



**Denise P. Perry**  
Superintendent / Secretary-Treasurer

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School District #10. Arrow Lakes  
Ministry of Education

Denise Perry  
Superintendent/Secretary Treasurer

Carbon Neutral Action Report  
Executive Summary:

School District No. 10 ( Arrow Lakes) is a small rural dispersed district in the province with seven (7) buildings of varied ages and size that it maintains, nine (9) busses in the fleet, six (6) gas driven passenger and or small cargo vehicles, three (3) grounds maintenance machines and one hundred and sixty (160) computers, forty-two (42) laptops, eight (8) servers. Efforts to improve energy efficiencies and energy consumption in the buildings, bussing, small cargo and passenger vehicles have been implemented and continue to be implemented. Building refits to include energy efficient windows and exterior doors, computer controlled HVAC of the buildings, replacing T-12 magnetic fixtures with new T-8 electric start fixtures, new roofing insulation, a propane fuelled bus (problematic) are some examples of the actions we continue to take to gain greater efficiency in energy consumption. As a district, we commit to continue to implement energy saving methods and reducing our carbon emissions. Maximum efficiency in conservation of water was ensured by the installation of underground programmable watering systems on our grounds.

Our maintenance/custodial foreman is a renewed power smart member with BC Hydro thus pledging to reduce energy consumption and continuing to identify and implement methods of change throughout our buildings.

Behaviours in the district continue to improve towards the common goal of sustainability. We have developed a range of practices that are commonly understood and have become the culture of the schools. Composting buckets are used within the school and the composting of leaves on the grounds. A state of the art composting plant at one of our sites turns compostable materials into composted soil for use in the school greenhouse and garden.

Overviews:

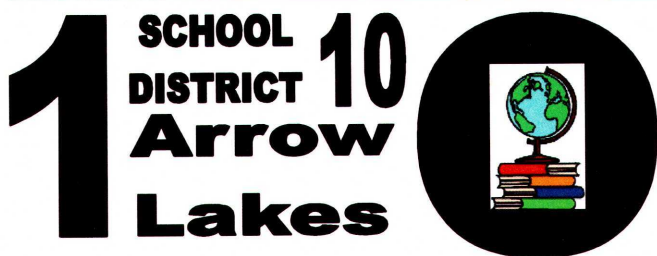
Actions taken to reduce Green House Gas Emissions in 2012

The district insulated and installed new roofing to Lucerne Elementary Secondary School, significantly reducing propane consumption. As well one third of the building has been converted from T-12 lighting to the newer T-8 efficient fixtures reducing power consumption. The fleet purchased a larger 12 passenger van with higher gas efficiency, thus facilitating carpooling for the students as well as staff enabling one less vehicle on the road. Moving towards all classrooms and meeting rooms having Smart Boards installed resulting in reduction of emissions.

Operational Changes in 2012

Staff meeting agendas and minutes are sent electronically. Many teachers at the senior level have assignments sent to them electronically therefore reducing emissions. The "Power Off After Use" program will continue.

*Global Learning In A Rural Setting*



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### Plans to Continue Reducing Greenhouse Gas Emissions

The district will continue with its desktop virtualization program. We will continue to refine our existing systems across all facilities with a strong focus on more efficient lighting and heating. Replacement of major and minor materials or appliances or tools will be purchased with eco-friendly consciousness.

### 2012 Greenhouse Gas Emissions, Offsets applied to become Carbon Neutral 2012

School District 10 purchased \$7113.75 in Carbon Offset Credits from the Pacific Carbon Trust to offset the 271 tonnes of qualifying emissions during 2012. The district produced 271 tonnes of emissions in 2012, therefore reducing emissions by 1.45%.

Ms. Denise Perry,  
Superintendent of Schools/Secretary Treasurer  
School District 10, Arrow Lakes

School District 10 Arrow Lakes - 2012 Carbon Neutral Action Report

Actions Towards Carbon Neutrality					
The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act.					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Completed (in Reporting Year)	Just one step towards lowering fuel emissions.		2012	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development	Message through verbal reminders to drivers that idling is not acceptable within our district.	Continuation of stressing physical activity when possible with efficiency.	2012	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Completed (in Reporting Year)	Encouraging all staff to share and book fleet vehicle to use for going to assorted meetings, conferences and professional development courses.		2012	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Continue to encourage these actions.	Ongoing discussions with staff.	2012	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Completed (in Reporting Year)	A review of other vehicles/buses for the upcoming periods will be reported. Small groups of 11 or less people will be transported by a van instead of using the bus.		2012	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Completed (in Reporting Year)	A review of all vehicles was completed.		2012	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	All Department of Transport inspections are in good standing.	On-going inspections of all vehicles will determine the life-cycle and replacement times.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Ongoing/In Progress	Direct access to Tech management and continued monitoring.	Continuing to monitor needs within district.	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Not Yet Evaluated				No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Not Yet Evaluated				No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Not Yet Evaluated				No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Completed (in Previous Year)				No End Date (Continuous)
Promote hot water conservation	Not Yet Evaluated				No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	Investigating the purchasing of power management software.	Continue to monitor and install upgrades as needed.	2012	2013
Implement server virtualization	Completed (in Previous Year)				No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Completed (in Previous Year)				No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install	Completed (in				No End Date



School District 10 Arrow Lakes - 2012 Carbon Neutral Action Report

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
multi-function devices as part of a print management strategy	Previous Year				(Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Completed (in Previous Year)				No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Completed (in Previous Year)				No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Not Yet Evaluated				No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Completed (in Reporting Year)	Increase efficiency.		2012	2012
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	Continue to replace with newer energy efficient models as needed.	Continue to monitor and replace appliances as needed.	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Completed (in Previous Year)				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Completed (in Previous Year)				No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Completed (in Reporting Year)	Replaced boiler at N.E.S. with new efficient condensed boiler with heat pump.		2012	2012
Upgrade lighting systems during retrofits	Ongoing/In Progress	Changing all lighting from T-12 to T-8 fixtures.	Continue changing to more fuel efficient lighting.	2012	2013
Upgrade/adjust control systems during retrofits	Not Yet Evaluated				No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Completed (in Reporting Year)	High density foam insulation installed with the roofing upgrade.		2011	2012
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Not Yet Evaluated				No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Not Yet Evaluated				No End Date (Continuous)
Electronic media in place of paper					
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Completed (in Reporting Year)	Continued to purchase recycled paper only.		2012	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	In Development	Continue working towards 40% post-consumer recycled paper.	Continuing to use recycled paper and recycling all paper in our district.	2012	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Not Yet Evaluated				No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Completed (in Reporting Year)	All copiers have double-sided capabilities.		2010	No End Date (Continuous)

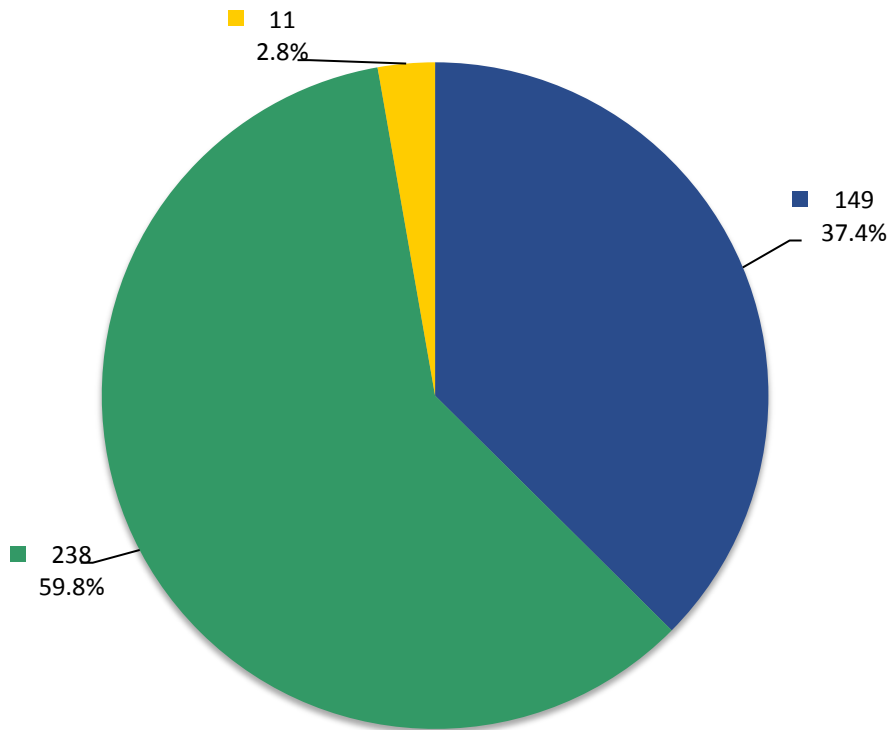
School District 10 Arrow Lakes - 2012 Carbon Neutral Action Report

Actions to Reduce Provincial Emissions and Improve Sustainability					
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act. Public sector					
Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Not Yet Evaluated				No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress	Requesting vehicles for business use through Project Management.	Sharing the information and resources district wide	2010	No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Make desktop web-cameras available to staff	Not Yet Evaluated				No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed (in Previous Year)				No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet Evaluated				No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Not Yet Evaluated				No End Date (Continuous)
Provide green tips on staff website or in newsletters	Not Yet Evaluated				No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Completed (in Previous Year)				No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Not Yet Evaluated				No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Completed (in Previous Year)				No End Date (Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term	Not Yet				No End Date

School District 10 Arrow Lakes - 2012 Carbon Neutral Action Report

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
changes in climate into the organization's decision making.	Evaluated				(Continuous)
<b>Building construction, renovation</b>					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress	Continue to hold public yard sales to reduce waste.	Continue to promote recycling.	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Not Yet Evaluated				No End Date (Continuous)
<b>Commuting to and from home</b>					
Offer staff a compressed work week	Completed (in Previous Year)				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	Continue carpooling, bicycling and walking.	Encourage continued carpooling, bicycling and walking.	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Not Yet Evaluated				No End Date (Continuous)
Provide secure bicycle storage	Completed (in Previous Year)				No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Not Yet Evaluated				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.)	Not Yet Evaluated				No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Completed (in Previous Year)				No End Date (Continuous)
<b>Waste reduction/diversion</b>					
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress	Continue to improve and promote programs.	Continue to monitor and improve programs in waste reduction.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Completed (in Previous Year)				No End Date (Continuous)
<b>Water conservation</b>					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	All fixtures will be replaced with energy efficient models as needed.	Continue monitoring and replacing as needed.	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	In Development	Install and program rain sensors resulting in water conservation.	Continue with the program.	2013	2014

**School District 10 - Arrow Lakes (Nakusp)  
Greenhouse Gas Emissions by Source  
for the 2012 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 398**

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

**Offsets Applied to Become Carbon Neutral in 2012 (Generated May 28, 2013 3:32 PM)**

Total offsets required: **278**. Total offset investment: **\$6,950**. Emissions which do not require offsets: **120** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

\*\* Under the *Carbon 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.