



PHOTO: ONE DROP, RAISA MIRZA

Our Water

Cross-Sector Collaboration Driving Scale to Support UN Sustainable Development Goal of Access to Safe Water and Sanitation by 2030

By: Anne Papmehl

Safe water, sanitation, and hygiene are vital to public health. But not everyone has access. In lower to middle-income countries like India, approximately 600 million people face extreme water stress. About 70 percent of India's available water is contaminated, and the groundwater in one third of the country's 600 districts — with high concentrations of fluoride, iron, salinity, and arsenic — isn't fit for drinking. This is largely why over 100,000 people in India die of water-borne diseases annually.

One Drop Foundation, an international non-profit with a focus on ensuring sustainable access to safe water and sanitation to vulnerable communities worldwide, recently partnered with METRO AG, a leading international wholesale company with food and non-food assortments that specializes in serving the needs of hotels, restaurants, and caterers as well as independent traders. The three-year partnership is part of the METRO Water Initiative, which includes a two-week in-store campaign in recognition of World Water Day (March 22). In 2020, it will engage 18 participating suppliers and will be held in 22 countries. "A percentage of sales from selected products

during the campaign is matched by One Drop and used to fund safe water projects in India — thereby enabling the company to generate both exponential sales and exponential project funding," says Lauren Alcorn, Project Director with One Drop. The campaign aims to raise at least \$1.4 million USD over three years, and One Drop has committed to match these funds, totalling \$2.8 million USD in project funding.

Two innovative projects help communities in state of Bihar, India

One Drop Foundation, in partnership with the METRO Water Initiative, is helping to improve the lives of 500,000 people in the Indian state of Bihar, through two projects. One involves bringing water, sanitation, and hygiene to schools, hospitals, and public places in the districts of Gaya and Madhubani, an initiative known as Boond (meaning "drop" in Hindi).

The other project involves helping community members in the district of Sheohar operate, manage, and maintain their water and sanitation systems over time. "This includes gender-segregated toilets for 9,000 students across 14 schools, which means that girls can now safely and hygienically manage their periods,"

says Alcorn. Additionally, 47,000 people will have access to safe drinking water and 1,700 households will have latrines.

To increase public uptake of the facilities and good hygiene practices, One Drop uses its unique approach known as Social Art for Behaviour Change (SABC), working with local artists and artforms. "A common misconception is that people need to be educated, but, there are other predominant barriers that prevent people from adopting good hygienic practices like hand washing," says Alcorn. By speaking to them through the arts, we're able to trigger more of an emotional response, and that carries more weight in influencing their decision-making and promoting a behaviour shift.

Successful initiatives, a testament to value of cross-sectoral partnerships

Cross-sectoral partnerships like the one between One Drop and METRO AG show that organizations with a shared vision and interest can become real change agents when they join forces. "It's a good, living example of how by creating bold partnerships and innovative fundraising initiatives, we can find new ways to unlock funds that allow us

to pursue our mission of ensuring sustainable access to safe water and sanitation worldwide and reaching the United Nations' 2030 Sustainable Development Goals (SDGs) 6 and 17," says Alcorn. "It's about creating a win-win for everybody — the NGOs, the private companies and communities in need."

With an enormous shift taking place in the way corporations are functioning, companies without sustainability in mind aren't going to be able to thrive in the future. "Organizations like One Drop that have been in the sector for a long time are able to support these corporations in building out their corporate social responsibility initiatives for greater impact," says Alcorn.

"Seeing so many suppliers and even competitors joining forces in a common initiative shows that when we talk about sustainability, and about achieving the SDGs, there's no competition," says Alcorn. "We all have a role to play, and we have to play it together. Corporations shouldn't shy away from this model of partnerships for global impact." 💧

This article was produced in partnership with One Drop Foundation.



This article was produced in partnership with the Canadian Water and Wastewater Association.

Protecting Our Water Resources

By: Robert Haller

Water isn't magical. Clean drinking water doesn't just appear from

your tap at the wave of a wand. And when you flush your toilet, it only seems like everything disappears. In reality, these things require a lot of technology and highly-trained professionals who are committed to delivering safe, reliable drinking water and dedicated to protecting your wider water environment. The

Canadian Water and Wastewater Association represents all those water professionals who serve you and your community.

But we need the support of every citizen and every business to protect our water resources and ensure healthy and efficient water systems. Here are four thoughts for you:



Robert Haller
Executive Director,
CWWA

Use water wisely. While water may seem abundant in some parts of the country, we have serious scarcity issues in many others. Even in areas with a lot of water, reducing water consumption means reducing unnecessary energy consumption. Efficient appliances, water barrels for gardens, and industrial re-use are all huge steps forward.

Reduce plastic waste — drink tap water! The water we deliver to your tap is safe and delicious — and incredibly inexpensive compared to bottled water. Single-use water bottles add so much plastic to our waste systems and, eventually, the environment. Get into the habit of using a refillable bottle. Visit bluew.org for supportive ideas and an innovative app that will help you find free places to refill your reusable water bottle.

Toilets aren't garbage cans. Please stick to the 3 Ps — pee, poop, and paper (just toilet paper). Fats, oils, grease, hygiene products, and wipes that say they're flushable cause tremendous problems down the line. These items will clog the sewer lines, causing expensive repairs and spilling raw sewage into the environment. Then the microplastics in these items aren't captured and eventually enter our waterways.

Be prepared for a flood. Is your home, business or property flood-proofed? We'll continue to see extreme weather that has the potential to cause great damage. Slope your landscaping so that water runs away from your house and not in to it. Have you installed backflow control on the sewer lines leaving your home? You'll be thankful you did. 💧



PHOTO: UNSPLASH, DAN MEYERS

One of Canada's National Treasures

By: Anne-Raphaëlle Audouin



Anne-Raphaëlle Audouin
President & CEO,
WaterPower Canada

If you've ever looked at a map of Canada, you'll know that there's a lot of water. But what you may not know, is that among these bodies of water are over 500 electricity generation facilities. Together, these waterpower sites provide more clean, renewable electricity to Canadian homes and businesses than any other source of energy.

Waterpower currently makes up over 60 percent of Canada's total electricity generation, making Canada the second-largest generator of waterpower in the world, only

behind China. And though Canada currently produces an immense amount of clean electricity with flowing water, we could still more than double our production with a mix of redevelopment and refurbishment of existing, and development of new projects.

This abundance of untapped waterpower in our backyard presents Canadians with an enormous opportunity to help meet Canada's greenhouse gas emissions reduction targets and clean the country's electricity grid. Because climate change requires strong and meaningful actions now, the need for renew-

able, clean energy has never been greater. And waterpower, Canada's most abundant source of clean, renewable energy, is poised to play a large role in our country's fight against climate change.

Waterpower is woven into the fabric of Canada's history and will continue to be an instrumental part of our future as we strive to create a greener and cleaner nation. From the first Canadian waterpower site commissioned in 1891, to the more than 500 facilities distributed across Canada today, water is truly one of our natural treasures. 💧



To learn more about Canadian Waterpower, visit

waterpowercanada.ca

WHAT IS WATERPOWER?

Canada's original renewable resource

Waterpower in Canada has **been around since 1891**, making it the most established renewable energy source in the country.

1891



Waterpower is Canada's **original renewable**: the water isn't consumed, depleted, altered, or wasted in the process.

As some hydropower facilities in Canada have been around for more than 100 years, and as their **lifetime can be extended indefinitely**, waterpower will be as much a part of Canada's future as it has been of its past.



90%

Waterpower converts over 90% of available renewable energy from water into electricity, making it the **most efficient source of electrical energy**.

WHAT DOES IT DO?

Canada runs on water

60% Waterpower provides more than 60% of **Canada's total electricity**, and as a result Canada has one of the cleanest electricity grids in the world.

Provinces with the highest hydropower capacity tend to observe the **lowest electricity costs**.



The energy storage contained in **reservoirs and waterways is Canada's blue battery**,



which is essential to integrating increasing contributions from Canada's abundant, renewable wind and solar energy.

Canadian waterpower has one of the lowest **life cycle greenhouse gas emission** intensities of all electricity or energy sources.



WHAT CAN IT DO?

Waterpower is the strongest natural asset in Canada's clean energy future

150,000 MW

With almost 150,000 megawatts of **undeveloped potential**,

Canada has the capability to more than double its current capacity.

If only 2% of Canada's total undeveloped waterpower potential was built and dedicated to powering plug-in electric vehicles, Canada could power its

entire current light-duty vehicle fleet

and still have energy to spare!



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WATERPOWER CANADA

Mike Holmes on Water Safety

Mediaplanet spoke with CTV’s Mike Holmes about how you can ensure you have safe drinking water in your home.

Why is water safety important to you?

Water is our most precious resource and it needs to be protected and preserved for today and for future generations. There’s no excuse for all Canadians not to have clean, safe water. For the people who live near Lake Ontario, it’s our only source for drinking water, and it’s vital that we preserve it.

For concerned homeowners, what are the steps they should take to ensure their tap water is safe to drink?

That’s simple. Homeowners should get their water tested periodically to make sure it’s safe to drink. Test kits are available through your local health office or municipality. According to Health Canada, acceptable lead levels are five parts per billion, so get your water tested to make sure it’s safe. Also, remember that it may be the piping in the home itself that can cause contamination, so you can have a licensed plumber or home inspector investigate the type and age of your plumbing to make sure it’s safe.

Homeowners on private well systems should get their water tested at least twice a year, at the source and the tap — make sure it’s tested for radon, too. If radon levels in your well water are high, there’s an aeration technology called Airwell that will mitigate that for you.

When it comes to elevated lead levels in drinking water, what are most homeowners unaware of?

Lead in drinking water is known to cause health-related conditions such as hypertension, miscarriages, and cardiovascular disease in adults, as well as developmental issues in unborn babies and young children.

What types of homes are more at risk than others?

Older homes built before the 1980s may have pipes made from galvanized steel, which can contain lead. Lead was also used in the soldering of pipes until 1990, but since then has been prohibited by the National Plumbing Code of Canada. When replacing the service lines and drains, most municipalities or utility providers are only responsible for the service to the curb stop, which is usually in your lawn, on your driveway, or at the property line, and the homeowner is responsible for the pipes leading to the house and within the property.

If there has only been a partial replacement, lead may still make its way into the water, meaning that if you as a homeowner have upgraded your water pipes and the city or town you live in hasn’t made the necessary upgrades, you could still be at risk and vice versa. As a side note, according to the City of Toronto, most apartment buildings, condos, and multi-residential buildings don’t have lead pipes regardless of age because lead is too soft to handle the pressure for this type of construction.

What are the most common water safety-related repairs needed for older homes?

Older homes will have pipes made of galvanized steel, which over time will break, get clogged, and corrode from the inside, causing: **a)** rust (iron) in the water; **b)** low water volume or pressure due to the decrease in the diameter of the pipe; and **c)** issues with your electrical hot water tank as rust particles breakdown the electrical elements. I highly recommend that homeowners re-plumb their lines with copper, stainless steel, or a combination of plastic (PVC, PEX, or CPVC) piping. Work with your plumber to find the solution that best suits your needs.

Can homeowners do this themselves, or should they hire a licensed professional?

I would always suggest that homeowners consult with a licensed professional plumber, especially if you have an older home with outdated plumbing. A professional can identify what needs to be done, both inside your home and for the service lines to your home.

For those who are unable to replace their pipes, what are some other solutions you would recommend to them?

To reduce your exposure to lead, Health Canada suggests that you only use cold water for drinking, cooking, and preparing baby formula. Also, remember to flush out your pipes after a period of sitting and let your tap run for approximately one minute to clear the pipes.

I also recommend investing in a water filtration system, especially if you’re on well water. The main goal of water filtration systems is to improve the overall taste of water, as they remove chlorine, trace heavy metals, and organic compounds. There are many options available, like electrically-charged devices to prevent build-up, filtered pitchers, faucet mount and under-counter units, and whole house filters. Do your research and work with your plumber to find the best solution. Bottom line — contact your municipality to find out the status of the water service line upgrades and get your water tested. 💧



PHOTO: WATERAID, ABIR ABDULLAH

For the World’s Poorest, the Climate Crisis Is a Water Crisis

By: Nicole Hurtubise, CEO, WaterAid Canada

Climate change is affecting every aspect of life on the planet, never have we witnessed such extreme weather this frequently — and the impact is felt acutely through water.

Two billion people lack daily access to a reliable water source. In the communities where WaterAid works across the world, we are seeing this hardship exacerbated by climate change. Water sources are drying up, floods are destroying and contaminating water and conflict is erupting between communities who are competing for scarce resources.

Climate change affects the most vulnerable who lack the systems, governance and resources to cope. The greatest injustice is that the people who suffer the most have done the least to cause the climate crisis. Africa accounts for less than 4% of total global carbon emissions but is home to almost all countries’ most vulnerable to climate change. And amongst the most vulnerable are women and girls.

When families lack access to water, the burden of fetching water falls to women and girls. Without access to water, women’s health is compromised, and their educational and economic prospects are undermined, as is their decision making power and personal agency. Prolonged droughts, floods and storms have a devastating impact on women, as the ones responsible for water.

Strengthening access to clean water is the first line of defense against climate, and it is also an investment with a high return. For every \$1, there is a \$4 return on investment. We must act now, if we fail to invest in safely managed water and toilets for developing countries, the cost will be pushed much higher as weather events multiply and become more severe. 💧



Clean Drinking Water Gives Businesses Sustainability Edge

Forward thinking enterprises seeking ways to increase their sustainability efforts may find some lasting progress in how they handle their drinking water.

By: Ted Kritsonis



PHOTO: VIVREAU WATER

Enterprises looking to build a more sustainable practice have been seeking the services of companies like Vivreau for its water filtration and dispenser system technology.

It’s part of an ongoing trend that’s pushing enterprises to prioritize sustainability, and there’s empirical evidence backing it up. A Randstad survey from 2018 found that 77 percent of Canadians only wanted to work for a company with a strong corporate sustainability program. Research firm Corporate Knights first started ranking publicly-traded companies on their sustainability practices in 2005, and has seen new entrants in the Top 100 year after year.

Cleaner diversion

Vivreau, which launched in North America in 2009, developed a solution that connects to a company’s water main and filters water for healthier consumption. Its clients are mostly

enterprises in office buildings, along with the hospitality sector, serving the water needs of employees and guests without single-use plastics. The system can dispense over 120 litres of chilled and purified still or sparkling water per hour, with each filter processing nearly 95,000 litres.

“A critical mass has emerged as companies feel increased scrutiny about the way things have always been done,” says Chris Dagenais, Vice President of Marketing at Vivreau. “Having a blue bin filled with disposable plastic bottles at the end of a workday is far from a net zero proposition when you consider the energy, water, transport, and labour required to produce a new container through recycling.”

Vivreau’s systems support businesses with two general approaches to responsible hydration. Intuitively-designed self-serve dispensers are targeted to staff and stakeholders who fill up their own personal bottles instead of reaching for single-serve bottled products. Alternatively, businesses can use the system with custom branded reusable glass water bottles, particularly for offices that hold meetings or events.

Healthy environment

Businesses can improve health and wellness in the workplace by replacing refrigerators filled with sugary drinks with a system that serves everyone.

“The landscape for a responsible water program becomes much friendlier to decision-makers when they see that they’re keeping good company with other notable companies that have adopted programs,” says Dagenais. “There are countless tangible benefits to having a hydrated workforce for better productivity. It’s not just the environmental proposition for many organizations, but also the health of their employees and clients that informs a sustainability goal.”

Dagenais also believes scale matters. An enterprise with multiple offices in different cities or countries could see significant cost and space savings from replacing pallets of product with a single dispenser.

“Deep down, everyone wants to do the right thing,” he says. “If one office takes a chance on a new approach like this, it’s just a matter of time before the positive, tangible program metrics encourage others to follow suit.” 💧

This article was produced in partnership with Vivreau.



“There are countless tangible benefits to having a hydrated workforce for better productivity.”

The Honourable Bernadette Jordan on Canada’s Blue Economy

Mediaplanet spoke with Canada’s Minister of Fisheries, Oceans, and the Canadian Coast Guard on protecting ecosystems and tackling climate change.



BERNADETTE JORDAN
MINISTER OF FISHERIES, OCEANS,
AND THE CANADIAN COAST GUARD,
GOVERNMENT OF CANADA

Canada is a vast country touching three oceans. What does this mean for people living and working by the changing tides?

I want Canadians to understand the incredible opportunities that lie within our oceans. The blue economy — the economy driven by sustainable, ocean resources — is worth more than \$31 billion annually. That’s not just fishing — that’s marine transportation, ship building, tourism, and so much more.

The blue economy does not stop with our coastal communities, its benefits spin inland and lift up our rural communities.

Over 300,000 Canadians are currently employed by the blue economy and my goal is to keep that number growing.

That’s exactly why we are building a blue economy strategy, to ensure Canadians are positioned to take advantage of new opportunities. It really is an opportunity, because we have so much more to gain. Canada has the largest coastline in the world, and it’s time we have a sustainable approach to its development. We need to invest in this now and become real competitors on the world stage. It is imperative that Canadians can continue to make a living on, and from, the water.

Water is a vital part of the environment. What are you doing to protect the oceans’ ecosystems?

In 2020, Canadians rightfully expect the government to protect our oceans, rivers, and lakes.

I grew up on the coast — the ocean is my backyard — so I take this mandate very seriously. For coastal communities, the ocean is not just an economic driver — it’s our food, our recreation, our aesthetic. It’s woven into every aspect of our being.

I’m incredibly proud to be part of a government that turned a corner on how we treat the environment and that made it real priority. Canada had a goal to protect 10 percent of our oceans by 2020. Our government exceeded that target ahead of the deadline, reaching nearly 14 percent last August. Over 793,900 km² of Canada’s marine and coastal areas — an area nearly twice the size of Newfoundland and Labrador — are now

conserved, so their ecosystems can continue to thrive.

Now we have a new target — protecting 25 percent by 2025, working toward 30 percent by 2030 — and we are going to reach that. Bit by bit, in collaboration with provinces, territories, Indigenous peoples, and the will of Canadians.

There is a constant push-pull that happens when discussing industry and environmental protections. How do you balance that in regards to Canada’s oceans and waterways?

I don’t think it’s a question of balance anymore. You only have to balance things when they are in opposition to each other. The blue economy and the ocean’s ecosystems are dependent on one another for success. My job as Minister is to figure out how to best support this relationship so they can both thrive.

Recently, we introduced measures to protect the North Atlantic Right Whale. This included changes to fishing and marine transition practices. The United States is one of the biggest export markets for seafood, and they have been clear — they will not buy our product if we do not protect this endangered animal. These measures protect the environment and the economy at once. Even throughout this process, fish harvesters were fully engaged in the development of the new measures, and helped design practices that would keep these whales safe. Industry has become a real partner in our conservation goals, and we continue to work together to prevent further harm to these whales.

Bureaucracy can be full of red tape and slow to react. How does a department that is tasked with protecting our vast waterways confront this challenge?

Canada has the longest coastline in the world, and in between those we have thousands of rivers and lakes that the government has to protect. We could never do this alone, and I am repeatedly astounded by the rapid, effective coordination our officials can lead when duty calls.

One of the most impressive response

was to the Big Bar landslide on the Fraser river in British Columbia. On June 23, 2019 DFO was notified of a possible landslide in a very remote area of the river. We immediately investigated and discovered a serious landslide had occurred, creating a five-metre waterfall blocking millions of salmon from their spawning grounds. This was all hands on deck. Within 5 days a Unified Command Centre consisting of the Government of Canada, the Province of British Columbia, and First Nations was set up. Together, they worked around the clock, trapping and transporting fish, and re-establishing some natural passage for the salmon.

Work continues on this today, and we’re getting close to clearing the passage entirely.

Around the world, people are worried about climate change and the impact of human activity on the environment. What’s your perspective on that?

I know that many Canadians are concerned for our environment. I empathize with that, but I am also very hopeful for the future of our oceans.

One of the privileges of being the Minister of Fisheries and Oceans is that I can see the progress on the ground. There are so many brilliant solutions at work right now that really are making a difference.

Off the coast of Newfoundland, lobster and codfish have declined largely because their habitats have been destroyed. In 2017, we started funding scientists at Memorial University who are creating concrete reefs that effectively serve as healthy habitats.

We just announced over \$13 million dollars to fund 24 more projects like this one. We’re supporting the Haida Nation, as they work to restore marine areas damaged by past forestry practices, and the Kivalliq Inuit Association as they revitalize the Arctic char populations in the North, and The St. Mary’s River Association as they continue to help the Atlantic salmon recover in the St. Mary’s River.

There is no doubt that our oceans are facing real challenges. But if Canadians could witness the work on the ground, I genuinely believe we would all be optimists. 🌊

What Keeps Canada’s Fish and Seafood Safe and Sustainable? Research, Regulation, and Respect for Our Waters

A strong regulatory environment, and close ties between industry and government, make Canadian fisheries among the most responsible in the world.

By: Liza Agrba

Sustainability and stewardship are really part of the DNA of the fish and seafood sector,” says Paul Lansbergen, President of the Fisheries Council of Canada (FCC). “If we weren’t responsible operators, we would only be jeopardizing our future prosperity and viability.”

Fish and seafood are renewable resources, but only to the degree that fishing is practised with a keen eye for ocean stewardship. Fortunately, Canada boasts a strong regulatory environment for its fisheries, which is fortified by close collaboration between industry and government.

Regulation and research fuel Canada’s fish and seafood sector

“It’s important for us to work with government, since they do excellent research to determine what’s sustainable and what isn’t,” says Lansbergen. “The industry is constantly innovating to improve on the past.”

Today, 96 percent of Canadian fisheries harvest at sustainable levels, based on fed-

eral regulatory requirements. Beyond that, Canada is a world leader in the adoption of voluntary third-party sustainable fisheries management certification, and is multiples higher than the world average of 14 percent.

The collapse of Atlantic northwest cod populations in the late 1980s is a prominent past misstep. Overfishing led to a moratorium on cod fishing in 1992, which stands to this day. “We didn’t fully understand the implications of our activities, and this situation was certainly mismanaged,” says Lansbergen. “But there have been major changes since then, including the adoption of third-party sustainability certification. We’ve learned to reduce our impact.”

Fishery and healthy ocean ecosystems can coexist

“We believe that sustainable fisheries management can contribute to the health of the ocean ecosystem and marine conservation efforts. If a particular fish or habitat is threatened, there are ways that we can change our practices to accommodate and offset those threats,”

says Lansbergen. Recent research published by University of Washington scientist Ray Hilborn demonstrates that effective fisheries management, such as that in Canada, is improving the health of fish stocks globally.

In practice, effective management means using gear that only harvests target species without creating undue disruption to aquatic ecosystems, as well as consistently monitoring the health of those ecosystems and intervening well before fish populations become threatened by overfishing. Through these efforts, the industry is proactively contributing to marine conservation efforts.

Dedicated ocean stewardship on the part of the industry makes Canadian seafood among the safest and most sustainable in the world. It also happens to be highly nutritious, tasty, and abundant — a true win-win for industry and consumers, both within Canada and abroad. Find out more about Canadian fisheries on the FCC website by visiting [fisheriescouncil.ca](#), where you can also learn about the sector’s new Canadian Seafood brand. 🌊



Paul Lansbergen
President,
Fisheries Council
of Canada (FCC)



96% of Canadian fish stocks are harvested at sustainable levels