



**CITY OF
PRINCE GEORGE**

**Championing Integrated Air Quality through Partnerships
and Fleet Management.**

City of Prince George Fleet Services

**Presentation to the PG Air Forum
March 7, 2013**

Presentation Agenda

- Fraser Basin Council E3 Fleet
- City Green Fleet Strategic Plan
- What have we done to support the Green Fleet Strategic Plan?
- What are we going to do in the short and long term?
- Street Sweeping Operations and Road Dust



Fraser Basin Council

- Enrolled in E3 Fleet Program in 2008.
- E3 Fleet – External Audit on Fleet Energy, Efficiency, and Excellence.
 - *Corporate Fuel Efficiency Policy and Training*
 - *Idling Reduction*
 - *Vehicle Purchasing*
 - *Fuel Management*
 - *Trip/Route Management*
 - *GHG Emissions*
 - *Corporate Idling Policy*
 - *Fleet Right Sizing (inventory and use)*
- Awarded a Silver Designation in 2009.
- Proceeding with strategies to achieve “Gold Status”



City Green Fleet Strategic Plan



- Approved by City Council December 2011
- Long term plans to guide the work of the City in achieving green fleet objectives
- Focus on GHG emissions through fleet purchasing and operations.
 - Measure fleet GHG emissions and set targets (technology/operations)
 - Examination of alternative fuels/vehicles
 - Expand and measure fleet idling reductions
 - Implement driver efficiency program
 - Measure contracted services for GHG emissions/idling



What have we done?

Hybrid Vehicles

- Purchased Ford Escape Hybrid vehicles to replace 100% gasoline units.
- Reduction of approximately 1 ton of GHG annually.
- Reduction of fuel costs by 35% for Hybrids in Fleet.
- Driving billboard throughout the community to promote “Drive Green, Breathe Clean”.
- Supports City Green Fleet Strategy



What have we done?

100% Electric Car

- Funded by Community Works Funding (Federal Gov't Tax Gas Rebate).
- Partnership for use/costs – MOU -City, UNBC, Northern Health & Regional District.
- Community partnership – awareness, promotion.
- Reduce GHG emissions by 4 ton/ year.
- Annual net fuel cost saving =\$1900
- Create awareness around the use and benefits of electric cars.
- Installed four (4) charging stations





Propane Vehicle Conversions

- Converted four (4) gasoline vehicles to propane in 2012.
- Annual GHG emission reduction is 14 ton.
- Funded 100% through the Community Works Fund (gas tax from Federal Government)
- Net fuel savings approximately \$3800/year.



What have we done?

GPS Test Project

- 3 month pilot project to monitor fleet GPS systems.
- Focus on fuel management (idling), driver efficiencies, and Route Management.
- Completion of Pilot Project is March 2013.
- Establish targets for fuel and GHG emissions.



What are we going to do?

FLEET GPS SYSTEM

- Potential installation of 50 GPS units in selected City vehicles in Fall of 2013.
- *Expected outcomes:*
 - Target reductions of fuel use by 10% annually through monitoring & reporting on fleet Idling.
 - Measure and report on reductions in GHG due to Idling Strategy.
 - Contributes to overall strategy to reduce GHG emissions through fuel and route management.



What are we going to do?

Biodiesel

- Continued examination of supply agreements for approved biodiesel additive.
- City discontinued use of biodiesel in 2011 due to lack of supply and costs became prohibitive.
- Consider working with local and regional firms to develop supply chain processes.



Street Sweeping Operations

Table illustrates materials used during snow operations.

Snow and Ice Control – Materials Used

Year	Sand c/w 2% Salt (tonnes)	Fracture c/w 2% Salt (tonnes)	Salt (tonnes)	Anti-Icing Pre-wet (litres)	Sand	Snow Hauled (cu metres)
1992	25,301		1,559		1,325	141,082
1993	15,895		615			257,428
1994	32,708		968			641,776
1995	25,561		1,030			351,162
1996	21,041	1,610	1,235			326,046
1997	14,868	1,181	1,361			204,716
1998	18,729	816	1,022			151,822
1999	19,279	1,663	1,071			400,270
2000	15,734	4,027	2,619	57,613		310,580
2001		4,357	2,767	136,712	18,967	285,630
2002		2,390	2,994	200,672	8,145	356,494
2003		4,906	2,917	155,255	11,233	190,520
2004	12,945	4,747	3,450	212,731		238,840
2005	7,564	2,686	2,157	173,085		49,600
2006	11,673	2,157	2,712	281,259		390,542
2007	10,877	2,813	1,976	230,131		364,970
2008	8,899	2,126	2,092	280,340		382,888
2009	10,442	2,689	2,304	153,618		453,016
2010	5,332	2,159	742	63,257		158,140
2011	6,218	7,650	2,234	121,549		594,340
2012		8,902	2,195	131,278		309,150

Street Sweeping Operations

- Street cleaning usually is weather dependant and is planned to start in March.
- Road surfaces and sidewalks are never cleaned in dry conditions.
- Process starts with loader broom for heavy volumes, followed by mechanical sweepers and then the regenerative (vacuum sweeper) follows to pick up fine Particulate.

