

## Carbon Neutral Action Report Ministry of Agriculture and Lands, including Integrated Land Management Bureau

### Executive Summary

This MAL/ILMB Carbon Neutral Action Plan outlines the priorities, initiatives and actions that the Ministry of Agriculture and Lands (including the Integrated Land Management Bureau) will take from 2008 – 2011 to reduce energy use, greenhouse gas (GHG) emissions and environmental impacts from its own operations.

This Report outlines progress in 2008 and future actions for 2009/10.

#### Motivation

The Government of British Columbia has made a series of commitments to address the factors contributing to climate change. The most significant commitment for government operations was made in the Greenhouse Gas Reduction Targets Act (GGRTA). GGRTA requires the public sector to become carbon neutral by 2010. This requirement has applied to GHG emissions from business travel since October 2007. The requirement will extend to emissions from fleet, buildings and paper supplies, in addition to business travel, in 2010 and in each subsequent calendar year.

The Act requires the Minister of Environment to make a public report available annually that details action taken by the Provincial government towards carbon neutrality. Actions listed in this MAL-ILMB Carbon Neutral Action Report are our contribution to that report in 2009.

This report includes actions taken by the Agricultural Land Commission to meet its carbon neutral mandate.

## Part 1 Actions Taken to Reduce Greenhouse Gas Emissions in 2008

### Overview

2008 was a the launch year for the carbon neutral government and MAL/ILMB created a carbon neutral action plan to reduce GHG emissions from operations to meet government's commitments. Activities focused on immediate changes that could be undertaken as well as coordination and support of Green Teams for education and encouragement of employee awareness of climate change and energy use.

There was no turnover of building leases which would have allowed for negotiation of new terms and conditions within the leases for lowering GHG emissions. WSI/ARES maintain control of all aspects of buildings and leases on behalf of government.

In terms of the Ministry's vehicle fleet, the decision was made to replace eight vehicles with lower emission hybrids.

MAL/ILMB championed the use of Windows Live Meeting, creating documentation and promotional activities in order to encourage Live Meeting as an alternative to travel.

Procurement and Supply Services increased availability of 'green' options in their standard catalogue.

An initiative for greener meetings and catering was started in ILMB and taken over by LCS on behalf of all government.

All staff adopted SMARTTEC beginning in April. Actions were taken internally to support greener operations such as mandatory double side printing and local office recycling programs.

Numerous staff engagement events such as speakers, films and lunch'n'learns were run to educate staff about climate change and energy conservation.

### 1.1 Mobile Fuel Combustion

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	Complete		replaced 4 non hybrid vehicles with 4 hybrids
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete		Every 6 months or 8,000 KMs vehicles are scheduled for maintenance.
Encouraged car pooling in fleet vehicles	Complete		

Encouraged use of public transit/active transportation	Complete		
Encouraged alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	In Progress		In early planning stages
Established internal web site to promote activities related to GHG reductions in travel	Complete		Climate Wiki pages available to all government provide business justification, technical documentation and user instruction on travel alternatives
<b>1.2 Stationary fuel combustion and electricity</b>			
Undertaken Monitor turn-off challenge	In Progress	Number of monitors turned off during the challenge	Had a volunteer count how many monitors were left on at the end of one day, then checked back after Green Teams promoted the benefits of turning off monitors and distributing stickers to be put on monitors.
Asked staff to close blinds daily	In Progress	reduced heating and cooling costs	challenged staff to close blinds at night to keep heat in the building, and open them in the day
Turned off lights in unused rooms	In Progress	number of decals placed above switches	Decals placed above switches in some rooms
Installed multi-function devices (and removed stand-alone printers/faxes)	In Progress		Many printers/scanners/faxes replaced with MFDs
Installed motion activated lights	In Progress		Some locations
Implemented server virtualization	In Progress		All GIS and Oracle applications running on DTS virtual servers
Utilized desk-top power management settings on computer	Complete		Implemented across government by WTS
Initiated corporate computer shut-down/wake-up for maintenance	Complete		Implemented across government by WTS
Undertaken building energy audit at LOCATION(s)	Complete		780 Blanshard, Victoria 1767 Angus Campbell Road, Abbotsford
Turning out unnecessary overhead lighting	In Progress	number of over head lights turned out by Facilities Management	Staff made aware that unnecessary lighting can be turned out by the facilities manager. Working with ARES to reduce off-hours lighting use and length of over-rides
<b>1.3 Supplies</b>			
Committed to use 100% recycled paper	Complete	became policy?	In 808 Douglas
Initiated automatic double sided printing	Complete	number of printers that automatically duplex	initiated a policy where all printers capable of duplex printing are set to double-sided
Changed document template margins	In Progress	decrease in the amount of paper purchased	Provided staff with the information needed to change margins in their word documents
Developed document library (online and one printed copy) for large documents	In progress	Number of staff utilizing the Share Point Software	Microsoft Share Point and shared network drives used extensively.
Used collaborative software to edit on-line	In progress		Some use of Windows Live Meeting
Re-used non-confidential scrap paper	In Progress	decrease in the purchase of paper or notebooks	There are collection trays for re-useable, non-confidential scrap paper next to some office printers

Encouraged re-use of furniture and equipment	Complete		Some staff 'purchase' used furniture from Asset Investment Recovery
<b>1.4 Travel</b>			
Trained staff in the use of Live Meeting (or other desktop collaborative software)	In Progress	Number of staff that participated in training	Developed Climate Wiki materials for using Live Meeting 2005 on Windows XP. This proved complex and difficult to implement.
Installed Video Conferencing facilities	In Progress		Nine new VC rooms within ILMB
Supported alternative travel (bike/skateboard/walk/transit) for meetings	In Progress		Policy does not prohibit alternative travel
<b>1.5 Employee Engagement</b>			
Provided climate change education	In Progress	Number of staff in attendance at these lunch and learns  Climate Wiki gradually increasing recognition and use by broader government.	Several lunch'n'learn sessions on climate change, peak oil, home retrofits, etc.  Developed and hosted BC Government Climate Wiki Based on ILMB Share Point, contains information on many topics about energy efficiency, green procurement, travel reduction, etc.
Provided conservation education	Complete	Increased staff awareness	
Held contests to change behaviour/make pledges	Complete	Number of staff participating in Bike to work week	Bike to Work Week Annual program run in five locations in 2008, and will be run in eight locations in 2009.
Held contests/support to generate ideas	Complete	Number of green team initiatives	Green Teams created Ministry wide as well as for several locations carrying on local activities to promote green ideas
Developed Green Teams	Complete	Number of active green team members	Green Teams created Ministry wide as well as for several locations.
Supported Green Teams (resources)	Complete	Provided all green teams with power-meters	Early commitment by DM for staff to take time from work for GT activities
Provided green tips	Complete	Quarterly Green Team Newsletter sent out to all MAL/ILMB staff	Numerous green tips supplied in Green Team newsletters
Supported professional development	Complete		CAT members attended conferences, forums and education events.
Added green work goal to performance management	In Progress		At initiative of supervisory staff.
Participated in Waste Reduction Week in Canada	Complete	Number of staff participating in the weeks events	challenged staff to change a behaviour each day as a part of Waste Reduction Week. Also posted fact sheets up at 808 Douglas and sent out daily emails.
Bike to Work Week	Complete		five teams from MAL & ILMB around BC
<b>1.6 Sustainability Actions (others)</b>			
Took water conservation measures – low flow showers or toilets, fix leaks	In progress	reduce water use	As initiated and supported by ARES/WSI and landlords
Reduced/replaced bottled water with filtered or refrigerated water	Complete	number of water filters installed	Installed water filters/coolers plumbed to building system at 780 Blanshard

Improved recycling measures	In progress	amount of waste diverted from the landfill	As initiated and supported by ARES/WSI and landlords
	Complete	number of batteries sent to AIR	Battery recycling Bins set up at 808 Douglas to accept rechargeable and disposable batteries, with regular delivery to Asset Investment Recovery for recycling
Supported composting	Complete	amount of organics removed from the waste stream.	Composting programs running in Smithers, 780 Blanshard, 1767 Angus Campbell Rd. in conjunction with community garden in Abbotsford
Used re-usable dishes	Complete	number of kitchens that have re-useable utensils	Green Teams purchased re-useable utensils, plates and mugs to encourage waste free lunches and meetings.
Battery recycling	Complete		Set up permanent stations for recycling of rechargeable and disposable batteries through Asset Investment Recovery

## Part 2 Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

<b>Overview</b>	<p>There are no replacement of capital assets contemplated for 2009/10.</p> <p>Travel has been restricted in response to government efforts to limit travel and budget restraint within travel STOB's so likely to see significant reductions.</p> <p>Unnecessary I.T. equipment and accounts are being eliminated to reduce costs. This will likely have a side effect of reducing energy use.</p>
-----------------	---

### 2.1 Mobile Fuel Combustion

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In Progress		No vehicle purchases / new leases planned for 2009	
Provide driver training to reduce fuel use	In Progress	Number of staff who drive fleet vehicles and have taken the course	LCS has provided Web training course for fuel efficient driving on 'Where Green Ideas Work' website	
Initiate new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	In Progress		every 6 months or 8,000 KMs vehicles are scheduled for maintenance	
Develop and implement a Ministry Green Fleet Standard (Vehicles & Equipment)	Planned			
Measure the effectiveness of all ministry fleet emissions reduction outcomes.	Planned			
Investigate sharing of vehicles between Ministries at common locations	Planned		Ministries in the same location have their own cars which could be treated as common government assets	

### 2.2 Stationary Fuel Combustion (including electricity)

Undertake workstation tune-ups to help staff understand what they can do to reduce personal energy use	In Progress		Energy savings are minimal, may proceed in Abbotsford.	
Undertaken Monitor turn-off challenge			Monitors turn off after 20 minutes under standard WTS settings. May encourage change to 10 minutes	

Replace # computers with EnergyStar models	In Progress		As implemented by WTS
Turn off lights in unused rooms	In Progress		This is standard practice
Install multi-function devices (and remove stand-alone printers/faxes)			Check numbers planned
Implement server virtualization	In Progress		High energy use Unix servers SLKUX3, SLKUX10, SSBUX1, SSBUX2, GAMMA, LDBCWEB to be replaced by virtual servers
Turning out unnecessary overhead lighting	In Progress	number of over head lights turned out by Facilities Management	Staff made aware that unnecessary lighting can be turned out by the facilities manager. Work with ARES to reduce off-hours lighting use and duration of over-rides

**2.3 Supplies**

Initiate automatic double sided printing	In progress		Completed in 2008
Use collaborative software to edit on-line	In progress		Live Meeting training for many staff

**2.4 Travel**

Set a X% Travel reduction goal	In progress	Reduced emissions in SMARTTEC	Cross government STOB 57 travel budget reduction of 25% below 2008/09 expenditures	Fiscal 2009/10
Train staff in the use of Live Meeting (or other desktop collaborative software)	In progress		Training program and user support available to all staff. Creation of education materials on Climate Wiki	Complete by August 2009
Install Video Conferencing facilities	In progress	Number of functioning VC facilities	Purchased four Microsoft RoundTable conference cameras - similar effect at lower cost Will purchase more for other offices	Complete by August 2009

**2.5 Employee Engagement**

Provide climate change education	In progress		Continuing series of films and Lunch'n'Learns. Available to all staff through Live Meeting where possible.
Hold contests to change behaviour/make pledge	In progress		Earth Day pledge poster at 808 Douglas
Develop Green Teams	In progress		Ministry and city Green Teams functioning and contributing to cross-government committees
Provide green tips	In progress		Provided with bi-monthly Green Team newsletters
Bike to Work Week	In progress		eight teams from MAL & ILMB around BC

**2.6 Sustainability Actions (others)**

Support composting	In progress		Will use compost from Abbotsford in conjunction with natural landscaping
Use re-usable dishes	In progress		Several locations in MAL/ILMB re-use dishes.
Use green (low-e paints)	In progress		All WSI/ARES renovations use low Volatile Organic Compound paints
Battery recycling	In progress		Set up permanent stations for recycling of rechargeable and disposable batteries through Asset Investment Recovery