13th ANNUAL NWT WATER STEWARDSHIP STRATEGY

Implementation Workshop

13e ATELIER ANNUEL DE MISE EN ŒUVRE DE LA STRATÉGIE SUR LA GESTION DES EAUX DES TNO

Atelier de mise en œuvre

Hosted by: Department of Environment and Climate Change

October 25-27, 2022
Chief Drygreese Centre, Dettah, NT

Government of Northwest Territories
Gouvernement des Territoires du Nord-Ouest

If you would like this information in another official language, call us.
English

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French

Kīspin ki nitawihtīn ē nīhīyawihk ōma ācimōwin, tipwāsinān.
Cree

Tłı̨chǫ yatı k'ę̀ę̀. Dı wegodı newǫ dè, gots'o gonede.
Tłı̨chǫ

ʔerıhtł'ís Dëne Sųłıné yatı t'a huts'elkër xa beyáyatı theɂą ɂat'e, nuwe ts'ën yółtı.
Chipewyan

Edı gondı dehgáh got'ı̨e zhatıé k'ę́ę́ edatł'éh enahddhę nıde naxets'é edahłí.
South Slavey

K'áhshó got'ı̨ne xədə k'é hederı ɂedı̨htl'é yerınıwę nídé dúle.
North Slavey

Jii gwandak izhii ginjìk vat'atr'ijąhch'uu zhit yinohthan jì', diits'àt ginohkhìi.
Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.
Inuvialuktun

ᑖᒃᑯᐊ ᑎᑎᖅᑲᐃᑦ ᐱᔪᒪᒍᕕᒋᑦ ᐃᓄᒃᑎᑐᓕᖅᓯᒪᓗᑎᒃ, ᐅᕙᑦᑎᓐᓄᑦ ᐅᖅᑰᓚᔪᓐᓇᖅᑐᑎᑦ.
Inuktitut

Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.
Inuinnaqtun

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Introduction

This report provides an executive summary of the **13th Annual NWT Water Stewardship Strategy Implementation Workshop**, hosted by the Water Monitoring and Stewardship Division and the Climate Change and Air Quality Unit of the Department of Environment and Climate Change (ECC).

The workshop was facilitated by Kevin Smith, Community Stewardship Coordinator, ECC, and included panel discussions and presentations.

The summary below highlights the objectives and outcomes of the Water Stewardship Strategy Implementation Workshop. The report on the 2nd Annual NWT Climate Change Advisory Gathering workshop can be found here. For the full workshop agenda, please refer to the Appendix A.

For more information on the NWT Water Stewardship Strategy and the presentations made at the workshop, please visit: https://www.nwtwaterstewardship.ca/en.

Executive Summary

The **13th Annual NWT Water Stewardship Strategy Implementation Workshop** was held October 25-27, 2022 at the Chief Drygeese Centre in Dettah. The three-day event brought water and climate change partners together under the collaborative theme of "**Adapting to Change and Building a Resilient Northwest Territories**" in recognition of the challenges the NWT has faced in recent years in responding to changes on the land, water and in our communities. The first day and a half focused on the work under NWT Water Stewardship Strategy and the later portion of the event was dedicated to the implementation of NWT Climate Change Strategic Framework and Action Plan.

The workshop focused on collaboration and knowledge sharing among water and climate change partners and highlighted the importance of working together to build resilience and adapt to these changes. Key objectives of the workshop included, but were not limited to the following:

- Share progress on the importance of the NWT Water Stewardship Strategy (Water Strategy) and 2021-2025 Action Plan.
- Highlight successes, opportunities and challenges, and needs to advance water management and climate adaptation in the NWT.
- Provide a venue for NWT water partners to share, network and build partnerships with each other to advance resilience.

Some of the key takeaways from the Water Stewardship Strategy Workshop presentations and panel discussions include:

- Implementation of the 2021-2025 NWT Water Strategy Action Plan is well underway by water partners through a number of ongoing projects and initiatives. The progress summary review report for the first year of implementation of the Action Plan will soon be available to the public.

- Successful transboundary discussions, agreements and obligations with neighbouring jurisdictions help ensure the waters of the NWT remain clean, abundant and productive for all time.
- The Indigenous Steering Committee reminded participants of our connection to the land and water and the importance of water in our lives, and how the Water Strategy is a vital tool to collectively preserve our NWT waters for the future.
- Indigenous governments, Indigenous organizations and communities, and youth shared different ongoing projects and initiatives contributing to the vision and goals of the Water Strategy. Emphasis was placed on the need to work together, side by side, because changes are happening, and everyone is affected.
- Through questions and discussions, participants expressed the need for greater linkages between Indigenous knowledge and western science in research and regulatory programs, and involvement of youth in future workshops.
- The Indigenous government and Indigenous organization representatives from around Great Slave Lake (GSL) came together to discuss and provide input on a plan to move forward with the development of a collaborative research and monitoring program for the lake. Elders from regions surrounding Great Slave Lake shared the changes they have seen occurring on the land and water in their lifetime. A What We heard Report summarizing the GSL sessions will be available publicly in the coming weeks.

Approximately 100 representatives of Indigenous governments and Indigenous organizations, academic institutions, Northwest Territories regulatory agencies, non-governmental organizations, and federal and territorial departments participated in each day of the workshop. In total, 130 partners participated in the three-day event. Members of the Water Strategy Indigenous Steering Committee (ISC) participated in the workshop to represent the interests of their respective Indigenous governments and Indigenous organizations.

A complete list of WSS workshop participants is provided in the Appendix B.

"The Waters of the Northwest Territories will remain clean, abundant and productive for all time."

NWT Water Stewardship Strategy Vision

Présentation

Ce rapport présente un résumé du **13e atelier annuel de mise en œuvre de la Stratégie sur la gestion des eaux des TNO**, organisé par la Division de la surveillance et de la gestion des eaux et le Service du changement climatique et de la qualité de l'air du ministère de l'Environnement et du Changement climatique (MECC).

Animé par Kevin Smith, coordinateur de la gestion communautaire au MECC, l'atelier a été ponctué de discussions de groupe et de présentations.

Le résumé ci-dessous en présente les objectifs et les résultats. Vous pouvez trouver le rapport du deuxième atelier annuel du Comité consultatif sur le changement climatique des TNO ici. Pour connaître l'ordre du jour complet de l'atelier, veuillez vous référer à l'annexe A.

Pour plus d'informations sur la Stratégie sur la gestion des eaux des TNO et les présentations faites lors de l'atelier, veuillez consulter le site suivant : https://www.nwtwaterstewardship.ca/fr.

Sommaire

Le **13e atelier annuel de mise en œuvre de la Stratégie sur la gestion des eaux des TNO** s'est tenu du 25 au 27 octobre 2022 au Centre Chef Drygeese à Dettah. Cet événement de trois jours a rassemblé des partenaires des secteurs de l'eau et du changement climatique autour du thème **« S'adapter au changement et renforcer la résilience des Territoires du Nord-Ouest »**, en référence aux défis que connaissent les TNO ces dernières années pour faire face aux changements qui touchent les terres ancestrales, l'eau et nos collectivités. La première journée et demie a été consacrée aux travaux menés dans le cadre de la Stratégie sur la gestion des eaux des TNO et la dernière partie de l'atelier portait sur la mise en œuvre du Cadre stratégique sur le changement climatique des TNO.

L'atelier s'est concentré sur la collaboration et l'échange de connaissances entre les partenaires des secteurs de l'eau et du changement climatique. Il a souligné l'importance de travailler ensemble pour renforcer la résilience et s'adapter à ces changements. Les principaux objectifs de l'atelier étaient, entre autres, les suivants :

- Présenter les progrès quant à l'importance de la Stratégie sur la gestion des eaux des TNO (Stratégie de gestion des eaux) et du plan d'action 2021-2025.
- Souligner les réussites, les occasions et les défis, ainsi que la nécessité d'appuyer la gestion des eaux et l'adaptation aux changements climatiques aux TNO.
- Offrir aux partenaires du secteur de l'eau des TNO un lieu d'échange, de réseautage et de création de partenariats afin d'améliorer la résilience collective.

Voici quelques-uns des principaux enseignements tirés des présentations et des débats des experts de l'atelier :

- Les partenaires du secteur de l'eau ont bien amorcé la mise en œuvre du plan d'action 2021-2025 de la Stratégie sur la gestion des eaux des TNO : plusieurs projets et initiatives sont en cours. Le rapport de synthèse sur la première année de mise en œuvre du plan d’action sera bientôt mis à la disposition du public.

- Des discussions, des ententes et des obligations transfrontalières efficaces contribuent à préserver à jamais la propreté, l’abondance et la productivité des eaux des TNO.
- Le Comité directeur autochtone a rappelé aux participants notre lien avec la terre et l’eau, l’importance de l’eau dans nos vies et le fait que la Stratégie de gestion des eaux était un outil essentiel pour préserver collectivement les eaux des TNO pour l’avenir.
- Les gouvernements, les organisations et les collectivités autochtones ainsi que les jeunes ont présenté différents projets et initiatives actuels qui contribuent à la vision et aux objectifs de la Stratégie de gestion des eaux. L’accent a été mis sur l’intérêt de travailler ensemble, côte à côte, car des changements se produisent et tout le monde est concerné.
- À travers les questions et les discussions, les participants ont exprimé la nécessité de renforcer les liens entre le savoir autochtone et la science occidentale dans les programmes de recherche et de réglementation, et d’impliquer les jeunes dans les futurs ateliers.
- Les gouvernements autochtones et les représentants des organisations autochtones de la région du Grand lac des Esclaves se sont réunis pour mener des discussions et donner leur avis sur un projet de création d’un programme collaboratif de recherche et de surveillance pour le lac. Des aînés des régions entourant le Grand lac des Esclaves ont fait part des changements qu’ils ont observés sur les terres ancestrales et les eaux au cours de leur vie. Un Rapport sur ce que nous avons entendu, résumant les séances sur le Grand lac des Esclaves, sera rendu public dans les semaines à venir.

Une centaine de personnes travaillant pour des gouvernements et des organisations autochtones, des établissements universitaires, des organismes de réglementation des Territoires du Nord-Ouest, des organisations non gouvernementales et des ministères fédéraux et territoriaux ont participé à chacune des journées de l’atelier. Au total, 130 partenaires ont participé à cet événement de trois jours. Le Comité directeur autochtone (CDA) de la Stratégie sur la gestion des eaux a également participé à l’événement, représentant les intérêts de ses gouvernements et organismes autochtones.

L’annexe B présente la liste complète des participants à l’atelier.

« Les eaux des Territoires du Nord-Ouest resteront toujours propres, abondantes et productives. »

Vision de la Stratégie sur la gestion des eaux des TNO

Day 1:
NWT Water Stewardship Strategy Implementation Workshop Session

1.1 Opening Remarks

The workshop opened with a high-level overview of the agenda, an opening prayer by the Yellowknives Dene drummers and greetings from Yellowknives Dene (Dettah) Chief Edward Sangris, followed by welcoming remarks by Julian Kanigan, Assistant Deputy Minister, Environment and Climate Change.

Key highlights from the opening remarks:

Chief Edward Sangris:

- Elders have always said that change is coming, and climate change is happening. It is essential that attention be paid to our environment and traditional knowledge. Everything is connected to spirituality. It can't go back to the way it was because people have become dependent on development. But how do we repair the damage that has been done? Get back the caribou or learn from each other, scientifically and traditionally? To make the world a better place for future generations, we need to work together, side by side and integrate our beliefs. And put in place policies that will help the future of the North.

Julian Kanigan:

- Water and Climate Change events are combined for the second time, following the success we observed last year as many of the NWT's water and climate change challenges and solutions intersect. The climate crisis is one of the most important issues of our time and our changing climate is challenging Northern resilience. It is causing changes in the natural environment, including the water. It is connected to our social, cultural, and economic well-being. ECC takes these challenges seriously, and, in addressing them, we strive to take a collaborative approach, so that the climate actions taken support a strong and resilient territory.

1.2 Panel 1: NWT Water Stewardship Indigenous Steering Committee (ISC)

The NWT Water Stewardship Indigenous Steering Committee (ISC) provides guidance to the implementation of the Water Strategy. Three ISC members shared their role, experience, knowledge of the land and water, and their perspectives on *Adapting to Change and Building a Resilient Northwest Territories* in water stewardship. Here's a summary of what we heard from the panel discussion:

Leon Andrew, Sahtú Secretariat Incorporated (SSI):

- Leon, who has represented the Sahtu Secretariat Incorporated (SSI) on the ISC since 2013, was raised by his ancestors, grandparents and parents in the Central Mackenzie Mountains, where he was taught how to live and travel in and out of the Mackenzie Mountains by his people.

- For Dene people everything is connected, and all rivers come into the Mackenzie River. Dene people know their homeland and what needs to be done. Everyone has to work side by side to help our homeland, because what is happening now is very different from the 1990s. Hence the need to put a focus on climate change.

- Climate change is a problem for traditional hunters and one of the biggest issues is food security. Where do we go from here? By respecting all our neighbors and their culture, we must find a way to work together, side by side.

Phoebe Rabesca, Tłı̨chǫ Government (TG):

- Phoebe Rabesca presentied and expressed herself in her first language, Tłı̨chǫ. We are here to talk about climate change, water and how things have changed in our region. There is no good word for climate change in my language. The changes are visible: water levels have dropped and even the way rivers flow and connect to each other has changed.

- The water strategy is a tool for people to care for, watch, and monitor water. Everything is connected, when one thing changes, everything else changes and that affects the water, animals and plants. The snow and the sun have also changed. The sun is warmer, and the snow is soft and moist. We eat from the land, and we have to make sure that everything is good and healthy. Tłı̨chǫ ancestors were conservationists and would only take what they needed to survive and feed their dogs (their way of transportation).

- This is difficult work, but it will change slowly if we support each other and work together. I wish that more native people would participate and fill the empty chairs so that we can work together. Youth involvement is also needed, because TK is very strong and they need to know and see how TK and western science work together, so they can understand, think for themselves and be aware of climate change. That is very important.

Joseph Gormaly, Kátł'odeeche First Nation (KFN):

- Joseph is from the South but has been connected with the Watching the Land program with the Kátł'odeeche First Nation (KFN) since July 2021.

- KFN connects people on the land through monitoring with elders and youth. Connecting youth to the culture, the culture and traditional knowledge with the government, and informing decision makers. This brings traditional knowledge or Indigenous knowledge together with western science to document the changes that are happening from the past legacy of contaminated sites and the pollution that is still coming. KFN seeks to connect all of that in a meaningful way, for future generations to be able to have a continued connection to the culture, land and be able to prosper.

- Joseph goes out on the land to support the guardians, educators, industry and government and communicates what is found back to membership and leadership and brings back what they said into all those connections.

1.3 NWT Water Stewardship Strategy and its Action Plan 2021-2025

(Nicole Beningabire Twagira, Water Stewardship Advisor, ECC)

The presentation provided a summary update of the NWT Water Stewardship Strategy's vision, goals, governance structure, role of the Indigenous Steering Committee in the implementation of the Strategy, as well as updates on its current 2021-2025 Action Plan, released in November 2021.

Updates on the 2021-2025 Action Plan shared during the presentation:

- We are now in the second year of implementation of the 2021-2025 Action Plan.
- The Action Plan lists action items with timelines and identifies lead water partner responsible for carrying them out during the implementation period. The 2021-25 Action Plan includes 86 actions and 50 performance indicators that help inform on the progress toward realizing the Water Strategy's goals.
- A new piece in the current Action Plan is: "Principles for strengthening Indigenous Knowledge, perspectives and values in water stewardship". Water partners expressed through the engagement process in the Action Plan development that:
    - Water Stewardship in the NWT should be based on collaboration between Indigenous Knowledge and western science,
    - Successful water-related research projects require relationships between outside researchers and community members through early and continued community engagement,
    - Water stewardship should reflect the importance of the wisdom contained in the Indigenous languages, in particular place names, and the importance of intergenerational knowledge transmissions, and
    - The Action Plan should clearly recognize and respect Indigenous rights.
- Information gathering for the annual progress review for 2021 was completed for the 2021 and ongoing action items in the Action Plan, through an online survey, desktop research, communications, and meetings. The goal is to fully implement the Action Plan by the end of the year 2025. These annual routine checks are important to ensure effective progress is being made in achieving the Strategy's vision and to indicate where adjustments are needed.

1.4 Panel 2: Our NWT Waters: Resilience and Adaptation: Community Stewardship Voices

Five panelists participated on the Community Stewardship Voices panel. They gave a brief summary of their involvement in the NWT Water Stewardship Strategy work and touched on the importance of building resilience and adaptation for water stewardship. Below is what we heard.

Mike Low and Melaine Simba, Dehcho Aboriginal Aquatic Resource and Ocean Management Program (Dehcho AAROM):

Mike Low, Coordinator, Dehcho AAROM

- The Dehcho AAROM program is based on research and monitoring in the Dehcho, with a focus on fish and water and community concerns about them. Our mission is to get the Dehcho Dene on the land to make observations and manage resources, fish and water. Community meetings are held to ensure that concerns are heard and addressed.
- Most water concerns are related to the oil sands and fish concerns are due to mercury in the water. Research and collaboration are needed to improve these perceptions and, through collaboration with ECC, community-based monitoring program, equipment and trainings are provided. This changes this perception as communities notice that water samples are being taken and information is being collected to ensure that the water is clean and safe. Other meaningful collaborations and research have been conducted working hand in hand with communities to show that fish can be safely consumed and that mercury levels in the water are minimal compared to the positive effect of fish consumption.
- Up to two people from each community are trained and most have two trained Guardians. They are provided with tools and safety equipment, as they want to be involved in the management of fishery and water in their area.
- We have also started looking at climate change. Changes can be observed, waters are warming up, winds, fires and rains are increasing, melting permafrost and change in the fish patterns. And we have to be resilient about all that is happening.

Melaine Simba, Technical Advisor, Dehcho AAROM

- In addition to AAROM, Melaine coordinates the community-based water program in the summer, for which students are hired each year. Melaine is from Ka'a'gee Tu First Nation, Kakisa Lake, and has been working for the community for 10 years and four years with Dehcho AAROM program.
- Since Covid, Dehcho AAROM has worked with the University of Alberta, taking permafrost samples for them and retrieving equipment and data. In wintertime, they go to communities and share the results with them.
- The work is important to address community concerns because the monitoring takes place downstream to gas development along the Cameron Hills, which flows into to Tathlina Lake, and then into Kakisa Lake via the Kakisa River. Fish studies were done with negative results. The sampling was able to determine that it would take a large amount of fish consumption for mercury to be harmful. Dehcho AAROM also works with the Dehcho Guardians; they are the eyes and ears out on the land, and the information they report is kept in Dehcho AAROM's database.

Jonathan McDonald and Ryan Pischinger (Fort Smith Métis Council):

Ryan Pischinger, Building Maintenance Manager

- Ryan started working with ECC as a Fort Smith Métis Council boat operator. He knows the land and is passionate about the land, water, and fish. The biggest question within his community is safety: Is it safe to drink the water and eat the fish? 2022 is the first year implementing Fort Smith Métis Council's environmental monitoring program and the plan is to start monitoring large fish as well as small fish.

Jonathan McDonald, Community Field Worker

- Jon grew up in Fort Smith and started working with Fort Smith Métis Council in June 2022. They have a passion for the environment and an interest to work with ECC. They want to bridge the gap between scientific knowledge and traditional knowledge and work with ECC to develop training and build an environmental program. Youth are involved so they can continue the program and at the same time let people know that everything is still safe.
- Being downstream from the oil sands, they want to give the people peace of mind that the community can eat fish and moose, drink water, and so on. This only happens if the community works together and has a year-round monitoring program.
- They have applied for different funding, have support from the Council and have bought equipment for monitoring. They have been doing bat studies, setting wildlife cameras, sound recorders for birds, bats and amphibians as these are the markers when something in the environment is going wrong.

Jonathan Yakeleya (Sahtú Renewable Resources Board):

- Jonathan lives in the Sahtu region and has been working with the Sahtú Renewable Resources Board as a research intern since May 2022. He's worked on various projects in the community. Each project is as important to the community as it is to researchers and the youth. 11 people attended a recent environmental monitoring course, and it was great to be on the land and that is how we keep our community, water, land and wildlife.

Highlights from discussion that followed:

Question: Is there collaboration with other people within your respective communities?

Jonathan McDonald: The goal is to start collaborating with all the Indigenous groups; it is going to start at home, and we will have to work together.

Mike Low: Dehcho AAROM is pushing for collaboration. A lot of programs use similar funding, but it is not always easy to collaborate when the capacity differs.

Kevin Smith: The workshop has not been in person since 2019, but when it is in person, there are always representatives from across the territory working in community-based monitoring for this very reason. Collaboration is one of the main purposes of this workshop.

A comment from Chief Kenneth Cayen: As one of the monitors in his community, Chief Cayen would like to see more funding, winter equipment, etc. and a year-round program. It is hard to find people to do the work as it is, and seasonal work isn't enough to feed a family.

Ryan Pischinger: Their program is in its first year of initiation and the goal is to be able to monitor fish all winter. They are hopeful that they can create something that other people can follow and have environmental monitoring not only for Fort Smith but the NWT as well.

Question from Lisa Piper: Lisa is with the YKDFN Council. The oil sands is a concern of everybody. What can it do to the water, land, and fish? Has there been any consultation with Alberta or other sands companies?

Mike Low: Dehcho AAROM does not engage on oil sands; ECC is responsible for the transboundary water agreements. But, through ECC community-based monitoring program, Dehcho AAROM sets out small devices called polyethylene membrane devices (PMDs) to see if there are hydrocarbons in the water. Samples showed that these compounds were nowhere near the Canadian aquatic life limit.

Fort Smith Métis Council: Through work with ECC, they conduct testing on small-bodied fish [in the Slave River] to see if there are any contaminants.

1.5 Community-Based Monitoring Program, ECC

(*Guylaine Ross, Watershed Management Advisor, ECC*)

The NWT-Wide Community-Based Water Quality Monitoring (CBM) is a collaborative program between ECC staff, community environmental monitors and other water partners across the NWT to answer communities' questions about their water quality. A vital component of the program involves building community monitoring capacity through training and resources.

The 2022 field season began in June with the annual CBM Workshop. The event was hugely successful as CBM staff gathered with over 50 community monitors and partners at B Dene Adventure Camp in Dettah, NT, under the theme of "*Reconciliation*" to celebrate the 10th anniversary of the program. Events like this promote relationship-building between ECC and our community water partners, which helps ensure meaningful program delivery during the field season.

In 2022, 40 sites were visited in 21 NWT communities and sampled three to four times during the open water season. A surface water grab sample is collected at each location, while YSI Sondes and PMDs (polyethylene membrane devices) are deployed to gather continual data throughout the summer. A late start to placing Coast Guard buoys along the Mackenzie presented challenges for CBM as we rely on them to deploy our equipment. However, despite this issue, we gathered data for a large portion of the field season. All the collected data are uploaded to Mackenzie DataStream and shared publicly. Fall 2022 marked the end of CBM's 11th field season, and program staff are currently working on a 10-year technical report and plain language report. New promotional and educational materials are also in the works to help inform our community partners about program information and results.

During the 2022 season, of the CBM program introduced Citizen Science Kits. These kits analyze the same parameters as the YSI sonde multi probes that ECC uses. Users can upload results directly to the Water Rangers open website, which automatically uploads the results to Mackenzie DataStream, a source for NWT water monitoring data and visualization. The Citizen Science Kits were praised by community monitors, who view them as an excellent resource to support their water stewardship efforts outside of scheduled ECC visits.

Day 2:
NWT Water Stewardship Strategy Implementation Workshop Session

2.1 Panel 3: Our NWT Waters: Resilience and Adaptation: Researchers, Regulators and Water Partners share their work

Researchers and regulators shared their experience and perspectives on adaption and building resiliency for water stewardship. Here is what we heard:

Tanya Lantz and Heather Scott (Mackenzie Valley Land and Water Board, MVLWB)

Tanya Lantz, Community Outreach Coordinator, LWBs of the Mackenzie Valley

- Tanya is the Community Outreach Coordinator for the LWBs of the Mackenzie Valley, and a member of the Łutselk'e Dene First Nation.
- The Mackenzie Valley Land and Water Board regulates the use of land, water and waste deposits primarily through the issuance and management of land use permits and water licences. There are four land and water boards in the Mackenzie Valley that perform these functions, each in their respective management areas. Land and resource management is a shared responsibility between all parties of the co-management system.
- A few of the initiatives undertaken at the LWBs include:
    - A Strategic Plan for the Land and Water Boards of the Mackenzie Valley 2022-2026 outlines where the Boards will focus their efforts and how to collaboratively work over the next five years.
    - The LWB Engagement and Consultation Policy and Guidelines were implemented in 2013 and updated in 2018 to account for devolution; and a further update is underway. The public review comment period on the new Engagement and Consultation Policy closed in September 2022. An engagement process on the Guidelines is anticipated in 2023.

- A Community Outreach Strategy, which is to be released in 2022-2023, will support the LWBs to link their ongoing work to the bigger picture impact they would like to have in the communities of the Mackenzie Valley.
- Cultural and sensitivity training for all staff at the four LWBs is ongoing to create awareness and understanding of the impact of colonization, to understand the individual and collective role in reconciliation, and to provide the necessary foundation and tools to move towards a better understanding for better decision-making.
- MVRMA Climate Change Workshop is scheduled for December 15 and 16, 2022 in Yellowknife at the Explorer Hotel. Registration is available at MVLWB.com.
- In February, the LWBs announced the interim adoption of the Mackenzie Valley Impact Review Board's Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment (July 2005) in December 2021 while the LWBs develop their own Traditional Knowledge Policy and associated guidance materials.

Heather Scott, Senior Technical Advisor, MVLWB

- The LWBs have the authority to issue water licences and land use permits for projects that use water and deposit waste in their operations. Some local examples of existing permits and licences in the Dettah/Yellowknife area are the Giant Mine Remediation Project, the Con Mine Remediation Project, Mineral Exploration by Gold Terra, and the City of Yellowknife and Yellowknife Dene First Nation (Dettah) municipal operations that include the use of water for drinking water and the deposit of solid waste and sewage.
- One way the LWBs address adaptation and resilience in the regulatory process is by ensuring projects are adaptively managed, i.e., that certain feedback and/or actions are in place for when certain conditions are observed or monitored on-site. This means that, for aspects of the project that are monitored and reported on, triggers or action levels are set for various thresholds which ensure certain mitigative actions. These action levels and responses are generally proposed in a management plan, for public review and for approval by the Board.
- Outside of the regulatory process, the LWBs address adaptation and resilience through initiatives under their Strategic Plan. Under Pillar 2 of the Strategic Plan, the goal is to "Develop / update key policies, guidelines and procedures that promote clarity, efficiency, and consistency in the LWB's regulatory processes for parties, applicants, and the public", with the objectives to (A) Update existing LWB engagement practices and guidelines for applicants (including to reflect pandemic realities and emerging practice as needed), (B) Develop tools to support strengthened practice around the use of Traditional Knowledge into decision-making and expectations for applicants, and (C) Update and/or develop policies, guidelines, and procedures, in collaboration with parties as needed, to bring clarity, efficiency and consistency to aspects of the LWB's regulatory processes (e.g., security estimates and progressive reclamation, return of securities, municipal issues, etc.).

Homa Keyrollah Pour (*Wilfrid Laurier University*):

- Homa is an Assistant Professor, with the Department of Geography and Environmental Studies as well as the Canada Research Chair in Remote Sensing of Environmental Change at Wilfrid Laurier University in Waterloo, Ontario.

- Climate change is impacting northern communities and it is important to do more research and monitoring to identify changes and provide solutions to adapt. Western science is not enough to understand the land, we need to learn the history from people living on the land. And to be able to connect western science and TK, we need to communicate, build relationships, and trust. Homa's experience over the past three years working with communities in the NWT demonstrates the need to connect, communicate, engage, share knowledge, identify gaps and co-create research with communities, side by side throughout the process.
- Looking at Great Slave Lake from a satellite perspective, over a ten-year period (2012-2022), spot stress areas can be seen, indicating that the lake is getting warmer and warmer, and most of these changes are occurring in October. All of these findings are important, but they are not enough to understand why the changes are occurring more in some areas than others. Hence the decision to be on the land, talking with elders, youth, and working with Guardians to address these challenges. Homa looks forward to continuing to work with the communities and hopes that in the future they will do better in decision making in the future regarding climate change.

Highlights from discussion that followed:

Question from Angela Hamilton, ARI; Fiddlers Lake in Yellowknife is an outgoing sewage lake, and people use that specific lake's roadside pull out to eat lunch etc. Yet is has no signs on it.

Heather Scott: The Fiddler's Lagoon system is clearly signed from the road. The confusion lies in that google maps points out another lake (which is not Fiddler's Lake lagoon) on the opposite side of the road. Some people mistakenly think that the mislabelled lake is a sewage lagoon; it is not.

2.2 Panel 4: DataStream: Reflecting on 10 years of collaboration to support open data flow

DataStream panel reflected on 10 years of collaboration, how the platform has grown since it was launched in 2016 and shared successes along that journey. Here is what we heard:

Lindsay Day, DataStream Initiative/The Gordon Foundation

- DataStream is an online portal for sharing water quality monitoring results. The goal is to bring all data together, store them securely for research, and promote better understanding and information for decision making at all levels.
- DataStream Initiative worked with the Government of the Northwest Territories and other organizations to make the data as accessible as possible and readily used through a map-based search function, data visualization tools, and science explainer materials. The science explainer materials explain the different parameters that are measured, what those data are, and their importance. Based on feedback DataStream has increased focus on stories, like videos explaining the why behind the data, what people are doing and why it matters.

Emma Wattie, Director of Atlantic Water Network

- The Atlantic Water Network started working with the Gordon Foundation in 2017, and now has over 100 organizations that do community-based monitoring across the Atlantic provinces uploading their data to the DataStream.

- Launching DataStream in 2018 was a major milestone for the Atlantic region. DataStream allowed the Atlantic Water Network to cross collaborate, share and compare data. The Network collects data to understand and act upon what the data are telling them.

Key highlights of success: DataStream has made it possible to reach regions with insufficient data by expanding into areas where more information is needed. The platform has grown through collaboration and resources, and helped meet the needs of regions by knowing where the data is and where it isn't.

-

Gila Somers, Government of the Northwest Territories:

- DataStream was birthed in the North as Mackenzie DataStream. Community-based monitoring programs (CBM) were the primary audience for DataStream. The CBM data needed to be open and accessible, where water partners working with ECC have that data available and know what the data means and how to interpret it.
- *Key highlights of success*: Part of the vision for Mackenzie DataStream was to have an understanding of what is happening across jurisdictions – not just data from the CBM program, the Cumulative Impacts Monitoring Program (CIMP), or the transboundary water quality program, but also data from other jurisdictions. Having a basin-wide understanding of what is flowing in and out of the NWT is a huge benefit to us.

Chelsea Lobson, Program Director, Lake Winnipeg Foundation, an environmental non-profit:

- Lake Winnipeg Foundation’s goal is to protect the health of Lake Winnipeg, located at the centre of Canada. The lake matters culturally, ecologically, and economically and the biggest challenge it is facing is the eutrophication, which means the increase in the algal blooms caused by the nutrient phosphorus. Which comes from diverse sources in the watershed.
- The Lake Winnipeg Community-Based Monitoring Network mobilizes watershed partners and volunteers to collect water samples for phosphorus testing. The goal of the program is to identify phosphorus hotspots in the watershed, so we know where to target our actions to improve the health of the Lake.
- The program collects robust data and DataStream provides us with a tool to share the data in an open and accessible way. Now we have a platform where different sources of phosphorus data can be found in the same place.
- *Key highlights of success*: Having successfully identified phosphorus hotspots in the watershed using the phosphorus data on the DataStream platform. The program can now take the next step and target actions to these hotspots to understand what is making them hotspots. Next steps include working in partnership with researchers, governments, and people doing programs on the land and have a real impact on Lake Winnipeg and its health.

Highlights from discussion that followed:

Question from Peter Sabourin (KFN): The years of data we have is not written, it has been passed on from generation to generation as traditional knowledge. Is there room for Indigenous people because including traditional knowledge is very important?

Lindsay Day: Traditional knowledge is hugely important and part of the NWT Water Stewardship Strategy. Though DataStream is for scientific data, there are other pieces of information and knowledge that need to come together and need consideration on how that can be shared, the context and with whom.

Question: How would you include traditional knowledge in data collection and how many Dene, women and men, do you currently have in the program? How are they recruited and involved?

Lindsay Day: DataStream works with many programs, including the NWT-wide CBM program, and Guardians programs across the basin. It is up to the individuals in the programs, some do include Indigenous knowledge and traditional knowledge. How traditional knowledge is included in the data collection is a program-by-program decision. We provide the platform for that the data.

Gila Somers: The CBM program works with different communities and organizations to deliver the program in partnership. In those programs, Guardians are part of them, they are trained, and we invite all partners to workshops prior to the open water season. The number of Dene people varies each year. There are over 40 sites and 21 communities in the CBM program across the NWT. Two community monitors from each community are invited to the workshops. In the field, there are approximately 40 community members involved but the number fluctuates.

Question from Samuel Gargan*:* Is phosphorus something we should be worried about?

Chelsea Lobson: Phosphorus is a nutrient of concern in Lake Winnipeg but, as far as I know, not in the Mackenzie River. It is important to have for all life. When in excess it causes potentially harmful algal blooms.

Question*:* Is DataStream a viable solution for other areas such as the climate change, like the Dehcho collaborative on permafrost?

Lindsay Day: DataStream has focused specifically on water quality because it is a challenging data type that alone has been a lot of work, and it is ongoing. People inquire if DataStream can take climate data. Part of DataStream's success has been focusing on one thing and trying to do it well. There is work happening to connect with other systems, so that the different data types can be connected. DataStream is happy to talk to people building other systems.

2.3 Panel 5: Youth and Water: Engagement, Innovation and Capacity Building

Kathleen Fordy, Deníınu Kue First Nation, NWT Youth Stewardship and Mentorship Grant program recipient 2018-19:

- The youth grant is such a great opportunity for small communities like mine to bring awareness and provide more youth with water stewardship knowledge and interest. The project name was

"A flow of new water keepers and the water ways of the ancestors". It took place in Fort Resolution, NT, on March 7, 2019 and consisted of photo contest entries by the youth (they chose their own photo and wrote about the connection to water).

- The event had showed three videos, the Delta Days Remembered, Watchers of the Bay, and Ni Hadi Xa Dene. After the showings, different break out group sessions were organized with different questions to reflect on the importance of water, climate change and its impact and how to involve more youth for the future. A lot of conversations happened during the workshop and the youth had a lot to say and share about the Delta Days Remembered video with elders and water partners. The youth expressed the need to have more workshops, meetings and presentations in school-based programs on the importance of water.

Dawn Tremblay, Executive Director, Ecology North:

- Ecology North celebrated its 50th year anniversary this year. Ecology North focuses on environmental education, with an emphasis on water stewardship, waste reduction, local food production, climate change, and nature appreciation. Ecology North's mission is to bring people and knowledge together for a healthy Northern environment, and the vision is a healthy Northern environment, forever.

- Ecology North manages several projects that are primarily youth-led initiatives (18-35 years), including many in collaboration with the NWT Water Strategy. Initiatives we are doing under the Water Strategy include the Water Stewardship Group, Youth stewardship gathering, love NWT campaign (promote using drinking tap water instead of bottled water), and the youth grant program.

- Ecology North facilitates a youth-led water stewardship group, and the youth determine what topics to tackle and how often they meet. In the summer, Ecology North has facilitated two youth gatherings in Kakisa that have blended western knowledge and Indigenous knowledge. Youth value that opportunity and the opportunities that come from that. The youth gain knowledge and connect with each other, thereby making northerners more resilient to water and climate and environmental changes.

Brandon Pludwinski, Environmental Education Project Officer, Ecology North and ***NWT Youth Stewardship and Mentorship Grant program Recipient 2021-22:***

- To provide a bit more context on the gatherings, Ecology North brings youth together from across the NWT with elders, community members, policy makers, and people from the GNWT, for knowledge sharing, talking about water and sharing their respective work. The interesting part in these gatherings are opportunities to work with youth (18-30 years of age) that bring their own knowledge and expertise in the discussions.

- In my role at Ecology North, I have the opportunity to work with some of the Youth Mentorship Grant recipients as a mentor and help them plan and carry out events and projects. I will be sharing two projects under the Youth Grant that took place during the 2021-22 program year.

- For the project that I did, a photo-based exploration of the Mackenzie River, students in grades 1-9 go out once a month and take pictures of the river and after a while, say a year, they will have a picture of the changes in the river. We work with the elders who help us choose where the pictures should be taken and these pictures are a learning element for them as well as for the students, especially those who are visual learners. In terms of climate change, you can see how water levels are related to higher snowfall. This project received $3,500 of this grant funding.

- The second project, Nicole Cheng's community event, involved participants measuring arsenic levels in Yellowknife Frame Lake. They collected water samples and used Ecology North office for testing. The group discussed what they learned and what policy and administrative changes they would like to see in the city.
- In terms of effective youth engagement, we noted that our programs need to be change or action oriented. We let the youth decide how they want to do the projects, get involved, and we talk to them about how and when we will be reaching out and what we'd like to see. That gives them a chance to control their own engagement and involvement and it builds trust and capacity.

Highlights from discussion that followed:

***Question from Jonathan McDonald**:* It is good to see that the age range for the youth involvement has been increased up to 35 years old. Some youth from our communities would like to participate, and is it possible to go down to 16 years old?

Dawn Trembly: It is not exclusive; we have exceptions for different events.

***Question**:* How many Indigenous women and men do you have in your organization?

Dawn Tremblay: Currently, none. Although, we have had in the past. Ecology North had an intern and their term just ended, and we are about to start a new hiring process.

Brandon Pludwinski: All the programs we run are in collaboration with different partners. The youth gathering in Kakisa was very much Indigenous partners: we had elders and community members coming to share their knowledge.

2.4 Transboundary Agreements and Transboundary Biological Monitoring Programs: ECC presentations

2.4.1 Transboundary Water Agreements Update

Meghan Beveridge, Watershed Partnerships and Agreements Manager, ECC)

The presentation provided an update on the negotiations and implementation of transboundary water agreements, as well as an update on the potential development of regulations for safe release of treated oil sands tailings water.

1. **Update on negotiation and implementation of NWT’s transboundary water agreements**

The *Mackenzie River Basin (MRB) Transboundary Waters Master Agreement* was signed in 1997 in response to water concerns in the basin that arose in the 1980s and 1990s. The Master Agreement supports the cooperative management of the basin's water resources to maintain the ecological integrity of the aquatic ecosystem (includes 13 members, 3 representing the federal government and 10 representing the provinces and territories, including 1 Indigenous member from each province and territory).

Bilateral water management agreements set up a decision-making framework for two neighbouring jurisdictions to cooperatively share the water that flows between them. They are long-term, collaborative commitments to maintain the health of the aquatic ecosystem. See presentation for more information.

- **Yukon-NWT Peel Basin (2002/2022)**
- **Alberta-NWT Basins (2015)**
- **British Columbia-NWT Basins (2015)**
- **Yukon-British Columbia Liard Basin (2017)**
- **Yukon-NWT Liard Basin (2022)**
- **Saskatchewan-NWT Tazin/Taltson Basin (in discussion)**
- **Saskatchewan-Alberta Athabasca Basin (in discussion)**
- **NWT-Nunavut (future discussions)**

2. Oil Sands Mine Water Effluent Regulations Update

Currently, no release of oil sands mine water into the Athabasca River is allowed under Alberta's *Environmental Protection and Enhancement Act* (EPEA) or the federal *Fisheries Act*. However, there are over 20 large oil sands tailings ponds that have developed over the last 50 years in Alberta and have yet to be reclaimed. The Alberta and federal government are considering regulatory changes to allow for the possible release of treated tailings water into waterways.

Alberta Environment and Protected Areas is conducting scientific studies to support the development of regulatory guidance. This guidance would outline requirements for oil sands operations to be able to release treated oil sands mine effluent to surface waters. Environment and Climate Change Canada (ECCC) is working to potentially develop regulations under the *Fisheries Act*. The regulations would include quality standards and reporting requirements.

Alberta has established an Oil Sands Mine Water Science Team to inform the development of regulatory guidance and has identified six information gaps:

- Modelling environmental concentrations and effects
- Human and ecological health risk assessment

- Technology-based effluent limits assessment
- Toxicity testing
- Enhanced baseline environmental monitoring
- Local and regional-scale environmental monitoring

The GNWT will continue to engage and stay informed of the potential regulatory development process with Alberta and the federal government. The GNWT will review the technical information and make its own assessment of how safe it would be to release treated oil sands tailings water. The GNWT will continue communicating with NWT's Indigenous governments and Indigenous organizations about its assessment of the technical information shared by Alberta through the Water Strategy Indigenous Steering Committee.

2.4.2 Transboundary Biological Monitoring Programs

(*Christopher Cunada, Transboundary Aquatic Ecosystem Scientist, ECC*)

The presentation focused on biological monitoring work done on the Slave and Hay Rivers under the Alberta-Northwest Territories Bilateral Water Management Agreement.

A key objective of the transboundary agreement is to maintain the ecological integrity of the aquatic ecosystem. Biological monitoring provides early warning of change or stress in the aquatic environment, and thus allows for a proactive and adaptive response to ensure the protection of all uses and the protection of the health of aquatic organisms, wildlife and humans. So far, biological monitoring under the transboundary agreement has included benthic invertebrate (aquatic bugs) and fish monitoring programs in the Slave and Hay rivers.

Benthic invertebrate monitoring takes place in partnership with University of New Brunswick (program designed by Jen Lento), Kátł'odeeche First Nation (Hay River), and Smith's Landing First Nation. Since 2017, 6 sites on the Hay River and 7 sites on the Slave River have been established and sampled annually for benthic invertebrates, water quality, and sediment quality.

Since 2019 the GNWT and Alberta have worked with the Slave River and Delta Partnership (SRDP) and community members in Fort Smith (Fort Smith Métis Council, Smith's Landing First Nation, Northwest Territory Métis Nation) and Fort Resolution (Fort Resolution Métis Government, Denínu Kų́ę́ First Nation) and researchers from Wilfrid Laurier University, University of Calgary, and the University of Saskatchewan to develop a pilot fish monitoring program for the Slave River. The goal of the project is to track fish health and tissue contaminant levels over time.

Findings:

- Benthic invertebrate community structure is different between high water and low water years.
- The overall health of fish from the Slave River and Slave River Delta appears to be in good condition.
- Levels of metals, including mercury, and hydrocarbons were within consumption guidelines.
- More research and monitoring are needed to better understand natural variability of fish and benthic invertebrates.

Next steps:

- Data analysis:
    - Waiting for some Slave River large-bodied fish chemistry results
    - Completed pilot small-bodied fish sampling upstream of Ft. Smith, at Ft. Smith, and in the Slave River delta in fall 2022.
- Community reporting open houses:
    - At the end of November 2022 ECC will report back to the Slave River and Delta Partnership in Fort Smith and host public open houses in Fort Smith and Fort Resolution.
- Engagement with communities around the Hay River to develop a fish monitoring program (where to sample, what species to sample, when to start, and how should we get it done?).
- Further small-bodied fish monitoring in 2023 on the Slave River.

Highlights from discussion that followed:

***Question from Edna Tobac, Sahtu Land Use Planning Board*:** Do you get informed on how often water is released from Bennett Dam and on tailings releases from the agreements with AB and BC?

Meghan Beveridge: No tailings releases are currently allowed into the Athabasca River. ECCC and the Government of Alberta would have to make changes to the law and regulations to be able to allow companies to release any treated tailing water into the Athabasca River or any of its tributaries.

On notification from BC Hydro on Bennett Dam water releases and operations on the Peace River, the agreement we have with Alberta pertains to the Slave River and Hay River; it does not apply to the Peace River. BC Hydro is only obligated to notify NWT and other downstream users if BC Hydro were going to release above what is their water licence allowance. When NWT's water levels rose dramatically in 2020, modeling work was done to determine if the Bennett Dam contributed to the high-water levels, and results showed that it was due to the amount of rain in northern Saskatchewan, Alberta and BC that contributed to the water high levels, not Bennett Dam.

***Follow up question from Edna**:* Are you only monitoring water levels seasonally?

Meghan Beveridge: ECC uses Water Survey of Canada (branch of ECCC) water quantity data (there are hydrometric stations across Canada) to see what is happening on different rivers and these stations continuously measure water flow and levels all year round. ECC has hydrologists who regularly look at that data and communicate with ECCC as well as the other hydrologists and jurisdictions, such as Alberta, to make sure we understand what is happening.

***Comment from Douglas Yallee, Hamlet of Tulita Mayor**:* I also have concerns about transboundary water, what is going on above us, the tailings, the water levels going up and down and the Bennett Dam.

Question from Anita Gue (ECCC Yellowknife): Does Alberta help with any of the monitoring work on the transboundary waters?

Christopher Cunada: ECC works collaboratively with partners, including local Indigenous governments and Indigenous organizations, in the implementation of transboundary programs. Government of Alberta staff have not been in the field yet, but we are talking about it. In terms of transboundary funding, everything is 50-50 between the NWT and Alberta governments.

Question from David Krutko, Mackenzie Valley Environmental Impact Review Board: How are First Nations affected by the agreements in the south involved, do they have the opportunity to participate in those agreements?

Meghan Beveridge: In the agreements, there are government representatives and Indigenous representatives who are members on the Bilateral Management Committee. The GNWT process is to ask the Indigenous Steering Committee to appoint a member and an alternate member to participate on the Bilateral Management Committee for each agreement. The NWT currently has Phoebe Rabesca (Tłı̨chǫ) and Joseph Gormaly (Kátł'odeeche First Nation) as member and alternate, respectively, for the AB-NWT Bilateral Management Committee. For the BC-NWT Bilateral Management Committee, we have Frank Kotchea from Acho Dene Koe First Nation as the member. For the NWT-Yukon Peel Bilateral Management Committee, ECC is in the process of establishing the Committee and had discussions at the recent ISC meeting about who would be the Indigenous representatives on the Peel Bilateral Management Committee; and there would be both Gwich'in and Inuvialuit representation. ECC will follow up with the ISC to finalize the membership discussion.

Follow up question by David: Regarding the NWT-Yukon agreement for the Peel River, it seems that these are government-to-government agreements. How do you make sure that Aboriginal rights holders are entrenched in those agreements if they are not sitting on the table with you in the negotiations?

Meghan Beveridge: ECC sought input through consultation on the Intentions Document (draft agreement) and the Appendices in late 2020 to March 2021. ECC also sought feedback through the Indigenous Steering Committee. ECC's goal was to make the agreement consistent with all the other transboundary agreements, which took into account considerable input through consultation and public engagement. While there was interest in being at the negotiation table, the negotiation team worked hard to take account of those interests heard during discussion with Aboriginal rights holders.

Question from Daniel Jackson*:* Benthic studies are ongoing since 2017, are there any studies done above the oil sands to compare your results with, to see if there are any difference in the changes? Since the agreements have been updated, what are the big changes to the agreements, if any, since 2012? And why is the federal government updating their agreement in 2024, a year after the tailings ponds water would have been released?

Christopher Cunada: The transboundary programs and oil sands programs have similar designs so the results should be comparable. The results haven't been compared yet because we are focusing on our sites first; but comparison to upstream sites is part of the plan, as well as comparing the rivers to each other.

Meghan Beveridge: On regulation development, Alberta could develop their regulatory guidance as early as 2023. The Government of Canada could have new regulations by 2025.The federal government needs to have their regulations in place before any potential releases. Further, if the regulations are developed there would have to be an application process before industry could be allowed any release of treated tailings pond water.

Question from Samuel Gargan: Have you looked at the whole legal issue of Aboriginal entrenchment, regarding the discharge and impacts on First Nations upstream?

Meghan Beveridge: ECC's focus has been on the transboundary agreements because that is the GNWT's best tool to communicate and work as collaboratively as possible with Alberta. This does not mean that there are not legal remedies that the GNWT could take, and others could take as well. At the moment, the focus is to get as much information as possible to understand what is happening, and what the potential effects of treated tailings water release could be.

Question from Ramona Pearson: I did not see representation from self-government in the agreements, and also the agreements state that the GNWT should engage their public, which includes the Indigenous governments. Could GNWT not make room and advocate for their Indigenous constituents within their own Bilateral Management Plan?

Meghan Beveridge: ECC has been seeking input from Indigenous governments and Indigenous organizations through the Indigenous Steering Committee, sharing regular updates and seeking feedback. A lot of projects work directly with community partners and seek input and share information in that way. The language in the agreement is a negotiated agreement and Alberta had to agree to its terms as well. While the agreement might not be perfect, it contains opportunities to push the door open wider and do more.

***Question from Mark Cliffe-Phillips*:** Has there been any thoughts by the GNWT on the linkages between the bilateral agreement and the *Mackenzie Valley Resource Management Act* for addressing future development?

Meghan Beveridge. There has been internal dialogue about what the process might trigger and what that might look like if there are applications put forward by industry for the release of the treated tailings pond water.

Workshop Wrap Up

Julian Kanigan, Assistant Deputy Minister, ECC, provided a wrap-up of the final day. Presentations made during the day and a half of the NWT Water Stewardship Strategy Implementation Workshop emphasized the importance of working together collaboratively to address water issues in the NWT to achieve the vision and goals of the NWT Water Stewardship Strategy and to ensure that GNWT priorities are aligned where possible with those of Indigenous governments, Indigenous organizations and communities.

Many meaningful and informative discussions took place, and the workshop theme, "Adapting to Change and Building a Resilient Northwest Territories", was reflected throughout the presentations, panels and discussions. Some key highlights from the Water Stewardship Strategy Workshop discussions include:

- Updates and panel discussions and hearing from different communities, organizations, and youth about their contributions gave insight into the great work being done to implement the NWT Water Stewardship Strategy Action Plan.

- Workshop dialogue highlighted the importance of linking traditional knowledge and western science for better decision making and involving youth more often, as the future leaders, so that they understand how everything is connected.
- Discussions shared the progress to date on community engagement and water quality monitoring on Great Slave Lake, and Elders from around the Lake shared the changes to the land and water seen through their lifetime.

Closing prayer delivered by Yellowknives Dene Drummers.

APPENDIX A: WORKSHOP HIGH LEVEL AGENDA

DAY 1: Tuesday October 25, 2022	
8:30am	**Bus Departs Yellowknife (Chateau Nova) for Dettah**
9:00am	**Welcome and Opening Prayer** Review Meeting Protocols, Overview of the three-day collaborative event **Welcoming Remarks from Julian Kanigan, Assistant Deputy Minister, Environment and Climate Change**
NWT Water Stewardship Strategy Implementation Workshop	
9:30am	**Hearing from the NWT Water Stewardship Indigenous Steering Committee**
10:00am	**Update on the NWT Water Stewardship Strategy Action Plan Implementation**
10:30am	**Health Break**
10:45am	**Our NWT Waters: Resilience and Adaptation Panel Presentation** – *Community Stewardship Voices Share Their Experiences*
11:30am	**NWT-Wide Community-Based Water Quality Monitoring Program** - *ECC Presentation*
12:00pm	**Lunch**
1:00pm	**Introduction to the Great Slave Lake Research and Monitoring Program**
1:30pm	**Elders Panel: A Lifetime of Change**
2:30pm	**Health Break**
2:45pm	**Elders Panel: A Lifetime of Change *(continued)***
4:10pm	**Wrap Up**
4:45pm	**Bus Departs Dettah for Yellowknife**

DAY 2: Wednesday October 26, 2022	
8:30am	**Bus Departs Yellowknife (Chateau Nova) for Dettah**
9:00am	**Welcome and Day 2 Agenda Overview**
9:15am	**Our NWT Waters: Resilience and Adaptation Panel Presentation** – *Researchers, Regulators and Water Partners Share Their Work*
10:00am	**DataStream: Reflecting on 10 years of collaboration to support open data flows**
10:30am	**Health Break**
10:45am	**Youth & Water Panel: Engagement, Innovation and Capacity Building**
11:30am	**Transboundary Agreements & Transboundary Biological Monitoring Programs** – *ECC Presentation*
11:55am	**Wrap Up of NWT Water Stewardship Implementation Workshop**

APPENDIX B: LIST OF ATTENDEES OF THE WATER STEWARDSHIP STRATEGY WORKSHOP

Academia	
Angela Hamilton	Aurora Research Institute
Homa Kheyrollah Pour	Wilfrid Laurier University (WLU)
Julia Gyapay	WLU, Yellowknife Research Office
Kelly Skinner	University of Waterloo
Federal Government	
Anita Gue	Environment and Climate Change Canada (ECCC)
Bradley Summerfield	ECCC
David Boguski	Fisheries and Oceans Canada (DFO)
Jared Ellenor	Parks Canada
Laura Alsip	DFO
Marlene Evans	ECCC
Michael Kee	DFO
Paula Siwik	ECCC
Ram Yerubandi	ECCC
Government of the Northwest Territories	
Allan Torng	Department of Health and Social Services (HSS)
Annie Levasseur	ECC
Bruce Hanna	ECC
Christine Dunbar	ECC
Christopher Cunada	ECC
Emily Krause	ECC
Fritz Griffith	ECC
Gila Somers	ECC
Grace Osted	ECC
Guylaine Ross	ECC
Kevin Smith	ECC
Kyle Little	NWT Centre for Geomatics
Laura Krutko	ECC
Lindsay Vician	ECC
Meg McCluskie	ECC
Meghan Beveridge	ECC
Nicole Beningabire Twagira	ECC
Rick Walbourne	ECC
Robin Staples	ECC
Ryan Gregory	ECC
Vincent Casey	ECC
Zoe Guile	HSS
Indigenous Government, Indigenous organizations and communities	
Andrew Stanley	Hay River Métis Government Council
Camilia Zoe-Chocolate	Hotii ts'eeda
Carl Kodakin - Yakeleya Jr.	Hamlet of Tulita
Chief Kenneth Cayen	West Point First Nation
Clifford McLeod	Fort Providence Métis Council
Curtis Manuel	Yamoga Lands Corporation

Daniel Jackson	Yamoga Lands Corporation & Kasho Got'ı̨nę Lands Corporation
Danny Masuzumi	Fort Good Hope Guardians
Darcy Edgi	Yamoga Lands Corporation
Darren Campbell	Gwich'in Tribal Council
Dieter Cazon	Liidlii Kue First Nation
Erica Lafferty	Fort Resolution Métis Council
George Nitsiza	Tłı̨chǫ Government
Gina Bayha	Délînê Got'ı̨nę Government
Iris Catholique	Łutselk'e Dene First Nation
Jacinta Grandjambe	Yamoga Lands Corporation
James Christie	Fort Providence Métis Council
Jessica Smart	North Slave Métis Alliance
Jonathan McDonald	Fort Smith Métis Council
Joseph Gormaly	Kátł'odeeche First Nation
Joseph Lacorne	Deh Gáh Got'ı̨ę First Nations
Kathleen Fordy	Denínu Kų́ę́ First Nation
Kyle Mandeville	Hay River Métis Government Council
Leon Andrew	Sahtu Secretariat Inc.
Lisa Nitsiza	Community Government of Whatì
Lisa Piper	Yellowknives Dene First Nation
Louie Constant	Deh Gáh Got'ı̨ę First Nations
Mandy Bayha	Délînê Got'ı̨nę Government
Mayor Douglas Yallee	Hamlet of Tulita
Melaine Simba	Dehcho First Nations
Michael Birlea	Tłı̨chǫ Government
Mike Low	Dehcho First Nations
Mike Mandeville	Fort Resolution Métis Council
Misty Sinclair	Northwest Territory Métis Nation
Nolan Rainville	Gwich'in Tribal Council
Paul Vecsei	Tłı̨chǫ Government
Peter Sabourin	Kátł'odeeche First Nation
Phoebe Rabesca	Tłı̨chǫ Government
Priscilla Canadien	Deh Gáh Got'ı̨ę First Nations
Ramona Pearson	Dehcho First Nations
Ryan Pischinger	Fort Smith Métis Council
Samuel Gargan	Deh Gáh Got'ı̨ę First Nations
Shawn Grandjambe	Yamoga Lands Corporation
Shawn Mckay	Fort Resolution Métis Government
Stephen Nadli	Deh Gáh Got'ı̨ę First Nations
Tammy Proctor	Yamoga Lands Corporation
Ted Tsetta	Yellowknives Dene First Nation
Terrell Knapton-Pain	Tłı̨chǫ Government
Twyla Edgi	Fort Good Hope Guardians
Walter Bonnetrouge	Deh Gáh Got'ı̨ę First Nations
Charlie Apples	
Joseph Tobec	
Margaret Mackenzie	

Victor Constant	
Industry, Non-for-profits, Non-Government Organizations, and Other	
Adrian Schimnowski	Arctic Research Foundation
Aislin Livingstone	DataStream Initiative
Bijaya Adhikari	Inuvialuit Water Board
Brandon Pludwinski	Ecology North
Chelsea Lobson	Lake Winnipeg Foundation
Chloe Williams	Cabin Radio
David Krutko	Mackenzie Valley Environmental Impact Review Board (MVEIRB)
Dawn Tremblay	Ecology North
Edna Tobac	Sahtú Land Use Planning Board
Emma Wattie	Atlantic Water Network
Heather Scott	Mackenzie Valley Land and Water Board
Joanne Barnaby	Barnaby Consulting Ltd.
JoAnne Deneron	Mackenzie Valley Review Board
Jonathan Yakeleya	Sahtú Renewable Resources Board
Justin Stoyko	Sahtú Land Use Planning Board
Kate Mansfield	MVEIRB
Kianna Durston	Lake Winnipeg Indigenous Collective
Laura Chandler	Atlantic Water Network
Lilian Tran	DataStream Initiative
Mark Cliffe-Phillips	MVEIRB
Tom Henheffer	Arctic Research Foundation
Nancy Vail	Alternatives North