Agenda - Executive Policy Committee - November 28, 2007

REPORTS

Item No. 1 Climate Change Action Plan – Quarterly Status Report
File E

The Winnipeg Public Service recommends that Council receive this report as information.

DECISION MAKING HISTORY:

COUNCIL DECISION:

On September 27, 2006, Council adopted the City of Winnipeg Climate Change Action Plan, as outlined in the report dated August 28, 2006, from the Chief Administrative Officer, and directed the Winnipeg Public Service to report back quarterly.

Re: The City of Winnipeg Climate Change Action Plan Quarterly Status Report

FOR SUBMISSION TO: **Executive Policy Committee**

ORIGINAL REPORT SIGNED BY: **Acting Chief Administrative Officer**

REPORT DATE: **October 22, 2007**

RECOMMENDATION:

1) That Council receive this report as information.

Report Summary

Key Issues:

- On November 25, 1998, the City of Winnipeg committed to the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP). This program requires submission of a climate change action plan detailing how specific greenhouse gas emissions targets will be met and how progress will be measured.
- On September 27, 2006, Council adopted the EPC recommendation to accept the Climate Change Action Plan and requested quarterly updates on the progress of the initiatives. This report presents the City's annual inventory of GHG emissions for 2006. The report also represents the third and fourth quarterly report on the CCAP.

Implications of the Recommendation(s):

General Implications

X None

( ) For the organization overall and/or for other departments

( ) For the community and/or organizations external to the City

( ) Involves a multi-year contract

Comment(s):

Policy Implications

X No

( ) Yes

Comment(s):

Regulatory Implications

X None

( ) Eliminates or reduces regulatory impact

( ) Proposes regulatory impact

Comment(s):

Environmental Implications

( ) No

X Yes

Comment(s): Progress in the initiatives contained in the CCAP will lead to a further reduction in the City's greenhouse gas emissions.

Human Resources Implications

X No

( ) Yes

Comment(s):

Financial Implications

X Within approved current and/or capital budget

( ) Current and/or capital budget adjustment required

Comment(s): All financial requirements are in existing budgets. If any adjustments are required, the Administration will bring forward a report for consideration.

Report

REASON FOR THE REPORT:

On September 21, 2006, the Executive Policy Committee made the following recommendation:

> That the City of Winnipeg Climate Change Action Plan, as outlined in the report dated August 28, 2006 from the Chief Administrative Officer, be adopted and the Administration be directed to report back quarterly, with the first quarterly report being submitted in January 2007.

Council adopted the EPC recommendation on September 27, 2006. This report represents the third quarterly report on the Climate Change Action Plan.

HISTORY:

On November 25, 1998, the City of Winnipeg committed to the Federation of Canadian Municipalities Partners for Climate Protection (PCP) program. This commitment requires Winnipeg to submit a climate change action plan detailing how specific greenhouse gas reduction targets will be met, and how progress will be measured. In order to fulfill this commitment, Council directed the Administration to prepare a Climate Change Action Plan (CCAP). The CCAP was adopted by Council on September 27, 2006.

DISCUSSION:

The following includes two areas of reporting relative to the City's Climate Change Action Plan.

Part 1 - The City of Winnipeg's Greenhouse Gas Emission Inventory for 2006

A significant part of the City's climate change plan is the annual publication of the City's greenhouse gas (GHG) emissions inventory. This inventory was previously completed in 1998 and 2003. There was a significant delay in preparing the 2006 inventory due to the discovery of reporting errors from earlier years. As a result, key parts of the inventory had to be recalculated and checked for accuracy. This inventory will be completed on an annual basis going forward.

Part 2 – Climate Change Action Plan (CCAP) – Third Quarter Report

Quarterly reports on the status of CCAP initiatives are to be submitted in January, April, July and October. This report represents the 3rd and 4th (July and October) quarterly reports. The July report was delayed in order to include the inventory, and it has been updated to reflect new developments; it covers progress through to October.

Part 1: The City of Winnipeg Greenhouse Gas Emission Inventory: 2006

The tables below show the City's inventory at three different points in time; 1998, 2003 and the most recent year, 2006.

GHG reductions are measured against a baseline year, which serves as a basis for setting an emissions reduction target and acts as a point of comparison for the future. The emissions are calculated based largely upon energy use (electricity, natural gas and motor vehicle fuel). As these numbers are collected, they are converted into GHG equivalents with the help of specialized calculation software distributed by the FCM.

In the course of collecting the data for 2006, a significant error was discovered in the reporting for both 2003 and 1998. In both cases, the data gathered for specific energy use was misstated, leading the City to report higher GHG emission numbers. When the data was collected for 2006, three key reporting numbers were much lower than in both 2003 and 1998. With the help of staff from other City departments and Manitoba Hydro, the error was discovered and subsequently corrected. This experience highlights the difficulty in calculating emissions based on data from nearly ten years ago.

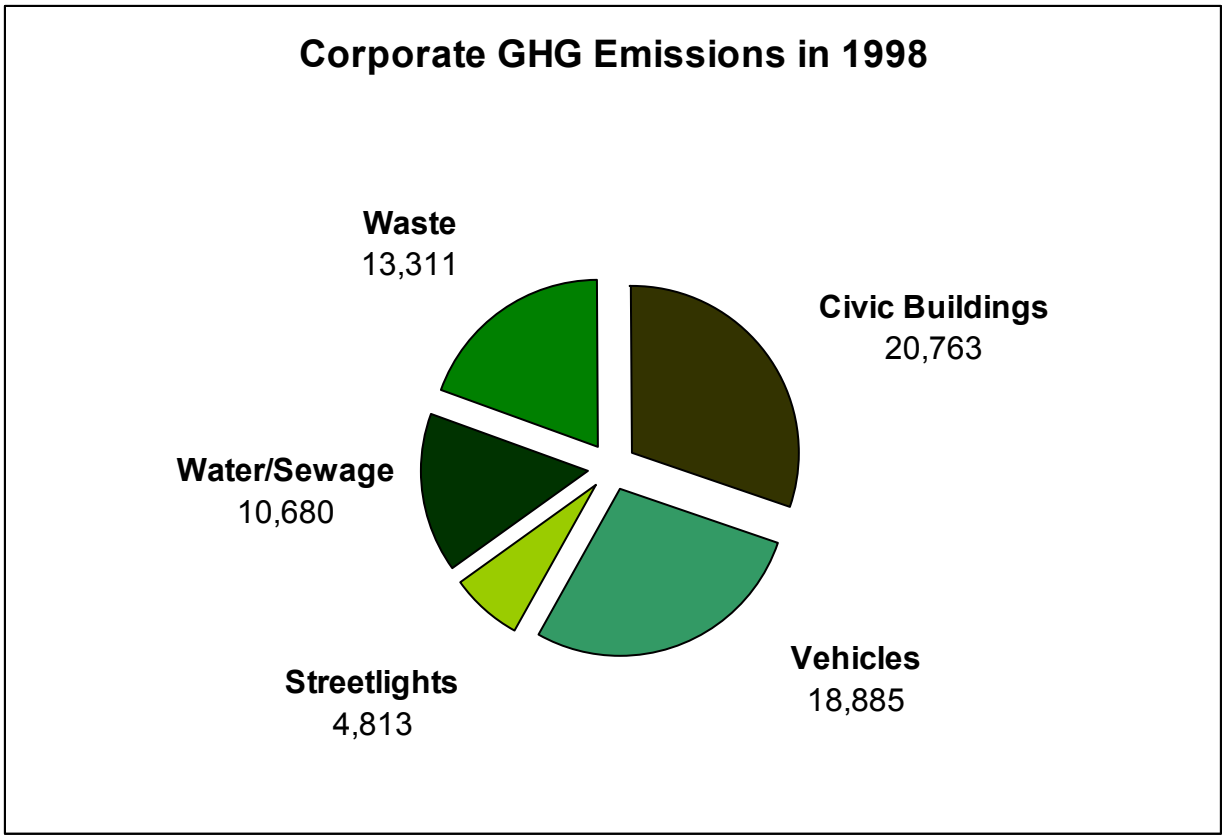
As a result, the inventory numbers for both 1998 and 2003 have been restated. Based on these revised figures, the City has almost achieved the 20% cut that was committed to under the Partners for Climate Protection program. The 2006 inventory represents an 18.05% decrease from 1998, leaving a further 1.95% decrease (or less than 1,300 tonnes) to meet our target.

The numbers in the 2006 inventory show a smaller decrease in emissions than may have been expected given the initiatives underway though the CCAP. This is not entirely unexpected given that the CCAP itself did not get underway until later in 2006. And while many of the initiatives are ongoing, there are others (such as the biodiesel station) which have come online in the last year and as such, whose impact will be reflected in the 2007 inventory.

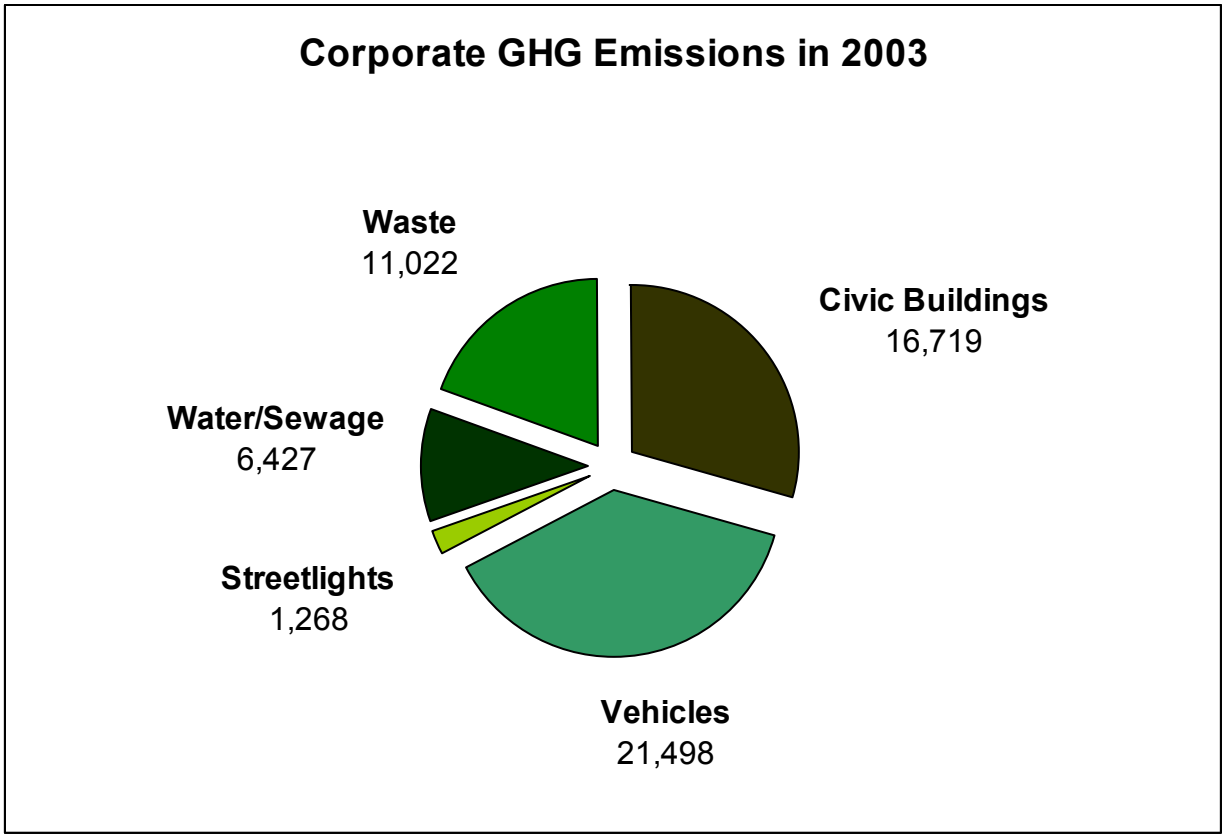
The results of the 2006 inventory are being reviewed more closely by the Public Service. With this more accurate data and data from the 2007 inventory, there will be good insight into exactly what is happening with our GHG emissions and an update to the CCAP will be developed in 2008.

Consistent with the experience of other cities, the Public Service has learned a lot with respect to how to measure GHG emissions (methodologies, the systems needed to capture data, etc.). In particular, as we go forward, the Public Service will look at the merit of having a balance of measures which consider not only the total GHG emissions, but other measures of environmental performance as well. To illustrate, as the City's fleet becomes increasing 'cleaner' there may be a concurrent need to invest in more fleet to keep up with new service demands. As a result, there may be only marginal improvement in the total emissions inventory. Not only will the City want to continue to capture its overall emissions relative to fleet but as importantly, measure how efficiently the fleet is operating from an emissions perspective. As the City's performance measurement efforts continue to get more robust, a balance of measures will provide the best insight for policy making and priority setting relative to climate change and the environment more generally.

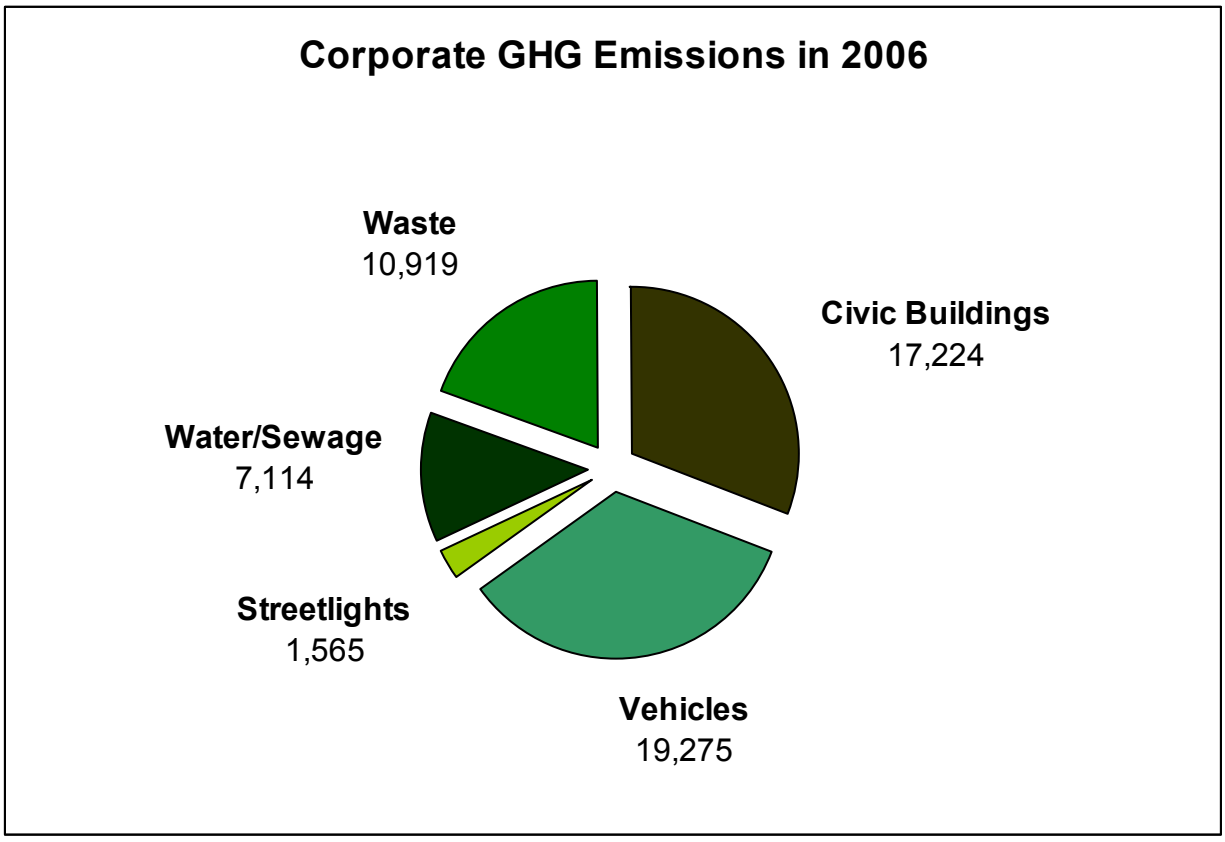
Corporate Emissions in 1998 (RESTATED)	
Source	**GHG (tonnes)**
Buildings	20,763
Vehicles	18,885
Streetlights	4,813
Water/Sewage	10,680
Waste	13,311
Total	**68,452**


Corporate GHG Emissions in 1998
Waste
13,311
Civic Buildings
20,763
Water/Sewage
10,680
Streetlights
4,813
Vehicles
18,885

Corporate Emissions in 2003 (RESTATED)	
Source	**GHG (tonnes)**
Buildings	16,719
Vehicles	21,498
Streetlights	1,268
Water/Sewage	6,427
Waste	11,022
Total	**56,934**



Corporate Emissions in 2006 (RESTATED)	
Source	**GHG (tonnes)**
Buildings	17,224
Vehicles	19,275
Streetlights	1,565
Water/Sewage	7,114
Waste	10,919
Total	**56,097**



Progress towards Target of 20% Reduction in GHG Emissions	
Year	**Reduction in Emissions**
1998	N/A
2003	16.83%
2006	18.05%

Part 2 - Quarterly Report on the Climate Change Action Plan

Civic Facilities

1) Continue to seek out and implement opportunities for energy efficiency and renewable energy upgrades in civic facilities

This is an ongoing initiative. City staff are applying to have City Hall certified under the Building Owners and Managers Association (BOMA) 'Go Green' certification program. It is expected that the application will be submitted later in the fall.

2) Adopting elements of green building standards for new civic facilities

Since the January update, an interdepartmental working group has been struck to look at this issue. This working group has drafted an administrative directive for building to LEED standards or their equivalent.

3) Ensure that building management and other key staff members are LEED accredited

At this time, several City staff members are working towards their LEED accreditation.

4) Retain membership in the Manitoba Chapter of the Canada Green Building Council and other relevant professional associations

As reported in the January 2007 update, the City continues to retain a membership in the Manitoba Chapter of the Canada Green Building Council. The membership runs until January 2008.

5) Develop a building user energy efficient practices education/promotion program

This initiative will be introduced as part of #18, through a website designed to show City staff how they can take action individually to help reduce the City's GHG emissions.

Civic Vehicle Fleet

6) Develop a vehicle information package for Fleet customers to allow them to consider fuel efficiency and other environmental options when purchasing vehicles.

Fleet Management Agency has been providing information to customers in a verbal manner during discussion on vehicles replacements to introduce the idea of incorporating hybrid vehicles into the vehicle fleet.

Fleet Management Agency discussed this initiative with the Agency's advisory board to receive feedback from various departments that would benefit from the information package. The general consensus was to include information on fuel efficient vehicle options that would be appropriate for the departmental operations. Specifically, board members supported the format that the Agency proposed whereby more fuel efficient options were described alongside their current vehicle use to demonstrate the difference in fuel used and potential savings through switching to a more fuel efficient vehicle.

The Agency will develop a generic vehicle information package on fuel efficient and environmental options for departments and will also present the side by side vehicle comparison at the time vehicle replacement scheduling meetings take place, so as to provide the information at the same time that decisions are being made on vehicle replacements.

7) Explore opportunities to introduce a "Smart Driving" Program (fuel efficient driving techniques course)

This initiative is scheduled to start after the completion of #9 (administrative directive to reduce idling).

8) "Right Size" the fleet and replace obsolete vehicles with more fuel-efficient, cleaner burning units

This initiative is complete. Since the formation of the Winnipeg Fleet Management Agency, the City’s vehicle fleet has been reduced by approximately 30%, from over 2300 vehicles to just under 1600. In addition, the WFMA has introduced a number of cleaner, more fuel-efficient units to the fleet, including 12 hybrid vehicles. The WFMA continues to encourage departments to adopt more fuel-efficient vehicles where possible.

9) Develop an administrative directive to reduce vehicle idling in the City's fleet

A draft administrative directive has been prepared for the consideration of the Chief Administrative Officer. The directive is currently being reviewed by the working group and will be submitted to the CAO once the review is complete.

10) Provide administrative support for the RRVCCC and use their resources to determine best 'Green Fleet' practices from other jurisdictions

This is an ongoing initiative. The City continues to support the Red River Valley Clean Cities Association. The Coalition is currently coordinating a large scale conference on plug-in hybrid vehicles which will be held in Winnipeg on November 1st and 2nd.

11) Run a biodiesel demonstration project to confirm the suitability of this fuel for use in the City's fleet

Construction of the fueling station began on Oct.1st and the station is expected to be operational by early November.

Twenty civic vehicles (heavy and medium-duty trucks) have been identified as candidates for the project. Once the project is underway, staff will be able to determine the reductions in GHG emissions from these vehicles. This information will be provided in future reports. The blend of biodiesel will be B10 (10% biodiesel and 90% regular diesel fuel).

12) Innovation in the City's vehicle fleet

This is an ongoing initiative, and the Winnipeg Fleet Management Agency continues to investigate new and innovative technologies to improve the efficiency of the City's vehicle fleet.

13) Diesel-electric hybrid buses

The first of the diesel-electric hybrid buses is expected to join the Transit fleet in early 2008. Independent testing of the different models available has shown that each bus could potentially show up to a 90% reduction in greenhouse gas emissions over the average diesel bus.

<u>Water Consumption</u>

14) Continue efforts to reduce water consumption

This is an ongoing initiative. Water use continues to drop due to new technologies and City initiatives (such as the "Slow the Flow" program). The City's LCD (litres per

capita/day) has dropped by almost 30% since 1990, and this trend appears likely to continue.

Traffic Signals & Streetlights

15) Continue to replace existing traffic signals with high-efficiency LED systems

From April 1 to September 30, the City has replaced an additional 600 existing traffic signal display elements with high-efficiency LED units. This effort represents an additional savings of approximately 149,000 kilowatt hours (kWh) per year. In total, the City has now replaced 41.73% of all traffic signal displays, with savings to date of over 2.2 million kilowatt hours of electricity.

The display replacement project is ongoing and updates will be provided each quarter in the CCAP report.

Corporate Waste and Solid Waste

16) Implement methane gas recapture project at the Brady Road Landfill

Work is continuing on this project and an administrative report is being prepared for consideration by the Standing Policy Committee on Infrastructure and Public Works.

Other Strategies

17) Annual collection of GHG indicators (fuel, energy, etc.) among all departments and special operating agencies.

This initiative is now in place and continues to be refined. The inventory data for 2006 represents the first full year of data collection. However, as it turns out, not all of the data is necessarily available by April. As such, the 2006 inventory is being reported in the July quarterly report.

18) Develop an environmental promotion web page on the City's intranet site, including information on reducing paper use, alternative forms of commuting and reducing energy consumption in civic facilities.

This initiative is intended to show City staff how they can take action individually to help reduce the City’s GHG emissions.

IN PREPARING THIS REPORT THERE WAS:

Internal Consultation With and Concurrence By:

Winnipeg Transit, Winnipeg Fleet Management Agency, Property Planning & Development, Water & Waste, Public Works.

External Consultation With:

Mayor's Environmental Advisory Committee (MEAC)

THIS REPORT SUBMITTED BY:

CAO Secretariat
Division: Strategic Management
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File #: