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Watershed Security: Stronger Together

Response to Canada's National Water Security Strategy Public Engagement

Canada's freshwater systems are fundamental to the health, well-being, cultures, economies, natural environment, wildlife health, and resilience of communities across the country. Watershed security must explicitly include better protection for freshwater ecosystems and reinforce our sovereignty through a whole-of-government and whole-of-society approach. We welcome the Government of Canada's commitment to developing Canada's first National Water Security Strategy (NWSS) and the opportunity for people and organizations across Canada to help shape its priorities and objectives.

The following recommendations include the following three pillars:

- Enabling the Canada Water Agency to advance Integrated Watershed Co-Management
- Community Level Stewardship: A Whole-of-Society Approach to Watershed Security
- Balance Development Priorities with Investment in Watershed Security

The recommendations in this document intend to align with the inherent and constitutionally protected Indigenous rights, laws, knowledge, and governance. Meaningful support for First Nations, Inuit, and Métis leadership should be foundational to the NWSS.

We suggest expanding the definition from Water Security to Watershed Security as follows:

***"Watershed security** is our collective capacity to restore and protect the ecological integrity of healthy freshwater ecosystems, including infrastructure, in a spirit of reciprocity and respect for water in order to support healthy and resilient communities, sustainable economies, healthy diverse ecosystems, and peaceful and equitable relations for present and future generations.*

We achieve watershed security through integrated watershed planning and co-management by investing in research, innovation, and action to ensure reliable access to adequate quantities of clean water for human wellbeing, resilient watersheds and ecosystems, and sustainable economies; as well as by adopting strategies based on a mitigation hierarchy — that prioritizes prevention, avoidance, and remediation before offsetting — to protect from cumulative water-related risks."

The ecological integrity of freshwaters is the chemical, biological, and physical resilience of a watershed to retain its core ecological features and functions—such as natural heritage, flow characteristics, connectivity, nutrient cycling, biological diversity, and fish habitat.

Healthy, resilient watersheds provide a steady state of ecological goods and services that support communities, ecosystems, and economies; this is why we ask that the scope be expanded from water security to watershed security.

Public health and safety -- and the security of people, property, and infrastructure—are impacted by floods, droughts, wildfires, as well as water contamination from waterborne diseases and toxic substances (e.g. PFAS, pesticides, endocrine disrupting substances, pharmaceuticals, plastic pollution). The state of quality and quantity of freshwater (including groundwater sources) across Canada are of importance to the current population and for generations to come. Over two thousand people became ill and seven people died following water contamination in the early 2000s in Walkerton, Ontario and North Battleford, Saskatchewan. What emerged was an ecosystem understanding; what happens on the land affects the water. In the Walkerton Inquiry that followed, Justice O'Connor recommended protecting drinking water through collaboratively developed watershed-based source protection plans. The first step when taking a multi-barrier approach to drinking water protection is protecting the surface or ground water that supplies municipal drinking water systems. This is called source water protection (SWP).

At the very basic level, access to safe and clean drinking water can be undermined or enhanced by actions on the landscape (e.g. how we design and manage dams, irrigation, infrastructure, and waste; respond to and contribute to climate change; land use planning; sound stewardship practices and nature-based solutions). The NWSS is an opportunity to address fragmented governance and decision-making related to land-use planning and water use across all jurisdictions in Canada and to strengthen unity and coordination.

Investing in a whole-of-society approach for inclusive watershed governance – and integrated watershed co-management – would more effectively achieve healthy ecosystems and peaceful and equitable relations for present and future generations. Water stewardship and management are shared responsibilities, requiring meaningful collaboration. The Canada Water Agency (CWA)'s mandate should be strengthened as the federal lead for coordination of freshwater protection, restoration, and management. This includes ensuring that proposed Major Projects have conditions and metrics that are consistent with the NWSS, and supporting watershed-scale approaches.

1. Enabling the Canada Water Agency to advance Integrated Watershed Co-Management

Enabling the Canada Water Agency (CWA) to coordinate a whole-of-government approach to fresh water health and security is essential. The CWA should be emboldened to guide major government decision-making in the interest of safeguarding watershed security and implementing the NWSS.

The “one project, one review” policy and draft co-operation agreements between provinces and the federal government pose significant gaps if the federal government relies on the provincial Impact Assessment (IA). Provincial Impact Assessment requirements vary and vary in their standards for cumulative effects, access to information, providing reasons for decisions, and public participation. The most significant gap is the meaningful involvement of Indigenous rights holders whose constitutional rights and relationships are conducted with the Crown through the federal government. The streamlining of approvals could still offer a win-win if Canada's NWSS is developed and implemented to safeguard watershed security through a process that is integrated, sets national standards, and reflects different rights, laws, governance relationships, and regional contexts.

Our Living Waters (OLW) network members have stressed an explicit need to **incorporate land use and watershed planning within regional agreements and regional reviews**. Integrated watershed co-management could be a way of addressing the gaps created by the proposed streamlining of approvals. The definition follows:

***Integrated watershed co-management** is a collaborative governance approach for the coordinated management of lands and waters within a watershed. It brings Indigenous Peoples, governments, communities, organizations, and other rights-holders and stakeholders together to share responsibility and decision-making, integrating diverse knowledge systems, values, and priorities across jurisdictions, scales, and sectors to safeguard ecological integrity and long-term resilience of freshwater ecosystems, while addressing cumulative pressures and risks, supporting human wellbeing, sustainable livelihoods, and peaceful and equitable relations for present and future generations.*

Closing policy gaps by protecting source waters

Source water is untreated water that is used to provide public drinking water and supply wells used for human consumption – this includes lakes, rivers, streams, wetlands, glaciers, and groundwater, all of which are sustained by watersheds and recharge areas in an interconnected cycle. Rapid population growth, continued development pressures including increasing water demands through watertaking permits, management of wastewater effluent, diversion proposals, and changing climate conditions are all challenges contributing to the increasing pressure to maintain these freshwater sources.

Though there are regulations designed to protect source water, protection and restoration efforts are still a challenge. Contamination of water in one part of a watershed can quickly affect water throughout the watershed. For instance, contamination of water from agricultural use or oil and gas production on one side of the province can impact communities that draw water hundreds of kilometres downstream. Threats to Canada's freshwater sources have been increasing. The Great Lakes Basin ecosystem contains the largest group of freshwater lakes on Earth by surface area and is the primary drinking water source for millions within Canada. In this watershed, the federal government holds primary authority for the protection and restoration efforts and must coordinate its efforts with Ontario and its municipalities as well as with the United States through mechanisms like the Great Lakes Water Quality Agreement and the Canada-Ontario Agreement on the Great Lakes Basin Ecosystem. The work to protect the freshwater of the Great Lakes has required strong measures to remediate Areas of Concern (AOCs) and a commitment to exercise pollution prevention measures.

The Canadian Environmental Law Association (CELA), one of Canada's oldest environmental protection organizations and representatives for the Concerned Walkerton Citizens in the inquiry, was engaged in the development of the Ontario framework for source water protection. CELA takes the position that the protection and sustainable use of source water is critical for the cost-effective and efficient provision of water services on First Nations lands.

As the preamble to Bill C-37, the proposed "Act respecting water, source water, drinking water, wastewater and related infrastructure on First Nations Lands" states, "it is desirable that First Nations, the Government of Canada and provincial, territorial and municipal governments continually collaborate and engage with each other to ensure the protection and sustainable use of source water, the reliable access to clean and safe drinking water and the effective treatment and disposal of wastewater on First Nation lands." The undersigned affirm that source water protection needs to happen at a watershed level through integrated watershed co-management.

Jurisdictional collaboration for land-use and watershed planning

The National Water Security Strategy (NWSS) should provide a framework for federal leadership that supports and builds on existing provincial, territorial, Indigenous, regional, and watershed-scale strategies and initiatives – both respecting subsidiarity and guiding common standards. Regional strategies for integrated watershed co-management already exist.

British Columbia already offers one example of a proposed strategy for watershed security that can help inform the development of a national approach, alongside Indigenous-led, provincial, territorial and watershed-scale initiatives elsewhere in Canada. See: [A Shared Path to Watershed Security: A Proposed Watershed Security Strategy for British Columbia \(July 2026\)](#). This document was released by the First Nations Water Caucus, building on a vision that had been co-developed by Water Caucus delegates and the Province of B.C.

Ontario engaged in the development of the Canada-Ontario Lake Erie Action Plan – a joint federal-provincial framework launched in 2018 to cut phosphorus entering Lake Erie and stop harmful algal blooms – collaboratively with the Federal and Provincial government alongside cities and farms. The Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (COA) is due for an update and could draw upon this precedent. Further interjurisdictional collaboration between Canada, Ontario, and First Nations governments is needed to clarify how integrated watershed co-management could be co-defined in the new COA. This in turn could serve as a regional framework to guide the implementation of the NWSS. Developing this process should require adequate resourcing for meaningful and broader education and engagement with residents in watersheds security and stewardship as this supports accountability and a whole-of-watershed approach involving public and privately owned lands in implementing the renewed Agreement.

The Mackenzie River Basin Transboundary Waters Master Agreement came into effect in July 1997, establishing a framework for cooperative water management among Canada, British Columbia, Alberta, Saskatchewan, the Northwest Territories, and Yukon. Under the Agreement, the Mackenzie River Basin Board (MRBB) was established as a cross-jurisdictional advisory forum to support information sharing, coordinate water quality and quantity guidelines, and help preserve the ecological integrity of the Mackenzie watershed. The Board has 13 members: three federal representatives from the Canada Water Agency, Crown-Indigenous Relations and Northern Affairs Canada, and Parks Canada Agency, and ten provincial and territorial representatives, comprising one government representative and one Indigenous representative from each of the five provincial and territorial jurisdictions.

The Canada Water Agency has a role to play in informing a whole-of-government and whole-of-society approach to implementing the NWSS – this includes standard setting.

2. Community Level Stewardship: A Whole-of-Society Approach to Watershed Security

As organizations working to protect and restore freshwater ecosystems and the communities that depend on them, we support a national strategy that delivers sustained protection and coordinated action. The NWSS must build on work already underway and equip those responsible for freshwater stewardship with the resources and support implementation. This includes community-based monitoring and enforcement programs, knowledge mobilization, on-the-land training, and data management for both Indigenous and non-Indigenous communities. Meaningful support for First Nations, Inuit, and Métis leadership should be foundational to the NWSS – this includes sustained, predictable funding that enables long-term Indigenous water stewardship, water monitoring, source water protection planning, and co-management.

The Government of Canada has committed to protecting 30 per cent of its lands and waters by 2030 through its ambitious *A Force of Nature* strategy. We suggest that the Canada Water Agency recognize that water security is a whole-of-society endeavour¹. Enabling Canadians to participate in building our resilience could look like supporting e.g. free and accredited training in first aid, emergency preparedness, bushcraft, emergency communication, crisis leadership, community-based monitoring and enforcement programs, as well as supporting knowledge mobilization, on-the-land training, and data management for both Indigenous and non-Indigenous communities. Cost-effective investment in the long-term security of Canada's freshwater resources includes investing in those who are regularly out on the landscape — this includes engaging hunters, trappers, and anglers in water stewardship. Connecting Indigenous-led monitoring, research, and stewardship with broader water strategy priorities must occur while respecting Indigenous authority, protocols, and priorities.

Building on successful programs like the Youth Climate Corps, CREW Resilience, the Indigenous Guardians programs, the Northern Indigenous Stewardship Circle, the POLIS Wildfire Resiliency Project is recommended. There are many existing and effective programs across Canada that require support. Yet another is the Living Lakes Canada wildfire suppression project in rural British Columbia that built resilience through watershed mapping for first responders.

3. Balance Development Priorities with Investment in Watershed Security

To Build Canada Strong there is a need for investment in the research and science that informs minimum common standards to guide cumulative impact assessments and the protection of source waters. The federal and provincial streamlining of project approvals should require **an effective impact assessment framework that involves integrated objective setting to address cumulative impacts and include minimum requirements and standards for protecting the ecological integrity of watersheds with clear, consistent, and enforceable objectives**. This could include integrated conservation and protection objectives for fish and aquatic habitats.

¹ Public Safety Canada (PS) is leading with the emergency management community to advance a [pan-Canadian Civilian Response Capacity](#). In nations like Norway and Finland, civil defence [is a whole-of-society endeavour](#).

In Bill C-39 the mitigation policy is currently unclear, as is the direction on how these project reviews address cumulative impacts and enforce minimum requirements for protecting ecological integrity. How economic feasibility is defined must include ecosystem services and impacts to freshwater ecosystems as these are also critical national infrastructure. During the review process, an economic assessment of proposed projects must balance between environmental, social, and economic impacts. Approvals need to ensure a comprehensive cost-benefit analysis that accounts for positive and negative externalities. To date, across Canada, economic valuations of proposed projects do not sufficiently consider ecosystem services, natural infrastructure, social risks, and the value of maintaining healthy river flows.

The NWSS should integrate with the National Freshwater Science Agenda. This includes drawing upon Indigenous knowledge systems, water availability, land-use stressors and water pollution, freshwater ecosystem resilience and biodiversity, socio-ecological and economic freshwater research, and freshwater decision-support science. The Strategy could also commit to filling data gaps to assist with provincial planning and environmental assessments. Shared technology and databases across Canada and in partnership with subnational governments and Indigenous partners could result in better tracking of metrics and analysis – including groundwater mapping, source water protection assessments, and flood risks. Investments in science and innovation could better inform project reviews and infrastructure investments that include nature-based solutions.

To support healthy waters across Canada, we echo the call of the Canadian Coalition for Healthy Waters (CCHW) for the Government of Canada to invest at least \$1 Billion annually to protect Canada's watersheds, expand funding for national watershed initiatives, strengthen regional watershed initiatives, and advance the National Water Security Strategy. Investments should support co-management, capacity building in freshwater science, water literacy, braiding Indigenous knowledge with data and technology to make better decisions e.g. watershed mapping and monitoring watersheds to identify cumulative effects and ecosystem services. We echo the call to empower the Canada Water Agency to lead a whole-of-government approach to implementing the National Water Security Strategy.

Conclusion

Watershed security depends on effective governance and collective action. Strengthening the capacity of local decision-makers to make informed, water-centred decisions requires investing in science-based protocols, water literacy, research, innovation, and accessible data to support integrated watershed planning and co-management. Proactively mapping and monitoring watersheds can help identify cumulative effects, assess ecosystem services, and pinpoint opportunities for prevention, protection, and restoration. The NWSS can support a precautionary approach that enables decision-makers to anticipate and mitigate water-related risks beforehand.

We recommend investing in a whole-of-society approach to inclusive watershed governance by building on existing programs and partnerships with organizations working on the ground, particularly those advancing public engagement, community science, monitoring, stewardship, climate resilience, and co-management. By strengthening collaboration across communities, sectors, and jurisdictions, we can build our collective capacity to safeguard watershed security, protect ecological integrity, and achieve healthy ecosystems and peaceful, equitable relations for present and future generations.

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