

**House of Commons Standing Committee on Environment and
Sustainable Development
Study on Freshwater
Brief**



About CPWA

CPWA was founded in 1986 as the voice of the Canadian public works community from coast to coast to coast. CPWA's nearly 2,300 members across Canada join members of the American Public Works Association across the United States to represent over 30,000 public works professionals in North America who work on both sides of the border to innovate and assure excellence in the public works profession.

Public Works and Freshwater Management

Public works agencies operate and maintain critical infrastructure services including the delivery of drinking water supplies and the management of wastewater and stormwater. These critical water infrastructure services include the management of stormwater and stormwater outfall sampling programs; the development and implementation of stormwater best management practices (BMPs); potable water flushing/de-chlorination; wastewater lagoon release and related reporting; and responsibility for industrial, commercial, and institutional (ICI) source control, oversampling and inspections. In addition to addressing such issues as phosphorus, flushables, effluent discharge limits, and water quality, public works agencies are facing the pressure that climate change is putting on water and wastewater systems.

According to a 2020 report by the Federation of Canadian Municipalities (FCM) and Insurance Bureau of Canada (IBC), [Canada's Future: The Cost of Climate Adaptation at the Local Level](#), avoiding the worst impacts of climate change at the municipal level will cost an estimated \$5.3 billion annually. Drought will result in a loss of potable water amid increased demand, permafrost degradation will lead to the rupture of water lines and storage infrastructure, sea level rise will result in saltwater intrusion, and increases in rainfall and storm surge will lead to the failure of drainage systems and greater impact on wastewater and stormwater infrastructure. The report also notes that some studies have shown that for every dollar invested in mitigation measures, \$6 is saved in future damages.

Federal Policy and Interaction with Federal Departments

Within the federal government, over 20 departments and agencies have unique responsibilities for fresh water. Environment and Climate Change Canada often acts as a lead department.

Many public works agencies supply drinking water and follow the [Guidelines for Canadian Drinking Water Quality](#) established by [Health Canada](#) in collaboration with the [Federal-Provincial-Territorial Committee on Drinking Water](#).

Many public works agencies also treat wastewater and are subject to [Environment and Climate Change Canada's Wastewater Systems Effluent Regulations](#), which include [requirements for reporting](#).

Public works agencies, as owners and operators of critical water infrastructure, also look to Public Safety Canada's [critical infrastructure](#) and [cyber security](#) programs and resources.

Further, public works agencies may be eligible for funding for water and wastewater infrastructure projects through the [Green stream](#) of [Infrastructure Canada's Investing in Canada Plan](#), the [Disaster Mitigation and Adaptation Fund \(DMAF\)](#), and [Public Safety Canada's National](#)

[Disaster Mitigation Program \(NDMP\).](#)

The Role of the Federal Government

There is a need for an overarching regulatory body at the federal level, in order to protect Canada's freshwater. Some provinces have eased regulatory guidelines on projects for economic or political reasons.

A federal regulator, in the form of a Canada Water Agency, should play a cross-functional leadership role, focusing on outcomes and leading the development of policies and guidelines that benefit all Canadians. Provincial and territorial governments would then work with their municipal and Indigenous partners to meet the parameters. It is important that Indigenous communities are engaged and have insight into federal regulations, so there is buy-in. Passing the buck down to municipalities should be avoided.

Freshwater Data

Currently, freshwater data in Canada is not centralized, which creates inefficiencies and barriers to access. The value of the Canada Water Agency would be in consolidating and sharing data across departments and all levels of government.

One example is freshwater flow modeling, which for smaller sources is not being updated as quickly as for larger sources. But communities that rely on smaller sources are often the most challenged in terms of capacity and may be dealing with poorer water quality. With climate change, it is even more imperative that data models that are up-to-date and consistent across the country.

Municipal governments in particular need easy access to web-based data and calculations such as upstream tributary flows, amounts to be drawn by other partners (including the U.S.), and events that can disrupt projected amounts.

Types of data that would be valuable to gather and make centrally available at the national level in a standard format are:

- number of systems and populations served
- number of plants and general technology used
- water volumes treated and distributed
- wastewater volumes collected, treated and released
- details for all water quality tests
- details for effluent testing and what is being released