Natural Resources Canada
Ressources naturelles Canada

ecoENERGY
an ecoACTION initiative

Spring 2010 Edition

Idle-free zone

Showcasing community intitiatives

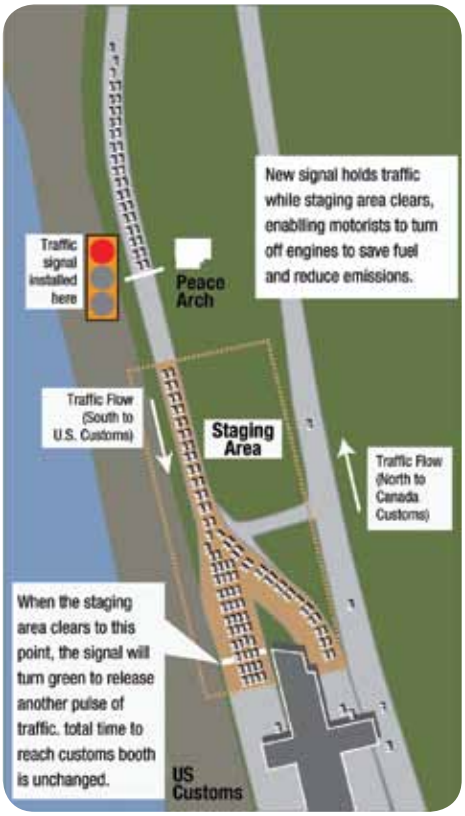
Canadian communities are continuing to find innovative ways to address the idling reduction challenge.

This issue of the *Idle-Free Zone* profiles many inspiring campaigns from across Canada and highlights a success story of how idling is being curbed Down Under.

Red Light Greens the Border in British Columbia

At the Peace Arch border crossing between Surrey, British Columbia, and Blaine, Washington, the long lines of drivers who idle their way to U.S. Customs are becoming a thing of the past. As part of the Greening the Border initiative – a collaboration between the B.C. Government and Washington State – the B.C. Ministry of Transportation and Infrastructure and the B.C. Ministry of Environment have installed a new traffic signal north of the U.S. Customs booth to reduce vehicle idling at the border.

Idle Reduction at the Border: How it Works



Continued on page 2

We want to hear from you . . .

This is the second *Idle-Free Zone* showcasing our new design and approach to reporting on our stories. Changes were made as a result of your comments and suggestions when we sought your feedback in early 2009. Some of these changes relate to the materials used to produce the hardcopy version of our newsletter. To make the *Idle-Free Zone* more environmentally green, we're now using certified Environmental Choice paper – a 100% Canadian product that's made entirely from post-consumer waste, processed without chlorine and produced with energy from decomposing waste-landfill gas. Our printers are ecoLogo-certified and use biodegradable, vegetable-based inks.

Your feedback on these and any other changes to the *Idle-Free Zone* are always welcome and can be sent to **IFZNewsletter@NRCan-RNCan.gc.ca**. You can also use this e-mail address to inform us if you'd like to receive the *Idle-Free Zone* electronically rather than in hardcopy and whether you prefer the English or the French version.

Don't forget that current and past issues of the *Idle-Free Zone* can always be viewed at **oee.nrcan.gc.ca/communities-government/transportation/municipal-communities/newsletters.cfm?attr=28.**

Red Light Greens the Border in British Columbia

Continued from page 1

Activated in November 2008, the signal light turns red during periods of heavy traffic, allowing motorists behind the signal to stop and turn off their engines while the vehicles ahead of the signal make their way through U.S. Customs. When the traffic ahead starts to clear, the signal turns green and lets another group of vehicles through. Signs north of the traffic signal remind drivers to turn off their engines while waiting to cross the border.

Matthew Carroll, Climate Action Facilitator with the B.C. Ministry of Environment, says the idea for this pilot project grew out of an internal competition called Green Ideas Shine that invited B.C. Government employees to suggest innovative ideas for reducing carbon emissions. The traffic signal pilot marks the first step in the Greening the Border initiative.

Before the project was initiated, members of B.C.'s Youth Climate Leadership Alliance gathered baseline information about idling behaviour at the crossing. Through driver surveys, Idle-Free Ambassadors identified barriers to turning off idling engines and found that "traffic creep" was the primary motivator for not turning the key.

In addition to the Ambassadors surveys, says Carroll, vehicle observations and another driver survey were made before the signal light was installed. The results showed that almost every vehicle waiting to cross the border was idling. The survey revealed a disconnect between people's perception of themselves as drivers who don't idle and their actual idling behaviour. "For example," Carroll says, "some people said they switch off their engines in the lineup, but were observed to be idling. Out of the 60 vehicles surveyed, over half responded that they let their vehicle idle zero minutes (min) per day. Compare this to the observation that 73% were in fact idling."

These results reinforced the idea that focusing on the traffic signal first made good sense. "Drivers didn't have the opportunity to turn off their engines when traffic was inching along towards the border," explains Carroll. "What is great about this initiative is that we've removed that structural barrier and given drivers the opportunity to not idle." Social marketing is still needed, he says, but the idling reductions will be easier to achieve now that the infrastructure is in place to encourage this greener behaviour.

The benefits will be substantial. Average vehicle idling time at the Peace Arch border crossing is expected to decrease by 20 minutes, saving nearly 0.5 litres (L) of fuel per vehicle on each trip and eliminating 639 000 kilograms (kg) of greenhouse gas (GHG) emissions per year. And all while having no impact on the total time it takes to reach the customs booth. With nearly 3 million vehicles a year passing through this crossing alone, it's easy to see how this pilot project, if implemented at other crossings, could have a huge impact on the number of idling vehicles across the entire border.

For more information about the initiative and the traffic signal pilot project, visit **www.th.gov.bc.ca/greening_the_border** or contact Matthew Carroll at 604-432-6451 or **matthew.carroll@gov.bc.ca.** ■

Quebec Boosts Idling Reduction with **Innovative Funding Program**

Municipalities across Quebec are turning climate change goals into action with help from the province's Turn Your Engine Off program, which since December 2007 has been giving municipalities funding to support the adoption of regulations against unnecessary vehicle idling.

With the transportation sector accounting for more GHG emissions than any other sector in the province, Quebec has committed to undertaking the idling reduction program as one of several transportation actions in its Climate Change Action Plan. The Plan aims to reduce GHG emissions in the province by 10 million tonnes (t).

Through the Turn Your Engine Off program, the province helps municipalities adopt by-laws to limit idling to various fixed levels: no more than 3 minutes in any 60-minute period at all times for gas-powered vehicles, and, for large diesel-powered vehicles, no more than 5 minutes in the summer, and up to 10 minutes in the winter.

Funding is offered to municipalities that have an idling reduction by-law in place or have committed to presenting a draft by-law to their council for approval. To receive funding, municipalities must demonstrate a sound financial structure and have a plan to produce and install permanent idling reduction signs. The funding finances up to 70% of the costs for public awareness campaigns and permanent signs, with the amount calculated according to the number of residents in a municipality (see table).

Maximum funding available

$ per resident	Number of residents
1.00	first 100 000 residents
0.70	second 100 000 residents
0.40	third 100 000 residents
0.10	any additional residents
2,500.00 maximum	fewer than 2500 residents

With a fleet of 4.2 million light-duty vehicles on the roads, interest in adopting idling reduction regulations is growing across Quebec. Between 2007 and 2009, 23 municipalities – representing 40% of the province's population – adopted an idling reduction by-law, many of them with funding support from the Turn Your Engine Off program (see table). With a budget of $4 million and an end-date of March 31, 2012, the program is expected to reduce GHG emissions by 210 kt by 2012. ■

Quebec Municipalities Turn Off Their Engines

The following municipalities illustrate the range of population bases that have adopted an idling reduction by-law and awareness campaign and installed permanent signs:

Municipality	Population
Gatineau	250 000
Brossard	114 000
Sorel-Tracy	34 000
Matane	11 600
Oxford	3 000

Another Climate Change Action Plan initiative aimed at lowering GHG emissions in the transportation sector is the Municipality Climate Program. This recently launched program offers financial support to municipalities to prepare inventories of GHG emissions and plans for combating climate change.

Together, the Turn Your Engine Off and Municipality Climate Programs are expected to result in a total potential reduction and avoidance of GHGs in the amount of 460 kt. With these and other initiatives under Quebec's Climate Change Action Plan, the province remains a leader in the fight against climate change.

For additional information on Quebec's programs to reduce GHG emissions, contact the Ministry of Sustainable Development, Environment and Parks at **418-521-3830 or 1-800-561-1616** or visit the Ministry's Web site at **www.mddep.gouv.qc.ca**.

Some of the documents, names and graphics shown have not been produced by the Government of Canada and are not available in both official languages.

Ski Resorts in Ontario Go Idle-Free

Be Idle-Free and Ski! That's the message that My Sustainable Canada and the Ontario Snow Resorts Association (OSRA) are spreading to ski resorts across Ontario. This past year, the two organizations collaborated, with the assistance of Natural Resources Canada, on a pilot project to reduce idling at three ski resorts. The resulting Engine Idling Reduction Program (EIRP) offers ski resorts the opportunity to reduce climate-altering GHG emissions, improve air quality, save fuel and reduce noise by undertaking initiatives to reduce idling among staff and visitors.

Tania Del Matto, Director of My Sustainable Canada, says that the initiative grew out of a desire by OSRA members to improve their environmental performance. Idling, especially by school buses and motor coaches, was identified as an issue of concern. Baseline data at each of the three pilot resorts were collected by University of Waterloo students, who observed idling in parking lots and drop-off/pick-up areas. During the observation period in January 2009, over 6000 personal vehicles, 255 school buses and motor coaches and almost 150 freight vehicles were monitored.

The observations showed that

- 48% to 64% of personal vehicle drivers parked in drop-off/pick-up zones idled. Where ticket booths were nearby, some drivers were observed purchasing tickets while letting their vehicles idle.
- 56% to 89% of motor coaches and school buses parked in drop-off/pick-up zones idled. Some motor coaches idled for the entire duration of their stay (an average of 4.5 hours).
- 42% to 50% of freight vehicles parked in drop-off/pick-up zones idled.

With these baseline data, a customized action plan for each resort was developed that included idle-free zones at slope-side idling hot spots. The tools used to encourage idling reduction at each resort varied (see table). "The tools that were selected were often driven by the resorts themselves," explains Del Matto, "or by student observations and recommendations on what tools could influence changes in idling behaviours." For example, she says that at one resort, students noticed that overnight guest parking passes, which hang from

Continued on page 5

Resort	Blue Mountain Resort Limited	Craigleith Ski Club	Glen Eden Ski and Snowboard Centre
Type of resort	Public	Private	Urban ski area operated by Conservation Halton
Size of facility	Largest public ski resort in Ontario	3000-member facility	Medium-sized facility
Pilot Action Plan Tools	Signs Web site communications Staff and guest newsletters "Be Idle-Free and Ski" helmet stickers awarded to drivers for not idling Incentive to bus drivers to turn off engine and wait indoors (e.g. space to wait in the Inn lounge, discounted food and beverages) Vinyl cling decals in ticket booth windows Modified overnight guest parking passes to read "Thank You for Turning Your Engine Off"	Signs Web site communications Electronic newsletter "Be Idle-Free and Ski" helmet stickers and colouring sheets for children Clean Air Exhibit	Signs Web site communications 8 magnetic signs mounted on 4 Glen Eden staff trucks One-day parking lot education campaign Idle-free pledge cards

Continued from page 4

rearview mirrors, were blank on the back. Seeing an opportunity, the students suggested that a reminder for drivers to turn off their engines be added to the back of the pass.

Following the pilot, students conducted a post-survey of visiting drivers and observed idling times once again. Idling at all idle-free zones except one was reduced. With this one exception, the pilot resulted in a 6 to 49% reduction in carbon dioxide (CO_2) emissions at the various pilot sites. Signs, helmet stickers, bus/coach driver incentives and communications with skiers were all well received by guests and resort staff alike.

One of the most interesting outcomes of the pilot was the relationship between idling and the operation of the pick-up/drop-off areas. "We found that the potential for reducing idling increases if the area is operated in an efficient manner," Del Matto explains. "In areas where vehicles could not move efficiently, idling occurred more often and for longer periods of time. If resorts can focus on improving these areas, not only will it improve the guest experience, it will also have the added benefit of reducing idling opportunities."

Del Matto has been busy promoting the Engine Idling Reduction Program (EIRP) to other ski resorts. To date, 14 ski resorts have signed up to implement the EIRP in 2010. Del Matto says that My Sustainable Canada and the OSRA hope to eventually extend the Ontario model to resorts across Canada. "We've already been talking to ski resort associations in other provinces," she says, "and we're looking at how to adapt the Ontario experience to other settings, such as Quebec and Western Canada."

Over the course of the average ski season (70 to 90 days), unnecessary vehicle idling in a ski resort's drop-off/pick-up zones can add up to thousands of kilograms of CO_2 emissions!

For more information about the Engine Idling Reduction Program, contact Tania Del Matto at 519-886-3699 or **Tania@mysuscan.org**, or visit the My Sustainable Canada Web site at **www.MySustainableCanada.org**. ■

Exhausting Facts

Here's what My Sustainable Canada calculated for one ski resort:

- 180 personal vehicles per day = 1714 to 4277 kg of CO_2
- 5 motor coaches/school buses per day = 805 to 2174 kg of CO_2
- 3 freight vehicles per day = 328 to 421 kg of CO_2

If none of these vehicles idled, one ski resort would eliminate 2847 to 6872 kg of CO_2 from being generated over the course of a ski season! That's equivalent to the weight of up to 1374 pairs of ski boots.

Atlantic Canada's First Idling-Control By-Law

What do Al Gore and a town councillor from Kentville, Nova Scotia, have in common? A passion for clean air and a greener future!

After seeing a presentation of Gore's *An Inconvenient Truth*, Councillor Eric Bolland took the film's message to heart and began putting it into action in Kentville. Bolland says that the film had a profound affect on him, especially as a father. "Everything we do affects the next generation," he says "We need to act now to reduce the impacts of climate change. We need to be proactive, not reactive."

And proactive he's been. With an enthusiastic Environmental Advisory Committee (EAC) at his side, Bolland launched the town's idling reduction campaign in January 2007 with a screening of Gore's film. The event was a great success, and since then Kentville has developed a campaign that has reached out widely to schools, merchants and residents through radio ads, notices and posters and other media.

Bolland says the EAC has received tremendous support from Kentville's mayor and council. In 2007, the town required all its properties and vehicles to go idle-free, and it became the first municipality in Nova Scotia to establish a carbon offset policy for air travel by its staff. Most recently, the town council passed an idling-control by-law – the first of its kind in Atlantic Canada.

Kentville's groundbreaking by-law prohibits idling for more than three consecutive

minutes. The by-law allows for fines, but the town wants to emphasize education, not enforcement with fines, for the first year. "By-law enforcement officers could

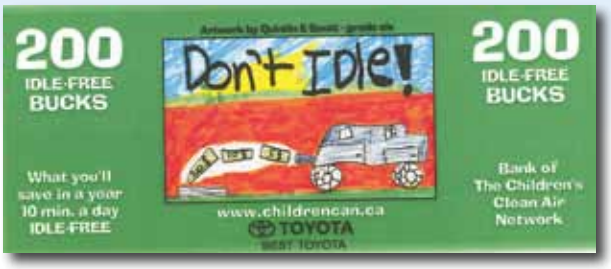
Continued on page 6

Continued from page 5

hand out tickets," Bolland says, "but for now they are giving violators an 'idling buck' instead, which is a mock dollar bill that reminds people that idling costs them money."

The idling control by-law has received widespread public support. A survey in 2008 showed that over 70% of residents supported the by-law and that over 80% were aware of the idling campaign. But getting the by-law implemented was not without its challenges. Initially, some councillors were not in favour of the new regulation, and the original desire to limit idling to 1 minute was challenged successfully.

When asked what advice he'd give to other municipalities looking to implement an idling-control by-law, Bolland placed the importance of building consensus at Council to do education first and by-law enactment second. "Educating people about idling is the carrot," he explains, "whereas having the legislation is the stick. When people understand the idling issue first, you build support for the by-law later and give strength to the message."



Bolland also emphasized the importance of surveying public opinion to demonstrate to council that residents support an idling control by-law. As well, he says it is important to engage commercial businesses that might be impacted by a by-law and to work with them to address their concerns.

Not wanting to limit a good thing to Kentville, Bolland, as chair of the Sustainability and Climate Change Committee of the Nova Scotia Union of Municipalities, is currently working to reduce GHG emissions province-wide. The first order of business is to develop a provincial idling reduction program that can be adapted for use by all municipalities. No doubt Al Gore would give an enthusiastic thumbs-up to that! ■

Airport Idling Reduction Program Takes Flight

Every day, thousands of vehicles drive to and from major airports like Vancouver's International Airport (YVR). And on-site fleets of hundreds of vehicles also deliver emergency services, food, maintenance, transportation and other services. With so many vehicles in operation every day, Vancouver Airport Authority recognized an opportunity to reduce its contribution to idling in Metro Vancouver. Under the direction of a working group, the Airport Authority in 2007 launched Idle-Free at YVR, a campaign to reduce unnecessary vehicle idling at the airport.

A 2007 inventory found that 286 000 t of CO_2 were being emitted from Sea Island, where the airport is located. While most of that amount comes from aircraft, the inventory showed that 4% of emissions were the result of ground traffic.

Idle-Free YVR focuses on the emissions from ground traffic using a community-based social marketing (CBSM) approach. "Right now, plane emissions are not something that we can change significantly," says Toni Frisby, Manager, Environment, Vancouver Airport Authority. "But we can use CBSM to influence the amount of emissions coming from aircraft emissions at the gate, our own fleet vehicles, our partners' fleet vehicles and visitor vehicles."

Idle-Free YVR's goal is to educate employees, bus and taxi drivers and the public about idling. The program uses commitment strategies and prompts to encourage changes in idling behaviour. An important aim of the program is to reduce idling frequency and duration for the Airport Authority's vehicle fleet, which includes YVR buses, trucks and emergency vehicles. Frisby says that fleet vehicles have prompts such as key tags and windshield stickers to remind drivers to turn off their engines. The Airport Authority also uses commitment strategies with employees to encourage idling reduction. As well, the Airport Authority's vehicle renewal program focuses on right-sizing vehicles for the task as well as on the purchase of hybrid and electric vehicles to reduce idling.

At curbside drop-off and pick-up areas, the public is targeted through no-idling signs that prompt drivers to turn off their engines.

For taxi companies, the Airport Authority has established an incentive to stop idling. "All taxi drivers need a license to pick up passengers at the airport," explains Frisby. "Alternatively fuelled taxis, such as hybrids, get a discount on these licenses." She says that the incentive has resulted in more hybrid taxis at the airport, helping to reduce GHG emissions. The Airport Authority has also done outreach with taxi companies through meetings and posters in the driver waiting area.

Some partner companies are going the extra mile to help the airport reduce idling emissions. Purolator Courier, for example, introduced 30 hybrid electric delivery vehicles to its curbside delivery fleet. The company also has a strict no-idling rule of no more than 20 seconds.

Continued on page 7

Quick Fact

A poorly tuned engine uses up to 15% more energy when idling than a well-tuned engine. So keeping your vehicle properly maintained according to the manufacturer's suggested maintenance schedule is a key to fuel efficiency and reduced GHG emissions.

Continued from page 6

Idle-Free YVR has revealed a few important lessons about implementing fleet idling programs, says Frisby. "It's really important to know your limits in relation to the operational needs of your fleet," she explains. "For example, for safety reasons our wildlife officers can't always turn off their vehicles. They may need to move around airside quickly and keep their beacons running, so sometimes you need to consider the unique needs of different vehicles within your fleet."

Frisby also notes that having an internal working group is essential to successfully implementing a program like Idle-Free YVR. Having experts, such as mechanics, explain technical issues to your audience is also key. "Having a mechanic there to back up your claims about idling engines is invaluable," says Frisby. Focusing on the health and financial benefits of not idling, instead of focusing on the environment, can also be more encouraging to some audiences.

Although the Airport Authority has not formally evaluated Idle-Free YVR yet, the program appears to be having an impact on idling behaviour. The next steps will be to continue efforts to reduce aircraft idling by equipping more gates with pre-conditioned air units and to implement a CARE program – Communication, Awareness, Recognition, Education – that will include lunch-and-learns and other intranet and educational efforts. ■

Curbing Fleet **Idling Down Under**

How do you get fleet drivers to change their idling behaviour? Toll IPEC, an international transport company in Perth, Australia, has the answer – engage drivers directly in designing the program, and positive results will follow.

Toll IPEC served as the pilot company for the CleanRun Behaviour Change Initiative (BCI), developed by Western Australia's Department of Environment and Conservation. The initiative is believed to be Australia's first to test community-based social marketing as a method to achieve measurable reductions in vehicle CO_2 emissions through voluntary behaviour change.

The trial, conducted in 2007/08, involved fleet drivers from the beginning by having them identify the behaviour to change and participate in program design. The 44 drivers who volunteered for Phase 1 of the pilot attended workshops where they identified idling as the focus behaviour. Idling was chosen as it was seen as an action within drivers' control that contributed substantially to vehicle CO_2 emissions.

In Phase 2 of the pilot, 42 drivers were assigned to one of four trial groups. Each group was exposed to a different set of tools – such as signs, truck stickers, posters, notice boards, commitments and feedback meetings – to see which would be most effective at bringing about behaviour change. These tools were then developed over the course of the trial and modified as needed, based on driver feedback.

This by-drivers, for-drivers approach was vital to the program's success. "One of the most exciting things was the level of enthusiasm drivers had for participating in the initiative," says Tina Stockport, CleanRun BCI Project Manager. "Over 50% of drivers volunteered to participate. Drivers told us that this aspect created a sense of ownership over the program, rather than just following another management mandate."

"Seventy-nine percent of CleanRun drivers said their involvement has prompted greener habits outside of work, like turning off lights and not idling their own cars." — CleanRun BCI Project Manager, Tina Stockport

This sense of ownership translated into 90% of drivers reducing unnecessary idling over the course of the program. Drivers exposed to all behaviour-change tools reduced idling by 87%, translating to a savings of 25 000 L of diesel fuel and 65 t of CO_2 per year for a company like Toll IPEC with 80 drivers. Feedback from drivers showed that their active engagement in the initiative was the key to

Continued on page 8

Did You Know?

Warming up the vehicle means more than warming the engine. The tires, transmission, wheel bearings and other moving parts also need to be warmed up for the vehicle to perform well. Most of these parts don't begin to warm up until you drive the vehicle.

Continued from page 7

changing driving habits and effecting long-lasting change. "In order to be relevant and effective, strategies to change behaviour must involve input from the people whose behaviour they are going to change," says Stockport.

The success of the program has not gone unnoticed. In 2008, Toll IPEC received the Environment Award from the Australian Fleet Managers Association for the company's contribution to the environment. Toll IPEC is now implementing the initiative across its national fleet. "Maybe because of this award, other companies will take on the program," says Toll IPEC Driver Fernando Lopez. "It shows that it's not just a passing fad."

Stockport hopes Lopez is right. CleanRun is now using the knowledge and experience gained in implementing the idling reduction program to develop an Ecodrive guide that addresses a number of driving behaviours. The intent of the guide is to provide transport-based organizations with the resources needed to implement an in-house behaviour-change program with their drivers. "Support for the program has been great," says Stockport. "All of our stakeholders can see the environmental, health and cost benefits to be gained from expanding the focus of the program to include a whole range of driving habits."

Even at the trial stage, the expanded program has had an effect on drivers from other companies. "Switching off is catching on," says Toll IPEC Driver Trainer Murray Frost. "If one turns the engine off, then other drivers see and start to turn theirs off too."

For more information, visit the Phase 2 Evaluation Report:
www.dec.wa.gov.au/component/option,com_docman/task,doc_details/Itemid,/gid,3871/ ■

Frequently asked question: With modern vehicle technology and more fuel-efficient cars, why do I have to worry about idling?

It's true that automakers have significantly reduced the criteria air contaminant (CAC) emissions from new vehicles. In fact, as a result of automakers' compliance with government regulations and the introduction of cleaner fuel standards, today's vehicles emit about 99% less CAC emissions than vehicles built in the 1970s. But one component in tailpipe emissions is directly impacted by the type and amount of fuel your vehicle uses – CO_2, the principle GHG linked to climate change. Every litre of gasoline that is burned produces about 2.3 kg of CO_2.

The bottom line: the more fuel you use, the more CO_2 you produce. And one easy way to cut fuel consumption is to avoid unnecessary idling. After all, it gets you nowhere.

For more information and resources, visit idling.nrcan.gc.ca.

Aussi disponible en français sous le titre :
Action contre la marche au ralenti – Édition printemps 2010

Inventory No. M27-01-2532E
ISSN 1911-172X (Print)
ISSN 1911-1738 (On-line)

The information provided and opinions expressed herein by stakeholder groups and their representatives should not be construed as the position and opinions of the Government of Canada.

EcoLogo · Printed in Canada / Imprimé au Canada · 100% Recycled paper · Processed Chlorine Free · This newsletter was printed using vegetable-based inks.