

### 2009 Carbon Neutral Action Report

#### Executive Summary-

Mission Public Schools have continued to develop a system wide focus on matters related to environmental sustainability, energy conservation and proactive energy management. The most significant indicators are the emphasis put on leadership to formally address energy conservation and GHG reduction by virtue of a unique agreement that has been undertaken between the municipality (District of Mission) and School District #75. The two jurisdictions have implemented an innovative agreement and jointly hired an Energy Change Manager through the B.C. Hydro Energy Manager Program. In addition, a second position of responsibility has been created within the school district to address behavioural and cultural change and manage environmentally sustainable initiatives amongst staff and students. Affiliated with these leadership roles, the Board of Education for Mission Public Schools currently has under consideration a formal district wide environmental sustainability policy that will afford all district staff guidance in terms of decision making for all aspects of the organization.

It is evident to the school district that the road to environmental sustainability is not only achieved through the day-to-day decision making processes and infrastructure changes but the development of socially responsible behavior in both students and employees. The school district educates students about social responsibility; so to the staff need to embrace environmental stewardship and model good practice. Doing this in conjunction with the municipality will provide a coordinated and consistent message that will better serve and sustain these aims as well as get the message out to a much broader audience.

# Actions Taken to Reduce Greenhouse Gas emissions in 2009

The school district has continued to champion measures involving both staff and students that promote environmentally responsible and sustainable behaviour. Some initiatives include moving towards multifunction devices to replace a multitude of stand-alone printers; broadening the scope of power management in school district computers through the introduction of more sophisticated power management software. Mission Public Schools started (in 2009) a boiler replacement program that will eventually eliminate inefficient boilers as funds allow and move to utilizing hot water on demand equipment as is practical.

# Plans to Continue Reducing Greenhouse Gas Emissions 2010 - 2012

Start the implementation of occupancy sensor lighting and graduated room lighting as well as de-lamping, expanding the scope of the school based recycling program, purchasing EnergyStar rated equipment as a standard of operation and generally making environmental considerations a part of district decision making wherever possible.

Partnered with the municipality a campaign to continue to raise public awareness and impact the cultural mindset is also in the planning stages. In addition the District of Mission is supporting the expansion of the recycling program to all secondary facilities and starting in elementary schools in September, 2010. Other joint initiatives are also being explored both in terms of environmental sustainability and economy of scale.

DISTRICT PRINCIPAL-SCHOOL OPERATIONS

# **Actions Towards Carbon Neutrality**

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act.

Action	Status (as of 12/31/09)		Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year	
Mobile Fuel Combustion (Fleet and other mobile equipment)								
Vehicle fuel efficiency								
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Regular maintenance of all vehicles	Regular maintenance of all vehicles	2008	No End Date (Continuous)	
Behaviour change program								
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress			Informed all staff as to the advantages of anti-idling	Inform all staff as to the advantages of anti-idling	2008	No End Date (Continuous)	
Other Mobile Fuel Combustion Actions								
Utilize bio-diesel for school buses	In Development				Ongoing discussions with suppliers and preparation of fleet	2011	No End Date (Continuous)	
Stationary Fuel Combustion, Electricity and Fugitive Em	issions (Buildings)							
Owned buildings								
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	10	% of owned buildings have undergone energy retrofits since start year indicated	Replaced boiler in one facility and optimized some controls	Replace boilers in other facilities and optimized controls	2009	No End Date (Continuous)	
IT power management								
Install power management software which shuts down computers outside of regular business hours	In Development				Buy and install software	2011	2012	
Implement server virtualization	Complete	90	% of servers have been virtualized since start year indicated	Virtualization of servers started	Complete Virtualization of servers and inform staff	2009	No End Date (Continuous)	
Apply auto-sleep settings on computer monitors and CPUs	Complete	90	% of computers have auto-sleep settings applied	Auto-sleep function came with all new computers	Replace rest of the computers with Auto-sleep function.	2009	No End Date (Continuous)	
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	5	% reduction in printers, copiers and/or fax machines since start year indicated	Completed back ground planning for change over	Buy and install new equipment and educate staff on the use	2010	No End Date (Continuous)	
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	5	% of devices have auto-sleep settings applied	Completed back ground planning for change over	Apply auto-sleep settings to all new equipment	2010	No End Date (Continuous)	
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	90	% of computers are ENERGY STAR rated	Bought only energy star rated computers	All new computers upgrades will be energy star rated	2009	No End Date (Continuous)	
Appliances and electronic devices								
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	10	% of fridges are ENERGY STAR rated	Fridges bought in 2009 were all Energy Star	All appliance replacements will be Energy Star	2009	No End Date (Continuous)	

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress		All appliances bought in 2009 were Energy Star	All appliance replacements will be Energy Star	2009	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress		Provided information to all staff on energy savings	All lamps will be replaced with more efficient lamps	2010	No End Date (Continuous)
Behaviour change program						
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			Provide information to all staff on the savings if equipment is turned off when not in use	2010	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development			Provide information to all staff on the savings if blinds are closed at the end of day	2010	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development			Provide information to all staff on the savings if air dry setting is used on dishwashers	2010	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress		Provided information to all staff on heating and lighting use	Provide information to all staff on heating and lighting use after normal working hours	2010	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development			Provide information to all staff on healthy living	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development			Provide information to all staff in newsletters and install signs above light switches	2010	No End Date (Continuous)
Promote hot water conservation	In Development		Started to install "On demand" hot water boilers where applicable	Provide information to all staff on the savings of both water and energy	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions						
De-lamping of light fixtures	In Development			Reduce lighting levels to "LEED" or ASHRAE Standard for all areas	2010	No End Date (Continuous)
Graduated lighting	In Development			Change to three level lighting in classrooms	2010	No End Date (Continuous)
Room occupancy sensors	In Development			Install occupancy sensors in all classrooms	2010	No End Date (Continuous)
Real time energy monitoring displays	In Development			Provide real time energy monitoring displays in six schools	2010	No End Date (Continuous)
Supplies (Paper)						
Paper Type						
Purchase 30% post-consumer recycled paper	In Development			Ongoing discussions with consortium members	2010	No End Date (Continuous)
Printer/document settings						
Switch networked printers and photocopiers to automatic double- sided	Ongoing/In Progress	% of network printers or photocopiers are set to automatic double-sided	Provided information to all staff	Purchase and install new equipment to print double-sided	2010	No End Date (Continuous)

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development			Provide information to all staff on the settings	2010	No End Date (Continuous)
Electronic media in place of paper						
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Purchase new software and install on computers	2011	No End Date (Continuous)
Post materials online that were previously printed	In Development			Inform all staff where to find posted materials	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete		Provided passwords and information to all staff		2009	2010
Behaviour change program						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Set up training schedule for staff on new software	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			Provide information to staff on the use of power point presentations with no handouts	2010	No End Date (Continuous)

#### **Actions to Reduce Provincial Emissions and Improve Sustainability**

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Complete		Green sustainability, energy conservation team was created		2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Complete		Added a dedicated staff person to support the team		2009	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		Background information was collected	Will be providing behaviour change education & training to all team members	2009	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the conservation of water, energy, and raw materials	In Development			Provide newsletters to educate all staff	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		We started "Green Tips" newsletter for all staff.	Weekly "Green tips" newsletter will be provided to all staff.	2010	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the conservation of water, energy, and raw materials	In Development			Provide tips on conservation of water, energy and savings to all staff and students	2010	No End Date (Continuous)
Other Sustainability Actions						
Water conservation						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	In Development			Replace existing valves with manual flush valve on all urinals	2010	No End Date (Continuous)
Waste reduction/diversion		'				
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	In Development			Put in place recycling and composting policy and program	2010	No End Date (Continuous)
Procurement (non-paper supplies)						
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	In Development			Inform all staff to buy environmentally friendly recyclable products where possible	2010	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development			Put in place "Green cleaning products" policy	2010	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Provided information to all staff through Health and Safety committee	Provide ongoing information to all staff through Health and Safety committee	2008	No End Date (Continuous)

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		All paints bought were with low volatile organic compounds	Incorporate low volatile organic compound standards into procurement of all building products	2009	No End Date (Continuous)