

Government of  
Northwest Territories

# FAQ:

## Mackenzie River Basin Bilateral Water Management Agreements





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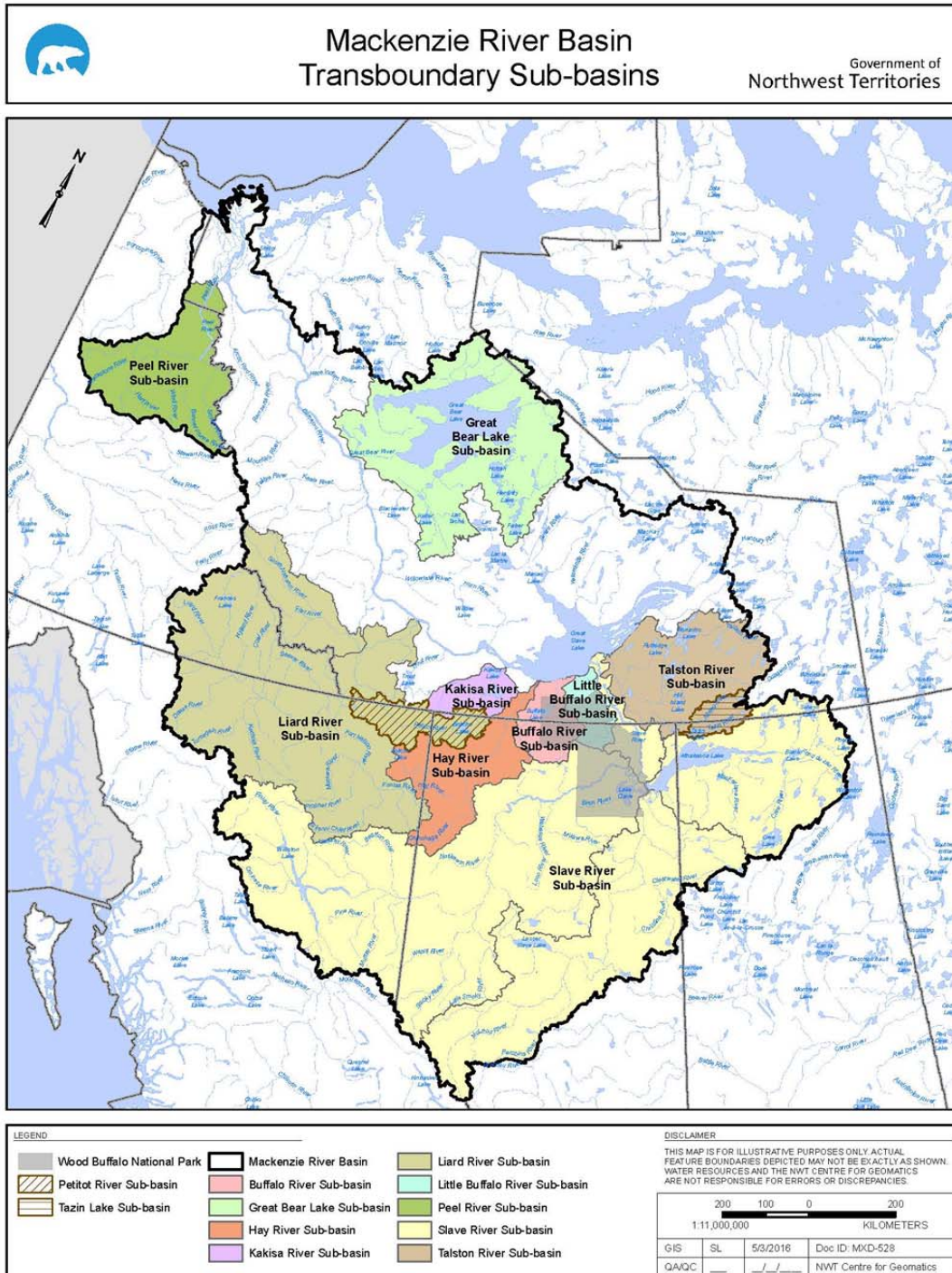
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# Map

Map 1. Mackenzie River Basin Transboundary Sub-basins



## Background

The Northwest Territories (NWT) is the ultimate downstream jurisdiction in the expansive Mackenzie River Basin. Much of the NWT's water resources are influenced by management decisions in the upstream jurisdictions of British Columbia, Alberta, Saskatchewan and the Yukon.

To promote a cooperative approach to water management, the Governments of Canada, NWT, Yukon, British Columbia, Alberta and Saskatchewan signed the *Mackenzie River Basin Transboundary Waters Master Agreement* (Master Agreement) in 1997. The Master Agreement commits all six governments to work together towards cooperative management of the water resources of the entire Mackenzie River Basin and encourages the governments to develop Bilateral Transboundary Water Management Agreements (Bilateral Agreements) which will be attached as schedules to the Master Agreement.

To date, three Bilateral Agreements have been signed between Mackenzie River Basin neighbouring jurisdictions. The NWT-Yukon Bilateral Agreement was signed in 2002 and is anticipated to be revised and updated in the near future. Most recently, the NWT-Alberta Bilateral Agreement was signed on March 18, 2015 and the NWT-British Columbia Bilateral Agreement was signed on October 15, 2015.

The NWT-Alberta and NWT-British Columbia Bilateral Agreements are two of the most comprehensive agreements of their kind. The Department of Environment and Natural Resources (ENR) of the Government of Northwest Territories (GNWT) plans to negotiate similar Bilateral Agreements with the Governments of Saskatchewan and Nunavut, as well as update the Bilateral Agreement between the NWT and the Yukon Territory.

The development of these Bilateral Agreements builds on many years of cooperative water policy and management initiatives by ENR, Aboriginal governments and other water partners, beginning with the development of *Northern Voices, Northern Waters: NWT Water Stewardship Strategy* (NWT Water Strategy). Cooperative efforts on the NWT Water Strategy and other water issues have been invaluable to Bilateral Agreement negotiations with Mackenzie River Basin jurisdictions.

## Why are the Bilateral Agreements important?

Bilateral Agreements are important to both upstream and downstream jurisdictions because they provide a long-term framework to manage shared water resources in the Mackenzie River Basin in a sustainable manner for current and future generations. Bilateral Agreements help to ensure that upstream jurisdictions do not unreasonably harm the aquatic ecosystem of downstream jurisdictions. Bilateral Agreements also commit the jurisdictions to consult, notify and share information on developments that might affect the aquatic ecosystem in other jurisdictions. Bilateral Agreements establish a common and agreed-to set of conditions regarding water quality, water quantity, aquatic life and monitoring that will demonstrate how jurisdictional interests are being achieved.

## How has the public and Aboriginal governments been engaged and consulted throughout the negotiation of Bilateral Agreements?

Engagement with the public and Aboriginal governments about water began before the development of the NWT Water Strategy and has been ongoing locally or regionally through different projects since completion of the NWT Water Strategy in 2010. Engagement and consultation on transboundary agreements built on these earlier discussions about water.

### Engagement and Consultation with Aboriginal governments

The engagement with Aboriginal governments on NWT interests and negotiation principles and the consultation on negotiation positions for Bilateral Agreement negotiations began in 2012 (NWT-Alberta) and 2014 (NWT-British Columbia). What ENR heard through engagement and consultation on the NWT interests and negotiation principles and development of NWT negotiation positions informed the negotiation of Intentions Documents with Alberta and British Columbia. Many consultation meetings and regional workshops on the Bilateral Agreements took place throughout the NWT during the negotiation process. Consultation on the development of negotiation positions with Saskatchewan and the Yukon Territory has also occurred.

The NWT Water Strategy Aboriginal Steering Committee<sup>1</sup> has been updated regularly on progress throughout negotiations. Traditional and local knowledge workshops and long-term and community-based monitoring have also added valuable information to the negotiations process. Input from these processes informed the final NWT-Alberta and NWT-British Columbia Bilateral Agreements and will continue to inform the negotiation or updating (i.e., NWT-Yukon Agreement) of all other Bilateral Agreements.

### Public Engagement

Public engagement on the NWT-Alberta Bilateral Agreement began in 2012 and in 2014 for the NWT-British Columbia Bilateral Agreement. GNWT formally invited public organizations to provide input at different stages in the negotiation process: NWT interests and negotiation principles, development of negotiation positions, and the Intentions Documents which highlight the main commitments of the final agreements. In addition to the ENR and NWT Water Stewardship websites and advertisements on radio and in newspapers, ENR shared updates about the status of negotiations at NWT Water Stewardship Strategy annual workshops, public meetings around the territory, and meetings with specific groups. Public input during this process was important and helped shape the final Bilateral Agreements. Public engagement on the negotiation positions with Saskatchewan and the Yukon Territory has also occurred.

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<sup>1</sup> Members of the NWT Water Strategy Aboriginal Steering Committee are representatives of the GNWT and the regional Aboriginal governments in the NWT.

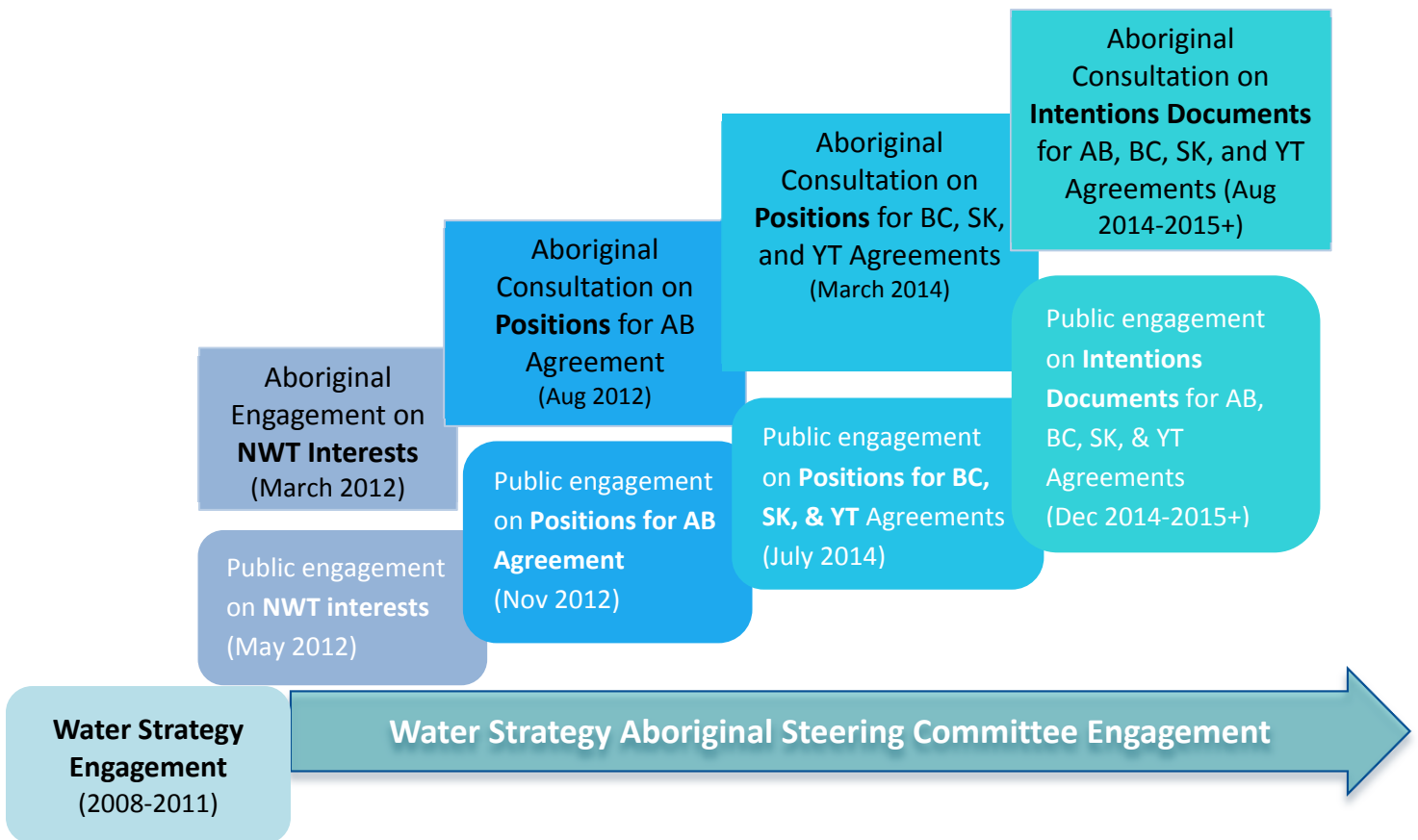


Figure 1. The approach to Aboriginal consultation and public engagement for Transboundary Water Management Agreements builds on engagement for the NWT Water Stewardship Strategy. The Water Strategy Aboriginal Steering Committee was formed in 2009 to guide Water Strategy development and has been engaged throughout the negotiation of Transboundary Water Management Agreements.

### What is the geographic coverage of Bilateral Agreements?

The Bilateral Agreements apply to all water resources, including rivers, deltas, lakes, wetlands and groundwater, which are shared by the Parties to the specific Bilateral Agreement and within the Mackenzie River Basin. The Bilateral Agreements also apply to decisions made anywhere in the Mackenzie River Basin that might affect the ecological integrity of the aquatic ecosystem of the other Party.



## How do the Bilateral Agreements meet NWT interests?

NWT interests were drawn from the *Mackenzie River Basin Transboundary Waters Master Agreement* (1997), the NWT Water Strategy, the treaties<sup>2</sup>, the asserted rights of those without settled land claims, the Inuvialuit Final Agreement, and the Gwich'in Comprehensive Land Claim Agreement, the Sahtu Dene and Metis Comprehensive Land Claim Agreement and the Tãichô Land Claims and Self-Government Agreement, whereby "...waters which are on or flow through or are adjacent to [Gwich'in, Sahtu, Tãichô] lands remain substantially unaltered as to quality, quantity and rate of flow".

The following statements summarize NWT interests. For more information about NWT interests and to view a more comprehensive list, please visit the NWT Water Stewardship website at:

<http://www.nwtwaterstewardship.ca/?q=transboundary>.

- Ecosystems are diverse and support all life now and in the future.
- All generations of all species that live in or use water get what they need from nature.
- All residents have the opportunity to make economic, social and cultural choices about water while the ecosystem remains healthy.
- Our relationships with each other and with nature are positively strengthened.
- The best available information is used to make sound decisions to make sure the aquatic ecosystem of the Mackenzie River Basin is healthy.
- The Bilateral Agreements meet our interests and are legally enforceable.

The GNWT is of the view that the interests of NWT citizens can be met by addressing one fundamental goal shared by all residents of the NWT—that is, ensuring the maintenance of ecological integrity of the aquatic ecosystem of the Mackenzie River Basin. This goal has been consistently expressed in various recent documents including the NWT Water Stewardship Strategy. To protect these interests, ENR has ensured that the NWT-Alberta and NWT-British Columbia Bilateral Agreements:

- Respect Aboriginal and Treaty Rights
- Ensure clean and abundant water for people and aquatic life
- Contain clear principles to protect the ecological integrity of the aquatic ecosystem
- Ensure a balance between development and protection of northern waters
- Create a commitment for jurisdictional cooperation
- Set out clear prior consultation and notification mechanisms
- Provide steps for adaptive management to new information and changing conditions
- Include enforcement mechanisms and dispute resolution process

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<sup>2</sup> The treaties state First Nations have the right to continue their way of life "for as long as the sun shines, the grass grows and the rivers flow."

## How do the Bilateral Agreements ensure that NWT water is protected from upstream development?

A core component of the Bilateral Agreements is the Risk Informed Management approach. The Risk Informed Management (RIM) approach is precautionary and adaptive and is meant to prevent harm and focus on building management responses that are able to adapt to new information as it arises. Under the Risk Informed Management approach, transboundary water bodies are classified into one of four different classes depending on the likelihood of risk to a water body from development, the extent of traditional use, and the sensitivity of its ecosystem, among other factors.

Management actions will intensify with increasing risk depending on the classification of the water body. These actions include:

**Class 1:** Water bodies with no or very low development/use.

**Action:** Other than reporting on any existing monitoring, no additional action is required because there is no foreseeable risk from increased development/use and other factors to the water body.

**Class 2:** Water bodies with moderate level of existing or projected development/use. Water bodies that are stressed or vulnerable (e.g., low flows), support sensitive uses (e.g., traditional uses, drinking water supply, etc.), experience a high degree of conflict or controversy, and/or demonstrate negative conditions or trends may be moved to class 2 at a lower level of development/use than other water bodies.

**Action:** Initiate a learning plan to gather baseline data, to improve understanding of the ecological integrity of the aquatic ecosystem, and to prepare for setting transboundary objectives. Establish and implement joint and/or jurisdictional monitoring programs.

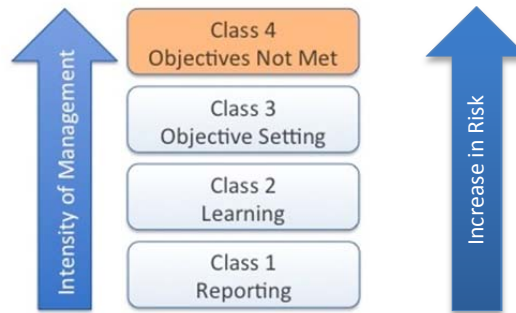
**Class 3:** Water bodies with either high levels of development, or a combination of moderate development with natural vulnerabilities, sensitive uses, use conflicts or controversy and/or negative conditions or trends.

**Action:** Set site-specific transboundary objectives to maintain downstream ecological integrity while allowing for upstream uses. Establish and implement joint and/or jurisdictional monitoring programs.

**Class 4:** The intent of the RIM approach is to prevent any water body from moving to this class. Water bodies in this class have failed to meet Transboundary Objectives and the Ecological Integrity of the Aquatic Ecosystem may not be being maintained.

**Action:** Implement corrective actions as soon as possible in support of meeting the transboundary objectives.

The nature and intensity of Bilateral Management and Jurisdictional Water Management increase from Class 1 to Class 3— for example, varying levels of learning, transboundary objective-setting and monitoring. Class 4 occurs when Transboundary Objectives are not met, indicating that the Ecological Integrity of the Aquatic Ecosystem may not be properly maintained.



## How do the Parties make decisions to ensure that the commitments in the Bilateral Agreements are met?

Once a Bilateral Agreement is signed, a Bilateral Management Committee (BMC) is established to implement and report on the achievements of the Bilateral Agreement. Each BMC has at least one senior water manager from each Party and, for the NWT, one NWT Aboriginal government representative recommended by the Aboriginal Steering Committee. Ongoing monitoring activities, setting transboundary objectives, sharing information, prior notification and consultation, emergency response procedures, dispute resolution, review and amendment, and termination commitments are all ways of making decisions that ensure the Parties meet the commitments of the Bilateral Agreements.

Each Party to the Bilateral Agreements continues to make its own decisions about water and land use within its jurisdiction but will make sure those decisions meet the commitments in the Bilateral Agreements. The Parties agree to cooperate in good faith and take all reasonable actions to achieve the principles of the Master Agreement and the commitments in the Bilateral Agreements. The Parties have agreed that they will work together in a manner that is proactive, timely, transparent, and respectful of each Party's applicable laws.

The Bilateral Agreements include the following provisions to ensure that the commitments of the Bilateral Agreements are met:

- Transboundary effects are taken into account and reasonably addressed in regulatory decision-making.
- All relevant information is shared.
- The downstream jurisdiction is consulted before decisions on upstream developments are made.
- The upstream jurisdiction does not make decisions that cause unreasonable harm to NWT's aquatic ecosystem.
- There is clear communication and procedures between the Parties in the event of water-related emergencies.
- There is a clear understanding about what actions will occur if transboundary objectives are not met, including, if required, mitigation of negative impacts on the aquatic ecosystem.
- There is a formal dispute resolution process.

- All existing legal actions remain available to both Parties at all times.

### How do the Bilateral Agreements respect Aboriginal and Treaty Rights?

The Bilateral Agreements respects comprehensive lands, resources and self-government agreements, and any other existing or future Aboriginal and treaty rights. A primary goal of the GNWT while negotiating the NWT-Alberta and NWT-British Columbia Bilateral Agreements, and through implementation now and in the future, is to make sure that waters of the NWT are “*substantially unaltered as to quality, quantity, and rate of flow*”. This is in line with existing land claim agreements and treaty obligations and ensures that future agreements for unsettled land claim areas will be able to commit to nothing less than this standard.

The Bilateral Agreements respect Aboriginal and treaty rights in the following ways:

- Site-specific water quality objectives will be set for class 3 transboundary waters (i.e., Slave River and Hay River as per the NWT-Alberta Bilateral Agreement) to ensure healthy aquatic ecosystems and safe drinking water.
- Learning Plans will be developed for the Liard and Petitot Rivers (class 2) for water quality and groundwater quality.
- Only small amounts of water can be removed from transboundary waters, which ensure healthy aquatic ecosystems and allows for safe travel and hunting.
- Biological indicators will be set for class 3 transboundary waters to ensure that fish and other aquatic organisms are monitored and that fish are safe to eat.
- Traditional use is taken into account when classifying transboundary water bodies.
- Scientific and traditional knowledge will be considered in learning plans, research, monitoring, and setting of transboundary objectives.
- Decision-making mechanisms, such as prior notification, consultation and information sharing, respect Aboriginal and treaty rights.
- The Parties committed that the Bilateral Agreements will not “abrogate or derogate from”—that is, negatively impact—Aboriginal and treaty rights.

### How do the Bilateral Agreements protect surface water quantity?

Northerners have expressed concern about changes in water levels and timing of flows and effects of these changes on ways of life; upstream water use; effects of past and proposed development; and interbasin transfers.

The Bilateral Agreements describe how water is shared between the Parties. For every transboundary water body, the Parties classify, monitor, create learning plans, and set water quantity objectives as part of the Risk Informed Management approach. These objectives make sure the aquatic ecosystem continues to receive the water it needs to remain healthy. Any water that is available after the needs of the ecosystem have been met is shared evenly between the jurisdictions. Triggers or thresholds are established to make sure appropriate action is taken before an objective is violated.

Permanent removal of water from the Mackenzie River Basin is prohibited except in extraordinary circumstances as defined in each jurisdiction's existing legislation. Even in such extraordinary

circumstances, flow requirements at the NWT border and the information, notification and consultation requirements still have to be met.

For waters that we share directly with Alberta and BC, new water storage upstream will not occur without prior consultation with the NWT. The Bilateral Agreements do not address the effects of past actions (e.g., the Bennett Dam). The effects of past actions are outside the scope of the Bilateral Agreements but can be addressed by the Parties in the future, by other means, if they choose.

### **How do the Bilateral Agreements protect surface water quality?**

Northerners have expressed concern about potential effects of past, present and proposed upstream development on NWT's water quality. These concerns have led to questions of whether the fish are safe to eat and the water is safe to drink. People also are concerned that water temperatures are getting warmer and affecting fish health.

The commitments in the Bilateral Agreements are meant to protect the quality of water flowing into the NWT through a proactive and precautionary approach. For every transboundary water body (class 2 or above), the Parties monitor, create learning plans, and set water quality objectives in accordance with the RIM approach. The water quality objectives are site-specific—based on the long-term data from the specific river—and are set to address the seasonality, use of, and level of risk to, that water body.

For class 3 water bodies water quality objectives are set at a suitably protective level, depending on the kind of substance as described below. A series of early warning signals, or “triggers”, exist to make sure appropriate action is taken well before an objective is violated.

During the negotiations, it was recognized that different chemical substances pose different risks and therefore have to be treated differently:

- Certain human-made substances—such as some pulp mill chemicals—can remain in the environment for a long time and can be harmful to aquatic life and to human health, either through direct consumption or through the consumption of aquatic plants and animals. The goal is to have the levels of these substances in water be at or lower than the levels that laboratory analysis equipment can detect.
- Some substances come from natural sources and human sources—for example, hydrocarbons (oil and gas chemicals) and mercury. The goal for these substances is to keep their levels within their natural range. In these cases, the goal is to avoid any further water quality degradation.
- Some substances are not necessarily toxic but can affect certain water uses, including traditional uses. For example, excess nutrients—such as phosphorous—can cause more algae to grow. Too much algae reduces the level of dissolved oxygen available for fish in the water. The goal for these substances is to keep their levels below the level that could harm the most sensitive use, such as aquatic life.

## How do the Bilateral Agreements protect groundwater?

Groundwater collects, flows, or freezes beneath the earth's surface, filling the spaces in soil, sediment, and rocks. Northerners have expressed concern about the lack of information about groundwater in the NWT and transboundary regions, permafrost (frozen groundwater) melting, and the potential effects of oil and gas activities, particularly hydraulic fracturing, on groundwater.

The Parties to the Bilateral Agreements have agreed to use and share groundwater reasonably and equitably according to internationally used principles. However, the commitments in the Bilateral Agreements recognize that there is currently limited information on groundwater and learning about groundwater is expensive. Therefore, the Parties will follow the Risk Informed Management approach—classify groundwater bodies, monitor, share information on groundwater, create learning plans, and set water objectives as appropriate according to the level of risk—but baseline information about groundwater will be gathered on a case-by-case basis as use and/or development is proposed or increased. As development or other pressures on transboundary groundwater are predicted, the Parties will develop joint learning plans to gain better understanding about groundwater in those areas. Groundwater quality or quantity objectives, where set, will depend on the use of, and the level of risk to, groundwater.

## How do the Bilateral Agreements protect fish, animals, and humans?

Northerners have expressed concerns about the health of fish and wildlife, changes in fish and wildlife populations, such as those for beavers, muskrat, moose, wolves, and birds, and about whether fish and wildlife are healthy and safe to eat. Unhealthy fish and wildlife affect traditional and local ways of life.

The commitments in the Bilateral Agreements for the biological components of aquatic ecosystems are intended to protect the ecological integrity of the aquatic ecosystem and to be proactive. The biological components include fish, animals and people and how they relate to one another. The commitments include:

- Safe objectives for water quality and quantity that are protective of ecological integrity
- Establishment of biological indicators and, if necessary, the development of biological objectives and related actions (class 3 water bodies)
- Application of the Risk Informed Management approach to better understand the links between water quality, water quantity, groundwater, airborne pollution, biology and human health

Changes in the biological indicators—for example, fish health—may require changes in management actions. These actions include reviewing, setting or revising surface and groundwater quality and quantity objectives or developing biological objectives. The Parties will monitor these indicators and manage their water and land use to meet the objectives for class 3 water bodies.

## How do the Bilateral Agreements address pollution from the air?

Northerners have expressed concerns about air pollutants from upstream jurisdictions that settle into NWT water bodies and cause water pollution. NWT residents are also concerned pollutants from the air are harming plants and the animals eating those plants.

There are a number of provisions that pertain to airborne pollution, including:

- Transboundary water quality monitoring measures pollutants that have entered the water from numerous sources, including air.
- Through the learning plans, the Parties will assess the influences of air emissions on water including local and long-range transport of atmospheric pollutants.
- Learning plans also address knowledge gaps and establish baseline conditions for pollutants being deposited from air into the water body, either directly or from runoff and melting snow.
- Research provisions could consider the mechanisms for long-range transport of airborne pollutants from outside the Mackenzie River Basin.

## How do the Bilateral Agreements address climate change?

Northerners have expressed concern about climate change effects, including:

- Permafrost melting, leading to slumping and releases of substances into water, which can affect fish health
- Changes in fish reproduction and populations, which can affect subsistence and commercial fishing
- Water level changes in some seasons, changes in ice formation and break up, and changes in the frequency and magnitude of precipitation events
- Human health issues

The Bilateral Agreements do not have one specific section that addresses climate change. The negotiators studied the issue in considerable detail, consulted with several outside experts, and decided that each whole Bilateral Agreement needed to be responsive to a changing climate.

The Bilateral Agreement commitments that address climate change impacts are:

- Protective and precautionary water quantity and quality objectives have been or will be set when needed to ensure the maintenance of aquatic ecosystem health, and to allow the Parties the flexibility to adapt to climate change impacts as they occur.
- Bilateral management under the Risk Informed Management approach is based on the most up-to-date knowledge, including information about climate impacts.
- Classification of water bodies accounts for the risk from climate change.
- Continual monitoring at the borders and other priority locations in the Mackenzie River Basin helps to assess the impacts of climate change on the health of the basin.
- Proactive identification of research needs in support of bilateral management, including research on climate change.

- Commitments in the Bilateral Agreements are designed to be adaptive and responsive to new information and changing conditions, which includes information related to climate change.

### Where can you access more information?

Contact: [NWTWaterStrategy@gov.nt.ca](mailto:NWTWaterStrategy@gov.nt.ca)

Website: [www.nwtwaterstewardship.ca/?q=transboundary](http://www.nwtwaterstewardship.ca/?q=transboundary)





