

A photograph of a bamboo branch with several long, slender, bright green leaves extending from a dark brown stem. The branch is positioned diagonally across the upper half of the page. On the right side, a portion of a thick, green bamboo stalk is visible, showing a node.

2012 Carbon Neutral ACTION REPORT



A document from the department of
Lower Mainland Facilities Management
Energy & Environmental Sustainability
the home of GreenCare

EXECUTIVE SUMMARY

Dianne Doyle

President and Chief Executive Officer

Providence Health Care is pleased to provide our 2012 Carbon Neutral Action Report and disclose we are carbon neutral for the third year in a row.

Reducing our carbon footprint has required a strong commitment to energy conservation and waste reduction. In 2012, Providence Health Care achieved success in several key areas, most notably we:

- **Reduced our energy consumption** by 450,000 kWh through 4 projects
- **Reduced waste** by continuing recycling programs at all acute and residential care sites.
- **Increased staff engagement** through Green+Leaders and GreenCare Community website.
- **Decreased staff commuting**, via single occupancy vehicles, through a *Clean Commuter Challenge*.

We look forward to a continued reduction of our carbon footprint in 2012, through continued energy conservation projects in progress.



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Peter Goldthorpe

VP Capital Projects, Real Estate & Facilities

There is much evidence linking environmentally sustainable behaviours to healthy communities and ultimately to the health of the individuals we serve. As a provider of health services for the citizens of British Columbia...but also a material contributor to greenhouse gas emissions, we must demonstrate leadership and continually seek ways to reduce our ecological footprint to improve population health. In other words, we must practice what we preach. To this end, our Energy & Environmental Sustainability team has created a strong vision for reducing the health sector's environmental impact. The 2012 Carbon Neutral Action Report highlights many of the initiatives that are currently underway to accomplish this goal.

Please join us in this quest to transform health care into a more environmentally-responsible sector focused on both human and environmental health. Please take a moment to check out our vision at the GreenCare Community website <bcgreencare.ca>. We welcome your feedback and your active participation!



ABOUT PROVIDENCE

Providence Health Care is one of the largest faith-based (Catholic) health care organizations in Canada

Providence Health Care (PHC) owns and/or operates 16 facilities within the Vancouver Coastal Health region.

Providence operates one of two adult academic health science centres in the province, performs cutting-edge research in more than 30 clinical specialties, and focuses its services on six “populations of emphasis”: cardiopulmonary risks and illnesses, HIV/AIDS, mental health, renal risks and illness, specialized needs in aging and urban health.

PHC is a party to the Master Agreement between the Denominational Health Care Facilities Association and the Province. This agreement provides PHC the right to own, manage, operate and conduct the affairs of its health facilities and to plan and deliver health related services in collaboration with other health bodies. Our facilities include:

- **St. Paul's Hospital (SPH)** is an acute care, teaching and research hospital. It is home to many world-class medical and surgical programs, including heart and lung services, HIV/AIDS, mental health, emergency, critical care, kidney care and numerous surgical specialties.
- **Mount Saint Joseph Hospital (MSJ)** offers both acute care (101 beds) and extended care services (100 residents), and is respected province-wide for its multicultural focus and community programs.
- **Holy Family Hospital (HFH)** is a recognized leader in the provision of specialized rehabilitation for older adults and residential care serving patients from across BC. HFH has 75 rehabilitation beds and 142 residential beds.
- **St. Vincent's: Langara** is a 197-bed complex residential care home with a 20-bed specialized adult mental health unit.
- **St. Vincent's: Brock Fahrni (BF)** is a complex residential care home to 148 residents, many of whom are armed forces veterans.
- **St. Vincent's: Honoria Conway-Heather** is a 60 unit residence for seniors who live independently with assistance. It is part of a larger planned development for a “Campus of Care” on this site.
- **Youville Residence** is a 42-bed complex residential care home with a unit capable of serving 32 older adult mental health clients.
- **Marion Hospice** has 12 hospice beds for people who are at the end of their lives.

Quick Facts

\$800 million

Operating budget 2012/13

6,000 staff

Including 5,026 full-time equivalents

2 FTE for projects

To reduce our footprint

1 FTE to measure

Our energy/carbon use

1,200 physicians

Plus 1,600 volunteers

4 vehicles

Funding sources

Providence Health Care receives its operating and capital funding through Vancouver Coastal Health. It also receives funding designated for programs from the Provincial Health Services Authority

CHANGES IN OUR OPERATIONS

We created a new Energy & Environmental Sustainability group dedicated to reducing the environmental impact of all the Lower Mainland health authorities

Four health authorities are working together

Beginning in 2010, the following four health organizations began formally working together to manage and deliver administrative and clinical support services:

- **Fraser Health Authority (FHA)**
- **Providence Health Care (PHC)**
- **Provincial Health Services Authority (PHSA)**
- **Vancouver Coastal Health (VCH)**

This partnership allows us to consolidate operations across the four health organizations for greater efficiency, so our health care dollars can be effectively focused on patient care.

Facilities Management was one of the ten administrative and clinical support areas consolidated. Now, the new Lower Mainland Facilities Management team has a mandate that includes 27 acute care hospitals and 50 residential care facilities, which serve over 2.5 million British Columbians living in 37 municipalities and regional districts.

PHC's Operations

The floor area of the Providence Health Care portfolio increased slightly in 2012, while the number of distinct buildings decreased, due to consolidation of leases.

The number of PHC staff also increased; however, this is due to a net transfer of staff to PHC from other health authorities as part of the Lower Mainland Consolidation, not necessarily resulting in more staff working at PHC sites.

Coordinating our sustainability work

Consolidation enabled the creation of an Energy & Environmental Sustainability (EES) group in 2010. This has presented new opportunities to coordinate our environmental and sustainability work across Providence Health Care, FH, PHSA and VCH for greater impact.

Advisory Committees

Providence Health Care participates in two groups dedicated to collaborating on energy & environmental sustainability across the health care sector.

Environmental Sustainability Advisory Committee (ESAC)

The ESAC group is made up of key Health Authority leaders across the lower mainland. These individuals provide strategic council and decisions on energy & environmental sustainability issues within health care.

Provincial Environmental Tech Team (PETT)

The PETT group is made up of key stakeholders across all BC Health Authorities, the Ministry of Health, and the Climate Action Secretariat. These individuals provide strategic collaboration and sharing of best practices to enable more efficient energy & environmental sustainability work across the health care sector.

PHC Operational Changes*	2010	2011	2012
Distinct PHC Buildings	29	33	31
% Owned	94%	93%	93%
% Leased	6%	7%	7%
Usable Square Meters	182,160	182,990	183,040
Full-Time Employee Equivalents **	4,311	4,627	4,910

* Note some values were updated from 2011 based on more accurate information and appropriate significant digits

** Full-Time Employee Equivalents based on 1879.2 hours per FTE

ENERGY AND ENVIRONMENTAL SUSTAINABILITY

We consider energy and environmental sustainability to be important components of organizational, human and environmental health

Reducing our environmental impact

Our Energy & Environmental Sustainability (EES) group includes Energy Managers and Sustainability Managers tasked with reducing the waste and environmental impact of our health organizations.

It's the goal of this EES group to unite all four organizations in their commitment towards Economic Stewardship, Environmental Stewardship, and Health & Social Stewardship.

Increasing our staff's environmental stewardship

Providence Health Care is committed to reducing health care's impact on the environment, while increasing the health and wellbeing of British Columbians by maintaining the important link between health and the environment.

Providence Health Care has endorsed an Environmental Sustainability Policy that includes a Vision Statement and Sustainability Conservation Goals, as well as our Strategic Framework and 10 Focus Areas.

Creating a conscious work culture

Mission Statement: Promote a health care community that is actively aware and engaged in creating sustainable and environmentally-conscious health care delivery.



GreenCare

GreenCare is the brand name for all the environmental sustainability activities across the Lower Mainland health organizations. This includes work done through our EES group, our Green+Leaders staff champions, our recycling program, and through our online GreenCare community website www.bcgreencare.ca

10 Focus Areas

Our EES group aims to create greater sustainability in ten key areas of focus:

1. Culture of Stewardship
2. Energy Conservation & Climate Neutral
3. Water Conservation & Restoration
4. Zero Waste
5. Active Transportation
6. Regenerative Design
7. Sustainable Procurement
8. Zero Toxicity
9. Healthy Land & Food
10. Transparent Reporting

Our Sustainability Goals*

	2015	2020
Energy Reduction	10%	20%
Green House Gas Reduction	15%	33%
Water Reduction	7%	10%
Alternate Commute Increase	10%	20%
Waste Diversion (Recycling) **	70%	80%
Staff Engagement (GreenCare)	40%	75%



* Targets use a 2009 baseline, except Green House Gas Emissions which uses 2007

** Goals aligned to Metro Vancouver targets

GREEN BUILDINGS

Facilities Commitment

Providence Health Care is committed to designing, constructing, and operating all new facilities to achieve LEED Certification and current best practices.

All new construction and major renovation projects are built to achieve a LEED (Leadership in Energy and Environmental Design) Certified Standard. In addition, some existing buildings have pursued BOMA BEST (Building Environmental Standards).

Three leased buildings achieved BOMA BEST

- **Certified Level 1**
 - 520 West 6th Avenue, Vancouver
 - 1190 Hornby Street, Vancouver
 - 132 West Esplanade, North Vancouver

One renovated site achieved LEED Certification

- **St. Paul's Hospital 9A Mental Health Unit, Certified through LEED for Commercial Interiors (LEED-CI)**

One renovation targeting LEED Certification

- **BC Centre for Excellent West Wing Renovation (LEED-CI)**

Providence Health Care LEED Projects

LEED Project Name	City	Certification Date	Certification Level	Rating System	Status
St. Paul's Hospital 9A Mental Health Unit	Vancouver	11/9/2006	Certified	LEED-CI	Operational
PHC BCCFE West Wing Renovation	Vancouver	TBD	TBD	LEED-CI	In Construction

2012 GREEN HOUSE GAS EMISSIONS

Providence Health Care is committed to achieve government targets for the reduction of Greenhouse Gas Emissions

Our Goal: An 18% drop in GHG emissions by 2016

As a government funded organization PHC must abide by the Provincial Government of British Columbia's *Greenhouse Gas Reduction Targets Act* (Bill 44), passed in 2007.

Under the Act, our Green House Gas emissions are to be reduced below our 2007 levels as follows:

- **18% by 2016**
- **33% by 2020**
- **80% by 2050**

The Act also laid the foundation for the *Emission Offsets Regulation* and the *Carbon Neutral Government Regulation*, both enacted in December 2008, which guides PHC.

"There are major health benefits from low carbon lifestyles, which can reduce obesity, heart and lung disease, diabetes and stress."

Prof. Anthony Costello, Institute for Global Health

Our 2012 carbon footprint: 12,374 tCO₂e

The 2012 carbon footprint of PHC has been calculated in accordance with the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool), to be 12,374 tonnes. This represents a 3% increase over our 2011 footprint.

Half of the increase is associated with paper, less than one tenth is due to fleet vehicles, and the remaining portion is associated with a net increase in building energy consumption, despite significant energy savings at several sites.

Why our emissions increased

Fleet emissions increased due to improved procedures to enable capture and reporting of all fleet vehicle fuel purchases.

Emissions associated with Paper increased due to changes to how paper is purchased and tracked; 2012 data reflects quantities dispatched to PHC from the central warehouse.

Our Carbon Footprint (in tCO₂e) ¹

	2010	2011 ²	2012
Mobile Fuel Combustion (Fleet & other mobile equipment)	15	21	47
Stationary Fuel Combustion & Electricity (Buildings)	11,266	11,886	12,056
Supplies (Paper)	70	72	271
Total Carbon Footprint (tCO ₂ e)	11,351	11,979	12,374
Emissions per Full-Time Employee	2.63	2.59	2.52
Emissions per Meter Square Facility Space	0.062	0.065	0.068
Weather (summarized in Heating Degree Days) ³	2,853	2,963	2,874

¹ It was estimated that Fugitive Emissions from cooling equipment comprise less than 0.01% of Providence Health's total emissions and an ongoing effort to collect or estimate emissions from this source would be disproportionately onerous. For this reason, emissions from this source have been deemed out-of-scope and have not been included in our total greenhouse gas emissions profile.

² Carbon Footprint adjusted for 2011 in 2012, due to building data corrections from the Climate Action Secretariat.

³ Building energy consumption is heavily influenced by weather patterns. Heating Degree Days (HDD's) provide a summary of annual weather patterns (a higher value indicates a colder winter). HDD's listed are for Vancouver specifically, using a base temperature of 18 deg C.

CARBON OFFSETS

Providence Health Care purchased carbon offsets worth \$325,054 to become carbon neutral in 2012

In 2012
we were
carbon
neutral
for the third
year in a row

Offsets applied to be carbon neutral in 2012

Providence Health Care was carbon neutral in 2012. We achieved this through our commitment to reducing our in-scope emissions and by purchasing offsets.

The offsets, purchased from the Pacific Carbon Trust in 2012, for in-scope emissions, amounted to \$325,054. This figure is based upon the reported emission of 12,367 tCO₂e, plus an additional 16 tCO₂e from the 2011 reporting year, due to building data corrections from the Climate Action Secretariat.

Carbon Footprint since 2011

The reported emissions for Providence Health Care have increased by about 3% in 2012. Almost half of this increase was due to a 1.5% increase in building energy consumption. Despite energy conservation projects which reduced PHC's natural gas consumption by about 5%, there was a net increase in building emissions, largely due to projects at SPH, which increased the site's steam consumption by 6%. Significant projects included the addition of new equipment in the Sterile Processing Department (SPD) and renovation of the 5th Floor of the Burrard Building.

Our Carbon Offsets

	2010	2011	2012
Carbon Footprint in tCO ₂ e	11,351	11,979	12,374
Emissions Which Do Not Require Offsets ¹	0	-4	-7
Carbon Footprint (needing offsetting) in tCO ₂ e	11,351	11,975	12,367
Purchased Carbon Offsets ²	\$ 283,767	\$ 299,375	\$ 309,575
Purchased Carbon Offsets +HST / GST	\$ 317,819	\$ 335,300	\$ 325,054

¹ As outlined in the Carbon Neutral Government Regulation of the Greenhouse Gas Reductions Target Act, some emissions do not require offsets.

² Purchased Carbon Offsets for 2012 include Carbon Footprint adjustment for 2011, due to building data corrections from the Climate Action Secretariat.



EMISSIONS REDUCTION ACTIVITIES 2012

Providence Health Care continued to take strides to reduce our carbon footprint. In 2012 we undertook multiple projects, including the following highlights

Energy Saved

Providence Health Care completed 4 energy projects in 2 PHC facilities this year which led to annual savings for us...and the environment.

450,000 kWh

Electricity saved

6,140 GJ

Natural gas saved

320 tCO₂e

Greenhouse gas reduction

These projects were:

- BF, Control System Upgrade
- MSJ, Control System Upgrade
- MSJ, Continuous Optimization
- MSJ, Boiler & Domestic Water Heater Upgrade

ENERGY CONSERVATION & CLIMATE NEUTRAL:

We improved efficiency

- **Energy Retrofit Projects:** Completed four (4) energy retrofit projects for estimated annual savings of: 450,000 kWh of electricity, 6,140 GJ of natural gas, & 320 tCO₂e of GHG's (as detailed on left)
- **Six (6) Air Leakage Assessments:** Completed Air Leakage Assessments at six (6) PHC facilities (MSJ, HFH, BF, Langara, Youville, & Honoria-Conway) in order to identify opportunities to reduce energy consumption and occupant comfort through improved air sealing
- **Five (5) Energy Assessments:** Took advantage of FortisBC funding to complete "Energy Assessments" at five (5) sites (MSJ, HFH, Langara, Youville, & Honoria-Conway) in order to identify HVAC gas conservation opportunities
- **Real Time Gas Meter at Langara:** Took advantage of the free pilot version Fortis BC's EnerTracker Program, through which Fortis provided a free real-time gas consumption meter at Langara Residence with online access to hourly consumption data
- **UBC CEEN Student Energy Audit:** We participated in the UBC Clean Energy Engineering masters student energy audit program, enabling one (1) PHC facility (Langara Residence) to have a free energy audits
- **Green Playbook Version 1:** The Lower Mainland Facilities Management (LMFM) Energy and Environmental Sustainability (EES) team created and issued a "Green Playbook" document to provide sustainability principles and guidelines to the LMFM teams
- **Energy Performance Guidelines:** Guidelines were developed to define minimum energy efficiency requirements for new construction and major renovations to be embedded within the request for proposal for new projects



Clean Commuter Challenge

During May of 2012, as part of our Cut the Carbon Community at bcgreencare.ca, (currently being refreshed as The GreenCare Community) we ran a Clean Commuter Challenge and asked Lower Mainland staff at Providence Health Care, Vancouver Coastal Health, Fraser Health, and Provincial Health Services Authority to commit to taking actions to reduce their personal commuting carbon footprint.

The Clean Commuter Challenge by numbers:

36% increase
in kilometers through transit
by PHC staff

11 teams
participated in the challenge

48% reduction
in participating staff's
commuting carbon footprint

249 goals
made by staff to support
sustainable commuting

EMISSIONS REDUCTION ACTIVITIES 2012 CONT'D

ACTIVE TRANSPORTATION:

We facilitated greener commutes

- **We subjected all vehicles to stringent annual AirCare testing** that optimized fuel efficiency standards.
- **Staff shuttle services were provided to employees** travelling between several PHC sites and Vancouver Coastal Health-sites.
- **Green+Leaders ran a sustainable transportation campaign** to encourage walking, cycling or public transit for work commutes.
- **Anti-idling signage** is in place at all buildings air intake areas and in receiving dock areas. Delivery vehicles drivers and taxi drivers are requested to shut off engines at all public entrances
- **Conducted a 2nd annual Clean Commuter Challenge.** See sidebar.

REGENERATIVE DESIGN:

We use green standards

- **Continued the commitment to investigate the use of Evidence-Based Design and LEAN principles** in new construction and major renovation projects.
- **All new buildings** will be built and registered to LEED Gold standards.

ZERO WASTE: We recycled and reduced

- **A Coordinator, Reduction & Recycling position** continued to implement recycling at major acute sites providing educational materials and signage.
- **Diverting Food Waste:** All core PHC sites have organics (food) waste diversion programs in place for kitchens and Langara Residence has onsite composting of food waste.
- **St. Paul's Hospital** continues to have one of the highest waste diversion rates of all the acute care sites in the Lower Mainland; with over 35% of solid waste being diverted from landfill.



Green+Leaders

265 volunteers

were recruited and trained across the Lower Mainland since 2009

300 campaigns

Green+Leaders carried out 300 campaigns in 2012 to reduce waste, energy and promote sustainable transportation

31 special projects

Green+Leaders volunteers implemented an additional 31 special projects. Examples include battery recycling programs, paperless timekeeping procedures, a hospital-wide recycling program at a P3 site and a working group for Laboratory staff to reduce waste and energy

22 educational events

The program offered 22 different educational events to support and provide additional training for the volunteers

CULTURE OF STEWARDSHIP:

We engaged staff

- **Over 2,956 Lower Mainland staff, including 254 Providence Health Care employees, signed up for the GreenCare Community (formerly Cut the Carbon Community) website and campaign.** They committed to take actions that would reduce over 500+ tonnes of carbon emissions through this Fortis sponsored site.
- **We expanded our Green+Leaders program** and recruited more Providence Health Care staff volunteers. They champion and run behavior change campaigns at their hospitals, care facilities and offices focusing on:
 - **waste and paper reduction; energy reduction; and sustainable transportation.**
- **As part of the BC Hydro Workplace Conservation Agreement (WCA),** GreenCare fairs were organized during 2012 at St Paul's Hospital. These fairs included BC Hydro and a focus on energy conservation.
- **Staff have access to real-time power usage per hospital** through our online GreenCare Community website and our partnership with Pulse Energy.
- **Providence Health Care (PHC) was recognized in 2012 for having one of the best work cultures in Canada.** The award was presented in the National Post by Waterstone Human Capital and recognizes organizations that have a culture that helps them enhance performance and sustain a competitive advantage

WATER CONSERVATION & RESTORATION:

We prioritize water conservation

- **Water Audits:** A request for proposals was issued for water audits (including indoor and outdoor water use) at various sites across the Lower Mainland

SUSTAINABLE PROCUREMENT:

We prioritize sustainability in procurement

- **Health Shared Services BC (HSSBC)** developed sustainability criteria for consumables and equipment RFPs. The department also initiated a scanning project involving 4 million documents to digitize processes for accounts payable and receivable, records, and benefits. Customers can now view documents online rather than printing everything out.

EMISSION REDUCTION GOALS 2013-14

Our plans to continue reducing greenhouse gas emissions 2013-2014

The four Lower Mainland health organizations, Providence Health Care, Vancouver Coastal Health, Fraser Health, and the Provincial Health Services Authority will continue to coordinate, collaborate and integrate energy and environmental initiatives within all our operational clinical and non-clinical work.

As part of those efforts, the following is a list of tasks to be achieved by Providence Health Care in 2013/14.

ENERGY CONSERVATION & CLIMATE NEUTRAL:

We will improve efficiency

Holy Family Hospital DDC Upgrade: Complete a DDC upgrade at Holy Family Hospital

Holy Family Hospital Continuous Optimization (C.Op.) Program: Complete the Investigation phase of the BC Hydro C.Op. Program at Holy Family Hospital

Initiated The GreenCare Community Website: Complete the refresh of existing Cut the Carbon Community (C3) website. The new version will be launched in May 2013 and renamed "The GreenCare Community" to reflect the evolution from campaign-based to project-based communication. The site is being redesigned and will use more innovative engagement and behavioural change strategies.



ACTIVE TRANSPORTATION:

We will facilitate greener commutes

Run a 2013 Clean Commuter Challenge for staff.

Conduct audits of all sites in order to identify which sites currently offers shower and locker facilities.

Develop Commuter Strategy Plan to promote shower and locker room facilities to meet increase in demand pending availability of space and funds.



CULTURE OF STEWARDSHIP:

We will engage staff

Continue the Workplace Conservation Program (WCP) agreement with BC Hydro.

Continue growing the Green+Leaders program. The existing and newly recruited G+L will continue to promote behaviour change in their departments.

Rebrand and re-launch the staff engagement website. The Cut the Carbon Community (C3) will transform to become the GreenCare Community (GCC), which will continue to be a website that offers stories, tips, challenges, incentives, and collaboration for staff around energy and environmental conservation.

Launch a "badge" program where staff, on the GCC, can earn badges, which are awarded for various commitments in energy & environmental conservation.

ZERO WASTE:

We will reduce waste to incineration

BISS has developed a **biomedical waste reduction initiative** with a waste reduction target of 10% by April 2014. Funding was granted for a Hazardous Waste Coordinator to implement the program.



REGENERATIVE DESIGN:

We will improve building efficiency

All New Construction projects will be designed and built to LEED Gold standards.

Evaluate using Perkins Will Precautionary List and the Living Building Challenge's Red List for all project design.

Achieve LEED-CI Certification for BC Centre For Excellence (BCCFE).

HEALTHY LAND & FOOD:

We are healthier with our land & food

Pilot 1 more community garden, and integrate it into health care services with the intention of community engagement and enhanced health care.

WATER CONSERVATION & RESTORATION:

We will reduce water consumption

Conduct a survey in PHC facilities to determine the quantity and condition of 'once through' water refrigeration systems.

Conduct an indoor and outdoor water audit at one PHC facility to develop a business case for water conservation projects.



ASSURANCES AND RESOURCES

Health Authority Resources

- **Fraser Health**
<http://www.fraserhealth.ca>
- **Providence Health Care**
<http://www.providencehealthcare.org>
- **Provincial Health Services Authority**
<http://www.phsa.ca>
- **Vancouver Coastal Health**
<http://www.vch.ca/>
- **GreenCare Community**
www.bcgreencare.ca

External Resources

- **LiveSmart BC: 2010 Carbon Neutral Action Reports: Health Authorities**
http://www.livesmartbc.ca/government/carbon_neutral/health_authorities.html
- **Bill 44 – 2007; Greenhouse Gas Reduction Targets Act**
http://www.leg.bc.ca/38th3rd/1st_read/gov44-1.htm
- **Canadian Green Building Council LEED description**
<http://www.cagbc.org/>
- **ASHRAE 189.1 standard for new buildings and renovations**
<http://www.ashrae.org/resources--publications/bookstore/standard-189-1>
- **BOMA BEST Environmental Certification**
<http://www.bomabest.ca/>

Partner Resources

- **Fortis**
<http://www.fortisbc.com>
- **BC Hydro**
<http://www.bchydro.com/>

Assurances

As part of meeting the Carbon Neutral Government Regulations, all Public Sector Organizations (PSOs) are now required to annually self-certify, i.e. declare that the data entered into SMARTTool is accurate and complete.

Beginning in 2012, each year a cross section of PSOs will undergo an independent verification process.

In 2011, our Energy and Environmental Sustainability team volunteered for the Climate Action Secretariat's pilot self-certification program.

Feedback from the auditors was good, indicating the Lower Mainland Health Authorities' new process for self-certification is sound.



Providence Health Care (PHC) - 2012 Carbon Neutral Action Report

Actions Towards Carbon Neutrality <div> 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. </div>					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress	City of Vancouver has had an Anti-idling by-law since 2006. Anti-idling signage is in place at all buildings air intake areas and in receiving dock areas. Delivery vehicles drivers and taxi drivers are requested to shut off engines at all public entrances	Ongoing enforcement of anti-idling	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Not Yet Evaluated				No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Using the Cut the Carbon Community (being rebranded as "GreenCare Community") website to promote travel and commuting options that are carbon reduced or carbon neutral.	Ongoing	2010	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Not Yet Evaluated				No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Not Yet Evaluated				No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Fleet of four (4) vehicles used by PHC sites are maintained regularly by PHC to ensure vehicle safety and optimize fuel efficiency. All vehicles are subjected to stringent annual AirCare testing, a motor vehicle inspection/maintenance (IM) program implemented in BC in 1992, that requires all vehicles to undergo emissions testing prior to licence renewal.	Same as previous years	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	<p>The Green + Leaders (G+L) Lower Mainland Health Authority wide behaviour change program recruited 34 more volunteers in the fall of 2012. As part of the energy reduction campaign the volunteers were supplied an energy audit tool and form which focused on unplugging and switching off equipment.</p> <p>Our online Cut the Carbon Community (C3) provides tips and encouragement for staff to unplug and switch off electrical equipment. This website is being renewed and rebranded as the GreenCare Community.</p>	<p>The existing and newly recruited G+L will continue to promote behaviour change in their departments.</p> <p>The online C3 (soon to be GreenCare Community) will continue to promote behaviour change and recruit more users.</p>	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	The Green + Leaders (G+L) Lower Mainland Health Authority wide behaviour change program recruited 34 more volunteers in the fall of 2012. As part of the energy reduction campaign the volunteers were supplied an energy audit tool and form which focused on unplugging and switching off equipment.	<p>The existing and newly recruited G+L will continue to promote behaviour change in their departments.</p> <p>The online C3 (soon to be GreenCare Community) will continue to promote behaviour change and recruit more users.</p>	2008	No End Date (Continuous)

Providence Health Care (PHC) - 2012 Carbon Neutral Action Report

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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	Steps Taken	Steps Planned	Start Year	End Year
		Our online Cut the Carbon Community (C3) provides tips and encouragement for staff to unplug and switch off electrical equipment. This website is being renewed and rebranded as the GreenCare Community.			
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Information provided to staff during Energy Awareness and education sessions. Also included in the Green+Leaders energy reduction campaign.	Maintain practice and awareness initiatives	2008	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	Energy reduction is one of the three behaviour change campaigns in the Green+Leaders program. Tips and information provided on the Cut the Carbon (C3) website. This website is being renewed and rebranded as the GreenCare Community.	The existing and newly recruited G+L will continue to promote behaviour change in their departments. The online C3 (soon to be GreenCare Community) will continue to promote behaviour change and recruit more users.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Energy awareness campaigns encourage staff to use stairs where feasible to save energy, and also promote and improve daily physical activity and social connection.	Maintain practice and awareness initiatives. "Take the stairs" awareness is incorporated into the Green+Leaders program.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	"Stop the Energy bleed, Turn off lights no one is using" book marks are provided by Energy and Environment Sustainability staff to employees during energy fairs and other Energy and Sustainability awareness sessions. Non-wall damaging stickers to turn off lights when not in use have been installed installed by light switches to encourage electricity savings. Green+Leaders ran an energy reduction campaign to promote energy conservation.	Green+Leaders will continue running energy reduction campaigns in their departments to encourage staff to turn off lights and equipment.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	Leveraged Fortis BC's free "Energy Assesment" program at five (5) PHC sites in order to better understand how hot water is used and how we can promote hot water conservation. Our online Cut the Carbon Community (C3) includes content and tips on water conservation (including hot water). This website is being renewed and rebranded as the GreenCare Community.	The online C3 (soon to be GreenCare Community) will continue to promote behaviour change, such as hot water conservation, and recruit more users. Identify possible hot water conservation strategies to incorporate into G+L behaviour change program. A Water Conservation plan will be developed over the next 3 years	2011	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	In Development	In 2009, the BC Health Authority Shared Services Organization (HSSBC) was initiated and mandated with responsibility for procurement, supply chain management and IMIS services including workplace technologies, desktop power management, data centre management, server technologies. Desktop Power Management Software will be implemented in the near future as new computers and a new operating system is installed across FH, VCH, PHSA, and PHC Health Authorities. No new actions taken in 2012.	Under review by Customer Technology & Service department of the Health Shared Services BC (HSSBC).	2012	No End Date (Continuous)
Implement server virtualization	Ongoing/In	Virtualization of servers within the Lower Mainland Health Authorities	Virtualization project to continue and will hopefully be complete in	2009	No End Date

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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	Steps Taken	Steps Planned	Start Year	End Year
	Progress	is in progress. This will affect core PHC sites with significant potential annual electrical savings. An end of year progress report from Health Shared Services BC (HSSBC) indicates that they are 30% complete.	2013.		(Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	No new action steps in 2012. All monitors have a default auto-sleep setting of 20 minutes.	Under review by Customer Technology & Service department of the Health Shared Services BC (HSSBC).	2009	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Working with various departments of the Health Shared Services BC (HSSBC) and the company who provides printer services to the Lower Mainland Health Authorities to develop and roll out a print strategy. The strategy includes efforts to remove stand alone printers and consolidate to larger shared devices.	Continue development and roll out print strategy.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	Working with various departments of the Health Shared Services BC (HSSBC) and the company who provides printer services to the Lower Mainland Health Authorities to develop and roll out a Print Strategy. The strategy includes efforts to remove stand-alone printers and consolidate to larger shared devices. All new devices are equipped with auto-sleep function, while some of older stand-alone devices are not.	Continue development and roll out Print Strategy.	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Completed (in Previous Year)				No End Date (Continuous)
Leased buildings					
Establish energy performance baseline for leased buildings	Not Yet Evaluated				No End Date (Continuous)
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Lease space in buildings with new construction performance labelling/certification (e.g., LEED NC)	Not Yet Evaluated				No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Ongoing/In Progress	A Tenant Improvement Handbook incorporating some elements of Green Lease policies was developed in 2007 and updated in 2009. In 2010 the Handbook then went through additional updates to incorporate the different standards for all of the consolidated lower mainland health authorities facilities Management (VCH, FHA, PHSA, and PHC). As part of the update, Facilities Energy & Environmental Sustainability staff incorporated green strategies in this handbook. Final edit and approval by the Steering Committee was completed in 2011.	Continue to apply the Tenant Improvement Handbook to leased facilities.	2008	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	The performance of each owned PHC site / building is summarized annually in terms of a Building Energy Performance Index (BEPI) in units of ekWh/m2/year. This standard performance metric is used to compare each site / building to the baseline year (2007-2008).	The Building Energy Performance Index (BEPI) values in ekWh/m2/year are updated annually for each PHC owned building in order to track progress relative to the baseline year.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	All new construction and major renovations are mandated to meet a LEED Gold standard. The BC Centre For Excellence in HIV/AIDS (BCCFE) project in in progress, which will see the renovation of 6,000 SF of under utilized space to house some of BCCFE's diverse programs. The project, located on the 6th Floor (top floor) of the Burrard Building at St. Paul's Hospital, is being designed to achieved LEED-CI Certification.	Achieve LEED-CI Certification for BCCFE project (CaGBC project number 14869). No specific new LEED-CI projects are currently planned; however there is a major redevelopment planned for the St. Paul's site, which will include major renovations for which LEED-CI might be the applicable LEED rating system.	2011	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	All new construction and major renovations are mandated to meet a LEED Gold standard. There were no new construction or major renovation projects completed in 2012 for which LEED-NC was an applicable rating system.	There are no specific LEED-NC projects currently planned; however there is a major redevelopment planned for the St. Paul's site, which will include new construction and major renovations for some of which LEED-NC will likely be the applicable LEED rating system.	2010	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Completed four (4) energy retrofit projects (detailed in sections below) for an estimated annual savings of 450,000 kWh of electricity, 6,140 GJ of natural gas and a reduction 320 tCO ₂ e of GHG.	Energy retrofits to continue as identified through energy studies and inefficient practices. Details of planned retrofits are summarized in relevant sections below.	2010	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	A refrigerant management strategy was developed that incorporates a refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, and appropriate bleeding of banned refrigerants is in place in all PHC owned facilities.	Maintain practice	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Ongoing/In Progress	There is ongoing consolidation of under-utilized leased facilities to reduce energy utilities consumptions, the organization's carbon footprint, square footage footprint and leasing costs A 12,500 square meter office building was leased and underwent a major tenant improvement in 2012. This new leased space was converted into an open office to accommodate over 1000 employees from VCH, PHC, PHSA, and FH health authorities to maximize space usage, increase efficiency and reduce utilities consumption.	Ongoing consolidation of under-utilized leased facilities to reduce energy utilities consumptions, the organization's carbon footprint, square footage footprint and leasing costs. Specifically a 1,600 square meter office tenant improvement is underway on 2 floors of 1125 Howe Street to accomodate office and academic research staff from other PHC sites.	2008	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	One new gas meter for Langara Residence was added to our Pulse/Energy Management Information System as part of the Fortis BC EnerTracker pilot program.	Continue to add sub-metering as part of planned electrical upgrades, large equipment replacements and general building/area upgrades, subject to funding availability.	2010	No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	Completed a boiler and domestic hot water tanks upgrade project at Mount Saint Joseph Hospital Completed various HVAC upgrades as part of the BC Hydro Continuous Optimization (COP) Implementation Phase at Mount Saint Joseph Hospital	Implement cost effective HVAC upgrades identified through Investigation Phase of BC Hydro Continuous Optimization program at Holy Family Hospital. Investigation phase to be completed in July 2014 and the Implementation of energy savings measures to be completed by July 2015. Leverage completed Energy Assessments and expected release in	2011	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		Completed "Energy Assessments" through Fortis BC funding at five (5) sites in order to identify HVAC gas conservation opportunities. Potential HVAC upgrades to be identified through the BC Hydro Continuous Optimization program initiated at Holy Family Hospital	September 2013 of Fortis BC's "Custom" incentive program, to present a business case for HVAC retrofits that reduce gas consumption.		
Upgrade lighting systems during retrofits	Ongoing/In Progress	Completed a walk-through level lighting review at Youville Residence and Langara Residence with support from BC Hydro to identify potential cost effective lighting upgrades.	Pending available funding, implement lighting retrofits at two (2) PHC facilities	2011	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	Completed the installation of a new building controls DDC system at Mount Saint Joseph Hospital Completed various controls upgrades as part of the BC Hydro Continuous Optimization (COP) Implementation Phase at Mount Saint Joseph Hospital Initiated a DDC upgrade at Holy Family Hospital Potential controls improvements to be identified through the BC Hydro Continuous Optimization program initiated at Holy Family Hospital	Pending available funding, install building DDC systems at 3 PHC facilities to allow for the implementation of BC Hydro's Continuous Optimization Programs (COP). Implement cost effective controls improvements identified through Investigation Phase of BC Hydro Continuous Optimization program at Holy Family Hospital. Investigation phase to be completed in July 2014 and the Implementation of energy savings measures to be completed by July 2015. Leverage completed Energy Assessments and expected release in September 2013 of Fortis BC's "Custom" incentive program, to present a business case for controls upgrades that reduce gas consumption.	2011	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	In Development	1. Completed Air Leakage Assessments at six (6) PHC facilities in order to identify opportunities to reduce energy consumption and occupant comfort through improved air sealing.* *Note that "Building Insulation" is assumed to refer to building envelope upgrades more broadly.	1. Pending available funding, implement some of the upgrade measures identified by the Air Leakage Assessments	2012	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	Some training is currently available	HSSBC to review training needs and develop action plan	2008	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Practice is encouraged Green+Leaders materials reduction campaign included a focus on paper reduction.	On-going and part of the paper reduction campaigns strategies. Green+Leaders program includes a paper reduction campaign that includes a tool on paperless meetings.	2008	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	Initiative in place to enhance use of a centralized web-based MS SharePoint 2010 electronic editing and make available to all approved facilities staff across VCH, PHC, FH, PHSA health authorities.	Ongoing efforts to increase use of collaborative software for electronic editing.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Use electronic document library for filing common documents	Ongoing/In Progress	Shared drives and electronic document libraries are available to most staff at PHC. Green+Leaders materials reduction campaign includes an electronic filing tool.	Maintain practice	2008	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Not Yet Evaluated				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	No new positive action steps in 2012, but there was a change in the reporting process from Health Shared Service BC (HSSBC). They provided reports based upon distribution (use) from their central warehouse rather than bulk warehouse purchasing from the vendors.	HSSBC are looking to renegotiate a new contract and provide the option for employees to buy direct from the approved vendor. This new suggested process may allow the Lower Mainland Energy and Environment Sustainability team to promote the purchasing of recycled paper. Alternatively, if HSSBC continue to purchase paper directly, we have requested that they review paper purchases and establish post-consumer recycled content paper standards for VCHA, PHC, FHA, PHSA health authorities.	2008	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	No new positive action steps in 2012, but there was a change in the reporting process from Health Shared Service BC (HSSBC). They provided reports based upon distribution (use) from their central warehouse rather than bulk warehouse purchasing from the vendors.	HSSBC are looking to renegotiate a new contract and provide the option for employees to buy direct from the approved vendor. This new suggested process may allow the Lower Mainland Energy and Environment Sustainability team to promote the purchasing of recycled paper. Alternatively, if HSSBC continue to purchase paper directly, we have requested that they review paper purchases and establish post-consumer recycled content paper standards for VCHA, PHC, FHA, PHSA health authorities.	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	No new positive action steps in 2012, but there was a change in the reporting process from Health Shared Service BC (HSSBC). They provided reports based upon distribution (use) from their central warehouse rather than bulk warehouse purchasing from the vendors.	HSSBC are looking to renegotiate a new contract and provide the option for employees to buy direct from the approved vendor. This new suggested process may allow the Lower Mainland Energy and Environment Sustainability team to promote the purchasing of recycled paper. Alternatively, if HSSBC continue to purchase paper directly, we have requested that they review paper purchases and establish post-consumer recycled content paper standards for VCHA, PHC, FHA, PHSA health authorities.	2008	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	All new Multi-function printers and photocopiers installed since 2009 have automatic double-sided set as the default setting. All printers and copiers have been adjusted to default to double-sided printing.	Maintain practice	2009	No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability <div> 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 </div>					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Staff training for web-conferencing is now part of the HSSBC mandate and responsibility.	Staff Training for web-conferencing will be expanded.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Green+Leaders sustainable transportation campaign includes a tool to encourage staff to hold virtual meetings. Staff are encouraged to participate in video conferencing and other virtual attendance/presentation.	Maintain practice where possible. Part of the Green+Leaders program will include encouraging staff to hold virtual meetings as part of the sustainable transportation focus.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Green+Leaders sustainable transportation campaign includes a tool to encourage staff to carpool to meetings. Staff are encouraged to carpool to meetings	Practice to continue. Green+Leaders program will include encouraging staff to carpool as part of the sustainable transportation focus.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Green+Leaders sustainable transportation campaign includes a tool to encourage staff to take sustainable alternatives to meetings.	Practice to continue. Part of the Green+Leaders program will continue to encourage alternatives to SOVs when travelling to meetings.	2008	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Web-conferencing software is installed on some management desktop as well as in major conference rooms. Desktop sharing software is installed on new management computers.	The installation of Office Communication System (OCS), including web-conferencing software, is now part of HSSBC mandate and responsibility. Use will be expanded	2010	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	New office devices (computers and monitors) have built-in web-cams. Not applicable to clinincal devices.	New office devices (computers and monitors) will continue to have built-in web-cams.	2012	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	Most main conference rooms in the larger facilities have video-conference units installed	The installation of Office Communication System (OCS), including video-conferencing, is now part of HSSBC's mandate and responsibility. Installation of video-conferencing units will continue to be installed across PHC.	2010	No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	Recognition event held for Green+Leaders annually	practice to continue	2009	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	The Green+Leadersprogram recruits, trains and supports staff volunteers to run behaviour change campaigns in their departments. The program is supported by Executive Team	Practice to continue	2010	No End Date (Continuous)
Include green options in employee performance measurement system	Ongoing/In Progress	The Lower Mainland Health Authorities including PHC have a web-based in-house custom-develped performance management system that houses individual Performance Plans and Performance Evaluations for all employees and are linked to the health authorities strategic directions. The system was developed within Fraser Health and has been available to PHC since 2012.	Ongoing	2010	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		While green options are not an integral part of all employee performance measurement, employees can highlight their participation in the Green+Leaders program and other sustainability initiatives within their PerformanceLink Performance Plans.			
Staff awareness/education					
Provide education to staff about the science of climate change	Ongoing/In Progress	Brief overview of climate change was presented to the Green + Leaders as part of the Energy Reduction launch campaign. As part of the Green + Leaders education sessions a speaker from Greenpeace (Bill Darnell - founding member) provide education on the the founding of Greenpeace and how it relates to our work in healthcare today.	The G+L coordinator will continue to schedule education events for the G+L volunteers that include education on climate change science. Consider making resources on climate change science available through the online Cut the Carbon Community (C3), soon to be rebranded GreenCare Community.	2012	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress	The ongoing Green + Leaders (G+L) behaviour change program recruited 34 more volunteers in the fall of 2012. They were provided with education on energy and waste reduction. The online Cut the Carbon Community (C3), launched in 2011, continued to provide education on conservation of energy, water and raw materials. Over 100 online community discussions were initiated around the subject of conservation and great resources were shared.	The G+L program will continue to provide eductation on conservation of water, energy, and raw materials. The Cut the Carbon Community (C3), soon to be rebranded GreenCare Community, website will continue to provide education on conservation of energy, water and raw materials.	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress	The Green + Leaders (G+L) coordinator issues monthly electronic newsletters, including green tips, to all G+L. The online Cut the Carbon Community (C3) site included tips and community discussion around environmental sustainability and energy conservation.	The new version of the C3 tool will be launched in May 2013 and renamed ¿The GreenCare Community¿ to reflect the evolution from campaign-based to project-based communication. The site is being redesigned and will use more innovative engagement and behavioural change strategies. The G+L monthly newsletters will continue with improved formatting and branding to align with the GreenCare Community website and contribute to a more cohesive and consistent messaging to foster a culture of stewardship.	2010	No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	The Green+Leaders program recruits, trains and supports staff volunteers to run behaviour change campaigns in their departments. The program is supported by Executive Team	Practice to continue	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress	The Green+Leaders program has one FTE dedicated to training and supporting volunteers	Practice to continue	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress	The Green+Leaders program provides training on community-based social marketing and CBSM is integrated into its tools	Practice to continue	2010	No End Date (Continuous)
Other Sustainability Actions					

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	In Development	<p>The Lower Mainland Facilities Management (LMFM) Energy and Environmental Sustainability (EES) team created and issued a "Green Playbook" document to provide sustainability principles and guidelines to the LMFM teams. Included within this document was our commitment to the Metro Vancouver Zero Waste Challenge and the recycling of construction and demolition waste.</p> <p>Zero Waste is also one of the key focus topics for the GreenCare Strategic Framework developed in 2012.</p> <p>The requirement for all new construction and major renovation projects to achieve LEED Gold Certification contributes toward construction waste diversion since most projects successfully pursue at least 50% diversion and many achieve 75% or more.</p>	We plan to work with the Capital Projects team to ensure that our requirement for diverseion of construction and demolition waste is being embedded within project specifications.	2012	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	In Development	<p>BC Hydro's New Construction Program encourages Life Cycle Costing for new construction and major renovation projects. Through this program BC Hydro provides financial support for energy modeling and analysis during the design stages in oder to assess the long term costs and benefits of implementing a more energy efficient design. Participating in this program also makes projects eligible for a capital incentive based on projected energy savings acheived relative to a code baseline.</p> <p>The Lower Mainland Facilities Management (LMFM) Energy and Environmental Sustainability (EES) team has encouraged participation in BC Hydro's New Construction Program (where applicable) by embedding this requirement into the "Energy Design Guidelines" issued in 2012.</p> <p>The EES team created and issued the first version of the "Green Playbook" document, designed to provide sustainability principles and guidelines to the Lower Mainland Facilities Management (LMFM) teams.</p>	<p>Add section on Life Cycle Costing to the "Green Playbook" document.</p> <p>Proactively encourage any new construction and major renovation projects to participate in the BC Hydro New Construction Program.</p>	2012	No End Date (Continuous)
Commuting to and from home					
Introduce telework/work from home policy	In Development	No new action steps in 2012.	This initiative is being investigated.	2012	No End Date (Continuous)
Offer staff a compressed work week	Not Yet Evaluated				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	Greencare Fairs were organised and held at several large sites, including representation from Translink (Travel Smart). The Green +	The G+L will continue to promote and encourage this behaviour change.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		Leaders (G+L) behaviour change program recruited more volunteers in the fall of 2012. The G+L Sustainable Transportation focus included a campaign to encourage alternative transportation, such as walking, biking and public transit for work commutes. The online Cut the Carbon (C3) ran a second Clean Commuter Challenge event following the success in 2011. The concept was to challenge Health Authority employees out of single-occupancy vehicles and into public transit, carpools or other forms of more sustainable commuting like biking or walking. The outcome was very successful, and participation was up by 200% compared to 2011.	The Clean Commuter Challenge will continue in 2013 and 2014.		
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	In Development	The EES team created and issued the first version of the "Green Playbook" document, designed to provide sustainability principles and guidelines to the Lower Mainland Facilities Management (LMFM) teams who manage new construction and major renovation projects. Included within this document was guidance related to best practices to promote alternative transportation, such as provision of showers and lockers.	Conduct an audit of all sites in order to identify which sites currently offere shower and locker facilities. Develop Commuter Strategy Plan to promote shower and locker room facilities to meet increase in demand pending availability of space and funds. The requirement for all new construction and major renovation projects to achieve LEED Gold Certification contributes toward this since most LEED projects pursue the "Alternative Transportation: Bicycle Storage and Changing Rooms" credit.	2010	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress	Most PHC facilities have implemented secure bicycle cages/rooms for staff use. The EES team created and issued the first version of the "Green Playbook" document, designed to provide sustainability principles and guidelines to the Lower Mainland Facilities Management (LMFM) teams who manage new construction and major renovation projects. Included within this document was guidance related to best practices to promote alternative transportation, such as provision of secure bicycle storage.	Conduct an audit of all sites in order to identify which sites currently offere secure bicycle storage. Increase secure bicycle storage at various sites pending available funding. The requirement for all new construction and major renovation projects to achieve LEED Gold Certification contributes toward this since most LEED projects pursue the "Alternative Transportation: Bicycle Storage and Changing Rooms" credit.	2008	No End Date (Continuous)
Procurement (non-paper supplies)					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	In Development	Zero Waste and Sustainable Procurement are two of the focus topics for the Lower Mainland Facilities Management Energy & Environmental Sustainability (EES) team. A draft GreenCare Strategic Framework has being created, including goals and targets for both these focus areas.	Engage the Procurement team from Health Shared Services BC HSSBC) and implement a sustainability procurement program.	2012	No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	In Development	Zero Waste and Sustainable Procurement are two of the focus topics for the Lower Mainland Facilities Management Energy & Environmental Sustainability (EES) team. A draft GreenCare Strategic Framework has being created, including goals and targets	Engage the Procurement team from Health Shared Services BC(HSSBC) and implement a sustainability procurement program.	2012	No End Date (Continuous)

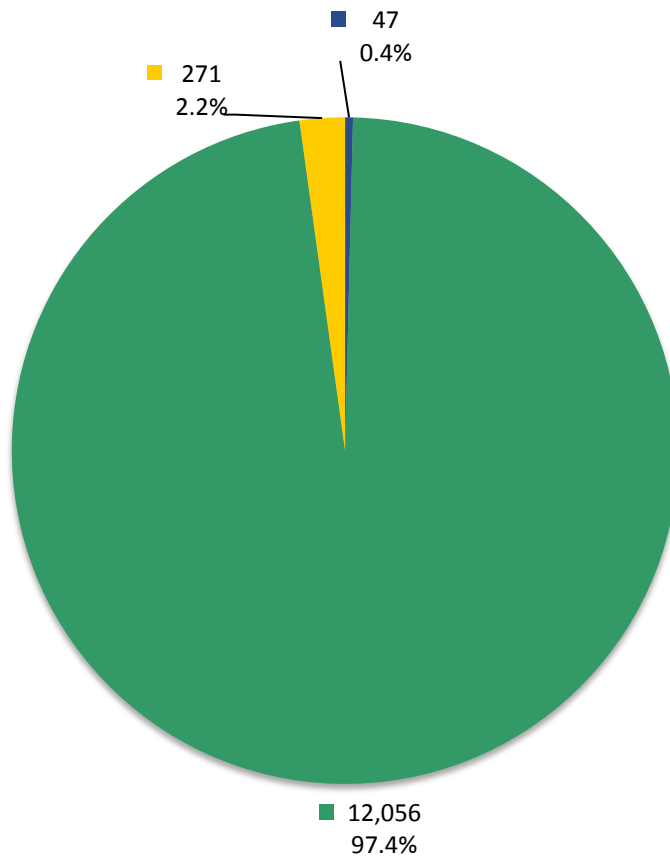
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		for both these focus areas.			
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	No new actions taken in 2012.	Purchasing practices to be reviewed regularly and new green products added where available, pending approval for use in healthcare facilities by infection control authorities. It is a goal that 60% of cleaning products used by ARAMARK (contracted housekeeping services provider) will be Environmental Choice certified at all PHC sites where ARAMARK provides housekeeping services	2010	No End Date (Continuous)
Waste reduction/diversion					
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress	A Coordinator, Reduction & Recycling position implemented recycling strategies at major acute sites; designed and commissioned marketing /training/educational materials and finalized signage; drafted a communication plan; visited recycling plants in order to understand processes and what materials can be recycled; developed indicators for recycling reporting; designed surveys to assess staff awareness and satisfaction; compiled waste and recycling data; completed waste audit training; completed power point for staff education; initiated recycling programs at a number of PHC sites. Recyclable materials include paper, confidential paper, plastics, soft drink cans, cardboard, batteries, Mercury, electronics, and fluorescent and HID lighting. ARAMARK (contracted housekeeping services provider) has moved from disposable to rechargeable batteries for their staff pagers.	Recycling programs will continue to be implemented all PHC acute care sites where waste management contracts are in place. The recycling system at St Paul's HOsptial and Mount Saint Joseph Hospital need to be updated; however, it has not been determined who will take responsibility for that. Program implementation will include planning and distribution of bins, education of staff and the public and continued support & progress reporting for all sites. Investigation into additional recycling streams and systems will be implemented. I is expected that recycling volumes and diversion rates, staff awareness and satisfaction with recycling will increase as the program moves forward.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Compliance levels for the safe disposal of all hazardous waste are met through regular audits of biomedical waste to exclude exclude hazardous waste from the recylcling and general waste streams.	Maintain and improve current practice.	2008	No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	Water Conservation is one of the focus topics for the Lower Mainland Facilities Management Energy & Environmental Sustainability (EES) team. A draft GreenCare Strategic Framework has being created, including the following goals and targets (pending available funding) for the combined Lower Mainland Health Authorities: 1. 10% reduction in water use by 2020 (based on 2010 baseline). 2. 10 new rainwater harvesting projects implemented by 2020. 3. 4 new grey water reuse projects implemented by 2020. One of the priority actions to achieve these targets is to upgrade/replace water fixtures.	Plan and coordinate a water use audit at one PHC facility.	2012	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					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
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	<p>As noted previously, Water Conservation targets are included in the draft GreenCare Strategic Framework.</p> <p>One priority action to achieve these targets is to upgrade/replace heavy water use equipment such as once-through cooling systems.</p> <p>Another action is to upgrade inefficient irrigation systems.</p> <p>These targets are also aided by the fact that all newly constructed facilities and major renovations are mandated to meet LEED NC Gold. As part of the LEED process, strategies will be incorporated to reduce potable water consumption.</p> <p>Other renovations will also include plans to replace inefficient water fixtures with efficient models</p>	<p>Conduct a survey in PHC facilities to determine the quantity and condition of 'once through' water refrigeration systems.</p> <p>Conduct an indoor and outdoor water audit at one PHC facility to develop a business case for water conservation projects.</p>	2010	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	In Development	<p>As noted previously, water management is a component of the draft GreenCare Strategic Framework for the combined Lower Mainland Health Authorities.</p> <p>One of the priority actions to achieve these targets (pending available funding) is to utilise rainwater harvesting; however, no actions have been taken yet related to stormwater management.</p> <p>All new constructed facilities and major renovations are mandated to meet LEED NC Gold standards. As part of the LEED process, should new facilities or major renovations be implemented in the future, some of these these facilities may incorporate stormwater management landscape strategies where feasible or practical.</p>	No actions planned.	2012	No End Date (Continuous)

**Providence Health Care
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO₂e*)**



Total Emissions: 12,374

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2012 (Generated May 27, 2013 11:10 AM)

Total offsets required: **12,367**. Total offset investment: **\$309,175**. Emissions which do not require offsets: **7** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.