



Illustration by Olivia Brocklehurst, Grade 4

## PART 2

# Building it in and Driving it Home: Green Operations

Can custodians, building operators, and bus drivers be part of environmental education? They not only can be, they should be, according to these eco-educators. As one of the leaders in this section notes, “The most important lesson is to lead by example: students are watching us.”

In this section, DARLA SIMPSON describes Destination Conservation, a program that helps move entire school districts toward sustainability by training building operators and kids together. REBECCA FREEDMAN of the B.C. Ministry of Environment outlines school anti-idling programs, while GLENN BRENNAN, maintenance supervisor and energy manager for Greater Victoria School District 61, gives a detailed account of his district’s impressive conservation initiatives, including everything from urinal flush sensors to computer power-management software.

# Destination Conservation: Building it in

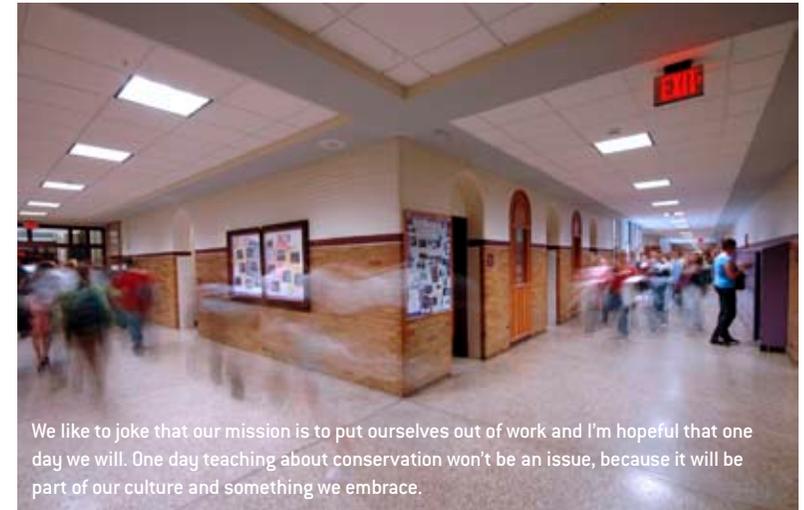
DARLA SIMPSON is the executive director for the Pacific Resource Conservation Society and program coordinator for Destination Conservation.

I've been doing this work for nearly 10 years now. When I started presenting at conferences, people would always come up to me to tell me how glad they were that I was doing it. They'd say, "We need to teach our children, because they're going to be the change." What I hear people saying now is, "I'm so glad I'm here today, because I need to make some changes so that my children don't have to deal with this when they're adults." I can't emphasize enough what a radical change that is to happen in 10 short years and I want to applaud you for picking up this book, because you're part of that change.

## > DESTINATION CONSERVATION

Destination Conservation is a conservation education program focused on energy and water conservation and waste reduction. We've been doing this for over 25 years, and have been working in B.C. since 1992. The program has gone through many iterations since then.

Destination Conservation is operated by the Pacific Resource Conservation Society. We're a little different from most non-profits in that we run on an enterprising non-profit model. This means we use a



business model to run our program. In other words, we're not looking for charity, but to create change. We take that model out into the school districts as well: we want to create a business case for them to engage in our program.

At our board meetings we like to joke that our mission is to put ourselves out of work and I'm hopeful that one day we will. One day teaching about conservation won't be an issue, because it will be part of our culture and something we embrace.

There are two main streams of the Destination Conservation program, the Building Management Stream and the Schools Program stream.

### PACIFIC RESOURCE CONSERVATION SOCIETY

**MISSION:** To promote the conservation of natural resources by providing education that inspires and empowers individuals and communities towards environmental, social and economic responsibility.

**GOALS:**

1. To reduce our natural resource consumption and by extension, our environmental impact.
2. To illustrate that it isn't a choice between a healthy environment, economy or society; we can meet all these goals by making better choices.
3. To make conservation manageable by focusing on daily activities with measurable results.

## > BUILDING MANAGEMENT STREAM

Our building management program is primarily a custodial training program, and focuses on five different areas: water, waste management, lighting, HVAC (heating, ventilation, and air conditioning), and electrical equipment such as computers and photocopiers. We bring the custodial engineers together with the facilities department and trades people. We don't just teach about new and upcoming technologies to increase energy and water efficiency. We also talk about how to optimize the technologies already in the buildings to make sure they are working at their best and consuming as little as possible. This becomes a discussion between the facilities department and the custodial engineers.

The first building management workshop usually starts out by identifying issues and problems, but it becomes a problem-solving project by the end. The workshop establishes the lines of communication so that problems are being shared and, most importantly, solved.

While the custodial engineers are learning about their buildings and increasing their ecological literacy, so are the students and the teachers in the building. Ideally we're raising the whole level of environmental literacy in the school district at one time.



**NATURAL LIGHT:** We don't just teach about new and upcoming technologies to increase energy and water efficiency. We also talk about how to optimize the technologies already in the buildings to make sure they are working at their best and consuming as little as possible.

## > SCHOOLS PROGRAM STREAM

The schools program mirrors the building management program. In the first year students learn about energy because that's where the business case is for conservation programs in the schools. In the second year they study water, and in the third year, waste.

Most of our schools are already doing recycling but we leave it to the third year because we don't want to tackle waste at the end of the pipe. We don't want to focus on recycling, but on waste avoidance. That means looking at our purchasing habits, how we consume items in our household, and how to stop waste before it even starts.

The research we've done shows that a minimum of three years is needed to create a cultural change in a school that will carry on afterwards. Many of our school districts told us that they were experiencing too much turnover and requested that we extend our programming, so we came up with an additional three years of content. These last three years are where we introduce some of the more complicated, and sometimes controversial, topics around sustainability.

The fourth year deals with conservation at home. We also talk about food sustainability: how buying New Zealand apples has an impact not only on the communities we live in, but on local economies. In the fifth year we talk about the community and in the sixth year, the world. We take the ideas of conservation and expand them to show students that a simple act like turning off the lights can have an effect on climate change.



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### SCHOOLS PROGRAM STRUCTURE

When we hold a workshop, we try to bring together 10 to 15 schools at a time. We do this for two reasons.

First, there is the business case: Ten schools is the cost-effective point at which you begin to see real savings and create district-wide change.

The second reason is that having a critical mass of schools also provides a chance to share ideas, get a little competitive, and work together on moving the whole district forward. However, bringing 10 schools together can be a challenge in some of our smaller school districts, so we are flexible.

The first workshop of the Schools Program is about identifying the problem. It trains students to do an assessment of their school. It can be an energy, water, waste or transportation assessment, depending on their interests. We teach them to go out, investigate their school building, and use the school as a learning tool. They investigate the school and use that as a starting point for whatever change they want to create in their building.

This is also important because it encourages the students to focus on measurable results. By completing an assessment, they get a benchmark for seeing how much their schools change over time. They don't necessarily have to use our assessments: they can use any kind of measure, but they must be able to show the change they're creating in their school buildings over time.



**INVESTIGATE:** The first workshop of the Schools Program is about identifying the problem. It trains students to do an assessment of their school. It can be an energy, water, waste or transportation assessment, depending on their interests.

The second workshop of the Schools Program focuses on campaign planning. Based on the research around fostering sustainable behaviour, we've developed eight steps to help change the behaviour in schools. After they identify the problem, they create a strategy for change. They set a

goal, identify a measuring tool, and craft a message that will get people engaged and moving on the project.

#### SCHOOLS PROGRAM IN ACTION

The students are taught to develop a communications strategy based on several questions, such as, "Who needs to know about it?" and "How are you going to tell them?" For example, if you're doing a waste-free lunch, how are you going to communicate it to the parents? Organizing an event to launch a campaign is a common idea and the students have a lot of fun with it. They also need to come up with reminders, because people



ILLUSTRATION BY INAARA NURANI, GRADE 4

do forget. So they need little reminders to encourage them to keep the program going over time. That way by the third year, it's automatic.

We have found that students often need incentives. This can be as simple as sharing with each other the improvements they're making, such as how many tonnes of carbon dioxide or litres of water they've saved. But it can also be candy on the playground. One of our schools had a major problem with school ground litter, so they set up a litter force.

At random, they would give candy to two students, who would go out at lunch time and give the candies to the first 10 students they saw

recycling or putting garbage where it belonged. That program cut school ground litter to almost zero, and after that, what litter there was didn't come from the students, but from outside of the school grounds. It was dramatic, incredibly simple, and cost about five dollars a year.

If you think you're too small to make an impact, try going to bed with a mosquito in the room.

— Anita Roddick

The students need measurable results, so at the end they evaluate how they've done. We do this at the school district level, where the facilities are actually monitoring the utilities for savings. Again this creates the business case for the program. At the end of the year everyone celebrates by throwing a party at which we share success stories and have a lot of fun. At the same time everyone involved gets to realize that they're doing some good work and accomplishing a lot – together.

## > TANGIBLE BENEFITS OF THE DESTINATION CONSERVATION PROGRAM

Destination Conservation conserves resources. During one lights-out campaign, a school tracked how many hours the lights were off as a result of their work. In only four weeks they had avoided over 1,000 operation hours, which equates to 570-kilowatt hours of electricity and 2.9 tonnes of carbon dioxide. And it saves money.

In their first year, with 24 schools in the program, the North Okanagan-Shuswap School District saved \$35,000 on electricity and \$25,000 on natural gas.

Our most recent study was in the Abbotsford School District, where we found almost \$3,000 in savings in each school over one year. Those

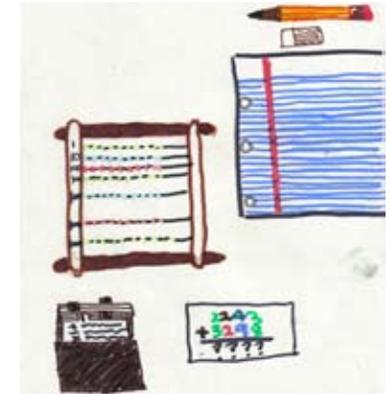
savings are primarily from changes in behaviour and low-cost or no-cost retrofits. They can be as simple as installing a Vending Miser. The cheapest way to save money is not to install a light sensor, it's to turn the lights off. The schools can then reinvest that \$3,000 in bigger and better things over time.

The program also creates leaders. One third grade student, after learning that turning off the tap while she brushes her teeth would save over 6,000 litres of water in a year, challenged all other Grade 3 students in her district to "Turn the Taps Off."

In West Vancouver, the students we worked with five and six years ago are now in the high schools and are the ones driving the conservation programs. They're even being recognized provincially for the efforts they're making. It's incredible how much they've grown and taken this on as a personal issue. As a student, I participated in a progenitor of this program, and I can personally attest to the impact it can have on a young person.

It's not necessarily the traditional leaders who take on these conservation efforts. It's the students that may not have 'A' grades and may be struggling to find their identity. This is something they feel they can do; they can grab hold of this and create real change.

Our program promotes partnerships. We don't want to overwhelm teachers with too many different programs coming at them from different directions. So if we're out in a school district, we want to promote the B.C. Sustainable Energy Association's Climate Change Showdown if that's what students are focused on. Or they might want to work with the Pembina Foundation's GreenLearning online materials or the regional district's water conservation program. We make sure we're tying as many of those as possible into the school program so that it all builds together.



Two students would go out at lunch time and give candies to the first 10 students they saw recycling or putting garbage where it belonged. That program cut school ground litter to almost zero, and cost about five dollars a year.

ILLUSTRATION BY TIFFANY WONG, GRADE 5.



EVERY WATT COUNTS: Vending Miser, a device that is easily installed on existing drink and snack machines, uses sensors to automatically shut the power off when not in use while turning itself on every few hours to keep drinks chilled.

And of course, the program helps preserve the environment. Students learn to make better choices for their health and the environment, including reducing greenhouse gas emissions. Several school districts have already met or exceeded their Kyoto targets.

### > DESTINATION CONSERVATION: SUPPORTING TEACHERS

Destination Conservation also supports teachers. We provide each teacher with hands-on activities and resources for use in the classroom, with a club or as part of the students' union. We encourage teachers to contact the office with questions and requests, and if we don't have the answer, we'll find it.

This goes back to the teamwork concept. More than one person needs to be involved. Many people remember a lone teacher who worked so hard to get something going and felt completely unsupported. We need to stop that and we need to make sure that the teachers are supported by the administration. Even if they only get 10 minutes at a staff meeting, it's a dramatic statement to the rest of the staff that this is important.

This must happen not just at the school level, but at the district level, as well. For example, in the Greater Victoria School District 61, Sherri Bell, the assistant superintendent, and Connie Schmidt, the senior management assistant, support the program and make sure it has a profile at the district level. The teachers really need this; they need to know they're supported by their district and administration.

And inevitably, on the facilities side, we have a conservation champion who's tracking the numbers. That person is paying attention to the details and may have been relaying this message quietly for years. They are the silent champions working on conservation issues in our school districts.

### > THE KEYS TO SUCCESS

There are certain keys to success for any school sustainability program, not just Destination Conservation. First and foremost, the district must make a long-term commitment to real change. It can be as simple as a statement or the district can incorporate it into the strategic plan. The district should modify it so it works for them, but it is absolutely essential to set some goals about where the district wants to go in the future.

The second key is to monitor utilities through tracking savings at least for energy, and if possible, for water and waste. Those savings will justify the program in the future. The flavour of the month changes and issues could come up in five or ten years that will knock sustainability off the top of the list. Schools have to show the business case for these projects and identify the savings.

Finally, schools and districts need to make sure they're reinvesting their savings in further efficiency measures.

Using the soft savings from lifestyle changes can help to make the hard savings more cost effective. This reinvestment insures the district is continually increasing the savings and maximizing the benefit of the program. So in the distant future, if the soft savings are worn away the hard savings from the retrofits are still there.

A lot of people are talking and working away at their own small projects. Eventually, we're going to create a tremendous amount of change. This is the first wave of change and someday it will swamp the old way of doing things.

### > RESOURCES

Destination Conservation is online at [www.dclplanet.ca](http://www.dclplanet.ca).

The B.C. Sustainable Energy Association's Climate Change Showdown project can be found at [www.bcsea.org/ccshowdown](http://www.bcsea.org/ccshowdown).

The Pembina Foundation's GreenLearning materials are available at [www.greenlearning.ca](http://www.greenlearning.ca).

# Driving it Home

## School-Based Transportation Emission Reductions

REBECCA FREEDMAN is a non-point-source emission specialist for the B.C. Ministry of Environment.

Point-source emissions come from industry and are generally managed through standards set by regulators. I develop programming to reduce non-point-source emissions, the emissions that come from individuals through the choices they make and the actions they take in their daily lives. The best way to reduce these emissions is through behavioural changes. I work on educating the public and removing barriers to voluntary behavioural change. One of my focus areas is vehicle idling reduction.

### > TAKING ACTION FOR HEALTH

Transportation behaviours, such as vehicle idling, can have an impact on our health, environment, and wallets. Hundreds of peer-reviewed studies in the past 10 years have demonstrated the link between air pollution and compromised health. Vehicle exhaust releases carbon dioxide, nitrous oxides, and fine particles into the air. Diesel exhaust contains known carcinogens. Exposure to these pollutants can lead to respiratory illnesses, increased hospital admissions, and premature deaths. Children are especially vulnerable to air pollution because they have actively growing and developing bodies and they breathe in more air per pound of body weight than adults.

### > TAKING ACTION FOR CLIMATE CHANGE

Transportation is the single largest source of greenhouse gas emissions and one of the major contributors to urban air quality problems in Canada. It accounts for 40 per cent of B.C.'s total greenhouse gas emissions. Each litre of fuel releases between 2.4 and 2.8 kilograms of carbon dioxide when it burns.

Idling adds unnecessarily to fuel costs. Five minutes of idling burns a tenth of a litre of fuel. That doesn't sound like much, but once you add that up over a year and over a fleet and take into account rising fuel prices, it's quite dramatic. The incomplete fuel combustion that comes from idling at lower-than-optimal temperatures results in reduced fuel efficiency, stress on the engine, and production of more fumes.

We promote the "10 Second Rule," which says it's better to turn off the engine and restart it than to idle for more than 10 seconds. This promotes savings in terms of both fuel efficiency and vehicle wear and tear.

### > SCHOOLS ARE POTENT AGENTS FOR CHANGE

Besides modelling behaviour for students within the school, schools have an important influence on the larger community. Recycling successes have been attributed to students learning about it in school. They take that message home, the word spreads, and recycling becomes part of the culture.

Any opportunity for greening school operations – be it policy development, retrofits and technology fixes, or marketing and outreach – is an opportunity for learning and pedagogy. The sustainability theme can be integrated into the whole school environment, including curriculum,



EXPOSURE: Children are especially vulnerable to air pollution because they have actively growing and developing bodies and they breathe in more air per pound of body weight than adults.



ILLUSTRATION BY KENDRA WONG, GRADE 4

teaching, facilities management, and school governance. Decisions should be shared with the staff and students and links should be made from what they're learning in the schools to the larger picture.

The theory of Diffusion of Innovation illustrates how new innovations spread throughout society in a predictable manner. The innovator introduces an idea, but often it takes the action of an early adopter, usually a known and respected leader, to launch an innovation in a community. The idea spreads to the majority and finally to the laggards.

It takes leaders within a school community to change operations, but the school community as a whole can help change transportation practices within the wider community, building social norms. For example, a number of schools and school districts have implemented idle-free zones where parents and students are instructed to turn off their engines. What they do on the school grounds can become a habit for the rest of their day-to-day lives.

Certain aspects of a change make it easy or difficult to spread through a community. These include the degree to which the change can be observed, the importance of the benefits, and the extent to which the change conflicts with current culture. Idle reduction is something that can be easily observed, especially when attention is drawn to it. The more awareness we build about idling, the more it will become an unacceptable behaviour.

Idling reduction has huge benefits for little cost. We just need to break people of an unnecessary habit.

## > GREEN TRANSPORTATION INITIATIVES

A number of school districts around the province have school bus and fleet idling policies that limit early morning warm-up to the manufacturer's recommendations, usually three to five minutes. Drivers must turn their engines off at loading or unloading areas, and may not start them again until they're ready to depart and there's a clear path to their exit. (Schools can provide waiting spaces inside for drivers during cold weather.)

Diesel exhaust has been shown to accumulate both inside and outside of the bus and it poses a risk not just to children, but to the drivers as well.

Model policies can be used by schools and school districts that are just getting started in developing their own idling reduction policies.



NEW POLICIES: A number of school districts around the province have school bus and fleet idling policies that limit early morning warm-up to the manufacturer's recommendations, usually three to five minutes. Drivers must turn their engines off at loading or unloading areas.

Policies are great, but they also need to be supported by education and outreach, with reminders and messages to the bus drivers.

Any sort of constant reminder or prompt for the drivers, such as window decals or stickers, will help reinforce the policy.

Other complementary initiatives can also help reduce school transportation-related vehicle emissions. The B.C. government recently announced a \$1.1 million program to retrofit all school buses in B.C. with emissions reduction devices, such as diesel oxidation catalysts, flow-through filters, and crankcase ventilation systems. We know how harmful diesel exhaust is and these retrofits will help clean up our entire school bus fleet.

The province is also promoting alternative fuels. By 2010, B.C. will require an average of 5 per cent renewable content in gasoline and

diesel. Biodiesel can be used without problems at the B5 (5 per cent) level. Municipalities and transit fleets in B.C. are using blends up to B20 without significant problems and are testing blends up to B40. As long as the fuel meets specifications and is handled appropriately, school fleets can start using biodiesel where it is available.

Districts can also reduce emissions by implementing green procurement policies. This includes selecting products and services that minimize environmental impacts. Decisions must consider the costs of securing raw materials as well as manufacturing, transporting, storing, handling, using, and disposing of the product. Schools can choose local goods wherever possible to minimize transportation impacts and establish a no-idling policy for service and delivery vehicles.

### > BENEFITS FOR ALL!

If a fleet of 50 school buses reduces its idling time by an hour a day, over the school year there would be over \$40,000 in savings and over 112 tonnes of carbon dioxide would be prevented from entering the atmosphere. Green procurement can save schools money too by reducing transportation costs.

With anti-idling initiatives the air quality around schools improves. The number of hospital visits and missed school days drop and overall health improves.

School leadership improves as well. Schools are in a terrific position to model social norms for the community. The action that happens inside the school can translate into personal behaviour every day.

Finally, action on school transportation emissions creates an opportunity to foster future environmental citizenship. Schools can connect changes at the operational level to lessons for students and create social and cultural norms among the student population so they can expect – and demand – change. The more we involve the students, the more they will get out of the process and the more they will contribute to it.



YUM: Schools can choose local goods wherever possible to minimize transportation impacts.

# Energy Upgrade Program

## Greater Victoria School District No. 61

GLENN BRENNAN is the maintenance supervisor and energy manager for Greater Victoria School District No. 61.

Greater Victoria School District 61 is in its fourth year (2007/2008) of an ambitious lighting upgrade and energy conservation program for district facilities. Our program has been successful because of the support we've received from our staff, trustees, and senior administration.

### > OVERVIEW AND HISTORY

In 2002, we received a grant from Natural Resources Canada for an energy audit. The audit told us both what our total footprint was and how much energy we were using per square metre. We planned our upgrades based on the results, focusing on water, electricity, heating, and education.

In 2003, we became a BC Hydro Power Smart partner, acknowledging a commitment to pursue energy conservation measures and provide awareness training to district custodial staff. BC Hydro has given us tremendous support. Not only have they given us funding through incentive grants, but they have provided training support for our trades staff and the energy manager program. We are about to enter our fourth consecutive year with their program.

From 2003 to 2007, we worked with BC Hydro and the Power Smart Students Program, which involved several groups of our high school seniors. Our district also participated in the junior program and a film-making program with BC Hydro. These are excellent, low-cost programs.

In 2007, 10 of our schools began working with the Destination Conservation Program. The Sierra Club Sustainable High Schools Project is also underway in several of our schools, and many middle schools and high schools have started environmental clubs.

### > FACILITIES UPGRADES

Our water conservation upgrades concentrated on the installation of 421 urinal flush sensors at 44 locations. We have achieved dramatic water savings from this project. Using an incentive grant from the Capital Regional District, we have replaced 20-litre-flush toilets with 6-litre-flush toilets in several schools. We have replaced water-cooled freezer condensers with air-to-air units at Esquimalt Secondary, again achieving dramatic savings from this initiative. We have also installed irrigation rain sensors and new controllers at several sites.



We have equipped 55 vending machines with Vending Misers and converted all the district's incandescent exit lights to LED units. We have replaced the heating plant systems at three schools and installed new direct digital control systems at many schools, adding to the 32 schools that already have these systems in place.



We have installed Faronics Deep Freeze computer power-management software and there are many more exciting opportunities to save energy in computer labs.

For example, some new products will allow computer labs to have only one server, which in turn feeds the "slave" terminals that students use, resulting in substantial savings.

## > LIGHTING UPGRADES

We have upgraded the lighting systems at 33 schools, saving us approximately \$258,000 annually.

The upgrades consisted mainly of the conversion or replacement of fluorescent light fixtures to T8 lamps (30 watts) from T12 lamps (34 watts). We replaced old ballasts with electronic ballasts and we standardized the light fixtures throughout the district. It was really amazing how many different lighting products we had throughout the district – in some cases, 15 products at a single school. Now we use only two or three products.



UPGRADES: It was really amazing how many different lighting products we had throughout the district – in some cases, 15 products at a single school. Now we use only two or three products.

Wherever possible, we have removed incandescent products and we split the light switches in the classrooms so that teachers can turn on only half the lights if they wish.

We have replaced older fixtures with new high-efficiency units and removed redundant fixtures resulting in the most dramatic change of the lighting program with the reduction of over 6,600 light fixtures. The average classroom had 18 fixtures before the upgrade and we have reduced this number to between eight and ten.

INCENTIVE GRANTS TO DATE		
Funding agency	Amount	Purpose of grant
Capital Regional District	\$47,622	Water conservation projects
BC Hydro	\$546,181	Electrical upgrades (all lighting, computer software, vending machines, Energy Manager Coordinator agreement, Lighthouse Sustainable Building opportunities)
BC Hydro	\$15,000 annually	Extension of Energy Manager Funding support for the fourth consecutive year.

In many rooms we found that the lighting level at the desktop far exceeded current standards. Correcting the light levels to where they should be provides a better environment for our students. Similarly we found many corridors that were substantially over-lit.

Interestingly, the projects that have given us the best returns are those in our newest buildings. We have just finished a complete audit and redesign for an elementary school built in 2000 and we've achieved a 40 per cent reduction in the lighting system's electricity use without taking out any fixtures. The school was simply over lit.

## > WORKING TOGETHER

The retrofit projects are primarily completed by our in-house district facilities staff. We have a special agreement to allow for variations in work hours to facilitate lighting program work in the afternoons, after the classroom is empty. This works well for the students and staff.

## > BENEFITS

Our electricity use per square metre in School District 61 is currently one of the lowest in the province.

In addition to the financial savings, our program is preventing 1,600 tonnes of greenhouse gases from being emitted every year, equivalent to about 345 cars off the road. We have reduced our maintenance costs by installing extended-life lighting products and reduced the variety of fixtures and lamps to service in our inventory. We have also reduced seismic risk hazards for staff and students by removing pendant lighting fixtures and securing all our new fixtures.

ENERGY SAVINGS	
Water	Over 90 million litres of water per year – equivalent to filling an Olympic pool over 30 times! Over \$56,000 per year.
Electricity	Over 3.6 million kWh – equivalent to the yearly needs of 360 homes. Over \$258,000 per year.
Heating conversion and controls	Estimated at \$12,600 per year

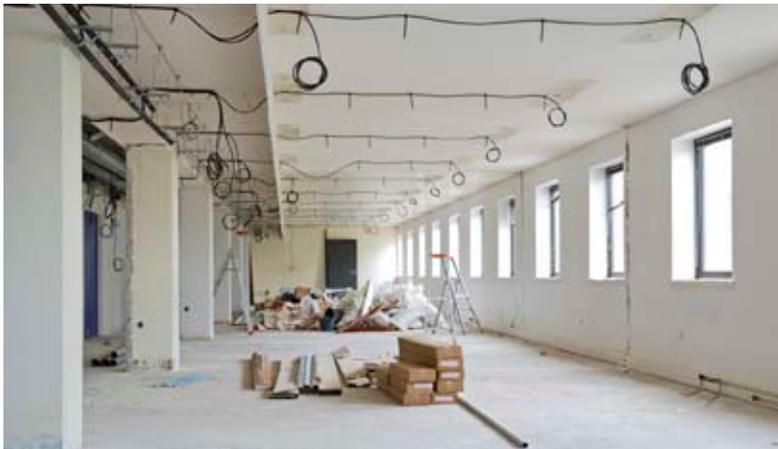
The school community reports that they really appreciate our accomplishments. We have significantly improved the lighting within our buildings and created a brighter atmosphere within our school corridors. The classrooms seem cleaner and less cluttered. Our new controls for heating systems result in more comfortable buildings.

Our teachers appreciate the split switch lighting systems and both students and staff are happy to learn and work in a greener building. Our educational programs for students and staff are helping to develop a personal awareness of the importance of good energy conservation practices.

## > FUTURE EFFORTS

In 2008, we will be upgrading the lighting at eight additional schools. We are underway with the review and redesign of the mechanical heating system at Victoria High School, which has one of only two steam systems left in the district. We are installing direct digital control systems at three more schools, converting and/or upgrading the boiler systems at two more schools, and replacing the windows at another two schools.

We are planning to continue our retrofitting process for maximum efficiency and comfort in our buildings, and will insist on logical and efficient designs within our new buildings and renovations. We are going to focus on lighting, keeping in mind that the more natural light you have, the less often you need to turn lights on.



**SMART RENOVATIONS:** We are planning to continue our retrofitting process for maximum efficiency and comfort in our buildings, and will insist on logical and efficient designs within our new buildings and renovations.



**LEADING BY EXAMPLE:** Students are watching us in our classrooms. When the sun is streaming in through the window and the teacher makes the effort to think before they turn on the lights, this sets an example for the students.

Our best, most effective opportunity is to help develop and maintain a conservation ethic within students and staff. For example, we have two high schools, both with the same population and building vintage. One school has a very active environmental group, the other to a lesser degree. We recently performed a test using lighting loggers to measure how often the lights were on. The school with the environmental club showed results where the lights were off over 20 per cent more than the other school, translating into thousands of dollars in savings every year.

We are encouraging environmental groups in our schools, and continuing to work with Destination Conservation and the Sierra Club. More and more students are coming forward to join these groups.

But we feel the most important lesson is to lead by example: students are watching us in our classrooms. When the sun is streaming in through the windows and a teacher makes the effort to think before they turn on the lights, this sets an example for the students.

My motto is, "Use only what you need."

## > RESOURCES

BC Hydro's Power Smart: [www.bchydro.com/powersmart](http://www.bchydro.com/powersmart).

Natural Resources Canada's energy-efficiency incentives: [www.nrcan-rncan.gc.ca/com/eneene/effeff-eng.php](http://www.nrcan-rncan.gc.ca/com/eneene/effeff-eng.php).