

Climate Change Working Group Final Report

Prepared by:
Climate Change Working Group

Comprised of:
Councillor Gerbasi (Chair)
Councillor Allard
Councillor Gilroy



January 2017

Consultation in Preparation for this Report

Consultation occurred through informal discussions with a broad range of stakeholders, including members of Council.

External stakeholders consulted included businesses, non-profit organizations, educational institutions, environmental non-governmental organizations, and Crown Corporations. The following table provides a more detailed list of external consultations:

External Stakeholder Consultations held by Councillor Gerbasi	
Marten Duhoux	MB Chapter, Canada Green Building Council
Philip Gass	International Institute of Sustainable Development
Membership includes businesses, non-profit organizations, educational institutions, environmental non-governmental organizations, Crown Corporations	MB Sustainability Coordinators Group
Terry Shaw	Manitoba Trucking Association
Mark Hutcheson	Canada Green Building Council
Curt Hull	Climate Change Connection
Dany Robidoux	Eco-West
Joelle Saltel and Rachel Deslauriers	Federation of Canadian Municipalities
Membership includes businesses, non-profit organizations, environmental non-governmental organizations	Chamber of Commerce Environmental Leadership Council
Gord Delbridge and Dave Sauer	Winnipeg Labour Council & CUPE
Elijah Dietrich	Kelvin High School, incoming President
Honourable Cathy Cox	Minister of Sustainable Development, Province of Manitoba

Internal consultation from the following City of Winnipeg departments:

Office of the Chief Administration Officer and Chief of Corporate Services Officer
Corporate Finance: Asset Management Division

Public Works: Parks and Open Spaces and Transportation Divisions

Water & Waste: Wastewater, Water Services, and Solid Waste Divisions

Winnipeg Fleet Management Agency

Winnipeg Transit: Planning Division

With Support from:

Urban Planning Division, Planning, Property and Development

Executive Summary

Cities have a critical role to play in mitigating and adapting to climate change as they are responsible for producing 70% of climate-changing GHG emissions world-wide. As such, many Canadian cities are showing leadership by developing and implementing strategies to mitigate climate-changing GHG emissions. Climate change and sustainability should be framed through a triple bottom line lens of environment, economy and social well-being. It is about doing the right thing for the people of your community (protecting them from climate impacts), the planet (doing your part to mitigate the harmful local and global effects of climate change), and local business (creating economic opportunities through climate initiatives).

The City of Winnipeg wishes to be a leader in taking action on climate change as evidenced by sustainability policy and direction found in *OurWinnipeg*, and Council's long history of participation in the Federation of Canadian Municipalities Partners for Climate Protection Program.

To further these efforts, in April 2016, the Executive Policy Committee created the Climate Change Working Group and provided the group a three-part mandate of: 1) assessing the status of the City's commitment to Federation of Canadian Municipalities' Partner for Climate Protection model 2) reviewing the current status of *OurWinnipeg* as it relates to climate change initiatives and 3) reviewing new and developing climate change funding sources and partnerships.

This report provides a background on Winnipeg's climate-related policy and Council direction, and key findings related to the Climate Change Working Group's mandate. It contains eleven recommendations that will not only assist the City of Winnipeg in capitalizing on funding opportunities to invest in green infrastructure and renewable energy, but also help enable the municipality to become a more sustainable, livable and climate resilient community.

1. Introduction

The 1992 Earth Summit in Rio de Janeiro is often cited as the first time governments in developed countries from around the world agreed that climate change action “is necessary to prevent dangerous anthropogenic interference with the climate system”. Today, 97% of climate scientists agree that climate change is real, it is happening now, and it is human-caused. Cities have a critical role to play in mitigating and adapting to climate change as they are responsible for producing 70% of climate-changing GHG emissions world-wide. As such, many Canadian cities are showing leadership by developing and implementing strategies to mitigate climate-changing GHG emissions. Actions taken by Canadian cities to address climate change enhance and improve the quality of life, economic prosperity and livability of our cities.

At the December 2015 Conference of the Parties (COP21) 195 countries, including Canada, reached an historic agreement to keep the global temperature increase below 2 degrees Celsius. Councillor Gerbasi participated as part of the Canadian FCM delegation to emphasize the important role of municipal governments in taking action on climate change and reducing the local production of greenhouse gas emissions.

Canada’s Parliament has since ratified the Paris Agreement on Climate Change and formally requires Canada’s provinces to develop an approach to address climate change. If they do not, the federal government will intervene with carbon pricing at a minimum of \$10 per tonne of carbon dioxide emissions in 2018, rising by \$10 each year to \$50 a tonne by 2022.

These historical steps taken at the global and national levels present an important opportunity for the City of Winnipeg to show leadership and take action on carbon reduction at the community and corporate levels. However, to date, the City of Winnipeg has been unsuccessful in meeting its climate targets and commitments. As such, Council has directed the establishment of a Climate Change Working Group to provide recommendations on next steps for achieving our climate goals.

1.1. Climate Change Working Group Mandate, EPC motion and Membership

On April 13, 2016 (EPC Minute No.12) the Executive Policy Committee passed the following motion:

WHEREAS the City of Winnipeg has a role to play in reducing greenhouse gas emissions and an opportunity to re-engage efforts and provide leadership from its municipal government;

AND WHEREAS the City of Winnipeg began to address climate change on November 25, 1998 when Council agreed to sign on to the Federation of Canadian Municipalities (FCM) initiative, Partner for Climate Protection;

THEREFORE BE IT RESOLVED:

1. That a Working Group on Climate Change be created with the following mandate:
 - A. Assess the status of the City’s commitment to Federation of Canadian Municipalities’ Partner for Climate Protection model.
 - B. Review the current status of *OurWinnipeg* as it relates to climate change initiatives.
 - C. Review new and developing climate change funding sources and partnerships.

2. That the Working Group be comprised as follows:
 - Councillor Gerbasi – Chair
 - Councillor Allard
 - Councillor Gilroy
3. That the Working Group on Climate Change report directly to the Executive Policy Committee, and conclude at the end of 2016.

2. **Background on Climate Policy and related Council Direction in Winnipeg**

2.1. **Climate Change and *OurWinnipeg***

OurWinnipeg is Winnipeg's 25-year blueprint that will guide the growth and progress of the City's physical, social, environmental, and economic development as per The Winnipeg Charter. *OurWinnipeg* integrates four Direction Strategies (*Sustainable Water and Waste, Sustainable Transportation, Complete Communities and A Sustainable Winnipeg*) that provide detailed policies, directions, and strategies necessary for implementation. *OurWinnipeg* is framed as a sustainability plan and includes significant references and policy direction related to climate change issues in both the corporate and community sectors. An overview of corporate and community direction from *OurWinnipeg* is provided below, and more detailed information may be found in *Attachment A*.

2.1.1. ***OurWinnipeg* direction related to Corporate Climate Change Action**

A Sustainable Winnipeg is one of four *OurWinnipeg* Direction Strategies. It is an integrated community sustainability strategy that outlines a plan of action, proposes a system of sustainability indicators and measures.

A Sustainable Winnipeg Direction Strategy includes the following references to corporate GHG emissions:

- Establish corporate GHG reduction targets for 2020 and 2035.
- Maintain a Climate Change Action Plan to reduce the City of Winnipeg's operational GHG emissions by a further 20 per cent below 1998 levels.
- Green the City's fleet operations through a plan that includes direction on anti-idling, efficient vehicles, use of alternate fuels and the right-sizing of the fleet.
- Investigate opportunities to sell GHG emission reductions as carbon-offset credits.

2.1.2. ***OurWinnipeg* direction related to Community Climate Change Action**

A Sustainable Winnipeg Direction Strategy includes the following references to community GHG emissions:

- Create and maintain a Climate Change Action Plan to reduce Winnipeg's community-wide greenhouse gas emission by 6 per cent below 1998 levels.
- Establish a community-wide GHG reduction target for 2020 and 2035.

OurWinnipeg includes the following references to community GHG emissions:

- Support improved energy efficiency and GHG emission reductions, and move towards compliance with contemporary building code standards.
- Reduce the environmental impact of our activities, through strategies such as planning for sustainable energy use and GHG reduction.

2.2. Council's commitment to the Federation of Canadian Municipalities Partners for Climate Protection Program

On November 25, 1998 Council passed a resolution signing on to the Federation of Canadian Municipalities (FCM) *Partners for Climate Protection Program* (PCP) and committed to reducing its corporate greenhouse gas emissions by 20% and its community-wide greenhouse gas emissions by 6% over a baseline year of 1998. As described below, in 2009 Council approved a target of a further 20% reduction in corporate greenhouse gas emissions (totaling 40%) below 1998 levels.

The FCM Partners for Climate Protection Program applies a milestone approach to developing, implementing, and monitoring a Local Action Plan to achieve targeted emissions reductions, and relies upon an inventory and forecast of corporate and community-wide energy use and emissions. The milestone approach is a flexible, performance-based process through which FCM members can build capacity to incorporate climate change into their planning and decision making. The City sets targets and makes recommendations for the GHG emissions reduction action plans following the [Five-Milestone Framework for Reducing Greenhouse Gas Emissions](#). 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

2.3. The City of Winnipeg's Corporate Change Climate Action Plan

Winnipeg focused its initial efforts on accomplishing the corporate GHG reduction target to demonstrate leadership before embarking upon the community climate change action plan. Corporate GHG emissions include those occurring within the operational control of the City.

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.

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 (e.g. the sale of Winnipeg Hydro) 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. This strategy was endorsed by Council and built upon the previous CCAP with additional actions such as inclusion of forecast scenarios for the period of 2010-2019 as a way of providing Council with an overview of emission reduction opportunities to aid in strategic climate investments.

In July 2016, Council received an update on the Corporate Climate Action Plan with a report highlighting that the City did not achieve the ambitious 40% target. The Public Service was directed to work with the CCWG on developing timelines and targets for reducing GHG emissions within the City of Winnipeg.

2.4. The City of Winnipeg's Community Climate Change Targets

Council's community-wide target (6% below 1998 levels) which was set in 1998 when the City first joined the Partners for Climate Protection Program (PCP) and it does not have a complementary action plan or strategy.

In November 2016, a technical report entitled *Winnipeg's 2011 Community Greenhouse Gas Inventory and Forecast* was received by Council. The administrative report was referred to the CCWG to develop recommendations for reducing community greenhouse emissions within the City of Winnipeg.

This community inventory includes 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. This is inclusive of the City's corporate emissions, which account for approximately 1% of the community total.

2.5. Other Canadian Cities Climate Targets and Status in Partners for Climate Protection Program

Most similarly-sized Canadian cities, and nearly all large cities around the world, have either adopted or have committed to adopting stand-alone or policy-integrated climate change goals, targets, and action plans. Strong leadership is key to cities taking action on climate change, and many Canadian cities that have staff focusing on climate policy and programming are making progress on their climate targets.

For example, Toronto has achieved [and even exceeded] their original community emission reduction target of 6% below 1990 levels by 2012. During that same time, emissions in city-owned buildings fell by 40% below 1990 levels. Toronto has also been making substantial progress towards their revised short-term community and corporate targets for 2020. According to their 2015 Environmental Progress Report, community GHG emissions were 25% below 1990 levels, and corporate emissions were 49% below the baseline. Most recent projections put Toronto on track to achieving both of its 2020 targets. Furthermore, Toronto has achieved 5/5 milestones in both the community and corporate climate programs.

Another example is Vancouver where they have a 100% renewable energy target by 2030 and a longer term community emissions reduction target of 80% by 2050. Vancouver has made substantial progress towards achieving their short-term community emission reduction target of 33% below 2007 levels by 2020. In 2014, emissions were 7% below 2007 levels and by 2015,

emission reductions had doubled, reaching 15% below 2007 levels. Additionally, GHG emissions from buildings in 2015 fell by 20% relative to 2007 baseline levels, while total fleet emissions decreased by 13% during that same time. In terms of corporate emissions, Vancouver has managed to achieve a 49% reduction vs. baseline levels. In 2015, Vancouver was acknowledged by Carbon Disclosure Project as one of the '10 Top Cities for Climate Reporting and Disclosure'. Furthermore, Vancouver has achieved 5/5 milestones in both the community and corporate climate programs.

In Victoria, BC, they recently committed to community target of 33% by 2020 and 80% GHG reductions by 2050 and 100% renewable energy by 2050. At the corporate level Victoria has achieved carbon neutrality as of 2014.

A key point in comparing cities across Canada is that our current climate targets do not have a target year for achieving them and they are not broken down into short, medium and long term horizons of 2020, 2035, and 2050. Because they are not time bound, it is challenging to hold ourselves accountable for reporting on progress and achieving our goals within a certain timeframe. Other Canadian cities do establish target years and have advanced through the PCP milestone framework.

Another important observation is that other cities that are achieving their targets have a significant level of dedicated resources to climate change initiatives.

3. Climate Change Working Group Findings

The Executive Policy Committee established the Climate Change Working Group (CCWG) to assess the City's current climate change plans and recommend actions to address climate change. In cooperation with the relevant City departments, the CCWG is reporting back to the Executive Policy Committee with findings on the following mandate:

1. Assess the status of the City's commitment to Federation of Canadian Municipalities' Partner for Climate Protection model.
2. Current status of *OurWinnipeg* as it relates to climate change initiatives.
3. Review new and developing climate change funding sources and partnerships.

3.1. Current Status of the City's commitment to Federation of Canadian Municipalities' Partner for Climate Protection model

The City's commitment, which began in 1998, to the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection Program (PCP) includes both corporate and community GHG emissions targets adopted by Council, as outlined below:

- The [Corporate] *Climate Change Action Plan* was last updated in 2008 and responds to Council's target to reduce emissions from municipal operations to 40% below 1998 levels. The scope of this target is GHG emissions occurring within the operational control of the City. These account for approximately 1% of the overall community total.
- Council's community-wide target (6% below 1998 levels) includes all GHG emissions related to energy consumed and waste produced in Winnipeg.

The Public Service is not on track to achieve Council's 40% corporate reduction target. Furthermore, Council's community-wide target (6% below 1998 levels) does not have a complementary action plan or strategy. Several of the strategies to reduce GHG emissions do not have dedicated staff. Resourcing carbon reduction strategies is required in order to meet the corporate and community GHG reduction targets.

Additional information on the status of the City's commitment to the FCM Partners for Climate Protection program and climate change action plan funding can be found in *Attachment B*.

3.1.1. Current Status of Corporate Climate Change Action Plan & City's Commitment to the FCM PCP Program

To date, the City has advanced through the first four milestones of the PCP Program for corporate emissions, with the most recent milestone completed in 2008.

Reporting to Council in 2016 on the results of our plan would technically make us eligible to make a submission to FCM for Milestone 5 recognition. However, since the City did not achieve the ambitious 40% target, the Public Service is reviewing our corporate climate plan with the intent to resubmit our application to the PCP program with an update that includes more achievable targets. This resubmission will assist in determining our true current position within the PCP milestone framework.

As previously noted, an update on the Corporate Climate Action Plan was received by Council in July 2016. The report highlighted that the City did not achieve the ambitious 40% target and therefore the Public Service was directed to work with the CCWG on developing timelines and targets for reducing GHG emissions within the City of Winnipeg.

The most current GHG emissions inventory was completed in 2013 and shows a total of 71,832 tonnes of CO₂e were emitted as a result of corporate energy consumption and greenhouse gas emissions from all sectors. Total corporate emissions in 2013 originated from the following sectors: buildings (41%), fleet (26%), water and sewage (17%), solid waste (16%) and traffic signal/street lighting (0%).

It is worth noting that as per corporate emissions account for approximately 1% of the overall community total.

Based on a review of corporate climate change initiatives, and what is achievable, a short-term target of 10% below 1998 by 2022 is recommended. The short-term corporate climate target is based on the latest (2013) corporate emissions inventory and reflects the expected impact if all previously adopted direction and strategies, as well as the recommendations of this report are fully implemented by 2022. Of the specific actions that are modeled into this target scenario, the largest sources of GHG reductions will be attributed to: (i) the expansion of the Brady Road Resource Recovery Centre's landfill gas collection system, and (ii) achievement of the Green Fleet Plan's targeted 17.65% reduction below 1998 levels. Other planned actions that will contribute to achieving this target include modest energy efficiency improvement to existing buildings, organics diversion programs for City facilities and completion of the LED traffic signal conversion project. Further details regarding these planned actions can be found in the 2015 Update to the Corporate Climate Change Action Plan report.

In the medium to longer term, areas of opportunity for additional carbon reductions include:

- Targeting carbon neutrality in new City buildings;
- Creating a comprehensive energy management program for existing buildings;
- Investing in renewable energy in buildings;
- Additional reductions in vehicle emissions through the Green Fleet Plan;
- Investing in organics diversion programs for City facilities and operations.

These opportunities for emission reductions should be considered in a future strategy that establishes longer term targets to 2035 and 2050 based on a comprehensive analysis of current and future emissions. When quantifying current emissions from corporate operations, transit fleet emissions and contracted services such as for winter snow clearing, and residential solid waste and recycling collection should be measured and reported, even if those services are delivered, in part or in full, by private contractors. This allows for meaningful year over-year measurement and recognizes the responsibility of municipal government regardless of the method of service procurement

3.1.2. Current Status on Community Climate Change & FCM PCP Program

Winnipeg achieved Milestone One of the PCP Program in 2002 with the completion of a 1998 community emissions inventory. That inventory has since been updated to a 2011 baseline year, as described in the consultant report entitled *Winnipeg's 2011 Community Greenhouse Gas Inventory and Forecast* which was received by Council in 2016.

Council's community-wide target of reducing greenhouse gas emissions by 6% below 1998 levels does not have a complementary action plan nor does it identify the target year for which it is to be achieved. The above noted report (*Winnipeg's 2011 Community Greenhouse Gas Inventory and Forecast*) details three scenarios projected along three separate emission forecasts: (i) Business-As-Usual pathway; (ii) 'Our Winnipeg' pathway; and (iii) Low Carbon pathway.

Since a community-wide climate action plan and related GHG reduction targets in the medium (2035) and longer term (2050) have not been established, it is important that we commence public consultation to develop a Community Climate Change Action Plan as soon as possible. The City has received a grant, in the amount of \$94,000, from FCM's [Green Municipal Fund](#) to develop an integrated community-wide strategy to reduce GHG emissions that will involve extensive public consultation. The public engagement program will consider best practices and be guided by resources such as the [FCM Participatory Toolkit](#), the IAP2 Principles for Public Participation, and the City of Winnipeg's Public Engagement Handbook. To ensure meaningful participation and inclusion of community partners in the development of our Community Climate Plan, it is important that a stakeholder advisory committee be established that includes broad representation and technical expertise from the community.

3.2. Current status of *OurWinnipeg* as it relates to climate change initiatives

OurWinnipeg is Winnipeg's 25-year blueprint that will guide the growth and development the physical, social, environmental, and economic development of our city as per The Winnipeg Charter. *OurWinnipeg* integrates four Direction Strategies that provide detailed policies, directions, and strategies necessary for implementation. *OurWinnipeg* is framed as a sustainability plan and includes significant references to climate change issues.

The CCWG reviewed the current status of *OurWinnipeg* as it relates to climate change initiatives. *Attachment A* summarizes the climate change references in *OurWinnipeg*, as well as the policies, directions, and strategies related to climate change included in each of the four Direction Strategies. In addition, *Attachment A* provides references to climate change in the Transportation Master Plan - Moving Winnipeg Toward 2031.

3.3. Current Status of New and Developing Climate Change Funding Sources and Partnerships

There are a variety of new funding opportunities evolving from all levels of government, including, but not limited to: federal green infrastructure funding, provincial carbon pricing revenue recycling, and additional municipal funding through FCM. Furthermore, cities that are showing leadership in sustainability and climate action planning are being innovative in partnering with community stakeholders to finance and support action on climate change.

3.3.1. Federal Funding Opportunities

The federal government has recently committed \$19.7 billion each for public transit, social, and green infrastructure over 10 years. Starting in the upcoming 2017-18 fiscal year, the federal government will start rolling out the next phase of its infrastructure funding, committing \$81 billion more over 11 years. The funding will include:

- \$25.3 billion for *public transit projects*;
- \$21.9 billion for *green infrastructure* including, but not limited to: interprovincial transmission lines, renewable power projects, and water treatment facilities;
- \$21.9 billion for *social infrastructure* such as affordable housing, early learning and childcare, and cultural and recreational infrastructure.

To provide a roadmap for how and when funding will be dispersed, the federal government has recently released a short-term costing plan framework which is extended over a 2020 timeline, as illustrated below.

INFRASTRUCTURE				
Investment	2016/17	2017/18	2018/19	2019/20
Public transit infrastructure	1,675	1,675	1,150	1,150
Social infrastructure	1,675	1,675	1,150	1,150
Green infrastructure	1,675	1,675	1,150	1,150

Figures in millions of dollars

Additionally, the federal government has also earmarked a modest amount of funding specifically for projects & initiatives which support the environment and economy, as illustrated below. This includes a newly-unveiled four-year, \$2 billion Low Carbon Economy Trust that is designed to fund projects that materially reduce GHG emissions.

ENVIRONMENT AND ECONOMY

Investment	2016/17	2017/18	2018/19	2019/20
Low Carbon Economy Trust	0	1,000	1,000	0
Resource sector clean-tech strategies	200	200	200	200
Clean-tech production	100	100	100	100
National Parks programming and science	50	50	50	50
Water science and monitoring	50	50	50	50
Free entry to National Parks in 2017	15	45	0	0

Figures in millions of dollars

The federal government has also announced they will also table legislation in 2017 to establish a new \$35-billion Canada infrastructure bank to help other levels of government undertake transformative infrastructure projects by allowing them to borrow at the federal government rate to reduce the cost of borrowing for larger projects. The federal government hopes to leverage potentially \$4 or \$5 of private sector investment for every \$1 in federal, provincial and municipal funding for a project. Additionally, as the federal government continues to identify and define applicable funding initiatives, the City of Winnipeg should endeavour to pursue opportunities to fund projects that are in step with the municipal climate change plans.

The 2016 Federal Budget announced an additional \$75 million capacity-building fund to be delivered by FCM's Green Municipal Fund to support climate change mitigation and adaptation in municipalities across Canada. The program will be targeted specifically at municipalities and their partners. The program will support a range of activities including plans, studies and demonstration projects under a mitigation and adaptation stream from 2017 to 2020. Grants may range from \$175,000 to up to \$1,000,000 depending on the nature of the projects; details related to planned funding will be communicated early in 2017.

To best manage the funding available and to support the strongest initiatives, FCM implemented new updates to the GMF that went into effect on April 1, 2015, including:

- An updated competitive selection process for capital projects in the energy, transportation, waste and water sectors;
- Updated eligibility criteria and funding limits for all funding streams; and
- An updated application process, as well as new application forms and support tools for applicants.

Opportunities for the City of Winnipeg to apply for GMF funds are organized according to the sectors of municipal activity: Brownfields, Energy, Transportation, Waste, Water, and Multi-Sector. Additional information on the eligibility criteria of the Green Municipal Fund is included in *Attachment C*.

3.3.2. Provincial Funding Opportunities

The provincial government's supports innovative solutions to environmental issues through the Sustainable Development Innovations Fund (SDIF). The SDIF is designed for projects, activities, research and developments that further the sustainability of Manitoba's environment, economy, human health and social well-being. Targeted funding programs under the Fund are:

- [Waste Reduction and Pollution Prevention \(WRAPP\) Fund](#)
- [Manitoba Climate Change Action Fund \(MCCAF\)](#)
- [Water Stewardship Fund](#)

Manitoba Hydro has introduced a Solar PV Energy Incentive Program available to all residential, commercial, and industrial customers interested solar energy systems up to 200kW. Manitoba Hydro will pay \$1 per watt installed; the incentive is paid at the end of the project, once the PV system passes inspection.

On May 3, 2016, Premier Brian Pallister released a mandate letter addressed to Catherine Cox, Minister of Sustainable Development, to develop a made-in-Manitoba provincial climate action plan containing the following elements:

- Carbon pricing and revenue recycling that fosters emissions reduction, keeps investment capital here and stimulates innovation in clean energy, businesses and jobs.
- Land-use and conservation measures that sequester carbon and foster adaptation to climate change.
- Reduce emissions from commercial buildings through building codes and other measures putting government operations and infrastructure on a path to carbon-neutrality.
- Encourage the adoption of fuel saving technologies and measures within the transportation sector.
- Additionally, as the provincial government continues to identify and define applicable funding initiatives, the City of Winnipeg shall endeavor to pursue opportunities to fund projects that are in step with the municipal climate change plans.

Opportunities for the City may exist through revenue recycling as an outcome of the yet to be unveiled provincial strategy on carbon pricing. Other Canadian jurisdictions, such as the City of Vancouver, support sustainability initiatives and climate action using this model.

3.3.3. Other Potential Funding and Partnership Opportunities

Partnering with local foundations and granting agencies is another opportunity for the community to take action climate change. An example of a grant program that specifically supports the concept of local governments partnering with local foundations is Partners for Places.

[Partners for Places](#) is a successful matching grant program that creates opportunities for cities and counties in the United States and Canada to improve communities by building partnerships between local government sustainability offices and place-based foundations. National funders invest in local projects to promote a healthy environment, a strong economy, and well-being of all residents. Through these projects, Partners for Places fosters long-term relationships that make our urban areas more prosperous, livable, and vibrant.

The grant program provides partnership investments between \$25,000 and \$75,000 for one year projects, or \$50,000 and \$150,000 for two year projects, with a 1:1 match required by one or more local foundations.

The Funders' Network for Smart Growth and Livable Communities and the Urban Sustainability Directors Network (USDN) joined together to launch Partners for Places. Now a project of the Funders' Network, the grant program was made possible by generous support from Bloomberg Philanthropies, the JPB Foundation, Kendeda Fund, John D. and Catherine T. MacArthur Foundation, New York Community Trust, Summit Foundation, and Surdna Foundation.

4. Discussion

Winnipeg is a major Canadian city with 718,400 people (and steadily growing) and the capital region contains over 60% of the total population of Manitoba. Despite Council direction provided as far back as 1998 and a long-range development plan *OurWinnipeg* that pledges to integrate sustainability into every aspect of City operations, the City is not on track to achieve its current climate goals and targets. Recent reports to Council show that only 0.2% of the targeted 40% of greenhouse gases has been reduced from City Operations and the community-wide target of reducing greenhouse gas emissions by 6% below 1998 levels does not have a complementary action plan or strategy in place as to how to achieve this target.

A key factor in the success of a Sustainability Office is that the City's organizational structure reflects a desire for strong leadership in this area. Sustainability and climate change issues are cross-departmental issues that need to be integrated into all operations and services. This is illustrated well in the case of the City of Vancouver, where sustainability is identified as one of five priority areas that fall under the Office of the City Manager with direct reporting lines to the Mayor.

Underlying our lack of progress in achieving climate goals is a lack of resources, and in particular staff and funding resources, to reduce GHGs and mitigate the risks associated with climate change. The CCWG has explored opportunities to leverage funding on climate change as previously discussed. However, many of the City's strategies to reduce GHG emissions do not have dedicated staff and there is no centralized Sustainability Office to work on streamlining and integrating climate change action across City departments. The Winnipeg Public Service has one permanent position (Environmental Coordinator) and one temporary position (Sustainability Planner) located in the Department of Planning, Property and Development.

In order for the City of Winnipeg to develop the capacity to meet corporate and community GHG reduction targets, some additional resources, such as dedicated staff within an Office of Sustainability, will be required. An Office of Sustainability should take the lead in researching and recommending climate change initiatives and targets, as well as coordinating implementation efforts within municipal departments, other levels of government, and community stakeholders. CCWG supports an evidence-based approach using best practices of target setting from the bottom-up to ensure selected actions are realistic and achievable. The advantages of a 'bottom-up' approach when setting a long-term (+10 year) corporate climate target include: (i) understanding of the actions required to meet the target and their potential costs, (ii) greater confidence that the target can be met with proper implementation, (iii) more

detail on sub-sector and interim reductions, and (iv) providing municipalities with important indicators that can help guide ongoing implementation and support future improvement

As shown in **Table 1**, many cities across Canada have dedicated staff working in a Sustainability Office. In Canadian cities with a population over 500,000, there is an average of 11 positions in the Sustainability Office and, even where the numbers of staff numbers are fewer, there is often a substantial budget in place to support work on sustainability issues. Furthermore, recent studies indicate that ‘dedicated municipal environment departments increase the likelihood that a local government will adopt high impact climate policy.’¹

Table 1: Approximate Number of Staff working in Sustainability Offices in several Canadian cities

City	Population	Number of Staff working in Sustainability office
Toronto	2.8 million	16
Ville de Montréal, QC	1.8 million	7
Calgary	over 1 million	4 ²
Edmonton	over 900,000	16
Vancouver	600,000	16
Surrey	500,000	5 ³
Saanich	110,000	3
Victoria	less than 100,000	3

The following list describes typical duties that staff working in a City Sustainability Office may be required to carry out:

- Preparation and implementation of cross corporate/community wide strategies (e.g. climate change action plan, adaptation and resiliency strategies)
- Provision of expertise and support to other Departments (e.g. environmental risk assessments; local food procurement policy; emissions tracking in support of the City's Green Fleet Plan)

¹ Schwartz, E (2016). Local Solutions to a Global Problem? Canadian Municipal Policy Responses to Climate Change. The University of British Columbia. Canada

² Three of these four positions are permanent positions.

³ The fifth staff member is embedded in the buildings department.

- Policy development & implementation (e.g. carbon pricing; green building policy)
- Program design and delivery (e.g. community facing programs related to electric vehicles, home and building energy labelling, green roof incentive programs, brownfield redevelopment)
- Inter-governmental affairs – coordinate and prepare City submissions in response to proposed Provincial and Federal environmental legislative/regulatory changes
- Reporting – prepare annual environmental progress report, the annual GHG inventory, and coordinate the City's submissions to CDP; Compact of Mayors etc
- Coordination – coordinate the City's submissions to the FCM Green Municipal Fund, Environmental management system (ISO 14001), manage the City's involvement in the C40 Cities; Compact of Mayors; 100 Resilient Cities; Urban Sustainability Directors Network, etc
- Research in support any one of the above activities

Three areas where significant benefits may be achieved through the reduction of greenhouse gas emissions are: green buildings, waste reduction and community initiatives.

Buildings make up a significant portion of our greenhouse gas emissions and therefore represent a great opportunity to achieve Winnipeg's climate goals at both the corporate and community levels. For instance, since 2011, the City has had a *Green Building Policy for Existing City-owned and leased Buildings* and as per Council's recommendation the policy should be "based on the continuous improvement of building environmental and energy performance, through energy and water-performance benchmarking exercise for City-owned and operated buildings over 3,000 square metres (33,000 square feet)". To be effective in delivering on the objectives of this policy, we need technical expertise and dedicated staff to develop an energy management program that includes energy and water benchmarking. Reasonable levels of resources dedicated to building energy management will help create the business case for efficiency retrofits to existing buildings and ultimately, we could achieve great success in reducing our carbon footprint.

Waste reduction is another significant greenhouse gas emissions reduction opportunity, and in particular, diversion of organic materials from corporate and community waste streams will directly contribute to target achievement and GHG reductions. The *City of Winnipeg Corporate Waste Strategy* and its associated waste diversion targets (approved by Council in 2015) identify the need for dedicated staff. Waste reduction initiatives that focus on diverting recyclable and compostable materials from the waste stream and result in GHG savings should be prioritized.

Community initiatives include the work of developing, coordinating, implementing and reporting on community wide strategies related to climate change mitigation, adaptation and resiliency in the face of a changing climate. Community partnerships will be critical to success in this area as municipal governments have influence and the ability to lead in some sectors (for example, land use planning) but in other areas have little to no direct authority over community emissions.

Finally, in response to feedback that the CCWG received from internal and external consultation efforts, it is important that staff dedicate time to examining carbon reduction opportunities

associated with sustainable asset management and climate-friendly procurement. High impact procurement categories for climate protection include examining energy efficient products, greening electronics and IT equipment, green fleet opportunities (e.g. the use of renewable fuels), and green building procurement strategies that include operations and maintenance, in addition to construction and renovation stages of the lifecycle. Furthermore, consideration for overall costs of ownership from the initial purchase price, operating and utility costs (including energy and water use), maintenance costs (for labour and repair) and end-of-life costs (for disposal and recycling) is critical to sustainable asset management and climate friendly procurement.

5. Recommendations

The following recommendations provide a pathway for Council to achieve its climate goals and targets and support future community climate change action planning that is to take place in the community.

The CCWG recommends that:

1. The recommended corporate short-term target is a reduction of GHGs by 10% below 1998 by 2022. Longer-term corporate targets, to 2035 and 2050, should be established following more comprehensive analysis carried out by the Public Service.
2. That, as per previous direction from Council and *OurWinnipeg*, the City should proceed immediately with an RFP to support a comprehensive public consultation to develop a community-wide climate change action plan. This will be funded through an existing Green Municipal Funds grant (GMF) of \$94,000. Community-wide targets to 2035 and 2050 should be established as an outcome of the community consultation and community-wide climate change action plan in line with timeframes set by other cities.
3. An Office of Sustainability be established in 2017, located in the office of the CAO. The Office of Sustainability should be responsible for all sustainability initiatives related to the City (both corporate and community-wide emissions). The Office of Sustainability would work collaboratively with City departments, other levels of government and the community to achieve the City's goals of sustainability and environmental quality as directed by Council.
4. The Office of Sustainability should incorporate the existing positions of the Environmental Coordinator and the Sustainability Planner. The Sustainability Planner which is currently temporary should become a permanent position.
5. At minimum, an additional three dedicated staff are required in order to meet established climate targets. These additional dedicated positions should be in place by 2018 to support work in the areas of green building, waste reduction and community initiatives.
6. A climate change cross-departmental working group should be created that will be responsible for monitoring GHG emissions and achieving carbon reduction objectives, led by the Office of Sustainability.
7. The Office of Sustainability should collaborate with related citizen advisory groups, including, but not limited to the Active Transportation Advisory Committee, Green Fleet Advisory Committee, Waste and Diversion Advisory Committee, and Winnipeg Food Policy

Council. Furthermore, a Stakeholder Advisory Committee made up of representatives from various sectors and with different expertise on climate change issues should be established to guide the development of a Community Climate Change Action Plan. This will reaffirm the important role of citizen advisory groups in continuing to inform and advise the Public Service on important climate and sustainability issues.

8. Annual reporting to Council on progress reducing greenhouse gas emissions, and continued climate change communications through *OurWinnipeg*. In terms of national and global reporting, the Public Service should continue to report through FCM *Partners for Climate Change Protection* Program and the global reporting platform Carbon Disclosure Project.
9. The Office of Sustainability should communicate information about emerging climate change related funding opportunities to City departments. The Office of Sustainability should regularly review and consider available funding opportunities from other levels of government, FCM and other sources.
10. That the Public Service should collaborate with the Office of Sustainability to provide a report on best practices of sustainable procurement for consideration of the appropriate committee of Council.
11. That the Public Service should collaborate with the Office of Sustainability to review the City's sustainable asset management strategies for opportunities to cut GHG emissions, identify the risks posed by climate change, and how those risks will be mitigated.

LIST OF ATTACHMENTS:

Attachment A:

OurWinnipeg Climate Change Initiatives



OurWinnipeg &
Climate Change.pdf

Attachment B:

FCM Partners for Climate Protection Program - Status Report



FCM Partners for
Climate Protection Pr

Attachment C:

FCM Funding Program & Opportunities



FCM Funding
Program & Opportuni

Attachment A:

OurWinnipeg Climate Change Initiatives: Status Report

Introduction

The purpose of this document is to provide information on OurWinnipeg direction and strategies on climate change initiatives. OurWinnipeg is Winnipeg's 25-year blueprint that will guide the growth and development the physical, social, environmental, and economic development of our city as per The Winnipeg Charter. OurWinnipeg integrates four Direction Strategies that provide detailed policies, directions, and strategies necessary for implementation.

The four direction strategies are Complete Communities, Sustainable Transportation, Sustainable Water and Waste Infrastructure, and A Sustainable Winnipeg. This document summarizes the policies, directions, and strategies related to climate change included in each of the four Direction Strategies. In addition, this document provides references to climate change in the Transportation Master Plan - Moving Winnipeg Toward 2031.

References to Climate Change in OurWinnipeg

01-1c KEY DIRECTIONS FOR SPECIFIC CITY AREAS (Pg. 33)

Complete Communities: Centres and Corridors

Centres and corridors will be vibrant, pedestrian-friendly districts, within walking distance of home. They will afford the opportunity to buy groceries, enjoy a meal or do some window shopping in the neighbourhood. They will provide the option to choose from a variety of different housing types—from apartments, to single-family homes, to townhouses—as your housing needs change, without leaving the familiar neighbourhood with established social networks.

KEY DIRECTION - Focus a significant share of growth to Centres and Corridors in a manner that:

- Concentrates people and jobs in areas well-served by the primary transit service, located close to transit stops.
- Encourages a built form that supports a pedestrian friendly environment while incorporating climate sensitive site and building design.

01-4 HOUSING (Pg. 54)

DIRECTION 2: Collaborate with other levels of government and other partners to renew and regenerate Winnipeg's housing stock.

Enabling Strategies:

- Support improved energy efficiency and greenhouse gas emission reductions, and move towards compliance with contemporary building code standards.

02-2 ENVIRONMENT (Pg. 68)

DIRECTIONS:

- Reduce the environmental impact of our activities, through strategies such as planning for sustainable energy use and greenhouse gas reduction.

References to Climate Change in Complete Communities

The overall vision of Complete Communities is that the City of Winnipeg is planned and designed based on a logical urban structure that focuses growth and change to enhance existing assets, to create complete communities and complete existing communities, and to ensure a socially, environmentally and economically sustainable future through the integration of transportation planning, land uses, built forms and urban design.

03–1f Getting from Place to Place Downtown (Pg. 30)

KEY DIRECTION - Facilitate the movement of people and goods both within Downtown and to it from elsewhere in the city by focusing primarily on an enhanced array of transportation options.

The transportation network in the Downtown will include a wide range of mobility options by facilitating all modes of transportation, where feasible. The desire is to support active transportation solutions, to strategically manage vehicle traffic and public parking requirements, to further increase pedestrian traffic in commercial and retail areas and to support the efficient movement of commercial goods and services. To that end, **strategies will promote the movement of people and goods in a manner that reduces Green House Gas emissions and promotes sustainability**. This transformation will be guided over the coming years by the city's comprehensive Sustainable Transportation Direction Strategy and the Downtown Parking Strategy.

Transformative Areas > Our Downtown > Getting from Place to Place Downtown: Supporting Direction

DIRECTION 1: Prioritize pedestrian-oriented transportation generally, with particular attention to specific Downtown corridors.

DIRECTION 2: Support active transportation and public transit to and within Downtown.

DIRECTION 3: Through the City's Sustainable Transportation Strategy and through the development of a Downtown Parking Strategy (underway), support parking Downtown from a strategic economic development and traffic demand management perspective.

DIRECTION 4: Support the efficient movement of commercial goods and services to, from and within Downtown.

DIRECTION 5: Optimize the efficiency of existing transportation infrastructure Downtown.

03-2 Centres and Corridors (Pg. 34)

KEY DIRECTION - Focus a significant share of growth to Centres and Corridors in a manner that:

- provides compact, mixed-use, high-quality urban development.
- concentrates people and jobs in areas well-served by the primary transit service, located close to transit stops.
- concentrates urban development in a built form that helps to optimize existing investment, municipal infrastructure, and facilities.
- **encourages a built form that supports a pedestrian-friendly environment while incorporating climate-sensitive site and building design.**

Centres are divided into three types, corresponding to their intended scale of development intensity. Ordered from most to least intensely developed, they are:

1. Regional Mixed Use Centres
2. Community Mixed Use Centres
3. Neighbourhood Mixed Use Centres

Main types of corridors:

1. Regional Mixed Use Corridors
2. Community Mixed Use Corridors
3. Neighbourhood Mixed Use Corridors
4. Rapid Transit Corridors

03–2i Rapid Transit Corridors Centres and corridors (Pg. 61)

Transformative Areas > Centres and corridors > Rapid Transit Corridors: Supporting Direction

DIRECTION 1: Promote Transit Oriented Development (TOD) to accommodate growth and change at centres along Rapid Transit Corridors through integrated land use, transportation and infrastructure planning.

DIRECTION 2: Promote transit-supportive land use and urban form at centres along Rapid Transit Corridors.

DIRECTION 3: Promote Transit Oriented Development at centres along Rapid Transit Corridors through incentives and innovative approaches where required.

References to Climate Change in Sustainable Transportation

The Sustainable Transportation Direction Strategy provides a vision for transportation in Winnipeg for the next 25 years. Its emphasis is on moving people, goods and services in a way that is sustainable.

05-1 PUBLIC TRANSIT SYSTEM

Rapid Transit - The most appropriate form of rapid transit has to be selected within the context of each corridor. Light Rail Transit (LRT) and Bus Rapid Transit (BRT) are technologies that can be considered in Winnipeg's rapid transit service.

05-2b MANAGEMENT OF OPERATIONAL IMPROVEMENTS (Pg. 27)

It is essential that the management of the major street network be optimized through measures such as:

- Reducing delays and emissions through improvements to the traffic signal management system.
- Intelligent Transportation System tools.
- Minimizing delays and providing safe operating conditions through access management practices.
- Innovative intersection design (such as roundabouts) to reduce delay and emissions.
- Transportation Demand Management initiatives.

GOAL: A transportation system that supports an active, accessible and safe lifestyle – This goal will be measured by the following:

- Air emissions
- Bicycle and walking facility supply
- Bicycle use
- Pedestrian activity

References to Climate Change in the Transportation Master Plan - Moving Winnipeg Toward 2031

The [Transportation Master Plan \(TMP\)](#) was approved by Winnipeg City Council on November 16, 2011. This plan sets out a long-term strategy to guide the planning, development, renewal and maintenance of a multimodal transportation system in a manner that is consistent with projected needs, and aligned with the City's growth and the overall vision for a sustainable Winnipeg and region.

KEY STRATEGIC GOAL SIX: 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.

The sustainability of our City and fulfillment of Council's commitments through the Partners for Climate Protection program for action on climate change depend on reducing greenhouse gas (GHG) emissions. Achieving this goal will involve providing competitive mode choices, strategic integration of transportation and land use planning and other initiatives that result in fewer and shorter motorized trips. As well, recognizing that many opportunities for transportation-related GHG reductions are outside of the authority of the City, collaboration with other levels of government and other partners will be required.

5.1.2 Transportation Demand Management

TDM can provide economic, environmental and social benefits, in that it can help to reduce or defer the need for major road infrastructure improvements, reduce emissions and congestions, and improve public health and accessibility of employment opportunities.

DIRECTION 1: Develop and implement a series of TDM policies and programs.

DIRECTION 2: Support community stakeholders in the development and implementation of TDM initiatives.

5.2 Active Transportation

Active modes of travel result in reduced greenhouse gas emissions, improved air quality and maximizing the use of existing infrastructure.

KEY DIRECTION - Winnipeg's AT networks will to be designed, maintained and developed to ensure the accessible, safe, and efficient use for all users while balancing the needs of the different AT modes and trip types that all share the networks.

DIRECTION 1: Ensure that AT networks are planned, designed, implemented and maintained to address year-round access.

DIRECTION 2: Work with community stakeholders to ensure that changes to AT networks meet the needs of their respective users.

5.3 Transit

Rapid Transit - Rapid transit is envisioned on four corridors in Winnipeg in the TMP by 2031, with an additional two corridors beyond 2031.

KEY DIRECTION - Expansion of Winnipeg's transit network and services will enhance transit as a mode choice if it provides good coverage and a basic level of service to all areas of the City and an effective network of rapid transit.

DIRECTION 1: Provide efficient and effective transit service to all areas of the city.

Enabling Strategies

j) Manage fleet and operations to maximize environmental benefits of transit and explore and implement opportunities to reduce energy consumption and emissions.

References to Climate Change in Water and Waste Infrastructure

The Sustainable Water & Waste Direction Strategy promotes actions required to protect public health and safety, ensure the purity and reliability of our water supply and maintain or enhance the quality of our built and natural environments.

04-4 MAXIMIZE OUR EXISTING WASTEWATER TREATMENT AND COLLECTION SYSTEM CAPACITY (Pg. 25)

04-4a Capacity Management Operations and Maintenance (CMOM)

The City will continue to strategically invest in the regional wastewater interceptor and local wastewater systems to ensure that they are safe, reliable, robust, cost effective, and practicable.

These investments have the potential of:

- Reducing demands on non-renewal resources, (e.g., more efficient gas engines, chemicals for wastewater treatment process, etc.)
- Reducing demands on electricity through the use of more energy efficient devices (e.g., pumps, lighting, temperature setbacks, gravity-based solutions for wastewater flows)
- Lowering the greenhouse gas (GHG) footprint of these facilities

05-2 COMPREHENSIVE WASTE MANAGEMENT STRATEGY (Pg. 32)

There is a need to integrate and optimize the service level and efficiency of all facets of the solid waste management system, while minimizing environmental impacts. Carrying out a comprehensive waste management strategy would address these objectives. The beneficial outcome of this process would include for example, **reduced GHG emissions** and less reliance on landfilling.

The elements included in such a strategy would include but not be limited to the following programs/opportunities:

- 05-2a Recycling
- 05-2b Source Separated Organics
- 05-2c Resource Recovery Opportunities
- 05-2d Methane Gas Capture
- 05-2e Organic Material Processing and Energy Recovery
- 05-2f Manage the Disposal of Construction and Demolition Waste

08-3 SOLID WASTE MANAGEMENT SUPPORTING POLICIES (Pg. 51)

Policy 3 - The City will seek to evaluate programs for capturing and/or producing energy from organic waste.

- The City will take steps toward evaluating one or more alternative waste technologies to reuse and/or capture energy from organic waste to maximize the safe, cost effective extraction of useful energy from its organic waste streams and minimize the methane and carbon dioxide emissions associated with organic waste. The evaluation process will consider the financial, social and environmental impacts for organics transportation and processing.

References to Climate Change in A Sustainable Winnipeg

A Sustainable Winnipeg is an integrated community sustainability strategy that outlines a plan of action, proposes a system of sustainability indicators and measures.

05 The Foundation: Leading by Example (Pg. 16)

Direction 2: Incorporate sustainable practices into internal civic operations, programs and services.

Enabling Strategies:

- Develop and maintain a sustainability directive for the Winnipeg Public Service to embed sustainable thinking and action into the City of Winnipeg's operations.
- Identify potential changes to business practices to reduce resource use, and develop a plan to incorporate changes.
- Create a corporate waste diversion strategy for the organization, including baselines and benchmarks.
- In partnership with the community, create and maintain a Climate Change Action Plan to reduce the City of Winnipeg's corporate greenhouse gas emissions by a further 20% below 1998 levels.
- Establish corporate greenhouse gas reduction targets for 2020 and 2035.
- Green the City's fleet operations through a plan that includes direction on anti-idling, efficient vehicles, use of alternate fuels and the right-sizing of the fleet.
- Investigate opportunities to sell greenhouse gas emission reductions as carbon-offset credits.
- Solicit input from citizens and other interested parties on potential innovative funding tools to support sustainability efforts.

09 Continue to Respect and Value our Natural and Built Environment (Pg. 36)

What Winnipeggers Told Us

Winnipeggers spoke passionately about their natural environment through SpeakUp Winnipeg and demanded decisive action in several key areas, including:

- Climate change, both as a civic government and as a community.
- Increased opportunities for waste reduction.

Direction 1: Reduce the environmental impact of our actions Enabling Strategies:

- Maintain a **Climate Change Action Plan** to reduce the City of Winnipeg's operational greenhouse gas emissions by a further 20 per cent below 1998 levels.
- Establish a corporate greenhouse gas reduction target for 2020 and 2035.
- Create and maintain a **Climate Change Action Plan** to reduce Winnipeg's community-wide greenhouse gas emissions by 6 per cent below 1998 levels.
- Establish a community-wide greenhouse gas reduction target for 2020 and 2035.
- Create and maintain a **Corporate Energy Plan** that focuses on reducing energy consumption and on promoting the use of renewable energy sources.
- Continue to expand the active transportation network and other active transportation initiatives.
- Measure our Ecological Footprint and develop strategies to reduce it.

10 First Steps (Pg. 42)

The implementation of A Sustainable Winnipeg will be coordinated with OurWinnipeg and its other three Direction Strategies

Short- term actions will be prioritized for immediate action:

1. Commitments within the Sustainability Priority of **A Call to Action for OurWinnipeg**:

- Sustainable Procurement Community Network and Corporate Sustainable Procurement Policy
- Green standards for City buildings
- Green Workplace initiative
- Greenhouse Gas Reduction Strategy
- Green Fleet Vehicle Plan
- Examine curbside composting
- Residential Toilet Rebate Program

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 N₂O 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.

Attachment C:

Summary of the Green Municipal Fund and Funding Opportunities for Winnipeg

Introduction

The purpose of this document is to provide information on the eligibility criteria of the Green Municipal Fund, so that the City of Winnipeg can identify potential funding opportunities. An overview of the Federation of Canadian Municipalities is provided, followed by detailed information on the Green Municipal Fund and eligibility criteria. Application opportunities for the City of Winnipeg are organized according to the sectors of municipal activity: Brownfields, Energy, Transportation, Waste, Water, and Multi-Sector. Lastly, APPENDIX 'A' contains a list of initiatives that the City of Winnipeg has received funding for through the Green Municipal Fund Program.

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.

Green Municipal Fund: Overview

The Green Municipal Fund (GMF) is one of several programs managed by Federation of Canadian Municipalities. The GMF is a unique program that provides funding and knowledge services to support sustainable community development. GMF-supported initiatives aim to improve air, water, and soil, and mitigate the impacts of climate change.

Green Municipal Fund: Update

After extensive research and consultation with municipalities, their partners, and other sustainability stakeholders, FCM has renewed the GMF funding offer to remain responsive and relevant to municipal sustainability needs.

To best manage the funding available and to support the strongest initiatives, **these updates went into effect on April 1, 2015:**

- An **updated competitive selection process** for capital projects in the energy, transportation, waste and water sectors
- Updated **eligibility criteria and funding limits** for all funding streams
- An updated **application process**, as well as new application forms and support tools for applicants

Green Municipal Fund: Eligibility Criteria

Through the GMF, FCM funds three types of municipal environmental initiatives:

- [Plans](#)
- [Studies](#)
- [Projects](#)

Each municipal environmental initiative, including eligibility requirements is detailed in the chart below.

Funding is allocated in five sectors of municipal activity:

[Brownfields](#) - Bring contaminated sites back into productive use and reduce the need for greenfield development.

[Energy](#) - Reduce energy consumption and, consequently, GHG emissions.

[Transportation](#) - Reduce energy consumption through fuel-efficient transportation (applications assessed under energy performance criteria).

[Waste](#) - Reduce, reuse and recycle material that would otherwise enter the waste stream, and reduce GHGs from landfill.

[Water](#) - Reduce potable water use and loss, or protect local water bodies.

Three types of municipal environmental initiatives and eligibility:

<p><u>Plans</u></p>	<p>Grants to develop plans, including sustainable neighbourhood action plans, community brownfield action plans and greenhouse gas (GHG) reduction plans. Municipal sustainable community plans or strategies are prerequisites for all types of GMF applications. See examples.</p> <p>GMF funding for plans is available to all municipal governments and municipally owned corporations working in partnership with a municipal government.</p> <p>In 2015—2016, FCM aims to approve \$5 million in grants for plans, feasibility studies and pilot projects combined. FCM offers grants, which cover up to 50 per cent of eligible costs, to a maximum of \$175,000 for eligible planning initiatives.</p>
<p><u>Studies</u></p>	<p>Grants to conduct feasibility studies and pilot projects to support sustainable community development. The feasibility study or pilot project must align with FCM's eligibility criteria for capital projects in one of the following sectors: brownfields, energy, transportation, waste, water. Baseline data collection is not eligible as a stand-alone initiative (e.g. energy audits, waste audits).</p> <p>GMF funding is available to all municipal governments and their partners.</p> <p>In 2015—2016, FCM aims to approve \$5 million in grants for plans, feasibility studies and pilot projects combined. FCM offers grants, which cover up to 50 per cent of eligible costs, to a maximum of \$175,000 for feasibility studies and to a maximum of \$350,000 for pilot projects.</p>
<p><u>Projects</u></p>	<p>Low-interest loans, usually in combination with grants, to implement capital projects that improve air, water, and soil, and mitigate the impacts of climate change.</p> <p>A capital project involves the retrofitting, construction, replacement, expansion, or purchase and installation of fixed assets or infrastructure that will improve environmental performance in municipal, energy, transportation, waste, or water, or some combination of these sectors. Brownfield sector capital projects involve soil remediation or removal.</p> <p>Through GMF, FCM supports capital projects that demonstrate an innovative solution or approach to a municipal environmental issue — projects that can generate new lessons and models for municipalities of all sizes and types in all regions of Canada. These projects offer significant environmental benefits, a strong businesses case and social advantages, and are complemented by local policies and measurement systems.</p> <p>In 2015—2016, FCM aims to approve \$30 million in loans and \$5 million in grants for capital projects in the energy, transportation, waste and water sectors and a minimum of \$20 million in loans for capital projects in the brownfields sector</p> <p>GMF capital project funding is available to all municipal governments and their partners. Project eligibility is structured around environmental outcomes. Grants are not available for capital projects in the brownfields sector.</p>

Opportunities for the City of Winnipeg

[Brownfields](#) - Bring contaminated sites back into productive use and reduce the need for greenfield development.

- Brownfield Redevelopment Strategy - at its February 16, 2016 meeting, the Standing Policy Committee on Property and Development, Heritage, and Downtown Development granted an extension of time of 90 days for the Winnipeg Public Service to report back on the formulation of a Brownfield Redevelopment Strategy. This report is due at the May 10, 2016 meeting.

[Energy](#) - Reduce energy consumption and, consequently, GHG emissions.

- Brady Road Resource Recovery Centre's Landfill Gas Collection Expansion - this initiative is included in the Summary Plan to Meet Council's Corporate Climate Change Target.
- Completion of the LED Traffic Signals Conversion project.
- Energy efficient improvements to existing buildings as per Council's Green Building Strategy for Existing City-owned and Leased Buildings.
- Feasibility Study of a renewable energy program

[Transportation](#) - Reduce energy consumption through fuel-efficient transportation (applications assessed under energy performance criteria).

- Winnipeg Fleet Management Agency – development of a Green Fleet Plan. This initiative is included in the *Summary Plan to Meet Council's Corporate Climate Change Target*.

[Waste](#) - Reduce, reuse and recycle material that would otherwise enter the waste stream, and reduce GHGs from landfill.

- Corporate Waste Strategy
 - Expansion of City Hall Composting Pilot Project
 - Continuation of PP&D Waste Reduction Pilot Project
 - Expansion of corporate-wide waste reduction programs

[Water](#) - Reduce potable water use and loss, or protect local water bodies.

- Projects that protect the Red River and Lake Winnipeg – combined sewer system upgrades and upgrades to Water Pollution Control Centres/wastewater treatment plants.

[Multi-Sector](#) - Municipal plans that aim to improve air, water, and soil, and mitigate the impacts of climate change.

- Review of *OurWinnipeg* plan and accompanying Direction Strategies.

Note that FCM funds sustainable neighbourhood action plans, not sustainable community plans. A sustainable neighbourhood action plan is a local step in implementing an overarching plan such as an ICSP, Local Agenda 21 or strategic plan. A sustainable neighbourhood action plan translates into **direct actions**, such as a feasibility study or capital project.

To be eligible for GMF funding, a sustainable neighbourhood action plan must include the following elements:

- A **vision**, and environmental, social and economic **goals and targets**. These may be drawn from the existing municipal sustainable community plan.
- **Actions** to achieve the goals and targets in all areas of municipal activity, including:
 - energy, waste and water management
 - sustainable transportation
 - land use
 - brownfield remediation (if applicable)

The actions must identify specific tasks, with details on who will accomplish them, a timeline for implementation, and estimated costs.

A sustainable neighbourhood action plan may target a specific area within municipal borders or apply to an entire municipality. See: [examples of sustainable neighbourhood action plans](#).

APPENDIX 'A' – Winnipeg Funded Initiatives

The City of Winnipeg has received funding through the GMF Program for the following initiatives:

Centennial Library- Millennium Project (GMF Number 3104)

Type: Feasibility Study

Sector: Energy

Total Project Value: \$100,000

Grant: \$50,000

Fiscal Year Approved: 2002

Timeline: 2002 – 2011

Status: Complete

The City of Winnipeg's Millennium Project was a \$17-million expansion and renovation of the main branch of the public library. Using an integrated design process (IDP), the city assessed implementing design improvements to reduce energy use and greenhouse gas emissions. The study identified opportunities to reduce annual energy consumption by 50 per cent in the new portion and by 35 per cent in the renovated portion. This was the first application of IDP in a major expansion and renovation of a municipal building. The potential for replication was high since Canadian municipalities had a large stock of aging buildings in need of expansion or renovation. The Canada-Manitoba Infrastructure Program also contributed to the study.

Centre for Indigenous Environmental Resources, Inc. (GMF Number 1432)

Type: Feasibility Study

Sector: Water

Sub Sector: Stormwater Management

Total Project Value: \$66,650

Grant: \$33,300

Fiscal Year Approved: 2000

Timeline: 2000 - 2009

Status: Complete

This study explored the feasibility of developing a green roof strategy for a downtown area of flat roof buildings in Winnipeg that had a history of stormwater management problems that resulted in basement flooding. If the plan were to be feasible, the cost-effectiveness of storm water management could be improved by up to 50 per cent. Other, significant environmental benefits were also expected. The green roof strategy would be more cost-effective than traditional storm runoff techniques that can cost up to \$1 billion. Many cities around the world had used rooftop gardens and large growing beds to address stormwater management issues. Other expected benefits included water and energy conservation, urban air quality improvement, the capture of greenhouse gases by creating carbon sinks, the capture and use of rainwater, and reductions in the volume and rate of runoff to municipal storm sewers. The strategy also had the potential to reduce building energy use.

City of Winnipeg – Ottocycle (GMF Number 10204)

Type: Feasibility Study

Sector: Transportation

Sub Sector: Active Transportation

Total Project Value: \$60,000

Grant: \$27,500

Fiscal Year Approved: 2009

Timeline: 2010 – Ongoing

Status: Complete

The City of Winnipeg studied the feasibility of building bikeway infrastructure as part of a city-wide system of active transportation. The study aimed to identify the best location for the infrastructure and make recommendations for implementation. The Centre for Sustainable Transportation (CST) was contracted to collect and analyze survey and Global Positioning System (GPS) data on Winnipeg cyclists and their travel patterns, providing detailed, GPS-mapped information on actual routes travelled by commuter cyclists. CST also generated a final report with recommendations on how to create the bikeway infrastructure. The city expected to analyze the report's options using life-cycle analysis, full-cost analysis and transportation demand management techniques. The selected infrastructure options were to be based on cyclist demand, connectivity to other routes, safety and cost, and feedback from Winnipeg's active transportation coordinator and a transportation systems planning engineer. The adoption of the priorities set out in the study report was expected to significantly increase cyclist traffic. This, in turn, would reduce the use of automobiles, decrease greenhouse gas emissions and secondary pollutants, and lead to a more sustainable transportation network.

Indoor Pools/Recreation Complex Energy Reduction Feasibility Study (GMF Number 1013)

Type: Feasibility Study

Sector: Energy

Sub Sector: Building – Existing – Energy efficiency

Total Project Value: \$89,000

Grant: \$44,500

Fiscal Year Approved: 2001

Timeline: 2001 – 2009

Status: Complete

This study was part of a major plan to achieve a long-term reduction in energy and water consumption in Winnipeg's municipal facilities. It assessed 12 indoor municipal swimming pools/recreational complexes and also investigated ways to reduce energy and water consumption through technical and operational modifications.

Landfill Gas Project Feasibility - Brady Road Landfill (GMF Number 5558)

Type: Feasibility Study

Sector: Energy

Sub Sector: Waste to Energy - Landfill Gas

Total Project Value: \$260,000

Grant: \$130,000

Fiscal Year Approved: 2004

Timeline: 2005 – 2011

Status: Complete

An October 2001 Manitoba Hydro study identified the Brady Landfill as the City of Winnipeg site with the greatest potential for gas production, including the lowest costs for flaring, electrical generation and fuel production. This feasibility study flowed from that outcome and included the following components: field testing and analysis to determine landfill gas (LFG) quality and production rates; economic analyses of potential options, such as flaring, electrical generation, heating or cogeneration, from the perspectives of greenhouse gas financial credits and energy pricing; examination of the impacts, now and in the future, of a LFG recovery/utilization project on the City of Winnipeg's landfill operations; development and assessment of business/financial models to implement option(s) found to be technically and economically viable; and public consultations.

Our Winnipeg (GMF Number 10180)

Type: Plan

Sector: Multi-Sector (Plans)

Sub Sector: Sustainable Communities

Total Project Value: \$3,443,347

Grant: \$350,000

Fiscal Year Approved: 2009

Timeline: 2010 - Ongoing

Status: Complete

Our Winnipeg will feature a 'call to action' strategy document, summarizing the community vision and sustainability principles and outlining short-term actions, and a municipal land use and development plan. The strategy will be developed through a phased community consultation program featuring a website and online social network, roundtable and face-to-face meetings, a youth-led street team and public-led background studies. The consultation program will be informed by background research, forecasts, and policy recommendations in areas such as employment, residential lands, commercial lands, natural lands, parks, transportation, water, waste, urban design, arts and heritage. After completing the strategy, the city will prepare its land use and development plan, a legally binding implementation plan, and six context documents. The context documents will outline medium- and long-term action and implementation plans in the areas of sustainability (including energy and waste), city competitiveness, communities, safety and security, arts, and city building (including water, brownfields and transportation). As part of its strategy for measurement and reporting, the city will identify community indicators that can be monitored on an annual basis.

Winnipeg-Manitoba Capital Region Planning Framework and Use of MetroQuest (GMF Number 7251)

Type: Plan

Sector: Multi-Sector (Plans)

Sub Sector: Sustainable Communities

Total Project Value: \$150,000

Grant: \$75,000

Fiscal Year Approved: 2006

Timeline: 2009 - 2011

Status: Complete

The Manitoba Capital Region included Winnipeg and 14 other municipalities. A computer-based regional planning modelling system, MetroQuest, was to be used to project environmental, fiscal and socioeconomic growth for 40 years. Scenario-based modelling was expected to include water quality and supply (including potable water and lake stewardship), waste generation and disposal, infrastructure sustainability and cost, land use, transportation, economic activity, agricultural land preservation, municipal taxation, natural heritage, housing, recreation, and Red River Valley flood plain protection. Baseline data was used to create scenarios and trends that aimed to assist in defining targets for waste reduction, water conservation, energy conservation, greenhouse gas emissions reduction, and air quality improvements. Additional goals included reducing urban sprawl, preserving agricultural and forest land, improving transportation, meeting municipal budgets, and creating employment. A preliminary analysis of a "movement toward sustainability alternative" compared to the business-as-usual scenario suggested that carbon dioxide emissions could be reduced by 59 per cent, carbon monoxide by 46 per cent, volatile organic compounds by 43 per cent, nitrogen oxides by 59 per cent, sulphur oxides by 48 per cent and particulate matter by 42 per cent.

Windrow Composting of Biosolids in a cold Climate (GMF Number 2294)

Type: Field Test

Sector: Waste

Sub Sector: Composting

Total Project Value: \$120,840

Grant: \$60,420

Fiscal Year Approved: 2001

Timeline: 2006 - Ongoing

Status: Complete

The study investigated the feasibility of using windrow composting to manage the disposal of organic material in Manitoba. Windrows are large piles or rows of organic material that must be turned frequently to aerate them. The city, the province and Manitoba Hydro were involved in this project, which assessed the effects of composting nine windrows composed of biosolids and wood waste. The study gathered information on the process, including the odour it generated and the feasibility of carrying on through a Manitoba winter. If windrow composting were found to be successful here, it could be done successfully in many Canadian cities.

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 disbursed

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.

MANITOBA

The Yards at Fort Rouge Winnipeg (GMF 11024)

Type: Brownfield Component

Lead applicant: GEM Equities Inc.

Total project value: \$5,934,610

GMF loan: \$4,747,688

The Yards at Fort Rouge Winnipeg (GMF 11049)

Type: Energy Component

Lead applicant: GEM Equities Inc.

Total project value: \$10,158,500

GMF grant: \$500,000

GMF loan: \$5,000,000

The Yards at Fort Rouge Winnipeg (GMF 11050)

Type: Transportation Component

Lead applicant: GEM Equities Inc.

Total project value: \$8,470,330

GMF grant: \$500,000

GMF loan: \$5,000,000