

NWT Water Stewardship Strategy Action Plan 2016-2020



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Introduction

The NWT Water Stewardship Strategy Action Plan for 2016-2020 builds on the momentum of *NWT Water Stewardship: A Plan for Action, 2011-2015* and continues to put into motion the vision of the *Northern Voices, Northern Waters: NWT Water Stewardship Strategy* (Water Strategy). The Water Strategy and Action Plans were developed by water partners to create a collaborative, partnership-based approach to enhance and promote water stewardship in the Northwest Territories (NWT) at all levels.

Similar to the first Action Plan, this document identifies lead and supporting water partners and Keys to Success, with associated Action Items and deliverable dates. The Action Plan for 2016-2020 also identifies performance indicators to track the effectiveness of implementation.

This Action Plan is a living document and is subject to ongoing review and evaluation to ensure its implementation continues to advance the intent of the Water Strategy. Regular status updates will be published to track and report on progress.



Photo Credit: J. McKay

Background

Beginning in 2008, the Government of the Northwest Territories (GNWT) and Government of Canada worked with representatives from Aboriginal governments, NWT communities, regulatory boards, environmental organizations, industry, academic institutions and the general public to develop a water stewardship strategy for the NWT. The Water Strategy was released in 2010.

The vision of the Water Strategy states that *“The waters of the Northwest Territories will remain clean, abundant and productive for all time.”*

The goals of the Water Strategy are to assure:

- waters that flow into, within or through the NWT are substantially unaltered in quality, quantity and rates of flow;
- residents have access to safe, clean and plentiful drinking water at all times;
- aquatic ecosystems are healthy and diverse;
- residents can rely on their water to sustain their communities and economies;
- residents are involved in and knowledgeable about water stewardship; and
- all those making water stewardship decisions work together to communicate and share information.

The Water Strategy does not alter existing water management responsibilities. It does not affect or infringe upon existing or asserted Aboriginal rights, treaty rights or land, resource and self-government agreements. In the case of any inconsistency between the Water Strategy and existing or future treaties or land, resource and self-government agreements, the provisions of the treaties and agreements shall prevail.

On April 1, 2014, responsibilities related to water and land management were transferred from Indigenous and Northern Affairs Canada to the GNWT. The Department of Environment and Natural Resources (ENR) is now solely responsible for coordinating implementation of the Water Strategy. Within ENR there are a number of divisions and programs that contribute to the ongoing implementation of the Water Strategy and this Action Plan.

Development of the 2016-2020 Action Plan has followed a multi-step, collaborative process. An independent evaluation of the previous implementation phase (2011-2015) was a significant source of information for the 2016-2020 Action Plan. This evaluation underscored several important initiatives and suggested improvements for water partners to work together more effectively to meet the goals of the Water Strategy.

Water partners responded to a survey in July 2015, where input was sought on the objectives for the new Action Plan, indicators to measure performance, and potential actions to meet the goals of the Water Strategy.

The results of the survey were reviewed and discussed during a series of thematic focus groups with water partners in September 2015. These discussions helped to refine the objectives, actions and performance indicators. Following the focus groups, the annual Water Strategy workshop, held in November 2015, provided another opportunity for water partners to provide input into the new Action Plan. Water partners reviewed a draft Action Plan in early 2016 before it was finalized.

Input and feedback received from the survey results, the focus groups, the water partners' workshop, and the independent evaluation all form the basis for the 2016-2020 Action Plan.

Aboriginal Steering Committee

The Aboriginal Steering Committee (ASC), which guided the development of the Water Strategy and the 2011-2015 and 2016-2020 Action Plans, continues to guide the implementation of the Water Strategy. This guidance is necessary to make sure the implementation activities represent the values of Aboriginal governments and people, while respecting Aboriginal and treaty rights.

Current ASC members include representatives from Dehcho First Nations, Gwich'in Tribal Council, Inuvialuit Regional Corporation, Kátł'odeeche First Nation, North Slave Métis Alliance, Northwest Territory Métis Nation, Sahtù Secretariat Incorporated, Salt River First Nation, Tłı̨chǫ Government, Akaitcho Territory Government (observer), and Environment and Natural Resources (GWNT).

Water Partners

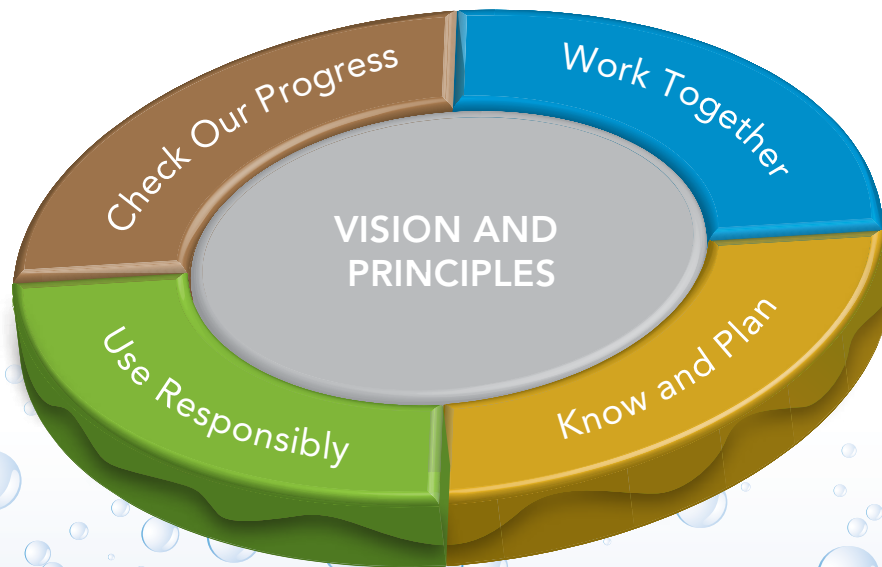
The Water Strategy and Action Plans were developed through inclusive processes that incorporated the views of all levels of government, Aboriginal organizations, regulatory boards, non-governmental organizations, industry, NWT communities and others. These water partners play an important role in water stewardship in the NWT and in the implementation of the Water Strategy. For more information on the various water-related roles and responsibilities in the NWT, see Appendix A.

Action Plan Overview

Components, Keys to Success and Action Items

The 2016-2020 Action Plan describes “Keys to Success” and specific Action Items necessary to achieve the Water Strategy’s vision and goals for water stewardship in the NWT.

Keys to Success fall within the four components of water stewardship in the NWT: Work Together; Know and Plan; Use Responsibly; and Check Our Progress. Each component requires concentrated effort to ensure the actions taken are guided by the Water Strategy’s vision and goals.



- Work Together**
Actions ensure a cooperative environment to support water managers¹ and water partners in sharing information, building capacity and working together.
- Know and Plan**
Actions ensure the implementation of multi-disciplinary 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.
- 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.

¹Water manager is any government, agency or regulatory board that has a role in decision-making processes, in addition to being a water partner.

Performance Indicators, Deliverable Dates, and Lead and Supporting Partners

For each Key to Success performance indicators are identified to assess and track how well a particular Key to Success is being met. Estimated deliverable dates and lead partner(s) are identified for each Action Item under each Key to Success. Progress reporting will correlate with the estimated deliverable dates identified. Work towards deliverables will be dependent on available budget and capacity. Progress on each Key to Success, along with any changes to timelines, will be reported on an annual basis.

Supporting partners are identified under each of the four components in the Action Plan. The following water partners are lead partners for implementing specific Keys to Success and 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 (Dehcho AAROM)
- Ducks Unlimited Canada (DUC)
- Ecology North
- Environment Canada
- Environment and Natural Resources, Government of the Northwest Territories (ENR)

- Health and Social Services, Government of the Northwest Territories (HSS)
- Interdepartmental Drinking Water Management Committee (Environment and Natural Resources, Health and Social Services, Municipal and Community Affairs, and Public Works and Services)
- Inuvialuit Water Board (IWB)
- Land and Water Boards of the Mackenzie Valley (Gwich'in Land and Water Board, Mackenzie Land and Water Board, Sahtù Land and Water Board, and Wek'èezhì Land and Water Board) (LWB)
- Lands, Government of the Northwest Territories (Lands)
- Mackenzie River Basin Board (MRBB)
- Mackenzie Valley Environmental Impact Review Board (MVEIRB)
- Municipal and Community Affairs, Government of the Northwest Territories (MACA)
- NWT Centre for Geomatics, Government of the Northwest Territories
- Public Works and Services, Government of the Northwest Territories (PWS)
- Sahtù Renewable Resource Board (SRRB)
- Tides Canada
- University of Alberta

1. Work Together

Actions that are part of the Work Together component contribute to all water partners having the information and resources needed to collaboratively achieve the vision and goals of the Water Strategy and to effectively integrate their efforts with other resource planning and management processes in the NWT.

In order to Work Together, work falls into five main areas:

- Partnerships
- Information Management
- Communication and Engagement
- Capacity Building, Education and Leadership Training
- Transboundary Discussions, Agreements and Obligations

The following water partners are supporting partners for Keys to Success and associated Action Items under Work Together:

- Aboriginal Governments
- Aboriginal Steering Committee (ASC)
- Canadian Parks and Wilderness Society (CPAWS)
- Environment Canada
- Department of Lands (Lands)
- Municipal and Community Affairs (MACA)
- NWT Centre for Geomatics
- Walter and Duncan Gordon Foundation
- Wek'èezhì Renewable Resource Board (WRRB)



1.1 Work Together – Partnerships

Partnerships are essential for water stewardship in the NWT. No one partner is entirely responsible for water stewardship and no partner or individual is without responsibility. Partnerships can take many forms including partnerships for decision-making, funding, networking and data-sharing, among others.

Key to Success 1.1 A	Ensure the Water Strategy is integrated with watershed and natural resource planning and management frameworks in the NWT (e.g. land-use planning framework, recreational land management framework, energy priorities framework, conservation planning and climate change strategy).		
Performance Indicators	<ul style="list-style-type: none"> The Water Strategy is integrated with other frameworks, strategies and plans (# of documents referencing the Water Strategy). 		
	Action Items	Deliverable Date	Lead Partners
	Establish partnerships with organizations to ensure the Water Strategy vision and goals are considered in watershed and natural resource planning and management frameworks.	March 2018 and ongoing	ENR
Key to Success 1.1 B	Ensure water partners understand their roles and responsibilities for implementing the Water Strategy.		
Performance Indicators	<ul style="list-style-type: none"> Water partners feel a sense of shared ownership in the implementation of the Water Strategy (low-medium-high, survey water partners). Lead and supporting partners are actively engaged in specific Keys to Success (low-medium-high, survey water partners). 		
	Action Items	Deliverable Date	Lead Partners
1.	Create and routinely update a plain language document outlining water partners' roles and responsibilities for the Water Strategy and Action Plan.	March 2017 and ongoing	ENR
2.	Identify challenges for lead and supporting water partners for each Key to Success through routine dialogue and formal or informal reviews.	March 2017 and ongoing	ENR
3.	Identify opportunities for water partners to support Water Strategy initiatives by developing and implementing initiatives through collaborative partnerships and available funding opportunities.	March 2017 and ongoing	ENR

1.2 Work Together – Information Management

Water stewardship activities, including decision-making at all levels, must be supported by adequate, accurate, current and accessible data and information. This can be achieved by enhancing, gathering, storing, processing and delivering scientific, local and traditional knowledge, and developing standard protocols for data collection, storage analysis and sharing. Traditional knowledge is an inherent part of the Water Strategy and Action Plan. Established traditional knowledge protocols ensure the collection and application of traditional knowledge is conducted in a respectful manner.

Key to Success 1.2 A	Improve data collection and data and information management for water and water-related monitoring programs.		
Performance Indicators	<ul style="list-style-type: none"> • Data from historical and current water quality programs coordinated by ENR are uploaded and managed under Lodestar² (# of data sets uploaded). • Mackenzie DataStream is utilized (# of user accounts in the NWT). • Protocols for water quality monitoring are in place to help ensure that when similar data are collected, it is collected in ways to ensure comparability across programs (# of monitoring programs using consistent protocols). • Data from Surveillance Network Program (SNP) sites are reported consistently and appropriately stored and managed (% of the data that is electronically accessible). • The ENR website provides current and historical snow data (# of data sets). 		
	Action items	Deliverable Date	Lead Partners
	1. Establish standardized water quality sampling protocols (e.g. sample and data collection protocols) to ensure data are comparable across programs (e.g. SNP and NWT-wide Community-based Water Quality Monitoring Program, and Aquatic Effects Monitoring Programs (AEMPs)).	March 2018 and ongoing	ENR, LWB/IWB
	2. Standardize quality assurance and quality control protocols across programs (e.g. SNP and NWT-wide Community-based Water Quality Monitoring Program).	March 2020	ENR, LWB/IWB
	3. Develop and implement guidelines on metadata to determine if water quality data sets are comparable and regional assessments can take place.	March 2017 and ongoing	ENR, LWB/IWB
	4. Develop guidelines to establish water quality baseline to help ensure that similar data are collected, and collected in ways that are comparable across programs.	March 2018	ENR, LWB/IWB
	5. Establish protocol to store, manage and report data from SNP sites.	March 2019	LWB/IWB
	6. Coordinate snow surveys, including collection, data management, archiving and dissemination.	March 2017 and ongoing	ENR
	7. Coordinate weather monitoring needs within the GNWT (supplementary to those filled by Environment Canada), along with the development of a robust system to guide the collection, reporting, management, archiving and dissemination of GNWT data.	March 2020	ENR
	8. Establish and maintain a licenced water use inventory (i.e. use and location).	March 2020	ENR, LWB/IWB

² Lodestar is an environmental database managed by ENR.

Key to Success 1.2 B	Improve the sharing of monitoring and research data and findings among water partners and with the public.		
Performance Indicators	<ul style="list-style-type: none"> • The NWT Discovery Portal and Mackenzie DataStream are utilized (# of users per month and # of downloads/uploads). • Site users can easily access data from NWT Discovery Portal and Mackenzie DataStream (low-medium-high level of accessibility, survey). • Water partners know where to access water-related data (% of water partners, survey water partners). 		
	Action Items	Deliverable Date	Lead Partner
1.	Water partners continue to use and populate the NWT Discovery Portal with monitoring and research findings.	March 2017 and ongoing	ENR
2.	Data collected through the NWT-wide Community-based Water Quality Monitoring program are shared publicly (e.g. through the Mackenzie DataStream).	March 2017 and ongoing	ENR
3.	Long-term monitoring results that are compiled in existing databases are made available to water partners on request.	Ongoing	ENR
4.	Update the NWT water monitoring inventory on a regular basis and include a research section in the inventory.	March 2017 and ongoing	ENR

Key to Success 1.2 C	Ensure the effective use of traditional, local and western scientific knowledge in water stewardship initiatives, decision-making processes and implementation of water-related programs.		
Performance Indicators	<ul style="list-style-type: none"> • Components of the Action Plan have an underlying approach to using traditional, local and western scientific knowledge (# of approaches under each component). • Water partners use traditional, local and western scientific knowledge to inform decision-making (% of water partners, survey water partners). • Water partners have access to western science that is up-to-date and peer-reviewed (% of water partners, survey water partners). 		
	Action Items	Deliverable Date	Lead Partner
1.	With collaborative input from traditional, local and western scientific knowledge holders, continue working together to develop effective approaches towards implementing the different components of the Action Plan to inform water stewardship decisions.	March 2018 and ongoing	ENR
2.	Integrate technology (e.g. tablets) for information collection and sharing on the land with elders, youth and other land users.	March 2017 and ongoing	ENR
3.	Promote the use of plain language formats to help facilitate understanding and translation of materials into Aboriginal languages.	March 2017 and ongoing	ENR
4.	Communicate with and support technical experts/researchers to present information tailored to NWT communities (e.g. by using the existing template, <i>Communicating Results with Communities</i> ³).	March 2017 and ongoing	Aurora Research Institute, ENR
5.	Continue to explore the development of a water classification system that supports the inclusion of traditional and local knowledge and spiritual and cultural aspects of water in decision-making (also see Key to Success 3.2 C).	March 2018	ENR

³<http://nwtresearch.com/licensing-research/communicating-research/communicating-results-templates>

Key to Success 1.2 D	Promote the use of traditional and local knowledge in ways that help ensure water stewardship activities respect community values.		
Performance Indicators	<ul style="list-style-type: none"> • Traditional knowledge is reflected in research presentations at the annual Water Strategy implementation workshop (# of presentations). • Communities are satisfied with how traditional and local knowledge are included in research taking place in the NWT (low-med-high, survey community partners). • Traditional knowledge and community concerns are incorporated in the Aquatic Effects Monitoring Programs (AEMPs) for major industrial undertakings in the NWT (low-med-high, survey community partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Support the implementation of traditional knowledge protocols.	March 2017 and ongoing	ASC
2.	Establish traditional knowledge research guidelines for the Sahtù region.	March 2017	SRRB
3.	For research supporting Water Strategy implementation, researchers, regional organizations and community members discuss and communicate about how data will be stored, used and shared.	March 2017 and ongoing	ENR
4.	Work to ensure that traditional knowledge and community concerns are included in projects or monitoring programs such as AEMPs.	March 2018 and ongoing	LWB/IWB, ENR

1.3 Work Together – Communication and Engagement

Good communication and engagement are necessary for building effective relationships among water partners and the public. Ongoing communication and engagement are required to keep the public informed and aware of water stewardship activities.

Key to Success 1.3 A	Effectively maintain communications among water partners and the public on Water Strategy implementation progress.		
Performance Indicators	<ul style="list-style-type: none"> Water partners are aware of Water Strategy implementation progress (low-medium-high, survey water partners). The NWT Water Stewardship website is utilized (amount of web traffic per month). 		
	Action items	Deliverable Date	Lead Partners
1.	Water partners provide updates on their implementation activities, including reports, videos, workshops and webinars, and these are posted on the NWT Water Stewardship website.	March 2017 and ongoing	ENR
2.	Use plain language tools and products to make progress reporting available to water partners.	March 2018 and ongoing	ENR
Key to Success 1.3 B	Maintain the roles and responsibilities of the Aboriginal Steering Committee (ASC).		
Performance Indicators	<ul style="list-style-type: none"> The ASC meets on a regular basis (# of meetings held per year). The ASC provides guidance on implementation of the Action Plan (# of projects where guidance was provided). 		
	Action items	Deliverable Date	Lead Partners
1.	Serve as the liaison between their respective Aboriginal governments or organizations and the Water Strategy.	March 2017 and ongoing	ASC
2.	Report regularly on the Water Strategy to their communities and leadership on ASC activities and Water Strategy implementation initiatives.	March 2017 and ongoing	ASC
3.	Provide advice to water partners on how to effectively engage Aboriginal governments or organizations and NWT communities with respect to implementation activities and information sharing.	March 2017 and ongoing	ASC
4.	Provide advice to water partners, where appropriate, on work and activities related to traditional knowledge.	March 2017 and ongoing	ASC
5.	Report on relevant regional initiatives at ASC meetings.	March 2017 and ongoing	ASC

1.4 Work Together – Capacity Building, Leadership Training and Education

The continued success of the Water Strategy is linked to increased local capacity, technical skills, knowledge of water stewardship and to actively engaging with youth. Capacity development through education and training is crucial to the successful achievement of the Water Strategy goals.

Key to Success 1.4 A	Increase community capacity in water management, and aquatic research and monitoring.		
Performance Indicators	<ul style="list-style-type: none"> • Communities are involved in water research and monitoring programs, e.g. in the NWT-wide Community-based Water Quality Monitoring Program (# of involved communities, #of programs in which communities are involved). • On-the-land capacity-building opportunities are provided by water partners (# of programs and availability). • Community members are involved in project management and logistics (# of projects led by communities and # of projects where communities are involved in logistics). • Sampling protocols are used in community-based monitoring programs to ensure data comparability (survey community partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Provide monitoring results to communities in the appropriate context and in plain language formats.	March 2017 and ongoing	ENR
2.	Develop or promote existing culturally appropriate tools and processes when involving communities in research and monitoring activities.	March 2018 and ongoing	ENR
3.	Establish measurable indicators for capacity-building within community-based monitoring programs. Monitor and report on indicators over time.	March 2018 and ongoing	ENR
4.	Support ways to tie traditional and local water-related knowledge into the existing school curriculums and science fairs.	March 2019	ENR
5.	Promote local and distance learning opportunities for community-based water monitors and future water leaders (also see Keys 2.2 A and 2.2 B).	March 2017 and ongoing	Aurora College, ENR, Dehcho AAROM, Dechinta
6.	Promote intergenerational on-the-land water education/leadership camps as a way of involving communities in monitoring and research, and to interact with scientists.	March 2017 and ongoing	Tides Canada, ENR
7.	Post relevant information on the NWT Water Stewardship website.	March 2017 and ongoing	ENR

Key to Success 1.4 B	Promote the importance of water and water stewardship through educational and public outreach activities and communication products.		
Performance Indicators	<ul style="list-style-type: none"> Students and public increase their water stewardship awareness as a result of Canada Water Week and other initiatives (change in awareness, e.g. exit surveys, community surveys). 		
	Action items	Deliverable Date	Lead Partners
1.	Deliver water educational programs and participate at science fairs to discuss protection of aquatic ecosystems.	March 2017 and ongoing	ENR
2.	Identify opportunities for water partners to support each other's educational initiatives (including sharing of electronic and physical resources).	March 2017	ENR
3.	Coordinate and develop activities to celebrate Canada Water Week.	March 2017 and annually	ENR
4.	Provide educational programs and workshops about water treatment in the NWT.	March 2017 and annually	Ecology North
5.	Conduct research and educate residents on the costs (environmental and economic) of imported bottled water versus tap water.	March 2017 and ongoing	Ecology North, ENR

1.5 Work Together – 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.

Key to Success 1.5 A	Successfully negotiate bilateral transboundary water management agreements with neighbouring jurisdictions.		
Performance Indicators	<ul style="list-style-type: none"> Agreements are completed or updated (# of completed or updated agreements). Provide opportunities for input to the Aboriginal Steering Committee and to Aboriginal government representatives, where appropriate (# of opportunities to provide input). Provide opportunities for input from the public, where appropriate, in different plain language formats (e.g. website) (# of opportunities to provide input). 		
	Action items	Deliverable Date	Lead Partners
1.	Continue to develop NWT interests, mandates and options to inform transboundary negotiations in partnership with Aboriginal governments.	March 2017	ENR
2.	Advance negotiations and sign bilateral transboundary water management agreements with the remaining respective jurisdictions.	March 2017 and ongoing	ENR
3.	Continue public engagement and consultation with Aboriginal governments during negotiation processes.	March 2017 and ongoing	ENR
4.	Communicate with water partners, Aboriginal governments and the public about the progress of negotiations, through plain language materials and the NWT Water Stewardship website.	March 2017 and ongoing	ENR

Key to Success 1.5 B	Successfully implement bilateral transboundary water management agreements.		
Performance Indicators	<ul style="list-style-type: none"> • Progress on activities in the implementation work plan for each agreement has been made within established timelines (# of activities where progress has been made and # of activities completed). • An annual report on the implementation of each agreement is completed (# of reports completed). • Provide opportunities for input from the public, where appropriate, in different plain language formats (e.g. website) (# of opportunities to provide input). 		
	Action items	Deliverable Date	Lead Partners
1.	Establish a Bilateral Management Committee for each completed agreement.	March 2017 and ongoing	ENR
2.	Create and implement a multi-year work plan for each completed agreement.	March 2017 and ongoing	ENR
3.	Monitor and learn about aquatic ecosystems, including surface and groundwater quality and quantity, biology and traditional use, in the transboundary watersheds.	March 2017 and ongoing	ENR
4.	Establish information sharing and prior notification mechanisms with neighbouring jurisdictions.	March 2017 and ongoing	ENR
5.	Communicate with water partners, Aboriginal governments and the public about the progress of implementation, through plain language materials, the NWT Water Stewardship website and other formats as appropriate.	March 2017 and ongoing	ENR

2. Know and Plan

Actions that are part of the Know and Plan component of the Water Strategy support the development and implementation of collaborative research and monitoring programs. The incorporation of traditional, local and western scientific knowledge in these programs improves the collective understanding of aquatic ecosystem health and diversity in the NWT.

In order to Know and Plan, work falls under two main areas:

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

The following water partners are supporting partners for Keys to Success and associated Action Items under Know and Plan:

- Academic Partners
- Aboriginal Governments

- Aboriginal Steering Committee (ASC)
- Aurora Research Institute
- Community Organizations
- Dehcho Aboriginal Aquatic Resource and Oceans Management Program (Dehcho AAROM)
- Department of Fisheries and Oceans (DFO)
- Ecology North
- Environment Canada
- Environment and Natural Resources (ENR)
- Inuvialuit Water Board (IWB)
- Industry
- Land and Water Boards (LWB)
- Municipal and Community Affairs (MACA)
- NWT Centre for Geomatics

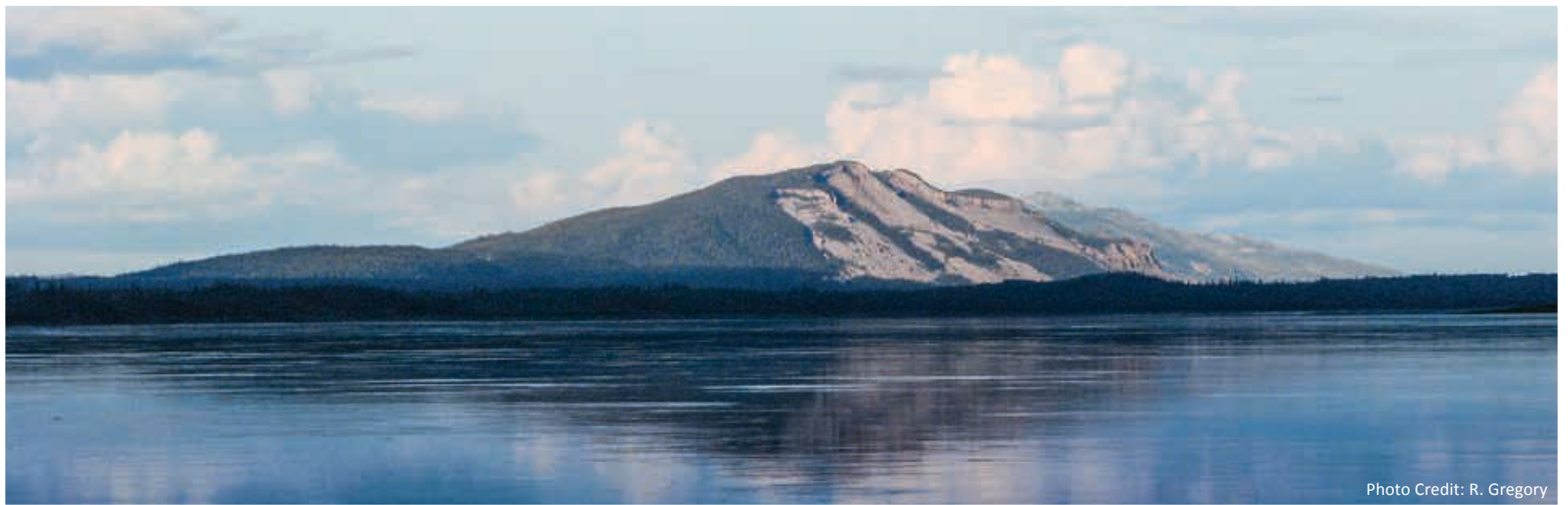


Photo Credit: R. Gregory

2.1 Know and Plan – Aquatic Ecosystems, including Water Quality, Water Quantity, Groundwater and Biological Components

Considerable research and monitoring efforts are needed to more fully understand the structure and function of aquatic ecosystems, including water quality, water quantity, groundwater and biological components in the NWT. Knowledge gaps must be identified to set priorities. Development of research and monitoring can assist in monitoring, and mitigating, impacts and cumulative effects on NWT waters.

Key to Success 2.1 A	Continuously review and prioritize implementation of water monitoring networks (long-term water quality and quantity programs) and develop plans to address monitoring gaps.		
Performance Indicators	<ul style="list-style-type: none"> Monitoring gaps are identified and prioritized (# of gaps identified and prioritized). Plans are in place to address gaps and implemented as resources permit (# of gaps addressed). 		
	Action items	Deliverable Date	Lead Partners
1.	Long-term data sets are prioritized when reviewing current water monitoring networks to allow for trend and climate change analyses.	March 2017 and ongoing	ENR
2.	Identify and prioritize monitoring gaps and identify options to address gaps in a holistic manner.	March 2019	ENR, Environment Canada
3.	Make information on reviews and revisions to monitoring programs available to water partners.	March 2019	ENR, Environment Canada

Key to Success 2.1 B	Increase understanding of the aquatic ecosystem and establish common approaches to monitor key aspects of aquatic ecosystem health in the NWT.		
Performance Indicators	<ul style="list-style-type: none"> • Agencies that conduct monitoring identify common approaches to gather water-related data (# of common approaches). • Findings from aquatic ecosystem monitoring and research are communicated to water partners (# of communications and # of presentations at the annual workshop). • Advance on establishing a wetland inventory for the NWT (# of pilot sites tested, # of wetlands inventoried). 		
	Action items	Deliverable Date	Lead Partners
1.	Develop consistent approaches to monitor aquatic ecosystem health required under transboundary water management agreements.	March 2017 and ongoing	ENR
2.	Work with organizations that conduct monitoring to communicate their protocols and identify common approaches to gather information about aquatic ecosystem health.	March 2018 and ongoing	ENR
3.	Advance the establishment of a wetland inventory approach using remote sensing imagery.	March 2018	DUC, NWT Centre for Geomatics
4.	Test wetland inventory approach at pilot sites.	March 2020	DUC
5.	Follow guidance documents, like the <i>Working Together Towards Relevant Monitoring and Research in the NWT</i> ⁴ , to ensure community engagement and existing information is identified and considered when developing a research project.	March 2017 and ongoing	ENR
6.	Communicate aquatic ecosystem monitoring and research findings to water partners.	March 2017 and ongoing	ENR
7.	Publish monitoring trends analysis reports and plain language documents for the long-term river monitoring programs.	Ongoing	ENR
8.	Carry out the research project <i>Tracking Changes</i> ⁵ to determine social and ecological changes based on local and traditional knowledge in watersheds in the Mackenzie River Basin.	December 2020	University of Alberta, MRBB, ENR

⁴ https://nwtresearch.com/sites/default/files/working_together.pdf

⁵ Trackingchange.ca

Key to Success 2.1 C	Maintain and enhance, where feasible, the existing water quality and quantity monitoring networks in the NWT.		
Performance Indicators	<ul style="list-style-type: none"> The current water quality and quantity monitoring networks are maintained and/or expanded by involved partners (# of stations and location of stations). 		
	Action items	Deliverable Date	Lead Partners
1.	Establish and maintain monitoring agreements and partnerships with interested third parties (academic institutions, industry or different levels of governments) to maintain and/or enhance existing <i>water quality</i> monitoring networks.	Ongoing	ENR, Environment Canada
2.	Establish and maintain monitoring agreements and partnerships with interested third parties (academic institutions, industry or different levels of governments) to maintain and/or enhance existing <i>water quantity</i> monitoring networks.	Ongoing	ENR, Environment Canada
3.	Implement monitoring agreements and partnerships as necessary.	Ongoing	ENR, Environment Canada
Key to Success 2.1 D	Implement a groundwater monitoring network in the NWT.		
Performance Indicators	<ul style="list-style-type: none"> Priorities for groundwater monitoring are identified for the NWT and transboundary areas (# of priorities identified). 		
	Action items	Deliverable Date	Lead Partners
1.	Establish a hydrogeologist position at ENR.	June 2016	ENR
2.	Determine the existing state of the knowledge of NWT groundwater resources.	June 2017	ENR
3.	Explore how traditional knowledge can inform the state of the knowledge of NWT groundwater resources and monitoring priorities.	March 2019	ENR
4.	Identify priorities for future groundwater monitoring for the NWT and transboundary areas.	March 2019	ENR

Key to Success 2.1 E	Improve the assessment of cumulative effects on water from climate change and industrial development.		
Performance Indicators	<ul style="list-style-type: none"> Monitoring and research information generated by NWT CIMP can be used to support environmental decision-making and the wise use of resources (# of NWT CIMP funded projects that can contribute to an environmental decision). NWT CIMP generates credible and unbiased environmental monitoring and research data informed by western science and traditional knowledge, including information about environmental trends, cumulative impacts and baseline conditions (# of final reports posted on the NWT Discovery Portal, # of peer-reviewed papers published, # of partners or partner organizations with whom NWT CIMP is working). Water use and water quality data collected through Surveillance Network Programs (SNPs) and Aquatic Effects Monitoring Programs (AEMPs) are comparable and compiled in accessible data sets that can be used for analysis of regional water quality variability (# of AEMPs and SNPs that are comparable and follow standard monitoring framework/protocols). 		
	Action items	Deliverable Date	Lead Partners
1.	Analyze existing information to identify cumulative effects on water and aquatic ecosystems in prioritized or specific areas.	March 2017 and ongoing	ENR, MVEIRB
2.	NWT CIMP results are made available to regulatory decision-makers, technical reviewers, Aboriginal organizations, industry and the public.	March 2017 and ongoing	ENR
3.	Use available information on cumulative effects in regulatory decision-making.	Ongoing	MVEIRB, LWB/ IWB
4.	Communicate the methods and approaches undertaken by regulatory boards to assess cumulative effects to water partners.	March 2017	MVEIRB, LWB/ IWB
5.	Address high priority cumulative impact monitoring questions by key regulators for water and fish.	March 2018 and ongoing	ENR
6.	Define traditional knowledge monitoring priorities that support cumulative impact assessment.	March 2018 and ongoing	ENR
7.	Implement traditional knowledge monitoring priorities that support cumulative impact assessment.	March 2020	ENR
8.	Determine trends in environmental quality, potential contributing factors to changes in the environment and the significance of those trends.	March 2017 and ongoing	ENR
9.	Support cumulative effects research taking place in the NWT and communicate research findings to water partners.	March 2017 and ongoing	ENR
10.	Complete technical transfer of Climate Impacts Tracking Analysis System to the NWT Centre for Geomatics and create web map tool for this information.	March 2017	ENR, NWT Centre for Geomatics
11.	Update the Mackenzie River Basin Hydrological Model to investigate hydrological trends and quantify the effects of climate change and industrial development on water quantity in the Slave River watershed.	March 2017	ENR
12.	Explore approaches to assess the vulnerability of watersheds to climate change.	March 2020	ENR

Key to Success 2.1 F	Increase the use of biological indicators in aquatic monitoring to assess ecosystem health.		
Performance Indicators	<ul style="list-style-type: none"> • Increase the capacity of water partners to monitor biological indicators (# of people trained in biological monitoring per year). • Water partners increase the use of biological indicators to assess ecosystem health (# of programs/projects with a biological component). 		
	Action items	Deliverable Date	Lead Partners
1.	Further identify how more biological indicators can be part of ongoing aquatic monitoring, with a focus on lower trophic levels to provide early warnings about changes in the aquatic ecosystem.	March 2017 and ongoing	ENR
2.	Integrate biological indicators into aquatic monitoring by building on current biomonitoring initiatives, relevant research in the NWT and transboundary water management agreement implementation.	March 2019 and ongoing	ENR
Key to Success 2.1 G	Integrate social science into water-related research to improve understanding of the human dimensions of water management (e.g. governance, adaptation, food and water security, sustainable livelihoods, and linking different knowledge systems).		
Performance Indicators	<ul style="list-style-type: none"> • Increased number of projects that integrate or draw on social science (e.g. governance, adaptation, food and water security, sustainable livelihoods, and linking different knowledge systems) in water-related research (# of research projects with social science focus issued by Aurora Research Institute). • Relevant research projects are communicated to water partners and discussed at annual implementation workshops (# of presentations). 		
	Action items	Deliverable Date	Lead Partners
1.	Explore partnerships to undertake collaborative social science research that builds on identified research priorities for the Water Strategy.	March 2017 and ongoing	ENR
2.	Water partners support research exploring NWT residents' and communities' interactions and relationships with the aquatic environment.	March 2017 and ongoing	ENR
3.	Explore the ways social science research and partnerships can inform water management in the NWT.	March 2020	ENR

Key to Success 2.1 H	Identify research priorities to strengthen and inform the goals of the Water Strategy.		
Performance Indicators	<ul style="list-style-type: none"> • A collaborative approach among water partners is used to identify research priorities that are linked to the goals of the Water Strategy (# of water partners participating in the process). • The priorities represent an interdisciplinary approach to water management (# of disciplines identified in the research priorities). 		
	Action items	Deliverable Date	Lead Partners
1.	Water partners identify research priorities for each goal of the Water Strategy.	March 2017	ENR
2.	Communicate research priorities to academic institutions.	March 2018	ENR, Aurora Research Institute
3.	Report and review research priorities at annual implementation workshops.	March 2018 and annually	ENR
Key to Success 2.1 I	Build upon existing geomatics capacity and capabilities in the NWT to collect and analyze water-related information to fill identified monitoring gaps.		
Performance Indicators	<ul style="list-style-type: none"> • Geomatics capacity and capabilities are used to address existing monitoring gaps (# of monitoring programs using geomatics capabilities). • The digital elevation model for the NWT is updated (% of the area of the NWT that is updated). 		
	Action items	Deliverable Date	Lead Partners
1.	Share information about existing water-related geomatics and/or remote sensing uses to interested water partners.	Ongoing	ENR, NWT Centre for Geomatics
2.	Water-related indicators using remote sensing imagery are monitored and information is publically accessible.	March 2018 and ongoing	ENR
3.	When new data are acquired, improvements are made to the existing digital elevation model, which in turn can improve the hydrological model for the NWT ⁶ .	Ongoing	NWT Centre for Geomatics
Key to Success 2.1 J	Continue to support source water protection planning in NWT communities.		
Performance Indicators	<ul style="list-style-type: none"> • Source water protection planning is integrated into existing initiatives (# of initiatives). • Communities find value in source water protection planning tools to protect their local source water (low-medium-high, survey to community partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Engage with NWT residents to identify key concerns about their source water.	March 2019	ENR
2.	Link source water protection planning to land and water management, including supporting communities to develop source water protection plans where requested.	March 2018 and ongoing	ENR
3.	Use source water protection planning to support and communicate about the importance of municipal water licencing.	March 2018	ENR, LWB/IWB

2.2 Know and Plan – A Collaborative Approach to Community-based Monitoring

Taking a collaborative approach to community-based monitoring fosters a wide range of innovations and benefits, including increased awareness of water stewardship issues, improved traditional and local knowledge collection and application, and increased direct community involvement in research and monitoring program design.

Key to Success 2.2 A	Ensure continued support of aquatic community-based monitoring programs.		
Performance Indicators	<ul style="list-style-type: none"> Community-based monitoring programs are successfully implemented (# of programs and # communities involved). Community-based monitoring programs have defined goals and standardized monitoring processes (# of programs). 		
	Action items	Deliverable Date	Lead Partners
1.	Continue to support community-based monitoring programs to build capacity, ensure proper data collection and analysis, and communicate results to communities and decision-makers.	Ongoing	ENR
2.	Ensure community-based monitoring collects data relevant to local decision-making and helps to address community concerns.	Ongoing	ENR, Dehcho AAROM
3.	Conduct a five-year review of the NWT-wide Community-based Water Quality Monitoring Program.	March 2018	ENR
Key to Success 2.2 B	Improve community participation and leadership in aquatic research projects.		
Performance Indicators	<ul style="list-style-type: none"> Community members are involved in aquatic research activities (low-medium-high, survey to community partners). Communities have a sense of leadership in projects (low-medium-high, survey to community partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Work with community monitors and others to build capacity to participate in and undertake research projects.	March 2018 and ongoing	Academic Partners, Aurora College
2.	Provide information about research activities via newspaper and radio.	March 2017 and ongoing	Academic Partners
3.	Create and implement a plan to hand over responsibility and leadership of applicable research projects to communities.	March 2019	Academic Partners

3. Use Responsibly

Actions that are part of the Use Responsibly component of the Water Strategy support sound water stewardship through the development and implementation of programs, practices and guidance for environmental assessment, and regulatory and enforcement processes.

In order to Use Responsibility, work falls into two main areas:

- Municipal
- Industrial Development

The following organizations are supporting partners for Keys to Success and associated Action Items under Use Responsibly:

- Academic Partners
- Aboriginal Governments
- Aboriginal Steering Committee (ASC)
- Aurora Research Institute

- Community Governments
- Ecology North
- Environment Canada
- Environment and Natural Resources (ENR)
- Environmental Monitoring Advisory Board (EMAB)
- Independent Environmental Monitoring Agency (IEMA)
- Inuvialuit Water Board (IWB)
- Industry
- Department of Lands (Lands)
- Land and Water Boards (LWB)
- Municipal and Community Affairs (MACA)
- Mackenzie Valley Environmental Impact Review Board (MVEIRB)
- NWT Housing Corporation
- Snap Lake Environmental Monitoring Agency (SLEMA)



3.1 Use Responsibly – Municipal

Compliance with municipal water licences, consideration of traditional knowledge in the municipal water licencing process, ongoing sharing of information on municipal drinking water, and improving municipal waste and wastewater systems are essential for ensuring communities have confidence in their drinking water, and municipal waste and wastewater systems.

Key to Success 3.1 A	Improve the sharing of information on municipal drinking water in the NWT.		
Performance Indicators	<ul style="list-style-type: none"> • NWT communities understand the roles and responsibilities related to municipal drinking water (low-medium-high, survey NWT community governments). • Members of the public access the drinking water website (# of visits). 		
	Action Items	Deliverable Date	Lead Partners
1.	Provide information to NWT residents on treatment and distribution of municipal drinking water by maintaining the new drinking water website and producing annual reports.	March 2017 and ongoing	Interdepartmental Drinking Water Management Committee
2.	Continue to promote water tank maintenance and provide educational information.	March 2018	Interdepartmental Drinking Water Management Committee
3.	Maintain or enhance the current public drinking water database containing chemical sampling results and weekly bacteriological samples.	Ongoing	HSS, MACA
4.	Maintain the Circuit Rider Program training for water treatment plant operators, including routine maintenance, record keeping, course delivery for certification and drinking water sampling.	March 2017 and annually	MACA
5.	Upgrade remote monitoring of drinking water parameters at specific water treatment plants.	March 2017 and ongoing	MACA
6.	Complete upgrades of water treatment plants to meet the Canadian Guidelines for Drinking Water Quality.	March 2020	MACA, PWS

Key to Success 3.1 B	Improve municipal waste and wastewater systems in the NWT through waste management activities and the development of standards and guidelines.		
Performance Indicators	<ul style="list-style-type: none"> • There are supporting guidelines identifying how Northern Performance Standards can be met (# of standards with supporting guidelines). 		
	Action Items	Deliverable Date	Lead Partners
1.	Create and update guidelines to improve wastewater treatment systems in the NWT.	March 2018 and ongoing	ENR, LWB/IWB
2.	Work towards Northern Performance Standards that align with the national Wastewater and Sewage Effluent Regulations for northern wastewater treatment systems.	March 2020	ENR
3.	Develop visual communication material with clear descriptions of the various processes for municipal water licences and the respective roles and responsibilities.	March 2018	LWB/IWB
4.	Finalize NWT Guidelines for Municipal Landfills to improve leachate management practices for landfills in the NWT.	March 2018	LWB, ENR
5.	Implement NWT Guidelines for Municipal Landfills.	March 2019	LWB/IWB, ENR, MACA
6.	Identify opportunities to enhance community waste infrastructure through ongoing initiatives (e.g. Waste Reduction and Recycling Initiative and the Household Hazardous Waste Collection, and review of funding structure for solid waste management activities).	March 2019	ENR, MACA
7.	Update the <i>Good Engineering Practices for Northern Water and Sewage Systems</i> .	March 2018	MACA

Key to Success 3.1 C	Improve municipal water licence compliance by addressing challenges and providing support and training.		
Performance Indicators	<ul style="list-style-type: none"> • Support to maintain and improve compliance is offered in communities (# of communities and # of meetings, survey Land and Water Boards). • Identified challenges and community questions are successfully addressed (low-medium-high, survey Land and Water Boards and Senior Administrative Officers). 		
	Action Items	Deliverable Date	Lead Partners
1.	Clarify the approach to measure municipal water licence compliance in a meaningful and comprehensive manner.	March 2018	LWB/IWB, ENR
2.	Track and report on number of inspections of municipal water licences.	March 2017 and ongoing	ENR
3.	Develop and implement a plan to enhance municipal water licence compliance and address community issues and concerns.	March 2018	LWB/IWB, ENR
4.	Identify items, such as training, support and outreach activities, that would enable communities to apply for, or comply with, their municipal water licence.	March 2018	LWB/IWB, ENR
5.	Work with municipalities to ensure unauthorized waste is not accepted at the landfills.	March 2018 and ongoing	LWB/IWB, ENR
6.	Support communities by providing technical support and training for monitoring of Surveillance Network Program (SNP) sites.	March 2018 and ongoing	LWB/IWB, ENR
7.	Continue to promote the standardized application, renewal, compliance and reporting templates for municipal water licencing.	March 2017 and ongoing	LWB/IWB
Key to Success 3.1 D	Policy and Research		
	Improve the understanding of waste and wastewater systems in NWT communities and consider traditional knowledge in municipal water licencing processes.		
Performance Indicators	<ul style="list-style-type: none"> • Research on environmental impacts of waste and wastewater in NWT communities is advancing (# of research projects). 		
	Action Items	Deliverable Date	Lead Partners
1.	Work with water partners and prioritize and support research areas to improve the understanding of the environmental impacts of waste and wastewater in NWT communities.	March 2018	ENR
2.	Ensure opportunities to include traditional and local knowledge in municipal water licencing are clearly communicated.	March 2017	LWB/IWB

3.2 Use Responsibly – Industrial Development

Improve understanding of water use, waste and wastewater processes and of the role that guidelines and regulations play to ensure water partners continue to participate effectively in regulatory and environmental assessment processes.

Key to Success 3.2 A	Ensure clarity and facilitate understanding of water use, waste and wastewater regulatory processes.		
Performance Indicators	<ul style="list-style-type: none"> • Increased understanding of roles and responsibilities within the regulatory processes (low-medium-high, survey water partners). • Rate of participation in water licence application and review processes (low-medium-high, survey water partners). • Increased awareness of industrial activities in the NWT and their associated monitoring and reporting requirements (low-medium-high, survey water partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Ensure plain language information on regulatory processes for environmental assessments and water licencing is available to water partners.	March 2017 and ongoing	LWB/IWB, ENR, MVEIRB
2.	Provide information on how to participate in the regulatory process at community meetings and other events.	March 2017 and ongoing	MVEIRB, LWB/IWB, ENR
3.	Describe in plain language and communicate how traditional and local knowledge can be included in water licences and environmental assessments.	March 2018 and ongoing	LWB/IWB, MVEIRB, ENR
Key to Success 3.2 B	Improve clarity and understanding of industrial water licence compliance.		
Performance Indicators	<ul style="list-style-type: none"> • Increased understanding of water licence requirements and management plans (low-medium-high, survey water partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Clarify roles and responsibilities for industrial compliance and identify areas for policy improvements.	March 2017 and ongoing	LWB/IWB, ENR, Lands
2.	Track and report on number of inspections of industrial water licences.	March 2017 and ongoing	ENR, Lands

Key to Success 3.2 C	Review and develop guidelines and regulations to clarify existing regulatory and environmental assessment processes.		
Performance Indicators	<ul style="list-style-type: none"> • Water legislation and regulation are periodically reviewed and revised as necessary (# reviewed, # updated). • Regulatory guidelines are reviewed periodically and updated and, where necessary, policy is adopted or revised (# reviewed and # updated, adopted or revised). 		
	Action items	Deliverable Date	Lead Partners
1.	Identify the components of an integrated water management system (e.g. water classification system, site-specific water quality objective derivation process, baseline data collection, mixing zone, environmental assessment initiation) to support the Water and Effluent Quality Management policy and decision-making in environmental assessments.	March 2017 and ongoing	ENR, LWB/IWB
2.	Once a water classification system is established, develop and implement a Site-specific Water Quality Objective derivation approach to determine water quality objectives.	March 2020	ENR, LWB/IWB
3.	Provide a short description of water licence requirements and management plans.	March 2017	LWB/IWB, ENR
4.	Review territorial legislation relevant to water management and identify areas for improvement.	March 2017 and ongoing	ENR
5.	Review existing regulatory guidelines and policies relevant to water management post-devolution and revise as necessary.	March 2017 and ongoing	ENR
6.	Review and revise existing Aquatic Effects Monitoring Program (AEMP) Guidelines.	March 2018 and ongoing	ENR, LWB/IWB,
7.	Develop Guidelines for Surface and Groundwater Monitoring for oil and gas development.	March 2020	LWB, ENR
8.	Develop guidelines for project descriptions in environmental assessments to support decision-making.	March 2018	MVEIRB

4. Check Our Progress

Check Our Progress is an active feedback loop to ensure that the water stewardship initiatives undertaken are effective and that there is progress towards achieving the goals of the Water Strategy. The evaluation criteria for Check Our Progress must be objective, ensure accountability, and be directly linked to desired outcomes and identified performance indicators.

In order to Check Our Progress, work falls into two main areas:

- Routine Checks
- Independent Evaluations

All water partners are supporting partners for Keys to Success and associated Action Items under Check Our Progress.



Photo Credit: P. Vecsei

4.1 Check Our Progress – Routine Checks

Develop and implement regular reviews of the Water Strategy and the Action Plan to ensure progress is being made and to adjust actions as necessary.

Key to Success 4.1 A	Ensure progress on the Action Plan occurs.		
Performance Indicators	<ul style="list-style-type: none"> Progress is assessed (# of Keys of Success assessed and # of progress reports). Outstanding challenges are identified and addressed as necessary (low-medium-high, survey supporting and lead water partners). 		
	Action items	Deliverable Date	Lead Partners
1.	Survey appropriate water partners to assess progress on specific Keys to Success using performance indicators, and to identify challenges and successes.	March 2017 and annually	ENR
2.	Routinely update water partners on implementation activities (e.g. annual reports and website).	Annually	ENR
3.	Hold an annual workshop to report on successes, improvements and remaining challenges.	Annually	ENR
4.	Document and share how traditional and local knowledge information is included in the different components of the Action Plan and make it part of routine reporting.	March 2018 and annually	ENR

4.2 Check Our Progress – Independent Evaluation

Undertake an independent evaluation to determine progress and to identify emerging challenges and actions required to deal with new challenges.

Key to Success 4.2 A	Ensure an independent evaluation of the Water Strategy takes place every five years and recommends actions to be undertaken.		
Performance Indicators	<ul style="list-style-type: none"> Water partners review evaluation (# of water partners participating in the process). The Keys to Success under Check Our Progress inform and improve implementation of the Action Plan (# and type of recommendations in progress reports, annual workshop reports and the independent evaluation). 		
	Action items	Deliverable Date	Lead Partners
1.	Establish an evaluation committee.	June 2019	ENR
2.	Establish an evaluation plan.	March 2019	ENR
3.	Conduct independent evaluation.	March 2020	ENR
4.	Publish evaluation results and distribute findings.	September 2020	ENR
5.	Document which evaluation recommendations are carried forward into subsequent Action Plans and include rationale.	December 2020	ENR

Appendix A: Water-related Roles and Responsibilities

Everyone plays a role in water stewardship. Some water managers are charged with specific roles and responsibilities under legislation. Water managers that have water-related roles and responsibilities in the NWT are highlighted below.

Titles of legislation and associated regulations are noted on the following pages. More information can be found on the following websites by searching for the titles of acts, regulations, text in the legislation or by jurisdiction.

Justice Canada, Government of Canada

<http://laws.justice.gc.ca/eng/>

Department of Justice, Government of the Northwest Territories

www.justice.gov.nt.ca/Legislation/SearchLeg&Reg.shtml

Canadian Legal Information Institute

www.canlii.org/en/ca/laws



Photo Credit: J. McKay

Environment and Natural Resources, Government of the Northwest Territories (ENR - GNWT)

www.enr.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

As of April 1, 2014, under the NWT Devolution Agreement, the GNWT is responsible for administering the laws that regulate onshore waters in the NWT. The Water Resources Division of the Department of Environment and Natural Resources (ENR) was created to manage most of these responsibilities.

ENR is responsible for developing, implementing and interpreting all legislation and policy relating to water use and management in the NWT. The ENR Water Resources Division conducts research and monitoring and provides information and expert advice to resource management boards and other clients on the effects of proposed water and land activities on the aquatic environment, as required by the *Mackenzie Valley Resource Management Act (MVRMA)*, the *Waters Act* and Regulations and the *Canadian Environmental Assessment Act*. ENR has a number of water-related responsibilities, as outlined below.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- coordinating and implementing the NWT Water Stewardship Strategy and Action Plan;
- managing water resources in the Mackenzie Valley and inland waters in the Inuvialuit Settlement Region through the administration of the *Waters Act* and Regulations;
- reviewing water licence applications and evaluating proposals and licences issued by the boards (delegated responsibilities under the MVRMA);
- Ministerial approval of Type A water licences, and Type B water licences where a hearing has been held;
- inspections and enforcement of water licences (Water Resources Officers);
- conducting analyses to enable regulatory boards to set securities for water licences (securities for water licences are held by ENR);
- developing guidelines, policies and codes of practice for water resource management and monitoring;
- collecting water quantity and quality data in the NWT in cooperation with Environment Canada and other federal and territorial departments;
- supporting community-based aquatic ecosystem monitoring programs;
- supporting community source protection initiatives;
- negotiating and implementing transboundary water management agreements with neighbouring jurisdictions;
- providing ongoing expert scientific and technical advice to a wide range of clients in the NWT;

- addressing high priority cumulative impact questions regarding water through the Cumulative Impact Monitoring Program;
- protecting special freshwater features through Conservation Network Planning;
- spill contingency planning for facilities located on municipal and Commissioner’s lands in the NWT, and coordinating regulatory oversight and investigation of hazardous material spills for ENR jurisdictions; and
- providing analytical services through the Taiga Environmental Laboratory.

Relevant Legislation

- *Waters Act* and Regulations
- *Environmental Protection Act*
- *Mackenzie Valley Resource Management Act*
- *Water Resource Agreements Act*
- *Canadian Environmental Assessment Act*

Additional Notes

Several other Acts, such as the *Forest Protection Act*, *Pesticide Act*, *Wildlife Act*, *Waste Reduction and Recovery Act*, *Species at Risk Act* and *Natural Resources Conservation Trust Act*, play an indirect, but important, role in protecting NWT’s water resources.

Municipal and Community Affairs, Government of the Northwest Territories (MACA - GNWT)

www.maca.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

Municipal and Community Affairs (MACA) provides funding to support communities to provide water and sewage services through the Water and Sewer Services Funding Policy. Communities are funded according to a standard cost model. This model assumes a due diligence approach to operations and that community governments will charge consumers for water and sewage services. It also recognizes that there is a “fixed” cost of operations, regardless of consumption.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- providing classroom and hands-on training to operators;
- offering educational opportunities through the School of Community Government for community officials with respect to water, wastewater and waste disposal;
- assisting in the identification of necessary infrastructure;
- providing technical support in the operations, maintenance, design and construction of municipal infrastructure, including water treatment plants, sewage treatment facilities, solid waste sites and drainage systems;
- supporting the Senior Administrative Officer (SAO) in the development of the Community Infrastructure Plan;
- recommending alternative funding sources; and
- assisting the SAO in the development of a simple, easy-to-use and understandable Operations and Management and Preventative Maintenance Work Plan.

Relevant Legislation

- *Commissioners' Lands Act*
- *Emergency Act*
- *Public Health Act* and Water Supply System Regulations
- Canadian Drinking Water Guidelines

Additional Notes

MACA has a community government toolkit available at <http://www.maca.gov.nt.ca/home/for-community-governments/community-government-toolkit/> and information about drinking water in the NWT can be found at www.nwtdrinkingwater.ca

Health and Social Services, Government of the Northwest Territories (HSS - GNWT)

www.hss.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

Health and Social Services (HSS) regulates public drinking water safety under the authority of the NWT *Public Health Act* and Water Supply System Regulations.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

HSS sets and enforces requirements for the sampling and testing of drinking water in the NWT, and approves the use of water sources for drinking water along with the design and operation of water systems. Environmental Health Officers (EHOs) conduct routine inspections of water treatment systems and monitor test results for raw and treated water. HSS issues boil water advisories in situations where the safety of drinking water is in question.

HSS supports MACA in the certification of water treatment plant operators. HSS also participates in the GNWT Interdepartmental Drinking Water Management Committee in collaboration with the other member departments (PWS, ENR and MACA) to ensure the safety of drinking water in the NWT.

See www.nwtdrinkingwater.ca for more information about drinking water sampling and testing requirements as well as boil water advisories in the NWT.

Relevant Legislation

- *Public Health Act*
- Water Supply System Regulations

Additional Notes

The NWT regulations adopt the Guidelines for Canadian Drinking Water Quality.

Public Works and Services, Government of the Northwest Territories (PWS - GNWT)

www.pws.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

In partnership with other government departments, Public Works and Services (PWS) supports the provision of safe drinking water and effective sewage systems in NWT communities. PWS is available to provide support by:

- reviewing the designs of water and sewer-related projects;
- providing technical assistance during construction upon request; and
- reviewing new or improved materials and equipment upon request.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- providing project management and technical services for bundled water treatment plant projects; and
- providing operations and maintenance assistance, through agreement, in some communities.

Additional Notes

Upon request, the department reviews designs and provides technical advice to those partner departments who are directly involved in assisting communities in meeting drinking water quality standards. In providing advice and services, PWS supports the implementation of the NWT Water Stewardship Strategy.

Lands, Government of the Northwest Territories (Lands - GNWT)

www.lands.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

The Department of Lands (Lands) is responsible for the management and administration of all public lands in the NWT (on both Commissioner's and territorial lands). Lands has a water-related role for the inspection of diamond mines.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- inspecting and ensuring compliance under the water licences for diamond mines (ENR inspects other water licences); and
- leading and coordinating GNWT participation in resource management processes such as land use planning, project assessment, sustainability analysis and reclamation securities.

Relevant Legislation

- *Mackenzie Valley Resource Management Act* and Mackenzie Valley Land Use Regulations
- *Waters Act* and Regulations
- *Canadian Environmental Assessment Act, 2012*

Industry, Tourism and Investment Government of the Northwest Territories (ITI - GNWT)

<http://www.iti.gov.nt.ca/sectors/oil-gas>

Water-related Role

(i.e. what the water manager is mandated with doing)

As of April 1, 2014, the Department of Industry, Tourism and Investment (ITI) is responsible for the administration of onshore oil and gas interests in the NWT, including the Inuvialuit Settlement Region. Interests issued in offshore areas are the responsibility of Indigenous and Northern Affairs Canada. More information can be found at <http://www.iti.gov.nt.ca/sectors/oil-gas>.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

ITI promotes economic self-sufficiency through the responsible management and development of NWT petroleum resources to create a prosperous, diverse and sustainable economy for the benefit of all NWT residents.

ITI's responsibilities include:

- developing and delivering petroleum resources policy, programs and services related to petroleum resources exploration and development;
- managing land tenure and registration associated with petroleum resource development; and
- overseeing the management of the Environmental Studies Research Fund and benefit plans.

Relevant Legislation

- *Petroleum Resources Act*
- *Oil and Gas Operations Act (OGO)*

Office of the Regulator of Oil and Gas Operations (OROGO)

www.orogo.gov.nt.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

The Office of the Regulator of Oil and Gas Operations (OROGO) is an arm's length territorial agency that regulates oil and gas activities. OROGO regulates oil and gas operations in the NWT, outside federal areas and the Inuvialuit Settlement Region, for the primary purposes of ensuring:

- Safety
- Environmental protection
- Conservation of oil and gas resources

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Under the *Oil and Gas Operations Act*, OROGO has responsibilities to ensure that the environment is protected during planning, construction, operation and abandonment of oil and gas works and activities within its jurisdiction. OROGO ensures that activities are conducted in a way that avoids pollution of groundwater and minimizes the chance of a spill or release to surface.

OROGO's responsibilities include:

- reviewing applications to conduct oil and gas activities;
- regulating seismic programs, oil and gas well drilling operations, pipelines and facilities;
- regulating any well with a depth greater than 150 m;
- inspection and compliance verification; and
- emergency response and investigation.

Memorandums

OROGO has signed a memorandum of understanding (MOU) with the National Energy Board (NEB) to establish and promote a mechanism for collaboration, cooperation, information sharing and dialogue. OROGO and the NEB intend to cooperate in order to minimize, to the extent practicable, regulatory gaps, inconsistent regulatory requirements and divergent guidance.

OROGO also has cooperative MOUs in place with the Mackenzie Valley Land and Water Board and with the Workers' Safety and Compensation Commission.

OROGO receives technical support and expertise through service agreements with the Alberta Energy Regulator (AER) and the National Energy Board (NEB).

Relevant Legislation and Agreements

- *Oil and Gas Operations Act*
- *Petroleum Resources Act*
- *Mackenzie Valley Resource Management Act*
- Sahtù Dene and Métis Comprehensive Land Claim Agreement
- Gwich'in Comprehensive Land Claim Agreement
- Tłı̨chǫ Land Claims and Self-government Agreement

National Energy Board (NEB)

www.neb.gc.ca/clf-nsi/rcmmn/hm-eng.html

Water-related Role

(i.e. what the water manager is mandated with doing)

The National Energy Board (NEB) is an independent federal agency that regulates international and interprovincial aspects of the oil, gas and electric utility industries. The purpose of the NEB is to regulate pipelines, energy development and trade in the Canadian public interest. The NEB is accountable to Parliament through the Minister of Natural Resources Canada.

The *Canadian Environmental Assessment Act* process is initiated when a company submits an application to the NEB, which triggers the Act, and the NEB determines that it is a Responsible Authority (RA). The NEB considers the level of environmental assessment required under the *Canadian Environmental Assessment Act* (i.e. screening, comprehensive study or panel review) and identifies other possible RAs and Federal Authorities (FAs) who may have an interest in the project. The assessment is conducted within the *National Energy Board Act* process.

The NEB conducts environmental assessments during its review of applications for facilities and activities under its jurisdiction in the NWT (Inuvialuit Settlement Region, Norman Wells Proven Area and offshore arctic). For certain projects an environmental assessment is also required by federal legislation such as the *Canadian Environmental Assessment Act, 2012*, the *Mackenzie Valley Resource Management Act* and the Inuvialuit Final Agreement.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

NEB responsibilities for freshwaters are shared with federal agencies, provincial and territorial governments, and land claim organizations that maintain direct land and water jurisdictions. Under the *National Energy Board Act*, the NEB has assumed a mandate for environmental protection through legislative general application and public interest. The NEB also has responsibilities under the *Canadian Environmental Assessment Act* to ensure that projects receive appropriate levels of assessment before proceeding. The NEB's environmental responsibility includes ensuring that the environment is protected during planning, construction, operation and abandonment of energy projects within its jurisdiction.

The NEB regulates:

- interprovincial and international pipelines;
- pipeline transportation, tolls and tariffs;
- international and designated interprovincial power lines;
- exports of oil, natural gas and electricity;
- oil and gas activities in the offshore NWT and federal areas (*Canada Oil and Gas Operations Act*);
- oil and gas activities in the Inuvialuit Settlement Region (*Oil and Gas Operations Act*); and
- oil and gas activities (*Canada Oil and Gas Operations Act*) outside of Accord areas (i.e. Nunavut and Yukon).

Memorandums

The NEB has a memorandum of understanding (MOU) with the Office of the Regulator of Oil and Gas Operations (OROGO) to establish and promote a mechanism for collaboration and cooperation on regulatory activities in the NWT, in order to minimize, to the extent practicable, regulatory gaps, inconsistent regulatory requirements and divergent guidance. The NEB also provides technical support and expertise through a service agreement with OROGO.

Several memorandums of understanding pertaining to the environmental assessment process for the Mackenzie Gas Project have been signed by the NEB with the Inuvialuit, Mackenzie Valley Land and Water Board, Inuvialuit Water Board, Mackenzie Valley Environmental Impact Review Board, Gwich'in Land and Water Board, Sahtù Land and Water Board, Canadian Environmental Assessment Agency, Indigenous and Northern Affairs Canada, Fisheries and Oceans Canada, Environment and Climate Change Canada, Transport Canada and the GNWT between 2002 and 2005.

Relevant Legislation

- *National Energy Board Act*
- *Canadian Environmental Assessment Act*
- *Indian Oil and Gas Act*
- *Canada Oil and Gas Operations Act*
- *Oil and Gas Operations Act*
- *Petroleum Resources Act*
- *Mackenzie Valley Resource Management Act*
- Applicable land, resource and self-government agreements throughout the NWT

Environment and Climate Change Canada (ECCC)

www.ec.gc.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

Environment and Climate Change Canada (ECCC) seeks to protect the environment and to conserve Canada's natural heritage for present and future generations. Science plays a fundamental role in enabling ECCC to support informed decision-making, regulatory approaches and delivery of services.

In relation to water, this approach includes:

- roles that involve monitoring water quality;
- investing in water research, developing regulations where warranted;
- supporting inter-jurisdictional water agreements, limited enforcement/permitting related to toxic and polluting substances;
- developing national policies and standards related to aquatic pollutants and water quality standards;
- reducing pollution at the source;
- promoting ecosystem approaches; and
- protecting migratory birds from harmful water-borne substances.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

ECCC's responsibilities for freshwaters are shared with federal departments, provincial and territorial governments. These include:

- collecting water quantity and quality data focused on National Parks and Reserves and the Mackenzie Valley in partnership with Parks Canada and the GNWT;
- operating the NWT Hydrometric Network, which is administered and delivered by ECCC in partnership with GNWT Environment and Natural Resources;
- engaging in water planning through participation in multi-government initiatives (e.g. land use plans, establishment of National Wildlife Areas, environmental assessment processes, etc.);
- providing technical support, where required, to transboundary water agreement discussions on quality and flow allocation through the Mackenzie River Basin Board;
- enforcing water quality legislation such as the Metal Mining Effluent Regulations and future Wastewater Effluent Regulations (2014) under the *Fisheries Act*, Migratory Birds Regulations under the *Migratory Birds Convention Act*, including pollutant discharge into waters containing migratory bird populations, and the *Canadian Environment Protection Act*, including ocean disposal; and
- evaluating water quality protection measures for the environmental assessments of projects screened under the *Mackenzie Valley Resource Management Act* and for the subsequent issuance of water licences by the NWT Water Board.

Relevant Legislation

- *Canadian Environmental Assessment Act* (Inuvialuit Settlement Region)
- *Migratory Birds Convention Act* – Section 5 .1
- *Canadian Environmental Protection Act*
- Disposal at Sea Regulations
- *Canada Water Act*
- *Department of Environment Act*
- *Fisheries Act* – Section 36 (deleterious substances)
- *Mackenzie Valley Resource Management Act*
- Metal Mining Effluent Regulations
- Wastewater Effluent Regulations (proposed)
- Applicable land, resource and self-government agreements throughout the NWT

Fisheries and Oceans Canada (DFO)

<http://www.dfo-mpo.gc.ca/>

Water-related Role

(i.e. what the water manager is mandated with doing)

Fisheries and Oceans Canada (DFO) has the lead federal role in managing Canada's fisheries and safeguarding its waters. The Department supports strong economic growth in marine and fisheries sectors; supports innovation through research; and contributes to a clean and healthy environment and sustainable aquatic ecosystems through habitat protection, oceans management, and ecosystems research.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

DFO's water-related responsibilities are shared with federal departments, provincial and territorial governments. The Department's plans, policies and programs support five long-term goals:

- managing and protecting fisheries resources (including habitat);
- protecting the marine and freshwater environment;
- understanding ocean and aquatic resources;
- maintaining marine safety; and
- facilitating maritime commerce and ocean development.

Relevant Legislation

- *Fisheries Act* and Regulations
- Canada-Yukon Accord for Freshwater Fisheries Management
- *Freshwater Fish Marketing Act*
- *International Boundary Waters Treaty Act*
- *Canadian Environmental Assessment Act*
- *Mackenzie Valley Resource Management Act*
- *Canada Shipping Act*
- *Oceans Act*
- *Species at Risk Act*
- Applicable land, resource and self-government agreements throughout the NWT

Additional Notes

Key policies and guidance documents include:

- Sustainable Fisheries Framework;
- Recreational Fisheries in Canada;
- Aquatic Invasive Species;
- Fisheries Protection Policy;
- Aboriginal Fisheries Strategy;
- National Water Policy (under development); and
- Land claim implementation and co-management agreements.

Indigenous and Northern Affairs Canada (INAC)

www.ainc-inac.gc.ca/ai/scr/nt/index-eng.asp

Water-related Role

(i.e. what the water manager is mandated with doing)

On April 1, 2014, the administration, control and management of onshore waters were transferred from Indigenous and Northern Affairs Canada (INAC) (formerly Aboriginal Affairs and Northern Development Canada) to the GNWT. The federal *Northwest Territories Waters Act* was mirrored by the GNWT and is now called the *Waters Act*. INAC does retain management of approximately 10% of Crown lands that were excluded from the transfer, such as the Salt River Indian Reserve and Hay River Indian Reserve, Norman Wells Proven Area, national parks, historic sites and wildlife areas, and certain contaminated sites (e.g. Giant mine remediation underground). INAC will continue to manage the offshore water resources as well. Federal water-related responsibilities in the former *Northwest Territories Waters Act* have been included in the revised *Mackenzie Valley Resource Management Act* (MVRMA) and powers given to the federal Minister under the MVRMA have been delegated to the GNWT. INAC does retain responsibilities related to water in the Inuvialuit Settlement Region as per the *Waters Act*.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

INAC's post-devolution responsibilities for freshwaters in the NWT include:

- collecting water quantity/quality information and remediating contaminated sites and other federal lands (e.g. Imperial Oil proven area) that remain the federal responsibility of INAC;
- making decisions on water licences for lands remaining under federal control;
- providing assistance and funds to assist with water and wastewater services within reserve communities;
- coordinating non-shipping aspects of the *Arctic Waters Pollution Prevention Act*; and
- administering the *Mackenzie Valley Resource Management Act* as well as Section 9 of the *Waters Act*.

Relevant Legislation

- *Mackenzie Valley Resource Management Act*
- *Waters Act*
- *Canadian Environmental Assessment Act*
- *Arctic Waters Pollution Prevention Act*
- *Canada Water Act*
- *Department of Indian Affairs and Northern Development Act*
- *Northwest Territories Devolution Act*
- Applicable land, resource and self-government agreements throughout the NWT

Parks Canada (PCA)

www.pc.gc.ca/eng/index.aspx

Water-related Role

(i.e. what the water manager is mandated with doing)

Parks Canada Agency (PCA) administers and manages water in the NWT in the following national parks and reserves: Aulavik, Nahanni, Nááts'ihch'oh, Tukturnogait and Wood Buffalo, as well as Saoyú-Æehdacho National Historic Site and the Pingo Canadian Landmark.

Under the *Canada National Parks Act* (CNPA) and the *National Historic Site and Monuments Act*, Parks Canada has a legislated mandate to act as stewards and guardians of key waters and ecosystems. The Minister for Parks Canada is the designated Minister under the *Species at Risk Act* for aquatic Species at Risk in waters administered by the Agency.

PCA's water resource management activities are guided by the CNPA. Section 8(2) of the Act states that "the maintenance and restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority when considering all aspects of the management of parks."

PCA's main goal is to manage national parks and water resources for the benefit, education and enjoyment of all Canadians, and to maintain and use these resources in order to leave them unimpaired for the enjoyment of future generations.

Specific factors affecting water are generally handled at the level of individual parks, but in the NWT there are several notable factors with the potential to affect water quality and quantity and, therefore, the management of national parks. These include climate change, land-use

change in upstream areas (e.g. industrial, municipal and agricultural development), industrial water withdrawals and discharge, and hydroelectric development.

Water-Related Responsibilities

(i.e. how the water manager accomplishes its mandate)

PCA exercises its water-related responsibilities directly through its mandate and indirectly by collaborating with other federal, provincial and territorial departments and agencies in order to:

- ensure the appropriate application of environmental assessment processes for projects within national parks, national marine conservation areas and national historic sites and participating in environmental assessments for projects that have the potential to impact the national parks, marine conservation areas and national historic sites;
- develop, manage and implement scientific research and monitoring programs (e.g. collection, analysis, interpretation and distribution of water quality and quantity information);
- conduct specific studies on aquatic ecosystems;
- issue research and collection permits;
- regulate sport fishing and manage fish species and fish habitat;
- provide scientific and technical expertise to other decision-makers and managers of water;
- participate in technical committees and management bodies that cover watersheds associated with protected areas; and
- develop appropriate indicators of ecological integrity for freshwater ecosystems, with thresholds and targets, and, where appropriate, enforce the CNPA and accompanying regulations respecting:
 - soil, water and air quality;

- management and regulation of fishing;
- prevention and remedying (including restoration) of any obstruction or pollution of waterways;
- restriction or prohibition of activities and the control of the use of park resources;
- establishment, operation, maintenance and administration of works and services of a public character such as water and sewage;
- establishment, maintenance, administration and use of wharves, docks, bridges and other improvements;
- preservation of public health and prevention of disease; and
- engagement with indigenous partners and stakeholders in the activities outlined above, including monitoring, information-sharing and discussions around options for cooperative management.

Relevant Legislation

- *Parks Canada Agency Act*
- *Canada National Parks Act* and Regulations
- *Canada National Marine Conservation Areas Act*
- *Historic Sites and Monument Act*
- *Contraventions Act*
- Applicable land, resource and self-government agreements
- Various Park Establishment Agreements and Impact and Benefit Agreements
- *Species at Risk Act*
- *Dominion Water Power Act*
- *Department of Transport Act*
- Various environmental assessment legislations (*Canadian Environmental Assessment Act*, Inuvialuit Final Agreement, *Mackenzie Valley Resource Management Act*)
- *Fisheries Act*
- *Migratory Birds Convention Act*
- *Canadian Environmental Protection Act*

Additional Notes

Presently, PC manages water resources on 3.5% of the NWT's landmass; this will increase substantially once the proposed Thaidene Nene is added to the national parks and national historic sites system.

Transport Canada (TC)

www.tc.gc.ca/eng/tc-main.htm

Water-related Role

(i.e. what the water manager is mandated with doing)

Transport Canada (TC) is committed to an integrated transportation system that is safe, secure, efficient and environmentally responsible. TC supports the Government of Canada's environmental agenda through transportation policies, regulations and programs that work towards cleaner water. TC participates in environmental assessments for proposed projects in accordance with the *Canadian Environmental Assessment Act, 2012*, and other federal assessment processes in the NWT, Nunavut and the Yukon. In support of the Government's agenda, TC's activities may extend to providing expert advice and administering regulations, conducting reviews and issuing approvals for works that may affect transportation.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

TC's water-related responsibilities are shared with federal departments, provincial and territorial governments. The Department ensures that its mandate is appropriately addressed by the *Canadian Environmental Assessment Act, 2012*, and northern environmental assessment processes.

TC develops and administers policies, regulations and programs to protect the marine environment, reduce the impact on the environment of marine pollution incidents in Canadian waters and promote the safety of the general public. TC works with its partners to:

- report marine pollution;
- respond to marine accidents;
- protect Canada's navigable waterways listed under the *Navigation Protection Act*; and
- prepare for and respond to oil and hazardous noxious substance spills.

Relevant Legislation

- *Navigation Protection Act*
- *Arctic Waters Pollution Prevention Act*
- *Marine Liability Act*
- *Canada Shipping Act, 2001*
- *Transportation of Dangerous Goods Act, 1992*
- *Marine Transportation Security Act*
- *Canadian Environmental Assessment Act, 2012*
- Applicable land, resource and self-government agreements throughout the NWT

Canadian Environmental Assessment Agency (the Agency)

www.ceaa.gc.ca/default.asp?lang=En

Water-related Role

(i.e. what the water manager is mandated with doing)

The Canadian Environmental Assessment Agency (the Agency) is a federal body accountable to the Minister of Environment and Climate Change. The Agency delivers high-quality environmental assessments in support of government decisions about major projects.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- administering the *Canadian Environmental Assessment Act, 2012*;
- conducting environmental assessments, except for projects regulated by the Canadian Nuclear Safety Commission or the National Energy Board;
- encouraging public participation because protecting the environment is everyone's business;
- promoting high-quality assessments through training and guidance;
- providing administrative and advisory support for federal review panels;
- advancing the science and practice of environmental assessment through research and development; and
- promoting the use of strategic environmental assessments as a key tool to support sustainable decision-making.

Relevant Legislation

- *Canadian Environmental Assessment Act, 2012*

Additional Notes

The Agency works cooperatively with the Environmental Impact Review Board in the Inuvialuit Settlement Region to ensure that environmental assessments are conducted effectively.

Mackenzie Valley Environmental Impact Review Board (the Review Board)

www.reviewboard.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

The Mackenzie Valley Environmental Impact Review Board's (the Review Board) mission is to conduct quality environmental impact assessments that protect the environment and the social, economic and cultural well-being of the residents of the Mackenzie Valley and all Canadians.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

There are three stages in the environmental impact assessment process in the Mackenzie Valley.

1. Preliminary Screening

Most proposed developments that require a licence, permit or other authorization must apply and go through a preliminary screening. A land and water board or other regulating authority runs this process. Preliminary screening is a quick review of a proposed development's application to decide if the development might have significant adverse impacts on the environment, or might cause public concern. If so, the development is referred to the second stage – environmental assessment. If not, then the application can be sent to the regulator for permitting and licencing. Few (less than 4%) proposed developments are referred to environmental assessment. The Review Board issues guidelines on how to conduct a screening and it has the discretion to override a screening and conduct an environmental assessment if deemed necessary.

2. Environmental Assessment

An environmental assessment is a systematic investigation of the potential impacts of a proposed development. This stage involves a more thorough study of a proposed application to decide if it is likely to have significant adverse impacts on the environment (including socio-economic and cultural impacts on people), or is likely to cause public concern. If so, the Review Board will:

- a) recommend to the federal Minister that the project can proceed to regulatory permitting and licencing only when certain measures are in place to reduce or avoid the significant impacts (the most common outcome);
- b) recommend to the federal Minister that the project should be rejected; or
- c) order an environmental impact review for a more detailed review by an independent panel.

If the Review Board determines that a proposed project is not likely to have significant adverse impacts on the environment, and is not likely to cause public concern, it may recommend to the federal Minister that the project can proceed to regulatory permitting and licencing as is.

3. Environmental Impact Review

An environmental impact review follows an environmental assessment when the Review Board deems a more comprehensive examination of a proposed development is needed. This has only happened twice. The review is conducted by an independent panel, which may consist of the Review Board members and others. All members of the panel are appointed by the Review Board.

The environmental impact review provides a more focused study of the issues raised during the environmental assessment.

Relevant Legislation

- Part 5 of the *Mackenzie Valley Resource Management Act* and Regulations

Additional Notes

- As a co-management board, Aboriginal land claim organizations nominate half of the Review Board's members, and the federal and territorial governments nominate the other half of the members. The Minister of Indigenous and Northern Affairs Canada appoints all the members.
- Other boards or organizations with referral power may refer a proposed development to the Review Board for environmental assessment regardless for the outcome of a preliminary screening.
- The Review Board must also contact Indigenous and Northern Affairs Canada or, under certain circumstances, the National Energy Board with its findings.
- The Review Board is the only body legally authorized to make legal determinations of impact significance in environmental assessments. With respect to the approval decisions described above, the Review Board provides recommendations to the GNWT Minister of Lands and the other responsible ministers for the final approval decision.

Mackenzie Valley Land and Water Board (MVLWB)

www.mvlwb.com

Water-related Role

(i.e. what the water manager is mandated with doing)

The Mackenzie Valley Land and Water Board (MVLWB) is charged with:

- regulating the use of land and waters and the deposit of waste in order “to provide for the conservation, development and utilization of land and water resources in a manner that will provide the optimum benefit to the residents of the settlement area, the Mackenzie Valley and to all Canadians”; and

- considering “the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada” as per their constitutional duties.

See the following web links for more information:

- www.mvlwb.com/html/mandate.htm
- www.mvlwb.com/doc/MVLWB_AAR_07.pdf

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- issuing land use permits and water licences in the Mackenzie Valley in areas without settled land claims;
- processing transboundary land use permit and water licence applications in the Mackenzie Valley;
- ensuring consistency in the application of the legislation throughout the Mackenzie Valley; and
- conducting the preliminary screenings for development proposals to determine if the development might be a cause of public concern or might have a significant adverse environmental impact on the environment, which may lead to the Mackenzie Valley Environmental Impact Review Board carrying out an environmental assessment or environmental impact review.

Relevant Legislation

- *Mackenzie Valley Resource Management Act* (MVRMA) and Regulations
- *Waters Act* and Regulations
- Sahtù Dene and Métis Comprehensive Land Claim Agreement
- Gwich'in Comprehensive Land Claim Agreement
- Tłı̨chó Land Claims and Self-government Agreement

Additional Notes

- The MVRMA was enacted as a result of the Gwich'in Comprehensive Land Claim Agreement and Sahtù Dene and Métis Comprehensive Land Claim Agreement being settled.
- The MVRMA establishes and sets out the membership of the MVLWB and the regional panels – the Gwich'in Land and Water Board, the Sahtù Land and Water Board, and the Wek'èezhìi Land and Water Board.
- The MVLWB consists of five members from the Gwich'in Land and Water Board, five members from the Sahtù Land and Water Board, five members from the Wek'èezhìi Land and Water Board and five members that are not part of a regional panel.

Sahtù Land and Water Board (SLWB)

www.slwb.com

Water-related Role

(i.e. what the water manager is mandated with doing)

The Sahtù Land and Water Board (SLWB) is charged with:

- regulating the use of land and waters and the deposit of waste so as to provide for the conservation, development and utilization of land and water resources in a manner that will provide the optimum benefit for residents of its management area and of the Mackenzie Valley and for all Canadians; and
- considering “the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada” as per their constitutional duties.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- issuing, amending or renewing licences, permits and authorizations, along with the associated terms and conditions;
- overseeing compliance issues and taking the appropriate actions, which may include suspension or cancellation of licence, permits and authorizations;
- establishing policies and guidelines applicable to its licences, permits and authorizations;
- holding public consultations;
- proposing changes to legislation;
- establishing rules and procedures, including reasonable fixed time limits for the negotiation of agreements; and
- conducting the preliminary screenings for development proposals to determine if the development might be a cause of public concern or might have a significant adverse environmental impact on the environment, which may lead to the Mackenzie Valley Environmental Impact Review Board carrying out an environmental assessment or environmental impact review.

Relevant Legislation

- *Mackenzie Valley Resource Management Act* and Regulations
- *Waters Act* and Regulations
- Sahtù Dene and Métis Comprehensive Land Claim Agreement

Gwich'in Land and Water Board (GLWB)

www.glwb.com

Water-related Role

(i.e. what the water manager is mandated with doing)

The Gwich'in Land and Water Board (GLWB) is charged with:

- regulating the use of land and waters and the deposit of waste so as to provide for the conservation, development and utilization of land and water resources in a manner that will provide the optimum benefit for residents of its management area and of the Mackenzie Valley and for all Canadians; and
- considering “the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada” as per their constitutional duties.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- issuing, amending or renewing licences, permits and authorizations, along with the associated terms and conditions;
- establishing policies and guidelines applicable to its licences, permits and authorizations;
- overseeing compliance issues and taking the appropriate actions which may include suspension or cancellation of licence, permits and authorizations;
- holding public consultations;
- proposing changes to legislation;
- establishing rules and procedures, including reasonable fixed time limits for the negotiation of agreements; and

- conducting the preliminary screenings for development proposals to determine if the development might be a cause of public concern or might have a significant adverse environmental impact on the environment, which may lead to the Mackenzie Valley Environmental Impact Review Board carrying out an environmental assessment or environmental impact review.

Relevant Legislation

- *Mackenzie Valley Resource Management Act* and Regulations
- *Waters Act* and Regulations
- Gwich'in Comprehensive Land Claim Agreement

Wek'èezhì Land and Water Board (WLWB)

www.wlwb.ca

Water-related Role

(i.e. what the water manager is mandated with doing)

The Wek'èezhì Land and Water Board (WLWB) is charged with:

- regulating the use of land and waters and the deposit of waste so as to provide for the conservation, development and utilization of land and water resources in a manner that will provide the optimum benefit generally for all Canadians and in particular for residents of its management area; and
- considering “the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada” as per their constitutional duties.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- issuing, amending or renewing licences, permits and authorizations, along with the associated terms and conditions;
- establishing policies and guidelines applicable to its licences, permits and authorizations;
- overseeing compliance issues and taking the appropriate actions, which may include suspension or cancellation of licence, permits and authorizations;
- holding public consultations;
- proposing changes to legislation; and
- establishing rules and procedures, including reasonable fixed time limits for the negotiation of agreements.

Relevant Legislation

- *Mackenzie Valley Resource Management Act* and Regulations
- *Waters Act* and Regulations
- Tłıchǫ Land Claims and Self-government Agreement

Inuvialuit Water Board

www.nwtwb.com (new website coming soon)

Water-related Role

(i.e. what the water manager is mandated with doing)

The Inuvialuit Water Board is charged with regulating the use of water and deposit of waste into water to ensure that development activities in that portion of the Inuvialuit Settlement Region (ISR) of the NWT do not have adverse impacts on the water or the environment.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- issuing licences (Type A or B) for the use of any waters or disposal of any waste within the Inuvialuit Water Board management area;
- conducting preliminary screenings or making referrals to environmental assessment based on the potential for adverse environmental impacts or public concern; and
- ensuring all screenings are conducted in accordance with the *Canadian Environmental Assessment Act, 2012*.

Relevant Legislation

- *Waters Act* and Regulations
- Inuvialuit Final Agreement
- *Canadian Environmental Assessment Act, 2012*

Additional Notes

- The Department of Environment and Natural Resources Inspector is directly responsible for monitoring compliance; however, the IWB has some duties to ensure that water licence conditions are met.
- Projects carried out in the ISR are subject to the review process developed by the Environmental Impact Screening Committee.

Environmental Impact Review Board (EIRB)

<http://eirb.ca/about-eirb/>

Water-related Role

(i.e. what the water manager is mandated with doing)

Under the Inuvialuit Final Agreement (IFA), the Environmental Impact Review Board (EIRB) for the Inuvialuit Settlement Region (ISR) is mandated to carry out the public review of development projects referred to it by the Environmental Impact Screening Committee (EISC) when a development could have significant potential negative impact. An EIRB public review is conducted by a panel of the Board. The EIRB makes recommendations to the body empowered to authorize development. Recommendations may include remedial or mitigative measures to minimize impacts. Licences or approvals will not be issued for any proposed development until the environmental impact screening and review provisions of the IFA are followed.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include conducting an assessment and/or public review of proposed developments within and outside the ISR that could have significant negative impact to the environment or resources. All parties, including the Inuvialuit Water Board, are invited to participate and submit comments.

Relevant Legislation

- Inuvialuit Final Agreement
- *Canadian Environmental Assessment Act, 2012*

Environmental Impact Screening Committee (EISC)

www.screeningcommittee.ca/index.html

Water-related Role

(i.e. what the water manager is mandated with doing)

The Environmental Impact Screening Committee (EISC) conducts environmental screening of development activities proposed for the Inuvialuit Settlement Region (ISR). Its primary responsibility is to determine if proposed developments could have a significant negative environmental impact on the ISR, or a significant negative impact on present or future Inuvialuit wildlife harvesting. No government licences or approvals may be issued before the EISC has completed its review.

Development activities considered include: permit or licence applications for mineral exploration and extraction oil and gas exploration/production; municipal or industrial site clean-up and restoration; commercial tourism ventures; and land use associated with government sponsored or funded research.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

The EISC can make one of four determinations with regards to proposed development:

- The development will have no significant negative impact and may proceed without an environmental impact assessment and review under the Inuvialuit Final Agreement (IFA);
- The development, if authorized, is subject to environmental terms and conditions recommended by the EISC, will have no such negative impact and may proceed without an environmental impact assessment and review under the IFA;

- The development could have significant negative impact and is subject to assessment and review by the Environmental Impact Review Board (EIRB) under the IFA; or
- The development proposal has deficiencies of a nature that warrant a termination of its consideration and the submission of another project description.

Relevant Legislation

- Inuvialuit Final Agreement

Aboriginal Governments

www.daair.gov.nt.ca/_live/pages/wpPages/home.aspx

Water-related Role

(i.e. what the water manager is mandated with doing)

Regional Aboriginal governments and First Nations are primary participants in water management in the NWT. Each plays an active role in ensuring water in their traditional territory is well stewarded and that obligations under treaties and land, resource and self-government agreements are fulfilled. Agreements require that the waters flowing through a territory remain substantially unaltered in water quality, quantity and rates of flow.

The stewardship role is championed by various land and resource boards, councils and committees who undertake numerous activities or participate in partnership activities related to water stewardship and watershed management.

Water-related Responsibilities

(i.e. how the water manager accomplishes its mandate)

Responsibilities include:

- reviewing water licence applications, providing comments and/or recommendations to regulatory boards, participating in environmental assessment processes and intervening during public hearings;
- participating, including intervening, in public consultations;
- nominating members to boards (institutions of public government and co-management and advisory bodies) that are involved in making decisions over the land, water and resources in the NWT; and
- decision-making roles outlined under specific land, resource, self-government and other agreements.

Examples of activities undertaken include guiding and participating in land and water-related programs and strategies such as the NWT Water Stewardship Strategy, Cumulative Impact Monitoring Program (CIMP), conservation network planning and Northern Contaminants Program (NCP). Aboriginal governments often lead specific projects and initiatives related to water stewardship through these and other funding programs.

Relevant Legislation

- Land, resource and self-government agreements
- Other agreements, including interim measures agreements
- *Mackenzie Valley Resource Management Act*

Additional Notes

It is important to note that Aboriginal governments have overlapping agreements with other regions and territories. Aboriginal governments must be consulted regarding the development of transboundary water management agreements as per existing land, resource and self-government agreements in the NWT.

Aboriginal governments are also planning partners in land use and watershed planning, including transboundary watersheds.



For more information on the NWT Water Stewardship Strategy and Action Plan,
visit www.enr.gov.nt.ca