



Implementation Highlights | 2022-2024

Peel River/Mackenzie Delta

Bilateral Water Management Agreement



Photo: Members of the Peel Bilateral Management Committee in June 2024.

The Yukon and Northwest Territories have an agreement to help maintain the health of the Peel and Mackenzie Delta watershed. Indigenous and territorial governments work together to take action to advance the commitments and objectives of this agreement.



How is the agreement being put into action?

The Peel River/Mackenzie Delta Bilateral Water Management Agreement was signed in 2022. This agreement includes commitments to protect the ecological integrity of the watershed on the Yukon and Northwest Territories sides of the border. For background on the agreement, please click [here](#).

Establishing the Bilateral Management Committee

In late 2022, Indigenous governments and Indigenous organizations in the basin were invited to participate on the Bilateral Management Committee (BMC) to implement the agreement. The BMC had its first virtual meeting in June 2023, and its first in-person meeting in Inuvik, NWT, in October 2023.

BMC members include:

- Julian Kanigan, Government of the Northwest Territories (GNWT)
- Chris Gruben, Inuvialuit Regional Corporation (IRC)
- Kanda Gnama, Gwich'in Tribal Council (GTC)
- Heather Jirousek, Government of Yukon (YG)
- Ty Styner, Tr'ondëk Hwëch'in (TH)
- Millie Olsen, First Nation of Na-cho Nyäk Dun (FNNND)

Classification of Rivers

When the agreement was written, waters in the basin were classified based on level of risk to the health of the waters and those that depend upon it. Risk is determined based on development pressure, traditional use, and sensitivity of the water bodies. More action is needed for rivers at greater risk.

- ❖ The Peel River is a Class 2, which means it is a river of concern based on high traditional use and changing trends in water quality and quantity.
- ❖ The Mackenzie Delta is a Class 1, meaning there is little to no development.

The BMC has not re-classified any rivers to date.

Developing a Terms of Reference

The BMC has spent much of its first meetings developing Terms of Reference outlining how the committee will work together in the future. The Terms of Reference is slated for approval in early 2025.

Meeting on the Land

In June 2024, the BMC held an in-person meeting in Dawson City, YT. On the first day of the meeting, members had also the opportunity to attend part of a Water Summit hosted by Tr'ondëk Hwëch'in, which included a traditional water song and a lesson in the Han language. The second day was held in Tombstone Park, which is located near the continental divide marking the border between the Yukon and Peel River watersheds. The BMC was grateful to Tr'ondëk Hwëch'in for hosting the meeting in their territory, and the chance to deepen relationships by visiting the watershed.

Notification

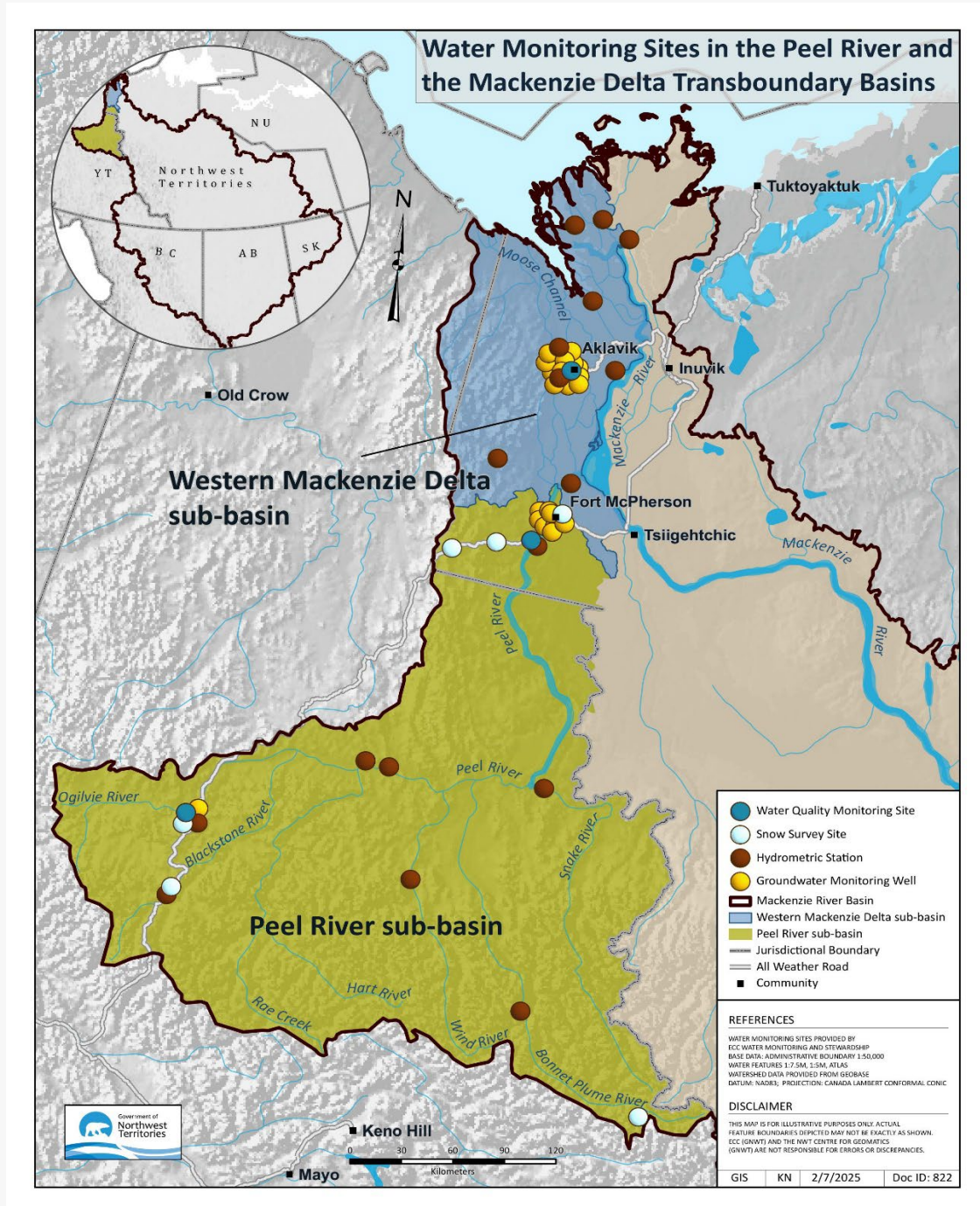
The agreement outlines a commitment to share information on spills, development activities and monitoring or research that relates to the health of waterways flowing across the border. Work is underway by the committee to refine what the notification process looks like.

Sharing Information

During BMC meetings, members share information about what is happening in the basin. Here are some highlights of what is going on in the watershed.

	<i>Iron Bacteria in Surface Water</i> In recent years, rusty-brown masses have been observed in the Peel, Arctic Red, and Mackenzie Rivers. GNWT is working with communities to monitor Red/Orange masses on Peel, Arctic Red and Mack Rivers. To date the masses have been identified as iron bacteria. <i>For more information;</i> https://www.hss.gov.nt.ca/sites/hss/files/resources/iron-bacteria-fact-sheet-en.pdf
	<i>Changing Streams</i> Researchers and communities have been noticing some streams along the Dempster and in the Peel River region changing colour. Permafrost thaw is likely responsible for changing the water chemistry leading to higher acidity, changes in colour, and more heavy metals in the water. <i>For more information: Check out journal articles here and here to learn more about the phenomenon.</i>
	<i>Research Snapshot: Impacts of Permafrost Thaw Slumps Extent, Severity, and Persistence on Stream Biotic Health</i> Collaborative research took place in 2021 and 2022 to investigate impacts of permafrost slumping on water quality, benthic macroinvertebrate communities, fish communities and ecosystem function by advancing research on previously studied thaw slumps within the Stony Creek Watershed. <i>For more information:</i> Check out a summary of the project, the final report, and YouTube video on the project.
	<i>Monitoring Snapshot</i> Tr'ondëk Hwëch'in Government, in collaboration with Yukon Government Water Resources Branch, have conducted monthly water sampling on the Eagle and Ogilvie Rivers within the Peel watershed since 2016. This monitoring is part of the Environment and Climate Change Canada Canada-Yukon Water Quality and Aquatic Ecosystem Monitoring Agreement.

Peel River and Mackenzie Delta Map



Map: Water Monitoring Sites in the Peel River and the Mackenzie Delta Transboundary Basins

What's next?

The BMC has developed a workplan for the 2024/25 year, which includes:

- ✓ Exploring options for engagement with communities.
- ✓ Gathering available Indigenous Knowledge and Western Science to inform a learning plan for the Peel River.