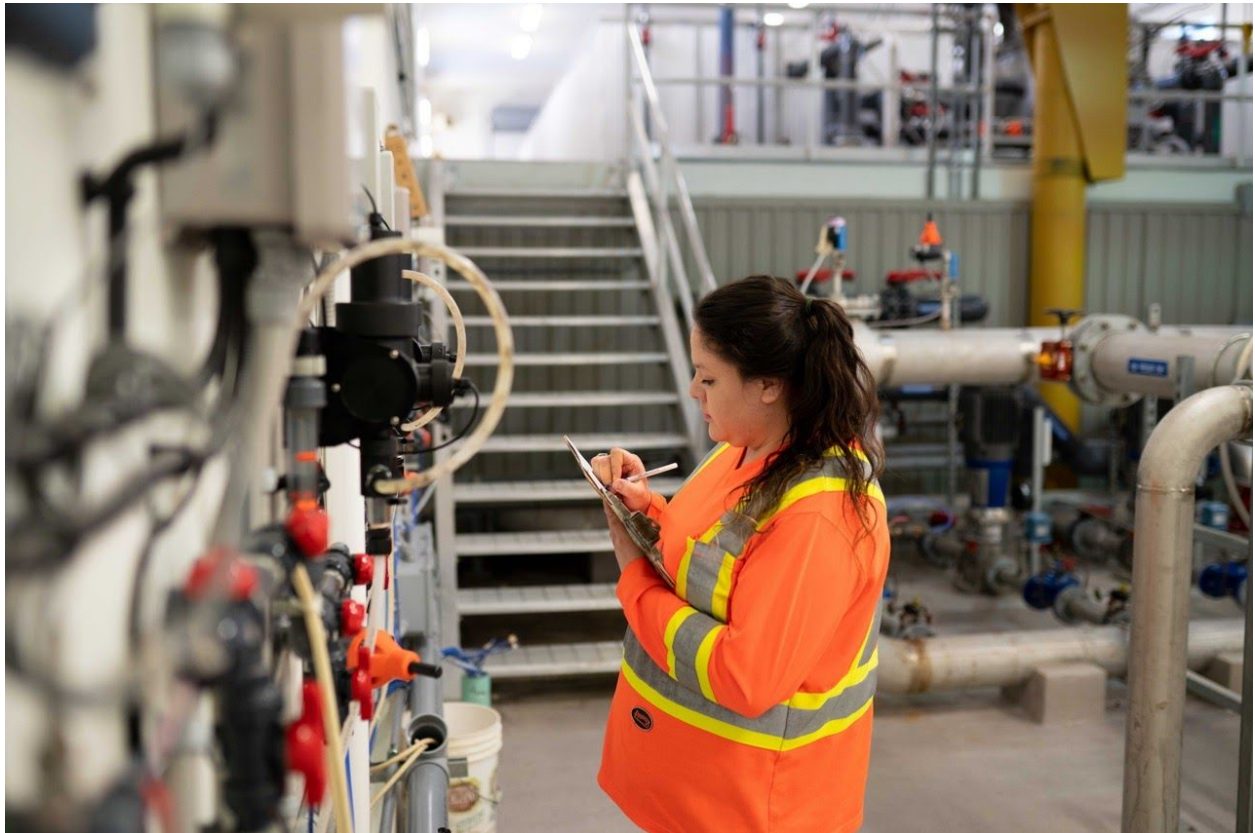


Written Submission for the Pre-Budget Consultations in Advance of the Upcoming Federal Budget



By: Water First Education and Training Inc.

172 Mill Street, Unit D, Creemore, ON, L0M 1G0

www.waterfirst.ngo

Founded in 2009, Water First addresses water challenges in Indigenous communities in Canada through education, training and meaningful collaboration.

RECOMMENDATIONS

- Recommendation 1: That the Government of Canada provide dedicated and specific investments in Budget 2021 for training and employment supports for future generations of Indigenous water operators.
- Recommendation 2: That the Government of Canada make funding available to Tribal Councils and Indigenous communities across Canada in the amount of \$18.848 million for the implementation of the Water First Internship program, which will allow the Internship to be delivered to 144 Indigenous young adults over five fiscal years.

SUBMISSION

1.0 ABOUT WATER FIRST

Water First Education and Training Inc. (“Water First”) is Canada’s leading charitable organization helping to address water challenges in Indigenous communities through education, training and meaningful collaboration. It delivers a number of programs that are developed and delivered in close partnership with Indigenous communities in the areas of drinking water, environmental water and youth education. Water First’s efforts include supporting technical training and community capacity development in water science, technology and engineering, in environmental sciences and drinking water treatment, all with a focus on Indigenous communities.

Water First is largely a non-Indigenous organization governed by a Board of Directors, with a First Nations Advisory Council whose members provided critical and valuable feedback on its program development and delivery in communities. Water First is guided by the principles of reconciliation and by the following values:

- Everyone has a right to safe, clean water.
- The water crisis in Indigenous communities in Canada is unacceptable.
- Skills training is critical to building sustainable solutions to water challenges in First Nations communities.
- Collaborative programs with First Nations communities should integrate Indigenous values, knowledge, customs and traditions at every opportunity.

Water First has collaborated with over 50 Indigenous communities in Ontario, Quebec, Manitoba, and Newfoundland and Labrador on a variety of water focused education and training projects. These partnerships help to address the gap between Indigenous and non-Indigenous Canadians with respect to accessing safe, clean drinking water, and demonstrate Water First’s commitment to collaborating with Indigenous governments, organizations and communities.

2.0 WATER FIRST INTERNSHIP

2.1 Pilot Project

The Water First Internship addresses local water challenges in First Nations communities by providing young adults with a 15-month paid internship opportunity, while offering participants customized skills-training and tutoring to obtain recognized certifications in drinking water treatment and environmental water quality monitoring. The Internship program is focused on training young Indigenous adults to ensure that water science skills and knowledge stay in First Nations communities where they can have an impact for generations to come.

The Water First Internship was developed in close partnership with the United Chiefs and Councils of Mnidoo Mnising, Wiikwemkoong Unceded First Nation, and Anishnabek Nation. Together, the partners, with funding from Employment and Social Development Canada, successfully piloted the program with all seven First Nations on Manitoulin Island, Ontario, from 2017-2018.

The first group of interns began the program in June 2017. For 15-months, they participated in numerous week-long workshops on a variety of topics, including water chemistry, digital mapping, resource management and traditional knowledge, and preparing for future employment and education

opportunities. Between workshops, the interns worked at their local water treatment plant, learning from community water operators, while being supported by Water First in their studies to prepare for and write numerous provincially adjudicated certification exams, which enabled the interns to begin their careers in water treatment.

In August 2018, 10 interns graduated from the program. In this almost exclusively male-dominated field, 40% of the participants were female. Interns obtained a wide variety of certifications and achievements in the water science field: eight interns earned their Water Quality Analyst Certifications; seven earned their Operator-in-Training (OIT) Certifications; 10 completed their Entry-Level Course for Drinking Water Operators; five interns obtained Source Water Protection training; two interns obtained their GED/high school diploma during the Internship, and each intern completed over 1,800 hours of work experience at their local water treatment plant.

Within two months of completing the program, 90% of the interns either found employment or were pursuing additional educational opportunities related to water science. Post graduation, with support from Water First, one intern obtained his OIT Certification and three interns passed their Level 1 Operator exams for Water Treatment and Water Distribution. Two years after graduation, the vast majority of interns are employed in the water field and most work and live locally: five work as water treatment plant operators; two are employed in the environmental water field; two are attending post-secondary school related to water sciences; and just one graduate is employed in an unrelated field while seeking work in water treatment.

2.2 Replicating the Pilot

In 2018, the Bimose Tribal Council approached Water First to deliver the Internship program to 11 affiliated First Nations communities in northwestern Ontario. Using the pilot project as the basis, the Internship was enhanced to meet the unique needs of northern remote communities.

With funding from Indigenous Services Canada, training for the new cohort of interns began in February 2020 and is scheduled to end in March 2021. There are 16 interns currently participating in the program. Collectively, they have achieved the following results in just a few months, which are recognized by the province of Ontario as valid and/or required industry certifications:

- 11 interns passed their Entry Level Course for Drinking Water Operators Part 1;
- 10 interns passed their Small Water Systems Course; and
- On average, each intern has completed nearly 500 hours working at a local water treatment plant.

Some modifications of the Water First Internship were required to address the realities of COVID-19: cell phones and laptops were shipped to interns in need so workshops could be delivered online rather than in person; and some interns were required to pause their work placements at their water plant. However, currently all interns have returned to their water plants and some in-person trainings are expected to resume.

Moving forward, additional recognized certification courses and exams are scheduled for near term completion, such as:

- Entry Level Course Parts 1 & 2 in August, 2020;
- Operator in Training exam in September, 2020;

- Water Quality Analyst exam in November, 2020; and
- Up to 1,300 additional hours will be completed by interns at local water treatment plants by the end of the program.

The pandemic has not changed the objectives or anticipated outcomes of the Water First Internship, which are to ensure that Indigenous youth and young adults have the skills, experience and knowledge necessary to pursue careers in the fields of water science, water management and drinking water operations.

3.0 RATIONALE

The Government of Canada has committed to eliminating all long-term boil water advisories affecting public systems on First Nations reserves by 2021, and dedicated \$2 billion in funding since 2015 for water and wastewater infrastructure. Budget 2019 recognized that “without sufficient resources to operate and maintain water and wastewater systems, it is possible that new drinking water advisories may be issued in the future” and invested funding to “support ongoing efforts to eliminate and prevent long-term drinking water advisories – funding urgent repairs to vulnerable water systems, and providing water operator training and support programs, so that First Nations communities can effectively operate and maintain their public drinking systems.”¹

One of the key factors in the persistence of water challenges in Indigenous communities is insufficient local capacity. In this context, capacity refers specifically to the availability of qualified personnel who are able to operate and maintain key water infrastructure and/or engage in technical and informed decision-making in matters of land use, water resource management and environmental protection.

Additionally, First Nations are significantly under-represented in the fields of science, technology, engineering and mathematics (collectively referred to as STEM). This means that a number of important career paths are not being sought or accessed by First Nations youth. As careers related to STEM are integral to community planning, decision-making and economic development, it is important that these careers are accessible to First Nations youth and young adults. First Nations under-representation in these areas strongly suggests that the existing pathways from high school to career or post-secondary education do not sufficiently introduce, engage or prepare First Nations youth and young adults in careers in STEM.

“According to the *2016 Census of Population*, only 4.13% of the Indigenous labour force has post-secondary education in STEM compared to 10.26% of non-Indigenous Canadians. The difference in employment rates between Indigenous (70.5%) and non-Indigenous (72.6%) Canadians with a STEM background is encouragingly small. This demonstrates the potential of Indigenous talent if STEM education and training opportunities are made culturally appropriate, accessible and attractive to Indigenous youth.”²

As evidenced, Indigenous communities do not receive comparable education, training and employment supports when it comes to water science and management. Numerous reports and studies³ effectively

¹ <https://www.budget.gc.ca/2019/docs/plan/chap-03-en.html>

² “Mapping the Landscape: Indigenous Skills Training and Jobs in Canada,” Public Policy Forum, Ted Rogers School of Management Diversity Institute, and Future Skills Centre (2020), page 22.

³ “Indigenous Employment and Skills Strategies in Canada,” Organization for Economic Development and Cooperation (2018); “Socio-economic Gaps on First Nations Reserves,” Office of the Auditor General of Canada

summarize these gaps and cite the critical role of capacity building supports in ensuring the long-term sustainability of Indigenous water systems. As a result, there is a need to establish separate and dedicated funding to ensure that future generations of Indigenous water operators receive the training and support they need.

Most recently, a 2020 study⁴ on Indigenous skills training and jobs in Canada indicated that 350,000 Indigenous youth will turn 15 between 2016 and 2026, which is the age at which they become “potential members of the workforce... If this cohort gets the support they need to build essential skills through access to quality, targeted, and culturally appropriate education, skills and training, they would boost the country’s economy by \$27.7 billion annually.” The report further states that “Failure to support this cohort with the education, skills and training they will require to succeed in Canada’s evolving economy may very well mean a continuation of the status quo for Indigenous peoples, effectively putting a break on Canada’s national economic engine.”

What COVID-19 has made abundantly clear is that access to clean water is essential to maintaining public health and that water operators are essential workers. One way to help restart the Canadian economy as it recovers from COVID-19 is to support, through programs like the Water First Internship, Indigenous youth and young adults to become water operators in their communities. The benefits accrue to Indigenous youth, Indigenous communities and Canada.

4.0 FUNDING

The cost of delivering the Water First Internship program is approximately \$234,000 per community.

This amount was determined by calculating the cost to deliver the pilot program on Manitoulin Island (\$1.7M) and with the Bimose Tribal Council (\$2.5M), divided by the total number of communities served (18), for a total of \$234,000 per community.

The Water First Internship can be delivered to up to two Tribal Councils per cycle, starting in fiscal year 2021-2022, as outlined below. It is estimated that there would be up to nine participating communities per Tribal Council, and two interns would be selected from each community.

Fiscal Year	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	TOTAL
Tribal Council #1 (9 communities, 18 interns)	\$500K	\$1M	\$606K				\$2.106
Tribal Council #2 (9 communities, 18 interns)	\$500K	\$1M	\$606K				\$2.106

(2018); “Budget Sufficiency for First Nations Water and Wastewater Infrastructure,” Office of the Parliamentary Budget Office (2017); “Report on the Expert Panel on Safe Drinking Water for First Nations,” Indian Affairs and Northern Development Canada (2006).

⁴ “Mapping the Landscape: Indigenous Skills Training and Jobs in Canada,” Public Policy Forum, Diversity Institute and Future Skills Centre (2020).

Tribal Council #3 (9 communities, 18 interns)		\$500K	\$1M	\$606K			\$2.106
Tribal Council #4 (9 communities, 18 interns)		\$500K	\$1M	\$606K			\$2.106
Tribal Council #5 (9 communities, 18 interns)			\$500K	\$1M	\$606K		\$2.106
Tribal Council #6 (9 communities, 18 interns)			\$500K	\$1M	\$606K		\$2.106
Tribal Council #7 (9 communities, 18 interns)				\$500K	\$1M	\$606K	\$2.106
Tribal Council #8 (9 communities, 18 interns)				\$500K	\$1M	\$606K	\$2.106
Program Development Costs	\$500K	\$500K	\$500K	\$500K			\$2M
TOTAL	\$1.5M	\$3.5M	\$4.712M	\$4.712M	\$3.212M	\$1.212M	\$18.848M