

Mackenzie River Basin Bilateral Water Management Agreement between the Government of British Columbia and the Government of Yukon:

Annual Implementation Report: 2019 -2020

March 2021



DAYLU DENA COUNCIL

KWADACHA NATION

Table of Contents

Bilateral Water Management Agreement (BWMAs): Four years of progress	3
Key Highlights	4
Next Steps	4
Five-year Implementation Plan	5
Current Water Monitoring in the Liard Sub-Basin	6
For more Information:	8

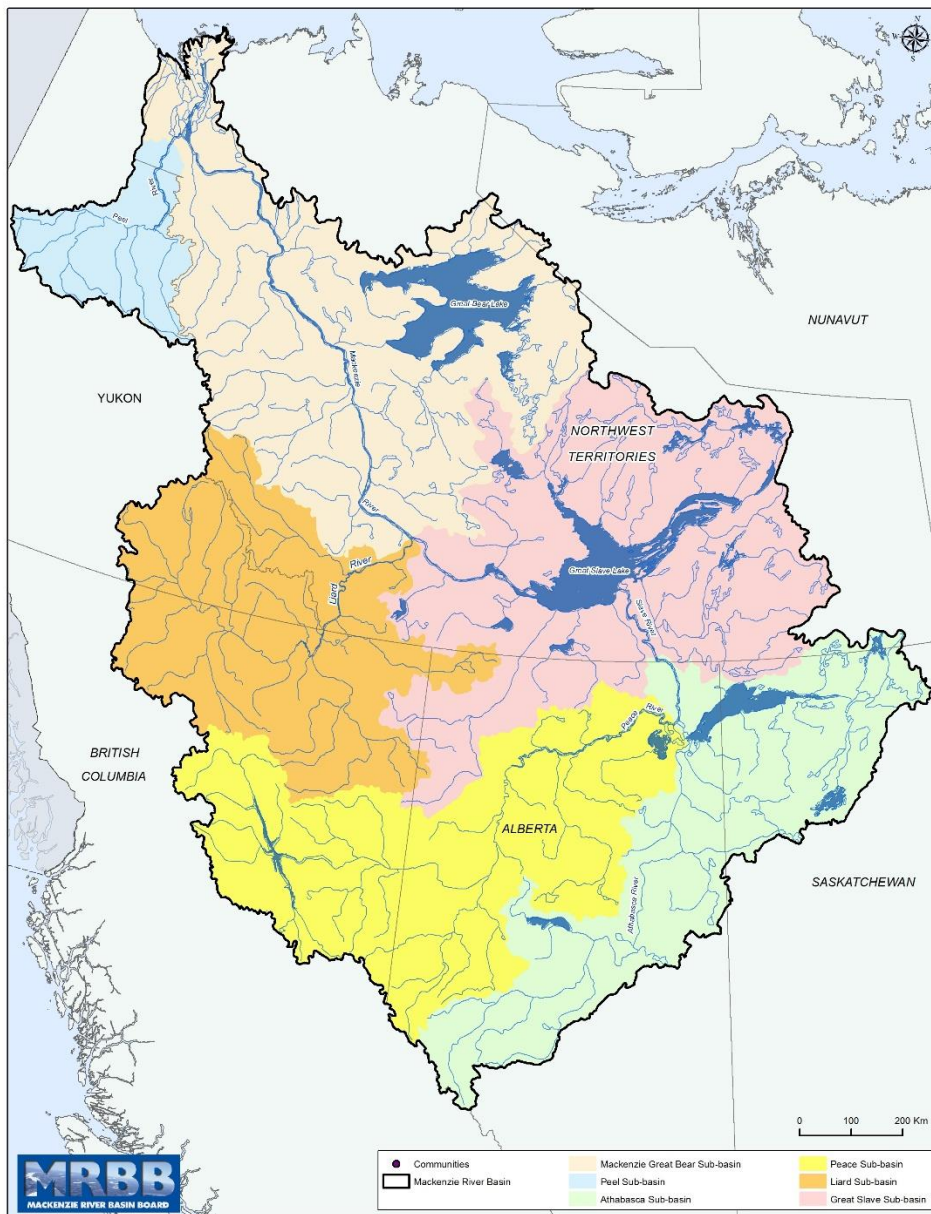


Figure 1 Map of Mackenzie River Basin (PDF file - double click for high resolution)

Bilateral Water Management Agreement (BWMA): Four years of progress

The BC - Yukon BWMA was signed in 2017. Within it, BC and Yukon agree to be proactive and to facilitate joint learning that will inform actions on transboundary waters. Technical details related to learning, transboundary objective setting, monitoring and management actions are set out in the Appendices to the Agreement. Transboundary waters for this Agreement refer to those within the Liard sub-basins, in which there are 19 transboundary rivers and streams.



Figure 2: Monitoring in the Liard watershed

A Bilateral Management Committee (BMC) was formed in early 2019 to administer the BWMA. Representatives from Acho Dene Koe First Nation, Dena Kayeh Institute and Tahltan Central Government confirmed their membership on the BMC. Teslin Tlingit Council indicated their interest in participating as a guest.

What are Bilateral Water Management Agreements?

The [Mackenzie River Basin Transboundary Waters Master Agreement](#), signed in 1997, commits the Governments of Canada, the NWT, Yukon, British Columbia, Alberta and Saskatchewan to work together to ensure cooperative management of the water resources of the Mackenzie River Basin. It also commits these jurisdictions to negotiate Bilateral Water Management Agreements (BWMA) for transboundary waters.

BWMA provide a framework for neighbouring jurisdictions to work together with other partners in order to maintain the ecological integrity of the aquatic ecosystem. While each BWMA is unique based on local contexts and interests, all have the same objectives of:

- Ensure cooperative watershed management among the jurisdictions which share the water resources of the Mackenzie River Basin,
- Sustain the ecological integrity of the aquatic ecosystems of the Mackenzie River Basin,
- Facilitate equitable and sustainable use of shared water resources by establishing criteria and desired outcomes that address water consumption, flows, quality, ground water management and aquatic ecosystem health commitments.

Bilateral Management Committees are established to support administration and implementation of each BWMA.

Key Highlights

Establishing and formalizing a BMC

cooperative watershed management

- One face-to-face multi-day meeting in Lower Post, British Columbia.
- Five meetings by teleconference to support administration of the BMC and development and implementation of the work plan.
- Finalization of Terms of Reference to guide BMC in administration and collaboration.

Advancing collaboration

cooperative watershed management

- A sharepoint page was established to support exchange of materials between members
- Roundtable updates are shared at every meeting. During the multi-day face-to-face meeting, more comprehensive overviews of monitoring activities were shared.
- An implementation work plan was drafted in 2019, with further updates made in 2020.

BWMA Implementation

protecting ecological integrity

- During the development of the BWMA, 19 transboundary water bodies were identified, and classified under the Risk Informed Management Approach. Of those, 17 transboundary waters classified as “Class 1” and two transboundary waters classified as “Class 2.”
- It was identified that the methodology used to classify transboundary waters did not meaningfully include local and indigenous knowledge. A technical committee has been established and is working in collaboration to alter the classification approach, and reclassify transboundary waters.

Next Steps

- Teleconference meeting in February 2021
- Finalizing a methodology for re-classification of transboundary water
- Reclassification of transboundary waters
 - Development of learning plans and other activities based on classification
- Establishing a framework for Indigenous and local knowledge sharing

Members of the Bilateral Management Committee

Christine Creyke, Lands Director,
Tahltan Central Government

Corrine Porter, Executive Director,
Dena Kayeh Institute

Frank Kotchea, Local Committee
Member, Acho Dene Koe First
Nation

Heather Jirousek, Director, Water
Resources Branch, Yukon
Department of Environment

Ted Zimmerman, Executive
Director, Water Protection and
Sustainability Branch, BC Ministry
of Environment and Climate
Change Strategy

Five-year Implementation Plan

Since signing the BC-Yukon BWMA in 2016, Parties and members have worked collaboratively to begin implementation of the BWMA. Moving forward, the BMC will strive to meet annually, in person. The BMC is supported by a technical committee, which will meet more frequently, as needed. Over the next five years, the committees will continue to pursue the commitments in the Agreement, including:

- Share Implementation report annually
- Finalize revised classification methodology
- Exchange of information on Class 1 transboundary waters
- Development of Learning Plans for Class 2 transboundary waters



Alternates, Guests and Support staff of Bilateral Management

Hannah Turner,
Natural
Resource
Manager, Teslin
Tlingit Council
(guest)

Sean Moore,
Director, B.C.
Ministry of
Environment
and Climate
Change Strategy

Megan
Buckham, Lands
Manager, Acho
Dene Koe First
Nation

Shawn
Ducharme, Lands
and Resource
Technician,
Tahltan Central
Government

Emma Seward,
Program
Advisor,
Government of
Yukon

Heike Lettrari, Policy
Analyst, BC Ministry of
Environment and Climate
Change Strategy

Current Water Monitoring in the Liard Sub-Basin

Long-term monitoring is critical to understand whether changes are taking place in the natural environment. Long-term datasets can reveal important patterns, which allow trends, cycles and rare events to be identified. This is particularly important for complex, large systems such as the Liard River, where signals may be subtle and slow to emerge. With increasing variability in hydrological regimes associated with increasing climatic variability, long-term monitoring is very important. The primary goals of water quantity and quality monitoring of transboundary waters are to track changes in water quantity and quality over time, determine anthropogenic and natural drivers for change, and ensure that sufficient water is available and of good quality for all downstream uses.

	Name and location
Surface Water Quantity	Hyland River at kilometer 108.5 Nahanni Range Road
	Frances Lake at kilometer 171.4 Robert Campbell Highway
	King Creek at kilometer 20.9 Nahanni Range Road
	Liard River below Scurvy Creek
	Frances River near Watson Lake
	Tom Creek at kilometer 34.9 Robert Campbell Highway
	Rancheria River near the mouth
	Big Creek at km 1084.8 Alaska Highway
	Beaver River below Whitefish River
	Liard River at Upper Crossing
	Labiche River at Yukon/BC Boundary
	Cosh Creek
	Contact Creek - Upper
Tom Creek	
Surface Water Quality	Liard River at Upper Crossing
	Beaver R. d/s Whitefish R.
	Tributary of Beaver @ border
	LaBiche R. u/s gas plant
	LaBiche R. d/s gas plant
	Tributary of Labiche R u/s gas plant
	Tributary of Labiche R d/s gas plant
	Tributary of Labiche R near gas plant
Sphinx Creek at Upper Well Site	
Groundwater	Nahanni Range Road Campground Well
	Simpson Lake Campground Well-2
	Kotaneelee Gas Plant Well
	Watson Lake Campground Well-1
	Watson Lake Well
	Beaver River bank seep
	Labiche River drive point well #2
	Labiche River drive point well #6
Monitoring Well near gas plant	
Snowpack	Hyland River B
	Hyland River
	Tintina Airstrip
	Ford Lake
	Frances River
	Watson Lake Airport

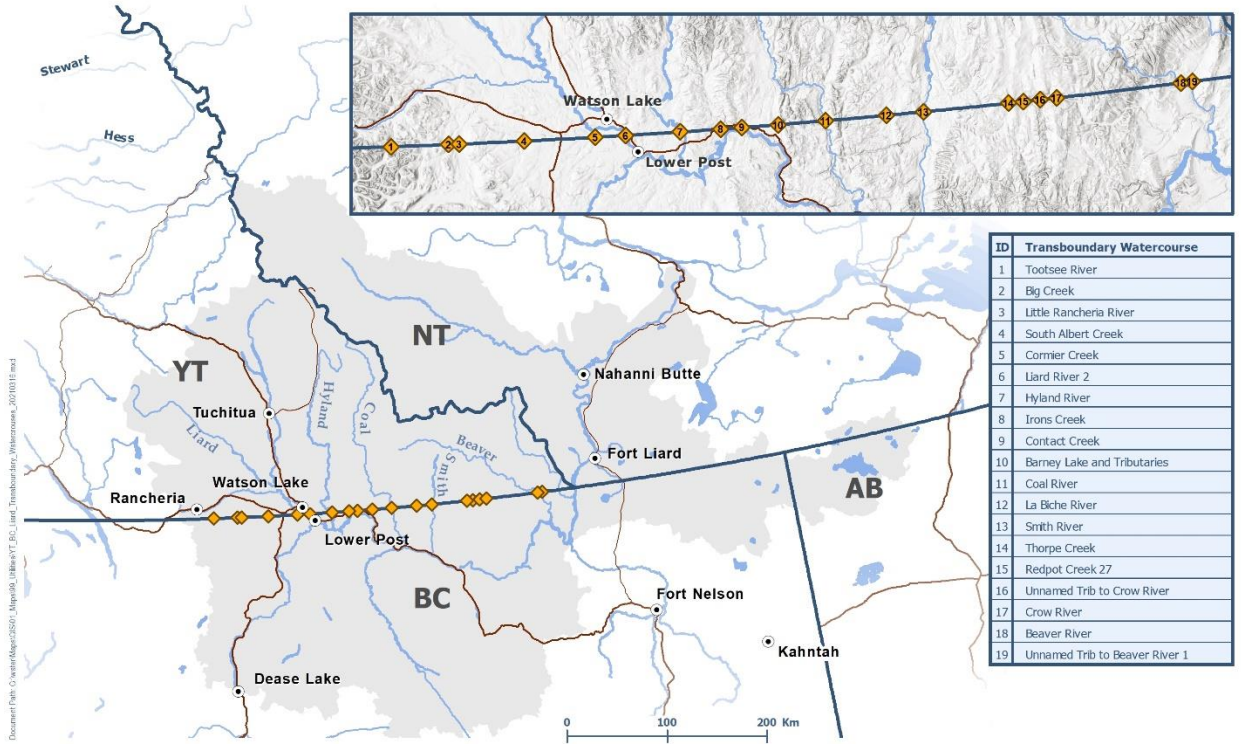


Figure 4 The BC-YT BWMA refers to 19 different transboundary waters.

For more Information:

<p>British Columbia</p>	<p>https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-planning-strategies/water-management-agreements Questions? You can email: livingwatersmart@gov.bc.ca <u>Additional information:</u></p> <ul style="list-style-type: none"> • B.C. Water Portal for Water Quality and Water Quality Monitoring • B.C. Provincial Groundwater Observation Well Network • B.C. Lake Monitoring Program <ul style="list-style-type: none"> ○ B.C Lake Monitoring Data • B.C. Biomonitoring • B.C. Groundwater Wells and Aquifers (GWELLS) • B.C. Groundwater Review Assistant • B.C Aquifer Stress Tool • Provincial Snow Survey Program <ul style="list-style-type: none"> ○ Open Snow Station Data (automated) ○ Open Snow Station Data (manual) • Northeast Water Tool • B.C. Climate Related Monitoring Program • B.C. Environmental Assessment Office • B.C. Groundwater Environmental Reporting Indicator
<p>Yukon</p>	<p>https://yukon.ca/en/science-and-natural-resources/research-and-monitoring/water-research-and-assessments#projects Questions: You can email: water.resources@gov.yk.ca</p> <ul style="list-style-type: none"> • Yukon Water Data Catalogue • Yukon Water Well Registry • Yukon Water Research and Assessments
<p>Tahltan Central Government</p>	<p>https://tahltan.org/</p>
<p>Acho Dene Koe First Nation</p>	<p>http://www.adkfirstnation.ca/community/</p>
<p>Kaska Dena Council</p>	<p>https://kaskadenacouncil.com/</p>