

BACKGROUND NOTES

FCM'S GREEN MUNICIPAL FUND CELEBRATION OF \$6.9 MILLION IN FUNDING FOR 15 GREEN INITIATIVES IN THE CITY OF TORONTO

**February 11, 2010
11:00 a.m.**

**Evergreen Brick Works
550 Bayview Avenue, Toronto**

The Government of Canada endowed the Federation of Canadian Municipalities (FCM) with \$550 million to establish the Green Municipal Fund™ (GMF). The Fund is a long-term, sustainable source of grants and below-market loans for municipal governments and their partners.

GMF grants and below-market loans directly support municipal initiatives, while GMF education and training services help municipal governments share expertise and strengthen their ability to set and surpass their sustainability goals.

The Fund provides below-market loans and grants, as well as education and training services, to support municipal initiatives that improve air, water and soil quality, and protect the climate. Grants are available for sustainable community plans, feasibility studies and field tests, while combined grants and loans are available for capital projects. Funding is allocated in five sectors of municipal activity: brownfields, energy, transportation, waste and water. To ensure the greatest possible impact, GMF invests in initiatives that will significantly benefit the environment and are also likely to improve local economies and quality of life. GMF shares the lessons and expertise gained through these initiatives and provides training to encourage other communities to replicate their success.

Since the inception of the fund in 2000, FCM has awarded environmental initiatives in Toronto:

- \$41,511,684 in below-market loans and \$3,623,086 in grants for sustainable infrastructure projects; and
- \$3,682,000 in grants for feasibility studies and pilot tests.

This amount includes a total of \$4.6 million in below-market loans and \$2,357,500 in grants for the 15 projects announced today, which are described below.

GMF initiative number: 9064

GMF initiative title: Environmental Site Assessments for Brownfield Properties

GMF grant: \$30,000

GMF loan: \$0

Status: Complete

FCM funded the city to support phase 1 and phase 2 environmental site assessments for the St. Lawrence North Building and the parking lots adjacent to the Warden, Victoria Park, Wilson and Downsview subway stations. As part of its commitment to urban intensification, Toronto council identified these brownfield sites for possible redevelopment. The site assessments helped the city determine the extent of environmental contamination and develop potential cleanup strategies necessary to make fiscally and environmentally sound decisions regarding the redevelopment of each brownfield property.

GMF initiative number: 9065

GMF initiative title: City of Toronto Yard Consolidation Study – West District Segment

GMF grant: \$297,000

GMF loan: \$0

Status: Nearing completion

Upon amalgamation in 1998, the City of Toronto closed 10 municipal works yards without significant capital expenditures. The city needed to consider opportunities to consolidate more yards in its west district, because the existing properties required both extensive renovations and construction of new facilities to meet current and future needs.

FCM awarded the city a \$297,000 GMF grant for phase 1 and phase 2 environmental site assessments on 24 yards. The study determined the extent of environmental contamination and helped the city develop cleanup strategies for the properties deemed to be surplus.

GMF initiative number: 9066
GMF initiative title: Energy Self-Sufficiency Plan for Exhibition Place
GMF grant: \$50,000
GMF loan: \$0
Status: Complete

FCM supports the Exhibition Place board of governors' target of energy self-sufficiency by 2010 and, more broadly, its efforts to create a showcase for energy efficiency and renewable energy sources. Exhibition Place had already taken a number of steps toward energy self sufficiency, including construction of a wind turbine, building energy retrofits, a tri-generation facility for the National Trade Centre and a pilot solar voltaic installation.

The GMF-supported study examined further measures to help Exhibition Place achieve self-sufficiency, reduce its environmental footprint, and demonstrate that local, on-site energy production combined with comprehensive energy-efficiency measures is an economically viable approach.

Exhibition Place will not achieve 100 per cent self-sufficiency this year, but the lessons learned and the skills developed bring the objective clearly into view.

GMF initiative number: 9548
GMF initiative title: Energy Management Plan for Toronto's Medical and Related Sciences (MaRS) Discovery District
GMF grant: \$148,500
GMF loan: \$0
Status: Nearing completion

FCM awarded a \$148,500 GMF grant to the Toronto Economic Development Corporation (TEDCO) to develop an energy management plan for the Medical and Related Sciences (MaRS) Discovery District. The plan provided the basis for retrofitting existing energy systems within the MaRS Discovery District, and for constructing new projects to promote green energy and technology.

Once implemented, the Energy Management Plan will result in a 61 per cent reduction in greenhouse gas (GHG) emissions from Toronto's MaRS Discovery District, the equivalent of taking 28,000 cars off the road every year.

GMF initiative number: 9586
GMF initiative title: 40-50 Wabash Feasibility Study for a "Green" Community Centre and Brownfield Park
GMF grant: \$100,000
GMF loan: \$0
Status: Complete

FCM contributed \$100,000 in GMF funding to a feasibility study conducted by the Toronto parks, forestry and recreation division. The study focused on the retrofit and renovation of a vacant former industrial building at 40–50 Wabash Avenue. The redeveloped site has now been integrated into Sorauren Park in the Parkdale–Ronscesvalles–Sorauren neighbourhood. Partners included the non-profit Wabash

Building Society and its volunteers. The grant made it possible to hire architects and engineers to incorporate various “green” features into the design of the future “green” recreation centre, in accordance with the Leadership in Energy and Environmental Design (LEED®) Gold standard and the city’s new Green Development Standards.

GMF initiative number: 9704
GMF initiative title: Toronto Community Housing Corporation Renewable Energy Feasibility Study
GMF grant: \$101,000
GMF loan: \$0
Status: Nearing completion

FCM contributed a \$101,000 GMF grant to support a study conducted by the Toronto Community Housing Corporation (TCHC) to explore renewable energy technologies (such as geothermal, solar, wind and biomass) that could be used in multi-residential settings. The corporation is studying multi-family buildings to collect the necessary data to support the use of renewable energy sources across the city’s entire housing portfolio immediately and in the long term.

The resulting capital project will be important to achieving the overall TCHC Green Plan reduction target of 40 per cent less GHG emissions by 2020.

GMF initiative number: 9723
GMF initiative title: Toronto Public Library Energy Management Audit and Strategic Planning
GMF grant: \$37,500
GMF loan: \$0
Status: Nearing completion

FCM awarded the Toronto Public Library (TPL) a \$37,500 GMF grant to conduct an energy audit and develop a strategic plan for its energy use. The initiative builds on the considerable progress the TPL has made by installing centrally controlled automation systems over the last seven years. The study identifies the next steps needed to ensure that all capital investments effectively reduce the library’s energy consumption.

The City of Toronto is encouraging all municipal services to continuously monitor and adjust operating practices to maintain and increase environmental improvements and cost savings. The TPL has implemented a number of energy management initiatives since 2001, which have decreased energy use by over 10 per cent and saved the TPL over \$375,000 annually.

GMF initiative number: 9753
GMF initiative title: Developing Approaches to On-Site Brownfield Remediation at the Don Valley (Evergreen) Brick Works
GMF grant: \$50,000
GMF loan: \$0
Status: In progress

Evergreen, a non-profit organization that makes cities more livable by deepening the connection between people and nature, is undertaking a \$55-million redevelopment of the

Don Valley Brick Works with support from the City of Toronto and the Toronto Regional Conservation Authority. The redevelopment plan for this former industrial site is to create a mixed-use centre that explores the sustainable relationship between nature, culture and community. The project will demonstrate how to transform a brownfield using sustainable community design and will use on-site education and programming to encourage sustainable behaviour, while providing test facilities for emerging environmental technologies.

The Brick Works is an area of natural and scientific interest, and a highly valued asset to the community. The redevelopment will model best practices as identified in the city's Green Development Standards, the Wet Weather Flow Management objectives, the Solid Waste Plan and the new City of Toronto Energy Plan.

GMF initiative number: 10024
GMF initiative title: Exhibition Place LED Lighting
GMF grant: \$345,000
GMF loan: \$0
Status: In progress

Exhibition Place is exploring the use of light-emitting diode (LED) lighting for all outdoor illumination at Exhibition Place and, possibly, for pathway lighting in city parks. FCM awarded Exhibition Place a \$345,000 GMF grant to field test the use of LED lighting for one year on a pedestrian pathway and bicycle lane.

The project team will fit the majority of existing lighting fixtures with new LED lights and intelligent lighting controls. A few of the fixtures will be fitted with new bulbs and ballasts of the type currently in use (high-pressure sodium lights) and will not have intelligent lighting controls. The researchers will compare the two types of lighting, looking at factors including light dispersion patterns, equipment performance, energy use and maintenance costs. The team will also survey users of the pathway to identify any user issues.

Conversion of outdoor lighting at Exhibition Place to LED technology would result in energy savings of 10,813 kWh annually and reduce GHG emissions by 50 per cent.

GMF initiative number: 10026
GMF initiative title: SolarCity Assessment Partnership
GMF grant: \$126,000
GMF loan: \$0
Status: Complete

The Toronto SolarCity Assessment Partnership project studied and compared the performance of major photovoltaic, solar thermal and solar air heating installations in various city facilities and in private homes in the South Riverdale neighbourhood that participate in the Toronto Solar Neighbourhood Initiative (TSNI). Partners in the project were the Toronto Atmospheric Fund, the Toronto and Region Conservation Authority, and TSNI (with funding from the Portlands Energy Centre).

The SolarCity project has provided tools to better understand the extent to which solar energy projects help to reduce emissions.

GMF initiative #: 10068

GMF initiative title: The Green Arts Barns: A LEED-Certified Gold Project Owned by the City of Toronto

GMF grant: \$90,000

GMF loan: \$600,000

Status: Complete

FCM contributed \$690,000 in combined loan and grant funding to the city's continued transformation of the TTC's historic Wychwood streetcar repair barns. The city owns the facility but has leased it to Artscape for 50 years. LEED Gold features include a geothermal heating, ventilation and air conditioning system with ground source heat pumps; a storm water harvesting and reuse system; energy-efficient lighting and appliances; and water-conserving plumbing fixtures.

The City expects the evaluation to show a drop in energy consumption of as much as 40 per cent.

GMF initiative number: 10081

GMF initiative title: Conference Centre at Exhibition Place

GMF grant: \$300,000

GMF loan: \$2,000,000

Status: Complete (LEED certification pending)

FCM allocated \$2.3 million in loan and grant funding to support the reconstruction of the city's 1929 Automotive Building, a property with a heritage designation under the *Ontario Heritage Act*. The total capital cost was \$47.8 million, and the project required the demolition of all internal structures, leaving only the external walls and pre-cast panels in place. The Conference Centre is to be certified LEED® Silver, with forecast energy savings of 22.2 GJ (excluding additional savings from connection to Exhibition Place's tri-generation system.)

This project brought significant social and economic benefits. The reconstructed building will be the first heritage structure in the world to see a second life as a conference centre with a LEED Silver designation. The knowledge gained in its construction and operation is being shared broadly within the conference and exhibition industries. It could influence the design of future trade and conference centres in Canada and internationally.

GMF initiative number: 10084

GMF initiative title: Police Training Facility

GMF grant: \$300,000

GMF loan: \$2,000,000

Status: Complete

FCM supported the construction of a new LEED® Silver-certified Toronto Police Service training facility that is expected to reduce energy consumption by over 43 per cent relative to the Model National Energy Code for Buildings. The new facility in Etobicoke

is built on approximately 6.7 hectares of former industrial land. It features renewable geothermal energy from 140 wells, each 122 metres deep, that will meet most of the building's heating and cooling needs. Heat-recovery units are installed on air-handling units, and all mechanical equipment is very energy efficient. The thermal performance of the building envelope, with its low-emissivity (low-e) windows, will reduce seasonal heat loss and heat gain. Lighting controls will also reduce electricity consumption.

Overall, these measures have lowered energy consumption from an estimated 62,000 GJ to 35,000 GJ annually.

The site and location are important aspects of the overall sustainability of this project. The soil and groundwater on site have been remediated based on the risk assessment plan. Moreover, the building's location close to public transportation, and the provision of secure bicycle storage and hybrid vehicles for employee use, will encourage employees to reduce GHG emissions by using alternative transportation. The project is strongly linked to the city's environmental plan—*Clean, Green and Healthy: A Plan for an Environmentally Sustainable Toronto*—which governs land and sustainable energy use.

GMF initiative number: 10117

GMF initiative title: Geothermal Energy Systems at the Toronto Zoo

GMF grant: \$36,300

GMF loan: \$0

Status: In progress

FCM provided a \$36,300 GMF grant to the Toronto Zoo to study the feasibility of using geothermal energy systems for space heating and cooling in two major buildings to be constructed between 2009 and 2011.

- The Canadian Wilderness Orientation Centre (CWOC) will be a focus for the North Zoo site redevelopment project. The CWOC will seek LEED® Gold certification. It will fully incorporate sustainable building practices with the conservation of endangered wildlife in Canada.
- The proposed Centre for Sustainable Life and Learning (CSLL) is a big educational step with a small environmental footprint. As part of the United Nations plan to establish regional centres of expertise in education for sustainable development, the zoo is embarking on this project. The CSLL's green design will showcase healthy building materials, earth-friendly technologies and energy-efficient energy systems.

It is expected that the results of this study will facilitate geothermal use in other zoo and city facilities, to help Toronto meet its GHG emissions reduction target of 6 per cent below 1990 levels by 2012. The City of Toronto would save an estimated \$80,850 per year after recovering upfront capital costs.

GMF initiative number: 10207

GMF initiative title: Mayor's Tower Renewal Initiative

GMF grant: \$346,500

GMF loan: \$0
Status: In progress

FCM contributed a \$346,500 GMF grant to a study of four pilot sites. The study will determine the feasibility of renewing a wide range of apartment towers in different neighbourhood contexts. More than 1,000 apartment towers were built in Toronto in the 1960s and 1970s and they make up a major part of the city's affordable housing. The pilot sites will host projects of varying scales and mandates appropriate to local conditions, geography and neighbourhoods. The lessons learned through the pilot sites will inform the proposals to be put forward for renewing towers across the city and will provide a model for other jurisdictions.

The study is expected to generate a list of actions that could reduce both energy consumption and potable water use by up to 50 per cent at the pilot sites. It may also help building managers divert up to 70 per cent of the waste generated at these building sites from landfills, compared to the current rate of only 20 per cent. By implementing recommended actions in 200 publicly owned buildings and more than 800 privately owned buildings, the city hopes to reduce the buildings' GHG emissions by 5 per cent, contributing to Toronto's GHG reduction target of 30 per cent by 2020.

City of Toronto media contact:

Deborah Blackstone
Strategic Communications
Tel.: 416-392-7377
E-mail: dblacks@toronto.ca
www.toronto.ca