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CLIMATE CHANGE WORKSHOP AND DISCUSSION PAPER

The Planning and Economic Development Committee recommends the adoption of the recommendation contained in the following report dated November 27, 2007, from the Commissioner of Planning and Development Services:

1. RECOMMENDATION

It is recommended that Council receive this report for information.

2. PURPOSE

This staff report outlines the purpose and expected outcomes of the upcoming Climate Change Workshop and provides a summary of the Draft Climate Change Discussion Paper. The discussion paper and workshop focus on the potential effects of climate change and how the Region can adapt or prepare for these changes.

The discussion paper is intended to stimulate discussion with our stakeholders at the Workshop.

3. BACKGROUND

In November 2007, Regional Council adopted the *York Region Sustainability Strategy "Towards a Sustainable Region"*. The Strategy recommends the Region host a Climate Change Workshop to promote awareness of climate change, and to explore how the Region can adapt to Climate Change to ensure more resilient communities.

The Climate Change Workshop will bring together a broad cross section of staff from departments across the Region, our partner area municipalities, Conservation Authorities, Provincial representative as well as our local utilities, emergency responders, hospital and school board representatives to explore Climate Change issues, implications for York Region, and action we can take to better adapt.

A Draft Climate Change Discussion Paper (Attachment 1) has been prepared to foster and inform discussion for Workshop participants.

4. ANALYSIS AND OPTIONS

The following provides a summary of the Draft Climate Change Discussion Paper.

4.1 What is Climate Change?

The United Nations Framework Convention on Climate Change defines climate change as: “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.

Growing evidence suggests that the climate of Ontario and closer to home, the Great Lakes Region which York Region is a part of, is already changing:

- Winters are getting shorter
- Annual average temperatures are growing warmer
- The duration of lake ice cover is decreasing as air and water temperatures rise
- Heavy rainstorms are becoming more common
- Summer droughts have affected water tables and lake levels.

In Ontario, it is expected that average temperatures could rise by three to eight degrees Celsius over the next 100 years which has implications for human health and property, the economy, agriculture, and the natural environment.

Climate Change will have significant impacts on human health. Health Canada has identified eight significant health concerns related to Climate Change. They include health effects from increased smog episodes, illnesses and deaths caused by heat and cold waves, water- and food-borne contamination, diseases transmitted by insects, health effects of stratospheric ozone depletion, and extreme weather events. Those that will be subject to greater health risks include children, the elderly, the poor, disabled people, immigrant populations and Aboriginal people.

4.2 Why Municipalities Need to Consider Climate Change

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

We are responsible, either solely, or in partnership, for providing and managing the systems our communities depend on. **Built systems** like roads, bridges, power, water and waste management. **Human systems** like medical, public health and social welfare services. And finally, we are responsible for managing and protecting our **natural systems** like groundwater, streams, forests and other natural heritage features.

These are all essential and, at the same time, vulnerable systems we depend on for quality of life and economic prosperity.

4.3 What is York Region Doing Now?

York Region has built a strong foundation for sustainability over the past 13 years with its two strategic documents, *Vision 2026* and the *Regional Official Plan*. The Region has had a number of successes such as the Greening Strategy, the Human Services Planning

Coalition, Viva Rapid Transit, State of the Environment Reports (2000 and 2005) and more recently, the Tom Taylor Place, an energy efficient and affordable housing project.

The Region's Sustainability Strategy, approved by Regional Council in November of 2007, is meant to further inform and improve all policies, programs and operations around the three sustainability pillars of economy, environment and community.

The Strategy includes over 100 short-term actions and is based on increased awareness and partnerships to make more sustainable decisions, including reducing greenhouse gas emissions that contribute to global climate change.

The Region has made efforts towards addressing sustainability and climate change with initiatives that include:

- Coordinated approach to the Regional Official Plan and Infrastructure Master Plans Update
- The Greening Strategy and Land Securement Initiatives
- The State of the Environment Report 2005
- Energy and Environmental Management Systems (EEMS)
- Water for Tomorrow Program
- Energy Efficient Affordable Housing Project: Tom Taylor Place
- Public Transit and Rapid Transit Initiatives (YRT/VIVA)
- Minimum LEED Silver Standard for Regional Facilities
- Development of a Regional Air Quality Strategy through the Corporate Clean Air Task Force
- A variety of purchasing and operation decisions (i.e. LED traffic lights, new carpet procurement etc.)
- Employee Trip Reduction Program
- Green Fleets Plan
- OPTimize Works
- Regional Emergency Operations Centre
- Pedestrian and Cycling Master Plan.

4.4 What More Can We Do: Mitigation, Adaptation, Resiliency and Vulnerability Assessment

Mitigation usually refers to changing behaviours, actions and decisions in order to reduce our production of greenhouse gasses, but not how we need to prepare for the effects of climate change. Examples of mitigation include reducing our use of single occupancy vehicles in favour of transit, reducing energy and electricity use in buildings through building retrofits and energy conservation programs, or increasing the Region's forest cover.

The Region's Sustainability Strategy has over 100 actions which include those that will reduce the Regions production of Greenhouse Gas emissions and smog forming air pollutants.

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 size of our storm sewer pipes to adapt to more intense storms with higher precipitation or preparing community disaster management plans are ways to adapt to climate change.

The purpose of the Climate Change Workshop is to explore impacts of Climate change and identify adaptation strategies.

Resiliency refers to 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.

One way of better understanding climate change impacts and managing risk is to undertake a vulnerability assessment.

Vulnerability Assessment, or risk assessment, is one approach to preparing for the impacts of Climate Change by assessing the vulnerability of our built, natural and human systems. A vulnerability assessment can help us to ensure that we, along with our partners and the public, are taking the steps necessary to minimize risk and prepare people and built systems for climate change impacts, for example, a weather disaster.

4.5 Next Steps

A Climate Change Workshop is proposed for the spring of 2008. The Workshop is intended to raise awareness of the impacts of Climate change, to identify adaptation strategies and to provide insight into how the Region can prepare and adapt to Climate Change. A series of speakers will provide information on the extent of Climate Change trends, experiences of other municipalities, and the financial impact of severe storms and droughts. Breakout discussion groups will focus on assessment of the Region's systems and adaptation strategies.

Invitees will include staff of area municipalities, Regional Departments, Conservation Authorities, Provincial representatives, utilities, Emergency Responders, and Emergency Planning personnel.

A staff report will be prepared for Council on what was heard at the Workshop.

5. FINANCIAL IMPLICATIONS

The Climate Change Workshop is being undertaken within the existing staff complement and budget allocation for the Planning and Development Services Department.

6. LOCAL MUNICIPAL IMPACT

Area municipalities are already engaged in a number of progressive climate change initiatives. Staff from each area municipality will be invited to attend the Climate Change Workshop and will be circulated a copy of the Draft Discussion Paper for review and comment. Collaboration with all Regional stakeholders and partners is fundamental to the concept of sustainability.

7. CONCLUSION

Evidence suggests that Climate Change is a fact. Over the last 5 to 10 years storms have become more frequent and intense, summer heat waves have lasted longer, smog days have increased, and periods of drought have affected water tables and lake levels.

The effects of these storms, droughts and heat waves have affected us in a variety of ways. Many Ontario communities (including Newmarket, Peterborough and Toronto) have experienced significant physical damage, economic loss and disruption as a result of violent storms.

The Region of York has put a progressive and comprehensive Sustainability Strategy in place to reduce our contribution to the production of Greenhouse Gasses and pollutants.

The Strategy contains over 100 actions to reduce our impact on the environment. The Strategy calls for a Climate Change Workshop to better understand the impacts of Climate Change on York Region and how we can adapt. In other words, how can York Region become more resilient to Climate Change?

The Workshop will explore potential impacts of Climate Change on our:

- Water and Wastewater Systems
- Transportation Systems
- Energy Systems
- Public Health and Health Care Systems
- Emergency Response Capabilities.

It is hoped that discussion by our partners including our Area Municipalities, utilities, Conservation Authorities, Provincial representatives, emergency responders, hospital and school board representatives and regional staff will raise awareness of Climate Change Impacts.

Feedback will also help identify adaptation strategies so that we might become a more resilient Region.

A staff report will be prepared for Council on what was heard at the Workshop.

For further information about this report, please contact John Waller, Director of Long Range and Strategic Planning at 905-830-4444 ext. 1525 or john.waller@york.ca.

The Senior Management Group has reviewed this report.

(The revised attachment referred to in this clause is attached to this report.)