Agenda – Council – November 16, 2016

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – October 31, 2016

Item No. 2 Update to the Community-Wide Climate Change Action Plan Development

STANDING COMMITTEE RECOMMENDATION:

On November 9, 2016, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and submitted the following to Council:

1. That the City of Winnipeg 2011 Community-Wide Greenhouse Gas Inventory and Forecast, a copy of which is attached as Attachment A, be received as information.

2. That the Winnipeg Public Service work with the Climate Change Working Group on developing recommendations for reducing community greenhouse emissions within the City of Winnipeg.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Water and Waste, Riverbank Management and the Environment – October 31, 2016

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On November 9, 2016, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On October 31, 2016, the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

COUNCIL DECISION:

On July 13, 2016, Council concurred in the recommendation of the Standing Policy Committee on Water and Waste, Riverbank Management and the Environment and adopted the following:

1. That the Status Report on the Corporate Climate Action Plan (CCAP) as outlined in Attachment A, be received as information.

2. That the Winnipeg Public Service work with the Climate Change Working Group on developing timelines and targets for reducing greenhouse gas emissions within the City of Winnipeg, for incorporation into the final report of the Climate Change Working Group, and report back to Council in 120 days.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

ADMINISTRATIVE REPORT

Title: Update to the Community-Wide *Climate Change Action Plan Development*

Critical Path: Standing Policy Committee on Water and Waste, Riverbank Management and the Environment - Executive Policy Committee - Council

AUTHORIZATION

Author	Department Head	CFO	CAO
B. Smith	J. Kiernan	n/a	D. McNeil

EXECUTIVE SUMMARY

Council's community-wide target (6% below 1998 levels) addresses all greenhouse gas emissions related to energy consumed and waste produced in Winnipeg. This is inclusive of the City's corporate emissions, which account for approximately 1% of the community total.

The Community GHG Inventory was created following the 2012 "U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions", developed by Local Governments for Sustainability USA. The community sectors included in the Community GHG Inventory are as follows: Building Electricity and Natural Gas; Vehicles; Transit; Waste Disposal; Water and Waste.

Winnipeg is on track to achieve Council's performance target on community-wide greenhouse gas emissions reduction before the year 2050 based on detailed analysis. The Public Service has identified opportunities to achieve Council's target or better within the horizon of *OurWinnipeg* (2031), but these opportunities will require a combination of new City-led policy and action, as well as leadership from community partners, and from the Provincial and Federal governments.

The Public Service is responding to Council's direction, supported by this new information, through the development of a community-wide climate change action plan. Development of this action plan will be supported by the launch of a public engagement program recognizing the need to clearly communicate the issues, assist in identifying and prioritizing recommendations for City action, and solicit community partners to facilitate implementation.

RECOMMENDATIONS

1. That the City of Winnipeg 2011 Community-Wide Greenhouse Gas Inventory and Forecast, a copy of which is attached as *Attachment A,* be received as information.

2. That the Winnipeg Public Service work with the Climate Change Working Group on developing recommendations for reducing community greenhouse emissions within the City of Winnipeg.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

A City of Winnipeg 2011 Community-Wide Greenhouse Gas Inventory and Forecast, hereinafter referred to as "Community GHG Inventory" has been prepared and attached as *Attachment A.*

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)

IMPLICATIONS OF THE RECOMMENDATIONS

The Public Service will work with the Climate Change Working Group on developing recommendations for reducing community greenhouse emissions within the City of Winnipeg.

There are no direct implications from receiving this report as information.

HISTORY

Background:
On November 25, 1998, Council passed a resolution signing on to the Federation of Canadian Municipalities (FCM) Partners for Climate Protection Program (PCP), committing the City to establish both corporate and community-wide greenhouse gas emissions reduction targets.

The Community Inventory provides an update on activities of the Public Service in pursuit of Council's policy direction on community-wide climate change mitigation. Responding to Council's established service goal – the development of a community-wide climate change action plan and the 6% emissions reduction target - the City of Winnipeg retained consultant Golder Associates Ltd to:

- Prepare an update to the 1998 community-wide greenhouse gas emission inventory;
- Develop three detailed emission scenarios extending to the year 2050;
- Conduct an emissions reduction opportunities assessment to support development of an action plan. (*See Golder Associates' Report in Attachment A*).

2011 Greenhouse Gas Emissions Inventory and Methods Update:
A new community-wide energy and greenhouse gas inventory was completed for the year 2011 as a comprehensive update to the 1998 baseline year. The 2011 inventory reveals a 2.3% increase from 1998 emission levels. However, due to significant historic data and methodological limitations, a direct comparison of the 1998 inventory is rather arbitrary.

In contrast to the consultant report, which applies a 2011 baseline year, the Public Service has described emission trends herein relative to Council's established1998 target and baseline, as summarized in *Attachment B*. The adoption of future targets, to be considered in the action planning process per Council's Direction, will offer a resolution to this inconsistency.

Forecast of Greenhouse Gas emission Trends and Opportunities (3 Distinct Scenarios):

1) Business as Usual Forecast:
   A business-as-usual or 'reference' forecast applies historical city trends to show that greenhouse gas emissions would increase sharply over the short term, and then eventually decrease to 4% above 1998 levels by 2031. In this scenario, Winnipeg would not meet Councils established target in the foreseeable future.

2) Our Winnipeg Forecast:
   The consultants' community-wide greenhouse gas emission forecast demonstrates that a stabilization of emissions followed by a 3.6% reduction below the 1998 baseline year is possible by 2031. This achievement presumes a full and rigorous implementation of the direct and indirect greenhouse gas reduction actions identified in *OurWinnipeg* and all supporting strategies, goals, and targets identified in Council-adopted plans such as the *Complete Communities Direction Strategy*, and the *Garbage and Recycling Master Plan*. Fulfillment of these actions may be expected to generate continued but modest reductions totaling 9% below 1998 levels when extrapolated to 2050.

3) Low Carbon Forecast:
   The 'low carbon' forecast considers the expected emissions reduction impact of moderate new actions and strategies which are currently beyond the scope of approved Council policy. Through pursuit of these new actions, Winnipeg could reduce up to 19% and 34% of 1998 emission levels by 2031 and 2050, respectively. The actions modeled in this scenario are aggressive but achievable, and were identified through a scan of actions and experiences of peer municipalities and in consultation with local key sector stakeholders. This 'low carbon' forecast demonstrates the potential for a policy-driven, action-oriented community-wide climate action plan to deliver deep emission reductions subject to thorough impact assessment and cost-benefit analysis.

Key findings of the consultant report relative to Council's target:

1) Based on current policy, Winnipeg is forecast to achieve Council's service target - a reduction in community-wide greenhouse gas emissions 6% below 1998 levels - before the year 2050;

2) Opportunities have been identified to reduce community-wide greenhouse gas emissions 19% below 1998 levels within the horizon of the *OurWinnipeg* plan (by 2031) *(Refer to Summary Table in Attachment B)*.

Next Steps:

1) The Public Service is proceeding with the development of a Community-wide Climate Change Action Plan to achieve Council's 6% emission reduction target, and to develop further targets per Council's Direction in *A Sustainable Winnipeg Direction Strategy*;
2) The development of the Action Plan will be supported by a public consultation program to engage Winnipeggers to:
    a) build public awareness about issues affecting climate change and opportunities to reduce GHG emissions in Winnipeg;
    b) identify and prioritize opportunities for action in Winnipeg; and, strengthen relationships with stakeholders and the broader community that can support implementation of a local climate change action plan;
3) Upon approval of the recommendations in this report, the Public Service will collaborate with the Climate Change Working Group on on developing recommendations for reducing community greenhouse emissions within the City of Winnipeg.

FINANCIAL IMPACT

Financial Impact Statement **Date:** September 14, 2016

Project Name:

Update to the Community-Wide Climate Change Action Plan Development

COMMENTS:

There are no financial implications associated with this report.

"Original Signed By"
Mike McGinn, CPA, CA
Manager of Finance

CONSULTATION

In preparing this report there was consultation with:

Internal consultation: Public Works, Water and Waste, Winnipeg Transit, Corporate Finance.

External consultation: Public Engagement and stakeholder dialogue was conducted as part of this project.

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with *A Sustainable Winnipeg*, Section 09-1, which directs 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

SUBMITTED BY

Department: Planning, Property, and Development
Division: Urban Planning, Long Range Planning Branch
Prepared by: Kristine Koster
Date: September 16, 2016
File No.

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Attachment A:
City of Winnipeg 2011 Community-Wide Greenhouse Gas Inventory and Forecast



Attachment A Golder Final Report.pdf

Attachment B: Summary Table of Greenhouse Gas Emissions Forecast Scenarios and Key Drivers Relative to the Council adopted 1998 Emission Targets

Year	Popula-tion	Total GHG Emissions	Change in 2031 Relative to 1998	Key municipal and community drivers through 2031
1998 Baseline	628,446	5,257,324 t. CO_2e 8.4t.CO_2e/ per capita	N/A	N/A
2011 Update	691,800	5,379,024 t. CO_2e 7.7t.CO_2e/ per capita	↑ 2.3%	NOTE – 2011 quantification methods differ from 1998 (above), but are consistent with forecasts (below).
2031 Business as Usual Forecast	876,700	5,482,591 t. CO_2e 6.3t.CO_2e/ per capita	↑ 4.3%	**Waste:** -Limited progress on overall waste diversion **Transportation and Land Use:** -Community growth and energy conservation follows recent trends -Marginal progress on developing the rapid transit and active transportation networks
2031 *Our Winnipeg* Forecast	876,700	5,068,956 t. CO_2e 5.8t.CO_2e/ per capita	↓ 3.6%	**Waste:** -50% residential waste diversion -Expansion of landfill gas collection at Brady Road **Transportation and Land Use:** -Partial completion of the rapid transit, road and active transportation networks per the *Transportation Master Plan* -Implementation of the Urban Structure per *Complete Communities* and recent market forecasts -Increasing adoption of electric vehicles **Buildings:** -Modest growth in renewable energy installations
2031 Low Carbon Forecast	876,700	4,266,834 t. CO_2e 4.9t.CO_2e/ per capita	↓ 18.9%	**Waste** -75% combined residential, commercial, and construction waste diversion -Further expansion of landfill gas systems **Transportation and Land Use:** -Completion of the rapid transit and active transportation networks -Reduced transit headways along non-RT routes -Substantial increase in new development occurring within <u>infill</u> transformative areas identified in the Urban Structure -Accelerate the adoption of electric vehicles **Buildings:** -Accelerated growth of renewable and district energy systems and retrofits to existing buildings