



**Vancouver Coastal Health**

**2010 CARBON NEUTRAL ACTION REPORT (CNAR)**

A document authored by  
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CARBON  
& SUSTAINABILITY  
REPORTING



## **Vancouver Coastal Health Executive Summary 2010 Carbon Neutral Action Report**



We are pleased to present Vancouver Coastal Health 2010 Carbon Neutral Action Report (CNAR) as part of our commitment to the British Columbia Greenhouse Gas Reduction Targets Act. This is Vancouver Coastal Health's third year of tracking its carbon footprint and the organizations second year of official CNAR reporting.

Over the past decade, Vancouver Coastal Health (VCH) has established a clear vision towards energy reduction and a consistent strategy towards carbon reduction.

Identifying environmental sustainability as a common priority, we are working collaboratively with all four Lower Mainland Health Authorities to create projects that will advance our commitment to reduce GHG emissions and advance conservation within healthcare. Listed below are some of the key sustainability initiatives that strengthen our collective strategic goal of increasing resource efficiency within the health care system:

- **Sustainability Policy:** VCH, along with the other Lower Mainland health services organizations, has passed and endorsed an *Environmental Sustainability Policy* to define Sustainability in the context of health care, demonstrate senior leadership commitment and enable the reduction of carbon footprint by incorporating sustainability in decision making processes. This is the first Lower Mainland wide policy adopted in common by VCH, FHA, PHSA, and PHC.
- **Energy & Environmental Sustainability (EES):** The 2010 consolidation of the EES group ensures greater strategic direction and information sharing between energy management and environmental sustainability activities throughout the Lower Mainland Health Authorities.
- **GreenCare:** An umbrella initiative across the Health Authorities designed to promote an environmentally conscious culture that is actively aware and engaged in creating sustainable solutions for healthy lives and a healthy community.
- **Cut the Carbon Community (C3):** As the first health care specific online community in North America, C3 can be accessed by all Lower Mainland Health Authority staff to share information and collaborate around conservation and sustainability initiatives.

VCH has made substantial progress towards reducing our carbon footprint as we embrace sustainable solutions for healthy lives and a healthy community. Here are several of the most significant conservation projects and sustainability initiatives that we have initiated:

- **Energy,** which represents 97.1% of the organizational carbon footprint, has been a key focus point of the organization's drive for carbon neutrality. Energy Management projects

implemented over the 2010/2011 fiscal year will decrease electrical consumption by 3.46%, gas by 3.97% and the organization's carbon footprint by 3.34%.

- Although paper use only represents 2.7% of the organization's reportable carbon footprint, there has been a significant step made in 2010 towards reducing paper utilization. Waste management has focused on improving the recycling of consumed paper and encouraging the elimination of any non-recycled content paper. With the introduction and implementation of a large number of departmental share-point sites we have helped to further reduce paper use.
- VCH vehicle emissions represent less than 0.3% of the organization's carbon footprint. In addition to a focus on maintaining and improving the VCH fleet, the organization has encouraged staff to commute carbon neutral (bike / walk) or carbon reduced (car pool / transit). In order to encourage more transit use, VCH dramatically increased the bus subsidy for staff.

VCH is committed to providing the best quality of care while using our resources efficiently to sustain a viable health care system. Thank you for your interest in our CNAR. We are proud of our accomplishments with respect to environmental sustainability and we are dedicated to our journey toward carbon neutrality.



Dr. David N. Ostrow  
*President and Chief Executive Officer*



Peter Goldthorpe  
*VP Capital Projects, Real Estate & Facilities  
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**Vancouver Coastal Health (VCH)** is a regional health authority providing direct and contracted health services including primary, secondary, tertiary and quaternary care, home and community care, mental health services, population and preventive health and addictions services in part of Greater Vancouver and the Coast Garibaldi area. VCH is one of six publicly-funded healthcare regions within the Canadian province of British Columbia. The Provincial Government of British Columbia, through the British Columbia Ministry of Health, sets province-wide goals, standards and performance agreements for health service delivery by the six health authorities.

VCH serves the one in four of British Columbia's four-million population who live in a geographic area of 58,560 square kilometers including 12 municipalities, four regional districts and 14 Aboriginal communities, including:

- Vancouver
- Richmond (within Greater Vancouver))
- The North Shore (The municipalities and districts of North and West Vancouver, within Greater Vancouver)
- Coast-Garibaldi (Sea-to-Sky (including Whistler), Sunshine Coast, Powell River, Bella Bella and Bella Coola).

Vancouver Coastal Health administers 13 hospitals and 3 diagnostic and treatment centers and 15 community health centers and more than 500 facilities provide a range of direct and contracted services including home and community care, mental health services, population and preventive health, addictions services and primary care.

## 1. Context

VCH understands the importance of energy and environmental sustainability towards organizational, human, and environmental health. Thus, context based performance and reporting is an important aspect to the organizational work and reporting around sustainability.

Lead author Prof. Anthony Costello of the University College London's Institute for Global Health summed up the issue of human health with environmental health when he stated, *"There are major health benefits from low-carbon lifestyles, which can reduce obesity, heart and lung disease, diabetes and stress."*

VCH believes in and has taken strong steps to show leadership towards reducing their collective carbon footprint. Part of this commitment is to work with other lower mainland health organizations to establish a collaborative approach.

*"The current collaborative consolidation of specific services at Vancouver Coastal Health (VCH), Fraser Health Authority (FHA), Providence Health Care (PHC), and Provincial Health Services Authority (PHSA) has enabled the creation of an Energy & Environmental Sustainability (EES) group. This group of Energy Managers and Sustainability Managers are tasked with reducing the waste and environmental impacts of the health authorities. It is the goal of this EES group to unite all four organizations in their commitment to reduce health care's impact on the environment, while increasing the health and well being of British Columbians through maintaining the important link between health and the environment. An increased focus will be placed on engaging organizational staff and work communities to take action on climate change and to reduce the organizations' overall carbon footprint."* – Lower Mainland Consolidation Statement

VCH, along with the other Lower Mainland health services organizations, has adopted the following Sustainability Policy, Vision Statement and Sustainability Conservation Goals:

#### Sustainability Policy

*"The Lower Mainland Health Organizations will act as leaders with respect to environmental stewardship while engaging the healthcare community in a collaborative approach towards sustainability."*

#### Vision Statement

*"To promote an environmentally-conscious culture that is actively aware and engaged in creating sustainable solutions for healthy lives and a healthy community."*

#### Sustainability Conservation Targets

| Tier One Targets                            | 2010-11 | 2011-12 | 2013-14 | 2019-20 |
|---|---------|---------|---------|---------|
| Energy Reduction                            | 2%      | 4%      | 8%      | 20%     |
| GHG Reduction                               | 2%      | 7%      | 13%     | * 33%   |
| Water Reduction                             | 2%      | 4%      | 8%      | 20%     |
| % of Waste Recycled                         | 23%     | 35%     | * 70%   | * 70%   |
| GreenCare Behavioural - Staff Participation | 15%     | 25%     | 45%     | 85%     |

\* Targets aligned with Bill 44 and Metro Vancouver Targets

## **2. 2010 Greenhouse Gas Emissions**

Vancouver Coastal Health has calculated their 2010 carbon footprint, in accordance with the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool).

| 2010 Emissions by Source                                  | Value            | Unit/type             |
|---|------------------|-----------------------|
| Mobile Fuel Combustion (Fleet and other mobile equipment) | 107.36           | tonnes of CO2e        |
| Stationary Fuel Combustion and Electricity (Buildings)    | 44,770.87        | tonnes of CO2e        |
| Supplies (Paper)  | 1,006.73         | tonnes of CO2e        |
| Fugitive Emissions  | -                | tonnes of CO2e        |
| <b>Total</b>  | <b>45,884.96</b> | <b>tonnes of CO2e</b> |

| Organizational Information (as of December 31, 2010)  | Value   | Unit/type            |
|---|---------|----------------------|
| How many full time equivalent employees (FTEs) do you have within your organization?                        | 13,600  | FTEs                 |
| How many vehicles (cars, trucks, SUVs, etc.) within your fleet?   | 56      | vehicles             |
| How much space (square meters) is within your building portfolio?   | 817,753 | usable square meters |
| How many buildings are in your portfolio?   | 270     | distinct buildings   |
| What percentage of your building portfolio is leased?   | 20      | percent leased       |
| What percentage of your building portfolio is owned?  | 80      | percent owned        |
| Is carbon neutral/sustainability planning incorporated into other organization-wide planning?               | Yes     |                      |
| How many FTEs does your organization employ for implementing carbon neutral/sustainability initiatives?     | 4       | FTEs                 |
| How many FTEs does your organization employ for measuring and monitoring energy/carbon neutral performance? | 2       | FTEs                 |



It was estimated that Fugitive Emissions from cooling do not comprise more than 0.01% of VCH'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 the VCH total greenhouse gas emissions profile.

### 3. Offsets Applied to Become Carbon Neutral in 2010

VCH became carbon neutral in 2010 by the continued commitment to reduce energy, paper, and travel CO<sub>2</sub> emissions.

This commitment is being achieved through mechanical and electrical retrofits, policy development, behavioural programs and lastly, the purchasing of carbon offsets.

The following chart indicates the tCO<sub>2</sub>e reported for 2010. As well, the total expenditure on carbon offsets to ensure Vancouver Coastal Health was Carbon Neutral during this calendar year.

| 2010 Offsets                            | Value           | Unit/type                   |
|---|-----------------|-----------------------------|
| Emissions Which Do Not Require Offsets  | 11.71           | tonnes of CO <sub>2</sub> e |
| Total Offsets Purchased                 | 45,873.25       | tonnes of CO <sub>2</sub> e |
| Total Offsets Investment (before taxes) | \$ 1,146,831.25 | \$ CDN                      |

\*The above chart covers all 2010 emissions and offsets purchased from the Pacific Carbon Trust (PCT) in 2010. Final tCO<sub>2</sub>e emissions and costs to be confirmed once SMARTTool is fully operational.

### 4. Operational Changes in 2010:

"The Senior Leadership of VCH, PHC, PHSA, and FHA outlined their firm commitment to ensure that health care dollars are focused on direct patient care by announcing that the four organizations will formally work together to manage and deliver clinical services and non-clinical support services.

This formal working relationship has resulted in the consolidation, under a Lower Mainland Consolidation leadership, of the following areas:

- Biomedical Engineering (BME)
- Business Initiatives and Support Services (BISS)
- Facilities Management (FM)
- Health Information Management (HIM)
- Information Management Information Technology Services (IMITS)
- Integrated Protection Services (IPS)
- Interpreting Services (IS)
- Medical Imaging (MI)
- Pathology & Laboratory Medicine Services
- Pharmacy Services

This partnership has allowed for new opportunities to coordinate environmental and sustainability work across VCH, FHA, PHA and PHSA in a unified manner. These organizations oversee the operation of 25 acute care hospitals and 27 residential care facilities, which serve a total population of over 2.5 million British Columbians and include 37 municipalities and regional districts.

## **5. Emissions Reduction Activities**

### **Actions Taken to Reduce Greenhouse Gas Emissions in 2010:**

In 2007, VCH adopted the term "GreenCare" as the common branding and creative platform for their energy & environmental sustainability work. This common branding will continue to support communications and tactical planning efforts going forward into 2011.

An increased focus has been placed on infrastructure improvements and engaging the VCH staff, communities and key stakeholders to take action on climate change and to reduce our organizations' overall carbon footprint. Here is a brief list of carbon reducing actions taken in 2010.

- **Energy**
  - Completed five (5) energy retrofit projects in five (5) owned buildings. Estimated savings of 937,000 kWh, 2,025 GJ of natural gas and a reduction of 126 tCO<sub>2</sub>e of GHG emissions per year.
  - Initiated twenty three (23) Energy retrofit projects in nineteen (19) VCH owned buildings. Estimated savings of 3,524,844 kWh of electricity, 30,011 GJ of natural gas and a reduction of 1,601 tCO<sub>2</sub>e of GHG emissions per year. These Energy projects/measures are in various stages of development and will be completed in 2011
- **Travel**
  - The Corporate Bus Pass subsidy from Translink's is a discount of 15%. VCH announced that regular staff (full time and part time) who purchased a yearly bus pass through the Employer Bus Pass Program would receive an additional discount of 15% from VCH. This initiative is funded from the increase in parking rates in 2010, which at its turn disincentive single occupancy vehicle use by staff.
  - Hosted bike repair and bike maintenance workshops at Vancouver General Hospital (VGH)
- **Waste**
  - A Reduction & Recycling Coordinator was hired to assist with the implementation of recycling at all Lower Mainland Acute sites. The recycling program was designed and commissioned, including marketing, training and educational materials and signage. A communication plan was drafted and indicators for recycling reporting were developed. The coordinator visited recycling plants in order to understand processes and what materials can be recycled; designed a survey to assess staff awareness and satisfaction; compiled waste & recycling invoice data; completed waste audit training and developed material for staff education.



- The program initiated by planning implementation of recycling at GF Strong; Recycling at VCH facilities includes 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 in pagers.
  - Composting initiatives at three (3) VCH facilities food preparation areas (UBC Hospital, Lions Gate Hospital, and Richmond Hospital).
  - Staff have been encourage to shift paper orders towards using more 30% and 100% recycled content in their purchasing.
  - All new Multi-function printers and photocopiers will be set to double-sided printing as a default setting.
  - Current use of MS Sharepoint Collaborative software for Electronic editing is available to staff where required.
  - Planning in place for facilities to upgrade to one centralized web-based system using Sharepoint 2010
- **Design - Leadership in Energy and Environmental Design (LEED)**
    - One (1) facility, an extension (57,050 sq.ft) of St Mary's Hospital in Sechelt, is currently under construction to LEED NC Gold standards- Occupancy in 2012.
    - A newly constructed standalone hospice/palliative care facility (3,134 square meters) was opened November 2010 adjacent to the Lions Gate Hospital in North Vancouver. This facility was built to LEED standards and has the first roof top solar heat panels at VCH which is estimated to reduce fuel consumption by as much as 35%. Other features include a Storm Water Management system to send rainwater to swale system and disperses into natural aquifer with excess sent to a rain garden, extended eave detail to allow for shade in the summer months and passive solar gain in winter months, building orientation on east west axis to take advantage of passive solar design capabilities, and installation of local plant species to reduce the need for irrigation.
    - All new construction and renovations projects, currently in various stages of development in 2010, have incorporated Integrated Design Process and LEAN principles where appropriate
- **Behavioural**
    - A Workplace Conservation Awareness (WCA) agreement was signed with BC Hydro to implement conservation awareness initiatives at five (5) sites.
    - A Coordinator was hired to lead the Green + Leaders staff engagement program for the Lower Mainland Health Authorities.
    - Earth Hour was promoted and *"Stop the Energy bleed, Turn off lights no one is using"* book marks were provided by energy management staff to employees during energy fairs and other Energy Awareness sessions.
    - Staff are encouraged to participate in video conferencing and other virtual attendance/presentation.
    - Staff are encouraged to carpool to meetings where possible.
    - Refreshed the "GreenCare" branding and creative platform to more closely align it with health care.
    - Aramark conducted "Earth Day", "Green Cleaning Week", and an "Energy Awareness Week".



## **Plans to Continue Reducing Greenhouse Gas Emissions 2011-2012:**

VCH will continue to coordinate, collaborate and integrate energy & environmental initiatives within all operational clinical and non-clinical work. Within those efforts, the following is a list of tasks to be achieved in 2011 – 2013.

- **Energy**

- Complete all 23 energy projects initiated in 2010 and currently in progress
- Six (6) BC hydro's Continuous Optimization Projects (COP) were initiated in 2010 (investigation phase) in six (6) separate VCH owned buildings. Most energy measures will be to upgrade/optimize mechanical as well as DDC building systems. Savings in 2012/2013 are estimated at 3,070,000 kWh of electricity and 18,700 GJ of natural gas and a reduction of 1,021 tCO<sub>2</sub>e of GHG emissions - a 1.9% reduction from the VCH carbon footprint for 2010.
- The Investigation phase of the BC hydro Continuous Optimization Program will be implemented in another seven (7) VCH owned buildings in 2011. Estimated savings in 2013 and once the Implementation phase is completed will be about of 2,500,000 kWh of electricity, 16,700 GJ of natural gas, and a reduction of 903 tonnes of CO<sub>2</sub>e in GHG emissions.
- The Investigation phase of the BC hydro COP program is planned for additional Six (6) VCH buildings in 2012 with the Implementation phase completion scheduled for 2014 and an estimated savings of 1,500,000 kWh of electricity, 14,900 GJ of natural gas and a reduction of 790 tCO<sub>2</sub>e of GHG emissions.

- **Travel**

- The installation of Office Communication System (OCS), including web-conferencing software to encourage less traveling between offices
- Implementation of desktop web-camera and video conferencing is now a mandate and responsibility to be implemented by the BC Health Authority Shared Services Organization (HSSBC).
- Further development of the "Jack-Bell Ride Share" program focused on encouraging car pooling and van transit between larger sites.
- Development of a "TravelWise" commuter calculator to integrate with the "Cut the Carbon Community" website. The commuter calculator will encourage and enable staff to commute to work carbon neutral or carbon reduced. Expected launch is May 2011.
- Green+Leaders sustainable transportation focus will include a campaign to encourage walking, cycling or public transit for work commute.

- **Waste**

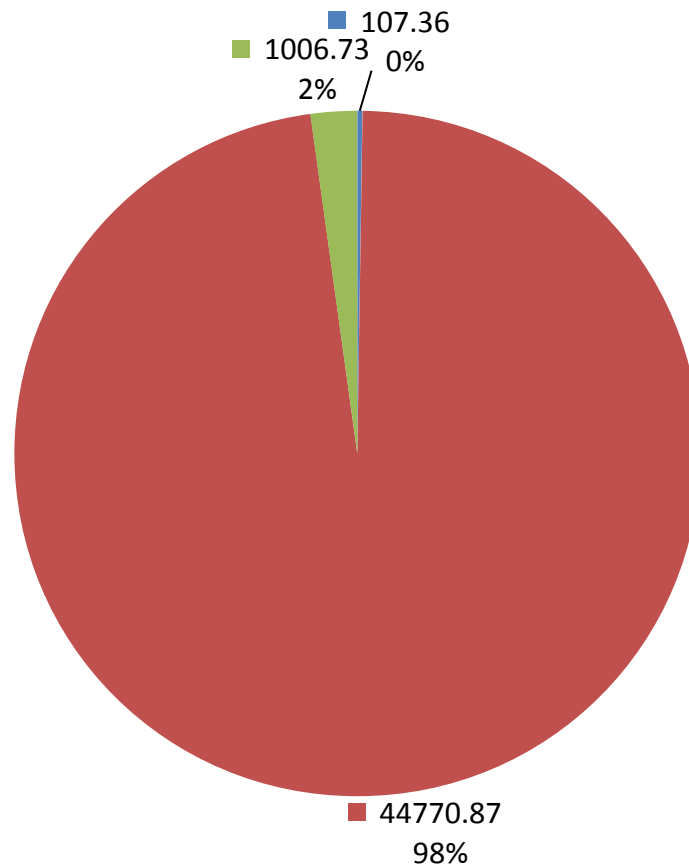
- Audit of biomedical waste and found materials that should be in recycling or general waste; included a slide on importance of proper biohazardous waste disposal in recycling education presentation.
- Basic recycling programs to be implemented at all VCH acute care sites where waste management contracts are in place; Program implementation will include planning & distribution of bins, education of staff and the public and continued support & progress reporting for all sites; Investigation into additional recycling streams and systems to be

- implemented; it is expected that recycling volumes and diversion rates, staff awareness and satisfaction with recycling will increase as the program moves forward.
- Anticipated move to rechargeable batteries will reduce battery disposal numbers from 12,000 to 350 over a 5 year period.
- Planning for UBC hospital cafeteria front-end composting pilot is underway in partnership with Sodexo. If successful, this program will roll-out to other sites where Sodexo runs food services; develop tool on how to implement cafeteria composting on-site for Site Support Managers to use; 1 year pilot for office composting at 5 locations
- **Design - Leadership in Energy and Environmental Design (LEED)**
  - All new constructed facilities and major renovations are mandated to be LEED NC Gold certified.
  - Final edit and approval of the Tenant Improvement Handbook by the Lower Mainland Facilities Management Steering Committee, which will promote inclusion of sustainability standards in every tenant improvement done within the Health Care Organizations lease sites
  - Maintain and improve green leasing practices to reduce energy consumption, increase buildings efficiency, sustainability, and occupant satisfaction and comfort.
- **Behavioural**
  - The “Green+ Leaders” behaviour change program will be launched in VCH in February 2011. The program will involve 120 staff volunteers who will be recruited and educated on community-based social marketing behaviour-change tools that focus on paper/waste reduction, energy reduction and sustainable transportation.
  - The “Cut the Carbon Community” (C3) will launch in March 2011. This web site will provide a direct channel of communication and networking with interested staff from across the region. This will bridge a continual incentive and communication gap that previous behavioural programs have been plagued with.
  - Continued support for the Aramark conducted “Earth Day”, “Green Cleaning Week”, and an “Energy Awareness Week”.



# Vancouver Coastal Health Authority

## Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 45884.96**

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

### Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **45873.25**. Total offset investment: **\$1,146,831.25**. Emissions which do not require offsets: **11.71** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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 Government Neutral 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.

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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<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010   | Steps Planned for 2011 -2013  | Start Year          | End Year                 |
| Mobile Fuel Combustion (Fleet and other mobile equipment)   |                            |   |  |   |   |                     |                          |
| Vehicle fuel efficiency   |                            |   |  |   |   |                     |                          |
| Perform regular fleet maintenance to improve fuel-efficiency  | Ongoing/In Progress        | 100                                     | % of vehicles are subject to regular maintenance for fuel efficiency | 1-Fleet of twenty two (22) vehicles used by VCH for supplies deliveries are managed by PHH-Arval Fleet Management Services<br>2-Thirty four (34) other vehicles, owned by VCH, are not currently managed by PHH-Arval.<br><br>All vehicles are maintained regularly to ensure vehicle safety and optimize fuel efficiency. Stringent annual AirCare, a motor vehicle inspection/maintenance (IM) program implemented in BC in 1992, requires all vehicles to undergo emissions testing prior to licence renewals. | Maintain current practice.<br>As of April 1, 2011, Five (5) VGH stores vehicles will be added to PHH-Arval fleet Management services  | Started before 1995 | No End Date (Continuous) |
| Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)  |                            |   |  |   |   |                     |                          |
| Planning/management   |                            |   |  |   |   |                     |                          |
| Reduce office space (square meters) per employee  | Ongoing/In Progress        | 60                                      | is the current average rentable square meters per employee           | 1-Ongoing consolidation of some under-utilized leased facilities to reduce energy utilities consumptions, the organization's carbon footprint, square footage footprint and leasing costs<br>2- A 10,530 square foot floor in a leased facility was converted to an open office to accomodate over 100 employees from VCH, PHC, PHSA, and FH Lower Mainland facilities management to maximize space usage, increase efficiency and reduce utilities consumption.  | Continue consolidation of under-utilized leased facilities.   | 2009                | No End Date (Continuous) |
| Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)   | Ongoing/In Progress        | 45                                      | % of buildings have a real time metering system installed            | Approximately 50% of VCH owned facilities have active PML sub-metering in place. Additional real-time Pulse metering was implemented in 14 buildings in 2010.   | Twelve (12) additional real time Pulse metering system installation are currently in progress at 12 additional VCH owned facilities. Additional Pulse meters will be installed in other buildings | 2009                | No End Date (Continuous) |
| Owned buildings   |                            |   |  |   |   |                     |                          |
| Establish energy performance baseline for owned buildings   | Ongoing/In Progress        | 100                                     | % of owned buildings have an established energy performance baseline | All owned VCH buildings have a Building Energy Performance Index (BEPI - ekWh/m2/yr) for Acute, and Extended/Residential Care facilities. These can be compared to the average BEPI for same function facilities at VCH and other Health Care Authorities in BC where applicable  | Building Energy Performance Index (BEPI - ekWh/m2/yr) are updated quarterly for all VCH owned buildings   | 2007                | No End Date (Continuous) |



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| Action  | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010  | Steps Planned for 2011 -2013   | Start Year | End Year                    |
|---|----------------------------|---|--|--|--|------------|-----------------------------|
| Achieve LEED NC Gold certification at a minimum for new construction or major renovations                               | In Development             | 0                                       | % of owned buildings are certified LEED NC Gold or LEED NC Platinum                              | 1 - Construction of one (1) residential care facility, an extention (4,830 square meters) of St Mary's Hospital in Sechelt, was started in 2010 with occupancy scheduled for 2012. This is being built to LEED NC Gold standards.<br>2 - A newly constructed standalone hospice/palliative care facility (3,134 square meters) was opened in November 2010 adjacent to the Lions Gate Hospital in North Vancouver. This facility was built to LEED standards and has the first roof top solar heat panels at VCH.This facility includes Solar Hot Water panels to reduce fuel consumption by an estimated 32%, Storm Water Management and a rain garden to accomodate overflow from natural dispersion of rainwater through swale system.  | All new constructed facilities and major renovations are mandated to be LEED NC Gold certified. One (1) facility currently under construction and to be occupied in 2012 will be certified LEED NC GOLD  | 2009       | No End Date<br>(Continuous) |
| Incorporate integrated design process into new construction or during renovations of owned buildings                    | Ongoing/In Progress        |   |  | A number of new construction and major renovations projects, currently in various stages of development in 2010, have incorporated Integrated Design Process and LEAN principles where appropriate and feasible  | New construction and major renovations are expected to incorporate Integrated Design Process and LEAN principles where appropriate and feasible  | 2008       | No End Date<br>(Continuous) |
| Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions | Ongoing/In Progress        |   |  | Chiller and refrigeration maintenance contracted services incorporate refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, and appropriate bleeding of banned refrigerants.   | Maintain practice  | 2005       | No End Date<br>(Continuous) |
| Complete energy retrofits on existing, owned buildings  | Ongoing/In Progress        |   |  | 1-Completed five (5) energy retrofit projects in 5 owned buildings. Estimated savings of 937,000 kWh, 2,025 GJ of natural gas and a reduction of 110 tCo2e of GHG emissions per year.<br>2-Initiated twenty three (23) Energy retrofit projects in 19 VCH owned buildings. Estimated savings of 3,524,844 kWh of electricity, 30,011 GJ of natural gas and a reduction of 1,601 tCO2e of GHG emissions per year. These Energy projects/measures are in various stages of development and will be completed in 2011   | 1- Complete all 23 energy projects initiated in 2010 and currently in progress<br>2- Agreement and funding in place to initiate the investigation phase of BC hydro's Continuous Optimization Projects (COP) in 5 separate VCH owned buildings in 2010. Most energy measures will be to upgrade/optimize mechanical systems as well as DDC building systems<br>3- Continuous Optimization Projects in another six (6) VCH owned buildings are planned for 2012/2013  | 2010       | No End Date<br>(Continuous) |
| Retrofitting owned buildings  |                            |   |  |  |  |            |                             |
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits   | Completed in 2010          | 60                                      | % of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades | 1-Two of 5 completed projects in 2010 included replacement of old and inefficient boilers with high efficiency condensing boilers and the installation of variable speed drives<br>2-One of 5 completed projects in 2010 included to cleaning of ducts to improve upon HVAC and save energy<br>3-A major renovations retrofit of a 60,000 sqft 1929 building at the VGH site in Vancouver, currently heated by inefficient steam, will incorporate high efficiency condensing boiler for building heating. This retrofit will also include building envelope insulation and energy efficient windows replacement.<br>This facility will be ready for occupancy in 2011. This building has gone through a BC hydro Energy Modeling process to maximize energy savings.<br>4-Initiated the investigation phase of BC hydro's Continuous Optimization Project (COP) in six (6) separate (2,035,473 sqft) VCH owned buildings in 2010. Most energy measures will be to upgrade/optimize mechanical systems as well DDC building systems. | 1- Twelve (52%) of the 23 energy projects initiated in 2010 and planned for completion in 2011 include mechanical upgrades as part of the retrofits<br>2- Implementation phase of BC hydro's Continuous Optimization Project (COP) of six (6) separate VCH owned buildings in 2010 will be initiated in 2011 and scheduled for completion in 2012. Most energy measures will be to upgrade/optimize mechanical systems as well DDC building systems<br>Estimated savings will be about 3,075,000 kWh of electricity, 18,706 GJ of natural gas and GHG emissions reductions of 1,021 tCO2e, 1.87% from the 2010 estimated carbon footprint for VCH<br>3- BC hydro Continuous Optimization Projects in another seven (7) VCH owned buildings are planned for 2012/2013. These will focus on mechanical and DDC systems optimization. | 2010       | No End Date<br>(Continuous) |

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| Action   | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010   | Steps Planned for 2011 -2013  | Start Year | End Year                    |
|--|----------------------------|---|--|---|---|------------|-----------------------------|
| Upgrade lighting systems during retrofits  | Completed in 2010          | 50                                      | % of retrofits since start year indicated had lighting systems upgrades              | 1-Two of 5 completed projects in 2010 were lighting retrofits with an estimated savings of 728,938 kWh and GHG emissions reductions of 18.7 tCO2e   | 1-Five (5) lighting retrofits, currently in progress, will be completed in 2011 and will result in an estimated savings of 435,657 kWh and a reduction of 11.33 tCO2e of GHG emissions per year.<br>2-Pending funding availability, initiate additional lighting retrofits in other VCH owned facilities  | 2010       | No End Date<br>(Continuous) |
| Upgrade/adjust control systems during retrofits  | Completed in 2010          | 0                                       | % of retrofits since start year indicated had control system upgrades or adjustments | 1-VCH did not upgrade/adjust control systems in any of the 5 completed energy projects in 2010<br>2- Twenty three (23) energy retrofit projects, currently in progress, and planned for completion in 2011 will have 52% mechanical systems upgrades, 22% DDC systems upgrades/adjustments, and 26% lighting systems upgrades during the retrofit.  | 1-Five (5) DDC systems upgrades/adjustments will be completed in 2011.<br>2-Three (3) additional DDC systems upgrades/adjustments are planned for 2012<br>3-Two (2) additional DDC systems upgrades/adjustments are planned for 2013  | 2010       | No End Date<br>(Continuous) |
| Improve building insulation (including windows) during retrofits   | In Development             |   |  | One (1) 1929 65,000 sqft building at the VGH Site is undergoing total retrofit and includes windows replacement and building insulation.<br>Building to be occupied in June of 2011   | None planned at this time   | 2010       | 2011                        |
| Install an on-site renewable energy demonstration project  | In Development             | 25                                      | % of retrofits since start year indicated had on-site renewable energy components    | Began installation of a geo-exchange clean energy project at St. Mary's Hospital (Sechelt)  | Completion of geo-exchange project in 2012  | 2010       | 2012                        |
| Leased buildings   |                            |   |  |   |   |            |                             |
| Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations | Completed in 2010          |   |  | 1-A Tenant Improvement Handbook, incorporating some elements of Green Lease policies developed in 2007 and updated in 2009, is in the process of additional updates to incorporate the different standards for all of 2010 consolidation of the lower mainland health authorities facilities management (VCHA, FHA, PHSA, and PHC) for all new and renewed leases where feasible. As part of the update, Facilities Energy & Environment Sustainable staff are incorporating Green strategies in this handbook. Final edit and approval by the Steering Commitee is anticipated for Apri/May 2011<br>2- The Tenant Improvement Handbook was used for two (2) new leases in 2010 | 1-Final edit and approval of the Tenant Improvement Hanbook by the Steering Committee by Apri/May 2011.<br>2-Maintain and improve green leasing practices, energy consumption, buildings efficiency, sustainability, and occupant satisfaction and comfort.   | 2010       | No End Date<br>(Continuous) |
| IT power management  |                            |   |  |   |   |            |                             |
| Install power management software which shuts down computers outside of regular business hours                     | Ongoing/In Progress        |   |  | Planning in place   | 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 management, data centre management, server technologies, Desktop Power Management Software implementation for the future will be integrated into this new initiative. | 2011       | No End Date<br>(Continuous) |
| Implement server virtualization  | Ongoing/In Progress        | 70                                      | % of servers have been virtualized since start year indicated                        | 65 Servers of the remaining 300 at VCH/PHC have undergone assessment for virtualization but were not done due to budget restrictions  | Planning to finalize assessment of the remaining 300 physical servers and virtualize as many as possible, pending available resources.  | 2009       | No End Date<br>(Continuous) |



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| Action   | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010  | Steps Planned for 2011 -2013   | Start Year | End Year                    |
|--|----------------------------|---|--|--|--|------------|-----------------------------|
| Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices                                       | Ongoing/In Progress        | 35                                      | % reduction in printers, copiers, and/or fax machines since start year indicated | A VCH/PHC Output Management Strategy business case was developed and submitted by IMIS management to implement an output management strategy that will result in a managed output management service with a refreshed fleet of reliable and efficient devices, increased functionality from fewer devices, and a reduction in costs through standardization. Substantial energy utilities savings are also expected.   | 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 management, data centre management, server technologies, Desktop Power Management Software implementation for the future will be integrated into this new initiative.  | 2007       | No End Date<br>(Continuous) |
| Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices  | Ongoing/In Progress        |   |  | Auto-sleep settings are the standard configuration setting for all devices that support this functionality. All new printers, copiers, fax machines and/or MFPs (Multi-function Printers) have auto-sleep settings applied. A VCH Output Management Strategy business case was developed in 2009 to replace all of VCH's aging and inefficient output devices Initiative will result in a managed output management service with a refreshed fleet of reliable and efficient devices, increased functionality from fewer devices, and increased energy efficiency. | There is an overall strategy in place to replace stand alone devices from the environment and replace with MFPs (Multi-function Printers) as the standard and for all new purchases. Pending approval of the VCH Output Management Strategy, completed in 2009, and available resources, most of the current old and inefficient devices will be replaced with a refreshed fleet of reliable, energy efficient, and increased functionality devices. | 2007       | No End Date<br>(Continuous) |
| Replace computers with ENERGY STAR models during regular computer upgrades   | Ongoing/In Progress        |   |  | Fourteen hundred (1,400) new PC Desktops and 19" flat screen monitors, purchased in 2010, are all star ENERGY STAR models and will replace energy inefficient PC Destops and CRT monitors .  | BC Health Authority Shared Services Organization (HSSBC) will maintain a computer and monitor replacement program to replace the current old and energy inefficient units with ENERGY STAR models. This is also critical if Desktop Power Management is to be implemented to reduce energy consumption. The current 7-8 year old PC units will not work with Desktop Power Management software.  | 2011       | No End Date<br>(Continuous) |
| Appliances and electronic devices  |                            |   |  |  |  |            |                             |
| Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases                                    | In Development             |   |  | The new Energy and Environmental Sustainability group will be working closely with the BC Health Authority Shared Services (HSSBC to implement policies and guidelines to ensure that all future purchases of refrigerators are ENERGY STAR Models   | The new Energy and Environmental Sustainability group will be working closely with the new BC Health Authority Shared Services Organization (HSSBC) to implement policies and guidelines to ensure that all future purchases of refrigerators are ENERGY STAR Models   | 2011       | No End Date<br>(Continuous) |
| Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases | Ongoing/In Progress        |   |  | Desk lamp Incandescent lamp bulbs are not supported by VCH Maintenance departments and are replaced with CFL bulbs as may be requisitioned through Maintenance .<br>The purchase of more efficient desk lamps using CFL lamps and/or LED lighting are recommended where needed.  | All desk lamps incandescent bulbs to be replaced with CFL compact fluorescent bulbs or more efficient lighting where required  | 2007       | No End Date<br>(Continuous) |
| Behaviour change program   |                            |   |  |  |  |            |                             |
| Ask staff to unplug electrical equipment or switch off power bars when not in use  | Ongoing/In Progress        |   |  | "Stop the Energy bleed, Turn off lights no one is using" book marks are provided by energy management staff to employees during energy fairs and other Energy Awareness sessions.  | Maintain practice and awareness initiatives. Launch the Green+Leaders behaviour change program which focuses on energy reduction in January and Feb. Target is to recruit 120 volunteers by end of 2013.   | 2007       | No End Date<br>(Continuous) |
| 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   | Maintain practice and awareness initiatives  | 2007       | No End Date<br>(Continuous) |
| Provide tips to staff on saving energy in the office while working outside of regular business hours                               | 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.   | Energy and Environment Sustainability staff are providing Turn Off lights bookmarks to employees during energy fairs and other Energy and Sustainability awareness sessions. New non-wall damaging Lights Off stickers are being placed above room light switches for reminder to staff to switch off lights when not in use   | 2007       | No End Date<br>(Continuous) |

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| Action   | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010   | Steps Planned for 2011 -2013   | Start Year | End Year                    |
|--|----------------------------|---|--|---|--|------------|-----------------------------|
| Encourage use of stairs instead of elevators   | Ongoing/In Progress        |   |  | Energy awareness campaigns encourage staff to use stairs where feasible to save energy and encourage personal fitness   | Maintain practice and awareness initiatives. "Take the stairs" tool to be incorporated into the Green+Leaders program.   | 2007       | No End Date<br>(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.  | Energy and Environment Sustainability staff are providing Turn Off lights bookmarks to employees during energy fairs and other Energy and Sustainability awareness sessions. New non-wall damaging Lights Off stickers are being placed above room light switches for reminder to staff to switch off lights when not in use. Green+Leaders will run energy reduction campaigns in their departments to encourage staff to turn off lights and equipment. Will be implemented in 120 departments by end of 2013. | 2007       | No End Date<br>(Continuous) |
| Promote hot water conservation   | In Development             |   |  |   | Energy and Environment Sustainability team will be initiating assessment water conservation trials in 2011 using water saving devices. One facility is currently under review.   | 2011       | No End Date<br>(Continuous) |
| Supplies (Paper)   |                            |   |  |   |  |            |                             |
| Printer/document settings  |                            |   |  |   |  |            |                             |
| Switch networked printers and photocopiers to automatic double-sided                             | Ongoing/In Progress        |   |  | All new Multi-function printers and photocopiers installed in 2009 had automatic double-sided set as the default setting. All printers and copiers have been adjusted to default to double-sided printing                 | All new Multi-function printers and photocopiers will be set to double-sided printing as a default setting.  | 2008       | No End Date<br>(Continuous) |
| Electronic media in place of paper   |                            |   |  |   |  |            |                             |
| Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)            | Ongoing/In Progress        |   |  | Current use of MS Sharepoint Collaborative software for Electronic editing is available to staff where required.<br>Planning in place for facilities to upgrade to one centralized web-based system using Sharepoint 2010 | 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.  | 2008       | No End Date<br>(Continuous) |
| Use electronic document library for filing common documents                                      | Ongoing/In Progress        |   |  | Shared drives and electronic document libraries are available to most staff at VCHA   | Practice will continue.<br>Enhance and extend use in Facilities, including Planning, Construction and Engineering  | 2008       | No End Date<br>(Continuous) |
| Post materials online that were previously printed   | Ongoing/In Progress        |   |  | Public Affairs and Communications post most materials that were previously printed through various web-based media  | It is expected that most printed material will be slowly reduced and replaced with various on-line electronic media including e-mail bulletins, intranet newsletters and other electronic media  | 2009       | No End Date<br>(Continuous) |
| 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<br>(Continuous) |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts)                  | Ongoing/In Progress        |   |  | Practice is encouraged  | On-going and part of the paper reduction campaigns strategies.<br>Green+Leaders program will include a paper reduction campaign that includes a tool on paperless meetings. Will be implemented in 120 departments by end of 2013.   | 2008       | No End Date<br>(Continuous) |
| Encourage re-use of scrap paper  | Ongoing/In Progress        |   |  | Practice is encouraged  | On-going and part of the paper reduction campaigns strategies  | 2008       | No End Date<br>(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 <i>Greenhouse Gas Reduction Targets Act</i> . 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<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010  | Steps Planned for 2011 -2013   | Start Year | End Year                    |
| Business Travel   |                            |   |  |  |  |            |                             |
| Virtual meeting technology  |                            |   |  |  |  |            |                             |
| Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)  | In Development             |   |  |  | The installation of Office Communication System (OCS), including web-conferencing software, is now part of HSSBC mandate and responsibility.   | 2010       | No End Date<br>(Continuous) |
| Install video-conferencing units in meeting rooms or provide mobile video-conferencing units  | Ongoing/In Progress        |   |  | None   | The installation of Office Communication System (OCS), including video-conferencing , is now part of HSSBC mandate and responsibility.   | 2010       | No End Date<br>(Continuous) |
| Behaviour change program  |                            |   |  |  |  |            |                             |
| Train staff in web-conferencing   | Ongoing/In Progress        |   |  | Limited Video-conferencing technical support and training at this time due to lack of staff resources  | Staff training for web-conferencing is now part of the HSSBC mandate and responsibility.   | 2010       | No End Date<br>(Continuous) |
| Train staff in video-conferencing or provide technical support for video-conferencing set-up  | Ongoing/In Progress        |   |  | Limited Video-conferencing technical support and training at this time due to lack of staff resources  | Staff training for web-conferencing is now part of the HSSBC) mandate and responsibility.  | 2010       | No End Date<br>(Continuous) |
| Encourage staff to consider virtual attendance/presentation at events where possible  | Ongoing/In Progress        |   |  | Staff are encouraged to participate in video conferencing and other virtual attendance/presentation. Most staff are not aware of availability at this time | 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<br>(Continuous) |
| Encourage carpooling to meetings  | Ongoing/In Progress        |   |  | 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<br>(Continuous) |
| Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)  | Ongoing/In Progress        |   |  | Practice is encouraged   | Practice to continue. Part of the Green+Leaders program will include encouraging alternative to SUVs when travelling to meetings.  | 1996       | No End Date<br>(Continuous) |
| Education, Awareness, and Engagement  |                            |   |  |  |  |            |                             |
| Team-building   |                            |   |  |  |  |            |                             |
| Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement   | In Development             |   |  |  | Green+Leaders behaviour change program will be launched, 120 staff volunteers will be recruited, oriented, supported, recognized by end of 2013. Community-based social marketing behaviour-change tools that focus on paper/waste reduction, energy reduction and sustainable transportation. | 2011       | No End Date<br>(Continuous) |
| Provide resources and/or dedicated staff to support teams   | In Development             |   |  |  | Green+Leader program coordinator will provide support and resources for Green+Leaders.   | 2011       | No End Date<br>(Continuous) |
| Providing behaviour change education/training to teams (e.g., community-based social marketing)   | In Development             |   |  |  | See cells above  | 2011       | No End Date<br>(Continuous) |
| Awards/Recognition  |                            |   |  |  |  |            |                             |
| Establish a sustainability/green awards or recognition program  | In Development             |   |  |  | Six annual events planned to recognized Green+Leaders for their efforts.   | 2011       | No End Date<br>(Continuous) |

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| Action   | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010   | Steps Planned for 2011 -2013  | Start Year | End Year                    |
|--|----------------------------|---|--|---|---|------------|-----------------------------|
| Staff Professional Development   |                            |   |  |   |   |            |                             |
| Support green professional development (e.g., workshops, conferences, training)                | In Development             |   |  |   | Planning to develop a strategic plan and develop workshops based on targetted market groups   | 2011       | No End Date<br>(Continuous) |
| Staff awareness/education  |                            |   |  |   |   |            |                             |
| Provide education to staff about the conservation of water, energy, and raw materials          | In Development             |   |  | Regarding the recycling program: Designed and commissioned marketing /training/educational materials and finalized signage; drafted a communication plan; developed indicators for recycling reporting; completed power point for staff education   | Regarding the recycling program: Attend 7 GF Strong Staff forums; host recycling promotion days at UBC, Lionsgate and Richmond; present at as many staff meetings and in-services as possible; run stories in VCH news and provide updates through the C3 site on recycling program success and progress at GF Strong, UBC, Lionsgate & Richmond; update the VCH Environmental Management page; post recycling materials, references and resources on the external PHSA Environmental Sustainability site (will be linked to the C3 site and the VCH Environmental Management page); report recycling progress in local media | 2011       | No End Date<br>(Continuous) |
| Provide green tips on staff website or in newsletters  | In Development             |   |  |   | External Green+Leaders website will be accessible to all staff and will include tips on waste/paper reduction, energy reduction and sustainable transportation as well as sustainable procurement.  | 2011       | No End Date<br>(Continuous) |
| Provide sustainability education during new staff orientation                                  | In Development             |   |  |   | Rolling out at three sites in March 2011  | 2011       | No End Date<br>(Continuous) |
| Client/public awareness/education  |                            |   |  |   |   |            |                             |
| Provide education to clients/public about the conservation of water, energy, and raw materials | In Development             |   |  | Regarding the recycling program: Designed and commissioned marketing /training/educational materials and finalized signage; drafted a communication plan  | Regarding the recycling program: host recycling promotion days at UBC, Lionsgate and Richmond; post recycling materials, references and resources on the external PHSA Environmental Sustainability site (will be linked to the C3 site and the VCH Environmental Management page); report recycling progress in local media  | 2011       | No End Date<br>(Continuous) |
| Other Education, Awareness, and Engagement Actions   |                            |   |  |   |   |            |                             |
| Earth Day Hosting  | Ongoing/In Progress        |   |  | ARAMARK (contracted environmental services provider) hosted Earth Day events in April 2010 at Vancouver General Hospital, Lionsgate Hospital, Richmond Hospital and UBC Hospital. Educational handouts and prizes were given away. Translink participated in the event at several sites, providing information on sustainable transportation. | Event to be held annually   | 2010       | No End Date<br>(Continuous) |
| Green Cleaning Week  | Ongoing/In Progress        |   |  | ARAMARK (contracted environmental services provider) hosted Green Cleaning week, January 25- February 1, at Vancouver General Hospital, Lions Gate Hospital, Richmond Hospital and UBC Hospital. The event provided information to staff, patients and visitors on green cleaning products for home use and reducing water use in cleaning.   | Event will be held annually or bi-annually  | 2008       | No End Date<br>(Continuous) |

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| Action   | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |  | Steps Taken in 2010  | Steps Planned for 2011 -2013  | Start Year          | End Year                    |
|--|----------------------------|---|--|--|---|---------------------|-----------------------------|
| Energy Awareness Week  | Ongoing/In Progress        |   |  | ARAMARK (contracted environmental services provider) hosted Energy Awareness week, June 7-16, at Vancouver General Hospital, Lions Gatee Hospital, Richmond Hospital and UBC Hospital. ARAMARK's Environmental Program provided information on use and disposal of compact flourescent light bulbs, sustainable transportation and the ENERGY STAR Certification program. BC Hydro joined the event and encouraged staff to sign up to Team Power Smart.   | Event will be held annually or bi-annually  | 2010                | No End Date<br>(Continuous) |
| Other Sustainability Actions   |                            |   |  |  |   |                     |                             |
| 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        |   |  | <p>Hired a Reduction and Recycling Coordinator to implement recycling at all 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 survey to assess staff awareness and satisfaction; compiled waste &amp; recycling invoice data; completed waste audit training; completed power point for staff education; planning initiated for recycling program at GF Strong; Recycling at VCH facilities includes paper, confidential paper, plastics, soft drink cans, cardboard, batteries, Mercury, electronics, and fluorescent and HID lighting.</p> <p>ARAMARK (contracted housekeeping services provider) has moved from disposable to rechargeable batteries in pagers.</p> | <p>Basic recycling programs to be implemented at all VCH acute care sites where waste management contracts are in place; Program implementation will include planning and distribution of bins, education of staff and the public and continued support &amp; progress reporting for all sites; Investigation into additional recycling streams and systems to be implemented; it is expected recycling volumes and diversion rates, staff awareness and satisfaction with recycling will increase as the program moves forward.</p> <p>Anticipate move to rechargeable batteries will reduce batteries disposal from 12,000 to 350 over a 5 year period.</p> | 2004                | No End Date<br>(Continuous) |
| Implement a hazardous waste reduction and disposal strategy  | Ongoing/In Progress        |   |  | <p>Maintain current compliance levels for the safe disposal of all hazardous waste</p> <p>Audit of biomedical waste and found materials that should be in recycling or general waste; included a slide on importance of proper biohazardous waste disposal in recycling education presentation.</p>  | Maintain and improve current practice   | Started before 1995 | No End Date<br>(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             |   |  |  | Issue identified as a key element to the "greening" of health care and the need for LEED certification. Increased attention will be given to this issue.  | 2010                | No End Date<br>(Continuous) |
| Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags   | Ongoing/In Progress        |   |  | 66% of paper consumables purchased last year by ARAMARK (contracted housekeeping services provider) were EcoLogo certified ; an additional 10% of paper products have a recycled content of 80% or higher.   | 57% of cleaning products used by ARAMARK (contracted housekeeping services provider) will be Environmental Choice certified at all VCH sites where ARAMARK provides housekeeping services; purchasing practices to be reviewed regularly and new green products added where available, pending approval for use in healthcare facilities by infection control authorities.  | 2011                | 2011                        |
| Building construction, renovation, and leasing   |                            |   |  |  |   |                     |                             |
| Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities                          | In Development             |   |  |  | New planning and construction guidelines are currently being written to include and encourage this practice.  | 2010                | 2011                        |



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| Action  | Status<br>(as of 12/31/10) | Performance to Date<br>(as of 12/31/10) |            | Steps Taken in 2010  | Steps Planned for 2011 -2013  | Start Year | End Year                    |
|---|----------------------------|---|------------|--|---|------------|-----------------------------|
| Indoor air quality  |                            |   |            |  |   |            |                             |
| Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture | In Development             |   |            |  | New procurement guidelines are currently being written to include and encourage this practice.  | 2010       | 2011                        |
| Commuting to and from home  |                            |   |            |  |   |            |                             |
| Encourage commuting by foot, bicycle, carpool or public transit   | In Development             |   |            |  | Green+Leaders sustainable transportation focus will include a campaign to encourage walking, cycling or public transit for work commute.  | 2011       | No End Date<br>(Continuous) |
| Provide shower or locker facilities for staff/students who commute by foot or by bicycle  | In Development             |   |            |  | Planning a audit of all primary locations to indicate bicyclist numbers and available lockers / showers.  | 2011       | No End Date<br>(Continuous) |
| Provide secure bicycle storage  | Ongoing/In Progress        |   |            | Conducted several internal site audits to identify needs around increased bike storage.  | Development of at least one new bike storage area at Vancouver General Hospital   | 2011       | No End Date<br>(Continuous) |
| Modify parking fees or parking availability for staff/students  | Completed in 2010          | 100                                     | % complete | Parking fees were raised to provide increased revenue. A portion of this revenue will be used to subsidize bus passes and cover costs related to increasing knowledge and oportunities to commute car free |   | 2010       | 2010                        |
| Other Sustainability Actions  |                            |   |            |  |   |            |                             |
| Composting Initiatives  | Ongoing/In Progress        |   |            | Composting initiatives at three (3) VCH facilities food preparation areas (UBC Hospital, Lions Gate Hospital, and Richmond Hospital).  | Planning for UBC hospital cafeteria front-end composting pilot is underway in partnership with Sodexo. If succesful, this program will roll-out to other sites where Sodexo runs food services; develop tool on how to implement cafeteria composting on-site for Site Support Managers to use; 1 year pilot for office composting at 5 locations | 2009       | No End Date<br>(Continuous) |