

FURTHER TO SUSTAINABLE COMMUNITIES BOARD #2/07
To be held Friday, September 7, 2007

Pages

FURTHER TO:

7. SECTION I - ITEMS FOR AUTHORITY ACTION

ITEM 7.3 - LISTED ON AGENDA AS REPORT TO FOLLOW

7.3 CLIMATE CHANGE, CLEAN AIR AND SUSTAINABLE ENERGY PLAN:
MOVING FROM A FRAMEWORK TO ACTION

16-22

TO: Chair and Members of the Sustainable Communities Board
Meeting #2/07, September 7, 2007

Item 7.3

FROM: Adele Freeman, Director, Watershed Management

**RE: CLIMATE CHANGE, CLEAN AIR AND SUSTAINABLE ENERGY PLAN:
MOVING FROM A FRAMEWORK TO ACTION**

KEY ISSUE

To highlight Toronto and Region Conservation Authority's support of the City of Toronto's Climate Change and Clean Air Action Plan and Toronto's Sustainable Energy Plan.

RECOMMENDATION

THE BOARD RECOMMENDS TO THE AUTHORITY THAT WHEREAS Toronto and Region Conservation Authority's (TRCA) strategic plan, *Moving Toward The Living City*, identifies the integration of climate change as a critical component in achieving the objectives and goals of a healthy, sustainable urban region extending into the 22nd century;

WHEREAS TRCA is committed to taking immediate action and exemplifying leadership to support our communities and partners in dealing with the climate change issue;

WHEREAS TRCA is currently working on a variety of climate mitigation and adaptation initiatives that complement the City of Toronto's Climate Change and Clean Air Action Plan and Toronto's Sustainable Energy Plan;

THEREFORE LET IT BE RESOLVED THAT the City of Toronto be congratulated for their leadership and proactive approach to climate change, clean air and sustainable energy issues within the city;

THAT staff be directed to assist the City of Toronto with the implementation of recommendations set out in the City of Toronto Report, "Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action" and to seek opportunities for partnerships with other municipalities, government agencies, community groups and corporate sector to accelerate the implementation of recommendations that have TRCA jurisdiction-wide implications;

THAT the City of Toronto be requested to ensure that the city's Agencies, Boards and Commissions be eligible for special funding programs that support the implementation of said recommendations;

AND FURTHER THAT the recommendations for TRCA action outlined below be forwarded to the City of Toronto for their consideration.

BACKGROUND

At its meeting held on June 27, 28 and 29, 2006, City of Toronto Council approved the development of an energy plan that would move the city to a sustainable level of energy use by 2031.

On February 20, 2007, the City of Toronto's Parks and Environment Committee held a special meeting with experts to discuss the key issues related to air quality and climate change and how the city could address these issues. A subsequent report, *Framework for a Climate Change and Clean Air Action Plan*, was presented to the Executive Committee on March 26, 2007 and public engagement was recommended.

The document, *Change is in the Air: Toronto's Commitment to an Environmentally Sustainable Future* was released on March 27, 2007 and outlined the framework for public review and engagement. On April 29, 2007, the City of Toronto held a Climate Change Action Forum at the Direct Energy Centre to solicit input during the development of the Climate Change and Clean Air Action Plan. Input was also solicited on-line and a number of different methods were piloted to reach various target groups. TRCA staff participated in a number of consultation sessions.

The report, *Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action* was approved by City Council at the council meeting held on July 16, 17, 18 and 19, 2007. This report brings together two important City of Toronto initiatives, the *Climate Change and Clean Air Action Plan* and *Toronto's Sustainable Energy Plan*. Both plans outline a series of recommendations suggesting how the City of Toronto can mitigate and adapt to the effect of climate change.

The *Climate Change and Clean Air Action Plan* provides a series of recommendations that both engages the community and builds upon existing City of Toronto programs. The plan explains actions that can significantly reduce the release of greenhouse gases to the atmosphere and suggests ways to make substantive positive change to local air quality.

Toronto's Sustainable Energy Plan recommends the development of funding programs that will encourage energy efficiency and renewable energy initiatives which in turn will support implementation of the recommendations for the *Climate Change and Clean Air Action Plan*.

The plans support the overall goal of reduction targets for greenhouse gas emissions from the 1990 levels of approximately 22 million tonnes per year for the Toronto urban area:

- i) 6% by 2012 (the "Kyoto target");
- ii) 30% by 2020;
- iii) 80% by 2050.

Additionally, a 20% reduction target for locally-generated smog causing pollutants from 2004 levels by 2012 for the Toronto urban area was recommended.

To meet the reduction targets, the plans are designed to:

- Encourage Torontonians to adopt more environmentally friendly lifestyles, and reduce the energy required to heat, cool and light their homes.
- Help Toronto businesses be more environmentally friendly.
- Make the City of Toronto a leader in local renewable energy production.
- Help the City of Toronto build a sustainable transportation system.
- Double the tree canopy from 17% to 34%.
- Foster mutually beneficial improvements in air quality and climate change by continuing to build necessary partnerships.

- Help Torontonians understand the need to reduce their energy use and what actions they can take at home, work and on the road.
- Help the City of Toronto prepare for and adapt to climate change and the effects on its residents, vulnerable populations and city operations.
- See the City of Toronto monitor and evaluate its progress on reducing emissions and report on that progress to the community.
- Help the City of Toronto build on its success in reducing greenhouse gas emissions from city operations by over 30% since 1990.
- Help the City of Toronto establish the financial resources to implement the programs required to meet reduction targets.
- Help move the City of Toronto toward a sustainable energy future.

The City of Toronto will bring forth further recommendations for action in a Phase II *Climate Change and Clean Air Action Plan* and associated *Sustainable Energy Action Plan* in early 2008. TRCA's Chief Administrative Officer is participating in this process.

TRCA and Climate Change

TRCA's Strategic Plan, *Moving Toward The Living City* identifies the integration of climate change as a critical component in achieving the objectives and goals of a healthy, sustainable urban region extending into the 22nd century. At TRCA, we are convinced that the most effective way to reduce greenhouse gas emissions, and therefore to help mitigate against climate change, is to promote renewable energy application, energy conservation and acting sustainably in virtually everything we do.

In addition to acting sustainably, TRCA's goal is to become a trusted resource in areas of climate change adaptation and mitigation. TRCA is involved in several programs and projects aimed at increasing our understanding of climate change and developing new projects and partnerships to reduce the region's ecological footprint, helping to create a livable sustainable region in the future - The Living City. A brief description of TRCA's initiatives related to the City of Toronto's *Climate Change and Clean Air Action Plan* and *Toronto's Sustainable Energy Plan* are below:

Sustainable Management System

TRCA's Sustainability Management System (SMS), previously called Environmental Management System (EMS), enables TRCA to track indicators of operational sustainability and report to our stakeholders. Within SMS, the EcoOffices Certification initiative (currently in development) will strive to educate, involve and drive employee participation in an effort to make TRCA's offices more sustainable.

Community Transformation Programs

With sustainability and strong environmental values at the core, Community Transformation Projects are designed to achieve substantial measurable improvements in the sustainability of towns, cities and regions. To do this, Community Transformation Programs engage leaders in business, government and society to create and deliver innovative programs that allow cities to grow and thrive today and well into the future. Designed to be implemented in communities across Canada, projects include the Mayors' Megawatt Challenge, Greening Health Care, Greening Retail, Home Energy Clinic, Sustainable Schools and the Renewable Energy Program.

Sustainable Technologies Evaluation Program

The Sustainable Technologies Evaluation Program (STEP) is a multi-agency program, led by TRCA. The program has been developed to provide the data and analytical tools necessary to support broader implementation of sustainable technologies and practices within a Canadian context.

The Living City Campus

The Living City Campus is a facility that initiates, inspires, supports and monitors change toward sustainable living, leading the way toward sustainable development and the use of sustainable technologies through practice, education and market transformation.

Green Building Partnership

TRCA has formed a partnership with two green building councils, the Canada Green Building Council – Greater Toronto Chapter (CaGBC-GTC) and the World Green Building Council (WorldGBC). In both cases, TRCA assists in programming and operations.

Eco-Industrial Networks

The essence of eco-industrial networking is improving the financial and environmental performance of industry. This is achieved by reducing energy, waste and water-use through efficiencies and developing synergies between companies, where one company's waste is another's feedstock. TRCA is currently exploring opportunities for partnerships related to realizing eco-industrial networks.

Ontario EcoSchools Program

TRCA is a proud partner and participant in the Ontario EcoSchools Program with four EcoSchool certified facilities. The program's goal is one that TRCA embraces - to help schools reduce their environmental impact by making decisions for a healthy world a part of everyday school life.

TRCA Climate Modeling

Through the Rouge and Humber watershed plans, TRCA has begun to model potential climate change effects on our watersheds to assist with adaptation strategies.

TRCA Actions

To assist the City of Toronto in meeting the specific goals of the *Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action*, TRCA will undertake the following actions:

1. **Neighbourhood Actions for Green Toronto (Motion #4)**
 - a) The Live Green Toronto Program will support the greening of neighbourhoods through a range of programs delivered by residents' groups, Business Improvement Areas and other neighbourhood agencies and community groups.

- b) TRCA offers to lead the first Live Green Toronto Program in the Jane-Finch-Steeles neighbourhood where the combination of schools, natural spaces, local businesses, cultural facilities, water management issues in Black Creek, new transit, social housing and the presence of the Black Creek Urban Farm attest to the need to coordinate greening activities within the neighbourhood.
- c) TRCA will investigate the feasibility of banning the use of equipment powered by two stroke engines (motion 4j).
- d) TRCA will continue to assist the city with city's Green Development Standard labeling system, green buildings and LEED (Leadership in Energy and Environmental Design) for Neighborhood programs recently developed with Canada Green Building Council and World Green Building Council.

2. Environmentally Friendly Public Institutions, Industries and Commercial Operations (Motion # 5)

- a) TRCA supports the City of Toronto's Green Economic Development Strategy.
- b) Through TRCA's new eco-industrial park initiative, TRCA proposes to work with the city to provide assistance to businesses to lower their operating costs and improve their environmental performance through increased efficiencies in resource use and by-product exchanges.
- c) TRCA is currently working with the Greater Toronto Area Agriculture Action Committee to promote sustainable agriculture within the Greater Toronto Area. Feasibility of using TRCA lands for near urban agriculture projects is currently being investigated. The Black Creek Urban Farm, developed in partnership with the city, will be a model for future partnerships and will assist the city's Enviro-Food Working Group.

3. Toronto, Becoming the Renewable Energy Capital of Canada

- a) TRCA will continue to participate on the Renewable Energy Action Plan Working Group to prepare recommendations on addressing issues concerning renewable energy generation (motion 7e).
- b) TRCA will continue to develop and establish landscaping and maintenance techniques that eliminate the need for equipment powered by small engines and shift to use of equipment powered by alternative technologies (motion 9i).

4. Setting an Example by Greening City Operations

- a) Through the existing SMS, TRCA has begun to phase out the use of incandescent light bulbs wherever possible (motion 9d). TRCA continues anti-idling education in TRCA fleet vehicles (motion 9f), supports the Smart Commute Program for the Toronto Public Service (motion 9g), has created and adheres to TRCA's Mandatory Green Product/Service Procurement Listing (January 2007) (motion 9j) and promotes the use of energy efficient appliances (motion 7k).
- b) TRCA welcomes the opportunity to work with the City of Toronto's General Manager of Solid Waste Management Services, on the proposed agreement between the City of Toronto, TRCA and Toronto Hydro Energy Services Inc. to install and operate electrical generation equipment to utilize methane from the Thackeray Landfill Site (motion 9m).

5. Making More Sustainable Transportation Choices

a) TRCA will continue to work with the City of Toronto to complete the Bike Plan by the end of 2012, in particular expanding the existing network of trails (motion 8b).

6. Double the Tree Canopy

a) TRCA, identified as a key partner with Parks, Forestry and Recreation, will assist City of Toronto in doubling the existing tree canopy from 17% to 34% (motion 10). TRCA will assist the City of Toronto in delivering tree planting on public lands. (motion 3).

7. Partnerships for Change

a) Leveraging partnerships and funding resources is a strength that TRCA brings to our existing partnerships. TRCA is committed to accelerate the implementation of sustainable technologies to meet The Living City objectives. TRCA will continue to support the city with it's climate change initiatives by participating on new enviro-action working groups. (motion 11a).

A number of the initiatives highlighted above are dependent upon funding support from the City of Toronto and as such, TRCA requests that City of Toronto's Agencies, Boards and Commissions be eligible for special funding programs that support implementation of the above noted initiatives.

TRCA's additional actions supporting City of Toronto's *Climate Change, Clean Air and Sustainable Energy Action Plan*

In addition to assisting the City of Toronto in meeting the specific goals of the *Climate Change and Clean Air Action Plan* and *Toronto's Sustainable Energy Plan*, TRCA will undertake the following actions in concert with the plans:

1. Build upon the success of TRCA's SMS which has reduced TRCA's footprint in the areas of energy use, vehicles and equipment emissions, green purchasing and water consumption by promoting the system to external partners.
2. Build on the data gathered through the Rouge and Humber watershed plan climate modeling to better understand and communicate the effects of climate change on our watersheds.
3. Develop a plan to achieve 30% of TRCA's electricity needs from green energy sources by 2010. TRCA operations utilize 20% of electricity needs from green energy sources, with the exception of the Kortright Centre which sources 100%.
4. Develop purchasing policies and implementation strategies relating to food that address energy, waste and economic priorities.
5. Strengthen the role of STEP by beginning to monitor and evaluate new green building technologies.
6. Develop and implement a net-zero energy plan for The Living City Campus.
7. Adopt CaGBC's new LEED Complete strategy to address the issue of building life cycle analysis.
8. Launch The Living Building Challenge which will challenge several new building projects to move beyond LEED to create the greenest buildings in North America. These projects will act as case studies for further research and monitoring.
9. Develop a Renewable Energy Roadmap to identify the most strategic method for transforming the market for renewable energy technologies in the Greater Toronto Area.

Additional Recommendations for Climate Change, Clean Air and Sustainable Energy Plan Implementation

- a) TRCA, as partner and participant in the Ontario EcoSchools Program, will recommend our participation on the School Board/City Environmental Education Working Group to review current environmental curriculum and explore opportunities for collaboration on environmental initiatives (motion 12b).
- b) The Toronto Environment Office will continue to coordinate the City of Toronto's actions to measure, monitor and model greenhouse gases and smog causing emissions to ensure efforts are focused on those that have the greatest effect on human health and the natural environment (motion 14a). TRCA recommends that this motion be strengthened by measuring and monitoring energy use as it relates to greenhouse gases.
- c) Further, TRCA recommends that information should be incorporated into the City of Toronto's financial reporting structure for each division.

DETAILS OF WORK TO BE DONE

1. Forward TRCA recommendations to the City of Toronto for their consideration.
2. Continue to assist the city with the implementation of their recommendations and support the development of the Phase II Climate Change and Clean Air Action Plan and associated Energy Plan actions.

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Date: August 20, 2007