

## Implementation Highlights of Inaugural Year

### Mackenzie River Basin Bilateral Water Management Agreement Between the Government of Alberta and the Government of the Northwest Territories

March 2017

#### Transboundary water management in the Mackenzie River Basin

To promote a cooperative approach to water management, the Governments of Canada, British Columbia, Alberta (AB), Saskatchewan, the Northwest Territories (NWT) and Yukon signed the *Mackenzie River Basin Transboundary Waters Master Agreement* (Master Agreement) in 1997. The Master Agreement commits all six governments to work together to maintain the ecological integrity of the aquatic ecosystem of the entire Mackenzie River Basin and develop Bilateral Water Management Agreements (Bilateral Agreements).

Bilateral Agreements are important to both upstream and downstream jurisdictions because they:

- Provide a framework to manage shared water resources in the Mackenzie River Basin (MRB) in a sustainable manner for current and future generations.
- Help to ensure that upstream jurisdictions do not unreasonably harm the aquatic ecosystem of downstream jurisdictions.
- Commit the jurisdictions to consult, notify and share information on developments that might affect the aquatic ecosystem in other jurisdictions.
- 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.
- Establish Learning Plans and reporting schedules to inform decision making and preserve aquatic ecosystem integrity throughout the MRB.

*The AB-NWT  
Bilateral  
Agreement was  
signed on  
March 18, 2015.  
It is one of  
the most  
comprehensive  
agreements of  
its kind.*

*Members of the Bilateral Management Committee are:*  
*Mr. Rick Blackwood, Government of Alberta Member*  
*Dr. Erin Kelly, Government of Northwest Territories Member*  
*Mr. Tim Heron, NWT Aboriginal Member*

## First year implementation highlights

Since signing the AB-NWT Bilateral Agreement, both jurisdictions have begun collaborative implementation of the Agreement. An update on progress of key commitments is provided below.

- AB and NWT have appointed government members to the Bilateral Management Committee (BMC); NWT has also appointed an Aboriginal BMC member.
- The BMC had their first meeting on May 11, 2016.
- An Emergency Notification mechanism has been established between AB and NWT.
- The Hay River Basin State of the Aquatic Knowledge report informs the Learning Plan for the Hay River (complete).
- The Preliminary State of Groundwater Knowledge in the Transboundary Regions of the Mackenzie River Basin, NWT contributes to Learning Plans and informs the classification of transboundary groundwater (complete).
- The Slave River Delta State of Knowledge and Vulnerability Assessment reports contribute to biological indicator development for the Slave River (complete).
- A literature review of traditional knowledge research for the Slave and Hay River sub-basins through the Tracking Change research project contributes to Learning Plan development (complete).
- A technical workshop with MRB jurisdictional representatives and subject matter experts was held to advance discussions on methods to derive site-specific water quality triggers and objectives.
- An update to the MRB Hydraulic Model with recent water quantity monitoring data will help increase understanding of climate influences on flows and water levels versus water use impacts throughout the basin (in progress).
- Alberta's Lower Athabasca Regional Plan contributes to the Learning Plans and informs the classification of transboundary waters.
- Work to develop a mobile app to record navigation conditions in the Peace-Athabasca Delta will inform Learning Plans and incorporate traditional knowledge.



Slave River, GNWT

## Five-year implementation plan

The BMC will meet annually, in person. It is supported by a technical committee, which may meet more frequently. Over the next five years, the committees will continue to pursue the commitments in the Bilateral Agreement, including:

- Annually reviewing transboundary water classification (currently the Slave and Hay Rivers are classified as Class 3).
- Identifying and implementing ways to synthesize and blend traditional and local knowledge, western science and social science, and other forms of knowledge relevant to the setting and assessment of transboundary objectives.
- Exchanging information about the ecological integrity of the aquatic ecosystem.
- Exchanging information about current and future development and activities.
- Working towards developing transboundary objectives:
  - Establishing and implementing Learning Plans for the Hay and Slave Rivers.
  - Developing tracking metrics for the Slave and Hay Rivers – for example, tracking metrics for consumptive water use, water allocations and river flow, including during low flow conditions.
  - Annually reporting on tracking metrics, interim triggers and thresholds in the Agreement for the Hay and Slave Rivers.
  - Addressing methodological questions about interim water quality triggers.
  - Reviewing all mercury data from the Slave and Hay Rivers to determine interim triggers for mercury.
  - Achieving consistency on methods to derive water quality objectives, and deriving water quality objectives.
  - Conducting a scoping study to consider the effects of climate change in setting and monitoring of transboundary objectives.
  - Improving monitoring programs, where necessary, to facilitate Learning Plans and demonstrate that jurisdictions are meeting transboundary objectives.

*“We need to work together across borders to preserve healthy water for ecosystems and the future.”*

*- Tim Heron*



Hay River, GNWT

*This highlights report reflects activities in the first year of implementation, including the establishment of Bilateral Management Committee processes.*

*Work is underway on a more comprehensive annual report, to be available in the next few months.*

## Current water monitoring near the AB-NWT border

Interpreting results of water quantity and quality monitoring is necessary to ensure Bilateral Agreement commitments are being met. The following lists identify current water quantity and quality monitoring sites near the AB-NWT border:

### **Water quantity sites to be used for assessment related to transboundary objectives:**

- Hay River near Hay River
- Hay River near AB-NWT Boundary
- Slave River at Fitzgerald

There are also five NWT and 57 AB water quantity stations in the transboundary area that are important for regional and basin-level monitoring. The data from these sites can also be used to inform AB-NWT transboundary conditions.

### **Water quality sites to be used for assessment related to transboundary objectives:**

- Hay River near AB-NWT Border
- Slave River at Fort Smith
- Slave River at Fitzgerald, AB

There are also seven NWT and 23 AB water quality sites in the transboundary area that are important for regional and basin-level monitoring. The data from these sites can also be used to inform transboundary conditions.

### **For more information:**

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

<http://aep.alberta.ca/water/education-guidelines/mackenzie-river-basin-bilateral-water-management-agreements.aspx>

[nwtwaterstrategy@gov.nt.ca](mailto:nwtwaterstrategy@gov.nt.ca) or [AEP.TWS@gov.ab.ca](mailto:AEP.TWS@gov.ab.ca)