



Investing in the environment

Concern for the environment has spurred the Winnipeg School Division to take on a variety of initiatives to help reduce its environmental footprint. The following are some of these initiatives.

Five-Year Sustainable Development Plan

The Winnipeg School Division formalized its commitment to sustainable development in the 2007-08 school year with the Board of Trustees adopting a Five-Year Sustainable Development Plan, which will be reviewed and updated each year.

The Sustainable Development Plan has as its primary objective the development and implementation of Education for Sustainable Development (ESD) based programs initiated by teachers as well as those initiated by students. The plan also includes practices and other environmental measures for the operation of the Division that would serve to model what is taught in classrooms.

ESD programs not only benefit the students, but also support the environmental efforts already undertaken by the Division. By focusing on student learning, there will be an increased appreciation of community, provincial and global issues related to the environment.

The Five Year Sustainable Development Plan has been posted to the Division's website:

<http://ww.wsd1.org/news/documents/SustainableDevelopmentPlan.pdf>

Energy Performance Improvements (EPI)

- Over a decade ago, the Division entered into an energy performance contract (EPC) for one of its larger high school buildings. A lighting retrofit was undertaken and an automated building controls system was installed. One year later, the same energy performance improvements were introduced into a second high school.
- In 2003, the Division entered into a new EPC which resulted in 10 more schools receiving the following: lighting retrofit, automated building controls system, building envelope upgrade, water conservation, parking lot controller installations and power factor correction system (efficient utilization of the electricity).

During the period from 2003 to 2008 these energy improvements have resulted in avoidance of 4,471 tonnes of carbon dioxide emissions, which is equivalent to 1,356 cars being removed from the road. In addition the energy improvements have saved:

- electricity equivalent to what over 600 homes would use in a year—9,789,573 kilowatt hours;
- enough natural gas to cook 215 million hamburgers—2,258,375 cubic metres;
- enough water to fill 1,400 pools—117,534,870 litres.
 - electricity cost savings \$483,295
 - natural gas cost savings \$835,601
 - water cost savings \$283,447

- Further energy performance improvements were completed at 14 more facilities in 2006 utilizing an energy performance contract, which consisted of: lighting retrofit, automated building controls system, water conservation and a heating replacement system at two buildings.

The 2006 energy improvements have avoided 1,392 tonnes of carbon dioxide emissions, which is equivalent to 422 cars being removed from the road. In addition the energy improvements have saved:

- electricity equivalent to what approximately 90 homes would use in a year—1,462,760 kilowatt hours;
- enough natural gas to cook 69 million hamburgers—722,611 cubic metres;
- enough water to fill 220 pools—18,545,241 litres.
 - electricity cost savings \$111,895
 - natural gas cost savings \$346,759
 - water cost savings \$ 7,286

- Since 1985, the Division has completed window upgrades and replacements at over 28 facilities and will be undertaking further energy reduction improvements through the use of energy performance contracts at 34 more facilities.

- More information on the range of energy saving initiatives in Winnipeg School Division facilities is available at the following website address www.wsd1.org/ecovest.

Recycling

Before September, 2007, Winnipeg School Division had recycled paper and cardboard and some schools and departments ran local recycling projects.

Thanks to a recycling program that started during the 2007-08 school year, each month on average 21,837 kilograms of recyclable materials—the equivalent weight of two fully loaded 66-passenger school buses—heads off to be recycled.

Green Manitoba, an agency of the Manitoba Government, has estimated that the recycling program would have the following effects each month: 45 tonnes greenhouse gas mitigated; 77 kilowatt hours saved in electricity; 426,909 litres of water conserved (for paper recycling); 118 cubic yards saved in landfill space and 178 barrels of oil saved.

Reduction in Paper Usage and Increase in Purchase of Recycled Paper

Division employees are encouraged to use e-mail as much as possible and when printing is required to print back-to-back. Where paper copies of documents, such as forms are required, employees are encouraged to print copies-on-demand (from documents posted on the Division's intranet WSD@work) and not stockpile documents.

The highest volume of paper the Division purchases is white, 8 ½ X 11. Records show that there was a 10 per cent drop in the purchase of this paper product from the 2006-07 school year to the 2007-08 school year.

Meanwhile, purchases of recycled paper have increased from 10 per cent to 35 per cent during the same time period.

Tree Banding

The Division inventoried its trees and during August, 2007, all 2,754 elms, maples and ash trees on Division properties and adjacent boulevards were banded to protect against cankerworms. Plans call for banding to occur annually. Tree banding is an environmentally friendly, chemical free approach to protect the trees, which remove carbon dioxide from the atmosphere.

Community Beautification

Each year, for the last four years, students and school staff can participate in a division-wide project to clean/beautify the community. This school year, 19,459 students and staff members participated in the project.

As a token of appreciation the Division gives small gifts related to the environment to the volunteers. In 2008, younger students received a small plant pot, containing a peat pellet and Blue Spruce seeds. Older students and adults received a bookmark made of recycled paper, with Douglas Fir seeds attached. As almost 20,000 students and staff received the gifts, there is a possibility of thousands of trees being planted in school yards, homes, cottages and elsewhere.

School buses use biodiesel

Winnipeg School Division was the first division in Manitoba to use biodiesel in its school buses. The Division started with four buses in February, 2007. After ensuring that the buses could operate using biodiesel in extreme winter temperatures, the Division started using biodiesel in 63 of its 72 school buses in January, 2008. Plans call for the remaining nine buses to be phased into using biodiesel as well in the near future. The Division's fleet of buses also operates on an idle-free basis to reduce emissions at stops. The Division is researching other measures to reduce fuel consumption and emissions.

Custodial "Green" Products

When choosing custodial equipment and supplies, the Division takes into consideration many factors, including: if the product is ergonomically friendly; uses less water, less power; emits less noise; has good dust collection or filtration and is made of material that has a recycled content.

The Division has found many ways to go "greener" during the past six years. The following are some of those examples. Concentrates are used in an effort to reduce waste. All wooden floor sealer/varnish is now an environmentally-friendly water-based product, replacing the former oil-based product. Currently zinc-free floor finishes and floor strippers are being tested. Staff are also investigating and testing hand towel paper products and dispensers that are "green" certified.

Custodial staff started using micro-fibre technology for cleaning about four years ago. This product made a significant impact in the amount of chemicals required for cleaning sinks, counters, desks, telephones, drinking fountains and glass. The cloths also significantly reduce the amount of airborne dust created when cleaning dusty surfaces. The cloths stand up to being laundered many times and have been found to last a year or longer.