

Interior Health Authority

2009 Carbon Neutral Action Report

Executive Summary



On behalf of Interior Health, I am pleased to submit the 2009 Carbon Neutral Action Report. This report provides an overview of the environmental actions that have been accomplished or initiated in the 2009 calendar year.

British Columbia is committed to protecting the environment and has become a North American leader in climate action initiatives. Among Canadian provinces, the government of British Columbia has set the most aggressive targets and highest standards for environmental protection. Interior Health is committed to meeting those standards.

Healthcare has an explicit ethical duty to “do no harm”. As such, it is vital that we model sustainable behaviour within our communities and take a leadership role in environmental initiatives. For Interior Health, this means measuring and reducing our environmental footprint, thereby reducing harm to our staff, patients and the people living in our communities.

Over the last few years we have experienced first hand that the environmental actions taken by Interior Health are beneficial to the environment and our communities. They also make financial sense. We have seen a significant reduction in costs and have reallocated the resulting savings to direct patient care. Moreover, Interior Health has been recognized provincially and nationally for our environmental accomplishments.

As healthcare professionals, we know that the health of the environment and the health of a population are connected. Environmental contaminants have been associated with compromised human health outcomes, such as cancer, birth defects, respiratory and cardiovascular illness, and gastrointestinal ailments, among others. Interior Health’s primary goal is to protect and promote the health and wellness of our population. Understanding the link between the environment and population health, we are committed to taking initiatives to protect and promote a healthy and sustainable environment.

A handwritten signature in black ink, appearing to read 'R. Halpenny', written in a cursive style.

Dr. Robert Halpenny
President & Chief Executive Officer

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

Interior Health provides services across a vast geographic region to an aging and growing population. Interior Health's operations are very complex and vary from large urban communities such as Kelowna and Kamloops to small remote, rural communities such as Chase and Sparwood. Moreover, the climate varies within its 216,000 square kilometre region from the southern interior of the province to the Cariboo Chilcotin to the Rocky Mountains to the Canada - US border. To serve a region of this scale a considerable amount of travel is required. In addition, due to the number of communities within Interior Health regions, numerous buildings and related infrastructure is required to provide quality care.

Interior Health Quick Facts

- ❖ Area Population: 732,000
- ❖ 1,255 Acute Beds
- ❖ 18,523 Employees
- ❖ 1,706 Physicians
- ❖ Annual Budget: \$1.6 billion
- ❖ 58 Municipalities & 95 Unincorporated
- ❖ 53 First Nation Communities
- ❖ 7 Regional Hospital Districts
- ❖ 6,131 Residential Assisted Living Beds and Supportive Housing Units

Interior Health started to identify its carbon footprint by tracking its consumption of energy, paper, and fleet fuel. Historical billing information from 2007, 2008 and 2009 was collected and consumption data was entered into the SMARTTool database. Understanding Interior Health's carbon foot print is key to determining its impact on the environment.

Staff have been engaged within Interior Health and educated about sustainability. Local Green Teams were established to initiate efforts at the grass roots. Many volunteers now wear a unique lanyard to identify themselves as a Green Team Champion. Their hard work has allowed Interior Health to further embed sustainability within the organization. Many green tips through newsletters and other media have been shared with staff. Guest speakers were invited to further educate staff and empower them to change their behaviour. Interior Health's Senior Executive Team approved a sustainability policy which clearly states the organization's responsibilities.

Interior Health implemented many initiatives to decrease paper consumption. Technology continues to be the driver of change and Interior Health is proud of their dedicated staff in IMIT who continually seek new technologies to decrease paper and energy consumption. Interior Health upgraded its fleet with more hybrid vehicles. Staff are utilizing more web-conferencing technologies.

Energy conservation has also been a focus for Green Team Champions, plant personnel and the stakeholders that occupy our facilities. Major energy retrofit projects have been completed at three of our sites and three more are still in progress. The Summerland Health Centre has completed substantial lighting upgrades, significantly reducing its electrical consumption. Noric House in Vernon has also completed lighting and building envelope upgrades. Kootenay Boundary Regional Hospital in Trail has completed numerous mechanical and building envelope upgrades in addition to the optimization of its Building Automation System BAS. The Kootenay Boundary plant personnel also participated in an Energy Technical Workshop course, developed in-house. This workshop will be rolled out to other areas.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Interior Health expects to have its sustainability website up and running in 2010. This will allow Interior Health to better communicate with its staff and other key stakeholders. More importantly, it will allow stakeholders to provide feedback, tips and other suggestions. Interior Health will continue on its sustainability journey, which includes increasing the number of green teams, embarking on more green initiatives, tracking building energy performance and seeking innovative ways to fund capital projects. Interior Health will be opening its LEED Gold certified UBC Medical School building at Kelowna General Hospital (KGH). Shortly thereafter IHA will open the KGH Patient Care Tower and the Vernon Jubilee Hospital Patient Care Tower which will also be LEED Gold certified.

Energy conservation retrofits planned in 2010 include upgrades at three large facilities. These projects include lighting, mechanical and building envelope upgrades at Queen Victoria Hospital in Revelstoke, Royal Inland Hospital in Kamloops and South Okanagan General Hospital in Oliver. Twelve of IHA's thirteen largest sites in BC Hydro territory will be enrolled in the BC Hydro Continuous Optimization program. This will provide real-time monitoring and benchmarking of energy consumption and demand, allowing for optimizing of control programmes and related mechanical equipment.

IHA is investigating the deployment of a Desktop Power Management (DPM) software solution for installed PC's. It is one of the most effective solutions for decreasing energy consumption. Many more high and low tech solutions will be employed to ensure the energy footprint of Interior Health is continuously decreased. For example, the energy-intensive electric ovens at the Penticton Regional Hospital (PRH) and the Vernon Jubilee Hospital (VJH) have been replaced with energy-efficient steam/convection combination units. This is just one of the many energy conservation solutions now available.

Renewable energy technology is being considered at six sites. Technical and economic feasibility studies for solar thermal heating and biomass boilers are being completed. Increases in energy prices and carbon offset payments, coupled with decreasing costs for these new technologies, will result in Interior Health continuously evaluating renewable energy solutions. Interior Health's natural gas and propane consumption emits over 34,000 tonnes of CO₂e into the atmosphere annually. By adhering to the requirements of BC's 2007 Greenhouse Gas Reduction Targets Act (Bill 44), this considerable amount of greenhouse gas will be reduced. Interior Health will be a key contributor to help BC meet its 2020 target of 33% and the 2050 target of 80% reduction in GHG's over 2007 levels. This document is a part of the 2007 Greenhouse Gas Reduction Targets Act (Bill 44) requirements.

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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 <i>Greenhouse Gas Reduction Targets Act</i> .							
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							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	24	% of vehicles are fuel- efficient models	Replaced outdated fleet with 22 modern hybrids. The hybrid models include the Honda Civic and Ford Escape. IHA now has 60 hybrids within its fleet.	Continue to update fleet and replace with hybrids. Current plans include to purchase 25 hybrids in 2010. Hybrids are approximately 35-40% more fuel efficient.	2002	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	4	% of vehicles down-sized since start year indicated	Replaced 10 larger vehicles with smaller models.	Continue to update fleet and ensure appropriate models are being utilized.	2002	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All fleet vehicles were regularly maintained, which included inspections of various components of the vehicle.	Continue to maintain fleet to ensure fuel efficiency is optimal and ensure fleet has a long life.	2002	No End Date (Continuous)
Behavior change program							
Provide fleet driver training to reduce fuel use	In Development				Select target groups and provide information and training to enhance fuel mileage.	2010	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress			Encouraged staff to pledge that they will reduce anti-idling in partnership. Staff signed up on the BC Provincial Air Quality website http://www.bcairquality.ca/topics/idling/idle-reduction-pledge.html	Continue to educate and do behavior change with staff.	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Encouraged staff who travel to internal education events to share vehicles by carpooling. Majority of staff carpool when attending meetings in different communities due to large geographic region.	Continue internal messaging and reminders to departments to carpool. This will include using our website and other tools to get the message out.	2008	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Rolled out campaigns and competitions to encourage alternative transportation. The Kelowna Corporate Green Team won the Kelowna Commuter Challenge. IHA has enrolled in the "Pro Pass" program offered by the City of Kelowna and BC Transit.	Continue historical efforts and expand into other IHA communities.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Use Bio-Fuel in logistics trucks	Ongoing/In Progress	66	% of trucks that use bio-fuel	Continued to use and monitor performance of bio-fuel. Biodiesel is a bio-degradable, clean burning, non-toxic fuel that works in any diesel engine without modifications. It is made from sustainable locally grown crops, reducing the need to buy foreign oil. A great example of IHA putting the community first by switching to clean air fuel.	Expand in other trucks when opportunity arises.	2008	No End Date (Continuous)
Vernon - Bike Maintenance	In Development			Encouraged staff to get out of cars. The Green Team will host a Bike Maintenance Course in partnership with Olympia Cycle in 2010.	Host bike maintenance course in 2010.	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							

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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
Enrol in a building energy benchmarking program (e.g., GREEN UP)	In Development			Twelve (12) of IHA's thirteen (13) largest sites in BC Hydro territory have been identified as candidates for enrolment in the BC Hydro Continuous Optimization 'Campus Portfolio'. This will provide real-time monitoring and benchmarking of energy consumption and demand.	These sites will have energy audits on the feasibility of optimizing DDC algorithms, sequences and scheduling over a 3 year period.	2010	No End Date (Continuous)
Reduce office space (square meters) per employee	Ongoing/In Progress			Reviewing various leases for corporate and clinical services to determine where opportunities exist for consolidation.	Planning to eliminate a few leases and consolidate space.	2009	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	In Development			Completed evaluation of proposed Energy Management Information System (EMIS) vendors .	Real-time metering will be implemented in 12 facilities to allow for benchmarking and energy auditing to optimized Building Automation System controls.	2009	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	60	% of owned buildings have an established energy performance baseline	Historical billing information was collected and manually inputted into MS Excel. Due to the large geographic region, number of buildings and desire to get billing information from 2007, this is an considerable task.	Planning to take the billing information and develop baselines, targets and benchmarks for performance. Site with similar characteristics within the same geographic location/climate will then be compared against each other.	2008	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	1	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Although only 1% of IHA's buildings, the new Kelowna KGH and Vernon VJH towers constitute 13% of the total building square meters. LEED Gold is the target for these buildings.	Construction is underway for LEED Gold certification.	2008	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	100	% of buildings built or renovated since start year indicated used the integrated design process	All new construction and major renovations follow this process.	This is IHA's standard procedure for P3 projects.	2008	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress			All plant maintenance personnel are aware of the legislative requirements regarding refrigerant capture/containment and the importance of early leak detection. All units over 5 tons are to undergo annual testing.	This requirement will continue.	2008	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	3	% of owned buildings have undergone energy retrofits since start year indicated	Three (3) buildings have had energy retrofits in 2009. These projects include lighting retrofits at the Summerland Health Centre (SHC), lighting retrofits and building envelope sealing at Vernon's Noric House (NHE), and mechanical upgrades at Trail's Kootenay Boundary Regional Hospital (KBRH).	Three (3) buildings will complete extensive energy retrofits in 2010. These projects include Queen Victoria Hospital (QVH) in Revelstoke, South Okanagan General Hospital (SOGH) in Oliver and Royal Inland Hospital (RIH) in Kamloops.	2009	2010
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	67	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Mechanical upgrades have been undertaken in 4 of the above 6 sites. These measures include installation of VFDs on Air Handling Units and piping systems, along with Steam Trap replacement/repair.	Planned mechanical upgrades include VFD installation, boiler upgrades, hybrid gas/electric heating systems and heat recovery.	2009	2010
Upgrade lighting systems during retrofits	Ongoing/In Progress	83	% of retrofits (captured above) had lighting systems upgrades	Lighting upgrades have been undertaken in 5 of the above 6 sites, completed in 2 projects, SHC and NHE. These measures include retrofitting existing T-12 fluorescent luminaires with T-8s, replacing incandescent lamps with CFLs and replacement of old yellow HPS lamps with ceramic Metal Halides.	Lighting upgrades are being completed in 3 of the above 6 sites. These measures include retrofitting T-12s with T-8s, replacing incandescent lamps with CFLs and replacement of old yellow HPS lamps with ceramic Metal Halides.	2009	2010

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Upgrade/adjust control systems during retrofits	Ongoing/In Progress	83	% of retrofits (captured above) had control system upgrades or adjustments	Optimization and upgrades have been undertaken in 5 of the above 6 sites, completed in 2 projects, Kootenay Boundary Regional Hospital and Noric House. These measures include optimization of algorithms, scheduling and temperature resets.	Optimization and upgrades are been undertaken in 2 of the above 6 sites. These measures include optimization of algorithms, scheduling and temperature resets. Additionally, the South Okanagan General Hospital (SOGH) site removing its old pneumatic control system and getting its first Building Automation System.	2009	2010
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	67	% of retrofits (captured above) had insulation improvements	Building envelope sealing has been undertaken in 4 of the above 6 sites, completed in 2 projects, Kootenay Boundary Regional Hospital and Noric House. These measures include additional insulation, sealing cracks and penetrations and replacing weather-stripping.	Building envelope sealing is been undertaken in 2 of the above 6 sites. These measures include additional insulation, sealing cracks and penetrations and replacing weather-stripping.	2009	2010
Install an on-site renewable energy demonstration project	In Development			Technical and economic feasibility studies are being undertaken for solar thermal heating of Domestic Hot Water (DHW) at five (5) sites and biomass boilers at one (1) site.	The completed studies will give IHA an indication of whether these projects are worth pursuing under the current economic constraints. As energy prices increase and system prices decrease, renewable energy technology will be continuously revisited.	2009	No End Date (Continuous)
Establish energy performance baseline for leased buildings	Ongoing/In Progress	60	% of leased buildings have an established energy performance baseline	Historical billing information was collected and manually inputted into MS Excel. Due to the large geographic region, number of buildings and desire to get billing information from 2007, this is an considerable task.	Planning to take the billing information and develop baselines, targets and benchmarks for performance. Site with similar characteristics within the same geographic location/climate will then be compared against each other.	2008	No End Date (Continuous)
Establish energy performance baseline for leased buildings	Ongoing/In Progress	60	% of leased buildings have an established energy performance baseline	Historical billing information was collected and manually inputted into MS Excel. Due to the large geographic region, number of buildings and desire to get billing information from 2007, this is an considerable task.	Planning to take the billing information and develop baselines, targets and benchmarks for performance. Site with similar characteristics within the same geographic location/climate will then be compared against each other.	2008	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	In Development			Currently IHA is encouraging approximately 45% of PC users to shutdown their PC manually at the end of the work day. IHA has completed research and investigation of best practices for employing a Desktop Power Management (DPM) software solution. The ease of implementation, compatibility with existing infrastructure and the simple payback period of implementing a DPM solution have completed evaluation.	This IMIT project will shift over to SSO effective April 1, 2010. Shared Service Office (SSO) who will then prioritize and determine next steps. It is one of the singlemost simple and effective solutions at decreasing energy consumption and there is a high probability that a DPM solution will be employed.	2009	No End Date (Continuous)
Implement server virtualization	Complete	100	% of servers have been virtualized since start year indicated	IHA completed its server virtualization in 2009, with a total of 500 virtual machines residing within 130 physical machines. This project will save IHA approximately \$100,000 annually in electricity costs and help decrease green house gases.	All future server installations will be evaluated for feasibility of employing a virtual server.	2006	2009
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	All of IHA monitors have this setting. Staff are advised not to change settings as the settings help decrease power consumption and extend life monitors.	Will continue to purchase monitors with this setting.	2001	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	80	% reduction in printers, copiers, and/or fax machines since start year indicated	IHA has removed private and stand-alone devices and shifted towards multi-function (copy, fax, print, scan). Not only does this reduce IHA's capital requirements and frees up space but it decreases energy usage from "idling".	Continue to replace stand-alone equipment with multi-purpose when the opportunity arises. A 'print and hold' policy is also being evaluated to further decrease printed output.	2006	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	94	% of devices have auto-sleep settings applied	Majority of IHA's printers, copiers and fax machines have the auto sleep setting applied.	Will continue to purchase devices with this setting	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
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	100	% of computers are ENERGY STAR rated	All computer are Energy Star compliant. Furthermore, IHA has taken steps to shift 21% of desktops to Ultra Slim Desktops (USDTs) which employ the lowest wattage power supplies.	Will continue to purchase ENERGY STAR rated devices and replace older desktops with USDTs.	2008	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	100	% of fridges are ENERGY STAR rated	100% of all new refrigerators purchased are Energy Star rated. Existing refrigerators may not be and will not be replaced until they are no longer operable or require considerable repairs to maintain operation.	All new refrigerators are to be Energy Star rated.	2001	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			100% of all new appliances purchased are to Energy Star rated, if available. The energy-intensive electric ovens at the Penticton Regional Hospital (PRH) and the Vernon Jubilee Hospital (VJH) have been replaced with energy-efficient combi units. These units consume considerably less energy than their 1980's counterparts by using steam and convection.	More ovens will be replaced as they wear out and funding is made available.	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			With the federal phase-out of incandescent lamps, energy-efficient CFLs and halogens will be used as replacements.	Incandescent lamps will be phased-out entirely for most equipment. Certain specialty equipment will still employ incandescent lamps due to required functionality constraints or inability to source a low energy alternative. Examples of these include OR lamps, projector bulbs and other specialty equipment.	2008	No End Date (Continuous)
Behavior change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			A lot of messaging was done in 2009 to educate staff on IHA's energy consumption and request that staff unplug various electrical equipment when not in use. Posters have been developed and distributed along with stickers for light switches that remind staff to turn off the lights.	Green Teams and the sustainability department will continue to get this messaging out and use innovative techniques and campaigns to influence staff behavior. For instance, incentives will be used to reward staff that turn off electric equipment after business hours.	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			At some sites, we have small reminders near the blinds.	Continue to identify barriers and empower staff that they can make changes, such as closing the blinds.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development			IHA is currently studying typical elevator energy consumption. This data can then be used in the creation of a targeted 'take the stairs' awareness campaign.	Planning to promote walking in a number of acute care settings, with posters for awareness and perhaps personal recognition by Green Team Champions to those that use the stairs.	2010	2011
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Have created personal posters that indicate the amount IHA spends on energy along with visual pictures that help reinforce the message. Posters have been posted at some sites.	Continue to post the posters in appropriate places.	2009	No End Date (Continuous)
Promote hot water conservation	In Development			Ideas on how to save Domestic Hot Water through an awareness campaign has been talked about. Some ideas are as simple as 'if the water doesn't warm up by the time you're finished using it, then only use cold water'. Effective cleaning has to be considered in the scope of infection control.	Ideas will be consolidated into feasible measures to recommend and then place posters in appropriate places.	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Ultra Slim Desktop (USDt) PCs.	Ongoing/In Progress			IHA has installed approximated 500 ultra slim desktops that use significantly less energy, require less GHG and physical footprint.	IHA will continue to upgrade its desktops over the next few years as older machines reach their targeted life span.	2008	No End Date (Continuous)
Supplies (Paper)							
Paper Type							

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Purchase 30% post-consumer recycled paper	Ongoing/In Progress			IHA purchased a portion of its total paper as 30% recycled. In addition, IHA purchased FSC (Forest Stewardship Council) approved paper. FSC-certified paper contributes to conservation, responsible management, and community level benefits for people near the forests that provide paper.	Continue to purchase 30% recycled paper and FSC certified paper.	2005	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress			Although a small portion of our total consumption, IHA does purchase 100% recycled paper. Due to the significant cost difference, IHA has not made the shift to 100%. Over time we believe the premium for 100% recycled paper will decrease, at which point IHA will increase its proportion of 100% recycled paper.	Continue to purchase some 100% recycled paper.	2007	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	95	% of network printers or photocopiers are set to automatic double-sided	Majority of corporate printers have been defaulted to duplex printing. In some of IHA's clinical setting we are unable to duplex print because of the various software systems, report formats, and behavior change.	Continue to default printers to duplex when the opportunity arises. Replace old printers with newer models that have capability to duplex.	2006	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress			Initiated a pilot in 2009 at one of the corporate sites.	Evaluate pilot and then decide on next steps.	2009	2010
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			IHA adopted SharePoint to enhance collaboration among team members and increase efficiency for retrieving documents and making decisions. IHA has approximately 210 Intranet sites and 500 SharePoint teams, these efforts have significantly reduced paper consumption.	Continue to use SharePoint and other technologies as needed to carry out business.	2007	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			IHA transformed many forms to online PDF, that are shared on the Intranet (InsideNET). Many other documents and policies are stored on the InsideNET. A major upgrade is planned to be done in 2010 and many departments updated their information and documents in preparation for the Go-Live Date. Moved all human resources forms to online fill-able forms. Human Resources has saved approximately 1,400,000 sheets of paper by moving their forms electronically.	Continue to shift documents to the online format to increase staff productivity. Opportunities for shared folders and Share Point will be undertaken when feasible.	2008	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			In 2007, IHA launched the Physician Office Integration project, which allows physicians to pull test results electronically directly into their electronic medical record (EMR).	This project has been extremely success, and IHA will continue expanding this project where appropriate.	2007	No End Date (Continuous)
Behavior change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			IHA encouraged staff and departments to put common documents and information on its Intranet. Currently IHA has approximately 210 staff who have been trained to edit IHA's Intranet. Not only have these staff helped improve IHA's productivity but they have put a large dent in IHA's paper consumption.	Upgrade the Intranet to make it more user friendly and easier to use.	2005	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			IHA's Senior Executive Team along with other key managers and all Board Director Members were provided with small laptops in order to decrease paper and increase productivity. Staff adapted to the laptop and have taken steps to minimize paper usage.	Continue to change staff behaviors through education, and empowerment.	2008	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
Business Travel							
Policy and budgeting							
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress			IHA created a Green Travel Policy. A travel reduction of 50% for non-clinical travel was placed. Monthly reports on travel were created and shared with IHA's Senior Executive Leadership Team.	Continue to enforce policy and monitor staff travel.	2008	No End Date (Continuous)
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Illuminate, etc.)	Ongoing/In Progress	100	% of computers have web-conferencing software installed	Majority of computers have the ability to web conference. The primary software that is used and promoted within IHA is MS Live Meeting.	Continue to encourage staff to use MS Live Meeting.	2008	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress			Piloted web cameras with MS Live Meeting on a very select few PCs.	Continue to implement and expand personal web camera's where applicable.	2008	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	3	% of meeting rooms have access to video-conferencing equipment	Due to IHA's large geographic region, video conferencing technology has been placed in meeting rooms. Staff are continually encouraged to video conference to save money and provide a better work life balance.	Continue to add video conferencing technology in meeting rooms when feasible and appropriate.	2003	No End Date (Continuous)
Behavior change program							
Train staff in web-conferencing	Ongoing/In Progress	5	% of staff are trained web-conferencing	IHA's IMIT education department took a leadership role in pushing this web-conferencing technology to staff. They had many lunch and learn sessions for staff. IHA has approximately 900 (5%) of all staff that are trained for live meeting.	Continue to educate and train staff to use web-conferencing.	2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			Trained staff to operate video conferencing technology. IMIT provides dedicated technical support for all video conferencing.	Continue to educate and train staff to use web-conferencing.	2005	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Managers encouraged staff to utilize teleconference or video conference for meetings instead of travel.	Continue to encourage staff to use teleconferencing or video conference to decrease travel cost and enable better work life balance.	2007	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Encouraged staff who travel for internal education to share vehicles. Majority of staff carpool when attending meetings in different communities due to large geographic region.	Continue internal messaging and reminders to carpool. This will include using our website and other tools to get the message out.	2008	No End Date (Continuous)
Other Business Travel Actions							
Decrease travel through MS Live Meeting	Ongoing/In Progress			The IHA Senior Environmental Advisory Committee along with other IHA committees had meetings via MS Live Meeting and took steps to reduce business travel. In 2009, IHA held 40,597 MS Live Meetings. From Jan to Dec 2009, IHA experienced a total growth of 277% in monthly live meetings.	Continue to educate staff on the use of MS Live Meeting.	2007	No End Date (Continuous)
Education, Awareness, and Engagement							
Team-building							

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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
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress		Implemented 6 new Green Teams. IHA now has seven Green Teams that exist in Kamloops, Vernon, Kelowna (2), Penticton, Trail, and Cranbrook. Green Team Chairs committee was created to allow the chairs to meet monthly to share success stories and enhance coordination of initiatives.	Possible expansion of Green Teams in a couple more communities. Redesign the Green Teams so that they have more structure and focus. Green Teams will have common initiatives and campaign that they work on, including: Earth Hour, Bike to Work, Waste Reduction Week and Earth Day.	2008	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		The Manager Environmental Sustainability along with the Energy Manager are dedicated resources that work with the Green Teams and support the organizations sustainability efforts.	Continue to provide corporate resources to ensure Green Teams are successful.	2008	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	In Development			Recognition is very important as it helps to motivate and reward Green Teams. Implement some form of recognition, which may be at the provincial level or at the health authority level. Currently the internal newsletter is used to thank and showcase the work that the green teams are doing.	2010	No End Date (Continuous)
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Energy Manager training includes the following: Completion of an Okanagan College course to be a certified 'Sustainable Building Advisor' through the CaGBC; IHA courses include 'Workplace Environment' training and the 'Foundation for Management and Leadership' course; APEGBC courses include 'Tender and RFP Law'; BC Hydro courses/workshops include 'Energy Change Management', 'LGS Rate Design workshop', 'Energy Manager Forum', '2009 Power Smart Forum', 'Energy Management in Commercial and Institutional Buildings', 'Energy Manager Education Series workshop'; other courses include a 'Solar Thermal Heating' seminar, a 'SolarBC Workshop', a 'Energy Efficiency and Conservation' lunch-n-learn by Stantec, 'District Energy Systems' workshops with the City of Kelowna, Philips 'Lighting seminar and factory tour'.	Future Energy Manager training will include the following BC Hydro courses/workshops at the 'Energy Manager Forum', the '2010 Power Smart Forum', and the 'Energy Manager Education Series' workshops; other courses provided by APEGBC will be attended as a part of P.Eng. requirements.	2009	No End Date (Continuous)
Include green options in employee performance measurement system	In Development			Move this forward in 2010. The Green Team Chairs will have sustainability objectives in their performance appraisal. Discussions with HR and IHA Executives will take place to determine if and how to incorporate into IHA's performance management system for excluded staff.	2010	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	Ongoing/In Progress		Invited Angela Reid who is one of 250 Canadians personally trained by Former Vice President Al Gore to deliver "theclimatoproject" to IHA staff. Angela provided an overview of the latest climate science and how climate change is impacting BC, Canada, and the entire planet. She then focused on solutions relevant to the Okanagan Valley and beyond. Green Teams invited local experts on water conservation to educate staff and to help change staff behavior.	Bring in guest speakers for various sustainability topics.	2009	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		The IHA newsletter is a very effective channel to spread sustainability information as the newsletter reaches a broad segment of IHA's employees. Many articles and tips were inserted in IHA's newsletter in 2009.	Continue to explore all opportunities to increase staff awareness about sustainability, through tips and suggestions. Explore other media channels to get sustainability messaging out to staff.	2008	No End Date (Continuous)

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Provide sustainability education during new staff orientation	In Development		Worked with Human Resources to ensure the new regional orientation has a component on sustainability. The sustainability orientation is complete and will be implemented in spring of 2010.	Continue to update orientation information and engage new staff by providing them options and opportunities to help green IHA's operations.	2009	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		Provided students of the University of British Columbia Okanagan with an overview of IHA's sustainability journey. Educated students on how the linkage of the environment and health status. Moreover educated them on how to build a sustainability portfolio and implement within a large complex organization.	Continue to engage with the public where opportunities arise.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	In Development		A small working group of staff got together to design the new sustainability website. High level research was undertaken to better understand some of the best practices among other organizations.	Design a section on sustainability for IHA's external website.	2009	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions						
Vernon - "Living Green" Workshop	Complete		Approximately 50 staff members of the health unit attended a two hour long participatory workshop to explore how we could reduce our ecological footprints at home, work and in general.		2009	2009
Vernon - "Living Green" Workshop	Complete		Approximately 50 staff members of the health unit attended a two hour long participatory workshop to explore how we could reduce our ecological footprints at home, work and in general.		2009	2009
Kelowna - Green Speaker Series - City of Kelowna Water Smart	Complete		Kelowna Corporate Green Team facilitated a "Lunch and Learn". The coordinator for the City of Kelowna Water Smart - Water Conservation Program, shared useful information and tips for water conservation.		2009	2009
Kelowna - Earth Day - Michael Russello, Ph.D. UBCO	Complete		Kelowna Corporate Green Team invited a local professor from UBCO to share his knowledge on Earth Day. Presentation was on how DNA can inform biodiversity conservation: examples from the Galápagos tortoises. The UBCO professor is the Acting Director, Centre for Species at Risk and Habitat Studies and Assistant Professor, Biology.		2009	2009
Local Engagement for Transit Enhancement	Ongoing/In Progress		Worked with community partners in Kelowna to enhance the transit service to key sites.	Continue to work with stakeholder to improve transit service and frequency to key sites. This will help relieve parking pressure at sites and reduce the number of cars on the road	2008	No End Date (Continuous)
Reducing Waste to Landfill by sending equipment to developing countries.	Ongoing/In Progress		Worked with local non-profits to reduce waste at landfill. In collaboration with a local non-profit in 2009, many old pieces of medical equipment were shipped to an Ethiopia Hospital. Thus extending the life of medical equipment and helping developing countries.	Continue to seek opportunities to decrease waste being sent to landfill.	2009	No End Date (Continuous)
Promote IHA E-Cards	Ongoing/In Progress		IHA created an online E-Card that staff could email to give one another recognition. Although 610 cards were sent in 2009, which saves paper and energy, IHA would like to increase this number further. Managers and staff were encouraged to send more E-Cards and reduce the hard copy cards.	Encourage staff to use E-Cards, through reminders in newsletters and departmental meetings.	2008	No End Date (Continuous)

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BC CEO's Support Joint Position Statement	In Development		In Fall 2009, 13 healthcare organizations came together to create the Joint Position Statement for the Environment. The Health Authorities obtained formal endorsement from their CEO's to support this statement.	Work with IHA executives to get statement endorsed and communicated within IHA.	2009	2010
Track IHA's Carbon Footprint	In Development		Reviewed bills from 2007, 2008, and 2009 to determine consumption for energy, fleet and paper. The consumption was then inputted into SMARTTool to determine IHA's carbon offsets. This exercise has been extremely helpful as we have come across a few errors in billing and opportunities to educate staff on which products not to purchase.	Continue to load consumption data into SMARTTool and use this information to help shift staff behavior by creating competitions and green initiatives.	2009	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		Twelve (12) low-flow kitchen rinse faucets were handed out to key sites with large kitchens. Evaluation of these new devices showed no concerns about their ability to perform acceptably.	When kitchen faucets need to be replaced, low-flow units will be procured.	2009	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	Ongoing/In Progress		The Royal Inland Hospital cooling tower in Kamloops was replaced with a low-energy, low-water consuming unit. Low-flow units are being specified for all replacement fixtures, including new construction and large renovations.	This procedure will continue.	2006	No End Date (Continuous)
Building construction, renovation, and leasing						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress		All new construction is being built to LEED Gold standards. This entails the minimization of landfill waste and proper handling and segregation recycled materials. The City of Vernon waste handling department has given IHA glowing remarks about the proper handling of these streams in the construction of the Vernon Jubilee Hospital tower expansion.	This procedure will continue.	2008	No End Date (Continuous)
Indoor air quality						
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		All new construction is being built to LEED Gold standards. This entails the minimization of VOC containing solvents, paints, flooring and furniture.	This procedure will continue.	2008	No End Date (Continuous)
Commuting to and from home						
Introduce telework/work from home policy	In Development		Formed a working group to better understand telework. Although there are many benefits to both the employer and the employee, some further work needs to be undertaken to address the risks with this program.			
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Staff are reminded and encouraged to use alternative transportation when commuting. IHA participated in both the 'Bike to Work Week' and 'Commuter Challenge' programs.	Continue to educate staff and influence behavior change to decrease green house gases and parking demand at IHA sites.	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress			Continue to decrease obstacles and barriers for staff.	2007	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Many of IHA sites have a secure bicycle storage. It is key to getting staff out of their cars. Through expansion of sites or selection of new lease sites, bicycle storage is considered.	Add secure bicycle storage in Revelstoke and Kelowna.	2004	No End Date (Continuous)

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Other Sustainability Actions						
Community Garden	In Development		Established a small herb/vegetable garden at the Vernon Health Unit for staff. Worked with various stakeholders to ensure implementation and ongoing efforts are smooth.	Have garden up and running in 2010.	2009	No End Date (Continuous)
Purchase Dishwasher	In Development		The Vernon Green Team worked on a strategy to raise funds to purchase a dishwasher for their main staffroom. A dishwasher will help reduce water and detergent consumption, also help reduce Styrofoam and other products send to landfill.	Purchase dishwasher in 2010.	2009	No End Date (Continuous)
Energy Saving Campaign	Ongoing/In Progress		The Penticton Green Team members posted posters and stickers around the hospital reminding staff of the energy associated with office computers and lights. A poster display was set up in the cafeteria and free coffee coupons were handed out to those signing a pledge to be more environmentally friendly for 2010.	Continue to expand program and modify where needed.	2009	No End Date (Continuous)
Promotion of Re-usable Cups	Ongoing/In Progress		At the Penticton Regional Hospital cafeteria, the Green Team wanted to increase the usage of re-useable mugs. Personal mugs were measured, assigned stickers and discounts were offered to those who brought their own mugs. Stock reports indicate a decrease in the number of 12oz. cups used after the cup measuring.	Continue to expand program and modify where needed.	2009	No End Date (Continuous)
The Green Way for Earth Day Commuter Challenge	Complete		Participants entered to win prizes by commuting to work the green way on Earth Day. Alternative modes of transportation to choose from: walking, biking, taking the bus, carpooling, or traveling by scooter or hybrid car to work. Participants indicated which way they chose to commute and their names were entered into a draw. Draw prizes were provided by FortisBC and Environmental Sustainability department. 106 employees participated.		2009	2009
Bike to Work Week	Ongoing/In Progress		Partnered with Workplace Health and Safety - handed out individual and team prizes for participation. Staff in a number of communities participated in 2009 Bike to Work Week.	Expand program and have more communities and staff Bike to Work in 2010.	2009	No End Date (Continuous)
Commuter Challenge	Complete		Kelowna Corporate Green Team ran a booth in the hallway of Kirschner Plaza to challenge staff to take part in a quiz and to pledge to carpool. For every correct answer, participants received small prizes provided by carpool.ca and the City of Kelowna. IHA received Special mention: Interior Health Authority and the City of Kelowna saw the highest corporate participation, accounting for 33% of all Carpool Week pledges in the Okanagan.		2009	No End Date (Continuous)