CANADIAN WATER QUALITY ASSOCIATION

Advancing Water Quality Knowledge for All Canadians

Submission to the Pre-Budget Consultation of Finance Canada for the 2023 Federal Budget

February 2023

OUR RECOMMENDATIONS

1. That Health Canada, Natural Resources Canada, and Environment and Climate Change Canada establish a program to create a Canadian Water Quality Map that monitors the presence of pollutants, pathogens, and naturally occurring harmful minerals.

    a. The map would integrate information made available by local governments and provincial governments to deliver an accurate picture of the presence of harmful substances in Canada's lakes, rivers, and groundwater from coast-to-coast-to-coast.

    b. The map would be subject to the principles of Open Government and Open Data to allow local governments and businesses to provide up-to-date information to households and businesses related to the quality of local drinking water.

2. That the federal government partner with the Canadian Water Quality Association (CWQA) to educate Canadians about the role water quality plays in personal health and well-being, as well as the steps families can take to ensure high-quality drinking water in the home.

The Need for a Canadian Water Quality Map

Access to fresh water is part of the Canadian identity. At the same time, clean drinking water is still not accessible to many people living in communities across the country. This is especially true in Indigenous communities, but also true in some urban centres and rural communities.

Canadians take clean drinking water for granted in communities from coast-to-coast-to-coast. In some communities, while there is no acute threat, potable water still contains contaminants in amounts that may be harmful to health over long periods. Often, naturally occurring contaminants and foreign contaminants are found in the water supply, and people must be able to have access to that information as soon as possible.

Short-term and long-term contamination of water can lead to adverse health effects for those who have no choice but to consume it. The Canadian Water Quality Association aims to give more Canadians choice and to be aware of the presence of toxins or harmful minerals.

Knowledge of water sources and their status regarding contaminants will allow Canadians to take proactive measures to protect their health, as well as the health of their families, or customers in the case of businesses. There is currently no reliable, nationwide resource that objectively assesses the status of the water tables, lakes and rivers that are the source of Canada's drinking water. The information is available through water reports provided by the cities but the average consumer would not understand the terminology.

CWQA believes that a nationwide water quality map will provide the necessary information for the public, utilities, and water quality specialists to make better decisions about water treatment, infrastructure, and appliances.

This map should use the principles of Open Government and Open Data to pool information regarding both naturally occurring contaminants and incidental contaminations across jurisdictions. As it stands, some provinces and municipalities have important data regarding water quality, but that data needs to be shared and curated. CWQA member companies and Canadians at large would greatly benefit from having access to this information in a centralized location.

When it comes to health concerns and the water that we drink four contaminants have shown a history of causing long-term health problems among Canadians. Lead, arsenic, manganese, and PFAS have links to detrimental health problems such as cancer and delayed neurological development. Many of the consequences of these contaminants could be limited or prevented with a robust system of information that increases awareness about risks and ways to mitigate harms. Even after short exposure, these contaminants can cause long-term health effects in people who have consumed tainted water. Repeated exposure to contaminants like Lead, arsenic, manganese, and other chemicals causes life-threatening illnesses and symptoms. Recently, stories that illustrate these points show a lack of awareness for consumers. In Newfoundland and Labrador, in a former industrial town, it was found that well water had

triple the level of arsenic deemed acceptable for human consumption.[1] Residents of the community had no idea.

Contamination is due to things such as tainted groundwater, old and outdated infrastructure or a problem with a treatment center, but it can also result from large climate events like sustained downpours and flooding that overwhelms treatment facilities, such as during the recent atmospheric river and the flooding in Abbotsford. Mitigating the health effects of disasters like floods or droughts will be easier with a Canadian water quality map providing good information and water treatment experts that are in the field

Mapping water quality is critical to both the public and the water treatment suppliers who work in the water industry. With this information we would be able to pinpoint the locations that would require or benefit from household water treatment systems.

Currently, contractors rely on historical data for these determinations and more current information would help them provide more community-focused, household-specific solutions. There is a perception that poor water quality only exists in rural areas of our country. However, even within large municipalities, our members find quality concerns in source water that could improve Canadians' overall health outcomes.

Poor access to clean water is especially prevalent in many Indigenous communities in Canada. Temporary contaminations or long-term water quality issues disproportionately affect Indigenous communities that end up suffering significant health consequences. Establishing a real-time Canadian water quality map would be a positive and concrete step in helping Indigenous communities and their infrastructure partners identify the necessary interventions at source, and in households.

Provinces like Alberta offer water testing services, and municipalities are required to keep up to date with this information. Taking advantage of the data that already exists will make it more cost-effective to establish this program. Updating the repository of information could be done automatically as provinces and municipalities update their local water quality data, and skilled experts could be called upon to fill in localized gaps in the mapping data. Taking this step will require investment on the part of the government. We expect a significant return on investment for government through reduced healthcare costs and better economic participation from healthier Canadians.

CWQA recommends that Health Canada, Natural Resources Canada, and Environment and Climate Change Canada establish a program to create a Canadian Water Quality Map that monitors the presence of pollutants, pathogens, and naturally occurring harmful minerals.

We estimate a $3 million up-front cost to establish a baseline of water quality in Canada based on existing data, and the establishment of a web-based portal that provides a visual representation of water table contaminants with mapping data and shapefiles. Establishing this baseline will require the departments to hire researchers that will then also identify gaps for

[1] Mullin, M. *Poisoning the Well*, CBC News. December 5, 2022. https://www.cbc.ca/newsinteractives/features/toxic-towns-moretons-harbour

future data generation. We anticipate an annual cost of $2 million to maintain the service by updating existing data sources and generating new information to improve this tool.

Industry Partnerships to Improve Awareness

The members of the CWQA are experts in their field. The CWQA members often field questions from concerned consumers who are not fully aware of the natural presence of harmful substances in their drinking water, or contamination by various hazards caused by industrial practices or weather events. These companies maintain direct conversations with customers and are trusted resources within their communities. The federal government could leverage our members' presence and knowledge by partnering to co-create and distribute resources that would improve public awareness of the importance of water quality.

In regions where there are higher levels of naturally occurring contaminants, consumers need to be able to trust that the devices being installed in their homes are appropriate. A partnership that provides factual education, backed by industry and government research and collaboration would be an excellent form of consumer protection.

CWQA would gladly participate in creating a brand that would not only provide more information to Canadians, but it would also serve as a mark of quality and trust. This partnership would give consumers important information about where to turn, and whom to trust when researching the right appliances for their home or business.

The CWQA recommends that the federal government establishes a partnership to educate Canadians on the facts of water quality so they can make informed decisions when it comes to their household water quality appliances.

THE CANADIAN WATER QUALITY ASSOCIATION

The Canadian Water Quality Association is Canada's leading voice in residential, commercial, industrial, and institutional water treatment. Representing manufacturers, distributors, dealers, and wholesalers, the CWQA represents a vital and growing part of the Canadian economy. With members from coast to coast, the CWQA advocates for the needs of the industry and the needs of Canadians when it comes to the water that we used every day. The mission since 1956 has been to train and educate water professionals, to serve as a united voice for the industry, and to be a resource for Canadians about the industry and their water.

The CWQA has always taken pride in the water industry and in promoting the health and safety of Canadians. To continue to do so Canadians need to be able to have access to the best information regarding their water and the risks it may hold.