

Bridging the Gap: First Nations Water and Wastewater Equity

16-18 April, 2024 | Hilton Lac-Leamy | Gatineau, Québec

SYMPOSIUM PROGRAM



16-18 April, 2024 | Hilton Lac-Leamy | Gatineau, Québec



Building upon the dialogue from the 6th Water Symposium, "Securing Safe Water for All First Nations," the Assembly of First Nations (AFN) is hosting the 7th Annual Water Symposium and Trade Show focused on addressing important water-related issues facing First Nations. Access to safe, clean water and sanitation is more important than ever given the uncertainty facing First Nations with respect to water and wastewater. Legislation, questions around sustainable funding, long-term transfer of care and control, and the implications of a new national water agency continue to be important issues to First Nations. In comparison to most Canadians, access to water and sanitation is a human right that too many First Nations still don't have. The AFN's 7th Annual Water Symposium's theme is **Bridging the Gap: First Nations Water and Wastewater Equity**.



Water Is Life

Commissioned by the AFN, this represents the struggle for the protection of our most sacred and at-risk resource. The symbolic shape is a water droplet. It is adorned inside by abalone shell depicting imagery in Coast Salish design. This abalone itself is meant to represent water and its shape: a wave. Eagle and Bear are embodied in the design as representative

of the AFNs' symbols of strength. You will see eyes throughout the design. These are the eyes of our ancestors always upon us, guiding us. There are four accentuating crescents within and outside the abalone. These are often described as ripples that come from a drop in the water. Here they indicate the effects that emanate from our actions. They are in groups of four which is a very sacred number reflecting many things: four seasons, four stages of life (infant, youth, adult, elder), but most importantly the four corners – Unity within diversity and the strength and wisdom that come from this.

Acknowledgements

The AFN would like to acknowledge the following sponsors of the 7th Annual Water Symposium and Tradeshow:



Indigenous Services Canada





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SYMPOSIUM INFORMATION

Symposium Trade Show

The trade show will be in the Beethoven Foyer, just outside the Mozart Ballroom. Come and see the many exhibitors showcasing water- and infrastructure-related products and services.

Symposium Networking Reception

The AFN is hosting a **Networking Reception** on the evening of April 16, 2024, from 6:30 p.m. to 9:30 p.m. in the Royal Salon, Casino Lac Leamy. Take a short break after the symposium adjourns for the day and head over to our Networking Reception at the Casino Lac Leamy and meet with your colleagues from across Canada, have some refreshments and listen to some wonderful First Nations talent - the music of pianist Keith Whiteduck and Brothers Wilde.

Keith Whiteduck

Keith is Anishinabeg from Algonquin territory Kitigan Zibi (Quebec). Keith has studied music at both Cambrian College in Sudbury, Ontatio (Performance Diploma) and Queen's University Kingston, Ontario (Bachelor of Arts, Music). School, studying piano and classical music has really opened up a love of all styles of music for Keith. Because of this Keith also writes all genres and performs a variety of music when possible.

Brothers Wilde

With a vision and a song, brothers Nolan and Ethan Wilde are set out to make their mark in the music industry. Growing up in Kettle & Stony Point First Nation, Nolan and Ethan were raised on being humble, working for what they got, and a wide variety of good music. Playing a unique style of country-fried roots rock for the past four years, the brothers have already found their calling after winning the 2019 NACMAI Country Duo of the Year in Pigeon Forge, Tennessee. In 2022, the brothers were nominated for the 2022 Forest City London World Music Group of the year. Playing prestigious shows and festivals such as the 2021 CCMA Awards Launch Party, Bluewater Borderfest, Westfest, Tkaronto Music Festival, and the Summer Solstice Indigenous Festival, the boys share their original songs such as *Roots, Good Day, Waiting for you*, and many more that best describe who they are and where they come from. With the release of an upcoming Extended Play (EP recording) these young men are prepared to give the world a good feeling and show us something we've never seen.



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First Nations Water Operator Training

First Nations operators interested in participating in the accredited Continuing Education Units (CEU) training stream for the Water Symposium will note this training will run in the Suzor-Cote room from 8:30 a.m. – 4:00 p.m. on Wednesday, April 17, 2024. The training is offered by the Ontario First Nations Technical Services Corporation (OFNTSC).

Simultaneous Interpretation into French

Please note that simultaneous French interpretation is available in the plenary room, which is the Mozart Ballroom. In addition, there will be one workshop during each workshop period that will be interpreted into French in the Mozart Ballroom. Please consult the program agenda for sessions with simultaneous interpretation available. Headsets can be picked up inside the Mozart Ballroom.

American Sign Language (ASL) / Langue Des Signes Quebecoise (LSQ)

ASL/LSQ interpretation will be available in the plenary room, the Mozart Ballroom, for all plenary sessions and the workshops that take place in that same room; please consult the symposium agenda for sessions.

Symposium Evaluation Form

AFN looks forward to hearing your feedback on the 7th Annual Water Symposium and Trade Show, please complete the Symposium Evaluation Form, which you can find in your meeting kit. Drop your completed evaluation form off at the Registration Area for a chance to win a great prize at the end of the symposium. Remember, you need to be in the plenary room for the closing to win!



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Monday April 15, 2024			
Time	Activity		Room
9:00 a.m. – 5:00 p.m.		National Operators Forum	Mozart Ballroom
4:00 p.m. – 9:00 p.m.		Symposium Registration	Julien/Walker/Gagnon

Day 1 - Tuesday April 16, 2024		
Time	Activity	Room
7:30 a.m.	Registration	Julien/Walker/Gagnon
7:30 a.m.	Hot Breakfast	Mozart Foyer
8:30 a.m.	Trade Show Open	Beethoven Foyer
9:00 a.m.	Opening Ceremonies/Welcoming Remarks Chair: Cedric Gray-Lehoux • Drum Song (s) – Eagle River, Kitigan Zibi Anishinabeg • Water Ceremony - Knowledge Keeper Roberta Oshkabewisens • Opening Prayer - Knowledge Keeper Charles Hume • Welcome Remarks – Chief Dylan Whiteduck, Kitigan Zibi Anishinabeg	Mozart Ballroom
9:30 a.m.	Address by National Chief Cindy Woodhouse Nepinak	
9:45 a.m.	 Symposium Opening Remarks Regional Chief Brendan Mitchell (Nfld), AFN Housing and Infrastructure Portfolio Holder Regional Chief Glen Hare (Ont), AFN CCoHI Water Lead 	
10:00 a.m.	Ministers' Addresses The Honourable Patty Hajdu, Minister of Indigenous Services Canada (invited) The Honourable Steven Guilbeault, Minister of Environment and Climate Change Canada (invited)	
10:45 a.m.	Health Break	Mozart Foyer

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Day 1 - Tuesday April 16, 2024		
Time	Activity	Room
11:00 a.m.	Setting the Context for the Symposium Cedric Gray-Lehoux, Symposium Chair 	Mozart Ballroom
11:20 a.m.	Update on the Class Action Settlement Agreement & First Nations Advisory Committee	
12:00 p.m.	Lunch provided	Mozart Foyer
1:30 p.m.	Concurrent Workshops	



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Day 1 - Tuesday April 16, 2024				
Time	Activity Room			
	Workshop #2 - Groundwater At Risk of Containing Pathogens in First Nation Communities (30 minutes in length, 1:30 p.m. – 2:00 p.m.) Location: Beethoven Ballroom			
	Presenter(s): Genevieve Pomerleau and Jennifer Ashawasegai-Pereira, AtkinsRéalis			
First Nation communities continue to be disproportionally affected by insecure and/or into water supply issues. This presentation looks at Groundwater at Risk of containing Pathoge (GARP) as a threat to groundwater reliant communities' health and wellbeing, and the nere evolving monitoring and assessment. The Akisqnuk First Nation North Community Water in Windermere, British Columbia, comprising two shallow groundwater wells, is used as a study to walk through the assessment criteria. Hazard screening and assessments were co by AtkinsRéalis which led to a preliminary groundwater at risk of containing pathogens (C determination as well as recommendations on risk mitigation options and long-term mor The presentation highlights the importance of providing continuous training and developer programs for First Nation communities and water operators to identify water supply well containing pathogens, undertake independent water quality monitoring and recognize the impact of land use changes on groundwater quality.				
Workshop #3 - A Model to Support the Transfer of Jurisdictional Authority for Water and Wastewater Infrastructure				
	Location: Delfosse Room			
	Presenter: Grant Christoff – First Nations Financial Management Board			
	Workshop #4 -The Go-Forward Drinking Water Class Action: Long-term DWAs after June 20, 2021 Location: Suzor Cote Room			
	Presenter(s): Darian Baskatawang, OKT Law			
2:30 p.m.	Health Break Mozart Foyer			



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Symposium Agenda

Time	Activity	Room
3:00 p.m.	AFN Youth Water Panel Moderator: Cedric Gray-Lehoux Youth Alumni from the AFN Youth Safe Drinking Water Summit will share their experiences from the Summit, concerns that were voiced, and vision for the future of drinking water in First Nations. The AFN Youth Safe Drinking Water Summit saw the participation of 31 First Nations youth from diverse regions. During the AFN Youth Safe Drinking Water Summit, Indigenous youth crafted a Youth Vision Statement that accurately reflected their perspectives on water and broader water-related issues.	Mozart Ballroom
4:30 p.m.	Symposium Day One Recap	
4:45 p.m.	Adjourn for Day 1	

Networking Reception Location: Salon Royal, Casino Lac Leamy 6:30 p.m. – 9:30 p.m. Music by Keith Whiteduck and Brothers Wilde Light Refreshments

Day 2 - Wednesday April 17, 2024		
Time	Activity	Room
8:00 a.m.	Registration	Julien/Walker/Gagnon
8:00 a.m.	Hot Breakfast	Mozart Foyer
8:30 a.m.	Trade Show Open	Beethoven Foyer
8:30 a.m. – 4:00 p.m. Operator Training - Managing Safe Drinking Water in First Nations Location: Suzor-Cote Room Trainer(s): Shayna Dale, Ontario First Nations Technical Services Corporation		
9:00 a.m.	Overview of the Day in Plenary	Mozart Ballroom
9:15 a.m.	Update on Bill C-61: An Act respecting water, source water, drinking wa- ter, wastewater and related infrastructure on First Nation lands	
10:15 a.m.	Health Break	Mozart Foyer



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Day 2 - Wednesday April 17, 2024			
Time	Activity Room		
10:45 a.m.	Concurrent Workshops		
	 Workshop #5 - Why should the First Nations Water Industry Care about Per- and Poly-fluoroalkyl Substances (PFAS) Location: Mozart Ballroom (ASL/LSQ and simultaneous interpretation available) Presenter(s): Irving Leblanc and Madjid Mohseni, University of British Columbia While the most important chemical risks in drinking water arise from arsenic, fluoride, or manganese, emerging contaminants such as pharmaceuticals, microplastics, PFAS generate significant public concern. Studies have shown a correlation between PFAS in humans and the development of cancer, elevated levels of cholesterol, thyroid disorders, and other harmful impacts. Regulatory agencies worldwide have implemented PFAS limits for drinking water to address these health hazards. Very recently, Health Canada proposed an objective of 30 ng/L for the sum of total PFAS detected in drinking water. This presentation shows how PFAS contaminants have entered the circular water ecosystem, compromising water and the environment. It discusses the understanding of PFAS occurrence and human health and wildlife exposure to PFAS in Canada and First Nations. It will also present an opportunity for the First Nations water industry to take the lead in detecting the occurrence of PFAS in their drinking water supplies. 		
10:45 a.m.	Workshop #6 - Residential Lead and Copper Sampling in Atlantic First Nations Water Authority Communities – Sharing What We Learned Location: Beethoven Ballroom <i>Presenter(s): Megan Fuller - Dalhousie University and James MacKinnon - AFNWA</i> While many jurisdictions in North America have annual residential lead monitoring programs required by drinking water regulations, there is no such requirement in First Nations. The AFNWA established its own internal drinking water compliance standards to address this gap and implemented a residential annual lead and copper monitoring program in the communities it serves. One-litre random daytime samples (RDT) were collected in 110 homes across 12 communities in the Atlantic region. Eight homes had lead levels above Health Canada's Maximum Allowable Concentration (MAC). These locations were resampled using 30-minute stagnation sequential sampling to further evaluate lead and copper concentrations. Recommendations for mitigation actions were coordinated by the AFNWA and First Nations communities. This presentation will provide details on the development and implementation of the sampling program and the importance of First Nations-led research and policy development to address drinking water treatment and monitoring gaps that persist in communities.		

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Day 2 - Wednesday April 17, 2024			
Activity Room			
Workshop #7 - Looking For COVID and Other Viruses: Wastewater Monitoring in Eeyou Istchee Location: Delfosse Room Presenter(s): Reggie Tomatuk - Cree Board of Health and Catherine Dickson			
During the COVID-19 pandemic, a wastewater surveillance system was put in place in Cree communities of Eeyou Istchee. This system was initially used to detect COVID-19 when it was introduced into a community. Over time, it adapted to monitor trends in different viruses in the region. This presentation describes the project, and explains the partnerships built between water workers, local and regional governments, public health, a community-based research laboratory, and community clinics. The presenters will discuss challenges, ways they overcame them, and potential new directions for this system. This presentation fits into the topic of "New and Emerging Contaminants - Protecting First Nations Health" by demonstrating ways to use wastewater as a source of information on new and emerging contaminants. This information is then used by communities and health partners to inform decisions intended to keep their communities healthy and safe.			
Lunch Provided Mozart Foyer			
Concurrent Workshops			
Workshop #8 - Balancing Expectations of the Future with Gaps of the Past Location: Mozart Ballroom (ASL/LSQ and simultaneous interpretation available) Presenters: Irving Leblanc, Warren Brown and Katy Thorne			
To deliver on the First Nations Sustainable Water & Wastewater mission, education, and training organizations should focus on key trends that impact water operation, equipping youth and public works staff to leverage digitaltools to support their progression. 2024 is an interesting crossroads. On one hand, continuous upskilling, automation, and digitization are becoming imperative. On the other hand, a recent <u>report</u> from the United Nations Educational, Scientific and Cultural Organization (UNESCO) suggests that less than 10% of schools and universities have adopted formal institutional guidance on using popular Artificial Intelligence (AI) tools. Moreover, the lack of adequate guardrails and guidance, combined with growing invisible AI, means these powerful technologies pose the risk of not being used in ways that First Nations ask for or are aware of. In this presentation, the presenters			



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Day 2 - Wednesday April 17, 2024			
Time	Activity Room		
1:15 p.m.			
1:15 p.m.	Workshop #10 - Strengthening the Response to Drinking Water Advisories in Eeyou Ischee: The Development of a Tabletop ExerciseLocation: Delfosse RoomPresenter(s): Reggie Tomatuk, Laurence Truong - Cree Board of Health and Catherine DicksonAll nine Cree communities of Eeyou Istchee have autonomous control over their drinking water systems. To safeguard these water systems and build public confidence in the drinking water, transparency and clear communication during a drinking water advisory are essential. During an advisory, many community and regional partners need to work quickly and collaboratively. The presenters, as members of two regional Cree entities with mandates of supporting communities in ensuring the safety of their drinking water, developed a tabletop activity to bring the different peop involved in a drinking water advisory and talk through how information is shared and transmitted. The presenters will share their experiences developing and rolling out this exercise, as well as some of the tools used. Participants will have the opportunity to experience a small version of the exercise		
2:15 p.m.	Health Break Mozart Foyer		



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Day 2 - Wednesday April 17, 2024		
Time	Activity	Room
2:45p.m.	 Living Water: A Water Walker's Perspective Presenter: Dr. Tasha Beeds, Guest Professor, Indigenous Legal Orders Institute, Faculty of Law, University of Windsor The Anishinaabe Ceremonial movement known as "Water Walking" continues grassroots initiatives to tap into the power of our respective First Nation's intellectual, historical, cultural, physical, and spiritual traditions. Grounded in these complex ways of knowing, the Water Walk Ceremony helps us understand how we can follow the footsteps of our Ancestors and mark out pathways for our future generations by renewing our relationships with the Water and the rest of Creation." 	Mozart Ballroom
3:45 p.m.	Symposium Day Two Recap/Announcements	
4:00 p.m.	Adjourn for Day Two	

Day 3 - Thursday April 18, 2024			
Time	Activity	Room	
8:00 a.m.	Hot Breakfast	Mozart Foyer	
8:30 a.m.	Trade Show Open until 1:00 p.m.	Beethoven Foyer	
9:00 a.m.	Overview of the Day	Mozart Ballroom	
9:15 a.m.	Water Operators Panel Presentation	Mozart Ballroom	
10:15 a.m.	Health Break	Mozart Foyer	
10:45 a.m.	Concurrent Workshops		
	Workshop #11 – Drinking Water Quality		
	Location: Mozart Ballroom (ASL/LSQ and simultaneous interpretation available)		
	Presenter(s); Jennifer Mercer, First Nations and Inuit Health Branch, ISC, and Kathleen Buset, Health Canada		



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Day 3 - Thursday April 18, 2024				
Time	Activity	Room		
10:45 a.m.	Workshop #12 - Decentralised Drinking Water and Wastewater Expert Report: Techn Issues and Community-Level Risk Identification and Management Solutions			
	Location: Beethoven Ballroom			
	Presenter(s): Megan Fuller - Dalhousie University and Sheri Longboat University	- Wilfred Laurier		

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Day 3 - Thursday April 18, 2024			
Time	Activity Room		
10:45 a.m.	Workshop #13 - The Art of Possible: Focusing Artificial Intelligence Pilots on Water Systems Operation Outcomes		
	Location: Delfosse Room		
	Presenter(s): Martha White – University of Alberta and Madjid Mohseni – University of British Columbia		
	The hype of Artificial Intelligence (AI) is creating confusion for the water industry as		
	leaders are encountering growing uncertainty when it comes to deploying and extracting		
	value from AI initiatives. First Nations' water industry is less likely to benefit directly from		
	AI models trained on data-rich domains. However, they can leverage these models as an		
	advanced starting point for new purposes to reduce the machine learning time and data		
	required to attain acceptable operational performance and cost-reduction capabilities. More		
	specifically, we will present two case studies in which such partnerships have supported		
	the development of machine learning tools for optimum operation of water treatment		
	plants, leading to reduced chemical dosage and energy consumption. The long-term success		
	of water systems hinges on strong water management and operation practices. AI tools offer opportunities for innovation, such as optimizing operations, process enhancement,		
	proactive weather-related prediction, improving maintenance quality, asset management,		
	and agility across key operation domains such as water quality analysis and decision-making.		
	In this presentation, the presenters will show various partnership opportunities with leading		
	organizations that embed AI models customized for rural water systems to sense, decide,		
	act, and optimize, facilitating the consolidation and deployment of applications within		
	community-led and managed solutions.		



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Day 3 - Thursday April 18, 2024			
Time	Activity	Room	
10:45 a.m.	Workshop #14 - Education and Training in First Nation Communities to Clean Water	to Improve Access	
	Location: Suzor-Cote Room		
	Presenter(s): Émilie Sanmartin – Water First and Justin McGregor – Water River First Nation	First and Whitefish	
	Water First is a Canadian charity that collaborates with Indigenous communities to provide		
	sustainable access to safe, clean water. The presenters will discuss their experience in providing		
	education and training in First Nation communities to improve access to	•	
	Education and training are key to bridging the gap in First Nations water a		
	equity. The presentation is suitable for anyone interested in learning more about how education and training can contribute to addressing First Nations water issues, including First Nations leadership, water technicians, public works department staff, consultants, an government officials. The presenters will highlight their Drinking Water Internship project the day-to-day operation and logistical aspects will be discussed, along with participants'		
	experiences, successes, and challenges. They will also discuss how the we	aving of First Nations	
	values and traditions into the programing has resulted in high success rates and participant retention. The presentation aims to be informative and inspiring to all attendees.		
11:45 p.m.	Lunch Provided	Mozart Foyer	
1:00 p.m.	Closing Remarks	Mozart Ballroom	
1:30 p.m.	Closing Ceremonies		
2:00 p.m.	Symposium adjourned		



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7th Annual Water Symposium and Trade Show -"Bridging the Gap: First Nations Water and Wastewater Equity"

The trade show is taking place in the Beethoven Foyer, just outside the plenary room (Mozart Ballroom). Please drop by and check out the exhibit booths and artisans.

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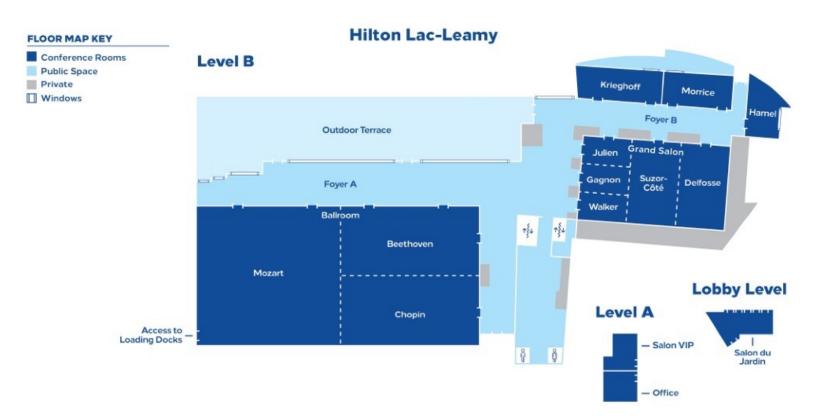
Nibi Environmental Technologies

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Water First



Hilton Lac Leamy – Forum Venue





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