Attachment B:

Federation of Canadian Municipalities Partners for Climate Protection Program
City of Winnipeg Status Report

Introduction

The purpose of this document is to provide information on the status of the City of Winnipeg's commitment to the Federation of Canadian Municipalities Partners for Climate Protection program. The City's commitment includes both corporate and community greenhouse gas emissions targets, which are described in detail below. An overview of the Federation of Canadian Municipalities is provided, followed by information on the Partners for Climate Protection Program. The City measures corporate (APPENDIX A) and community (APPENDIX B) emissions in accordance with the *Partners for Climate Change Protocol*: *Canadian Supplement to the International Emissions Analysis Protocol.* Lastly, APPENDIX C contains a description of Winnipeg's Community-Wide Climate Change Action Plan funding.

Federation of Canadian Municipalities: Overview

Since 1901, the Federation of Canadian Municipalities (FCM) has been the national voice of municipal government representing 90 per cent of Canada's municipal population. The FCM carries on the tradition of actively advocating to have the needs of municipalities - and their citizens - reflected in federal policies and programs. Members include Canada's largest cities, small urban and rural communities, and 20 provincial and territorial municipal associations.

The Big City Mayors' Caucus (BCMC) comprises a regionally representative group of FCM member cities, of which Winnipeg is a member. It meets two to three times a year to discuss shared issues and to reinforce FCM's policy and advocacy agenda set by the National Board of Directors.

The Partners for Climate Protection Program: Overview

The Partners for Climate Protection (PCP) program is a network of Canadian municipal governments that have committed to reducing greenhouse gases (GHG) and to acting on climate change. The program empowers municipalities to take action against climate change through a five-milestone process that guides members in creating GHG inventories, setting realistic and achievable GHG reduction targets, developing local action plans, and implementing plans using specific, measurable actions to reduce emissions.

The PCP program is based on the Cities for Climate Protection Campaign of a five milestone framework used to guide municipalities to reduce greenhouse gas emissions. The five milestone process is a performance-based model which remains flexible; milestones do not need to be completed in sequential order. Each milestone provides an opportunity for municipal capacity building.
The five milestones are:
Milestone 1 Create a baseline emissions inventory and forecast
Milestone 2 Set emissions reduction targets
Milestone 3 Develop a local action plan
Milestone 4 Implement the local action plan
Milestone 5 Monitor progress and report results

See the Five-Milestone Framework for Reducing Greenhouse Gas Emissions for an overview of the PCP five-milestone framework and a list of resources available to help municipalities achieve each milestone.

City of Winnipeg Commitment to Partners for Climate Protection Program

On November 25, 1998 Council passed a resolution signing on to the FCM Partners for Climate Protection Program, and committed to reducing its corporate greenhouse gas emissions by 20% and its community-wide greenhouse gas emissions by 6%, over the baseline year of 1998 (Council Minute No 43, Nov. 25, 1998).

Mayor Bowman recently reiterated and expanded upon previous Council Commitments regarding Climate Change through a resolution of the Big City Mayor's Caucus (July 6, 2015), to (1) support binding international, national, and City-level targets; (2) develop an action plan(s) addressing both climate change mitigation and adaptation; and, (3) regularly report on emissions through the Carbon Disclosure Project.

Partners for Climate Protection Program: Corporate Greenhouse Gas Emissions

Winnipeg focused its initial efforts on accomplishing the corporate GHG reduction target, to demonstrate leadership before embarking upon the community climate change action plan. The corporate inventory records data from municipal government facilities and operations, including buildings, street lighting, water and wastewater treatment, the municipal fleet, and corporate solid waste, as outlined in APPENDIX A. To date, the City has achieved the first four milestones, with the most recent corporate milestone completed in 2008.

In 2006, the Corporate *Climate Change Action Plan* (CCAP) was adopted by Council targeting a 20% reduction in corporate emissions below a baseline year of 1998. A 2007 progress report demonstrated that the 20% target had nearly been achieved, though this was primarily a result of exceptional circumstances and incomplete reporting rather than strategic investment. In the 2008 State of the City address, Mayor Katz committed to a further 20% emission reduction. In May 2009, Council directed the Public Service, in consultation with the Mayor's Environmental Advisory Committee, to develop a strategy for achieving a further 20% reduction in corporate GHGs. In September 2009, the Public Service submitted the 2008 annual report on corporate CCAP as well as a proposed strategy for achieving a further 20% emission reduction.

In 2011, this new target was reiterated in *A Sustainable Winnipeg* along with a commitment to set additional targets for 2020 and 2035. Specifically, Council directed the Public Service to:

- Maintain a [Corporate] Climate Change Action Plan to reduce Winnipeg's operational greenhouse gas emissions by a further 20% below 1998 levels.
- Establish a corporate greenhouse gas reduction target for 2020 and 2035 (*A Sustainable Winnipeg*; Section 09-1)

Partners for Climate Protection Program: Community Greenhouse Gas Emissions

Council's community target addresses all GHG emissions related to energy consumed and waste produced in Winnipeg. The community GHG inventory records data from the institutional, commercial, industrial (ICI), transportation, and residential waste sectors, as outlined in APPENDIX B. This is inclusive of the City's corporate emissions, which account for approximately 1% of the community total.

Currently, Council's community-wide target does not have a complementary action plan or strategy. To date, the City has achieved the first milestone with the most recent community milestone completed in 2002. In 2013, the City received financial support from FCM's Green Municipal Fund to develop an integrated community-wide strategy to reduce GHG emissions (APPENDIX C). A portion of the funding was used to prepare an update to the 1998 community-wide GHG emission inventory. The remaining funding will be devoted to the development of a Community Climate Change Reduction Plan.

In *A Sustainable Winnipeg Direction Strategy*, Council directed the Public Service to:

- Create and maintain a community-wide Climate Change Action Plan to reduce Winnipeg's greenhouse gas emissions by 6% below 1998 levels.
- Establish a community-wide greenhouse gas reduction target for 2020 and 2035 (*A Sustainable Winnipeg*; Section 09-1).

Additionally, Council has provided the following key directions on community-wide emissions reduction:

- As a member of the Federation of Canadian Municipalities' Partners for Climate Protection program, employ their recommended approach to action plan development. (Council Minute No.540, 2009);
- Achieve "a transportation system that reduces its greenhouse gas emissions footprint and meets or surpasses climate change and emissions reduction goals set by the City and the Province" (Winnipeg Transportation Master Plan, Strategic Goal Six).

APPENDIX A: Corporate Emissions from Municipal Operations

The City measures corporate emissions from municipal operations in accordance with the *Partners for Climate Change (PCP) Protocol*: *Canadian Supplement to the International Emissions Analysis Protocol.*

To be considered in compliance with PCP protocol, corporate GHG inventories must include emissions from the following five activity sectors:

- Buildings
- Lighting
- Wastewater and Potable Water
- Vehicle Fleet
- Solid waste

A detailed description of each sector is provided below along with the recommended best practices for GHG quantification.

Buildings

Inclusion protocols: Include all buildings owned by the local government, plus buildings leased or rented to others. Include any diesel fuel that is consumed by backup electrical generators.

Exclusion protocols: Do not include wood burned for space heating.

Lighting

Inclusion protocols: Include street lights or traffic signals or both that are leased to a private management company or utility.

Exclusion protocols: Do not include street light grids that are owned and operated by a private company or leased to the municipality; these are included in the community inventory.

Wastewater and Potable Water

Inclusion protocols: Include all infrastructure for sanitary sewers, storm water, and potable water that is owned by the local government. Also include infrastructure that is leased to a utility or private management company. For potable water and sanitary sewer treatment plants, electricity, natural gas or fuel oil may be in use for space heating. Buildings that house stations containing pressure-reducing valve usually have associated lights and sometimes have space heating for winter conditions. The emissions related to the lights and space heating, if any, are included in the wastewater and potable water sector, and not the buildings sector.

Exclusion protocols: Do not include infrastructure that is owned and operated by a private utility. Such infrastructure is included in the community emissions inventory. Emissions from biomass are not included in the inventory to conform with the CCP protocol.

Vehicle Fleet

Inclusion protocols: Include all vehicles owned and operated by the local government. Include personal vehicles used for local government business. Note: Only kilometres are usually tracked for personal vehicles used for local government business; the fuel efficiency of such vehicles is not usually tracked. In the absence of fuel efficiency data, an estimate may be required.

Exclusion protocols: The inclusion of portable motorized equipment (e.g. leaf blowers and lawnmowers) is optional, but taking the time to track all fuels consumed during local government operations is highly recommended.

Solid Waste

Inclusion protocols: Include all solid waste generated at local government facilities (e.g. buildings and parks).

Exclusion protocols: Do not include any solid waste generated in the community. Note: All waste deposited by the community at public facilities is included.

The *2015 Update to the Corporate Climate Change Action Plan* has identified additional sources of greenhouse gas emissions within the current scope of the Partners for Climate Protection program which have not previously been acknowledged or reported through the *Climate Change Action Plan*. These will ideally be incorporated into future corporate CCAP reports:

- City-owned buildings managed indirectly by the City (e.g. community centres);
- Contracted City services traditionally provided by municipal government (e.g. residential waste and recycling collection and snow clearing);
- Transit buses.

Corporate Inventory Boundary

The roles and responsibilities of Canadian local governments can vary considerably from one jurisdiction to another. In some jurisdictions services such as public transit and solid waste disposal are owned and operated directly by the local government, while in other jurisdictions these services are offered by a private-sector third party, a neighbouring municipality or a regional government. Within the context of the PCP program, the boundary of the corporate inventory is determined using an approach known as operational control, which requires the local government to report 100 per cent of the emissions from operations over which it has control.

GHG Emissions from Contracted Services

In Canada, it is not uncommon for a local government to contract certain services out to a private sector organization or third party. Contracted services can encompass a variety of activities, ranging from road maintenance and custodial services to water system operations and solid waste disposal. Determining whether to report the GHG emissions from these types of contracted services can present local governments with unique reporting challenges. Once a service or activity has been contracted out, for example, a local government may feel as though it no longer has the authority to introduce policies or operating procedures governing the contracted service.

However, if the service provided by the contractor is a traditional local government service, omitting this emission source from the corporate GHG inventory can undermine the inventory's relevance and completeness, and can limit efforts to draw accurate comparisons with other local governments. To

determine whether to report the GHG emissions from a contracted service, local governments are encouraged to follow the guidelines outlined in the International Local Government GHG Emissions Analysis Protocol (IEAP).1 According to the IEAP, local governments must report the GHG emissions from a contracted service in cases where:

1. The service provided by the contractor is a service that is traditionally provided by local government;
2. Emissions from the contracted service were reported in an earlier local government GHG inventory; and/or
3. Emissions generated by the contractor are a source over which the local government exerts significant influence. When reporting emissions from a contracted service, the intention is to capture the GHG emissions directly related to the service provided by the contractor. For example, if a local government has contracted out its snow removal or solid waste collection services, it should report the direct emissions from motor fuel used by the snow removal or waste collection vehicles. In most cases, it is not necessary to report the indirect emissions generated at the contractor's administrative or corporate office buildings.

APPENDIX B: Community Emissions from Municipal Operations

The City measures community emissions in accordance with the *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions* developed by ICLEI – *Local Governments for Sustainability USA*.

To be considered in compliance with ICLEI protocol, community GHG inventories must include emissions from the following five activity sectors:

- Building Electricity and Natural Gas
- Transit
- Vehicles
- Waste Disposal; and
- Water and Waste Water

In addition, the protocol includes guidance on scoping and lists five ICLEI basic emission-generating activities that must be included in all GHG emission reports:

- Use of Electricity by the Community
- Use of Fuel in Residential and Commercial Stationary Combustion Equipment
- On-Road Passenger and Freight Motor Vehicle Travel
- Use of Energy in Potable Water and Wastewater Treatment and Distribution
- Generation of Solid Waste by the Community

Community Sector	ICLEI Activities Included
Building Electricity and Natural Gas	Use of Electricity by the Community, Use of Fuel in Residential and Commercial Stationary Combustion Equipment
Vehicles	On-Road Passenger and Freight Motor Vehicle Travel
Transit	On-Road Passenger and Freight Motor Vehicle Travel
Waste Disposal	Generation of Solid Waste by the Community
Water and Waste Water	Use of Energy in Potable Water and Wastewater Treatment and Distribution

The following items were NOT included within the ICLEI scope for the energy and GHG inventory because they are either insignificant (and thus considered de minimis), their activities are not occurring with the City of Winnipeg, or accurate data was not readily available at the time of the report:

- Fugitive emissions from refrigerant / coolant use.
- Indirect emissions from transboundary on-road inter-city or international transportation trips that originate and/or complete their journey within the City
- Railway emissions
- Water-borne navigation emissions
- Aviation emissions
- Off-road transportation emissions
- Industrial process emissions
- Agriculture, forestry, and land use emissions
- Transboundary emissions due to exchange / consumption of goods and services

A detailed description of each sector is provided below along with the recommended best practices for GHG quantification.

Building Electricity and Natural Gas

Building electricity consists of the GHG emissions incurred through the use of electricity in residential, commercial, and industrial buildings within the City of Winnipeg. Emissions from the consumption of electricity are derived at the source (i.e. where the electricity is generated) as opposed to where the electricity is being used (i.e. on-site). Building natural gas is comprised of the GHG emissions due to the combustion of natural gas in residential, commercial, and industrial buildings, as well as stationary combustion within the City of Winnipeg

Inclusion Protocol: Report all direct and indirect emissions generated by the use of electricity and natural gas at community buildings (e.g. residential dwellings, institutions, commercial establishments, industrial facilities, etc.). Include use of fuel in residential and commercial stationary combustion equipment.

Transit

The community transit sector tracks GHG emissions generated by public transit vehicles traveling within the community. Emissions in this sector can be produced directly from the use of fuels, such as gasoline and diesel, or indirectly from the use of grid electricity (e.g. plug-in electric transit vehicles).

Inclusion Protocol: Report all direct and indirect emissions generated by the use of motor fuels (including electricity) in public transit systems. Buses in the City are almost exclusively fueled by B2 diesel (i.e. a common blend of biodiesel comprised of 98% petrodiesel and 2% biodiesel), with the only exception being four (4) new battery-powered electric buses that Winnipeg Transit are implementing during a four-year trial program.

Vehicles

The community vehicle sector tracks GHG emissions generated by on-road passenger and freight motor vehicles traveling within the community. Emissions in this sector can be produced directly from the use of fuels, such as gasoline and diesel, or indirectly from the use of grid electricity (e.g. plug-in electric vehicles).

Inclusion Protocol: Report all direct and indirect emissions generated by the use of motor fuels (including electricity) in on-road residential and commercial vehicles. On-road vehicles are designed for transporting people, property, or material on paved roads (e.g. cars, vans, trucks, motorcycles, etc.). Emissions inventory for vehicles is gathered by calculating the total registered vehicle count in the City of Winnipeg, as well as the total vehicle kilometers travelled for all residential and commercial vehicles.

Exclusion Protocol: Calculated emissions may not be based on factors such as driver behavior and road conditions. While these factors do have an impact on vehicle emissions, the model only deals with average fuel consumption rates.

Waste Disposal

All non-recycled, non-composted solid waste in the City of Winnipeg is considered to be landfilled at either the City-operated Brady Resource Recovery Centre or at nearby private landfills. While private landfills may not necessarily be within the City boundaries, emissions associated with Winnipeg-generated community waste is attributable to the City's community GHG inventory.

Inclusion Protocol: Report direct GHG emissions from waste generation that fall into the following sub-categories: *(i)* Residential; *(ii)* Industrial and Commercial; *(iii)* Construction and Demolition, and; *(iv)* City

Operations. Once waste is divided into these four categories, emission factors are applied based on the type of waste. Lifetime emissions from waste generation are also captured under this category.

Exclusion Protocol: Note that wastewater biosolids are not included within this section as they are covered under the following section, 'Water & Waste Water'. Also note that composting is not considered as contributing to community GHG emissions because composting is assumed to be carbon neutral. Finally, some landfill gas emissions are offset through a new landfill gas collection system and flaring initiative at the Brady Road landfill.

Water and Waste Water

Waste water includes both the treatment and disposal of waste water in the City. The emission calculation for water and waste is divided into bio-gas combustion, process-based N_2O emissions, and outflow GHG emissions.

Inclusion Protocol: Report all direct GHG emissions from biogas combustion, waste water processing, biosolids landfill, and biosolids composting.

Exclusion Protocol: Waste water processing electricity consumption is not included within this section.

APPENDIX C – Winnipeg's Community-Wide Climate Change Action Plan Funding

The City of Winnipeg received funding through the Green Municipal Fund Program for the following initiative:

Winnipeg's Community-Wide Climate Change Action Plan (GMF Number 12113)
Type: Plan
Sector: Energy
Sub Sector: Energy Management - PCP Plan
Total Project Value: $283,250
Grant: $94,875
Fiscal Year Approved: 2013
Timeline: 2012 - 2014
Status: In Progress

As a member of the Partners for Climate Protection (PCP) program, the City of Winnipeg will develop an integrated community-wide strategy to reduce greenhouse gas (GHG) emissions to complete the first three milestones of the PCP Milestone Framework. This project dovetails with the city's existing corporate climate change action plan, which was approved for GMF funding (GMF 3163), and follows an approach endorsed by City Council in 2009. It also complements federal and provincial commitments to curb GHG emissions, particularly the Province of Manitoba's commitment in its Tomorrow Now strategy, which calls for an update to the province's 2008 climate change actions.The city will develop a rigorous emissions inventory using the PCP framework and land use planning tools and will analyze this data to set emissions reduction targets and design an action plan that empowers businesses and residents to reduce their carbon footprint. In particular, Winnipeg will establish new long-term reduction targets extending to at least 2035. Public and stakeholder engagement will play a central role at all stages of the project, supported by the innovative and award-winning SpeakUpWinnipeg online consultation platform used in previous strategic planning exercises. A Steering Committee consisting of municipal representatives, key stakeholders and interest groups including Manitoba Hydro, Economic Development Winnipeg, and the Province of Manitoba will guide the development of the local action plan for Council endorsement, anticipated in 2014. A technical advisory committee consisting of the city's project team and key technical stakeholders will support the Steering Committee and guide the development of all technical work including the energy and emissions inventory, forecast, and opportunities assessment. By reducing community-wide GHG emissions, the City of Winnipeg will enhance the local environment through improved air quality and will contribute to the global effort to mitigate climate change. The plan is expected to foster climate literacy among citizens and will lead to concrete outcomes such as safer and more walkable communities and more options for active transportation. The city's community climate change action plan will identify process improvements and long-term energy cost savings which will, in turn, help to grow its local economy.