

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Executive Summary

The School District No. 23 (Central Okanagan) 2010 Climate Action Report provides an overview of the accomplishments and initiatives of the School District for the 2010 calendar year. One of the foremost accomplishments is that School District No. 23 has become Carbon Neutral. The School District has taken a leadership role in the area of Greenhouse Gas Reduction by continuously improving and making a commitment to the proper management of our social and natural environment. Continuous improvement is the responsibility of every individual, institution and organization. As our school buildings' purposes evolve, technologies change, the relative cost of energy increases, and climate issues become more important. Our obligation to society as leaders and a focus on solutions become imperative for the greater global good. The continuous improvement model ensures previous reductions are maintained and further opportunities are incorporated producing consistent long-term savings for maximum efficiencies from both the capital and operational aspects. This report provides the School District goals and plans for the future.

2010 Greenhouse Gas Emissions

British Columbia's [Greenhouse Gas Reduction Targets Act \(GGRTA\)](#) is the first of its kind in any North American jurisdiction to target Greenhouse Gas emissions in public sector organizations and sets a progressive path to find solutions to climate change. Legislated in 2007 by the Province of British Columbia, the GGRTA requires all of BC's public sector organizations (PSOs) by law to be carbon neutral by 2010 – this includes all BC school districts and post-secondary institutions. The GGRTA sets aggressive targets for reducing greenhouse gas emissions (GHGs). Environment Minister Barry Penner announced that the B.C. Government has reviewed and accepted the recommendations of the Climate Action Team (CAT) for interim greenhouse gas reduction (GHG) targets, establishing a GHG reduction target of six per cent below 2007 levels by 2012 and 18 per cent by 2016. By 2020, BC's GHGs must be at least 33 per cent below 2007 levels. The Act also sets a target of an 80 per cent GHG reduction below 2007 levels by 2050. School District No.23 is on that path to reduce Green House Gases by 10% in 2012.

In 2010 School District No.23 created 6423.22 Tonnes of carbon dioxide equivalent (tCO₂e). (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.)

Offsets Applied to Become Carbon Neutral in 2010

- Total offsets purchased: 5118.61 (tCO₂e)
- Total offset investment: \$127,965.25
- Emissions which do not require offsets: 1286.19 (tCO₂e)

The School District No.23 Transportation Department does not require offsets. 1286.19 Tonnes of carbon dioxide equivalent (tCO₂e) are offset exempt. Bussing school children is exempted as it removes parent's vehicles from roadways. School District No. 23 transported students' 1.4 million kms in 2010. A total of 78 - 72 and 84 passenger buses transport students safely to and from School District No. 23 schools. Bussing students removes the equivalent of 12,000 cars from our roadways every school day.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

Goals

- Create a healthy and comfortable learning and work environment;
 - Reduce energy consumption;
 - Reduce greenhouse gas emissions;
 - Reduce waste - developing a long range 5 year plan for waste, recycling and composting;
 - Manage and operate facilities in ways that minimize negative effects on our ecosystem;
 - Promote and advance environmental sustainability;
 - Increase awareness and education opportunities on the importance of sustainability;
 - Share information and expertise on sustainability issues internally and externally;
-
- At Peter Greer Elementary School four low efficient atmospheric boilers are being replaced by two high efficient condensing boilers.
 - Installed solar Domestic Hot Water heating system at Glenrosa Middle using Solar BC, Terasen Gas and National Resource Canada incentives through Public Sector Energy Conservation Agreement (PCESA) funding.
 - Proceed with planning stages to upgrade the Heating and Ventilation at Glenrosa Middle School and at George Pringle Elementary School.
 - Glenrosa Middle School is setup to have a high yield school garden in recognition of Earth Day.
 - Schools were challenged to become involved with the Destination Conservation program. Nine schools have committed to the program. They will be presenting their campaigns in February.

Plans to Continue Reducing Greenhouse Gas Emissions in 2011 – 2013

- Continue "The Energy Conservation Committee" composed of the utility sector and district staff with the mandate to share energy ideas and lay out framework for future energy projects.

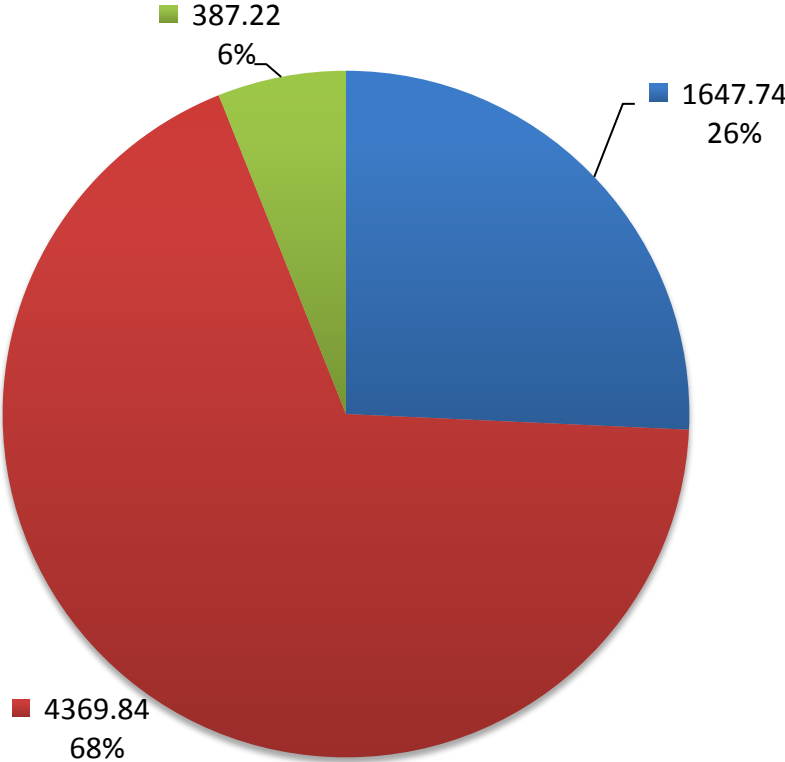
- Applied for addition funding through Major Capital Program to support energy reductions. Energy studies were completed for five projects. The following studies were submitted to PSECA for approval;
 - 1) George Pringle (GPE), Ground-source heatpump enhancement \$300,000
 - 2) Helen Gorman (HGES), Lighting upgrade \$50,000
 - 3) George Elliot (GESS), Lighting upgrade \$30,000
 - 4) Glenrosa Middle (GMS), Heating control system enhancements \$100,000.
- By using the Learning Technology Department's Help Desk, employees can provide remote support for any computer in the District, reducing vehicle travel between schools and Hollywood Road Education Services.
- By upgrading the existing gas-fired heating system to a geo-thermal heatpump at Helen Gorman Elementary greenhouse gases were reduced. Third party capital and incentive funding through provincial EEMU Program advanced this project.
- Lighting inventory of all BC Hydro territory school buildings was completed. This inventory list was used to identify and plan for future lighting upgrade projects at Helen Gorman Elementary and George Elliot Secondary. The Energy Manager has applied for energy grants offered by BC Hydro.
- Continually monitoring the Districts utility/energy data to seek out billing and usage anomalies. The schools monthly energy usage is compared against other schools of size and design. Heating and cooling schedules are being optimized to reduce energy waste. High energy usage school are being audited to find the energy savings.
- In collaboration with Heath Promoting Schools, a Sustainability Policy and Regulations will be developed.
- Build on the success of pilot composting projects to implement for the Rutland school area. RSS's composting tubs are servicing as Rutland hub for compostable material.
- Enhance current recycling program to full co-mingling. Beginning with As Matheson Elementary, comingled recycling pilot project was a huge success. Recycling quantities changed from 30% to 55%. Currently we are in the implementation stage of a school district wide comingled recycle program. Diverting waste from Kelowna's landfill supports our waste reduction goal.
- Purchase or convert additional fleet vehicles to CNG (Natural Gas).
- Develop water conservation plan including review of irrigation practices and landscaping standards.
- Continue to upgrade water closets and sink faucets to low flow operation.
- Develop and implement general "green purchasing" policy within Finance.
- Develop an Energy & Sustainability link to the "Health Promoting Schools" website.
- Review AFG plan for sustainability initiatives and rank within a five year plan.

Objectives of Environmental Sustainability Education are to:

1. Develop the foundation for an enduring sustainability education in Health Promoting School communities.
2. Support comprehensive, cross-disciplinary classroom and external learning opportunities related to climate change and sustainability education. KLO's Fascieux Creek Restoration project is great example of the good planning. KLO's Green Community members are working hard to present a comprehensive environment plan for the Board of Education of School District No. 23.
3. Provide educational experiences for students to study climate change, including:
 - o Solar BC's – "Solar School for British Columbia"
 - o WildBC's - dynamic hands-on workshops, learning resources and programs for educators.
4. Assist students in examining how human practices affect the sustainability of populations and ecosystems, including:
 - o impact of land-use decisions, de-forestation, urbanization and agriculture on the environment and living species within School Based Garden Clubs
 - o Recycling Council of British Columbia (RCBC) is a multi-sectoral, non-profit organization promoting the principles of [Zero Waste](#) through information services, how consumption and waste contribute to climate change
 - o natural resource management; water, energy and forests
 - o Participating in Kelowna's Mayor Youth Form 2010. Decisions and actions have an impact on climate change and our ability to adapt to our physical and ecological environment.
5. Use learning resources to empower students and school communities to take action on climate change, and become sustainability messengers
6. Develop comprehensive energy awareness in students about:
 - o where energy comes from; energy systems, the energy system today and in future
 - o how we use energy
 - o how our use of energy impacts natural and human environments
 - o how to make sustainable decisions around energy/natural resource use, from a local, provincial/regional and global perspective

School District No. 23 (Central Okanagan)

Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 6404.8

- 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: **5118.61**. Total offset investment: **\$127,965.25**. Emissions which do not require offsets: **1286.19** **

*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.

School District No. 23 (Central Okanagan) - 2010 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 (as of 12/31/10)	Performance to Date (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							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	10	% of vehicles are fuel- efficient models	1 propane, 2 CNG buses operational - Ordered 11 - 84 passenger CNG school buses	2011: Convert one of two district waste vehicles to NG	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	2	% of vehicles down-sized since start year indicated	Smaller buses used on routes where appropriate	2011: Additional vehicles right-sized as older models sold	2007	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Ongoing regularly scheduled maintenance program, in-house facilities and mechanics	2011: Ongoing, regularly scheduled maintenance	2000	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	10	% of small maintenance vehicles are fuel-efficient	Older buses & service vehicles sold and replaced with newer models	2011: 11 New Natural Gas Buses will be in place for the new school year - replacing the equivalent number of old diesel buses	2003	no End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	90	% of current drivers are trained	Ongoing NRCAN training program to educate new drivers	2011-2013: New drivers trained	2005	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress	98	% of current drivers are trained	Ongoing program with training, signage monitoring and incentives	2011: Continue anti-idling program	2005	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Vehicle and bus pooling encouraged where appropriate	2011-2013: Ongoing	2006	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	20	% Participation	Multiple school programs, bike to school, walk to school, walking school bus, Mayor of Kelowna Youth Forum.	2011-2013: Encourage federal, provincial, municipal programs	2003	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
GPS monitoring of fleet vehicle run time	Ongoing/In Progress	100	% service vehicles, 14 of 75 buses	Ongoing monthly review and reporting	2011: Continue program	2006	No End Date (Continuous)
Diesel multi-stage filter muffler	Ongoing/In Progress	10	% of buses with mufflers installed	10 buses retrofitted	2011: 4 additional buses planned as funding permits	2008	2012
CCV, crankcase ventilation kit	Ongoing/In Progress	30	% of buses with CCV kit installed	Additional buses identified	2011: Additional kits installed as provincial program allows	2006	2011
NGV engine operation and maintenance training	In Development	2	FTE started multi year training	Started training	2011: Training proposed for all mechanics	2009	2013
18 Natural gas refueling stations installation	Ongoing/In Progress	5	% design/construction phase	Design system with Fortis BC	Construction phase to be complete by May 2011	2010	2011
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Completed in 2010			In-house bench mark program installed.		2008	2010
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	70	% of buildings have a real time metering system installed	4 additional schools to real-time electrical metering	Working with BC Hydro and Fortis BC to install smart meters.	2005	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Completed in 2010	100	% of owned buildings have an established energy performance baseline	Baseline established using inhouse utility tracking system; results compared with LEED Pilot Program, Schools		2003	2010
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	In Development				2011: Consider Kelowna Secondary, Rutland Elementary for LEED EB rating	2010	2013
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	1	% of buildings built or renovated since start year indicated used the integrated design process	HVAC, lighting upgrades completed at multiple locations, Solar Panel DHW preheat.	2011: HVAC, lighting upgrades, solar DHW preheat	2002	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	65	% of owned buildings have undergone energy retrofits since start year indicated	HVAC, lighting upgrades completed at multiple locations, Energy Conservation Committee	2011: HVAC, lighting upgrades, solar DHW preheat	2002	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	45	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Mechanical system upgrades at 3 locations	2011: HVAC upgrades, 2 locations	2003	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	65	% of retrofits since start year indicated had lighting systems upgrades	Lighting systems upgrades at 7 locations	2011: Lighting upgrades, 4 locations, lighting control upgrades	2003	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had control system upgrades or adjustments	DDC upgrades, motion sensors, CO2 sensors installed	2011: BC Hydro Continuous Optimization Program	2004	2012
Install an on-site renewable energy demonstration project	Ongoing/In Progress	30	% of retrofits since start year indicated had on-site renewable energy components	Solar DHW preheating, geoexchange at Helen Gorman Elementary	2011: Geoexchange system at Helen Gorman Elementary, solar DHW at Rutland Secondary	2008	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	50	% of computers shut down automatically outside of regular business hours	Used Faronics DeepFreeze shutdown and Windows scheduled tasks to shut down computers.	2011: Implement/install Faronics PowerSave software on workstations which allows central management of shut downs and power management profiles. Will continue installation for all workstations.	2009	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	55	% of servers have been virtualized since start year indicated	Moved physical servers to virtual server environment. Any new servers that could be implemented on a virtual server were.	2011: Continue to move as many existing physical servers and new servers to the virtual environment, mainly in the Data Centre. Due to low bandwidth between schools and Data Centre, schools still need local servers.	2005	No End Date (Continuous)

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	25	% of computers have auto-sleep settings applied	Investigated Faronics PowerSave software.	2011: Implement Faronics PowerSave software on workstations.	2009	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	25	% reduction in printers, copiers, and/or fax machines since start year indicated	Secured a 3 year lease contract for multi-function photocopier/printers to reduce printer numbers as well as print costs. Implemented print/copy tracking software and user quotas to track paper and photocopy/print costs.	2011: Recommend users direct printing to multi-function photocopier/printers to reduce costs. Continue to recommend high-end network printers (when required) over personal printers.	2004	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	90	% of devices have auto-sleep settings applied	Auto-sleep settings applied to new equipment	2011: Setup printers and copiers with auto-sleep settings applied.	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	100	% of computers are ENERGY STAR rated	Lenovo won RFP for purchase of workstations and laptops for 3 years. Products have an Energy Star 4.0 and higher rating.	2011: Purchase Lenovo workstations and laptops. Continue to purchase IBM servers and blades.	2005	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	50	% of fridges are ENERGY STAR rated	Appliances purchased with school funds	2011: Establish standards and practices for appliance purchases	2011	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	50	% of replaced other appliances	Electronic devices upgraded to ENERGY STAR models	2011-2012: Continue to upgrade other appliances	2005	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	In Development	5	% of current staff have completed a workstation tune-up	Training in the area of energy conservation (DC High School Program)	2011: Begin staff training	2010	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Master shut-off switch for computer labs	2011-2013: Ongoing program	2004	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Roll shutters installed at multiple sites, shutters and blinds closed at end of work day	2011-2013: Roll shutters as funding allows	2004	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Destination Conservation program, Energy module	2011: Renewed DC funding and program	2005	No End Date (Continuous)
Encourage use of stairs instead of elevators	Completed in 2010	100	% Keyed elevator call buttons	Completed work		2002	2010
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	20	% of schools with stickers	Schools created sticker templates	More schools involved	2010	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	2	schools with meters	Tracking and metering hot water tank usages	Destination Conservation program, Water module	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Infrared equipment used to detect building envelope heat loss	Ongoing/In Progress	10	% of school completed	Begin heat loss audits	2011-2013: Create more school based heat loss studies	2010	No End Date (Continuous)
Exterior roll shutters installed	Ongoing/In Progress	60	% of facilities with roll shutters installed	Continuation of program to install roll shutters at schools where risk of vandalism is high	2011-2013: Continue program as funding allows	2005	2012
Supplies (Paper)							
Paper Type							

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	17	% of total paper purchased contains 30% recycled content	Paper purchases tendered annually, more recycled material purchased in '09	Review other paper supply options eg. truckload tenders	2006	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development	15	% of total paper purchased contains 100% recycled content		Currently not economically feasible	2012	No End Date (Continuous)
Printer/document settings							
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	In Development				equipment setting	2010	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed in 2010	100	% of staff workstations with software installed	FirstClass email server has shared folders for each work group or employee.		2005	2010
Use electronic document library for filing common documents	Ongoing/In Progress	100	% of HR staff trained	Departments using laser fiche for documents eg. Human Resources	2011: Consider electronic library for Operations, laser fiche	2007	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	90	% online	Electronic system in place	Continually moving documents online	2006	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	95	% of staff currently have received collaborative software training	FirstClass email server has shared folders for each work group or employee.	2011-2013: yearly FirstClass training	2012	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	25	% of staff meeting	Chair of Operations monthly meeting encouraged to go paperless	2011: Paperless meeting challenge	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress	50	% of schools	Scrap paper re-used	2011: Ongoing	2005	No End Date (Continuous)
Other Paper Supplies Actions							
Reduce photocopying Campaign	Ongoing/In Progress	100	% of schools that track photo copy quantities	Network all photocopying equipment to monitor paper consumption for each school	2011: Challenge schools to reduce, track & report results.	2010	No End Date (Continuous)

School District No. 23 (Central Okanagan) - 2010 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 organizations can optionally use this section to report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel							
Policy and budgeting							
Create a low-carbon travel policy or travel reduction goal	In Development			Asking for input	Planning for the future	2011	2013
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	100	% of computers have web-conferencing software installed	Staff are using WebEx, Webinar software	Training staff	2011	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	10	% of meeting rooms have access to video-conferencing equipment	Video conferencing units available at Hollywood Rd Education Centre	additional equipment planned	2006	No End Date (Continuous)
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	25	% of staff are trained web-conferencing	Staff at Hollywood Rd Education Centre	additional training planned	2006	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	25	% of staff are trained in video-conferencing or have access to technical support	Staff at Hollywood Rd Education Centre	additional training planned	2006	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Limit of one out of province trip annually	policy continued	2003	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Car and bus pooling encouraged to district meetings	policy continued	2004	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Students encouraged to walk, ride, roll to school	Walking School Bus Program	2002	No End Date (Continuous)
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			Destination Conservation teams, Energy Conservation Committee in place	Environmental Sustainability Task Force in support of policy	2004	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			teachers, staff, resources support DC	expand DC program	2004	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development				proposed in support of Environmental Sustainability policy #660	2010	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	Ongoing/In Progress			awards, recognition to DC teams, anti-idling program participants	continued	2004	No End Date (Continuous)
Staff Professional Development							

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		staff workshops and teacher Professional Development events	Future: Sustainability Manager and Project Manager to become LEED EB accredited	2002	No End Date (Continuous)
Include green options in employee performance measurement system	Ongoing/In Progress		in place for limited Operations staff	broaden green performance measurement system	2009	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	Ongoing/In Progress		teacher and staff workshops	continued	2005	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		staff and teacher education	continued	2006	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development			proposed in support of Environmental Sustainability policy	2010	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		student education, science curriculum, Mayor's Youth Forum	continued	2004	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	In Development		student education, science curriculum	MoE science curriculum	2005	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		working with Heath Promoting School Committee	proposed in support of policy	2010	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions						
Develop Environmental Sustainability Policy	In Development		2010: Develop a draft policy; develop supporting regulations	2011: Board approve policy; develop supporting regulations	2010	2011
Sustainability link to SD23 website	In Development		2010: Work with SD23 Communications to create link	2011: Work with Heath Promoting School Committee	2010	2011
SD23 Sustainability Conference	In Development		2010: Develop Career Planning Conference,	2011: Career Planning Conference, fall	2010	2011
Other Sustainability Actions						
Water conservation						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress		Water use benchmarking of schools, water meters installed at multiple sites, fixtures and fittings replaced with efficient models, testing chemical free waterless urinals.	irrigation system audits and recommissioning, xeriscaping	2009	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	In Development			further benchmarking, water management regulations	2009	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		ongoing paper, cardboard recycling, some bottle return, waste audits, composting pilot program	full recycling, commingled recycling pilot site, broaden composting program	2005	No End Date (Continuous)
Procurement (non-paper supplies)						

School District No. 23 (Central Okanagan) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Require a minimum purchase of sustainable, and organic food and beverages supplied by contracted food suppliers or caterers	In Development	50	% of the combined total food and beverage purchase (in cost) meets these requirements	review of contracted food suppliers, caterers	review of contracted food suppliers, caterers	2010	No End Date (Continuous)
Building construction, renovation, and leasing							
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress			furniture, equipment and metal recycling	continued	2006	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	50	% of business cases incorporating lifecycle costing since start year indicated	Shannon Lake Elementary Addition built to LEED Silver standards, energy efficient HVAC and lighting equipment installed	geoexchange upgrade to HVAC system, solar DHW system, efficient lighting systems, condensing boilers	2006	No End Date (Continuous)
Indoor air quality							
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Completed in 2010			some low VOC products used on project specific basis eg New Addition Shannon Lake Elementary school	expand the use of low VOC products in new construction and renovation projects	2005	No End Date (Continuous)
Commuting to and from home							
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress			multiple programs for students	encourage staff to participate in programs	2003	No End Date (Continuous)
Other Sustainability Actions							
Service vehicle operators given the option to take vehicle home	Ongoing/In Progress	20	% of service vehicles that start at the first service call.	Given distances between school sites, starting a service vehicle from home reduces travel	continued	2005	No End Date (Continuous)
SMARTTool deployment	Ongoing/In Progress	100	% implemented	Build and test SMARTTool	2011-2013: Use SMARTTool to track emissions for carbon neutral status	2009	No End Date (Continuous)
Commingled Recycling Campaign	Ongoing/In Progress	10	% of school involved	Successful Pilot Project at AS Matheson Elementary	District wide Commingled Recycling Campaign	2010	2011
Battery Recycling Campaign	Ongoing/In Progress	5	% of school involved	Waste audit performed	District wide Battery Recycling Campaign	2010	2011
Second large composter installation	In Development	50	% of high schools involved	Waste audit performed	KSS's Earth Science class to manage new compost equipment	2010	2011
Wind Tubine Installation	In Development	50	% Plan and fund raising	Design of wind turbine	Wind turbine construction	2010	2012
Rainwater capture from a school roof pilot project	In Development	25	% Plan and fund raising	Design for rainwater capture system	Construct rainwater retention for school's garden club	2010	2012