



School District #45 (West Vancouver) 2012 Carbon Neutral Action Report

Executive Summary

The West Vancouver Board of Education renewed its *Strategic Plan* in 2012, focusing on three key issues: educational excellence, system sustainability and community connections. Within the plan are several goals and objectives that focus on the District's work to become more sustainable and move to carbon neutrality. This important work remains a priority for our Board of Education.

The current report includes a number of areas we continue to explore in our pursuit of increasing sustainability on both the educational and business sides of our organization. As funds become available our Facilities and IT Departments are making both small and large changes to our buildings, with each step bringing us closer to this goal.

We are committed to leveraging technology to change our work behaviors and promote sustainability. The District has completed the first phase of a two year classroom modernization plan which involves a rollout of personal devices to all teaching staff in the District and the installation of short-throw projectors in all classrooms. The project will be completed in 2013/14. The modernization project aligns our teaching practise with the latest Ministry education initiatives while reducing our carbon footprint through increased use of digital media across all grades. We continue to reduce travel via the use of webinars and hold virtual meetings as appropriate. We continue to reduce the overall number of copiers within the District and as the remaining machines age we are replacing them with energy efficient models.

A major building envelope upgrade was undertaken at our Bowen Island Community School over the summer of 2012, and will be completed during the summer of 2013. Improved insulation, replacement of exterior cladding and the upgrade, size reduction and replacement of windows and skylights are all contributing to a reduction in energy use at the school.

The District was pleased to utilize a 2012/13 CNCP grant to replace aging boilers at our West Bay Elementary site. This upgrade should result in an estimated annual CO₂ savings of 26.9 tonnes, a 22% reduction in annual carbon emissions for the site.

The West Vancouver School District had total offsets amounting to 1,724 tonnes in 2012. This modest increase in offsets over 2011 (1,650) is due to improved rigour in our reporting methods. We are now using funding received under the CNCP to contract with Prism Engineering to oversee and report on our energy consumption, and will be actively targeting consumption at sites identified in their exception reports.

British Columbia has demonstrated leadership in climate action initiatives, and we are committed to achieving these standards in the West Vancouver School District. We are striving to change our environmental behaviours, and continue to take lessons from our students, who are encouraging sustainable practises in our school district every day.

A handwritten signature in black ink, appearing to read 'Chris Kennedy', with a long horizontal flourish extending to the right.

Chris Kennedy, Superintendent of Schools / CEO
West Vancouver School District
1075 21st Street,
West Vancouver BC V7V 4A9
email: ckennedy@sd45.bc.ca @chrkennedy
mobile: 604.202.4379 **direct:** 604.981.1031
www.sd45.bc.ca



Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

North Shore guidelines on anti-idling are followed, and we continue to encourage students to walk to and from school.

We continue to install LED lights in a number of locations as appropriate, and replace exterior doors with more efficient models and the install water saving devices during site renovations. We now have computer management software on all our computers in the district to reduce energy consumption, and have automated energy management systems active at all sites.

Efforts are continually being made to change behaviours and to educate our staff and students on this topic through a sustainability network of teachers and students, as well as sustaining 'green' practices in our buildings' operational and capital maintenance programs. Student and PAC activities have resulted in the installation of school gardens and greenhouses at most sites, and Rockridge Secondary School has installed a rooftop solar panel.

A program of enhanced recycling and reduced printing is being introduced at all schools to promote awareness and reduce waste. We continue to develop and refine our use of a central portal which allows us to share documents, thereby reducing the need to print hard copies. The District and the Board are committed to modelling "paperless" meetings to change the culture of the organization around paper, and the universal use of personal devices at meetings is now routine.

With the assistance of our supplier we have completed a district-wide survey of all our printers, copiers and fax machines, reducing the number of devices in our fleet and replacing older models with new multi-use, high efficiency devices.

Plans to Continue Reducing Greenhouse Gas Emissions 2013 – 2014

The West Vancouver Board of Education has renewed its commitment to sustainability with several goals and objectives that focus on the District's work on becoming more sustainable and moving to carbon neutrality.

Software will monitor usage and provide control of heat and light for non usage times.

Fewer stand alone printers, copiers and fax machines will reduce energy and paper consumption

A program of vehicle renewal will reduce fuel consumption and greenhouse gas emissions.

Continued expanded use of webcasts for professional development of our staff and to pilot the use of Live Meeting will reduce transportation costs and greenhouse gas emissions.

All of these actions will contribute to a reduction in consumption and reduce greenhouse gas emissions as we work toward carbon neutrality.

The Board endeavours to “promote and facilitate the implementation of environmental education and sustainable practices in the district.” <http://www.sd45.bc.ca/docs/StrategicPlan2012-2015.pdf> (Strategic Goal #2 ‘System Sustainability’).

School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Not Yet Evaluated				No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Completed (in Reporting Year)	All fleet drivers received anti-idling awareness training prior to 2011. This remains a district policy and is encouraged at all sites. Promotion of this policy extends to visitors to all district sites.		2008	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	SD45 began a program of evaluating vehicle purchases for fuel efficiency gains in 2011. No new vehicles were purchased in 2012,	We anticipate at least one vehicle replacement in 2013. Fuel efficiency will be a driving factor in the decision over type and model of vehicle chosen.	2011	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Completed (in Previous Year)				No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100% of SD45 vehicles are subject to regular maintenance for fuel efficiency. We have an ongoing contract with the Municipality of West Vancouver, who maintains our vehicles in accordance with manufacturers recommendations under a program of regular maintenance.	This is an ongoing maintenance program for our fleet.	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	Staff awareness is encouraged.	This is an ongoing, district-wide program.	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Staff are encouraged to turn off computer monitors when away from their desks and unplug electronic device chargers when not in use.	Ongoing staff awareness program with respect to switching off and unplugging devices.	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Not Yet Evaluated				No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress	In general dishwashers are set to use the heated dry setting due to health concerns/ sanitation issues. Water heat is carefully monitored to ensure it remains at a safe level, and accordingly the heated dry setting is used to make up for the lack of scalding water.	No change is planned at this time.	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	Any staff working outside of regular business hours are encouraged to use lighting only in their immediate working areas.	Ongoing staff awareness program.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Staff at all sites are encouraged to turn off lights whenever leaving a room. Additionally, where natural light is sufficient staff are encouraged to leave lights off during working hours.	Ongoing awareness program for all staff.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	All water heaters are on DDC controls which monitor for the times that circulating pumps are running. Heat level is monitored to ensure it does not exceed safe temperatures.	Water heat will continue to be monitored.	2010	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	The District installed power management software to shut down computers outside of regular business hours, but unfortunately it created many operating issues for our IT department, causing numerous software and programming issues.	No plans at this time to reinstate this monitoring software. Staff awareness programs continue.	2010	No End Date (Continuous)

School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
		The software was removed in 2012.			
Implement server virtualization	Ongoing/In Progress	The district undertook a complete server virtualization project with IBM in 2012.	It is anticipated that this project will be completed in 2013.	2012	2013
Apply auto-sleep settings on computer monitors and CPUs	Completed (in Previous Year)				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	A district-wide analysis of all printing/copying devices was undertaken in 2011/12, and stand-alone devices have been removed and replaced with multi-function devices.	The district will continue to remove unnecessary, excess stand-alone devices and when replacement is necessary install multi-function, high-efficiency devices.	2011	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Completed (in Previous Year)				No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Completed (in Previous Year)				No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	In Development	SD45 has contracted with Prism Engineering to monitor energy consumption and performance at all sites. We will be receiving reports on an ongoing basis that identify anomalies and above-average consumption, and will be directing our maintenance/upgrade activities in accordance with these reports.	Continued monitoring of all sites.	2012	No End Date (Continuous)
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)	Not Yet Evaluated				No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Aging boiler systems were replaced with high efficiency models at two sites in 2012. Lighting/heating/HVAC systems are replaced with higher efficiency models on an ongoing basis as repairs/replacements become necessary.	SD45 will continue to replace aging, inefficient systems as capital funds become available.	2008	No End Date (Continuous)
Planning/management					
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Not Yet Evaluated				No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	When renovating existing building, whenever the work touches the mechanical systems we look to energy savings alternatives and replace equipment with new, energy-efficient models as can be afforded.	Continued replacement of aging, inefficient equipment as renovations proceed.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	When renovating, when there are T12 lamps in fixtures we convert them to electronic ballasts and T8 lamps.	This is an ongoing program in our District.	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	The District has DDC controls for most systems, and whenever feasible within ongoing facilities work we continue to install DDC controls as necessary.	Ongoing program to expand our installation and use of DDC controls.	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	Whenever opening up exterior walls in the process of repairing or upgrading existing building we remove old insulation and upgrade with modern insulation.	Ongoing program that is a standard component of our facilities work.	2008	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g.	Ongoing/In	Staff training in sharepoint and other shared district software is	SD45's 2013/14 preliminary budget continues to support on-site IT	2008	No End Date

School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
SharePoint, Groove, etc.)	Progress	ongoing. Starting in 2012 the District has provided on-site IT staff in schools to assist/support staff in conjunction with a district-wide roll-out of personal devices.	staff for training and support.		(Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	The District moved to paperless Board meetings in 2012. Personal devices have been issued to all staff and they are encouraged to bring them to all meetings. Meeting agendas and working documents are now provided in electronic form. All school sites now publish their monthly newsletters and information bulletins in electronic form only. School permission forms are now provided on-line.	Ongoing program to move to on-line, digital forms and paperless meetings.	2008	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	SD45 uses sharepoint software and a common portal. Document sharing is encouraged and supported by our IT department, and electronic document libraries continue to grow and replace hard copy.	The district is shifting away from all hard copy documents.	2008	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	All sites use 30% recycled paper for copiers and printers. At this time pricing prohibits moving to a greater recycled component %.	If prices improve we will move to 40%.	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	We have been installing new paper towel dispensers throughout the district washrooms, and the paper towel rolls used in them are a 100% recycled product. Paper towels used in kitchens are not recycled, but are labelled "Environmental Choice", meaning consideration is given to the environment during their manufacture.	We will complete installing of new paper towel dispensers in 2013 and complete our move to 100% recycled paper in this area. We will continue to monitor the availability and affordability of recycled paper products used in our facilities.	2008	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	All staff are encouraged to use double-sided printing at all times. Default settings are double-sided print on most copiers.	Ongoing staff awareness program.	2008	No End Date (Continuous)

School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	A variety of web-conferencing software has been downloaded onto shared District sites and personal devices. Staff are encouraged to attend web-conferences as opposed to off-site events whenever appropriate. This policy is supported by the District's ongoing investment in technology devices and district-wide wireless access.	Ongoing initiative.	2011	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Staff are encouraged to participate in meetings as appropriate or available.	Ongoing initiative.	2011	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Staff are encouraged to carpool or use public transit when attending events/performance/pro-d, etc. both within and outside the District. Staff carpooling is in place for remote locations.	Ongoing initiative.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Whenever practicable staff walk to meetings or use public transit.	Ongoing initiative.	2008	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress	Staff are encouraged to carpool or use public transit when attending events/performance/pro-d, etc. both within and outside the District. Staff carpooling is in place for remote locations.	Ongoing district initiative.	2008	No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	A variety of web-conferencing software has been downloaded onto shared District sites and personal devices. Staff are encouraged to attend web-conferences as opposed to off-site events whenever appropriate. This policy is supported by the District's ongoing investment in technology devices and district-wide wireless access.	ongoing technology initiatives district-wide	2011	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	The District installed "Microsoft Lync" in 2011/12, and it is used for remote communications throughout the District. Senior staff have web-cameras to provide visual input to the system.	Ongoing district-wide initiative.	2011	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	District staff participate in video-conferencing when it is offered by outside parties, and have experimented with the technology for some internal meetings as well, where remote participation was more practical than on-site attendance.	The program will continue to be developed as appropriate.	2012	No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	School-based staff and student green initiatives are encouraged, and any awards received from outside agencies by these groups are recognized and congratulated within the District.	District awards are not in place at this time, but would be contemplated at such time as the District undertakes a larger internal green action program.	2008	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Ongoing/In Progress	Climate change science is actively discussed as part of our educational curriculum.	Ongoing education initiative.	2008	No End Date (Continuous)

School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
Provide education to staff about the conservation of water, energy, and raw materials	In Development	While the District has not formalized a process of educating staff with respect to conservation, the subject is dealt with District-wide in our classroom discussions and staff are very aware.	Ongoing education initiative. Formal staff training not yet evaluated.	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Not Yet Evaluated				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	Not Yet Evaluated				No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Not Yet Evaluated				No End Date (Continuous)
Other Sustainability Actions					
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	Ongoing/In Progress	Materials are reused during construction/renovation where possible.	Ongoing efforts to reuse/recycle.	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	In Development	Lifecycle costing is now being taken into consideration when reviewing purchasing and construction decisions.	Ongoing process.	2010	No End Date (Continuous)
Commuting to and from home					
Encourage commuting by foot, bicycle, carpool or public transit	Not Yet Evaluated				No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress	Showers and lockers are available at most sites for use by staff who commute by foot or bicycle.	Ongoing.	2008	No End Date (Continuous)
Provide secure bicycle storage	Completed (in Previous Year)				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.)	Ongoing/In Progress	Recycled content standards are adhered to whenever possible/available/affordable in all District purchases.	Ongoing adherence to policy.	2008	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.)	Ongoing/In Progress	Green standards are adhered to whenever possible/available/affordable in all District purchases.	Ongoing adherence to policy.	2008	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	Custodial department employs sustainable cleaning products wherever available/affordable, provided there is no compromise in sanitation standards.	Ongoing adherence to policy.	2008	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	Staff and students are encouraged to bring personal waterbottles. Fountains in schools are gradually being replaced with high-spout models to facilitate water bottle refilling. Recycling containers are in use at all sites for paper/bottle/can recycling. Most school sites have	Ongoing policy.	2008	No End Date (Continuous)

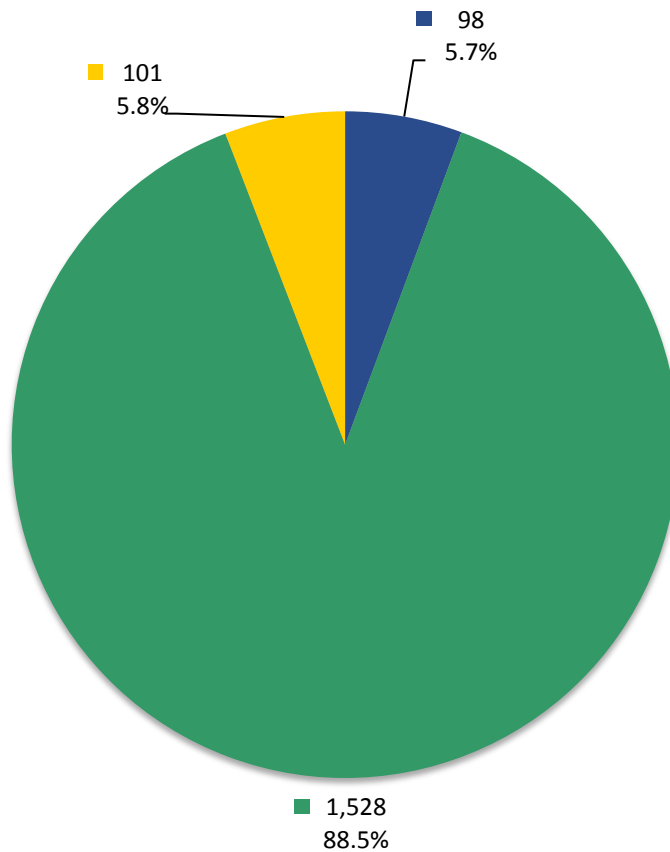
School District 45 West Vancouver - 2012 Carbon Neutral Action Report

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
		gardens and/or compost facilities, some have greenhouses. Schools have a "pack it in, pack it out" policy with respect to containers and waste from student lunches.			
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Hazardous waste is disposed of according to strict guidelines (federal, provincial/district). Procedures are in place to have waste removed by approved service providers. Hazardous waste is collected at school sites and stored centrally at our Facilities site for removal. Schools have undertaken a battery-recycling program on a district-wide basis, and all staff and students are encouraged to deposit used batteries in pre-determined locations for collection. Electronic equipment is disposed of via an approved service provider.	Ongoing compliance required.	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 fixtures are replaced with reduced-flow models whenever replacement is required.	Ongoing facilities policy.	2008	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Not Yet Evaluated				No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Not Yet Evaluated				No End Date (Continuous)

School District 45 - West Vancouver Greenhouse Gas Emissions by Source for the 2012 Calendar Year (tCO₂e*)



Total Emissions: 1,727

- 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 28, 2013 3:54 PM)

Total offsets required: **1,724**. Total offset investment: **\$43,100**. Emissions which do not require offsets: **3** **

*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.