

# Ministry of Agriculture and Lands - 2009 Carbon Neutral Action Report

## Executive Summary

The Ministry of Agriculture and Lands has been a leader in the government effort to decrease GHG emissions. The ministry has undertaken a number of initiatives ranging from vibrant and focused green teams leading cultural and behavioural change within the Ministry, to championing the use of live meetings to stem emissions related to business travel. We are particularly proud that the Ministry managed to lead all government ministries in the percentage reduction in the amount of greenhouse gases related to Ministry travel. The Ministry was able to do this via the use of innovative and new technologies such as Live Meeting which has become the accepted choice for internal ministry meetings. The Deputy provides regular all Ministry updates using Live Meeting and the executive of the Ministry has championed the use of this technology. While the Ministry reduced its travel more significantly than any other ministry across government, the Ministry still managed to maintain effective working relationships with our industry partners by focusing on business travel that met client needs.



The ministry Green Teams have been a vibrant part of the ministry community and leading the charge in fighting climate change. A survey of MAL staff in the spring of 2010 found that over 80% of MAL staff found the activities of the Green Teams, including staff communication and education exercises, to be valuable. As part of continuous improvement the Green Team survey, conducted at no cost using existing government web products, will be an annual practice for measurement of progress. MAL has worked with other Green Teams in other ministries to host a very popular and successful Lunch and Learn series with one event of food security bringing over 150 participants on line and in meeting rooms in multiple locations. The MAL Green Team received special recognition at the cross government Green Team Summit in January 2010 for the 2009 Live Meeting education campaign. All of this work is paying off. In the 2010 survey of MAL staff, 90% of respondents indicated they had made changes in their own life style in the last two years out of concern for the environment. This is true change at the personal level.

The buildings and fleets of the Ministry have remained relatively constant in 2009. Building level energy performance target setting was identified as one of six key priorities under an Energy Management and Conservation Strategy for core government buildings. The Strategy was completed in the spring of 2009. Shared Services BC, in partnership with government's outsource service provider for property management (BLJC-WSI) launched a building level energy performance target setting initiative in December of 2009. The results of this initiative will enable WSI operations and management teams to better monitor energy performance relative to a realistic baseline Building Energy Performance Index (BEPI) goal. The established goal BEPI is based on a combination of empirical knowledge of building-specific systems and energy accounting data. Issues related to tenant behaviour that may have a significant impact on the goal BEPI is being flagged for follow-up with appropriate client services and green team representatives. With MAL's success in the Green Teams initiative, MAL will be able to support the greater government goals regarding buildings and facilities.

MAL, like all ministries, not only produces GHG emissions from travel, fleets and facilities, but also through its operations. The Ministry has focused during the last year on moving more towards a paperless office. MAL has undertaken extensive use of the SharePoint® approach to document management such as using SharePoint® technology

to support the Co-Divisional Board of Directors within agriculture. This encourages less paper use in printing documents that require editing and modification which can be done on line through the SharePoint® site. When printing of documents is required, MAL has mandated double sided printing unless exceptions require otherwise. Energy usage with our computers has also been considered during the last year. In 2008, software was applied to all Ministry computers which powers them down outside of regular business hours (unless they cannot be powered down due to critical business needs). The same software was applied to new workstations acquired in 2009. As part of the U2.0 upgrade, workstations had their setting applied so that after 15 minutes of inactivity, each monitor displays a screen saver. After another 5 minutes the monitor goes into sleep mode as well. However, there is still much that can be done to further encourage the paperless office and MAL will focus on getting the message out to the Ministry staff via the Green Teams.

The Ministry spent \$5,031.88 to purchase carbon offsets against its 194 tonnes (CO<sub>2</sub>e) of emissions from 2009 business travel at \$25/tonne. Next year it will require about \$100,000 to offset all of its accounted emissions.

The Integrated Land Management Bureau was transferred from MAL to the Ministry of Forests and Range, reducing the Ministry footprint. The Ministry continues to report for the Agricultural Land Commission and the Farm Industry Review Board, with emissions of 7.03 tonnes from 2009 business travel.

Actions undertaken to support carbon neutral government support the overall Ministry mandate. The mandate of the Ministry of Agriculture and Lands is to enable economic and social development and environmental sustainability for the agriculture, aquaculture and food sectors, supporting them in delivering safe, healthy and high-quality food and to manage Crown land in an innovative manner that contributes to the goals of government.

Ministry Goal number two is a world-leading environmental stewardship in Crown land administration, agriculture, aquaculture and food practices which has as one of its objectives the sustainable agriculture management and Crown land administration practices that reduce greenhouse gas emissions and assist successful adaptation to climate change.

The Ministry supports the efforts of industry in developing innovative products, tools and processes to mitigate greenhouse gas emissions by promoting research and identification of effective climate action strategies.

Carbon neutral government fits within the Ministry's larger goals and objectives and helps us lead by example.



Lindsay Kislock  
ADM Agriculture Operations

## Overviews

### **Actions Taken to Reduce Greenhouse Gas Emissions in 2009**

The Ministry managed to lead all government ministries in the percentage reduction in the amount of GHG related to Ministry travel. The Ministry was able to do this via the use of innovative and new technologies such as live meeting. Executive, Management, work teams and individuals all routinely use live meeting and limit their travel.

The ministry Green Teams have encouraged the actions of 90% of MAL staff to change their life style out of concern for the environment. This has resulted in changes at work that are as simple as turning off lights, to changes at home that are as significant as purchasing heat pumps to replace oil furnaces, increasing insulation and biking to work more frequently. Lunch and Learn educational forms have resulted in better educated staff and greater awareness of climate change with some truly significant attendance levels for such a small Ministry.

The buildings and fleets of the Ministry have remained relatively constant in 2009, although there are a number of core government building initiatives underway and all new fleet purchases within MAL are hybrids where that option exists. MAL has also made changes to business practices regarding computer and paper use that also result in decreased emissions.

There were a number of significant organizational changes that have impacted the MAL profile for carbon emissions within the last year. The Integrated Land Management Bureau (ILMB) transferred from MAL to the Ministry of Forests and Range and will now fall under that Ministry's reporting. However, because of the shared history the ILMB Green Team are still connected to MAL. There have also been reductions in the number of staff who contribute to the MAL emissions profile from 401 in January 2009 to 380 in December.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012**

For the next year MAL will continue to build on the successful programs highlighted above. We will continue to champion travelling wisely and using new technologies to support our travel reduction goals. We will also rely on our Green Teams to continue the successful work they have been doing to date and will look to them to provide new ideas for further reductions and continued influence of staff education, awareness and lifestyle changes. As well, The Ministry is reducing the amount of office space it uses which will result in decreased emissions as there will be less office area to heat and service.

By MAL achieving its carbon reduction goals, MAL demonstrates the commitment and leadership needed as we work with industry and our stakeholders to achieve the larger government reduction efforts of decreasing GHG emissions by 33% by 2020.



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## 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
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>						
<b>Vehicle fuel efficiency</b>						
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		Research in progress with manufacturers to determine viability of incorporating new hybrid vehicle types into the MOE Fleet	Looking into options of purchasing hybrid pick up trucks now that they are on the market for future vehicle purchases where is it feasible to do so and where it meets the business requirements	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress		Reviewing maintenance schedules and tracking when complete	Reviewing maintenance schedules and tracking when complete	2009	No End Date (Continuous)
<b>Behaviour change program</b>						
Provide fleet driver training to reduce fuel use	Ongoing/In Progress		Create framework for Green Leaders behaviour driven courses currently being created by Climate Action Secretariat	Green Leaders Courses in process of being created: one specific course will be dedicated to Fleet drivers with an emphasis on anti-idling, driving smart, etc.	2010	2011
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress			Green Team stickers and smart vehicle use policies are being developed that will go with the vehicle sign out procedures for Ministry vehicles.	2010	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Green Team lunch and learns to educate employees of the importance of lowering emissions and using car pooling of fleet vehicles as an alternative.	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	In Development			Provide 'Low Carbon Transportation Options' posters for some Ministry buildings with information about other means of travel between buildings. Publicise payment of mileage to staff for bicycle travel.	2010	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>						
<b>Planning/management</b>						
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress		Shared Services BC partnered with the Canada Green Building Council to contribute to an energy benchmarking database for the Green Up initiative. Utility data from eight buildings were included in the initiative.	Data will be maintained and updated	2009	No End Date (Continuous)
Reduce office space (square meters) per employee	Ongoing/In Progress	45	is the current average rentable square meters per employee	Shared Services BC launched a portfolio-wide building and space rationalization initiative in 2009 to reconcile workspace allocations with government office space standards, and to consolidate customer workspaces where appropriate and available.	2009	2012
<b>Owned buildings</b>						

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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
Establish energy performance baseline for owned buildings	Ongoing/In Progress		Building level energy performance target setting was identified as one of six key priorities under an Energy Management and Conservation Strategy for core government buildings. The Strategy was completed in the spring of 2009. Shared Services BC, in partnership with government's outsource service provider for property management (BLJC-WSI) launched a building level energy performance target setting initiative in December of 2009. The results of this initiative will enable WSI operations and management teams to better monitor energy performance relative to a realistic baseline Building Energy Performance Index (BEPI) goal. The established goal BEPI is based on a combination of empirical knowledge of building-specific systems and energy accounting data. Issues related to tenant behaviour that may have a significant impact on the goal BEPI is being flagged for follow-up with appropriate client services and green team representatives.	Energy performance will be monitored and reported on and opportunities for improvement identified.	2009	2010
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Ongoing/In Progress		During the first quarter of 2009, SSBC participated in the LEED Canada 2009 initiative. Eight buildings were selected to participate in a benchmarking exercise. A workshop was also conducted by the Canada Green Building Council, during which participants from BLJC-WSI and SSBC completed a LEED certification gap analysis on selected buildings. In addition, two private sector landlords of buildings where government employees are accommodated have recognized the Province's interest in third party verification of government space. The eight buildings involved in the pilot included 3350 Douglas in Victoria, a building occupied by Citizens' Services staff.	A draft LEED EB-OM attainment strategy has been developed for further review during fiscal 2010/11.	2009	2011
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress		Two LEED CI certifications are being pursued at Robson Square in Vancouver. One is for showcase and hosting and one for the Asia Pacific Business Centre.	Other opportunities will be explored as they arise.	2008	2010
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress		Several owned buildings were considered for LEED certification during the 2009 calendar year, including the Squamish-Lil-Wat Cultural Centre, the CL3 Laboratory at the Abbotsford Agricultural Centre, the Burnaby Youth Justice Services Centre, the Revelstoke Ambulance Station, and the Capital and infrastructure projects at several Correction Centres.	Any new facilities or major renovations will be constructed to achieve LEED Gold certification.	2008	2010
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Complete		The management of refrigerant systems and associated emissions is an essential service provided by Shared Services BC's outsource service provider for property management - WSI in accordance with laws and regulations. As required, precautions are taken to mitigate emissions, and emissions are reported per regulatory requirements.		2007	No End Date (Continuous)

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Complete energy retrofits on existing, owned buildings	Ongoing/In Progress		SSBC successfully applied for retrofit funding through the Public Sector Energy Conservation Agreement to advance energy efficiency projects at several buildings, including the Prince George Courthouse (107k kWhs saved), Prince George Youth Custody Centre (800 GJ's saved), Robson Square Complex (7,460 GJs saved), BC Centre for Disease Control (2,060 GJs saved), Colony Farms Forensic Hospital (3,000 GJs saved), Abbotsford Agriculture Centre (1,600 GJs saved), and St. Anne's Academy (728 GJs saved). It is expected a significant amount of associated greenhouse gas emissions will be diverted as a result of these retrofits.	A list of potential projects has been scoped out for submission into the third PSECA funding intake. Approvals for projects are expected during Q3 2010. Projects (in some cases adding to previous retrofit measures in previous years) are proposed at Abbotsford Agricultural Centre (78612), BC Centre for Disease Control (90258), FPI Colony Farms, Port Coquitlam Courthouse (78604), Robson Square (45047,46581, 43398), Vancouver Courts 17871), and Queen's Printer (10652).	2008	2010
<b>Leased buildings</b>						
Establish energy performance baseline for leased buildings	Ongoing/In Progress		The same building level energy performance target setting exercise that is being applied to owned buildings is also being rolled out to leased facilities. The results of this initiative will enable WSI operations and management teams to better monitor and manage energy performance where they have influence, relative to a realistic baseline Building Energy Performance Index (BEPI) goal. The established goal BEPI is based on a combination of empirical knowledge of building-specific systems, lease terms, and energy accounting data where known. Issues related to tenant behaviour that may have a significant impact on the goal BEPI is also being flagged for follow-up with appropriate client services and green team representatives.	Performance monitoring will continue and opportunities to better manage energy will be undertaken as resources and legal arrangements allow.	2009	2010
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	Ongoing/In Progress		The known leased spaces where a green building or energy performance label has been sought (lead by landowners) include: 818 Fort Street (BOMA BEST Level 2), 1007 Fort Street (BOMA BEST Level 2), 1405 Douglas (BOMA BEST Level 2), 1802 Douglas (BOMA BEST Level 2), 3350 Douglas (BOMA BEST Level 3), 395 Waterfront (Gatehouse BOMA BEST Level 3), and 800 Johnson (LEED Gold). The following buildings have successfully passed their audits and are awaiting official confirmation of certification by BOMA; the Belmont Building (BOMA BEST Level 2), the Robert Kerr Building (BOMA BEST Level 2) and 3960 Quadra (BOMA BEST Level 3).	Other opportunities will be explored as they arise.	2008	2010
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Ongoing/In Progress		LEED CI certification was registered for one building within SSBC's portfolio (i.e., 976 Meares Street in Victoria).	Other opportunities will be explored as they arise.	2008	2010
Lease space in buildings with new construction performance labelling/certification (e.g., LEED NC)	Ongoing/In Progress		LEED certification was pursued in one new and leased building development project, in Kamloops, occupied by the Ministry of Transportation.	Any new facilities or major renovations will be constructed to achieve LEED Gold certification.	2008	2010

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Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Complete			A significant amount of government's building portfolio is leased space. SSBC has focused a considerable amount of research and analysis on green lease schedules that are intended to improve performance regarding conservation of energy and water, waste reduction and recycling, and support of green team activities. Schedules that have been drafted and available for use on new leases and lease renewals.		2008	No End Date (Continuous)
<b>IT power management</b>							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	99	% of computers shut down automatically outside of regular business hours	In 2008, software was applied to all Ministry computers which powers them down outside of regular business hours (unless they cannot be powered down due to critical business needs). The same software was applied to any new workstations acquired in 2009.	Ensure any new workstations acquired between 2010 – 2010 have power management software installed.	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress			Shared Services BC committed to virtualizing 65% of core government servers over 5 years between 2009 and 2014. As part of this initiative, an number of Ministry servers were virtualized in 2009.	As a best practice, server virtualization will be considered before any additional servers are added core government's data warehouse.	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	As part of the U2.0 upgrade, workstations had their setting applied so that after 15 minutes of inactivity, each monitor displays a screen saver. After another 5 minutes the monitor goes into sleep mode as well.	We will continue to maintain 100% rating in this category.	2008	2009
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress			Ministry switching to Multi Function Devices as leases expire and budgets allow.	Continue switching to Multi Function Devices as leases expire and budgets allow.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	Corporate Services Division has provided guidance for this information as related to the Ministry of Agriculture and Lands.	We will continue to maintain 100% rating in this category.	2008	2009
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	99	% of computers are ENERGY STAR rated	All Ministry workstations computers and monitors were replaced with ENERGY STAR models as part of the Government-wide U2.0 upgrade.	A few workstations that require specialized applications were not replaced during the upgrade. These will be replaced as new versions of the applications (compatible with the newer operating system) become available.	2008	No End Date (Continuous)
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	5	% of fridges are ENERGY STAR rated	Energy Star models were purchased to replace existing refrigerators as required.	Replace refrigerators with the most energy rated product as budget permits.	2007	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Replacement of appliances such as microwaves are purchased based on this criteria. Due to budget restraints, this is only done an as need basis.	Continue to replace appliance with the most energy rated product as budget permits.	2007	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	In Development			There have been a number of Green Team's communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2009	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2009	No End Date (Continuous)

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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
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development			Reminders are sent out to staff to close their blinds - limited success in this being carried out on a daily workday basis	Green Team educational activities will remain a focus in the years ahead.	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2009	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2000	2009
Promote hot water conservation	Ongoing/In Progress			There have been a number of Green Teams communications and information items regarding opportunities to change work behaviour.	Green Team educational activities will remain a focus in the years ahead.	2008	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress			Reduced overall office paper usage by 12.4% in 2009 vs. 2008 and usage of virgin paper (0% recycled content) by 26.8% while increasing the usage of 30% recycled content paper by 3.1%	Other Green Teams may support change to 100% recycled paper.	2007	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress			Increased the usage of 100% recycled content office paper by almost 200% while reducing overall office paper usage by 12.4% in 2009 vs. 2008.	Other Green Teams may support change to 100% recycled paper.	2007	No End Date (Continuous)
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Complete	100	% of network printers or photocopiers are set to automatic double-sided	The Ministry has implemented automatic double siding.	The ministry will maintain automatic double siding as the default.	2008	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Complete	100	% of staff workstations with software installed	SSBC installed collaboration software on all workstations in the U2 (Vista) upgrade		2009	2009
Use electronic document library for filing common documents	Ongoing/In Progress			Shared network drives are commonly used by each branch. SharePoint and Groove are actively used for shared documents by some people and departments.	Planned implementation of TRIM for electronic document management. Continuing increase in SharePoint	1995	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			Default option is electronic pay records. Blue paper slips are by special request.		2005	2009
<b>Behaviour change program</b>							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			The Ministry has undertaken extensive use of the SharePoint® and Live Meeting approach to document management such as the process used by the Co-Divisional Board of Directors.	The Ministry will maintain the current use of SharePoint® sites and try to expand the uptake through targeted out reach via the Green Teams.	2009	No End Date (Continuous)

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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
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			The Ministry has undertaken extensive use of the SharePoint® approach to document management such as the process used by the Co-Divisional Board of Directors.	The Ministry will maintain the current use of SharePoint® sites and try to expand the uptake through targeted out reach via the Green Teams.	2010	No End Date (Continuous)
<b>Business Travel</b>							
<b>Policy and budgeting</b>							
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress			The Ministry undertook a significant effort to reduce travel and use alternates to travel through out the year. Live meeting was used extensively and supported by Executive, Green Teams and Innovation and Climate Action. These actions, combined with a reduction in the travel budget, result in a MAL leading the government in terms of the percentage of travel reduced.	Continue to promote alternatives to business travel that still meet MAL commitments.	2009	No End Date (Continuous)
<b>Virtual meeting technology</b>							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Complete	100	% of computers have web-conferencing software installed	Installed as part of Vista U2.0 upgrade	MAL will maintain 100% compliance on this measure.	2009	2009
Make desktop web-cameras available to staff	Ongoing/In Progress	5	% of staff have access to a desktop web-camera	As part of efforts to provide alternatives to travel, a number of web cam purchases have occurred across the Ministry. About five percent of staff currently have web cam access and increasing this amount will be a focus in the coming years.	MAL will attempt to increase the percentage of staff that have access to and use web cams via the Green Teams and targeted outreach as resources allow.	2009	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff in web-conferencing	Complete	60	% of staff trained are in web-conferencing	2009 had an intensive program to train Ministry staff in use of Microsoft Live Meeting and provide documentation. It is now becoming routine.	MAL will look to build upon its successes and expand the use of the Live meeting technology via Green Teams and other educational activities.	2009	2010
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Regular DM calls on Live Meeting model its usage as standard business. Travel budget reductions reinforce the need to use remote meeting technology.	Continue training staff, and participate in cross-government initiative to cultivate a list of staff willing to run Live Meetings.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	In Development			Bicycle room at 808 Douglas provides convenient storage.	Develop information sheets for staff on bus routes and schedules from our buildings to common destinations	2000	No End Date (Continuous)

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## 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 reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to 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
<b>Education, Awareness, and Engagement</b>						
<b>Team-building</b>						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Complete		several lunch 'n' learn presentations, a potluck lunch with awards, The Abbotsford Agriculture Centre (AAC) Green Team met on a regular basis and held various lunchtime events.	The Abbotsford Green Team will continue holding lunchtime events including the annual 'Funky Sweater Potluck' and 'Get Inspired to Get Gardening' events.	2007	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		Bi-monthly cross Ministry Green Team meetings; Green Team SharePoint and Climate Wiki sites; organisational assistance	Continue Green Teams Co-Op position	2007	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		A survey of the effectiveness of Green Teams actions related to behaviour change has been completed with a 80% supportive rating achieved.	MAL will continue to monitor its success via an annual survey and will attempt to improve the over all effectiveness of Green Teams.	2007	No End Date (Continuous)
<b>Awards/Recognition</b>						
Establish a sustainability/green awards or recognition program	Ongoing/In Progress		Event held in September 2009 for all Ministry staff, attended by DM	Continue annual event	2008	No End Date (Continuous)
<b>Staff Professional Development</b>						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Surrey ILMB encourages participation in local events.	Sponsor participation at other community events where it does not affect Ministry work schedules or budgets.	2007	No End Date (Continuous)
Include green options in employee performance measurement system	In Development			MAL is moving to incorporate green activities as part of staff EPDP's.	2010	No End Date (Continuous)
<b>Staff awareness/education</b>						
Provide education to staff about the science of climate change	Ongoing/In Progress		Each Green Team newsletter contains a science based rebuttal to a common climate change denier argument. Various lunchtime events in Abbotsford featured movies about the science of climate change.	The Abbotsford Green Team will continue holding lunchtime events that feature movies about the science of climate change. The Surrey ILMB GT will continue to present movies and documentaries that are relevant to topics of interest such as climate change. We will work to expand these activities to other locations.	2007	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		The bulletin board of the Abbotsford Green Team provides educational materials for staff on these topics. Green Teams SharePoint® site and the MAL intranet web page contain information for staff education.	The Abbotsford Green Team will continue to maintain its bulletin board. The Surrey ILMB GT will continue to post information and announcements related to GT events and initiatives. Lunch and Learns and other materials will be maintained on the MAL climate web site.	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Green Teams SharePoint site, newsletters contain information on personal environmental actions.	Green Teams SharePoint site, newsletters contain information on personal environmental actions.	2007	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress		The Abbotsford Green Team endeavours to connect with new staff and recruit them onto the team.	The Abbotsford Green Team will continue connecting with new staff. Other Green Teams will look to expand existing membership.	2007	No End Date (Continuous)
<b>Client/public awareness/education</b>						

## Ministry of Agriculture and Lands - 2009 Carbon Neutral Action Report

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
Provide education to clients/public about the science of climate change	Ongoing/In Progress		The Ministry has worked closely with the industry lead climate action initiative to educate clients and the public. A web site and fact sheets have been produced and made available at various forms and events.	The Ministry will maintain current efforts and look at expansions as resources permit.	2008	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		The Ministry has worked closely with the industry lead climate action initiative to educate clients and the public. A web site and fact sheets have been produced and made available at various forms and events.	The Ministry will maintain current efforts and look at expansions as resources permit.	2008	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		The Ministry has worked closely with the industry lead climate action initiative to educate clients and the public. A web site and fact sheets have been produced and made available at various forms and events.	The Ministry will maintain current efforts and look at expansions as resources permit.	2008	No End Date (Continuous)
<b>Other Sustainability Actions</b>						
<b>Water conservation</b>						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Complete		Shared Services BC's Technical Standards require water efficient fixtures when new developments and major tenant improvements are undertaken in owned government facilities. Could be improved under 'minor tenant improvements' but funds were frozen in 2009, so would only happen under emergency replacement.	Maintain existing program	2008	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	In Development		Potable water management by Shared Services BC is done on a case by case basis to meet both customer programming needs and required codes and standards.	Maintain existing program	2008	No End Date (Continuous)
Introduce a storm water management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress		Storm water management is considered on a case by case basis when determining the building site and systems design from a whole buildings perspective. Shared Services BC's Technical Standards require the consideration of indigenous plants and other water reduction strategies where appropriate.	Maintain existing program	2008	No End Date (Continuous)
<b>Waste reduction/diversion</b>						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	In Development		The Abbotsford Green Team maintained its composting program for the Abbotsford Agriculture Centre. Shared Services BC lead the development of a solid waste reduction program in 2009. Buy in to the program is at the discretion of Ministry customers.	The Abbotsford Green Team will continue to maintain its composting program for the Abbotsford Agriculture Centre.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	In Development		The Surrey ILMB GT provides battery and electronics recycling for staff. Materials can be brought from home to the office at a known location, which are then disposed of responsibly. Hazardous waste reduction and disposal is managed by Shared Services BC in accordance with strict laws and regulations.	Continue to maintain battery and electronics recycling.	2008	No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Complete		In 2009, Shared Services BC's outsource service contractor for property management - WSI, issued a new janitorial contract that specified the usage of Green Seal and/or Ecologo products. Performance is audited by WSI.	Continue existing program.	2004	No End Date (Continuous)
<b>Building construction, renovation, and leasing</b>						

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Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Complete		Under it's Master Services Agreement with WSI, Shared Services BC requires that 80% of waste be diverted from landfills on projects over \$80k in the Lower Mainland and Southern Vancouver Island where diversion facilities are available.	Continue existing program	2006	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Complete		Shared Services BC's Technical Standards are based on lifecycle costing. All major projects where the Technical Standards are applied (e.g. Major tenant improvements and new construction) have been considered under a lifecycle costing model.	Continue existing program	2006	No End Date (Continuous)
<b>Indoor air quality</b>						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		MAL has and enforces a scent-free policy within the work place	Maintain existing program.	2006	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Complete		Shared Services BC's Technical Standards include consideration for reducing volatile organic compounds. Also, VOCs have been considered for all projects where LEED certification has been pursued (see section A2).	Maintain existing program.	2006	No End Date (Continuous)
<b>Commuting to and from home</b>						
Introduce telework/work from home policy	In Development		Shared Services BC conducted a study on the potential for and implications of a significant and mandated teleworking strategy. While more research is needed, while environmental impacts associated with transportation to and from work were assumed to be reduced, the potential net reduction in carbon emissions was inconclusive, as was the impact on the quality of program delivery to the public by various ministry customers.	Maintain existing programs.	2009	2011
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Active participation of several teams in Bike to Work Week. Surrey ILMB produced a map for persons interested in carpool commuting. Included staff from ILMB and MOE where offices are located nearby.	Active participation of several teams in Bike to Work Week. Develop low carbon transportation options posters with bus schedules to facilitate in-town meetings via public transit, bike or walk. Continue to maintain commuting map to encourage people to find carpool partners.	1997	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		The Abbotsford Agriculture Centre has a shower available for staff use. The Surrey ILMB office has a shower and change room available for staff who commute. Other MAL buildings also have these facilities.	Continue to maintain shower rooms within MAL buildings were they currently exist.	2000	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		The Abbotsford Agriculture Centre and 808 Douglas have secure bicycle storage. Underground bicycle storage is available at Surrey ILMB office.	Maintain existing storage	2000	No End Date (Continuous)
<b>Other Sustainability Actions</b>						
Organic food production/gardening	In Development		Apply for an organic gardening plot on behalf of the Surrey ILMB GT and office staff.	Encourage Surrey ILMB staff participation in local organic community garden to promote local organic food production.	2010	No End Date (Continuous)