

# FLOW MONITOR

CANADIAN WATER POLICY WATCH

VOLUME 1 - FALL 2009



## MESSAGE FROM THE CO-CHAIRS

### WELCOME TO THE FLOW MONITOR

*The Forum for Leadership on Water (FLOW) is an independent group of water leaders and experts from across Canada that encourages government action to protect and steward our freshwater resources and ecosystems. We believe that all levels of government, business and civil society must work together as part of a Canada-wide strategy that effectively addresses current and emerging threats to freshwater security from coast to coast to coast.*

FLOW has evolved from the work of the Gordon Water Group of Concerned Scientists and Citizens, which came together to publish “*Changing the Flow: A Blueprint for Federal Action on Freshwater*”. FLOW intends to build on *Changing the Flow* by commenting on and advocating for follow through on strategic actions and policies by all orders of government who share responsibility for water security in Canada. The FLOW Monitor is an important part of this commitment and will be a regular means of sharing our perspective and identifying opportunities for action on Canadian water policy.

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To learn more about actions FLOW believes the Federal government should take to address topics covered in each article, this icon directs readers to relevant sections in *Changing the Flow*. [www.gordonwatergroup.org](http://www.gordonwatergroup.org)



## SPECIAL COMMENTARY

### TRACKING FEDERAL GOVERNMENT ACTIONS ON FRESH WATER

By Norman Brandon

*FLOW was born out of the shared belief of its members that the Government of Canada should be more fully engaged in the development and implementation of water policy in Canada. We are certainly not alone in this conviction – many other organizations and individuals have also called for a more active federal presence in water issues. FLOW decided that an early initiative would be a focused intervention on current water issues.*

On November 24, 2008 we wrote to the then newly appointed Minister of Environment, the Hon. Jim Prentice, urging that he consider taking immediate action in three priority areas – investing wisely in water infrastructure as part of the government’s stimulus package; improving transboundary water security; and facilitating strategic river basin planning. The full text of this letter and the response from Honourable Minister Prentice are on page 3.

FLOW appreciates the answers provided by the Minister. While the responses are positive, there are also signs that fresh water protection is not a current priority for the government. First, the promise of a national water strategy, an explicit commitment in the 2007 Speech from the Throne, is notable for its absence. Instead, the Minister’s response refers to an Action Plan for Clean Water. This plan – a compilation of funding announcements made in the government’s 2007 budget – is neither national nor strategic, focusing instead on a relatively limited set of issues and geographical areas, such as Lake Simcoe, Lake Winnipeg and Areas of Concern in the Great Lakes.

Further, in most instances where commitments are mentioned, what is described is the intention to act rather than specific actions completed. How do we track the results of \$93 million pledged to support the Action Plan for Clean Water?

The federal Commissioner of the Environment and Sustainable Development has pointed out several instances over the years where

the Government of Canada has not provided sufficient information to allow Canadians to assess its environmental performance. Most recently this spring, the Commissioner pointed out that “the government cannot demonstrate that some of its key environmental programs are making a difference”. When asked by a legislative committee about progress on water, the Commissioner stated: “We did not see any measurable progress in developing a national strategy or a national framework. There’s been a couple of media releases. There have been some announcements. But when we went in to the departments, there wasn’t enough in terms of discernable progress to say it actually looks like there’s something in place.”

Governments across the country have become very proficient in the communication arts. We are faced with a blizzard of announced intentions; but how do we know for example, that the \$7 million announced last year for Lake Winnipeg research, was spent on research, and specifically what research, or if it was spent at all? Without a cost breakdown and a project timeline for the initiatives, it is difficult to assess true progress. Meaningful reporting is an urgent priority. It increases transparency and accountability – the foundations of good governance.

The Government of Canada’s economic action plan reports have been important steps forward in increasing accountability for announced intentions. Why not develop a report card on what our federal government is doing to husband our precious water resources? Meaningful reporting in the form of annual state of the basin reports for Canada’s major watersheds for example, would go a long way towards enhancing national capacity for fresh water protection. After all, every one of our 8 major watersheds in Canada crosses provincial or territorial boundaries. The federal government has a substantial role in these matters and they cannot be left wholly to provincial governments to sort out, particularly as they have not been especially proficient at this task in the past. But that’s a topic for another day. **F**

#### MESSAGE FROM THE CO-CHAIRS CONTINUED



The lead article in this first edition of the FLOW Monitor is a commentary reviewing Environment Canada’s progress on select water policy priorities as outlined in our foundational document – *Changing the Flow*. Other topics in this first edition include:



- reflection on the success of the International Joint Commission on the 100th anniversary of the *Boundary Waters Treaty* between Canada and the United States;
- review of the numerous attempts to develop a Federal water strategy;

- update on First Nations drinking water policies; and,
- summary of the sustainable groundwater management report

On behalf of all members of FLOW, we would like to thank Nancy Goucher for her patience, perseverance and dedication in her role as our Program Coordinator, and in particular her efforts to launch this first issue.

Please send your comments, ideas and inquiries on FLOW and our work to [nancy@flowcanada.org](mailto:nancy@flowcanada.org).

Yours for improving Canada’s actions on water,  
**Jim Bruce & Tony Maas, Co-Chairs FLOW**

## LETTER FROM FLOW TO MINISTER OF ENVIRONMENT, NOV. 24, 2008

Dear Minister Prentice:

On behalf of the Forum for Leadership on Water (FLOW), we wish to congratulate you on your appointment as Minister of the Environment. FLOW, formerly the Gordon Water Group of Concerned Scientists and Citizens, is a group of Canadian water policy leaders that have come together under shared concern for Canada's freshwater resources and ecosystems. In October 2007, we released *Changing the Flow: A Blueprint for Federal Action on Freshwater*, which outlines priority actions for the federal government to address serious problems facing our freshwater. FLOW believes that the government's efforts to protect freshwater resources will create important economic, social and environmental benefits and we have outlined specific recommendations to address Canadians' growing concern for the safety and security of freshwater across the country.

FLOW commends the government's commitment in the Speech from the Throne (2008) to address bulk water concerns. This commitment is an important first step toward renewed federal action on Canadian freshwater policy. We are eager to work with you to build on this momentum to advance this and other opportunities to protect Canada's freshwater resources.

We urge your government to take immediate action in the following three priority areas to achieve results in the short term and set the stage for a long-term action plan to protect Canada's fresh water resources and ecosystems.

**1. INVEST WISELY IN INFRASTRUCTURE** – The importance of the government's \$33 billion Building Canada Plan as economic stimulus has grown significantly under recent volatile economic conditions. Used wisely, infrastructure investments can address Canada's water and wastewater deficit, which the Federation of Canadian Municipalities recently estimated at \$31 billion, and at the same time stimulate job creation and innovation in water and wastewater management.

**Recommended Action:** Work with Infrastructure Canada to ensure spending supports and encourages water efficiency and conservation programs by: 1) earmarking specific funds to support innovative municipal water efficiency programs; and 2) including demand management programs as a funding condition for large-scale water and wastewater projects as is done for transit projects under the Building Canada Plan. In addition to financial savings, such strategic investing would reduce municipal energy consumption and place cities on the path to sustainable infrastructure management. It is worth noting that British Columbia recently included water demand management conditions as part of its Living Water Smart strategy, and the Region of Durham, Ontario estimates it has delayed or even eliminated \$125 million in new water supply infrastructure through a 10-year \$17 million water efficiency plan.

**2. MOVING TRANSBOUNDARY WATER SECURITY FORWARD** – FLOW commends the government's commitments in the Speech from the Throne (2008) to bring in legislation to ban all bulk water transfers and exports from Canadian freshwater basins. This is an important initiative as the majority of Canadians oppose bulk water exports, and most Canadians recognize the ecological and economic wisdom of keeping water within major natural drainage basins and using it more efficiently.

**Recommended Action:** FLOW recommends your ministry work with the Department of Foreign Affairs and International Trade to engage in dialogue with stakeholders and Aboriginal governments to determine the precise extent of exemptions allowed and to which basins the prohibition applies, as recommended in the Canadian Water Issues Council's Model Act for Preserving Canada's Waters.

**3. FACILITATE STRATEGIC RIVER BASIN PLANNING** – Canadian water governance is beset by jurisdictional fragmentation, gaps in responsibility and a lack of coordination that together undermine effective management and protection of our freshwater resources and ecosystems.

**Recommended Action:** Coordinate with other federal departments, provinces and territories and Aboriginal governments to develop strategic plans for each of Canada's major river basins. Integrated river basin plans would establish priorities, goals and objectives to guide federal investments in activities such as research and monitoring, information sharing and transboundary conflict management. FLOW recommends the federal government begin by focusing on the Mackenzie River Basin to proactively address growing conflict between upstream and downstream jurisdictions and to protect economic, social and ecological security across the river basin.

The members of FLOW welcome the opportunity to work with you and your Ministry to foster Canada's commitment to conserve and protect its water resources. We look forward to further discussing these priorities and will contact your office in the next few weeks with the hopes of arranging a meeting with you early in the New Year.

## APRIL 2, 2009 MINISTER PRENTICE REPLIED:

... the Government of Canada believes that freshwater issues are among the most important environmental challenges. Today, I am pleased to outline some of the initiatives that the government is taking to protect and preserve freshwater resources now and for future generations.

The Government of Canada is moving to protect and preserve our major watersheds through a number of means. Water protection measures were taken with the Government of Canada committing \$93 million to support the Action Plan for Clean Water that will ensure clean and safe water for Canadians. This plan sets the direction for concrete action that will improve the quality of drinking water, clean up polluted waters and protect ecosystems.

In terms of strengthening transboundary water security, our government has committed to bring in legislation to ban all bulk water transfers or exports from Canadian freshwater basins. In addition, Canada currently has restrictions in place through the International Boundary Waters Treaty Act and its regulations, prohibiting the bulk removal of water from the Canadian portion of boundary waters, like the Great Lakes and St. Croix basins. The federal prohibition is backed by serious fines of up to \$1 million and up to three years imprisonment or both.

Because water issues cross numerous jurisdictions, we are committed to collaborating with partners and stakeholders to strengthen initiatives to protect this vital resource. The federal government plays a key role in most interjurisdictional and multisectoral mechanisms for cooperation on water management in Canada. These range from our participation in the Canadian Council of Ministers of the Environment to our involvement in other governance mechanisms including various ecosystem initiatives and action plans, the Prairie Provinces Water Board, the Mackenzie River Basin Board, the federal-provincial hydrometric network, and the North American Wetlands Conservation Council (Canada). The Government of Canada will continue to take an integrated approach to watershed management that promotes the sustainable use of our water resources.

A Canada-wide Strategy for the Management of Municipal Wastewater Effluent was endorsed by the Canadian Council of Ministers of the Environment on February 17. I am pleased with this outcome as I consider the Strategy to be a sound and comprehensive approach that will guide all levels of governments in reducing the risks associated with effluents released from wastewater systems. The Strategy will facilitate the development of a harmonized regulatory framework for the management of wastewater effluents in Canada. As part of the federal government's contribution to implement the Strategy, proposed wastewater effluent regulations under the Fisheries Act are targeted for publication in late 2009. The regulations would be applicable to all wastewater effluent releases to surface water from municipal and other wastewater systems and would include requirements to achieve secondary treatment or the equivalent.

Through Building Canada, the Government of Canada is taking action to make strategic investments in infrastructure that contribute to a growing economy, a cleaner environment, and strong and prosperous communities. The \$33-billion Building Canada plan represents the largest federal commitment to public infrastructure ever made. With Canada's Economic Action Plan, the government is accelerating and expanding its infrastructure spending, with almost \$12 billion in new stimulus funding over two years to help Canada deal with the global economic crisis. These funds will support priority infrastructure projects across all eligible categories, including water and wastewater.

The Government of Canada is working within its own areas of responsibility and together with other levels of government in Canada to ensure concerns are being addressed today to secure a safe and healthy environment for our children and generations into the future.



Hillary Clinton and Lawrence Cannon at the 100th anniversary celebrations of the Boundary Water Treaty. Photo by Department of Foreign Affairs and International Trade.



LINKING BACK TO *CHANGING THE FLOW...*  
Action 20: Make support for a strong International Joint Commission a national priority

## THE INTERNATIONAL JOINT COMMISSION AND THE FUTURE OF BOUNDARY WATER SECURITY

By Ralph Pentland and Bob Sandford

*This year marks the one hundredth anniversary of the Boundary Waters Treaty—an important opportunity for Canadians to reflect on the International Joint Commission’s contribution to Canadian water security, and also its role in the future.*

The International Joint Commission (IJC) is the binational body created by the 1909 Treaty to resolve disputes between Canada and the U.S. over shared boundary waters. Domestic and international water experts recognize the IJC’s core principles—equal representation, decision by consensus based on joint fact finding, public consultation, objectivity, and flexibility—as real strengths that have made the IJC a model for the rest of the world. The Treaty was way ahead of its time, and the IJC should be congratulated for a century of unprecedented success in proactively addressing issues of concern in waters shared by Canada and the United States.

**The Commission has received close to 100 references in 100 years of existence, and has only failed to reach full consensus on two occasions, with governments acting on their recommendations in the vast majority of cases. This is a remarkable track record.**

When one considers the cumulative impacts of 21st century pressures now facing boundary waters, the role of the IJC becomes more critical than ever before. Global warming, endocrine-disrupting

pollutants, and invasive aquatic species are just some of the issues exacerbating the historical challenges that have affected boundary waters. Given the essential economic and ecological services these waters provide to both Canada and the U.S., it is clear that both countries have significant interests to empower the IJC to work with governments and civil society to manage these problems and prevent or resolve water disputes.

Unfortunately, water experts have identified two concerning trends in recent years hindering the ability of the IJC to respond to threats facing boundary waters and its future utility as a vehicle for conflict resolution. These trends relate less to the general model of binational cooperation embodied by the IJC and underpinned by its principles outlined above, and have more to do with inadequate resource and political support from the federal governments of Canada and the United States.

First, expedient political processes have increasingly been substituted for the sound technical approach offered by the IJC. The example of the Devils Lake outlet and Red River Valley Water Supply projects is a case in point (see page 5). The IJC is tailored to address these issues, yet neither the Canadian nor the American federal governments referred it to the IJC.

The same trend has been evident in the Great Lakes-St. Lawrence River Basin region where the IJC’s role in overseeing the implementation of the *Great Lakes Water Quality Agreement* was eroded in favour of politically driven mechanisms. Notably, this change in approach coincided with a decline in the Agreement’s effectiveness in addressing pollution in the lakes, as well as a weakening of government accountability and public engagement.

The second concerning trend is the decline of federal water science capacity in recent years. This has further compromised the ability of the IJC to protect Canadian water security since the IJC relies heavily on highly credible scientific experts housed within government to assist its fact finding efforts.

The anniversary of the IJC marks a critical juncture in the institution’s evolution. Governments can reverse these troubling trends by capitalizing on opportunities to reinvigorate the Commission. Encouragingly, the Canadian and American governments recently announced that they are committed to amending the *Great Lakes Water Quality Agreement*. It will be important that the process of renegotiation provides an opportunity to modernize the Agreement and to re-invest in the IJC’s capacity to effectively oversee its implementation.

The IJC’s International Watersheds Initiative offers another opportunity. Through pilot projects in four river basins, the IJC has demonstrated its flexibility to adapt to increasingly complex socio-economic and environmental factors. There is substantial opportunity for government to build on these pilots by providing the resources required to expand this effort along the entire length of the border.

FLOW believes that it is important for the Federal Government to work with the United States to enhance the capacity of this important binational dispute-resolution body. As the IJC begins its second century of activity facing substantially more complex problems than in its first, the need for greater federal support is clearly more urgent than ever. **F**

# FLOW Commends Commitment to Amend Great Lakes Water Quality Agreement

Canada and the United States announced their commitment to amend the *Great Lakes Water Quality Agreement* at the 100th anniversary celebrations of the *Boundary Waters Treaty* in June. Lawrence Cannon, Minister of Foreign Affairs, and U.S. Secretary of State Hillary Clinton made a joint announcement expressing their intent to modernize the Agreement to address current and emerging challenges in the Great Lakes and the portion of the St. Lawrence River that straddles the Canada-U.S. border. FLOW commends both federal governments on this announcement and hopes this signals a renewed commitment to effective binational cooperation for shared waters.

## TOP 10 REASONS TO CELEBRATE THE IJC

1

It embodies established, time-tested protocols for recognizing and dealing with water issues of common interest to both nations.

2

It is our most venerable independent repository of experience and knowledge in transboundary relations and conflict resolution over water issues.

3

It represents a consensus-based mechanism for resolving disputes with provisions for tracking results and updating responses to ensure problems are actually solved and stay solved.

4

It is an institution that has the freedom to evolve over time.

5

It elevates water issues to high political status in both countries in a manner that results in superior policies that transcend local jurisdictional self-interest.

6

It has encouraged the development of a continental sense of joint reliance on water resources that promotes constant improvement of management practices.

7

Its century of unprecedented success in proactively addressing water and water-related matters of concern to both Canadians and Americans has pre-figured diplomatic successes and public policy advancements in other domains of joint political and economic interest.

8

It exemplifies for the rest of the world how successful transboundary water relations can be conducted between riparian neighbours.

9

It represents an enduring example of ecological governance in practice: it addresses ecological function as it relates to water management within relevant ecological boundaries, such as watersheds.

10

Such successful examples have much to teach as we seek to improve our institutions and legal frameworks to address the emerging socio-ecological challenges of the 21st Century

## Ongoing Boundary Water Conflicts

The Devils Lake outlet and the Red River Valley Water Supply projects are examples of ongoing boundary water conflicts between Manitoba and North Dakota. The primary reason for Manitoba's opposition is that the Devils Lake Outlet project would allow invasive species access to Lake Winnipeg, threatening the aquatic health of the Lake that supports aboriginal communities, tourism, recreation and the largest commercial Pickerel fishery in the world. In June 2007, North Dakota proceeded to open the Devils Lake outlet. This occurred despite the fact that it had not installed an advanced filter, as was required in an agreement with Manitoba and the Government of Canada. The Red River Valley Water Supply Project in North Dakota also poses a threat to water quality in Manitoba by diverting water across the continental divide from the Mississippi Drainage Basin to the Hudson Bay Drainage Basin.



## ACTIVITY BUT NO ACTION: FAILED ATTEMPTS AT IMPLEMENTING A FEDERAL WATER STRATEGY IN CANADA

By Ralph Pentland and Oliver M. Brandes

*Widespread recognition of the pressing need to advance fresh water security through a federal water strategy is emerging. In recent years, an increasing number of documents, strategies and blueprints calling for a federal (or national) water policy have been presented to the Federal Government by NGOs, academic groups, professional associations and think tanks across Canada.*

Despite the growing consensus that Canada requires a progressive and comprehensive strategy to deal with current and emerging threats to its water, the last federal water policy was tabled two decades ago. It was never fully implemented and was essentially shelved in the mid-1990s. **Since then, government and other agencies have made more than a dozen attempts to articulate or inform a new federal water strategy.** Figure 1 presents a chronology of these initiatives and reveals that while substantial bureaucratic resources have been expended to define and develop such a strategy, they have yet to be converted to actual policy or any real action on the ground.

Why is this? Perhaps it is a lack of political will, or the difficulty of building consensus between federal departments—with up to 20 federal departments touching on water—or the fear of stepping into provincial jurisdiction. Whatever the reason, it is clear that Canadians are unwilling to wait another 20 years for comprehensive federal action.

**In a recent public opinion poll, fresh water was identified as Canada’s most important natural resource and a ‘national water strategy’ was identified as the top government priority for addressing Canada’s freshwater challenges.**

With overwhelming public support, it is surely time for the Federal Government to make a clear commitment and start delivering. This necessitates leadership and a process that involves all the key stakeholders including other levels of government, First Nations and civil society. **F**

FIGURE 1: CHRONOLOGY - ATTEMPTS AT A FEDERAL WATER STRATEGY





## 2006

*Federal Interests in Water: Setting EC's Priorities* – Draft report likely prepared in response to criticism from the Commissioner on Environment and Sustainable Development‡

## 2002

*A Comprehensive Diagnostique on Water in Canada* – Draft report prepared by numerous Environment Canada employees, but never finalized‡

## 2006

*Freshwater for the Future: Policies for Sustainable Water Management in Canada Conference* – Conference hosted and proceedings developed by the Policy Research Initiative – attempt to publish comprehensive policy paper based on conference was aborted‡

## 2008

*Speech from the Throne* – Commitment to legislation to prohibit bulk removals of water from Canada's major river basins.\*

## 2009

*Strengthening Integrated Water Resources Management in Canada: A Discussion Paper* – Prepared by the Policy Research Initiative; outlines policy considerations for a federal water management strategy.‡

## 2004

*Federal Water Framework* – Draft vision and catalogue of federal programs prepared for a Committee of Deputy Ministers‡

## 2007

*Protecting Canada's Water Resources: Diagnostique* – Document prepared for a committee of Deputy Ministers‡

## 2007

*Speech from the Throne* – Commitment to a new water strategy\*

## 2009

*The Sustainable Management of Groundwater in Canada* – Prepared by the Expert Panel on Groundwater (Council of Canadian Academies) at the request of Natural Resources Canada†



## STILL NO LEGAL REGIME IN PLACE UPDATE ON FIRST NATIONS SAFE DRINKING WATER

By Merrell-Ann Phare

*The crisis regarding First Nations drinking water is persistent and well known. It received widespread attention in 2005 when the Commissioner for Environment and Sustainable Development raised serious concerns about the Government of Canada's handling of this fundamental service to First Nations, reporting that "despite the hundreds of millions in federal funds invested to improve drinking water on reserves, a significant proportion of drinking water systems in First Nations communities continue to deliver drinking water whose quality or safety is at risk."*

Four years after the release of this report, 20% of First Nations people in Canada still lack access to clean, safe drinking water. One of the major causes of the poor state of First Nations drinking water, said the Commissioner, is the lack of a legal regime.

The absence of a legal regime, or the so-called 'regulatory gap', is the result of three factors:

1. there is no legislated standard for water quality on federal (reserve) lands;
2. provincial water policy and laws do not govern nor benefit First Nations because they do not apply on reserve lands; and
3. the inherent jurisdiction of First Nations to govern water is not recognized by provincial and federal governments.

In 2006, the Assembly of First Nations and the Government of Canada agreed to establish a panel of experts to review the situation. The Expert Panel on Safe Drinking Water for First Nations provided

a comprehensive and well-received report. To close the regulatory gap, the panel outlined three options that could form the basis of a drinking water regime on First Nations reserve lands:

**OPTION 1** – Apply provincial standards and requirements on reserves through a process of 'incorporation-by-reference'

**OPTION 2** – Create a new federal law that would apply on federal lands in Canada

**OPTION 3** – Create a regime based on the inherent rights and jurisdictions of First Nations

**The Expert Panel found that Option 1 was the least desirable for legal and political reasons. Despite this, Indian and Northern Affairs Canada (INAC) indicated in testimony given to the Senate Standing Committee on Aboriginal Peoples that this was their Minister's preferred approach.**

In early 2009, INAC formally began consultations with First Nations to determine what they would perceive the impacts to be if such a regime was adopted. First Nations were given between 11 and 14 weeks to assess these impacts and provide comments. The consultations concluded in March 2009.

First Nations, through reports that are available on the website of the Assembly of First Nations, identified significant inadequacies in the consultation process, including:



## RESOURCES BY FLOW MEMBERS



### MAKING THE MOST OF THE WATER WE HAVE: THE SOFT PATH APPROACH TO WATER MANAGEMENT (2009)

Published by Earthscan Books

*Edited by David B. Brooks, Oliver M. Brandes and Stephen Gurman*

This is the first book in the world to comprehensively present and apply the water soft path approach. It uses both Canadian and international examples to illustrate the economic and political feasibility of this approach. The soft path analysis is not only conceptually attractive, but also analytical and practical. See [www.poliswaterproject.org](http://www.poliswaterproject.org) for details.



### RESTORING THE FLOW: CONFRONTING THE WORLD'S WATER WOES (coming October 2009)

Published by Rocky Mountain Books

*By Robert William Sandford*

Instead of waiting for a water crisis of our own, Canadians may well wish to put lessons learned elsewhere in the world into active relief and avoid the same kinds of problems other countries are facing with respect to the protection of water resources. *Restoring the Flow* explores how Canada can employ enlightened attitudes towards the management of water resources to advance its own ecological and economic sustainability goals.



### DENYING THE SOURCE: THE CRISIS OF FIRST NATIONS WATER RIGHTS (2009)

Published by Rocky Mountain Books

*By Merrell-Ann Phare*

First Nations are facing significant water crises. Their lack of access to safe drinking water is well known, and yet progress is painfully slow. They have been excluded from many important decisions, as provinces operate under the view that they own the water resources within provincial boundaries, and the federal government takes a hands-off approach. Over the last 30 years, the courts have clarified First Nations rights to land and resources, including the right to be involved in decision-making. This book is a call to respect First Nations water rights, and through this create a new water ethic in Canada and beyond.



#### LINKING BACK TO *CHANGING THE FLOW...*

Priority 3: Securing Safe Drinking Water for all Canadians

Priority 4: Protecting Aquatic Ecosystems and Aboriginal Rights

- timeframes were too short to meaningfully assess the impacts of such a regime and to adequately involve community members;
- consultations were under-resourced;
- INAC did not provide information on alternative options for addressing the regulatory gap; and
- INAC did not provide any financial information such as how the regime would be resourced.

These inadequacies existed despite the Expert Panel and First Nation consultation reports indicating that a lack of identified resources coupled with new regulatory requirements could be 'calamitous' and would set up First Nations for failure. Significantly, the consultations provided no opportunity for First Nations to discuss the impacts of applying provincial policies on their lands to their water or governance-related rights and interests. In short, First Nations are asserting that the process was not a consultation, and that meaningful involvement has yet to occur.

The next steps are unclear and the current status of this issue is unknown. INAC has not yet released a report on its response to the consultations and has not announced how it intends to address the concerns of First Nations.

Meanwhile, the Assembly of First Nations is currently developing an exciting initiative that follows up on the findings of the Expert Panel. They are scoping the structure of a First Nations-led safe drinking water regime, including the creation of a First Nations Water Commission. Results of this process should be available by the end of 2009. FLOW hopes that in the quest for safe drinking water for First Nations, the Federal Government works with Aboriginal governments and communities to recognize aboriginal water rights. **F**



LINKING BACK TO *CHANGING THE FLOW...*  
Priority 7: Developing World Class Science

## SUSTAINABLE MANAGEMENT OF GROUNDWATER IN CANADA

By Jim Bruce, Chair of Expert Panel on Groundwater

*On May 11th, the Council of Canadian Academies released a new report entitled, The Sustainable Management of Groundwater in Canada. It points out that “about 10 million Canadians depend on groundwater to supply drinking water”.*

This is in addition to extensive uses for irrigation, stock watering, energy production and industry. The study was initiated by Natural Resources Canada, who posed the following question to the Council:

“What is needed to achieve sustainable management of Canada’s groundwater, from a science perspective?”

To answer this question, the Council appointed an Expert Panel, who began by defining five criteria or goals for groundwater sustainability to assess the Canadian situation, and to guide Canadian jurisdictions in moving towards more sustainable management. The defined criteria are:

1. **Protection of groundwater supplies from depletion** – prevent over-pumping that would produce long-term regional declines in water levels
2. **Protection of groundwater quality from contamination** – both chemical and microbiological pollution to be prevented
3. **Protection of ecosystem viability** – withdrawals should not adversely affect ecosystems in surface waters fed by groundwater outflows
4. **Achievement of economic and social well-being** – allocation maximizes potential of social and economic values
5. **Application of good governance** – decisions on groundwater use and land use that affect groundwater be transparent and accountable and involve local participation

The Panel recognized that it was impossible to comprehensively assess the extent to which these goals were being achieved in all of Canada. Instead the Panel focused on eight case studies from across Canada and three contrasting case studies in the United States (completed with the assistance of two American experts on the Panel).

The report cites several examples that approached sustainable management of groundwater, as it is defined in the study – including the case studies of Basses-Laurentides (northwest of Montreal), and the Oak Ridges Moraine (just north of Toronto). In both cases, cooperation between federal, provincial and local

scientific efforts allowed municipalities and watershed authorities to access the information required to undertake sustainable land use management to conserve and allocate groundwater and related surface waters.

On the other hand, the report also identifies a number of less sustainable situations. Nitrate contamination of groundwater in intensive agricultural regions was evident in many locations across Canada, from Prince Edward Island to the Abbotsford-Sumas aquifer that straddles the B.C-Washington border. In the Athabasca oil sands projects, the impact of surface mining and in situ extraction of bitumen on local groundwater supplies is largely unknown. In the Great Lakes, the relationship between ground water and surface water is not well understood.

**Throughout Canada, neither the observational data nor the data management systems required to support the sustainable management of groundwater are readily available in standardized form.**

This limits the exchange of useful information between users and jurisdictions. Furthermore, it is estimated that over 30,000 contaminated sites need monitoring and possible remediation.

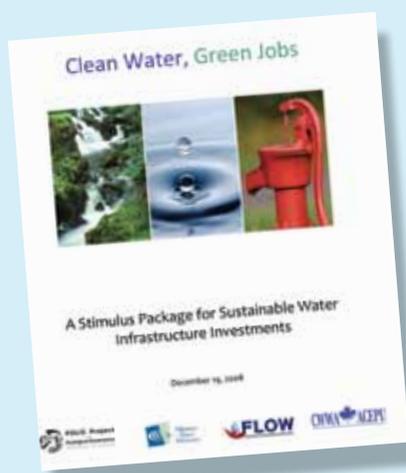
The report recommends that:

- a) Groundwater and surface water be managed in a comprehensive manner, with quantity and quality considered together.
- b) A goal-based sustainability framework, such as that above, be adopted by provincial and federal governments.
- c) A forward-thinking agenda be adopted to include:
  - i) Provincial-federal-local cooperation in standardizing data collection and data management systems.
  - ii) A proposed research agenda, which includes among other things, an improved definition of ecosystems needs, the valuation of groundwater, and an assessment of climate change impacts.
  - iii) A Federal-Provincial government report on the state of groundwater in Canada – to be completed within 2 years, and periodically thereafter to provide up-to-date progress on managing groundwater in a sustainable way in Canada.

For the full report and the summary document, *Report in Focus*, visit [www.scienceadvice.ca](http://www.scienceadvice.ca). Available in English and French. **F**

## FLOW BRIEFING NOTE:

# Clean Water, Green Jobs: A Stimulus Package for Sustainable Water Infrastructure Investments



In partnership with the Canadian Water and Wastewater Association, the POLIS project on Ecological Governance and the Alliance for Water Efficiency, FLOW released *Clean Water, Green Jobs: A Stimulus Package for Sustainable*

*Water Infrastructure Investments*. Submitted to the federal government in advance of Budget 2009, the plan supported smart and sustainable investments in water infrastructure.

To create jobs in the near term, save Canadians money in the long-term, and foster Canadian innovation, the plan advocated repairing and upgrading existing infrastructure, restoring green infrastructure, and conserving water and energy. So far, federal stimulus spending has been announced for improvements in hard water infrastructure, but it is not clear that any efforts have been undertaken to support innovation in green forms of water infrastructure or water conservation and efficiency. This represents a missed opportunity and contrasts U.S. federal water infrastructure spending where at least 20% of funding for drinking water systems must go to green infrastructure.



LINKING BACK TO *CHANGING THE FLOW...*

Action 11: Create a Comprehensive Toolkit for Preventing Water Pollution

## NEW WASTEWATER REGULATIONS A POSITIVE DEVELOPMENT

On August 6th, 2009, the Minister of the Environment announced new regulations for wastewater performance standards. Although the timelines for implementation are longer than is perhaps desirable, and there are concerns relating to the level of federal support for upgrading wastewater plants, the impetus for standardizing wastewater treatment performance is a welcome development. The announcement is also noteworthy for the constructive relationship on this issue between the Federal Government and the Canadian Council of Ministers of the Environment (CCME) – the CCME developed the Municipal Wastewater Strategy to which this action relates. FLOW hopes that the Federal Government will build on this concrete action and its relationship with CCME to develop a comprehensive strategy for the protection of Canada's fresh water supply.

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# FLOW MEMBERS

The Forum for Leadership on Water (FLOW) is an independent group of water experts from across Canada that encourages government action to protect and steward our critical freshwater resources. We are committed to proposing policy solutions, urging action and tracking progress towards a more sustainable water future.

We believe that all levels of government and broader civil society must work together as part of a Canada-wide strategy that effectively addresses current and emerging threats to freshwater security.

To sign up for future editions of the FLOW Monitor, visit our website [www.flowcanada.org](http://www.flowcanada.org).

## **David R. Boyd, POLIS Project on Ecological Governance, University of Victoria**

David is a leading environmental lawyer, a Trudeau Scholar and an adjunct professor at Simon Fraser University. He is a Senior Associate with the University of Victoria's POLIS Project on Ecological Governance.

## **Oliver M. Brandes, POLIS Project on Ecological Governance, University of Victoria**

Oliver is the Associate Director and leads the Water Sustainability Project at the University of Victoria's POLIS Project on Ecological Governance. His research focuses on watershed governance and legal and institutional reforms for sustainable water management and he provides strategic policy and governance advice to all levels of government and non-government organizations.

[www.poliswaterproject.org](http://www.poliswaterproject.org)

## **Norm Brandson, Water and Resource Policy Consultant**

Norm is a Professional Engineer and a practicing consultant on resource and environmental issues. He has been Deputy Minister of the Department of Environment and the founding Deputy Minister of the Departments of Conservation and Water Stewardship in Manitoba.

## **James P. Bruce, Soil & Water Conservation Society**

Jim is Canadian Policy Representative for the Soil and Water Conservation Society and a consultant on climate change adaptation, water management and natural disaster mitigation. He has been Director of the Canada Centre for Inland Waters as well as the Assistant Deputy Minister for Environmental Management and Atmospheric Environment.

[www.swcs.org](http://www.swcs.org)

## **Marc Hudon, Nature Québec**

Marc is Director of the St. Lawrence River/Great Lakes program at Nature Quebec and President of the Priority Intervention Zone Committee on the Saguenay river. He is also President of the Quebec Regional Advisory Council on Marine Oil Spills.

[www.naturequebec.org](http://www.naturequebec.org)

## **Tony Maas, WWF-Canada**

Tony is Freshwater Director with WWF-Canada. His work takes him across Canada and around the planet to engage business leaders, policy makers, politicians and citizens in freshwater stewardship and conservation.

[www.wwf.ca](http://www.wwf.ca)

## **Linda Nowlan, Environmental Lawyer**

Linda is an environmental lawyer, with over twenty years of experience in a range of areas. She was previously at the Program on Water Governance at the University of British Columbia, and before that was the Executive Director of West Coast Environmental Law.

## **Ralph Pentland, Canadian Water Issues Council and Ralbet Enterprises Inc.**

Ralph is Acting Chair of the Canadian Water Issues Council and President of Ralbet Enterprises Inc., where he consults on a variety of water and environmental policy issues. He was Director of Water Planning and Management in the Canadian Department of Environment from 1978 to 1991.

## **Merrell-Ann Phare, Centre for Indigenous Environmental Resources**

Merrell-Ann Phare is Executive Director and Legal Counsel to the Centre for Indigenous Environmental Resources. She serves on numerous advisory committees and consultation bodies, including the Joint Public Advisory Commission of the NAFTA Commission for Environmental Cooperation.

[www.cier.ca](http://www.cier.ca)

## **Robert Sandford, United Nations International Decade "Water for Life" Decade**

Bob Sandford is the Canadian Chair of the United Nations International Decade "Water for Life" Decade, a national partnership initiative that aims to advance long-term water quality and availability issues in response to climate change in this country and abroad. Bob is also the Director of the Western Watersheds Climate Research Collaborative.

[www.thinkwater.ca](http://www.thinkwater.ca)

[www.rwsandford.ca](http://www.rwsandford.ca)