Water Security for Canadians

Modernizing Federal Freshwater Leadership

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This white paper was prepared by the Water Security for Canadians Initiative,[1] a collaboration of water science and policy experts who are working together to advance solutions to Canada's emerging water crisis. The paper was developed as a contribution to ongoing dialogue regarding the federal government's commitment to establish a Canada Water Agency. We commend this commitment, but strongly believe that additional steps are needed to modernize federal water leadership and safeguard Canada's freshwater.

As we stated in our 2019 concept note, "it is no longer desirable – or even possible – to maintain the status quo in terms of water management and governance in Canada". Our country faces serious water challenges that are rapidly intensifying due to climate change. Strong federal leadership is needed to address these challenges and ensure long-term water security for all Canadians. We propose a two-pronged approach to modernize federal freshwater leadership: institutional and legislative reform. Establishment of a robust Canada Water Agency is an important step toward institutional reform. Legislative reform must begin with renewal of the *Canada Water Act*, the federal government's primary freshwater legislation. These two processes should be undertaken without delay to prepare the country for the increasingly complex water challenges of the 21st century.

This document provides guidance to assist the federal government in achieving these institutional and legislative reforms. Part I summarizes recommended actions and key priorities to guide establishment of an effective Canada Water Agency and renewal of the *Canada Water Act*. Part II provides more detailed rationale and considerations supporting our recommendations. This is a living document: it is intended to generate discussion and solicit feedback from across the water community, and to help refine and strengthen our shared vision of a water secure future for all Canadians.

[1] The Water Security for Canadians Initiative is a partnership of Global Water Futures, Forum for Leadership on Water (FLOW), Centre for Indigenous Environmental Resources, University of Victoria's POLIS Project on Ecological Governance, and United Nations University Institute for Water, Environment and Health.

PART I: RECOMMENDED ACTIONS AND KEY PRIORITIES

RECOMMENDED ACTIONS

To modernize federal freshwater leadership and ensure Canada's water security, it is recommended that the federal government move expeditiously to:

1. Establish the Canada Water Agency

1.1 Undertake an **interdepartmental reorganization** that brings together key water units from across the federal government into a single Canada Water Agency. The Agency should be anchored by two major units from Environment and Climate Change Canada: the National Hydrological Service (NHS) and Water Science and Technology Directorate (WST). In addition to the NHS and WST, a cross-departmental review will identify key water units from Agriculture and Agri-food Canada, Fisheries and Oceans Canada, Natural Resources Canada, and other federal departments that should be brought together under the Agency.

1.2 Appoint an **Agency head** tasked with developing an appropriate organizational mandate and structure through extensive and sustained dialogue with provincial, territorial, and Indigenous governments.

1.3 Appoint a **Chief Water Security Officer** to lead science, technical, and policy development in the Agency and build a knowledge-based organization that can implement the key priorities listed below. The Officer should also have an independent investigation function to anticipate disputes and facilitate resolutions concerning waters that flow along or across internal or Canadian boundaries.

1.4 Leverage expertise and capacity from **water-focused academic institutions and organizations** from outside of government to better inform governmental science, policy, and program development. This should include development of a research subvention program administered by the Tri-Council federal research agencies to support key research priorities and to establish centres of scientific and technical excellence in support of the Agency.

1.5 Mandate the Agency to guide federal **water-focused stimulus spending** related to COVID-19 and green recovery efforts.

2. Renew the *Canada Water Act*

2.1 Amend the existing *Canada Water Act* to **address current and future water issues**, including but not limited to climate change resilience, Indigenous water rights, and the evolving role of the private insurance industry in flood risk mitigation and damage reduction.

2.2 Include provisions in the renewed Act to **enhance transboundary watershed planning** by bolstering opportunities for partnership and collaborative agreements between the federal government and provincial, territorial, and Indigenous governments.

2.3 Undertake a **legislative co-drafting process with Indigenous Nations** that is consent-based, rooted in nation-to-nation relationships, and consistent with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

2.4 **Enshrine the Canada Water Agency** and its supporting pieces, including the Chief Water Security Officer, in the renewed *Canada Water Act*. Include provisions that mandate the Agency to report regularly and publicly on issues of particular concern and ensure transparency of key information related to the state of Canada's waters.

2.5 Support a **comprehensive review of federal water policy and law** by the Standing Committee on Environment and Sustainable Development to address deficiencies in water-focused policy and legislation beyond the *Canada Water Act*.

KEY PRIORITIES

Undertaking the actions outlined above will enhance the ability of the federal government to:

1. **Create and mobilize the knowledge needed to predict and respond to water problems and opportunities** by providing centralized and harmonized collection and dissemination of water information; water predictions including forecasting floods and droughts, water quality issues, harmful algae blooms, and future water supply and use; and the provision of decision-support services.

2. **Strengthen transboundary water management and cooperative federalism** by prioritizing healthy and intact river basins, as well as committing capacity to anticipate, investigate, avoid and resolve water-related disputes; providing national-scale leadership and guidance on water-related climate change adaptation strategies, including flood damage reduction; and providing guidance regarding the introduction of international best practices in Canadian water management.

3. **Strengthen reconciliation with Indigenous peoples** by ensuring federal water law and policy is consistent with the United Nations Declaration on the Rights of Indigenous peoples; implementing a distinctions-based nation-to-nation relationship with Indigenous governments; and by adopting a consent-based, co-drafting approach to renewing the *Canada Water Act*.

4. **Improve collaborative river basin planning** by building durable partnerships for water management and decision making with provinces, territories, and Indigenous governments, with clear outcomes that include building resilience to extreme events, identifying priority areas for watershed restoration, and ensuring effective environmental flow regimes are in place across all levels of jurisdiction and authority.

PART II: SUPPORTING RATIONALE AND CONSIDERATIONS

1. CANADIAN WATER POLICY BACKGROUND

Fifty years ago, in response to growing concerns about pollution, environmental agencies were created at the federal level and in all provinces, and a plethora of environmental laws and programs were put in place. At the federal level, these included the *Canada Water Act* and dozens of federal-provincial agreements in areas such as river basin planning, flood damage reduction, and boundary water management. The changes also included amendments to the federal *Fisheries Act* to facilitate sector-based water pollution regulations, passage of the *Environmental Contaminants Act* (the precursor to the current day *Canadian Environmental Protection Act*), and the launching of environmental assessment processes. At the provincial level, many laws were passed to deal with, among other things, water allocation and water quality management.

Thirty years ago, concerns about the financial and conceptual sustainability of many of our water management approaches led to a major assessment of existing water policies, beginning with the Inquiry on Federal Water Policy and tabling of the 1987 Federal Water Policy in Parliament. Most provinces followed suit with similar policy statements of their own. Many of these policy statements reduced the cost of governance and all, at least conceptually, advanced notions of sustainability. Other policy shifts included: discouraging new development in high flood risk areas; managing water demand through more realistic pricing; and managing chemicals through their full life cycle.

Now in 2020, we have reached a new inflection point. It has become clear that climate change is having and will continue to have much more significant ecological, economic, and social impacts than previously anticipated. At the same time, it has also become clear that those negative impacts can be blunted to some extent with timely and effective mitigation and adaptation approaches. Meanwhile, Canada has formally adopted rights-based international declarations that have important freshwater implications. These include the 2010 United Nations resolution declaring water a basic human right and the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

The federal government has responded to this new water reality by asking the Standing Committee on Environment and Sustainable Development to review federal water policies and laws and by instructing the Minister of Environment and Climate Change to establish a Canada Water Agency.

2. WATER CHALLENGES IN THE 21ST CENTURY

The federal government's recent commitments show an implicit recognition of the unique challenges facing the water sector in the 21st century. This section outlines the breadth and complexity of these challenges.

A. Climate Change

First and foremost, there is growing public concern about how well water quality and ecosystem integrity are being protected, and how communities are in turn being protected from floods, droughts, infrastructure damage, and energy failure. There is increasing appreciation that a warming climate is

having direct effects on these outcomes by: altering the amount, timing, and reoccurrence frequency of precipitation; rapidly melting glaciers and icefields; thawing permafrost in the north; and shifting seasonal patterns of snowpack and snowmelt runoff.

These trends impact virtually every aspect of water management: reducing water availability for hydroelectricity and irrigation in BC and the Prairie Provinces; altering ecosystems that support commercial fishing in the Great Lakes region; interrupting energy delivery on the east coast; buckling roads and critical infrastructure in the north; and so on. We are woefully unprepared as a country to adequately address these changes and the significant impacts they are already having on our economy.

B. Extreme Weather Events

Flood and drought damage are increasing exponentially, and so are the costs of recovery. Federal disaster assistance payments, primarily in the form of flood relief to the provinces, increased from $54 million per year between 1970 and 1994 to $410 million per year between 2005 and 2014 – an increase of 660% in 2010 dollars. The national drought of 2001-2002 reduced economic activity by $6 billion, employment by 41,000 jobs, and crop production value by $13 billion. Subsequent regional droughts have occurred across Canada every year except 2005 and 2013, creating large costs associated with shipping, agricultural output, forest loss, and wildfire damage.

In 2019, a combination of multiple-day severe rainfall events combined with extreme summer dry periods in the prairies caused the worst conditions for harvest season since 1980. In the past decade, eutrophication and toxic algal blooms in the Great Lakes region have become a consistent problem. If uncontrolled, it is estimated that blooms will cost $5.3 billion over 30 years in diminishing recreation, tourism, and commercial fisheries income, in addition to the increased costs of drinking water treatment. Eutrophication is a significant problem in many other watersheds: to date, tens of millions of dollars have been dedicated to restoration efforts on Lake Winnipeg alone. The cost of flooding, droughts, and water quality degradation episodes continues to grow whilst Canada remains the only G7 country without a national flood forecasting system.

C. Indigenous Water Rights

Water governance and management decisions must respect Indigenous people's goals and rights to self-determination, as well as Indigenous inherent, Aboriginal, and treaty water rights and roles. In recent years, the federal government has adopted and committed to: codifying the United Nations Declaration on the Rights of Indigenous Peoples; implementing a distinctions-based nation-to-nation approach; and, through the Truth and Reconciliation Commission Calls to Action 45-49, eliminating the influence of legal doctrines that have been used to justify European sovereignty over Indigenous peoples and lands (and waters). However, the federal government still struggles to fully operationalize and institutionalize these commitments. Many Indigenous communities continue to face unique and urgent water quality challenges. Indigenous Nations are not typically included as equal partners in water governance, leading to escalating water-related conflicts between Crown and Indigenous governments (often involving project proponents, environmental organizations, and other interests). These conflicts have significant

impacts on the wellbeing of Indigenous communities, and also create impasses impacting economic development and the health of freshwater ecosystems.

D. Transboundary Waters

About 80% of Canadians live in river basins shared with our neighbours to the south who are also facing increasing threats to their water security. This reality stress-tests the limits of institutional and bilateral frameworks for water management and apportionment, as well as our institutional capacity and resolve, to deal with international water concerns including Lake Winnipeg eutrophication, water apportionment in the St. Mary – Milk shared basins, Columbia River Treaty re-negotiations, and the unpalatable notion of bulk water export from the Great Lakes – St. Lawrence Basin to water-short basins in the U.S.

E. Internal Fragmentation

There is another over-riding problem that is limiting the federal government's ability to fully meet its water responsibilities: lack of clear vision and direction. That over-riding problem was perhaps best articulated by a Blue Ribbon Panel of national and international experts convened by the National Hydrological Service late in 2017. The Panel suggested that internal fragmentation is a "major impediment to addressing Canada's national water issues".

According to the Panel, fragmentation is reducing not only the effectiveness of federal water programs, but also negatively impacting relations with other orders of government and the reducing the ability of the federal government to provide national leadership. This is happening at the very time that such leadership is most urgently needed. Finally, the Panel raised serious concerns about fragmentation between federal water quantity and water quality programs. This program fragmentation is "resulting in loss of potentially important synergies, with respect to both program efficiencies and an improved understanding of water quantity and water quality relationships", which are "becoming increasingly important under a changing climate".

F. Global Leadership

Globally, some credible scenarios suggest a not-so-distant-future world ravaged by climate change, water shortages, and environmental degradation, leading to highly unstable markets and increasing risk of widespread conflicts. Canada is likely to be confronted with the challenge of coping with millions of environmental refugees. In that context, addressing water security on a global scale can be a lynchpin to an equitable, prosperous, and sustainable future, and it is clearly in Canada's interest to lead on and ensure that outcome.

3. OPPORTUNITIES TO MODERNIZE FEDERAL FRESHWATER LEADERSHIP

A. The Canada Water Agency

A new **Canada Water Agency** presents a tremendous opportunity to address the complex and urgent challenges that threaten Canadian water security in the 21st century. Such an Agency would almost surely be viewed as a positive development by most Canadians. According to polling data, Canadians

view freshwater as Canada's most important natural resource, and a majority of Canadians say an abundant freshwater supply is very important to Canada's national economy. Seven in ten Canadians believe that climate change is having a negative impact on the supply and quality of Canada's freshwater. Most believe that water issues and infrastructure needs such as protecting drinking water sources, improving water and wastewater systems, and reducing water consumption are becoming more urgent over time. An Agency that commits significant time and investment to addressing issues of importance to Canadians, particularly climate change, would be viewed as a strong demonstration of leadership.

It is widely perceived that there has been diminished staff capacity at the federal level. Indeed, during the Inquiry on Federal Water Policy in the mid-1980s, there were approximately 3,400 federal employees devoted to freshwater-related programs; a cursory examination would suggest those numbers are likely less than half of that capacity today. Furthermore, many of these positions are not primarily focussed on water.

Establishing a new Canada Water Agency should begin with **reassembling the fragmented existing strengths spread out amongst many federal departments**. This rebuild can be realized through recognized leadership, a clear vision and sense of direction, and much improved inter-ministerial coordination. Two major units within ECCC can serve to anchor the new Agency: the National Hydrological Service (NHS) and parts of the Water Science and Technology Directorate (WST). The NHS houses approximately 350 personnel and operates 2100 water quantity measurement stations across Canada in partnership with all provinces and territories, in addition to supporting most of the transboundary water boards. The WST houses approximately 450 personnel in over 20 locations across Canada, many of whom are focussed on water research and observations. These two large, water-focused units can serve as the core of the new Agency, while other water units from Agriculture and Agri-food Canada, Natural Resources Canada, and Fisheries and Oceans Canada can be brought together pending a cross-departmental review.

The Canada Water Agency must also be endowed with **strong leadership**. The head of the Agency will have the immediate task of developing the mandate and structure of the Agency, and situating the Agency as a collaborative institution that will work closely with provincial, territorial, and Indigenous governments. A Chief Water Security Officer should also be appointed under the Agency in a role that is akin to the Chief Public Health Officer of Canada. The Chief Water Security Officer should lead science, technical and policy development in the Agency, as well as have an independent investigation function to respond to emerging transboundary water issues.

There are also **significant water research and monitoring strengths outside of the federal government** – within academic institutions, provincial, territorial, and Indigenous governments, NGOs, and water-related networks – which can be harnessed to better inform governmental science, policy and program development.[2] Current federally-supported water research projects are time-limited and not renewable.

[2] Two recent reports can serve as a starting point for identifying programs, organizations, and networks that are leading water research in Canada: *Canada in the Global Water World* and *Water Futures for the World We Want*.

There is a pressing need to ensure long-term national water research and development by re-establishing water research subvention programs through the Tri-Council federal research agencies. The Canada Water Agency can use its convening role to develop national mechanisms to transform and translate research outcomes into meaningful policy and program initiatives. The Canada Water Agency can also help play a bridging and outreach role to facilitate knowledge mobilization between research and implementation.

There are also enormous opportunities to **better accommodate overlapping jurisdictions and encourage intergovernmental cooperation**. The Water Survey of Canada, now part of the National Hydrological Service, has been the backbone of federal-provincial cooperation on water quantity for over a century. There were numerous transboundary water management agreements negotiated several decades ago, a few of which continue today. The Canada Water Agency could help establish new and modernized agreements dealing with, for example, flood and drought forecasting, flood damage reduction, climate change adaptation in the agricultural sector, and co-governance arrangements with Indigenous governments. It is clear that federal departments dealing individually with fisheries, navigation, agriculture, and chemicals management issues without effective cooperative federalism, and without including Indigenous Nations as equal partners, will not be able to achieve satisfactory nor sustainable outcomes.

Recent developments have created new opportunities to **reduce the economic and social impacts of chronic, climate-induced flooding**, such as newer mapping technologies, improved flood forecasting models, and the emerging interest of the private insurance industry. The Canada Water Agency could coordinate currently scattered policies and intergovernmental arrangements covering flood risk mapping, planning, and forecasting that would contribute substantially to slowing the growth of future flood damage and related human suffering. In addition, improved risk assessment approaches, more fulsome use of financial incentives and disincentives, and a strong and well-defined relationship between the public sector and the private insurance industry, including relevant standards, need to be developed quickly.

With respect to **Indigenous water rights**, modern land claims agreements all have provisions setting out the sharing of jurisdiction and responsibilities for water. However, in historical treaty areas, and areas without either historical or modern treaties, the existence and scope of water jurisdiction and rights are often a source of disagreement. As noted above, the federal government has made ambitious commitments in recent years to respecting Indigenous self-determination and implementing a distinctions-based nation-to-nation approach. Despite these commitments, much work remains to be done with respect to meaningful reconciliation with Indigenous Nations, communities, and people. A Canada Water Agency that is built as a collaborative institution with Indigenous Nations (e.g. Indigenous representation, collaborative agreements, plans and decision-making, joint program development, and western science-Indigenous knowledge partnerships) would be a major step towards operationalizing these commitments.

On the **Canada – U.S. front**, a Canada Water Agency could support several constructive outcomes. First, the Canadian government could more fully utilize and support the International Joint Commission

through the backing of the Canada Water Agency. Second, an effective Canada Water Agency would give the federal government the frontline capacity to analyze and bring transparency to all water-related proposals in the U.S. that may affect Canada, helping ensure that we are well-situated to negotiate effectively when responding to these proposals. Third, the Canada Water Agency would enable Canada to work with the American public and their leaders to demonstrate that their own long-term interests would be best served by promoting water use efficiency and other local solutions. Finally, it would give the federal government the domestic resolve needed to manage our own waters in an exemplary fashion and thereby provide a model that could be followed.

There are also opportunities to **lead on a global scale**. Canada already contributes to some extent through the UN and other international agencies such as the Interaction Council, development agencies, and a relatively active water engineering and consulting industry. We could also participate in multinational consortiums to advance strategic options in specific countries or regions and share the knowledge in our many centres of excellence. In that regard, the United Nations University Institute for Water, Environment and Health in Hamilton, Ontario has produced a report that inventories and describes these unique Canadian capabilities. The effectiveness of our contributions could be significantly elevated on the international stage by a Canada Water Agency with a clear sense of purpose and strong linkages to the multitude of saleable research, skills, and technologies in the Canadian water sector.

B. Canada Water Act Renewal

While a new Canada Water Agency holds tremendous promise, it is not a panacea for all of Canada's water challenges. Ensuring deep and long-lasting changes to Canada's federal freshwater regime requires legislative changes, none more important than a **comprehensive renewal of the *Canada Water Act***. The Act is Canada's primary federal freshwater legislation, yet it has not been modernized since it was passed in 1970 and has not been funded to effectively implement its provisions since the early 1990s. Renewal of the Act should be undertaken alongside establishment of the Canada Water Agency.

The federal government should lead *Canada Water Act* renewal in collaboration with provincial, territorial, and Indigenous governments. In particular, a **legislative co-drafting process with Indigenous Nations** that is consent-based and rooted in nation-to-nation relationships will help ensure consistency with UNDRIP, Indigenous water rights, and self-determination. In a co-drafting process, Indigenous peoples and the government are co-authors of the proposed legislation, but the subsequent parliamentary legislative process remains unchanged (i.e., once the government introduces the Bill into the House). This reconciliation-based, consent-honouring approach can help avoid water conflicts, build better legislation, clarify governance relationships, and lay the foundation for long-term institutional collaboration.

A renewed *Canada Water Act* would enable the federal government to play a **leadership role in governing water in a climate-impacted future**. This requires an overhaul of the Act's narrow focus on water quality and water resources, instead broadening the Act to focus on all aspects of water quality and quantity at the river basin level. This means creating provisions that explicitly recognize the

imperative of governing and managing water in a way that meets Canada's climate change commitments, safeguards ecological integrity, and serves the best interests of present and future generations of Canadians. For example, the Act should enable the federal government to collaborate with provincial, territorial, and Indigenous governments to undertake proactive interventions at the river basin level to ensure healthy waters, instead of waiting until significant issues arise.

A specific aspect of our climate-impacted future that a renewed *Canada Water Act* should address is the evolving role of the private insurance industry in **flood risk mitigation and damage reduction.** As floods increase in frequency and severity, and as private insurance companies expand their role in this space, there is a pressing need to legislate approaches, standards, and rules to govern the flood insurance landscape. In devising an effective approach to this emerging issue, Canada can learn from existing flood insurance regulatory regimes in the U.S. and Europe.

The *Canada Water Act* also must be renewed to reflect the tremendous developments related to **Indigenous water rights** that have taken place since 1970. The Act's numerous provisions that enable collaborative governance between the federal and provincial governments are largely silent on territorial participation and entirely silent on the participation of Indigenous governments. Territorial governments and Indigenous Nations should be recognized as equal partners throughout the Act. The Act should also explicitly recognize the federal government's commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples.

Finally, a renewed *Canada Water Act* is an important vehicle for **codifying the Canada Water Agency**, including its role, functions, and structure. The Act should also codify the Agency's various supporting pieces, particularly the role of Chief Water Security Officer. This is important to ensure the sustainability and effectiveness of the Agency over time. The Act should include provisions that mandate the Agency to report regularly and publicly on issues of particular concern and ensure transparency of key information related to the state of Canada's waters.

4. OTHER CONSIDERATIONS

A. Political Considerations

Accelerating and emerging water problems are significantly affecting Canadians' safety and security in the face of extreme events. They are also undermining the public's trust in government's ability to protect their homes and properties from floods and fires, provide adequate food in times of drought, provide safe drinking water, and ensure clean waterways for fishing and swimming. This has become increasingly apparent at the political level. During the 2019 federal election, the Liberal Party platform included the following commitment:

> "*To ensure Canada is better prepared to protect and manage our freshwater in a changing climate, we will move forward with a new Canada Water Agency. The Agency will work together with the provinces and territories, indigenous communities, local authorities, and others to find the best ways to keep our water safe, clean, and well-managed".*

Following the 2019 election, the ministerial mandate letters directed the Minister of Environment and Climate Change to create a new Canada Water Agency with the support of the Minister of Agriculture and Agri-Food. The Parliamentary Secretary to the Ministers of Economic Development and Official Languages and Environment and Climate Change was tasked with assisting with this priority.

The government's commitment to a new Canada Water Agency appropriately recognizes the need for multijurisdictional cooperation. While most water management decisions are made locally through provincial, territorial, Indigenous, and municipal jurisdictions, the majority of our river and lake basins are transboundary, involving multiple provincial, territorial, local, and Indigenous governments, and often the United States, in their management.

As described above, modernization of federal freshwater leadership should not stop with establishment of the Canada Water Agency. Renewal of the *Canada Water Act* is a much-needed complementary process that will ensure that the steps taken to enhance federal water leadership are sustained beyond the current government's mandate.

Federal leadership on these institutional and legislative reforms would not only be beneficial for water security, but could have enormous potential to contribute to broader political objectives, including: action on climate change; job security in the agricultural and other industrial sectors; reconciliation with Indigenous peoples; and strengthened cooperative federalism with the provinces, territories, and Indigenous governments.

B. Social Considerations

Canadians recognize that freshwater affects virtually every aspect of their lives, and consistently rate the need to protect and sustain those resources as a high priority. The vast ecosystem services provided by freshwater include: the supply of water for domestic, agricultural, and industrial use; assimilation of waste; provision of fish and wildlife habitat; production of energy and manufactured goods; recreation and tourism opportunities; and sustenance for Indigenous and rural communities.

The COVID-19 pandemic now ravaging the world once again reminds us that science and expertise matter; that well-designed investments made in the public good are crucial; that government can and must play important roles in our lives; and that cooperation and mutual support in times of adversity is critically important. Although the time scales are very different, these lessons are equally valid with respect to climate change and other threats to our water and related renewable resources.

Water crises such as extreme weather events, extensive flooding, and prolonged drought need to be treated with the same level of urgency, preparedness, and response that the current COVID-19 pandemic is receiving under the steady and science-based leadership of the Public Health Agency of Canada. A Canada Water Agency, supported by a renewed *Canada Water Act*, can be at the forefront of research, prediction, coordination, and management of Canada's water in the face of dramatic global climate changes already affecting public health. Effective leadership, an agreed upon sense of direction, and broad societal cooperation are now more important than ever.

C. Policy and Legal Considerations

Renewal of the *Canada Water Act* should take precedence, but many other aspects of federal water law and policy are similarly outdated and in need of renewal. The 1987 Federal Water Policy is outdated with respect to climate change adaptation and the increasing role of the private insurance industry in flood risk mitigation and damage reduction, and advances an extremely outdated approach to Indigenous water rights, responsibilities, and governance roles. Other water-related legislation also suffers from serious deficiencies: toxic substance regulation is inadequate under the *Canadian Environmental Protection Act,* while the *Safe Drinking Water for First Nations Act* fails to account for source water protection off-reserve. It is expected that these and other legislative gaps will be identified by the comprehensive federal water law and policy review undertaken by the Standing Committee on Environment and Sustainable Development over the next year.

Some may argue that establishment of a Canada Water Agency should await completion of those reviews. This is not necessary, nor desirable; rather, it is imperative to establish the Agency expeditiously while the political window remains open. The Agency can then play an active role in identifying and addressing deficiencies in federal water law and policy.

D. Financial Considerations

Establishing the Canada Water Agency will build primarily from existing strengths (i.e., the people, resources, and programs already within the federal government). However, ensuring a robust and sustainable Agency over time will require dedicated resources, as will implementing a renewed *Canada Water Act*. More work needs to be done to estimate long-term costs; regardless, the cost of inaction is undoubtedly much higher.

Over the medium term, it may be worthwhile considering re-establishing the Canada Water Act Fund. Prior to the early 1990s, the Canada Water Act Fund provided approximately $20 million per year to negotiate and implement intergovernmental agreements in priority areas as agreed-upon by Cabinet. Numerous agreements, a small number of which are still in effect today, dealt with matters such as river basin planning and implementation, flood damage reduction, and interjurisdictional water management. These agreements were generally a constructive way to promote and support cooperative federalism.

It is expected that new federal stimulus spending will be required to recover from the inevitable economic downturn following the COVID-19 crisis. Well-designed stimulus spending directed to water priorities – particularly natural infrastructure approaches to climate change mitigation and adaptation – while putting Canadians back to work would be viewed by most Canadians as being a highly constructive investment in Canada's long-term future. The Canada Water Agency is the right institution to steer this coordinated spending.

E. Intergovernmental Considerations

Water jurisdiction in Canada is characterized largely by overlap and fragmentation. Provincial competence to legislate in water matters is derived from their jurisdiction over property, civil rights, and

matters of local and private nature. Territories and Indigenous Nations have various sources for their water jurisdictions including devolution agreements; inherent, Aboriginal and treaty rights; and land claim and self-government agreements with Canada. The federal government also has important responsibilities, including waters on federal lands, inland and ocean fisheries and habitats, "Indians and lands reserved for Indians"(which includes waters which flow on or under federal reserve lands), criminal law, and residual power to legislate for the peace, order, and good government of Canada. In many respects, the actual mechanics of the Canadian federation are influenced more by what has been termed the "political constitution" than the written constitution.

Due to these often-overlapping responsibilities and the fact that water often flows across jurisdictions, water management in Canada has tended to be most effective when all orders of government engage in "cooperative federalism". Cooperative federalism is a key principle that:

- Presumes that laws of different orders of government are intended to co-exist;
- Facilitates interlocking legislative schemes to avoid unnecessary constraints on action by any other order of government; and,
- Accommodates overlapping jurisdictions and encourages intergovernmental cooperation.

It is assumed that cooperative federalism will be a guiding principle of a new Canada Water Agency and renewed *Canada Water Act*.

Beyond legal imperatives, there is an obvious urgency for all governments to work together to prepare for an increasingly insecure water future, and to protect communities, economies, cultures, and ecosystems from the worst impacts of climate change. What has changed is that there is growing acceptance that cooperative federalism no longer involves just federal, provincial, and territorial governments, but must now include Indigenous governing bodies as full partners. The federal government can demonstrate its commitment to this new shared approach by collaborating with Indigenous people from the very outset to co-develop the mandate of the Canada Water Agency. *Canada Water Act* renewal provides another avenue for comprehensive and lasting reconciliation through co-drafting.

One very constructive trend in recent years has been the encouragement of shared water governance at the level of river basins. Notable examples include: the International Joint Commission's International Watershed Boards, the Mackenzie River Basin Board and associated bilateral water management agreements, Prairie Provinces Water Board, British Columbia's water sustainability plans, Alberta's Watershed and Planning Advisory Councils, Ontario's Conservation Authorities and Source Water Protection Committees, les Organismes de Bassin Versant in Quebec, and river and watershed-based organizations with similar functions and activities in Saskatchewan, Manitoba, New Brunswick, Nova Scotia, and Prince Edward Island.

Shared governance institutions vary widely and have different levels of effectiveness, but some key characteristics include:

- Delegation by governments of designated governance functions (and/or funds) to a council, board, committee, or basin organization;
- Rescaling decision-making, often but not always at a watershed or river basin scale;
- Greater participation by a wide variety of actors, particularly Indigenous governments;
- Collaborative decision-making processes, often emphasizing consensus and trust-building; and
- Incorporation of different types of knowledge in decision-making, including science, Indigenous knowledge, and community-based monitoring.

F. Inter-ministerial Considerations

The NHS Blue Ribbon Panel mentioned earlier noted that the broader water agenda now appears to be addressed on an ad hoc basis, whereas in the past the federal water agenda was coordinated through an ongoing Interdepartmental Committee on Water and federal-provincial Consultative Committees as suggested in the *Canada Water Act*. The Panel went on to suggest that such mechanisms would be difficult to resurrect today within Environment and Climate Change Canada due to internal fragmentation and lack of cohesive water policies.

Establishment of a new Canada Water Agency with a clear mandate presents an excellent opportunity to overcome those perceived deficiencies. The Agency can do so by bringing together federal water capacity that is now spread amongst several ministries. The Agency would also need to develop strong working relationships, and in some cases joint programming, with several other individual ministries on key priorities, such as Statistics Canada on water use data and Crown-Indigenous Relations and Northern Affairs Canada on Indigenous water relations.

G. The National Dialogue Moving Forward

Over the next year, the partner organizations that comprise the Water Security for Canadians Initiative will be convening and participating in numerous science forums, policy webinars, and workshops that focus on water-climate issues and the need to modernize federal freshwater leadership through establishment of the Canada Water Agency and renewal of the *Canada Water Act.* As we have in the past, we will continue studying and reporting on international models and best practices. The Water Security for Canadians Initiative, in collaboration with the broader water community, remains committed to constructively contributing to national leadership on the wise use and protection of Canada's vital freshwater resource

Water Security for Canadians

A Partnership of

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