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**Canada and Kyoto—What’s Next?**  
By Michael Mysak, MBA, Senior Project Manager, PHH ARC Environmental & Patrick Fancott, M.Sc., P.Eng., Pinchin Environmental Ltd.

The Government of Canada released its Kyoto plan this week called Project Green – “Moving Forward on Climate Change: A Plan for Honoring Our Kyoto Commitment” as part of a broader initiative on environmental and economic sustainability. There still is uncertainty moving forward as we look to be headed towards a federal election soon, which could alter Canada’s approach to Kyoto. How did we get to this point and where are we going?

On February 16, 2005, eight years after its conception, the Kyoto Protocol came into force. Canada joins 144 countries representing 61.6% of the world’s greenhouse gas emissions in the effort to address global climate change. Canada is one of 36 countries in Annexe B of the Kyoto Protocol that have ratified and have legally binding emission reductions (the notable exceptions being the US and Australia). Canada has committed to reduce its greenhouse gas (GHG) emissions to 6% below 1990 levels over the period of 2008-2012.

We have been an active participant in international climate change negotiations and initiatives since ratifying the United Nations Framework Convention Climate Change (UNFCCC) in 1992 and the Kyoto Protocol in 2002, yet somehow we seemed surprised and flustered that Kyoto was actually here. Perhaps we secretly hoped that the deal would fall through and we could maintain the moral authority of having ratified Kyoto without going through the political and economic pain of meeting our commitments. Now that the deal is done, it’s worth looking at the magnitude of the challenge; the options available to Canada to meet its commitments and the potential impacts on Canadian businesses.

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**Speaking Engagements**

**Implications of the New BC Groundwater Protection Regulation**  
By Paul Embregts, P.Eng., Project Manager, PHH ARC Environmental

- |   |                       |
|---|-----------------------|
| • Jim Bagley<br>Canadian Association of Home and Property Inspectors Conference       | April 23<br>Victoria  |
| • Jim Bagley<br>Saskatoon Home Builders   | April 28<br>Saskatoon |
| • Jim Bagley<br>SPOSA Alberta Annual Conference                                       | May 17<br>Red Deer    |
| • Jim Bagley<br>Building Owners and Managers Association                              | May 19<br>Regina      |
| • Jim Bagley<br>Construction Solutions for Mould and Moisture Management in Buildings | June 1<br>Calgary     |
| • Don Jakul<br>Oil Sands 2005 Conference  | June 1-2<br>Calgary   |

**Introduction**

The first of three phases of the Ministry of Water, Land and Air Protection (MWLAP) Groundwater Protection Regulation (GWPR), under the BC Water Act, were enacted on July 2004. The overall purpose of the GWPR is to protect BC’s groundwater resources. The first phase of the GWPR entails:

1. Creation of a registry of persons who are qualified to install groundwater wells in BC.
2. Stipulating minimum well construction details for aquifer protection, and requirements to decommission wells when out of use.

The registration process for qualified well drillers commenced in November of 2005. Minimum well construction details and decommissioning requirements will come into effect on November 1, 2005. Phases 2 and 3 of the GWPR are still in development, and therefore it is unclear when these requirements will come into effect. The GWPR can be viewed at the following URL: [http://wlapwww.gov.bc.ca/wat/gws/gws\\_reg\\_back/gwpr\\_oics.pdf](http://wlapwww.gov.bc.ca/wat/gws/gws_reg_back/gwpr_oics.pdf)

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## Canada and Kyoto—What's Next? (Continued)

Canada's total GHG emissions in 1990 were 609 megatonnes (Mt) and our target in the compliance period is 572 Mt (a 6% reduction). The latest official inventory estimated emissions in 2002 at 731 Mt and our projected emissions in the Kyoto compliance period are 809 Mt. The difference between our target and the projected emissions, referred to as the "Kyoto Gap", is 237 Mt. Recent projections have revised the Kyoto Gap to be between 270 and 300 Mt. How big is 300 Mt? Under the European emissions trading program, in mid-March 2005, emission units were trading at just over 10 Euros per tonne (about \$16 Canadian). If Canada were to buy credits in Europe today to make up the 300 Mt, it would cost \$4.8 billion per year. Recent World Bank Analysis suggests the price of a tonne of CO<sub>2</sub>e in 2010 will be \$11 U.S. (+/- 50%). The challenge for the federal government and industry is to find a more cost effective combination of domestic reductions, supported by domestic emissions trading, and lower cost credits using the flexible mechanisms under Kyoto. Many experts have noted that it will be extremely difficult for Canada to meet its commitments without purchasing substantial credits on the international market.

What are our options? If every Canadian implements the One Tonne Challenge we will achieve 10% of our Kyoto Gap. The 2002 Climate Change plan for Canada outlined a three step plan to achieve 240 Mt of emissions reductions, which is now 270 Mt in the Green Plan. This plan was soft on regulation and strong on incentives and good-will action and has not achieved the expected results in the time-frames anticipated. There have been significant delays in developing a regulatory framework for the Large Final Emitters, a domestic emissions trading program has yet to materialize, a vague off-set plan has been discussed but not details have not been worked out.

Under Project Green, the Large Final Emitters will be responsible for a significant portion of the reductions under Canada's commitment, about 45 megatonnes (Mt), which was lowered from the originally proposed 55 Mt.

The Climate Fund (referred to as the Clean Fund in the Budget) is where the real meat of the Kyoto Plan lies and where the government hopes to secure up to 40% of our Kyoto commitment. Through the Climate Fund the Government of Canada will buy verified emission reductions from Canadian business and project developers. The fund will also have the ability to purchase international emissions reductions that support Canadian objectives. The fund requires that pro-

jects be approved by the government prior to generating emissions reductions and that all reductions must be verified in accordance with a process to be defined. The Kyoto Plan opens the door to a wide range of potential emission reduction projects which is good news for Canadian businesses who can receive a financial reward for climate friendly actions. More detailed rules for the Climate Fund are expected in the coming months. The initial fund commitment is \$1 billion but is forecast to be as high as \$4-5 billion by 2012.

The other elements that are incorporated into the Plan include 40 Mt for Reduction Programs such as energy efficiency and fueling switching, 30 Mt for Carbon Sinks, which include afforestation and agricultural practices, and 15 Mt from new renewable energy initiatives, including wind power, solar, small hydro and biomass.

What should businesses do now? If you don't know if you fall into the category of LFE, you should find out immediately because you may have emissions reporting obligations and be obligated to meet emission reduction targets.

It is difficult to know what will happen next with Canada's Kyoto plan or its participation moving forward. The Conservatives have said in the past that they will get Canada out of Kyoto, but one wonders if we have gone too far (commitment-wise) to withdraw now. Many large companies have invested significantly based on the expectation of Canada's commitments. The Conference of Parties (COP), which are all the countries that have ratified the Kyoto Accord, are planning to meet in Montreal in December 2005. Also, a Canadian, Ms. Sushma Gera, was recently appointed Chair of the CDM Executive Board, which oversees the CDM methodologies. Further uncertainty and delay in taking action could only set Canada further back, behind most other major industrialized nations in progress on emissions reduction.

The Pinchin Group has personnel who have been involved with emissions monitoring and reporting, strategy development, and CDM project development. We are aligned with international partners with strong experience on capacity development and project development utilizing the flexible mechanisms of the Kyoto Protocol. If you have any questions about your obligations or potential opportunities under Canada's Kyoto Plan, please contact:

- Patrick Fancott, M.Sc., P.Eng., at [pfancott@pinchin.com](mailto:pfancott@pinchin.com)
- Mike Mysak, MBA, at [mmysak@phharcenv.com](mailto:mmysak@phharcenv.com)



## Featured Upcoming PHH ARC Courses

For a complete list of upcoming training courses, visit [http://www.phharcenv.com/services/training\\_courses.htm](http://www.phharcenv.com/services/training_courses.htm)

### Hazards & Control of Mould in Buildings

- May 12, 2005
- Radisson President Hotel & Suites
- 8181 Cambie Road  
Richmond, BC  
V6X 3X9
- Guest speaker:  
Doug, Watt, Read Jones Christofferson

### Hazards & Control of Mould in Buildings

- May 13, 2005
- Hotel Grand Pacific
- 463 Belleville St.  
Victoria, BC  
V8V 1X3
- 8:30AM - 12:30PM

For more information, contact **Kristina Hanson** [khanson@phharcenv.com](mailto:khanson@phharcenv.com) or visit [www.phharcenv.com](http://www.phharcenv.com)

### Hazards & Control of Mould in Buildings

- April 29, 2005
- Chateau Louis Hotel
- 11727 Kingsway Avenue  
Edmonton, AB  
T5G 3A1
- 8:30AM - 5:00PM

For more information, contact **Angela Ross** [aross@phharcenv.com](mailto:aross@phharcenv.com) or visit [www.phharcenv.com](http://www.phharcenv.com)

For more information, contact **Kevin Lew** [klew@phharcenv.com](mailto:klew@phharcenv.com) or visit [www.phharcenv.com](http://www.phharcenv.com)



## Implications of the New BC Groundwater Protection Regulation (continued)

### WHO DOES THIS REGULATION AFFECT?

This regulation affects any business involved in the installation of a water well on a property, and any owner of property containing a well, or planning to install a well. Wells include drinking water wells, irrigation wells and monitoring wells. Monitoring wells are installed by environmental professionals (engineers and geo-scientists) for the purposes of determining whether or not contamination exists in the groundwater on a Site. Monitoring wells are also used to delineate and monitor a zone of contamination, and also sometimes to remediate a groundwater plume. Monitoring wells are typically installed by specialist drilling contractors under the supervision of environmental professionals.

### IMPLICATIONS OF THE REGISTRY

All groundwater well drillers must become registered on the MWLAP Qualified Well Driller Registry as of November 1, 2004. Drillers must fill out an application and submit it to MWLAP to be considered for the Registry. All well drillers with over five years experience with installing groundwater wells may be "grandfathered" into the Well Driller Registry. This grandfathering provision will end on October 31, 2006. The registry can be found at the following URL:

[http://wlapwww.gov.bc.ca/wat/qws/applications/well\\_drillers\\_reg.pdf](http://wlapwww.gov.bc.ca/wat/qws/applications/well_drillers_reg.pdf)

Environmental professionals should ensure that only qualified drilling contractors are used for environmental investigations or remediation programs. Site owners should also ensure that only qualified contractors are installing groundwater wells on their property.

### IMPLICATIONS OF WELL CONSTRUCTION AND DECOMMISSIONING REQUIREMENTS

The GWPR contains requirements for wells to have appropriate surface sealing and well caps, and requirements to deactivate or decommission wells if out of use for longer than five years. Deactivating a well entails inspecting and replacing, if required, the well cap and protective casing on a regular basis. All wells must be decommissioned after 10 years if not in use. After November 1, 2005, property owners of sites undergoing environmental investigations should ensure that all wells are constructed in accordance with the GWPR. In addition, all property owners with out of use groundwater monitoring wells or remediation wells should ensure that:

1. All wells on their property are equipped with proper plugs, and are inspected on a regular basis.
2. Any wells out of use for longer than five years should be deactivated or decommissioned, and any well out of use longer than 10 years should be decommissioned.
3. Well decommissioning should be completed by a qualified hydrogeologist or engineer. The results of the decommissioning must be reported to MWLAP as per Schedule 4 of the GWPR.

Please feel free to Contact Paul Embregts at 604-244-8101 should you have any questions concerning this article.



**PHH ARC Environmental Ltd. is a consulting and environmental services company that provides a wide range of environmental, engineering, geosciences and health & safety solutions.**

With over 20 years of experience, PHH ARC provides practical and professional services and solutions to ensure a better environment and workplace, which gives our clients peace of mind.

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