Public Engagement Toward a National Water Security Strategy

Strengthening Water Security in Canada, Together



Canada Water Agency
Agence de l'eau du Canada

Canada

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Canada Water Agency
510-234 Donald Street
Winnipeg, Manitoba
R3C 1M8, Canada
Email: water-eau@cwa-aec.gc.ca

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Public Engagement Toward a National Water Security Strategy: Strengthening Water Security in Canada, Together

Help shape Canada's water future

The Government of Canada is inviting Canadians to share their views to inform the development of Canada's first **National Water Security Strategy**.

Canada is home to some of the world's most significant freshwater systems. Water security affects everyone, from coast to coast to coast. This is why it is so important to hear perspectives from across the country, including people and organizations from all regions and sectors. **You do not need technical expertise to participate.**

Your feedback will inform the National Water Security Strategy, which could include elements such as a vision, priorities, and key actions.

This engagement is not a consultation on specific legislative or regulatory changes.

We invite participants to focus their responses on **fresh water**, which would be the primary focus of the Strategy, though we recognize that all waters are connected and flow.

We invite you to share your input by completing this survey: Public Engagement toward a National Water Security Strategy. It contains the same information and questions as this document. If you are unable to complete the survey or would like to provide additional comments, please contact the Canada Water Agency at water-eau@cwa-aec.gc.ca.

Responses are welcome from September 9, 2026 until October 25, 2026.

In parallel to this public engagement process, we are also engaging directly with provincial, territorial, and Indigenous partners as water stewardship and management in Canada is a shared responsibility.

Water is life-giving and irreplaceable

Water is foundational to the **ecosystems** which support our **health** and **economic competitiveness**. It shapes our landscapes, communities, and holds deep cultural and spiritual significance for many Indigenous Peoples.

Whether it falls as rain or snow, be it in lakes, wetlands, rivers, ancient glaciers or underground, water—in all its forms—is **vital to Canada's prosperity**.

Water is a key part of the environment

Fresh water covers about 13% of the country's landscape.[1] It is home to **thousands of species** ranging from fish and frogs to moss and aquatic plants, which depend on reliable surface water and groundwater. When freshwater ecosystems are healthy, they provide **essential services** such as clean water, protection from floods and droughts, and carbon storage.

We rely on water every day

Clean water supports healthy communities. Everybody relies on water for drinking water and household needs. **Lakes** and **rivers** supply drinking water to more than two thirds of the Canadian population, while **groundwater** supplies the remaining 30% and is the drinking water source for most of the rural population.[2] Lack of access to safe drinking water and wastewater services remains a challenge in some rural and remote communities, including a disproportionate number of Indigenous communities.

Water supports Canada's economy

Many Canadian economic sectors depend on water, making it essential to competitiveness and job creation. For example:

- **Farms** and **ranches** need water to sustain their crop and livestock production.
- Water helps keep **manufacturing industries** running. Paper, petroleum, and metal manufacturing all need water for cooling, condensing, steam generation, and other processing steps.[3]
- **Mining** also uses water in many ways, from processing to dust suppression and transportation.
- More than half of Canada's **electricity** is generated directly from water: hydroelectricity provided 54.9% of our electricity in 2025.[4]

- Waterbodies are some of the most renowned tourist attractions in Canada. Almost one third of Canadians visit waterbodies for **recreation** or **cultural activities** at least once a month.[5]

Canada faces growing water pressures

Water supports the environment, communities, and the economy—but growing and interconnected pressures mean we need to work together to protect it.

Human activities

As many communities across the country continue to grow, freshwater ecosystems and water supplies are increasingly put under pressure. Pollution makes its way to water through effluent pipes, spills, surface runoff, and precipitation. **Water quality** is generally better in waterbodies with less human influences like large population centres and development.

Aging infrastructure and evolving public safety and security threats, such as cyber-attacks, also make it more expensive and more complicated to manage drinking water, wastewater, and stormwater infrastructure.[6]

Climate change

At the same time, climate change continues to affect water. All aspects of the water cycle are **changing** in complex ways, including precipitation, river flows, lake levels, mountain snowpack and glacier extent, and groundwater recharge.[7] **Water quantity** and **availability** is now **less predictable** and **less reliable.** These changes disrupt our lives, our environment, and our economy. For example:

- **Flooding** is Canada's most common and costly disaster. A 2022 estimate of residential flooding in Canada found that the cost of damages could reach $2.9 billion per year.[8]
- **Droughts** can occur anywhere in the country and have wide-ranging consequences, including for the agriculture sector. For example, the 2021 drought across western Canada resulted in a 47% decrease in Saskatchewan crop production compared with the previous year, and an estimated $75 million loss in Manitoba crop sales.[9,10]

- Drier conditions increase the intensity and extent of **wildfires**, which release carbon in the atmosphere. Fires can affect freshwater ecosystems and water infrastructure, and can also transform landscapes in ways that increase flood risk.[11]

Action on water delivers wide-ranging benefits

There are many opportunities to take action and strengthen water security for future generations.

Healthy freshwater ecosystems

Freshwater ecosystems provide countless benefits, including food and clean water. Maintaining the **carbon** that is already stored in freshwater ecosystems mitigates climate change.

Floodplains and **wetlands,** including **peatlands,** act as **natural infrastructure**: they filter and store water, reduce erosion, and limit the impacts of floods and droughts. Acting now to safeguard these ecosystems and their species is an investment in the future.

In addition to helping preserve these services, more efforts to prevent water pollution would help **reduce** or **avoid treatment costs**, especially for groundwater, where clean-up can be extremely costly and sometimes impossible.[12]

Tools for adaptation

Information is power. Across the country, scientists, engineers, and Indigenous Knowledge Holders can help **transform knowledge into action**. A better understanding of surface water and groundwater in Canada can help us shift from reacting to water-related risks to getting ahead of them.

Similarly, transparency supports informed decision-making. With the right information, businesses, governments, communities, and individuals can better **adjust to changes** in water quantity or quality and plan for more **efficient water use**. Canada-made innovations can also facilitate this adaptation.

Innovative technologies and a skilled workforce

From cutting edge treatment and reuse systems to advanced prediction tools, water-focused technologies can **stimulate the economy** while solving water challenges and protecting the environment. Workers in the water sector play an essential role, and training water operators in current and innovative practices improves service delivery.

Water security also supports food security: for example, new irrigation technologies can make crop production more resilient. Reliable access to water also supports economic activity across sectors. **The water technology sector has potential to grow** and Canada has the expertise to increase its leadership in the global market.

Resilient, water-smart communities

As communities change, development can be water-smart, nature-positive, and climate-resilient. Expansions and upgrades to existing drinking water and wastewater systems can support efforts to build more housing. New neighborhoods can be designed to better withstand intense rains, rapid snowmelt, flooding, and thawing permafrost. When planning takes water into account, the **infrastructure lasts longer and performs better**.

Question 1:

What water-related challenges and opportunities do you see or expect in your region, community, and/or sector?

The lower Fraser River and its freshwater tributaries receive wastewater, stormwater, and agricultural runoff. Studies detected over 200 contaminants. Long-term monitoring of emerging contaminants, including pharmaceuticals, PFAS, and tire chemicals, remains limited. Raincoast's Healthy Waters project received two-year funding. Build on it with permanent basin-wide monitoring, new guidelines developed with First Nations, and investment in wastewater treatment and green stormwater infrastructure.

Water security reflects the many ways that water contributes to our environmental, social, and economic well-being. Our understanding of water security is often shaped by where we live, our cultural perspectives, and the role water plays in our daily life.

In 2013, representatives from around the world involved in the United Nations-Water Task Force on Water Security proposed a definition of water security, which you can read in the

references section.[13] Over time, different definitions of water security have been developed to suit different contexts.

A National Water Security Strategy could include a **definition of water security** that **resonates** with people in Canada.

Most definitions of water security include the following themes:

- **Quantity**: We need enough water to support ecosystem health and a range of water uses like agriculture and shipping. We also need the capacity to manage situations where there is too much or not enough water.
- **Quality**: We need water that is clean enough for its intended use. For example, polluted water is more costly to treat for household or economic uses, and it can become unsuitable for aquatic life.
- **Interconnections**: Without healthy freshwater ecosystems, we would not have water to sustain biodiversity, meet human needs or support economic activity. All these aspects are important and interdependent.
- **Future generations**: We are responsible for safeguarding water for those who come after us.

A possible Canadian definition for "water security" could look something like this:

> *Our collective capacity to safeguard and sustain freshwater ecosystems; to support reliable access to an adequate supply of safe, clean water for human health and wellbeing, and economic security; and to manage water-related risks—today and for future generations*.

Question 2:
How well does the definition above reflect your understanding of water security?

Please focus your response on fresh water.

[ ] Very well [✓] Somewhat well [ ] Neutral [ ] Somewhat poorly [ ] Very poorly [ ] Unsure

If the definition does not fully reflect your understanding of water security, please describe what water security means to you.

Water security means preventing harm and ensuring equitable access to safe, affordable freshwater. It requires pollution prevention at the source, sustained monitoring of emerging contaminants, and early warnings when heavy rain or sewer overflows threaten water quality. Communities need open monitoring data and timely risk communication. Investment in research and new technologies should improve pollutant detection and removal, strengthen wastewater treatment, and keep pace with new chemicals.

Responsibility for water is shared

Everyone has a role to play in strengthening water security. Water management in Canada is a shared responsibility among federal, provincial, territorial, and Indigenous governments.

Provincial and territorial governments

Provincial and territorial governments have **primary responsibility** for water **within their borders**. They are involved in water allocation and use, flood and drought preparedness and emergency response, drinking water and wastewater services, land use planning, and thermal and hydroelectric power development. They also have certain authorities with respect to the management of freshwater fisheries within their provincial or territorial waters. Many provinces and territories **delegate** certain responsibilities to **municipalities**, such as drinking water and wastewater services.

Indigenous governments

Indigenous Peoples have cared for water within their territories since time immemorial. **First Nations, Inuit,** and **Métis** governments play an important role in water stewardship, grounded in their knowledge systems and cultural traditions. Many modern treaties and self-government agreements establish water-related responsibilities.

First Nations, Inuit and Métis have diverse relationships with water. These relationships are integral to their cultures and reflect a mutual responsibility—water sustains people and communities, and people have a responsibility to care for and protect water. In some First Nations, women, girls and two-spirit individuals hold important roles as water keepers, reflecting responsibilities to care and protect water.

Government of Canada

The Government of Canada is involved in water-related areas such as fisheries, pollution prevention, shipping and navigation, international relations, domestic transboundary waters, and the creation and management of protected areas. The federal government is also responsible for the management of water on federal lands.

No single organization or order of government can achieve water security alone: a National Water Security Strategy should be built on **partnership** and **collective action**.

Why develop a National Water Security Strategy?

Many countries use the concept of water security as a **guide** for addressing the water-related challenges and opportunities they face, adapting it to their context as needed.

Most **Group of Seven** (G7) and **Group of Twenty** (G20) member economies, as well as countries in the **Organisation for Economic Co-operation and Development**, have adopted national strategies that reflect common elements of water security. Examples of priority action areas found in other countries' water strategies include:

- Securing a safe and sustainable water supply.
- Protecting and restoring freshwater ecosystems.
- Investing in water infrastructure.
- Building a water-smart economy.

What a National Water Security Strategy could do for Canada

The Strategy would become a national roadmap for strengthening water security in Canada—helping identify shared priorities, clarify where collaboration can make a difference, and guide future action.

It would **build** on existing water strategies, frameworks, and activities. It would also **complement** strategies that focus on the regional or local scale, recognizing the importance of locally informed, watershed-based approaches, and that water security priorities vary across regions.

The Strategy would include information focused on federal areas of responsibility and could include shared priorities and opportunities for action across all levels of government and partners.

Canada has a strong foundation for water security

Existing actions from all parts of Canadian society are already contributing to water security.

Water strategies in Canada

Many provinces, territories, and Indigenous Peoples in Canada have developed water strategies to address key priorities in their regions. First Nations, Inuit, and Métis are leaders in water stewardship, and many Indigenous-led actions are guiding efforts to care for water in communities across Canada. Some municipalities also use strategies to articulate their water actions. Further, the Government of Canada outlined its approach to water in 1987 through publication of a federal water policy.

Collaborating across jurisdictions

As a foundation for a National Water Security Strategy, we can build on a **history of collaboration** and **established water management mechanisms** in Canada. These include domestic inter-jurisdictional water boards, such as the Mackenzie River Basin Board and the Prairie Provinces Water Board; intergovernmental agreements to coordinate action in nationally significant waterbodies; collaborative water quantity monitoring;[14] and many others.

Federal initiatives

Several existing federal initiatives relate to water security objectives, such as:

- A Force of Nature: Canada's Strategy to Protect Nature, which outlines the federal government's plan to protect and conserve lands and waters and connect habitats, design infrastructure projects that work with nature, and use finance tools to fund conservation in a sustainable, long-term way.[15]
- The National Freshwater Science Agenda, which identifies and confirms science priorities for addressing the most pressing freshwater challenges in Canada.[16]
- Canada's 2030 Nature Strategy, which provides a whole of society roadmap for biodiversity conservation and sustainable use and guides how Canada implements the Kunming-Montréal Global Biodiversity Framework.[17]

- The National Strategy for Critical Infrastructure, which outlines commitments to build a safer, more secure, and more resilient country by protecting critical infrastructure sectors, including water.[18]
- The National Adaptation Strategy, which aims to reduce risks associated with climate change.[19]
- Powering Canada Strong: National Strategy for an Electrified Canadian Economy, which aims to build new infrastructure to double Canada's electricity supply and accelerate electrification across the country.[20]
- The National Food Security Strategy, which outlines initiatives to address structural causes of food insecurity that are affecting Canadians across the country.[21]
- Canada's National Artificial Intelligence Strategy: AI for All, which strives to build trust, protect Canadians, and create opportunities related to artificial intelligence.[22]
- Bill C-37, which aims to meet the needs of First Nations by making sure that First Nations have legally enforceable protections for safe drinking water, consistent with those provided to other communities in Canada.[23]

A whole-of-society effort

Water security is not only the responsibility of governments—it also involves action from **businesses**, **organizations**, **communities**, and **individuals**.

There are countless examples: a producer planting cover crops to reduce erosion and keep water and nutrients in the soil, a factory implementing new water treatment technology, a teacher helping children learn about the water cycle, a community organization planting vegetation along the streambank, and a person reducing water use at home are all helping strengthen water security.

Question 3:
Do you know of any initiatives or examples of efforts that are helping to improve water security in Canada?

Examples could include local projects, community initiatives, research, infrastructure improvements, awareness campaigns, or other actions.

Please focus your response on fresh water.

Green Horizons Youth Society is a youth-led organization that has developed water-testing kits and a digital data platform. We work with communities and elementary schools on water-testing workshops, pollution awareness, civic education, and advocacy for freshwater protection. We engage with local First Nations to learn from Indigenous Knowledge and call for stronger monitoring of emerging contaminants. Our work helps young people build skills, educate others, and participate in water policy.

What comes next

After the engagement period ends, the Canada Water Agency will review the input received and share a summary of the findings. Your feedback will be used to identify priorities, challenges, and opportunities that may shape actions under the Strategy.

Work will continue across the Government of Canada, with provincial, territorial and Indigenous partners, and with other collaborators to develop Canada's first National Water Security Strategy.

Taking action to strengthen water security will require collaboration across governments, sectors, communities, and all parts of society. **We look forward to building a water secure future, together.**

For more information on fresh water in Canada, please visit the Government of Canada's Water One Window, a portal to information on federal programs and activities related to fresh water.

Question 4:
Is there anything we haven't covered that you feel is important to consider regarding water security in Canada?

Please focus your response on fresh water.

Young people should have a meaningful role in shaping and implementing Canada's water security strategy. Provide youth-led organizations with accessible funding, scientific training, and opportunities to contribute to freshwater monitoring, public education, and policy discussions. Establish ongoing youth advisory roles, and report back publicly on whether and how youth recommendations shaped decisions. This would help youth turn local knowledge into lasting action for freshwater protection.

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