

2019  
2020

# NWT Water Stewardship Strategy

Progress Review Summary



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

English

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Si vous voulez ces informations dans une autre langue officielle, contactez-nous.

French

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Kĩspin ki nitawihtĩn ē nĩhĩyawihk ōma ācimōwin, tipwāsinān.

Cree

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Thchq yatı k'ęę. Dı wegodı newq dè, gots'o gonede.

Thchq

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ʔerihł'ıs Dēne Sųhné yatı t'a huts'elkēr xa beyáyatı theʔą ʔat'e, nuwe ts'ēn yółtı.

Chipewyan

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Edı gondı dehghá got'ie zhatıé k'ęę edatł'éh enahddhę nıde naxets'ę edahı.

South Slavey

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K'áhshó got'ıne xədə k'é hederı ʔedıhtł'é yerıniwę nıde dúle.

North Slavey

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Jii gwandak izhii ginjik vat'atr'ijąhch'uu zhit yinothtan ji', diits'at ginohkhii.

Gwich'in

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Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.

Inuvialuktun

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Ĉ'bdĠ 00'ᵇᵇΔᶜ ḂᶜLJΔᶜ Δᵇᵇ0ᵇᵇᶜᵇᶜLᵇᵇ, ᵇᶜᶜ0ᵇᵇᶜ ᵇᶜᵇᶜᶜᵇᵇᵇᵇᵇᶜ.

Inuktitut

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Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.

Inuinnaqtun

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Aboriginal Languages Secretariat: 867-767-9346 ext. 71037

Francophone Affairs Secretariat: 867-767-9343

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# Checking Our Progress

## 2019/2020 NWT Water Stewardship Strategy Progress Review Summary

*Northern Voices, Northern Waters: NWT Water Stewardship Strategy* (the Water Strategy) is a made-in-the-North strategy developed collaboratively by water partners in the Northwest Territories (NWT). Since the first version of the Water Strategy was released in 2010, two five-year Action Plans have been developed.

The current Action Plan for 2016-2020 is made up of four components, 147 Action Items and 54 Performance Indicators that guide Water Strategy implementation. The *2019/2020 NWT Water Stewardship Strategy Progress Review* is the fourth annual progress review under the Action Plan and summarizes the status of all Action Items and provides examples of performance indicators. The review is based on survey responses from water partners,<sup>1</sup> communications and meetings with lead water partners, a document review and database analytics. The goal is to fully implement the Action Plan by the end of 2020, contributing to the vision and goals of the Water Strategy.

*Water partners include anyone who has a role in water stewardship, including all levels of government, Indigenous governments and organizations, regulatory boards, non-governmental organizations, academia, industry and NWT communities.*

Data for the status of each Performance Indicator and Action Item are recorded in a comprehensive spreadsheet available at [www.nwtwaterstewardship.ca](http://www.nwtwaterstewardship.ca).

The Water Strategy, Action Plans, previous NWT Water Stewardship Strategy Progress Review Summaries and more detailed information on the status of 2019/2020 Performance Indicators and Action Items are available online at [www.nwtwaterstewardship.ca](http://www.nwtwaterstewardship.ca). You can also request the information by emailing [nwtwaterstrategy@gov.nt.ca](mailto:nwtwaterstrategy@gov.nt.ca).



## The Four Components

Water Strategy activities are organized into four main components: Work Together, Know and Plan, Use Responsibly and Check Our Progress.

Specific Action Items and Performance Indicators under each of these four components identify what work needs to be done and how its success will be evaluated.

### CHECK OUR PROGRESS

Actions ensure progress is made in achieving the Water Strategy vision. This includes measuring and reporting on progress. Reporting results of, and responses to, evaluations and reviews must be transparent.

### WORK TOGETHER

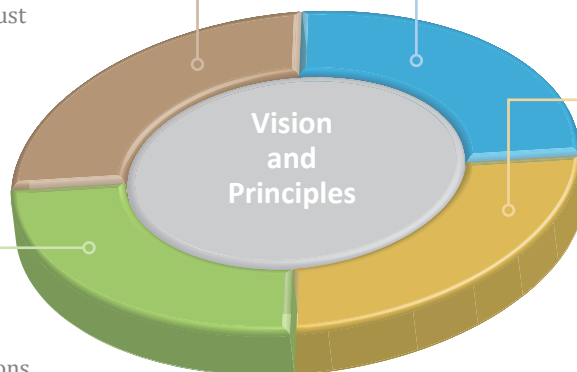
Actions ensure a cooperative environment to support water managers and water partners in sharing information, building capacity and working together.

### KNOW AND PLAN

Actions ensure the implementation of multidisciplinary aquatic monitoring and research programs. These programs consider traditional, local and western scientific knowledge and use of this information in the planning and implementation of water stewardship activities.

### USE RESPONSIBLY

Actions ensure water managers have the information necessary to make well-reasoned decisions.





## Aboriginal Steering Committee

The Water Strategy Aboriginal Steering Committee (ASC), which guided the development of the Water Strategy and Action Plans, continues to guide the implementation of the Water Strategy. This guidance ensures implementation activities represent the values of Indigenous governments, organizations and communities, while respecting Aboriginal and treaty rights. The ASC includes representatives from the following Indigenous governments and organizations:

- Acho Dene Koe First Nation
- Dehcho First Nations
- Gwich'in Tribal Council
- Inuvialuit Regional Corporation
- Kátł'odeeche First Nation
- Nahanni Butte Dene Band
- North Slave Métis Alliance
- Northwest Territory Métis Nation
- Sahtú Secretariat Incorporated
- Salt River First Nation
- Tłıchǫ Government
- Akaitcho Territory Government (observer)

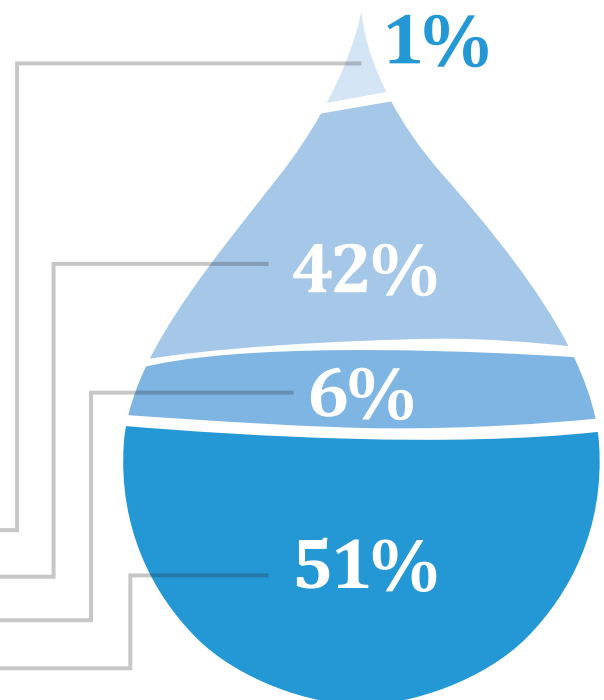
## Action Item Status Overview

Progress on Action Items was assessed based on the following criteria:

- **Not started**  
Activities towards completion of the Action Item have not started and no deliverables currently exist.
- **In progress**  
Activities towards completion of the Action Item have begun and there are deliverables; however, there is still work to do.
- **Complete**  
The Action Item is complete and information and deliverables are available to water partners.
- **Complete for reporting period and ongoing**  
The Action Item is complete for the current reporting period; however, the Action Item requires ongoing work.

The percentages shown indicate the overall progress for Action Items assessed during the 2019/2020 Progress Review.

- Not started
- In progress
- Complete
- Complete for reporting period and ongoing







## OUR VISION

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





NWT waters are important for ecosystems and the people that are a part of those ecosystems. The vision of the Water Strategy reflects the importance of working collaboratively to ensure the water continues to sustain our ecosystems and meet the health, cultural and economic needs of current and future generations. Collectively and individually, water partners commit to continue working towards this vision.

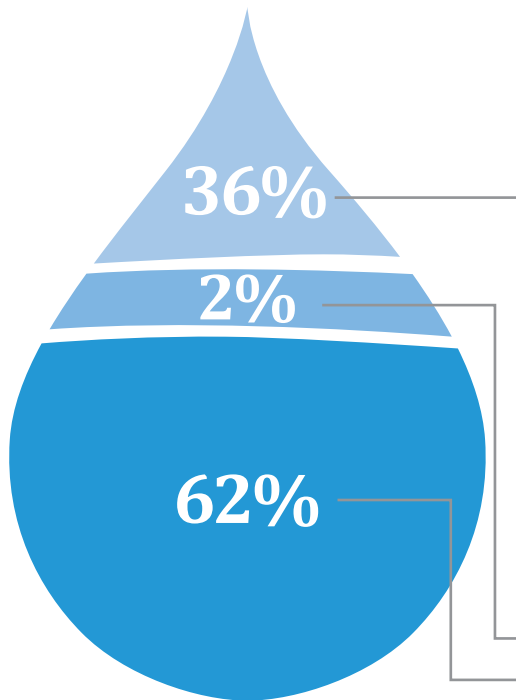
# 1.0 Work Together

- 1.1** Partnerships
- 1.2** Information Management
- 1.3** Communication and Engagement
- 1.4** Capacity Building, Leadership, Training and Education
- 1.5** Transboundary Discussions, Agreements and Obligations

## Lead Water Partners for Action Items

- Aboriginal Steering Committee (ASC)
- Aurora College
- Aurora Research Institute
- Dechinta Centre for Research and Learning (Dechinta)
- Dehcho Aboriginal Aquatic Resource and Oceans Management Program (AAROM)
- Ecology North
- Environment and Natural Resources (ENR), Government of the Northwest Territories (GNWT)
- Land and Water Boards of the Mackenzie Valley and the Inuvialuit Water Board
- ʔehdzo GotʼInę Gotsʼę Nákedı (Sahtú Renewable Resources Board)
- MakeWay (formerly Tides Canada)

## Status of Action Item Progress: Work Together



Not started (0%)

In progress

Complete

Complete for reporting period and ongoing

# 1.1

## Partnerships

Partnerships are essential for water stewardship in the NWT.

Annual Water Strategy workshops and progress reviews offer opportunities for water partners to share implementation successes and challenges, and build relationships.

The 10<sup>th</sup> annual NWT Water Stewardship Strategy Implementation Workshop was held in Dettah from October 22-23, 2019. Approximately 90 water partners attended the workshop, including representatives from Indigenous governments and organizations, territorial and federal departments, non-governmental organizations, academic institutions, regulatory and renewable resource boards and community representatives. Members of the ASC also participated in the workshop, representing their respective Indigenous governments and organizations.

Through the workshop theme “Northern Waters in a Changing Climate,” participants acknowledged the need to work together strategically to achieve the vision of the Water Strategy, sharing knowledge, building relationships and identifying new opportunities for collaboration in water stewardship. Discussions focused on:

- Links between the NWT Water Stewardship Strategy and the NWT Climate Change Strategic Framework
- The importance of meaningful youth engagement
- Opportunities to strengthen monitoring of climate change impacts on NWT waters, including community-based water monitoring
- Adaptation to water-related climate change impacts
- Accounting for climate change in transboundary water management agreements

Workshop reports and resources related to the Water Strategy are available at [www.nwtwaterstewardship.ca](http://www.nwtwaterstewardship.ca).

**65%** of survey respondents felt a moderate to high degree of shared ownership of the Water Strategy.

**69%** of water partners are aware of their organization’s role in implementing the Action Plan.





In March 2020, Ecology North hosted a three-day Youth Water Stewardship Workshop in Yellowknife. The workshop brought together seven youth from across the NWT to learn about and share ideas, knowledge and concerns related to NWT water stewardship. The workshop also included a one-day interactive training session on Project WET (Water Education for Teachers) to promote water leadership skills, tools and knowledge.

Additional successes include increased awareness of water partners' role in implementing the Action Plan, increased acknowledgement or incorporation of the Water Strategy goals and visions into work done by water partners, and increased opportunities for water partners to exchange information and build relationships.

# 1.2

## Information Management

Water stewardship activities and decisions must be supported by sufficient, accurate, current and accessible data and information. This includes the best available scientific, local and traditional knowledge.

**49%**

(21 out of 43)  
of water partners  
indicated they use  
traditional and local  
knowledge often in  
decision-making.

The NWT Discovery Portal and Mackenzie DataStream provide platforms to share water monitoring and research data and information among water partners and the public. Additional long-term water quality monitoring data are stored by ENR in its Lodestar database and are available to water partners upon request. Data from the NWT-wide Community-based Water Quality Monitoring Program as well as Environment and Climate Change Canada (ECCC)'s water quality network (2000-present) are shared through Mackenzie DataStream. ECCC's water quality data can also be accessed on the Government of Canada Open Data Portal (2000-present) or through a formal request submitted to ECCC for data prior to 2000.

The Land and Water Boards of the Mackenzie Valley adopted the Guidelines for Reporting Water Quality in the NWT. These guidelines were developed in partnership with the NWT Cumulative Impact Monitoring Program, ENR (NWT CIMP) and are currently pending final approval. The objective of the guidelines is to address the inconsistencies in water quality information submitted to the boards and provide clear expectations to project proponents.



Photo: Julianne Groenewegen

**63%**

(27 out of 43) of water partners indicated they use western science often in decision-making.

In 2019/2020, the NWT Discovery Portal averaged 113 monthly users and Mackenzie DataStream averaged 178 monthly users.

ASC members support the use of traditional knowledge protocols to ensure research and monitoring projects respect community values and traditional knowledge is gathered in meaningful ways to inform decision-making. ASC members provide guidance on relevant traditional knowledge projects through interactions with researchers at ASC meetings and by sharing traditional knowledge protocols as required.

The Nę K’ə Dene Ts’ı́łı Forum, which was created by Sahtú organizations in partnership with ENR, supports research and monitoring by providing Sahtú organizations a space to come together to discuss research priorities, plans and proposals, provide feedback and guidance, and coordinate objectives and activities. The objectives of the Forum are to:

- Identify regional priorities and research gaps
- Build cross-cultural understanding
- Support and protect traditional knowledge processes
- Support regional and regulatory decision-making
- Identify opportunities for collaborative research involving communities, communication, information sharing, and cross-cultural interpretation of research results



# 1.3

## Communication and Engagement

Good communication and engagement are necessary for building and maintaining effective relationships and keeping water partners and the public informed about water stewardship.

**50%**

(22 out of 44) of water partners indicated they are satisfied or very satisfied with the Water Strategy implementation progress.

The water stewardship website was completely updated in 2019/2020 (with updates/improvements as needed).

Water partners use a variety of different communication and engagement methods to keep water partners and the public informed about their activities. For example, the annual NWT Water Strategy Implementation Workshop in October 2019 and the Water Stewardship website provided opportunities for water partners to update one another, and the public, on implementation activities that took place in 2019/2020.

Water partners also provided specific implementation updates through various community and committee meetings, workshops, regional Indigenous Guardians' gatherings, conferences, and meetings with Chiefs and councils. Updates were also shared through reports, videos, websites (such as Mackenzie DataStream), and other forums (such as the Wetlands Mapping Inventory).

ASC members continue to liaise with their respective Indigenous governments and organizations about the Water Strategy, communicating regularly and providing updates before, during and after ASC meetings. Each ASC meeting has a standard agenda item for members to provide regional updates. In 2019/2020, ASC members shared various updates on programs and projects being undertaken in their respective regions, including community-based water quality monitoring activities, fisheries studies with the Department of Fisheries and Oceans (DFO), the Marian Water Stewardship Program, environmental DNA monitoring, the Tracking Change research project, and Indigenous Guardians programs, among others. Five ASC meetings were held in 2019/2020.

The ASC also provides ongoing guidance to water partners on how to effectively engage Indigenous governments and organizations and NWT communities with respect to implementation activities. In 2019/2020, the ASC provided this type of guidance to eight projects. The ASC also provided guidance related to traditional knowledge to four projects in 2019/2020.

# 1.4

## Capacity Building, Leadership, Training and Education

Increasing local capacity, technical skills and knowledge of water stewardship through education, training and engagement is crucial to the continued success of the Water Strategy.

**10**

water stewardship outreach activities were undertaken by Ecology North in 2019/2020.

**28**

(out of 33) communities are involved in aquatic community-based monitoring.

Water partners led, supported and participated in activities to increase knowledge of water stewardship across the NWT in 2019/2020. For example, Ecology North held numerous classroom sessions about water and water treatment in the NWT, hosted drinking water education activities, and coordinated the Youth Water Stewardship Gathering, which took place in Yellowknife on March 9-11, 2020. Unfortunately events planned for Canada Water Week were cancelled due to the COVID-19 pandemic.

Various on-the-land water education/leadership camps and community-led research and monitoring initiatives further supported water partners in increasing local capacity, technical skills and knowledge. Some examples include the Tundra Science and Culture Camp, Dehcho Youth Ecology Camp, Dechinta Water Programming, the Tłıchǫ Imbe Program, and Indigenous Guardians Programming.

ENR partnered with communities from across the NWT to provide opportunities for community monitors to build capacity and gain experience in water quality monitoring using different sampling techniques and equipment. Training was provided as part of the NWT-wide Community-based Water Quality Monitoring Program and through additional NWT CIMP-funded projects.

Dehcho AAROM continuously builds capacity and promotes water



management and research. In 2019/2020, the Dehcho AAROM program continued to implement the NWT-wide Community-based Water Quality Monitoring program in the Dehcho region and, as part of this program, an AAROM technician, field worker and two AAROM Guardians attended the ENR Water Stewardship Workshop and CBM training in May 2019. This training has contributed to Dehcho AAROM and the Dehcho First Nations having the capacity to carry out monitoring for other groups or projects including DFO, the University of Waterloo, University of Alberta, the Edézhíé Protected Area, and the Enbridge pipeline.

ᑭehdzo Got'Iné Gots'é Nákedí (Sahtú Renewable Resources Board), in partnership with Wilfrid Laurier University and the University of Waterloo, successfully applied for funding from Global Water Futures to do three years of cross-cultural water knowledge camps. The first year of camps took place in 2019 in partnership with the community of Tulít'a. Due to COVID-19, the 2020 camp will be postponed until the summer of 2021.

Funding from the NWT On The Land Collaborative supported community land-based programming to promote cultural and land-based knowledge and skill building. MakeWay continues to host pan-northern Indigenous Guardian gatherings, bringing together guardians from all three territories. MakeWay also continues to directly fund Guardian programs in the Akaitcho, Sahtú, Tłıchǫ and Dehcho regions.



# 1.5

## Transboundary Discussions, Agreements and Obligations

Successful transboundary discussions, agreements and obligations with neighbouring jurisdictions help ensure the waters of the NWT remain clean, abundant and productive for all time.

**13** implementation activities are in progress and 18 were completed under the Alberta-NWT Agreement in 2019.

The NWT is the ultimate downstream jurisdiction in the Mackenzie River Basin. NWT waters can be impacted by management decisions in the upper basin, which includes British Columbia, Alberta, Saskatchewan and Yukon. To date, the NWT has signed three bilateral water management agreements: Yukon-NWT (2002), Alberta-NWT (2015) and British Columbia-NWT (2015). The GNWT plans to negotiate bilateral water management agreements with Saskatchewan and Nunavut and the agreement with Yukon is currently being updated.

In 2019, work continued to update the 2002 Yukon-NWT Bilateral Water Management Agreement and align it with more recently signed Mackenzie River Basin Agreements. Two intentions documents—one for the Peel River/Mackenzie Delta Basin and one for the Liard River Basin—are being prepared for Aboriginal consultation and public engagement. The NWT is ready to resume negotiation for a Saskatchewan-NWT Agreement and to continue discussions toward a NWT-Nunavut Agreement.



**3** implementation activities were completed under the British Columbia-NWT Agreement in 2019.

The Bilateral Management Committee that implements the Alberta-NWT Agreement meets at least once a year to approve work plans and annual reports to the responsible Ministers. A multi-year work plan for the Alberta-NWT Agreement is updated annually to guide implementation activities.

The Bilateral Management Committee for the British Columbia-NWT Agreement was established in 2019 and met in April 2019. Currently, the British Columbia-NWT Bilateral Management Committee is discussing implementation priorities and developing a multi-year work plan.

The NWT tracks upstream development and activities that might affect the ecological integrity of the aquatic ecosystem of shared Alberta-NWT waters and British Columbia-NWT waters. The GNWT and ECCC also continued long-term monitoring of surface water quality and quantity in 2019/2020. A pilot program for fish monitoring on the Slave River was established and sampling occurred in September 2019. Benthic macroinvertebrate monitoring in the Slave and Hay rivers also continued in 2019.

# Additional Information

More information on Work Together implementation activities can be found in the following websites and resources.

## Websites

- [Environment and Natural Resources, GNWT](http://www.enr.gov.nt.ca)  
[www.enr.gov.nt.ca](http://www.enr.gov.nt.ca)
- [Ecology North](http://www.ecologynorth.ca)  
[www.ecologynorth.ca](http://www.ecologynorth.ca)
- [Mackenzie DataStream](http://www.mackenziedatastream.ca)  
[www.mackenziedatastream.ca](http://www.mackenziedatastream.ca)
- [NWT Discovery Portal](http://nwt.discoveryportal.enr.gov.nt.ca)  
[nwt.discoveryportal.enr.gov.nt.ca](http://nwt.discoveryportal.enr.gov.nt.ca)
- [NWT On The Land Collaborative](http://www.nwtontheland.ca)  
[www.nwtontheland.ca](http://www.nwtontheland.ca)
- [NWT Science Focus](http://www.nwtsciencefocus.ca)  
[www.nwtsciencefocus.ca](http://www.nwtsciencefocus.ca)
- [NWT Water Stewardship](http://www.nwtwaterstewardship.ca)  
[www.nwtwaterstewardship.ca](http://www.nwtwaterstewardship.ca)
- [#loveNWTwater Campaign](http://www.lovenwtwater.ca)  
[www.lovenwtwater.ca](http://www.lovenwtwater.ca)
- [NWT Research Database – Aurora Research Institute](http://data.nwtresearch.com)  
[data.nwtresearch.com](http://data.nwtresearch.com)
- [MakeWay \(formerly known as Tides Canada\)](http://www.makeway.org)  
[www.makeway.org](http://www.makeway.org)
- [Tehdzo Got'ıne Gots'ę Nákedi \(Sahtú Renewable Resources Board\)](http://www.srrb.nt.ca)  
[www.srrb.nt.ca](http://www.srrb.nt.ca)

## Resources

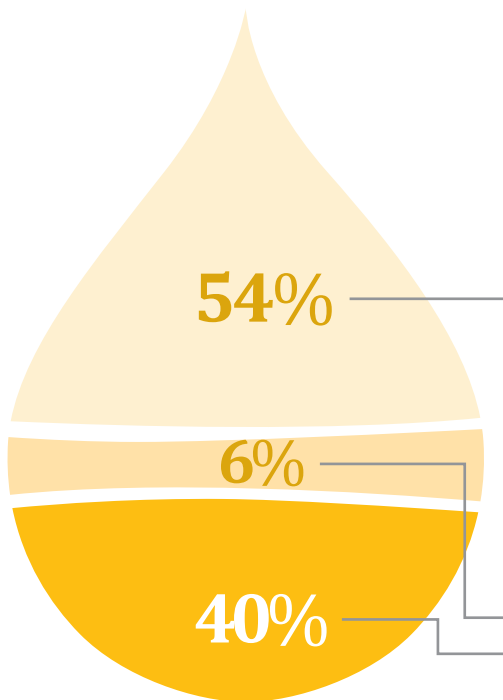
- [Aurora Research Institute – Templates for Communicating Results](http://nwtresearch.com/licensing/communicating-research/communicating-results-templates)  
[nwtresearch.com/licensing/communicating-research/communicating-results-templates](http://nwtresearch.com/licensing/communicating-research/communicating-results-templates)
- [Ducks Unlimited Canada – Canadian Wetland Inventory](http://www.ducks.ca/initiatives/canadian-wetland-inventory)  
[www.ducks.ca/initiatives/canadian-wetland-inventory](http://www.ducks.ca/initiatives/canadian-wetland-inventory)
- [NWT Transboundary Water Agreements](http://www.enr.gov.nt.ca/en/services/water-management-and-monitoring/transboundary-water-agreements)  
[www.enr.gov.nt.ca/en/services/water-management-and-monitoring/transboundary-water-agreements](http://www.enr.gov.nt.ca/en/services/water-management-and-monitoring/transboundary-water-agreements)
- [ECCC National Water Quantity Data](http://www.canada.ca/en/environment-climate-change/services/water-overview/quantity/monitoring/survey/data-products-services/national-archive-hydat.html)  
[www.canada.ca/en/environment-climate-change/services/water-overview/quantity/monitoring/survey/data-products-services/national-archive-hydat.html](http://www.canada.ca/en/environment-climate-change/services/water-overview/quantity/monitoring/survey/data-products-services/national-archive-hydat.html)
- [ECCC National Long-term Water Quality Monitoring Data](http://open.canada.ca/data/en/dataset/67b44816-9764-4609-ace1-68dc1764e9ea)  
[open.canada.ca/data/en/dataset/67b44816-9764-4609-ace1-68dc1764e9ea](http://open.canada.ca/data/en/dataset/67b44816-9764-4609-ace1-68dc1764e9ea)
- [NWT CIMP Plain language videos](http://www.nwtcimp.ca)  
[www.nwtcimp.ca](http://www.nwtcimp.ca)
- [Water Strategy Implementation Workshop Summary Reports](http://www.nwtwaterstewardship.ca)  
[www.nwtwaterstewardship.ca](http://www.nwtwaterstewardship.ca)

# 2.0 Know and Plan

- 2.1 Aquatic Ecosystems, including Water Quality, Water Quantity, Groundwater and Biological Components
- 2.2 A Collaborative Approach to Community-based Monitoring

## Lead Water Partners for Action Items

- Academic partners
- Aurora College
- Aurora Research Institute
- Dehcho AAROM
- Ducks Unlimited Canada (DUC)
- Environment and Climate Change Canada (ECCC)
- Environment and Natural Resources (ENR), GNWT
- Land and Water Boards of the Mackenzie Valley and Inuvialuit Water Board
- Mackenzie River Basin Board (MRBB)
- Mackenzie Valley Environmental Impact Review Board (MVEIRB)
- NWT Centre for Geomatics, GNWT
- University of Alberta



## Status of Action Item Progress: Know and Plan

- Not started (0%)
- In progress
- Complete
- Complete for reporting period and ongoing

# 2.1

## Aquatic Ecosystems, including Water Quality, Water Quantity, Groundwater and Biological Components

Research and monitoring are critical to more fully understand the structure and function of aquatic ecosystems and potential impacts and cumulative effects on NWT waters.

NWT water quality and water quantity networks are maintained by lead water partners, often in collaboration with other partners. Most water quality monitoring programs use standardized sampling protocols to ensure data comparability within programs; however, most protocols are not standardized across programs due to different monitoring objectives.

NWT CIMP provided funding for 28 cumulative impact-related projects in 2019. Key findings from these projects were made available through a community-oriented results workshop and/or other relevant northern meetings. One project, entitled *Traditional Knowledge and Cumulative Impact Assessment of Boreal Caribou*, was highlighted in the NWT Environmental Research Bulletin. In 2019/2020, NWT CIMP updated the Inventory of Landscape Change human disturbance data set, which now displays water licence information. The data set can be used to visualize and download spatial data related to human and natural disturbance in the NWT.

Current water quality and quantity networks are made up of 197 stations/sites (103 hydrometric stations and 94 water quality sites).<sup>2</sup>

<sup>2</sup> Excluding Surveillance Network Program (SNP) and Aquatic Effects Monitoring Program (AEMP) sites established under water licences.



**21** (out of 42)  
water partners indicated their  
organization is currently using  
geomatic tools.

2019/2020 was an important year for *Tracking Change: Local and Indigenous Knowledge in Watershed Governance* (co-led by University of Alberta, ENR and the MRBB). This year saw the completion of the final community-led research projects and the start of the synthesis and analysis phase of the project. In the fall of 2019, two undergraduate students began to synthesize the results of all 31 community projects completed to date. The initial results of this work were shared at an open house in December 2019. Another highlight was the creation of a Sahtú-specific webpage, led by the SRRB, for the Tracking Change webpage. Tracking Change is now in its final year of funding.

The Slave River and Delta and Great Slave Lake Community-Based Water Portal Project, which saw C-Core working in collaboration with ENR and the communities of Fort Smith and Fort Resolution, completed its final year of funded project work in 2019/2020. This program monitored key environmental indicators (temperature, ice build-up, suspended sediment and chlorophyll) using both satellite imagery and community-based sampling data.

Ducks Unlimited Canada (DUC) continues to advance wetland classification inventories, with the Akaitcho and Dehcho regions now complete. Using satellite imagery, wetlands were mapped to the major classes of the Canadian Wetland Classification System (open water, marsh, fen, bog and swamp). The Wood Buffalo National Park wetland inventory is also complete and was mapped to a higher detail, according to DUC's Enhanced Wetland Classification system, which includes up to 21 different wetland types.

# 2.2

## A Collaborative Approach to Community-based Monitoring

Collaborative community-based monitoring fosters a range of innovations and benefits, including increased awareness of water stewardship, improved traditional knowledge collection and applications, and increased community involvement in research and monitoring program design.



The NWT-wide Community-based Water Quality Monitoring Program is the largest community-based monitoring program in the territory, building capacity and partnerships in 21 communities through frequent training sessions and hands-on monitoring. Eighteen other community-based monitoring programs were identified as being active in the NWT in 2019/2020, which vary in scope, size and approaches to monitoring.

Common approaches to capacity building and community participation include: active involvement in field work; providing water quality sample collection and sampling equipment; quality assurance and quality control training; and community input into project design (e.g. site selection, identification of research questions based on community concerns, best practices for information distribution). Academic partners continue to build capacity by working with local community members on monitoring and sampling activities.

Water partners continue to work with communities to enable them to take over responsibility and leadership of research projects. The NWT-wide Community-based Water Quality Monitoring Program has helped other programs to build capacity, advance local programming and develop new partnerships. For example, building on training from ENR, Dehcho AAROM continues to collaborate with all Dehcho communities to ensure continued success of monitoring programs and carry out monitoring for other groups and projects, including DFO, the University of Waterloo, University of Alberta, the Edézhzhíe Protected Area and Enbridge pipeline.

Of the 66 water-related research licences issued by the Aurora Research Institute in 2019, 34 projects actively involved communities. Eleven of those projects were community-led.

**19** community-based monitoring programs were identified as active in the NWT in 2019/2020.

Dechinta delivered four courses in 2019/2020 accredited by the University of British Columbia and University of Alberta. The courses focused on land and water guardianship and law. Dechinta continues to support northern and Indigenous students to engage with community leaders, Elders and knowledge holders and develop and deliver appropriate post-secondary training opportunities. Dechinta has continued to work with academic partners, including the Decolonizing Water Project, to support new research relationships.

## Additional Information

More information on Know and Plan implementation activities can be found in the following websites and resources.

### Websites

- **Dechinta Centre for Research and Learning**  
[www.dechinta.ca](http://www.dechinta.ca)
- **Dehcho AAROM**  
[www.dehcho.org](http://www.dehcho.org)
- **Mackenzie DataStream**  
[www.mackenziedatastream.ca](http://www.mackenziedatastream.ca)
- **Northern Water Futures**  
[northernwaterfutures.wordpress.com](http://northernwaterfutures.wordpress.com)
- **NWT CIMP**  
[www.nwtcimp.ca](http://www.nwtcimp.ca)
- **NWT Discovery Portal**  
[nwtDiscoveryportal.enr.gov.nt.ca](http://nwtDiscoveryportal.enr.gov.nt.ca)
- **Tracking Change**  
[www.trackingchange.ca](http://www.trackingchange.ca)
- **Ducks Unlimited Canada – Canadian Wetland Inventory**  
[www.ducks.ca/initiatives/canadian-wetland-inventory](http://www.ducks.ca/initiatives/canadian-wetland-inventory)
- **Northwest Territories: Mackenzie Valley Biomonitoring Project**  
[www.uwaterloo.ca/human-exposure-and-toxicology-research-group/research](http://www.uwaterloo.ca/human-exposure-and-toxicology-research-group/research)
- **NWT Environmental Research Bulletin**  
[www.enr.gov.nt.ca/en/services/cumulative-impact-monitoring-program-cimp/nwt-environmental-research-bulletin](http://www.enr.gov.nt.ca/en/services/cumulative-impact-monitoring-program-cimp/nwt-environmental-research-bulletin)
- **NWT-wide Community-based Water Quality Monitoring Program (CBM Program)**  
[www.nwtwaterstewardship.ca/en/community-based-monitoring](http://www.nwtwaterstewardship.ca/en/community-based-monitoring)
- **The Slave River and Delta and Great Slave Lake Community-Based Water Portal project – Login at top right corner of webpage for access**  
[www.looknorthservices.com/watermonitoring](http://www.looknorthservices.com/watermonitoring)

### Resources

- **Decolonizing Water Project**  
[www.decolonizingwater.ca](http://www.decolonizingwater.ca)
- **Dehcho K'ehodi Program**  
[www.dehcho.org/resource-management/dehcho-kehodi](http://www.dehcho.org/resource-management/dehcho-kehodi)



# 3.0 Use Responsibly

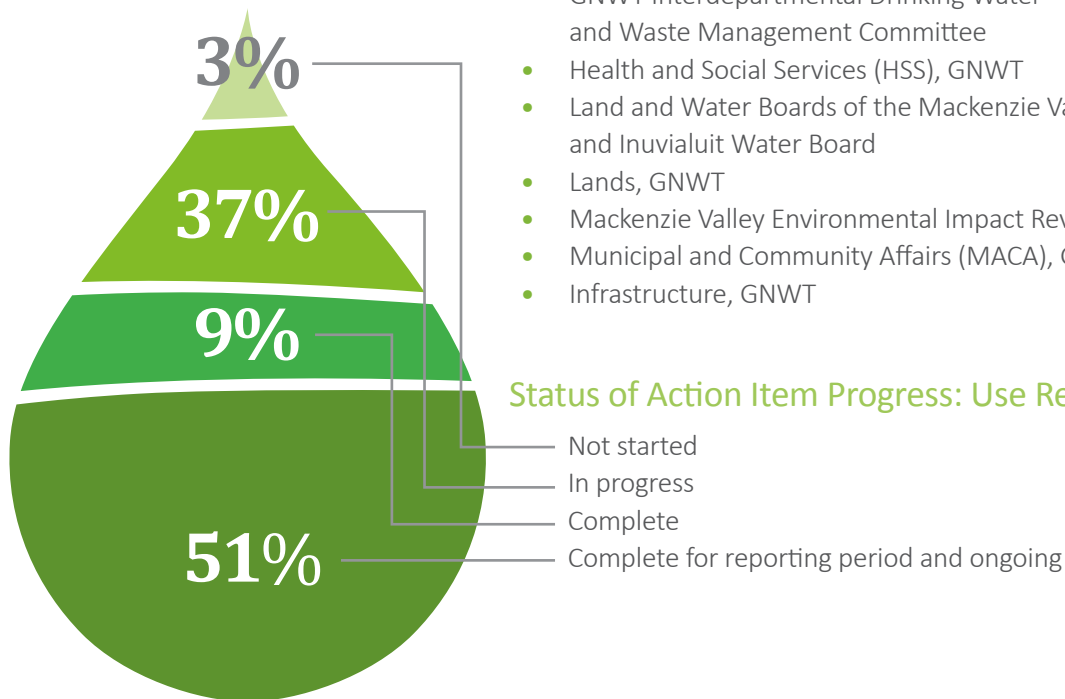
3.1 Municipal

3.2 Industrial Development

## Lead Water Partners for Action Items

- Environment and Natural Resources (ENR), GNWT
- GNWT Interdepartmental Drinking Water and Waste Management Committee
- Health and Social Services (HSS), GNWT
- Land and Water Boards of the Mackenzie Valley and Inuvialuit Water Board
- Lands, GNWT
- Mackenzie Valley Environmental Impact Review Board (MVEIRB)
- Municipal and Community Affairs (MACA), GNWT
- Infrastructure, GNWT

## Status of Action Item Progress: Use Responsibly



# 3.1

## Municipal

Compliance with municipal water licences, consideration of traditional knowledge, ongoing sharing of information and improving water and wastewater systems are essential for ensuring confidence in community drinking water.

The NWT Drinking Water website ([nwt drinkingwater.ca](http://nwt drinkingwater.ca)) is currently being redesigned. Relevant information is temporarily being stored on the MACA website to maintain public access. Annual reports are being phased out as improved access to information is available online. All chemical data are in the WaterTrax database and results are publically available online.

**62%** of the municipal water licences holders submitted annual reports and 67% provided SNP monitoring data in 2019/2020.

MACA continues to upgrade remote monitoring of drinking water parameters. As of 2019/2020, remote monitoring systems have been installed in 13 community water treatment plants, with three more scheduled for completion by the end of 2020.

Significant work towards completing upgrades to water treatment plants has also occurred. The final water treatment plant to be upgraded was expected to be commissioned in the summer of 2020, but has been delayed due to COVID-19 travel restrictions.

In June 2019, the GNWT released the Waste Resource Management Strategy and Implementation Plan (the Strategy) as its 10-year road map to preventing and diverting solid waste and improving how residual waste is managed across the NWT to protect our water, land and wildlife. The Strategy commits the GNWT to implement or expand three to five waste reduction or diversion programs, expand the Clean Up, Clean Start program (including assisting five to ten communities to remove hazardous waste from their landfills), adopt standards for compost facilities and waste management facilities, and establish NWT standards and/or guidelines for solid waste management facilities.



Photo: Don Wilson

**1**  
research project on  
environmental impacts  
of municipal waste and  
wastewater was conducted in  
2019/2020.

The GNWT is also participating in the development of the Canadian Standards Association (CSA) standard on Solid Waste Sites in Northern Communities: From Planning to Closure. The draft of this standard was available for public review in 2019/2020.

The Land and Water Boards commonly work with communities to determine Surveillance Network Program (SNP) sampling locations. Traditional knowledge may influence determination of SNP monitoring sites for municipal facilities, design and placement of municipal facilities, as well as licence conditions related to traditional knowledge and land use.

# 3.2

## Industrial Development

Improving understanding of water use, waste, and wastewater processes and knowledge of guidelines and regulations is critical to water partners' effective participation in regulatory and environmental assessment processes.

The Land and Water Boards continue to ensure plain language information about regulatory processes is available to water partners. The MVEIRB provides plain language environmental assessment information to the public, including: information outlining the various environmental assessment steps; environmental assessment guidelines and overview guidelines; and pop up displays for use at tradeshow, environmental assessment events and outreach activities. The MVEIRB is also developing a series of booklets and videos.

Information on water licence requirements in the NWT is publicly available. However, there is a need to improve how lead partners communicate information about water licences and management plans and how they relate to one another. The Land and Water Boards developed a plain language Guide to the Water Licensing Process in 2019/2020. The draft was distributed to partners for review in August 2019.

For the Inuvialuit Settlement Region, all relevant information and guidelines for the submission of a water licence application including associated environmental management plans can be found on the Inuvialuit Water Board website.

The GNWT Compliance and Enforcement Policy was completed in 2019/2020. Work is now being done on directives to clarify the roles of inspectors in the NWT. The first directive, titled Support to Comply, has been drafted and is under review.

**21**

(out of 41) water partners indicated a moderate to significant increase in understanding of water licence requirements and management plans.

**5**

regulatory guidelines relevant to water management were reviewed in 2019/2020.

In February 2020, the MVEIRB, Land and Water Boards and the territorial and federal governments hosted a workshop on resource co-management in Yellowknife, with a primary focus on engagement. The MVEIRB also hosted or participated in outreach events throughout the NWT to help people understand and participate effectively in environmental assessment processes.

A review of the *Waters Act* and regulations began in 2016.

## Additional Information

More information on Use Responsibly Water Strategy implementation activities can be found in the following websites and resources.

### Websites

- [MACA, GNWT](http://www.maca.gov.nt.ca)  
[www.maca.gov.nt.ca](http://www.maca.gov.nt.ca)
- [Gwich'in Land and Water Board](http://www.glwb.com)  
[www.glwb.com](http://www.glwb.com)
- [Inuvialuit Water Board](http://www.inuvwb.ca)  
[www.inuvwb.ca](http://www.inuvwb.ca)
- [Lands, GNWT](http://www.lands.gov.nt.ca)  
[www.lands.gov.nt.ca](http://www.lands.gov.nt.ca)
- [Mackenzie Valley Land and Water Board](http://www.mvlwb.com)  
[www.mvlwb.com](http://www.mvlwb.com)
- [Mackenzie Valley Environmental Impact Review Board](http://www.reviewboard.ca)  
[www.reviewboard.ca](http://www.reviewboard.ca)
- [Sahtú Land and Water Board](http://www.slwb.com)  
[www.slwb.com](http://www.slwb.com)
- [Wek'èezhìi Land and Water Board](http://www.wlwb.ca)  
[www.wlwb.ca](http://www.wlwb.ca)

### Resources

- [Municipal water licence templates and guidelines](http://www.mvlwb.com/resources/resources-municipalities)  
[www.mvlwb.com/resources/resources-municipalities](http://www.mvlwb.com/resources/resources-municipalities)
- [Industrial water licence policies and guidelines](http://www.mvlwb.com/resources/policy-and-guidelines)  
[www.mvlwb.com/resources/policy-and-guidelines](http://www.mvlwb.com/resources/policy-and-guidelines)
- [Inuvialuit Water Board Step-by-Step Licence Process](http://www.inuvwb.ca/licencing/do-i-need-licence-my-project)  
[www.inuvwb.ca/licencing/do-i-need-licence-my-project](http://www.inuvwb.ca/licencing/do-i-need-licence-my-project)
- [GNWT Compliance and Enforcement policy](http://www.lands.gov.nt.ca/sites/lands/files/resources/2019-08-16_ministerial_policy_24.00.01_compliance_and_enforcement_final_signed.pdf)  
[www.lands.gov.nt.ca/sites/lands/files/resources/2019-08-16\\_ministerial\\_policy\\_24.00.01\\_compliance\\_and\\_enforcement\\_final\\_signed.pdf](http://www.lands.gov.nt.ca/sites/lands/files/resources/2019-08-16_ministerial_policy_24.00.01_compliance_and_enforcement_final_signed.pdf)
- [NWT Waste Resource Management Strategy and Implementation Plan](http://www.enr.gov.nt.ca/sites/enr/files/resources/waste_strategy_plan.pdf)  
[www.enr.gov.nt.ca/sites/enr/files/resources/waste\\_strategy\\_plan.pdf](http://www.enr.gov.nt.ca/sites/enr/files/resources/waste_strategy_plan.pdf)

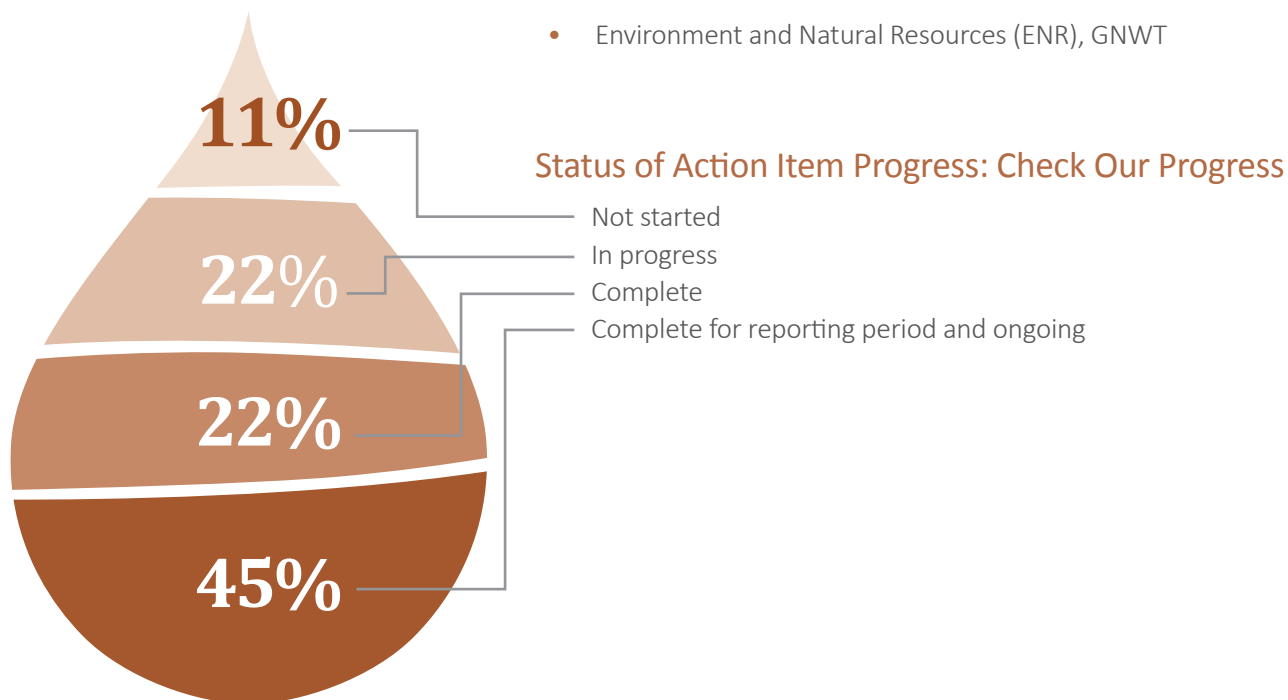
# 4.0 Check Our Progress

4.1 Routine Checks

4.2 Independent Evaluation

## Lead Water Partners for Action Items

- Environment and Natural Resources (ENR), GNWT



# 4.1

## Routine Checks

Regular reviews of Water Strategy implementation ensure progress is being made and adjustments can be made as necessary.

Water Strategy implementation progress for 2018/2019 was communicated to water partners and the public through the release of *Check Our Progress – 2018/2019 NWT Water Stewardship Strategy Progress Review Summary* and spreadsheet. Progress is determined by defined Action Items and Performance Indicators in the NWT Water Stewardship Strategy Action Plan 2016-2020. Action Items are activities that specific water partners are leading and Performance Indicators are intended to measure the outcomes of those activities.

Water partners also shared updates of recently completed, ongoing and planned implementation activities at the 10<sup>th</sup> Annual Water Strategy Implementation Workshop held in Dettah in October 2019. The workshop focused on “Northern Waters in a Changing Climate,” and included thematic fireside chats, an interactive session to map water-related impacts of climate change, a traditional knowledge holders’ panel, and a youth-led dialogue about engaging the NWT’s youth in water and climate issues.

In April 2020, ENR circulated an online survey to water partners to collect information for the 2019/2020 Progress Review. Fifty-four water partners responded to the survey. Additional document reviews, website analytics and email, phone and in-person communication with lead water partners also informed the Progress Review.

**54** Performance Indicators and 147 Action Items were reviewed during the 2019/2020 Progress Review.

The 2019/2020 Progress Review is the fourth review under the *NWT Water Stewardship Strategy Action Plan 2016-2020*.



# 4.2

## Independent Evaluation

An independent evaluation of the Water Strategy will take place every five years and will recommend actions to be undertaken.

An evaluation committee was established in December 2019 to guide and coordinate the independent evaluation of the NWT Water Stewardship Strategy Action Plan 2016-2020. The committee consisted of members from the Mackenzie Valley Land and Water Board, Aurora Research Institute, North Slave Métis Alliance, Wilfrid Laurier University and the ENR.

**15** water partners participated in the independent evaluation through the Evaluation Committee and Aboriginal Steering Committee.

Following a public Request for Proposals process, Eco-Logical Resolutions Consulting Ltd. was contracted in February 2020 to conduct the independent evaluation of the Water Strategy. Key phases of the evaluation include the development of an evaluation plan; criteria and engagement strategy; interviews with water partners and key informants; and document review and analysis. In total, 51 water partners were interviewed for the independent evaluation.

**51** water partners participated in the independent evaluation as interviewees.

The results of the independent evaluation were published in a final evaluation report and plain language summary and distributed to water partners and the general public.

Recommendations from the final evaluation report and plain language summary will inform the development of the NWT Water Stewardship Strategy Action Plan 2021-2025.



Photo: Zane Spilchak









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Environment and Natural Resources  
Government of the Northwest Territories

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