Agenda – Executive Policy Committee – September 19, 2012

REPORTS

Item No. 1 Green Fleet Plan 2011 Annual Report

WINNIPEG PUBLIC SERVICE RECOMMENDATION:

1. That this report be received as information on the progress of the Green Fleet Plan and;

2. That the proposed changes to the Green Fleet Plan, denoted in Appendix B section 1.0 of this report, be approved for immediate implementation.

ADMINISTRATIVE REPORT

Title: **Green Fleet Plan 2011 Annual Report**

Critical Path: **Executive Policy Committee - Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
Ajaleigh Williams	Herb Hajer	n/a	Deepak Joshi COO

RECOMMENDATIONS

1- That this report be received as information on the progress of the Green Fleet Plan and;
2- That the proposed changes to the Green Fleet Plan, denoted in Appendix B section 1.0 of this report, be approved for immediate implementation.

REASON FOR THE REPORT

A requirement within the Green Fleet Plan is to submit an annual report on the plan's progress to the Executive Policy Committee for review to identify if the implementation of the plan is providing anticipated emission reductions.

IMPLICATIONS OF THE RECOMMENDATIONS

The City has decreased fleet related greenhouse gas emissions by 3% from 1998 levels. The Green Fleet Plan aims to reduce emissions by 17.65% from 1998 levels by 2019, and as such is making progress towards this goal. While efforts to reduce the fuel usage and emissions through the green fleet plan have been successful to date and will continue to be implemented, it is important to note that as the population continues to rise and development continues to expand in the City, there may be an associated increase in fuel used by City vehicles delivering essential City services. With these types of anticipated increases, it will become increasingly important for decision makers to consider the impact on increased fuel usage requirements and the ability to meet the Green Fleet Plan targets with any new City planning efforts.

The original Green Fleet Plan adopted in 2010 estimated an overall savings from implementation of the Green Fleet Plan. Based on strategies implemented in 2011, the plan is still set to maintain an overall financial savings. As the plan continues to be implemented, each annual report will detail if there are any deviations from estimated plan costs and savings.

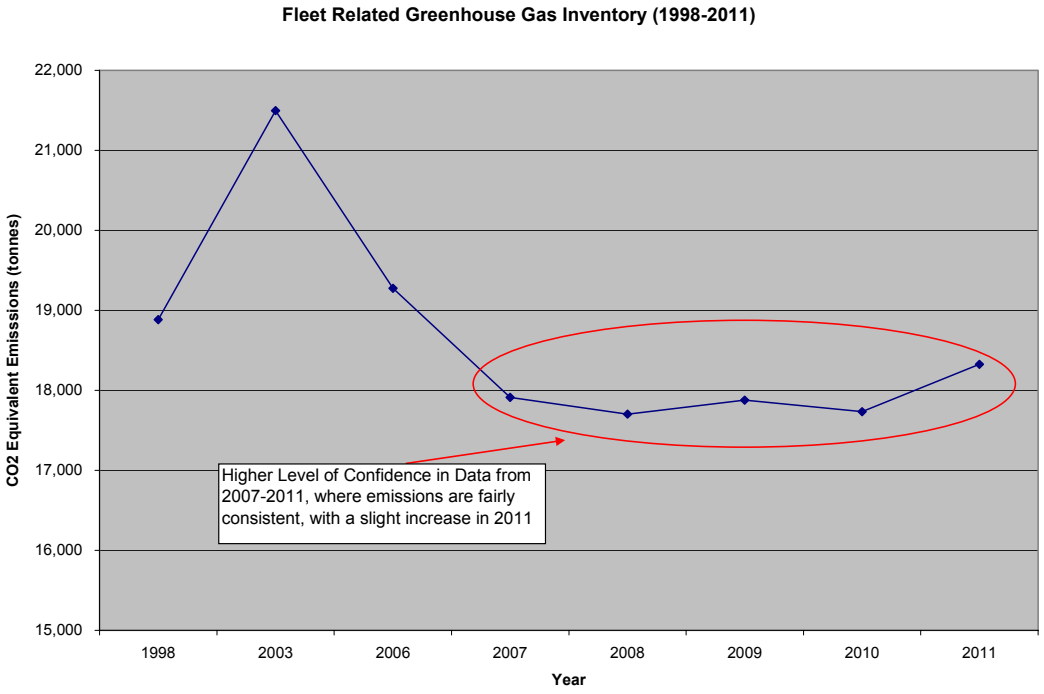
HISTORY

On July 21, 2010 (minute No. 572**)** City Council approved a Green Fleet Plan aimed at reducing fleet related greenhouse gas emissions by 17.65% from 1998 levels by 2019. This reduction in the corporate vehicle fleet emissions is estimated to result in a 4.87% reduction in the City's overall corporate GHG inventory.

Emissions Reductions

The primary indicator for the Green Fleet Plan emission reduction is total fuel used by City of Winnipeg vehicles and equipment, with the exception of Transit fuel usage (Appendix A describes Transit specific greenhouse gas emission reductions). Based on fuel usage from 2011, the City has decreased greenhouse gas emissions by 3% from 1998 levels and the City is achieving progress toward reducing emissions by 17.65% from 1998 levels.

The Green Fleet Plan targets, and the City's Corporate Climate Change Action Plan, established making corporate greenhouse gas emissions reductions based on the 1998 greenhouse gas emission levels and will continue to do so. The fleet related greenhouse gas inventory levels for the 2003, 2006 and 2007 have been previously stated through the Climate Change Action Plan reporting framework. While this historical reporting is very important for monitoring trends and emissions reductions targets, it should be noted that the level of confidence in the data accuracy is higher for the years 2007 onward for fleet related emissions, as there have been improvements in data capturing and data analysis methods. The graph below depicts the greenhouse gas emissions from 1998-2011.



The last year of reporting on the fleet related greenhouse gas emissions was in the 2007 year. Through this report, the 2007 year's inventory is being restated as it inadvertently included fuel usage from an external school division customer and is lower than what was previously stated. This will also be restated in the next Corporate Climate Change Action Plan.

The year to year trends from 1998 to 2011 are noted in the table below.

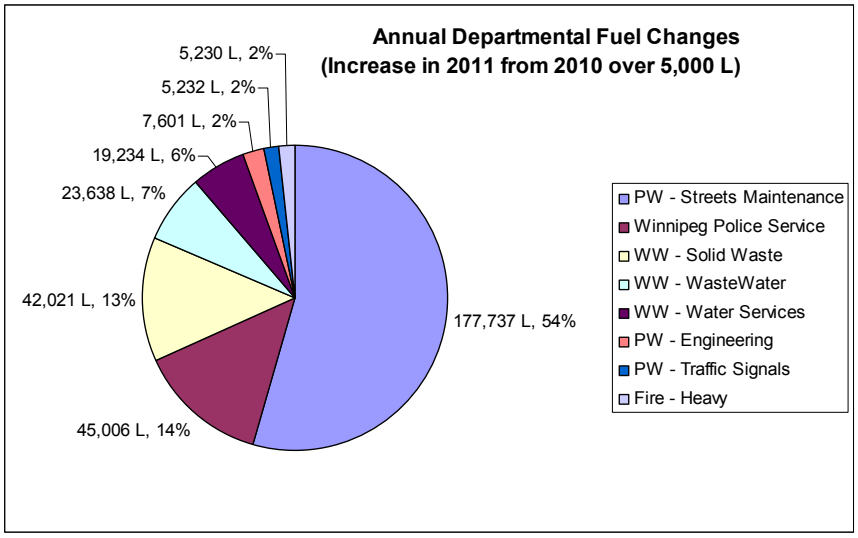
GHG Inventory and Fuel Use: Year to Year

Year	2011	2010	2009	2008	2007	2006	2003	1998
GHG Inventory (CO_2 Equivalent tonnes)	18,326	17,733	17,877	17,702	17,912	19,275	21,498	18,885
Fuel Usage in Litres (excluding Transit)	7,583,386	7,346,638	7,347,443	7,286,523	7,004,459	-	-	-
GHG % Increase/Decrease from 1998	-3.0%	-6.1%	-5.3%	-6.3%	-5.2%	2.1%	13.8%	-

Note: Fuel usage information from 1998 to 2006 is not available and/or not accurate enough to use for trending

As previously noted, the City has reduced emissions by 3% from 1998 levels based on the 2011 fuel use, however greater reductions were achieved from 2007-2010 compared to 2011 due to an increase in fuel use experienced in 2011. The 2008 year also experienced an increase in fuel use, however a ten percent blend of ethanol was mandated in that year, and there were associated emission reductions due to the use of this cleaner burning fuel source.

The 2011 year had a large increase in fuel usage primarily from three City Departments. The fuel usage increase from the Public Works Streets Maintenance Division is largely attributed to flood preparation efforts that year that were undertaken due a potential flood threat, while the Police Department fuel usage increased with increased Police service delivery in Winnipeg. A breakdown of any Departments that experienced an increase in over 5,000 litres of fuel in 2011 is noted below.



Had this increase in fuel use not occurred, the City's emission reduction levels would have been even greater than the 3% reduction achieved. The first quarter of 2012 fuel usage is 293,672 litres lower than what was used in the first quarter of 2011, as detailed in Appendix B, section 2.0. If this lower fuel usage trend continues the overall fuel usage in 2012 may be less than in 2011 and associated emission reductions will be reflected in the 2012 reporting year.

In general the City's fuel usage is increasing every year, although not as significantly as was seen in 2011. While it is difficult to ascertain all of the factors that could be causing this continual increase, one general factor could be that the population of Winnipeg has increased by 5% since 2007 (but the per capita emissions only 3%) and approximately 165 km of new streets have been added, which have to be serviced by City vehicles. Consistent with this type of growth, is that the number of units owned and operated by the City has been increasing since 2007, with 1564 units in 2007 up to 1947 units in 2011. Another factor that the Agency will investigate is whether newer heavy duty diesel engines mandated to have cleaner burning engines are having reduced fuel efficiency as reported by some fleets. A diverse

range of trends will be analyzed with each Green Fleet Plan annual report to assess what is causing increases or decrease in City fuel use. A full listing of all statistical trends from 2007 to 2011 that were developed and analyzed in this reporting year are included in Appendix B, section 3.0.

Strategies Implemented in 2011

The Green Fleet Plan annual report also provides analysis on the success of individual strategies being deployed to ensure they are providing the intended emission reductions. In total the original Green Fleet Plan had a set of forty five actions to be deployed over a ten year timeframe. In 2011, twenty one of the forty five strategies were deployed and all strategies had a positive effect on the Green Fleet Plan. Additionally, the actual operational expenditures and savings were in line or better than what was predicted and approved by Council within the original Green Fleet Plan. The plan is still positioned to save the City money overall. Emissions reductions from deploying Green Fleet Plan strategies in 2011 were 1,192 tonnes CO2 equivalent. A full detail of the cost, savings and emissions reduction is detailed Appendix B, section 4.0.

A summary of some successful efforts deployed in 2011 include but are not limited to:

- Purchasing light duty diesels over less fuel efficient light duty gasoline vehicles;
- Purchasing the right size vehicle for the job by downsizing the vehicle size where possible;
- Using mandated levels of ethanol and biodiesel;
- Implementing measures to ensure accurate odometers readings are inputted at City fuel sites which improves data accuracy relating to light duty fuel efficiency;
- Idle reduction efforts such as installing anti-idling signs at all Police stations, incorporating idle reduction information in driver training programs, and pre programming City vehicles to have engines automatically shut off after a pre determined time limit;
- Purchasing Police vehicles with tire pressure monitoring systems; and
- Deploying a working group to investigate reducing employee vehicle km travelled during the work day and for home to work commutes.

A full listing of all of the strategies that were deployed in 2011 is included in Appendix B, section 1.0. Additionally, Appendix B, section 1.0 also details revisions and additions to the plan, as well as allocating a schedule for implementation that needs to be approved prior to implementation.

At a summary level efforts in 2012 and 2013 will focus on strategies that have proven to be successful in reducing emissions, as well as some new strategies, some of which are noted below:

- Purchasing the most fuel efficient and lowest emitting light duty vehicles possible;
- Utilizing mandated levels of cleaner burning fuels such as ethanol and biodiesel and investigating the use of other alternative fuels such as propane, natural gas and electric;
- Ongoing mechanical and safety training for new vehicle technologies such as hybrid vehicles;
- Implementing idle reduction initiatives including pre-programming automatic engine shut offs, initiating an idle reduction communication campaign, and investigating options to monitor idling;
- Pre-programming transmissions to maximize fuel economy performance in the existing and new fleet purchases and identifying other transmission and engine technologies that could provide fuel or emissions reductions;
- Deploying a bike pool for City employees to travel to close proximity work meetings;
- Initiating efforts to maximize efficient route planning to reduce overall kms travelled; and
- Initiating quarterly fuel usage reporting to Departmental Directors and Chief Operating Officers of the Special Operating Agencies to flag any fuel use increases. Any increases over 10% within a quarter will require a written summary to the Agency explaining the rational for the increase so that potential reduction measures can be identified and deployed, and so that factors increasing fuel usage can be documented for future reporting.

Appendix A: Transit Specific Greenhouse Gas Reductions



Appendix A-Transit Specific Info.pdf

Appendix B: Supplemental Information to the 2011 Annual Green Fleet Plan Report



Appendix B-Supplemental Infor

FINANCIAL IMPACT

Financial Impact Statement **Date:** May 16, 2012

Project Name: **First Year of Program** **2011**

Green Fleet Plan 2011 Annual Report

	2011	2012	2013	2014	2015
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: There are no financial implications as the Report is provided for information.

"Original approved by Cheryl Turman, C.A."
Cheryl Turman, C.A.
Supervisor of Finance and Administration

CONSULTATION

In preparing this report there was consultation with:
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Linda Burch: Director of Corporate Support Services
Diane Sacher: Director of Water and Waste
Brad Sacher: Director of Public Works
Barry Thorgrimson: Director of Property, Planning and Development
Dave Wardrop: Director of the Transit
Reid Douglas: Chief of Fire and Paramedic Services
Keith McCaskill: Chief of Police
Clive Wightman: Director of Community Services
Nelson Karpa: City Assessor, Assessment and Taxation
Randy Topolniski: Chief Operating Officer, Winnipeg Parking Authority
Leland Gordon, Chief Operating Officer, Animal Services
Tony Dreolini: Transit, Manager of Plant and Equipment
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SUBMITTED BY

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Division
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Date: May 28, 2012