

Coquitlam School District No. 43 –

2010 Carbon Neutral Action Report

Executive Summary

The Coquitlam School District Board of Education has established that climate change is a real concern and as a socially responsible school district we will continue to educate our staff, students, parents and our larger communities on the impact of our behaviour and choices of consumption and conservation. We continue to be supporters of the Climate Action Charter and the targets established in the Greenhouse Gas Emissions Target Act of 2007. Over the past two years we have established a culture of conservations and we are working hard to reduce our carbon footprint through multiple means. The cost of utilities and the impact on the environment is a concern to all operations and management within the District. While some things were approached at the planning stage, and in capital replacements, the biggest impact is seen from sound daily operating practices, and attention to good housekeeping. The energy efficiency efforts do not require compromising indoor thermal comfort or air quality, and have provided the required conditions in the most efficient way possible. Becoming Carbon Neutral in 2010 has forced us to expand our environmentally sustainable practices and move forward with policies and procedures to ensure commitment to sustainable change.

Early in 2009 Coquitlam School District began taking comprehensive action against climate change by promoting environmentally sustainable designs for the future of all schools, students, staff and the community. In 2010 we have continued this mandate and have worked hard to ensure understanding and involvement on the part of our students and employees of the environmental initiatives leading to sustainable behaviour change. The District devoted targeted funds to become carbon neutral in 2010. As part of a larger energy management strategy, Coquitlam School District projected significant reductions to energy consumption by the end of 2012 which are outlined in a district Strategic Energy Management Plan (SEMP). Our goal is to reduce our overall energy consumption by 20-25 % from 2007/08 totals. We are well on our way to achieving that target and have been able to show significant reductions in all areas of energy consumption which has contributed to not only a higher level awareness of the moral imperative, but has returned significant cost savings to the district to support further energy efficient retrofit projects.



Through the work of staff, students and our larger community, Coquitlam School District plans to continue implementing changes over the next three to five years that will address climate change and pursue carbon neutrality through the education, activation and innovation of staff, students and parents district wide.

Our mandate for action continues to be based on a draft policy that will contribute to our overall goals of energy management, carbon neutrality and environmental sustainability. Some of the key objectives in our plans are outlined below:

- 1) To educate students and staff on energy consumption, our carbon footprint and issues of sustainability; the moral imperative, ultimately improving student achievement through ecological and environmental literacy.
- 2) To engage staff and students in *Climate Action* programs of change i.e. reduce environmental impact by minimizing solid waste, and supporting sustainable business and educational practices.
- 3) To integrate environmentally sustainable considerations into all of our business decisions.
- 4) To review and report our energy and sustainability performance in support of energy saving upgrades and maintenance across all facilities in our district.
- 5) To promote innovative designs in the implementation of sustainable facilities planning.
- 6) To develop well represented Climate Action Teams across the District that work closely with our Board of Education and District Leadership Team to ensure we are working together for a sustainable future.

Overviews:

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

Coquitlam School District has been a Power Smart Partner with BC Hydro for several years and participated in a second Energy Management Assessment resulting in continued support of an Energy Manager in SD43. While our Executive level “Green Team” met less frequently in 2010, meeting for BC Hydro Quarterlies and informally throughout the year generated groundswell at the Board level to support further initiatives and the planning processes for comprehensive action to reduce energy consumption and promote environmental sustainability in our educational community.

Our Facilities Department utilized reinstated infrastructure funding for several lighting retrofits and HVAC upgrades in an attempt to increase efficiency and reduce energy costs. Three boiler plant upgrades were

completed in three elementary schools in 2010 and 2 complete HVAC upgrades were completed and commissioned during this past year. Gym lighting upgrades on 15 elementary schools, one Secondary and 4 Middle Schools were completed as well. The New Glen Elementary has been demonstrating a high level of energy efficiency in its first full year of operation.

Monitoring and measuring the efficiency of our centrally controlled heating and ventilation systems continued to be a focus for our Facilities and Maintenance Departments in an attempt to reduce the consumption of natural gas and to provide balanced systems in a variety of structures and school buildings across the District.

Design plans for 5 new or replacement schools were well underway in 2010 with all schools pushing to achieve



LEED Gold or higher. Conversations involved innovative approaches to sustainable design practices and exciting new learning opportunities in each of the new buildings.

Education and behavioural change campaigns were a significant consideration for the district throughout 2010. Schools worked with BC Hydro on several different educational programs such as Energy Detectives, Energy Campaigns, Energy Ambassadors, BC Hydro Energy Challenge and the Power the Games Tour that promoted students, energy conservation and the 2010 Olympics.

More student leadership or “Green” teams from several schools took on Climate Change as their goal for the 2010/2011 school year. Results of their efforts are difficult to benchmark at this time as far as energy consumption and carbon emissions reductions are concerned, yet the ground swell that has begun is rewarding in and of itself. School and Community Sustainability Gardens continued to be an exciting new opportunity to engage students and educators in several schools across the district. Pictured above are students from Scott Creek Middle School in Coquitlam preparing their new garden project as one of their project based learning opportunities. New and more robust recycling programs came out of the efforts of student



leadership teams at all levels K – 12 in the District.

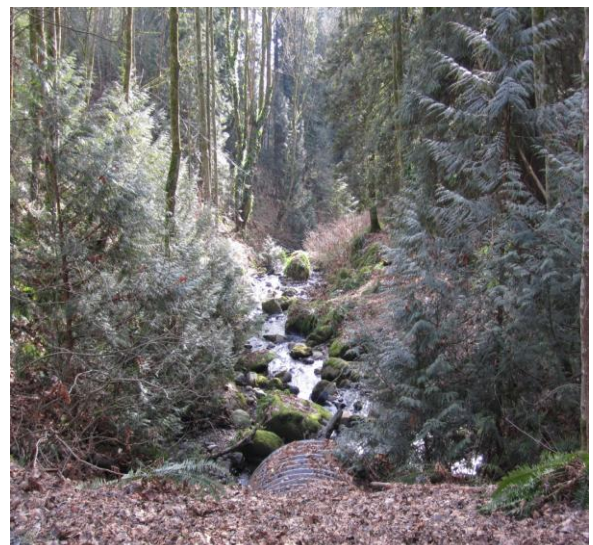
Through education, activation and innovation several schools implemented “Zero Waste” campaigns and initiatives as part of our larger Metro Vancouver Region’s planning for municipalities. Students presented to four of our five City Councils to request support for improved recycling services for schools. Implementation of higher level recycling and green waste pickups for schools began in cooperation with the Facilities Departments of the School District and our local Municipalities as well as private vendors providing service to the school district.



Students from several different schools across the district looked at project based learning concepts to tackle environmental stewardship issues. One in particular was the *Stewards of Booth Creek* project at Montgomery Middle School. This was a project based learning unit built around the following driving question: “How can we help the **community understand, appreciate, and protect** an important aspect of the Booth Creek ravine environment?”

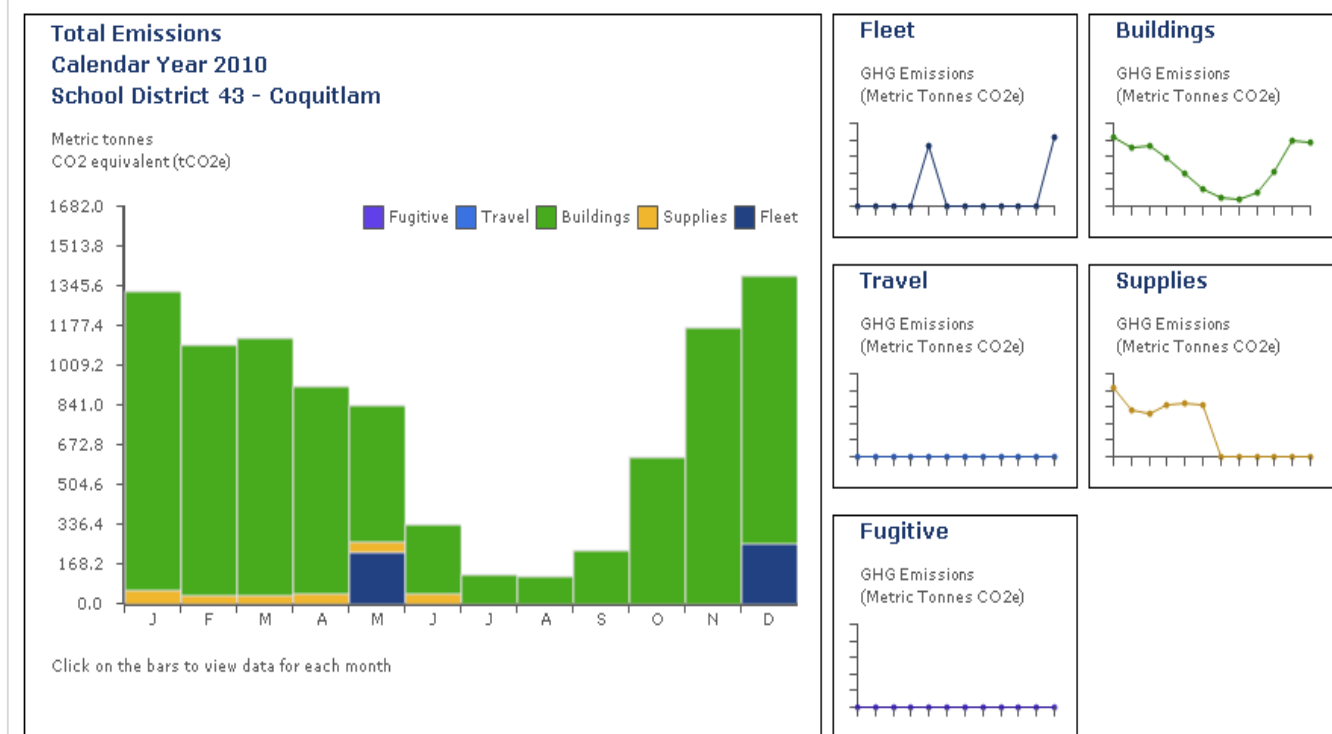
Students formed research teams based on interest and produce a web-based digital resource for the community that will accomplish the aforementioned goals (see bolded words). The project’s impact on the community will be shared using digital resources to parents and students at a science fair and also promoted through local media and flyers (with website address) distributed to homes near the Booth Creek Ravine. The project is a student directed community supported project soliciting support through the *Watershed Wise Program*.

A district Energy and Sustainability website, [“Our Green Future”](#), is there to support the collection and transfer of information to all schools and to provide a repository for climate action initiatives. Regular updates and initiatives were communicated through the Manager of Energy and Sustainability with the support of the Manager of Communications and Corporate Services. Environmental campaigns and initiatives were supported with small grants to schools actively engaged in reducing their carbon footprint at



Energy Reports and quarterly paper consumption reports were provided to schools throughout the year. The District embarked on overall print strategy that is being rolled out thoughtfully with feedback from all users across the district. This is also lining up with the new procurement of multifunction print and copy machines in at all levels. Our new approach is to help all District staff understand that “printing is no longer meant to be convenient”. It is believed that there will continue to be a need for print, and we recognize as a district that we can shift our behaviour to be more conservative with our paper and print consumption. As the use and capacity of our web technology platform *MY43* expands, and a plan to expand bandwidth across the district, more and more teachers, staffs and schools are going to paperless newsletters and notices, as well as creating virtual classrooms and online homework and discussion boards, to reduce our paper consumption.

The following table indicates all greenhouse gas emission for the Coquitlam School District Number 43.



It was estimated that stationary fugitive emissions from cooling do not comprise more than 0.01% of the Coquitlam School District'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 Sd43's total greenhouse gas emissions profile.

Totals Calendar Year 2010, School District 43 - Coquitlam

	Measure	Quantity	Greenhouse Gases in Tonnes				
			CO ₂	BioCO ₂	CH ₄	N ₂ O	tCO ₂ e ¹
Scope 1 (Direct) Emissions							
Mobile Combustion (Fleet)	Litres	204,845.90	455.12	14.81	0.03	0.05	485.30
Stationary Combustion, Reported ³	GigaJoules	159,989.76	7,999.49	0.00	0.16	0.14	8,047.49
Scope 2 (Indirect) Emissions							
Purchased Energy, Reported ³	GigaJoules	81,213.78	560.38	0.00	0.00	0.00	560.38
Scope 3 (Business Travel and Office Paper) Emissions							
Office Paper	Packages	43,360.00	296.72	0.00	0.00	0.00	296.72
Total Emissions, Calendar Year 2010			9,311.70	14.81	0.19	0.19	9,389.87
Carbon Neutral or Offset Exempt			32.79	14.81	0.00	0.00	48.07
Total for Offsets			9,278.91	0.00	0.18	0.19	9,341.80

Offsets Applied to Become Carbon Neutral in 2010

Offsets were applied to become carbon neutral in 2010 as shown by the table below.

Period(s) covered by this purchase:

Quarter:	Q1	Q2	Q3	Q4
Dates	January to March	April to June	July to September	October to December
Estimated /Actual Emissions (tCO ₂ e)	3580.14	2111.86	476.29	3173.52
Price per Tonne	\$25.00	\$25.00	\$25.00	\$25.00
Sub-Total	\$89,503.50	\$52,796.50	\$11,907.25	\$79,338.00
HST @ 12%	\$10,740.42	\$6,335.58	\$1,428.87	\$9,520.56
Total Due	\$100,243.92	\$59,132.08	\$13,336.12	\$88,858.56
Payment Date	31/03/2011	31/03/2011	31/03/2011	31/03/2011

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Plans for future reduction of Greenhouse Gas Emissions will continue to focus on the moral and economic imperatives. We will *educate* our students, staff and parents. We will facilitate *action* and promote *innovation* leading to sustainable behaviour change across our larger community.

As part of our overall strategy to reduce our GHG emissions, Coquitlam School District will sharpen the focus on energy management and environmental sustainability for the next 2 to 3 years. With the support of the BC Hydro Energy Management program our goals to reduce our energy consumption will align with measures to be determined by end of April 2011.

Facilities and Maintenance will prioritize HVAC and lighting upgrades that contribute to more energy efficient buildings and better learning and working environments for the students and staff across the District. As the design process for our five new schools progresses, the District will consult with energy modellers to ensure all of our new buildings perform at optimal levels of energy efficiency and sustainability. Innovative design principles will be considered throughout the design process as partner groups, District Leadership and the community provide feedback as to the future of 21st Century Schools. The BC Hydro Continuous Optimization Program will be undertaken for several of our larger school sites over the course of the next 2 to 3 years to optimize building performance and systems efficiency.

Environmental education and sustainable behaviour change will continue to be one of our key focuses over the next three years as we attempt to shift paradigms and create a systemic approach to climate action, carbon neutrality and environmental responsibility. BC Hydro Education programs and teacher designed curriculum embedded across K-12 courses at all schools will be paramount to the success of our efforts. Project based and personalized learning opportunities lining up with our sustainability initiatives will be promoted and supported by district personnel and our Staff Development Department. District, school and classroom presentations, fieldtrips and workshops will continue to capture the importance of our task ahead. Incentive programs for schools and staffs will be considered to highlight the imperatives before us. Regular and targeted communication across the District to actively promote and celebrate all that we do towards reducing our carbon footprint will continue with

strategic purpose. The District is counting on behaviour programs of environmental climate action to truly make the difference and reduce energy consumption levels by 20 to 25 % by 2012. It is a lofty goal for a District our size and we are confident that with the right level of executive support and the energy of the students and educators in the District we will far surpass our goals over the next three to five years. In the end the moral imperative is the one that counts. It is clearly the responsibility of the education sector to be leaders for this sustainable change.



Richard Humphreys

Secretary Treasurer,

Coquitlam School District No. 43



Tom Grant

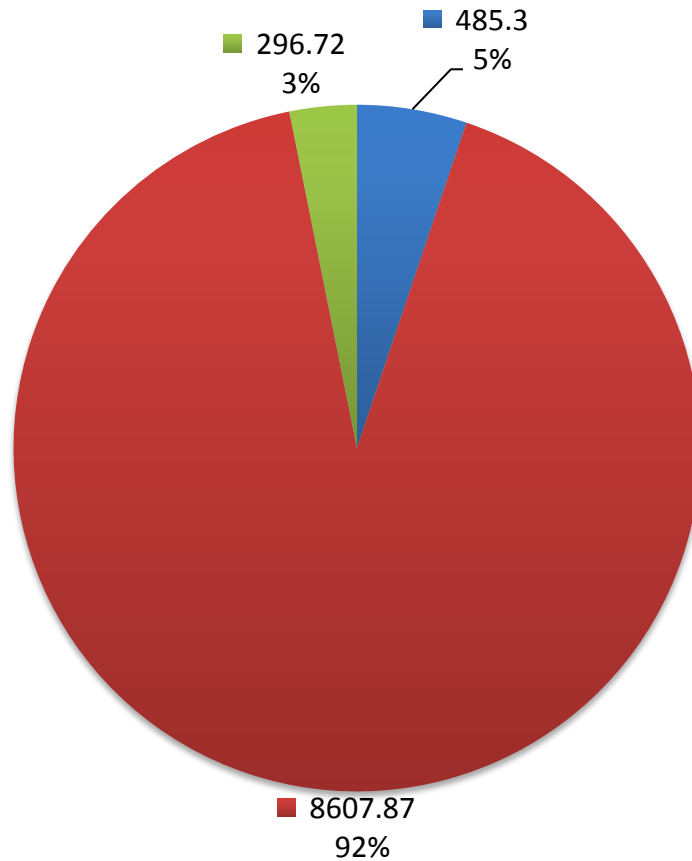
Superintendent of Schools,

Coquitlam School District No. 43



Coquitlam School District No.43

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



Total Emissions: 9389.89

- 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: **9341.82**. Total offset investment: **\$233,545.50**. Emissions which do not require offsets: **48.07** **

*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.

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Actions Towards Carbon Neutrality							
The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the <i>Greenhouse Gas Reduction Targets Act</i> .							
Action	Status (as of 12/31/10)	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	In Development	2	% of vehicles are fuel- efficient models		Assessing fleet and downsizing where necessary. Over past three years we have decommissioned three vehicles. Will continue to look at options for purchase of more fuels efficient or hybrid vehicels for certain maintenance shop requirements.	2007	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	In Development	2	% of vehicles down-sized since start year indicated		Assessing fleet and recommissioning where necessary. Reviewing job descriptions for larger vehicles and reviewing need for larger vehicle deployment.	2009	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	Introduced in summer 2009 and carried out throughout 2010 school year. Regular monthly checks that include routine air filter and tire pressure checks.	Summer 2010 for yearly review. Practice updated on a needs basis.	2007	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	In Development	0	% of small maintenance vehicles are fuel-efficient		Will be looking into replacement of redundant or older vehicle models with some form of hybrid or fuel efficient vehicle. Consider perchase of electric grounds equipment to reduce fuels consumption and greenhouse gas emissions.	2010	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	In Development	75	% of current drivers are trained	Maintenance staff engaged in minimum training and outlining of professional expectations to reduce fuel consumption. Net reductions in fuel costs, or rather in consumption, will be a determining factor for success of this campaign.	Continuous training and staff development involving new procedures and best practices.	2009	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			All schools were asked to report back in a survey as to how they have attempted to reduce idling at their specific sites during the 2010 / 2011 school year.	more comprehensive push to raise awareness of anti idling. Educate on the impact of idling vehicles at allof our school district sites.	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	In Development				Some school sites are taking on own initiatives and Board Office is always being encouraged to carpool to meetings where they can.	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Maintenance vehicles and drivers encouraged to carpool to common worksites from Maintenance shop. Board Office Staff encouraged to carpool.	More awareness campaigns and district level challenges for alternative froms of travel to and from meetings.	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			Engaged some sites in piloting of Hybrid Coquitlam model of benchmarking program using data supported thrghouh Utility Manager Software Program and SD43 Sharepoint Platform MY43	The "Greenin of Coquitlam SD43" moving our Hybrid program forward in form of checklists based on our moniker of Educate Activate Innovate. Schools and district facilities will have an opportunity to enage in incentive earning activities based on projects under these three categories. Green Up will also be considered if it is deemed as a more viable and coast effective option.	2010	2012

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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
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	25	% of buildings have a real time metering system installed	Process to engage in the program and guarentee funding was undertaken throughout the 2010 year. Government funding implications restricted moving forward until the 2011 year.	BC Hydro Continuous Optimization Program will be moving forward in 2011, installing pusle meters at 15 of our larger secondary and middle schools	2010	2013
Owned buildings							
Establish energy performance baseline for owned buildings	Completed in 2010	100	% of owned buildings have an established energy performance baseline	All sites have several energy performance baselines as outlined in our Strategic Energy Mangement Plan. Our key metric is energy per square meter. We also consider hours of occupation at each site and differentiate energy consumption across levels and other district facilities. Our main consumption data is dissegregated through our Utility Manager software program.		2009	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development				5 new schools coming on line in the years between 2012 and 2014 all of which will achieve LEED Gold certification or higher	2010	2013
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress			Design process for four of fice new schools to be built in SD43 began in 2010. Several seismic projects were completed as well. Plans for additions to two schools and additions of modular buildings to accommodate Full Day Kindergarten were implemented in 2010. All building projects considered an integratd design process as they engaged school, district and consultants in the design process and plans for completion.	All new buildings built over the next 5 years will undergo a holistice approach to energy modelling and sustainable designs. All new buildings wil be collabaratively designed thrghouh a process utilizing district staff, partner groups and selected consultants.	2009	2013
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	30	% of owned buildings have undergone energy retrofits since start year indicated	Energy Studies completed at several sites to establish priorities for holistic energy upgrades to one secondary and several elementaries should funding become available from the Ministry.	1 Secondary school, 3 elementaries and 1 or 2 middle schools are currently looking at designs for whole buildign energy upgrades.	2008	2012
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Design for 3 elementary school HVAC upgrades was completed and pahse one high efficiency boiler upgrades were completed. 2 more elementary school full HVAC upgrades were completed in the 2010 year.	Completion of 3 Elementary school HVAC upgrades. Design and completion of 1 Secondary HVAC upgrade and several middle schools are under consideration in our Facilities Capital Plan.	2010	2013
Upgrade lighting systems during retrofits	Ongoing/In Progress	50	% of retrofits since start year indicated had lighting systems upgrades	4 Secondary, 5 Middle and 15 Elementary schools had part of full energy retrofits in the form of gym lighting or whole school lighting retrofit or redesigns.	1 Secdondary, 2 Middle, and 10 Elementary schools are being considered for full lighting redesigns. Removal of all T-12 fixtures is also a priority at all sites in the next two years.	2008	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had control system upgrades or adjustments	Major Seconday school lighting project completed that included updated controls. Some lighting controls upgrades in smaller projects. DDC upgrades for HVAC systems in 4 Elementary schools, 2 Middle school and 1 Secondary schools.	DDC Control upgrades on 6 Elementary sites. Recommissioning of energy and control systems on 15 of our larger sites through BC Hydro's Continuous Optimization Program. HVAC upgrades on 3-5 schools will include recomissioning or actuall upgrade of DDC controls.	2009	2012
Install an on-site renewable energy demonstration project	Ongoing/In Progress	4	% of retrofits since start year indicated had on-site renewable energy components	Solar PV cells installed at 1 Elementary school as a demonstration and to supply energyt to a drip irrigation system also powered by a class made wind turbine. Solar PV cell design and education at another Elementary school is still ongoing.	All new designs for our 5 new building have in the plans an educational feature for renewable energy source. Several other schools are engagin in educational activities to design their own renewable energy source as part of a project based learning objective.	2009	No End Date (Continuous)
IT power management							
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	30	% reduction in printers, copiers, and/or fax machines since start year indicated	Print Strategy in Progress	Implementation of multi-function print copy devices in support of our overall Print Strategy	2010	2012

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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 printers, copiers, fax machines, and/or multi-function devices	Completed in 2010	100	% of devices have auto-sleep settings applied	All machines set for auto-sleep.		2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	75	% of computers are ENERGY STAR rated	As part of our on-going computer replacemet program, all computers purchased must be Energy Star or equivalent whether new or pre owned.	Continue to purchase Energy Star or equivalent new and preowned computers through our computer replacement program.	2007	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	In Development	30	% of fridges are ENERGY STAR rated		Draft and implement sustainable purchasing and procurement practices to support overall energy and sustainability policy. Audit all domestic refridgeration units in the district to determine a conservation and reduction plan.	2009	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	In Development	30	% of other appliances or larger electronic devces are ENERGY STAR rated		Draft and implement sustainable purchasing and procurement practices to support overall energy and sustainability policy. Audit all domesticappliances in the district to determine a conservation and reduction plan.	2009	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	In Development	40	% of desk lamps and workstations lamps are CFL or LED		Draft and implement sustainable purchasing and procurement practices to support overall energy and sustainability policy. Education and awareness activities at all sites are on going to promote energy conservation and redutation across the district.	2009	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	In Development	50	% of current staff have completed a workstation tune-up		Education and awareness campaigns and incentive challenges planned.	2009	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Updated reminders about "Phantom Power"	Regular reminders and conservation tips out to all staff district wide.	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Education on what the possible energy losses are and how the little things can make a big difference.	More education and reminders around the "little things"	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Education on what the possible energy losses are and how the little things can make a big difference.	More education and reminders around the "little things"	2009	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Provide options for powere save strips and offer information to reduce power consumption at work stations, in particular about "phantom" power and energy waste. New lighting and sensors installed at Board Office.	Continue with information campaigns that promote conservation. Office and school challenges to reduce consumption. The "Greening of Coquitlam School District"	2009	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Not many elevators in District	Education	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Individual school campaigns, district wide energy conservation messages, poster and sticker campaigns.	Education, Activation, Innovation. The Greening of Coquitlam School District.	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Education on what the possible energy losses are and how the little things can make a big difference.	More education and reminders around the "little things". Possible solar hot water heating in new design for schools. Education on how this makes a difference.	2009	No End Date (Continuous)
Supplies (Paper)							
Paper Type							

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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	Completed in 2010	70	% of total paper purchased contains 30% recycled content	Reviewed procurement practices and established practice with new vendor to purchase only 30-100 % post consumer recycled paper		2010	2011
Purchase 100% post-consumer recycled paper	Completed in 2010	30	% of total paper purchased contains 100% recycled content	Reviewed procurement practices and established practice with new vendor to purchase only 30-100 % post consumer recycled paper		2010	2011
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	25	% of network printers or photocopiers are set to automatic double-sided	Schools experimented with copy / print settings to reduce paper and print consumption.	Schools will be continue to monitor print and copy comsumption and our district wide Print Strategy will inform high volume users how they can reduce consumption. RFP out for new multi funciton devices that will be in support of our overall print strategy which states "Printing is no longer meant to be convenient".	2009	2013
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress	15	% of network printers have 'print and hold' settings applied	Schools experimented with copy / print settings to reduce paper and print consumption.	Schools will be continue to monitor print and copy comsumption. RFP out for new multi funciton devices that will be in support of our overall print strategy which states "Printing is no longer meant to be convenient". Print and hold settings will be part of our overall request for monitoring and manging our overall print copy consumption.	2010	2013
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	In Development				Steps to reconfiguree margins and print settings on all documents will be part of the overall "Print Strategy" SD 43 is undertaking over the next 2-3 years.	2010	2013
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	MY43 Sharepoint platform for all departments to use for common forms and documents	Continue promotion and use of MY43 for all departmental documents and on line district services for employees.	2008	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	85	% of general school and district wide documents stored on-line in MY43 Sharepoint Site	MY43 and School based Sharepoint services for websites nad information. Promote the use of sharepoint for all communication from schools and Board Office. Leave of Absence formswere made available all be on line. 70% of schools distribute newsletters through their Sharepoint sites.	Board materials previously printited will all be distributed through our My43 Intranet web platform.	2008	2010
Post materials online that were previously printed	Ongoing/In Progress	75	% of schools publishing newlsetters on-line	Schools communicated events and school functions through electronic newsletters and promoted classroom print material to be sent home elctronically or stored in classroom based repository for documents.	All schools will use only electronic newsletters. Calsrooms will continue to promote virtual notice boards and common e-spaces for document submission and retrieval within the school and larger parent community.	2007	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			All admin staff and Board Office Staff receive electronic copies of pay stubs. Teachers and CUPE began conversatioasn to do the same.	All staff district wide will receive only an electronic copy of pay stub except in certain situations, as outlined between employee and HR Department.	2008	2012
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	100	% of staff currently have received collaborative software training	Implementation of Sharepoint and on-line collaborative tools have been in place for several years in SD43. Continued expansion of our capacity and pilots of paperless classroom pilots, paperless meetings and business practices were implemented in 2010.	More capacity building with online sharepoint tools and a plan to increase bandwidth to ensure our expansion is not met with frustration. Overall district Print Strategy is being rolled out in 2011 to limit paper and print consumption. "Printing is no longer meant to be convenient", is the current statement of value as we move forward.	2010	No End Date (Continuous)

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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
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Many individuals, schools, and departments within the school district held paperless meetings on a regualr basis. The Board of school Trustees were all provided with Laptops in a move to promote paperless Board Meetings. Paper agendas and Board Meeting packages were limited and paper consumption was considerably down. Most schools have moved to electronic newsletters and memos.	Our district Print Strategy will provide paper and print consumption information to all schools and departments to promote conservation. Education, Activation and Innovation will be in constant promotion.	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Education and conservation reminders to all staff throughout the year.	More education and conservation reminders. Zero Waste Strategies are highlighting reuse principals and reduction of indiscriminate paper usage.	2010	No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability							
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the <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 (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	Ongoing/In Progress			Where possible encouraged travel planning for Board Office Staff and encouraged car pooling at all office and school sites. Travel planning and walk to school campaigns were ongoing throughout the year to line up with special events and environmental initiatives going on at individual schools sites. Walk to school week in October once again generated interest at the District level. Policy implementation was considered as part of the overall sustainability policy planning.	The District Board Office will lead by example, carpooling to common meeting events and attempting to encourage Live meeting for some district leadership meetings.	2009	No End Date (Continuous)
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	100	% of computers have web-conferencing software installed	District continued to promote live webcast viewing for professional development activities. At the District level and in some school settings we were able to piloti web conferencing for weekly administrative meetings, interschool web conferencing, Board Office webcasts and videos to report administrative procedures were attempted, rather than bringing all administrative staff to a central location.	Continue to promote use of live media and offer training to support the professional growth of all district employes in this area. Web conferencing infrastructure installment will continue to be addressed during IT and 21st ccentury learning conversations.	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	50	% of staff have access to a desktop web-camera	A high percentage of laptops devicves rolled out to schools had web / vidoe camera capacity. Desk top web cameras were purchased on a school by school basis and were installed to encourage use of video conferencing and on going live media professional development.	All staff will have access to web cameras in some capacity over the next several years. It will be imperative that once we establish new opportunities with increased bandwidth, that professional development activities support the learning and use of these media tools. Many more opportunities to engae in professional development activities will come about as a result of web cameras and live meetings.	2009	2013
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	In Development				Currently laptops and web cameras are being used to utilize live video conferencing. The district office phone systems allow for video conferncing. Roll out district wide of the current phone system is up for analysis as we are determining the bandwidth required to support the current proposed phone vidoeo conferencing system.	2010	No End Date (Continuous)
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	60	% of staff are trained web-conferencing	Opportunities to engage in online webinars and interactive professional development sessions throughout the 2010 year.	More Opportunities to engage in our online community and the larger educational community across Canada and the world.	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	30	% of staff are trained in video-conferencing or have access to technical support	Opportunities to engage in online webinars and interactive professional development sessions throughout the 2010 year.	More Opportunities to engage in our online community and the larger educational community across Canada and the world.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Held several district meetings and occasional professional development virtual opportunities throughout the year.	More Opportunities to engage in our online community and the larger educational community across Canada and the world.	2010	No End Date (Continuous)

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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
Encourage carpooling to meetings	Ongoing/In Progress			Education and promotion across all levels of district.	Education, Activation, Innovation	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Education and promotion across all levels of district.	Education, Activation, Innovation	2009	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			Executive level Green Team consisits of several members of our management and District Leadership team. A teachers Environamental LSA was established to represent teacher environmental initiatives throughout the district. Student Green teams are inplace either formally or informally at most of our school sites.	More comprehensive definition of Green Teams across district, to establish common expectations and support structures. District draft policy will be finalized to support environmental sustainability, energy conservation and good resourcee management in all sites and across all partner groups.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			District Principal of Energy and Sustainability continued to promote education, activation and innovation in support of what was already happening in schools. With support of the Staff Development Department, District Leadership, and Facilities staff, some resources were made available to finance and incents environmentally sustainable actions across the district. Green grants were provided to schools engaging in environmental projects at their sites, as part of a partnership with Envision Financial and the School District. Principal of Enrgy and Sustainability made presentations to staff and students highlighting the big picture on climate change, and the district's climate action initiatives.	Engage Fortis BC in conversations regarding the Energy Specialist Program, as Sd43 was not able to take advantage of the program last year. Engage with teaching staff to create curriculum for integration into all classrooms K-12. Continue to provide small grants to promote environmental sustainability initiatives in all schools across the district. Principal of Energy and Sustainability will continue to provide inservice for staff and workshops for students and schools.	2009	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress			Behavior change programs offered in schools and for district staff. Patnership with BC Hydro to facilitate programs and work with teams of studetns across all levels throughout the district. Workplace conservation programs provided for staff in different positions.	Conprehensive workplace behavior programs continue into the 2011 / 2012 school year for schools and support staff. Working with BC Hydro to develop the best program to meet the needs of a large district. Conservation awareness programs will be ongoing in schools through school wide presentations, classroom workshop[s and curriculum implementation. Parents will be invited to support schools based education and awareness campaigns through their PAC groups. Community members will be invited in to share their expertise in all areas of energy management and environmental sustainability. All schools will participate in some form of behavior change programing each year over the next three years. This may include but is not exclusive to events such as Earth Hour, Power Smart Month, Earth Week, Walk to School Week, and many other opportunities offerd on a individual school and district levle.	2009	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	Ongoing/In Progress			The "Greening of Coquitlam SD43" was initiated in 2010.	The "Greening of Coquitlam SD43" was initiated in 2010 and will be implemented throughout the 2011 year. Incentives to schools and district facilities for Education, Activation and Innovation projects will be rolled out.	2010	2012
Staff Professional Development							

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Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			Created a Green LSA to support professional development amongst teachers in the distirct. Offered environmental workshops at district professional development days. Participated in BC Hydro sponsered power smart events and workshops promoting energy conservation.	Will continue to provide training and opportunities to participate in workshops that support energy conservation and ideas about sustainability in schools. Will provide technical training to Maintenance and Facilities staff members to manage our energy systems more effectively. Will plan environmental professional development workshops for teaching and support staff across district.	2009	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the science of climate change	Ongoing/In Progress			Providied some inservice to staffs at staff meetings lunch and learns and professional develoment days. Schools engaged in learning activities with their students at all different levels and across the curriculum in a number of schools. A majority of schools in some form recognized the science of climate change and integrated this knowledge into their curricular or extra curricular activities.	Invitations for departments across the dfstrict to participate in professional development activities outlining the impact of negative environmental choices and the inportance of behavior change for a more sustainable future.	2009	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress			Resource management was taught to students throughout many different levels of the curriculum. Stats were provided to several school requesting information on consumption of water and energy. This information was provided on a facility by facility basis. Schools took on their own education of staff and students through excercises or environmental campaigns, theme weeks. and project based learning opportunities.	Professional development opportunities to learn about the impact of waste and to promote conservation. Student and school campaigns to reduce waste and the consumption of water, energy and paper, will be supported through the District Office and distributed to all staff outside of the classrooms. The Greening of Coquitlam SD43 will be a comprehensive part of all of our conservation efforts. Schools will engage in multiple activities under the umbrella of Educate, Activate, Innovate to keep the momentum going. Project based learning will be a key component to the success of our conservation awareness camapaigns.	2009	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress			Green tips were distributed to all staff through out the year and staff were encouraged to include in monthly newsletters and on websites. District Environmental Sustainability Website "Our Green Future" was launched as a reference for schools and the community. All schools participated in providing information on environmental sustainability to their larger communities.	All schools will have a direct link on their school website that highlights "Our Green Future" a public site with Intranet capacity to engage educators in Sd 43 in conversation about energy and sustainability. Teachers across the district will contribute to a repository of environmental sites, learning activities and project based learning opportunities that build on our mandate to Educate, Activate and Innovate for a better future.	2009	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress			Educate Activate Innovate was distributed district wide and sustainability initiatives were discussed regularly at Board meetings and school and district staff meetings	More Education and sustainability workshops information sessions and public conservation awareness campaigns.	2009	No End Date (Continuous)
Client/public awareness/education							
Provide education to clients/public about the science of climate change	Ongoing/In Progress			Individual school education in class and whole school assemblies.	Educate Activate Innovate awareness campaigns at both district level and school based.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress			Initiated public conservation awarenes and sustainability initiatives with community across all of our municipalities and general community across our district.	More Education and sustainability workshops information sessions and public conservation awareness campaigns.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress			Education on district websites at school level intranet sites, electronic newsletters and district websites.	More Education and sustainability workshops information sessions and public conservation awareness campaigns.	2009	No End Date (Continuous)
Other Sustainability Actions							
Water conservation							

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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
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	In Development				All five new schools scheduled to be built in the next three to five years will consider water efficient faucets and toilets as part of the LEED program. Maintenance will continue to address criticla issues of water waste as we monitor each site's consumption levels on a monthly basis. efficietn water fixturesz will be considered for purchase as part of our sustainable procurement practices.	2010	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress			Current practices were cosidered to reduce potable water consumption and waste. All landscape features are considered to be hearty and self suffucient and require limited watering. Playing feidls requiring watering are out of our scope of water use.	All five new schools scheduled to be built in the next three to five years will consider water efficiency as one of our priority in design. All landscaping design will be done wiht hearty self sufficient plants in mind including living green roof designs.	2010	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	In Development				All five new schools scheduled to be built in the next three to five years will consider storm water management as a high priority as required througih code and the LEED program. Living green roof features and a variety of landscaping options will be proposed to support the highest levels of natural stormwater management on all 5 of our new building sites. Bioswales, permeable pavers, natural rain gardens, and featured learning gardens are all being considered as truly viable options for sustainable site designs.	2010	No End Date (Continuous)
Waste reduction/diversion							
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress			Continued Zero Waste Campaign in several schools as pilot projects and promoted the program district wide. Inidividual school contingents presented to all of our City Councils to cooperate on reducing our building occupant waste. Coordinated and supported 4 or 5 elementary school pilot projects to raise level of recycling and waste diversion. Middle School "Zero Waste" Campaign pilot in cooperation wiith the City of Port Coquitlam was a huge success demonstrating solid waste diversion rates at both Middle schools of upwards of 80 % within 3 months. More schools expanded their resource management program across the district. City of Port Coquitlam is now providing full resrouce management of recyclables and organics to 12 schools in our District and City of Port Moody is providing service to 5 or 6.	Continue to work towards maximum diversion of solid waste to landfill through comprehensive "Zero Waste" campaigns. Our goal will be to meet our 75 % waste reduction goals over the next 2-3 years in 60 to 70 % of our schools. Cooperation with Metro Vanvcouver and our Municipalities will be the key as we have limited financial resources to facilitate the shift.	2009	2013
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			Adopted draft language into our Administrative Policies and Procedures to support sustainable practices across the district. Individual schools purchase supplies in many different ways and the district attmpted to monitor and educate all staff at schools to consider sustainable purchasing practices.	Continue to promote awarenes for sustainable product purchasing. Include significant environemtal consdieration into any RFP process for suppliers.	2009	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			Purchasing and procurement draft language was developed and adopted to support green standards for furniture and equipment procurement.	Continue to promote awarenes for sustainable product purchasing of furniture, floor coverings and infrequently replaced equipment. All potential suppliers will have to undergo product scrutiny in the process of procurement. "Green" products will be considered of higher value as we move forward with our procurement practices.	2009	No End Date (Continuous)

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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	10	% of the combined total food and beverage purchase (in cost) meets these requirements		As part of the overall sustainable procurement strategy and practice, SD43 will encourage food services to purchase as much organic and sustainable food products for all schools with cafeterias and cooking kitchens. AS schols enage in community gardens they will ustilize some of their organics produciton to support our goals of sustainable living.	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			New elementary school building and several seismic upgrades to schools considered diversion and waste management of materials in accordance with the Canadian Green Building Council's LEED standards on materials and resources.	All new building construction is required to meet minimun LEED Gold standards. Construction waste management, use or recycled content, regional materials and certified wood are all consideration within design plans for schools and seismic upgrades. LEED EB will be considered for future plant and facilities upgrades over the course of the next 5 years as part of our Capital Plan.	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	100	% of business cases incorporating lifecycle costing since start year indicated	All new construction projects, lighitng redesigns, HVAC upgrades, seismic upgrades and minor renovations have taken into account life cycle costing as a determinant for projects moving forward. Several projects	Continue to consider LCC for all new construction projects, lightitng redesigns, HVAC upgrades, seismic upgrades and minor renovations as we establish business cases for our 1 -3 and our 5-10 year capital planning proposals.	2009	No End Date (Continuous)
Indoor air quality							
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress			Scent-free awareness policy or programs in place at 35 % of our schools and facilities, as well as at our District Board Office.	Continue to promote and enforce scent free or scent aware programs across district with the goal to ahve all schools and facilities working towards actions that would support a scent free or scent aware environment that enhances the current learning and working conditions.	2008	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress			Low VOC paints, carpets, furniture floor tiels and coverings have been part of our purchasing policy for past few years. Both indoor and outdoor painting projects on all schools use low VOC paints.	Continue to purchase low VOC products for all facilities upgrades and in al of our new school designs. Establish higher standards for use of low VOC products in our new purchasing and procurement policies and procedures.	2008	No End Date (Continuous)
Commuting to and from home							
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress			100 % of our schools actively promote walking, biking, carpooling or bussing to school for the student population. Many staff members are required to have their vehicles as part of their work requirements.	Will promote more comprehensive campaigns district wide during several walk to school weeks or days throughout the year. Will implement staff transportation campaign on a site by site basis to encourage more staff to walk, bike, carpool or bus to thier worksite. The Distict Board Office will engage in a promotion campaign at least twice a year to model healthy communiting practices to their places of work.	2009	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress			Many exhistng schools have minimal shower and locker facilities for staff use when commuting by foot or by bicycle. No new upgrades undertaken in 2010 to imporve this situation.	New and replacement school construction will consider staff shower and change facilities to promote healthy lifestyles and opportunities for better commuting practices.	2010	No End Date (Continuous)
Provide secure bicycle storage	In Development				All new buildings will consider secure bike storage as part of the LEED requirements.	2010	No End Date (Continuous)