerk circulate this report to local municipalities and key stakeholders for information.

2. PURPOSE

This report provides an outline of the key workplan tasks and timelines of the Climate Change Adaptation Strategy being prepared as a key action under the Region's *Sustainability Strategy*.

3. BACKGROUND

Municipalities need to consider Climate Change

Municipal governments and our partners have an important role to play in addressing adaptation to climate change.

Municipalities are responsible, either solely, or in partnership, for providing and managing the systems our communities depend on. These include:

- Built systems like roads, bridges, power, water, wastewater, stormwater, waste management and telecommunication.
- Human systems like health care and emergency response capabilities.
- Managing and protecting our natural systems like groundwater, streams, forests and other natural heritage features.

Many Ontario communities (including Newmarket, Markham, Vaughan, Peterborough and Toronto) have experienced significant physical damage, economic loss and disruption as a result of violent storms. York Region has specifically experienced effects

of climate change in the form of more severe weather such as intensive storms, heat waves, flooding, and most recently, the 2009 tornado in the City of Vaughan.

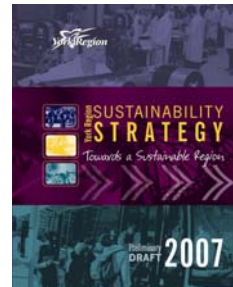
These are all essential and, at the same time, vulnerable systems we depend on for quality of life and economic prosperity. It is important to collaborate on these issues and share best practices with our partner area municipalities, conservation authorities, school boards, utilities, emergency responders, the Provincial and Federal governments, and others.

York Region has made significant progress in addressing Sustainability

Sustainability is a key theme throughout the Region's key strategic documents including *Vision 2026* and the *Regional Official Plan*. The new adopted Regional Official Plan includes policies for higher energy and water efficiency standards for new buildings, criteria for building new communities, Regional Centres and Corridors, transit infrastructure and significant woodlands. The majority of the over one hundred action items in the Sustainability Strategy are either completed or underway.

The Region has had a number of sustainability successes over the last 10 years such as:

- The York Region Greening Strategy resulted in the securement of 73 hectares of greenlands and 80,000 trees and shrubs planted.
- Viva Rapid Transit construction underway on initial 37 kilometres of dedicated bus lanes.
- LEED® certification of eleven Regional buildings including Leeder Place Family Emergency Shelter opened in East Gwillimbury targeting LEED® silver and the Vaughan Community Environmental Centre which achieved LEED® gold.
- Alternate energy pilot projects in progress include: installations of solar electric tracking panels, solar air heating, geothermal, solar water heating, and feasibility studies of wind and wastewater biogas.
- Over the past 10 years, Water for Tomorrow has saved 47 billion litres of water.
- Implemented the Air Quality Health Index Pilot to help residents to protect themselves from the effects of air pollution.
- West Nile virus exposure reduced by treating 82,897 catch basins across York Region in 2009.



The Region's Sustainability Strategy is meant to further inform and improve policies, programs and operations around the three sustainability pillars of economy, environment and community.

The *Vision 2026: Sustainability Progress Report 2009* was approved by Committee and Council (Clause 4, Report 4 of the Planning and Economic Development Committee) for release by Council at its June 24, 2010 meeting.

The report includes sections on indicators, Council initiatives, successes and innovations which include initiatives related to climate change. This annual report will serve as the reporting mechanism for the Climate Change Adaptation Strategy's implementation progress updates.

The York Region Sustainability Strategy and Regional Official Plan – 2010 call for a Climate Change Adaptation Strategy

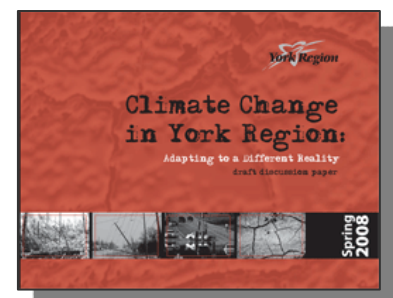
In November 2007, Regional Council adopted the York Region Sustainability Strategy "Towards a Sustainable Region." The Strategy recommends the Region explore how it can adapt to climate change to ensure more resilient communities. The Strategy also recommended that the Region host a Climate Change Workshop to promote awareness of climate change, as well as explore adaptation and response strategies.

The Climate Change Workshop was held in April, 2008. A Draft Climate Change Discussion Paper was prepared and distributed prior to the workshop to foster and inform discussion for workshop participants. The Climate Change Discussion Paper report was provided to Committee and Council in draft prior to the workshop and in its published format in a report that highlighted workshop outcomes in April 2008 (Clause 7, Report No. 7 of the Planning and Economic Development Committee Regional Council Meeting of June 19, 2008).

The Workshop brought together staff from departments across the Region, as well as a broad cross section of staff from the local municipalities, Conservation Authorities, local utilities, school boards, and emergency responders. Together, this group explored issues and implications for York Region, and immediate and long-term actions needed to better adapt to the effects of climate change.

The Workshop explored potential impacts of Climate Change on our:

- Water, Wastewater and Stormwater Systems
- Transportation Systems
- Energy Systems
- Natural Heritage Systems
- Health Care Systems
- Emergency Response Capabilities



The new York Region Official Plan, approved by the Ministry of Municipal Affairs and Housing in September 2010 contains a number of policies directed to meeting the objective of mitigating and adapting the impacts of climate change. Specifically, Policy 3.2.2 requires the Region to prepare a climate change adaptation action plan in keeping with the York Region Sustainability Strategy.

4. ANALYSIS AND OPTIONS

Climate Change Adaptation Strategy Workplan focuses on Best Management Practices and Actions

The Climate Change Adaptation Strategy workplan will explore best management practices in other jurisdictions and risk management. It will also examine the impacts the Region has already experienced and is likely to experience in the future. The Strategy will focus on climate change actions that the Region can implement most effectively.

Staff will also identify what the Region has done already to successfully adapt to climate change and ensure resilient communities.

An internal Climate Change Advisory Committee will be established to inventory current initiatives, undertake a risk and vulnerability assessment and guide development of the Strategy.

Climate change adaptation will reduce risk and ensure resilient communities

Adaptation refers to changing our behaviour, planning or building techniques in order to better cope with the impacts of climate change. For example, increasing the capacity of our storm sewer system to adapt to more intense storms with higher precipitation or preparing community disaster management plans are ways to adapt to climate change.

Resiliency is the ability of a community, nature, and the built environment to not only cope with climate change through mitigation and adaptation measures, but also to continue thriving under any number of circumstances. While York Region faces increasing growth pressures, expanding urban areas and populations, this growth also presents an opportunity to build more sustainably and to protect and enhance existing natural systems.

Regional partners, stakeholders and Climate Change experts will be consulted on the Draft Strategy

The draft Climate Change Adaptation Strategy will build on the knowledge and direction received to date and explore how we can best work together to implement action areas.

Key partners and stakeholders include:

- Local Municipalities
- Conservation Authorities
- Environmental stakeholders
- Business and economic stakeholders
- Health care stakeholders
- York University
- Other Regional municipalities and the City of Toronto

- Provincial government
- Federal government

In addition, a number of climate change experts were on hand to advise the Region at the 2008 Climate Change Workshop and provided input into the Climate Change Discussion Paper. It is proposed that the draft Strategy be reviewed with key organizations with expertise in the climate change field. These organizations could include:

- Federal Government – Adaptation and Impacts Research Division
- Health Canada
- Canadian Institute of Planners/Ontario Professional Planners Institute
- Canadian Institute for Catastrophic Loss.
- Public Infrastructure Engineering Vulnerability Committee (Engineers of Canada)
- International Council for Local Environmental Initiatives (ICLEI)
- Alliance for Resilient Cities/Clean Air Partnership
- GTAH Climate Change Collaborative
- Provincial Government – MOE (lead ministry on climate change)

The following outlines the key workplan steps and timing.

Task	Timing
1. Research – Best Management Practices and Risk Assessment	January – February 2011
2. Establish cross department Advisory Committee	January 2011
3. Develop Draft Strategy	March – April 2011
4. Ongoing consultation	January – June 2011
5. Climate Change Adaptation Strategy Workshop	May 2011
6. Public Consultation	May June 2011
7. Draft Strategy to Committee/Council	Early Fall 2011
8. Final Strategy to Committee/Council	Early 2012

Relationship to Vision 2026

The Climate Change Adaptation Strategy will address all eight goal areas of *Vision 2026* as well as support implementation of the *Sustainability Strategy* which features actions to reduce impacts of climate change on York Region.

5. FINANCIAL IMPLICATIONS

The Climate Change Adaptation Strategy workplan is being undertaken within the existing staff complement and existing budget allocation for the Planning and Development Services Department. Potential funding is being investigated through the Federation of Canadian Municipalities (FCM) and other partners will provide contributions in kind.

6. LOCAL MUNICIPAL IMPACT

Local municipalities are already engaged in a number of progressive climate change initiatives. Staff from each area municipality will be consulted with during the development of the Climate Change Adaptation Strategy and will be invited to attend the Climate Change Technical Workshop to provide further input. Collaboration with all Regional stakeholders and partners is fundamental to the concept of sustainability.

7. CONCLUSION

York Region has put a progressive and comprehensive *Sustainability Strategy* in place and a majority of the over one hundred action items in the Sustainability Strategy are either completed or underway. The need for a Climate Change Adaptation Strategy has been identified in both the Sustainability Strategy and the Regional Official Plan.

Adaptation refers to changing our behaviour, planning or building techniques in order to better cope with the impacts of climate change. The Climate Change Adaptation Strategy workplan will explore best management practices and risk management successes in other jurisdictions, as well as impacts the Region has already experienced and is likely to experience in the future.

Collaboration with all stakeholders and partners is fundamental to the concept of sustainability and adaptation to climate change. The Climate Change Adaptation Strategy will build on the knowledge and direction received to date and explore how we can best work together to implement action areas. It is also proposed that the draft Strategy be reviewed with key organizations with expertise in the climate change field.

It is anticipated that the draft Climate Change Adaptation Strategy will be presented to Committee and Council in late 2011.

For more information on this report, please contact Laura Atkins-Paul, Senior Planner at 905 830-4444, Ext. 1534 or John Waller, Director of Long Range and Strategic Planning at Ext. 1525.

The Senior Management Group has reviewed this report.