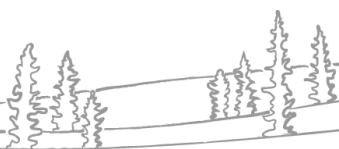


NWT Water Monitoring Spring Break-Up Report

May 19, 2026 at 11:00

Surveillance des eaux aux TNO Rapport sur la débâcle printanière

19 mai 2026 à 11 h



NWT break-up reports will be published routinely as break-up unfolds. These reports will focus on regions with active snowmelt and ice break-up. The geographic focus of the report will shift as conditions change. Additional information about basin conditions can be found in the 2026 Spring Water Outlook, [available here](#). If you have any photos or information about break-up in your community, feel free to reach out to us: nwtwaters@gov.nt.ca.

Current Status:

- Break-up along the Lower Mackenzie River is complete.
 - According to optical satellite imagery, ice jams on the Lower Mackenzie River and Arctic Red River have released and river ice has passed downstream.
 - The ice front is now downstream of Point Separation at the start of the Mackenzie Delta.
- Break-up along the Peel River is near complete.
 - Water levels rose on May 18, above those from the previous peak on May 9. However, there is now an issue with the water level sensor and data is being suppressed.
 - According to optical satellite imagery acquired on May 17 and gauge photos on May 18, an ice jam that was upstream of the ferry crossing released around May 18.
- Average temperatures are forecast for the next 7 days for Fort McPherson, Aklavik and Inuvik
 - The clearing of river ice along the Peel River and the Lower Mackenzie River is also dependent on break-up in the delta, as intact Mackenzie Delta ice is likely limiting break-up progression upstream.
 - A small-moderate rain event (~10-20 mm) is forecast starting Wednesday through to Thursday in the Peel River basin upstream of the Yukon border. There is potential for water levels to increase slightly, but remain within normal ranges.

Nous publierons régulièrement des rapports sur la débâcle aux TNO au fur et à mesure de l'évolution de la situation. Ces rapports se concentreront sur les régions où la fonte des neiges et la débâcle sont en cours. Nous changerons de région géographique en fonction de l'évolution de la situation. Vous trouverez des informations complémentaires sur l'état du bassin dans l'Aperçu des eaux printanières 2026, [disponible ici](#). Si vous avez des photos ou des renseignements en lien avec la débâcle dans votre collectivité, n'hésitez pas à communiquer avec nous à l'adresse suivante : nwtwaters@gov.nt.ca.

Situation actuelle

- La débâcle est terminée sur le cours inférieur du fleuve Mackenzie.
 - Selon les images satellites optiques, les embâcles sur le cours inférieur du fleuve Mackenzie et sur la rivière Arctic Red se sont rompus, et la glace s'est déplacée vers l'aval.

- Le front glaciaire se trouve maintenant en aval de Point Separation, à l'entrée du delta du Mackenzie.
- La débâcle est presque terminée sur la rivière Peel.
 - Le niveau de l'eau a augmenté le 18 mai, dépassant celui du pic précédent enregistré le 9 mai. Cependant, il y a actuellement un problème avec le capteur de niveau d'eau, ce qui fait en sorte que les données ne sont plus transmises.
 - Selon les images satellites optiques obtenues le 17 mai et les photos prises aux stations hydrométriques le 18 mai, un embâcle situé en amont de la traversée par traversier s'est rompu vers le 18 mai.
- Des températures dans la moyenne sont prévues pour les sept prochains jours à Fort McPherson, à Aklavik et à Inuvik.
 - La fonte de la glace le long de la rivière Peel et du cours inférieur du fleuve Mackenzie dépend également de la débâcle dans le delta, car la glace intacte du delta du Mackenzie limite probablement la progression de la débâcle en amont.
 - Des précipitations faibles à modérées (environ 10 à 20 mm) sont prévues de mercredi à jeudi dans le bassin de la rivière Peel, en amont de la frontière avec le Yukon. Les niveaux d'eau pourraient augmenter légèrement, mais devraient rester dans les valeurs normales.

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Arctic Red River & Lower Mackenzie River

Current Status:

- Break-up along the Lower Mackenzie River (excluding Mackenzie Delta) is complete.
 - According to optical satellite imagery acquired on May 18, an ice jam on the Mackenzie River has now released and river ice has passed downstream of the Arctic Red River confluence.
 - According to optical satellite imagery acquired on May 18, most of the remaining river ice is now downstream of Point Separation.
- On the Arctic Red River, water levels rose again on May 18, likely due to continued snowmelt in the Mackenzie Mountains. The water level is still below the previous peak recorded on May 8.
 - According to optical satellite imagery acquired on May 18, an ice jam on the Arctic Red River near the mouth has released and river ice has passed downstream.

Station Map:



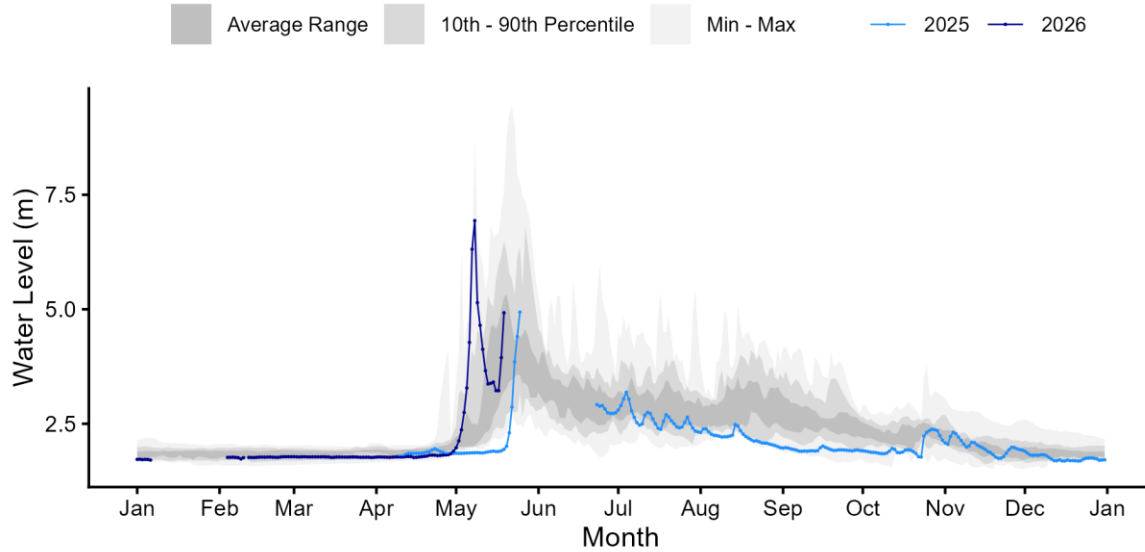
Above – Map of Hydrometric Stations and nearby communities for the plots included in this section.

Hydrometric Data:

Arctic Red River near the mouth [10LA002]

ARCTIC RED RIVER NEAR THE MOUTH (10LA002)

Record Length: 23 years | Period of Record: 2002-2021; 2024-2026

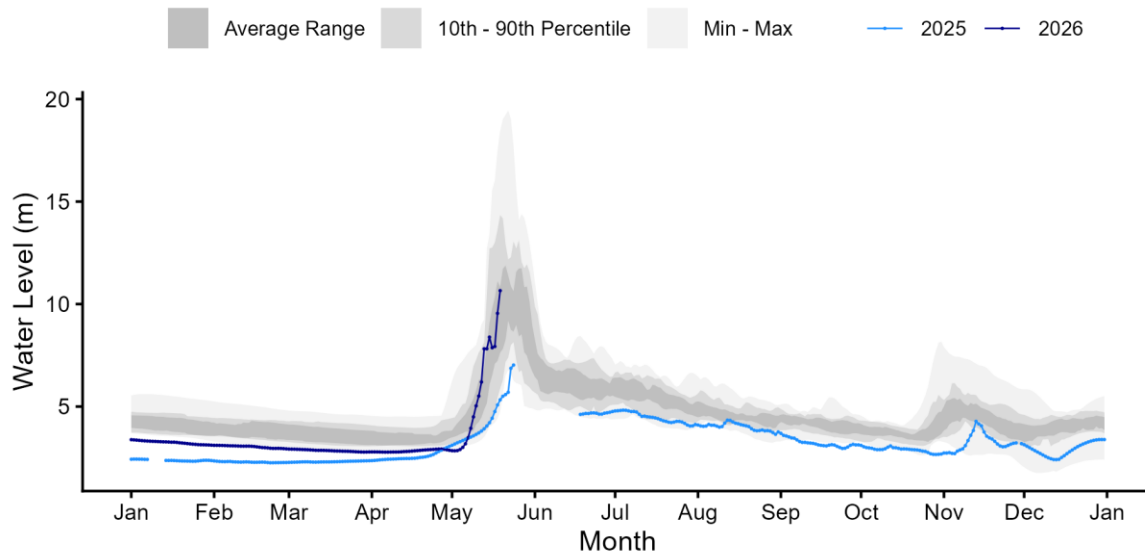


Above - Water level data Arctic Red River near the mouth [10LA002]. Daily average levels for the previous year also are shown here.

Mackenzie River at Arctic Red River [10LC014]

MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)

Record Length: 21 years | Period of Record: 2002-2019; 2024-2026



Above - Water level data for Mackenzie River at Arctic Red River [10LC014]. Daily average levels for the previous year also are shown here.

Gauge photos:

Mackenzie River at Fort Good Hope [10LD001]

10LD001_2026-05-19_19:01:23 UTC
66.25152, -128.64580 12.7V 4.5°C B



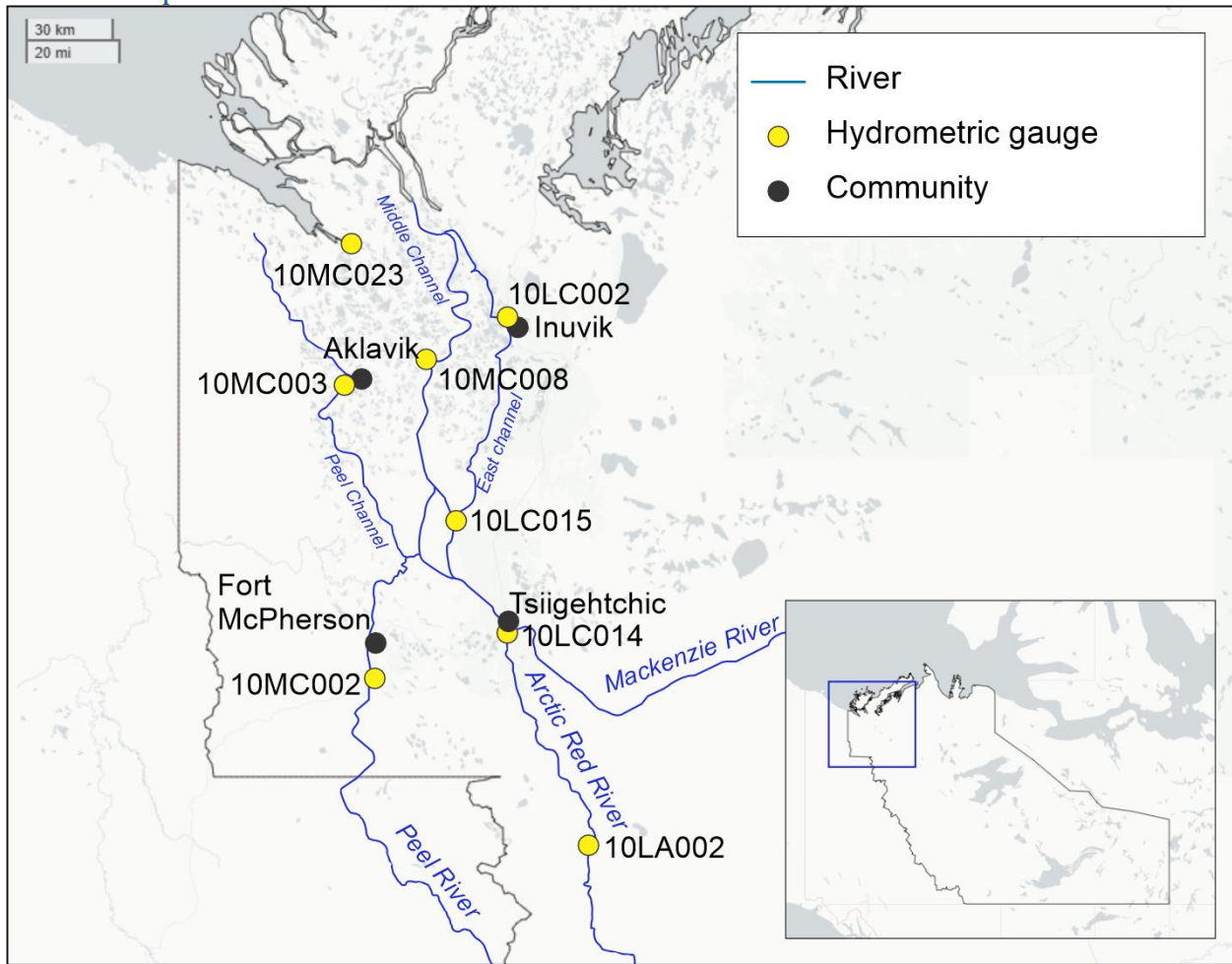
Above – Mackenzie River at Fort Good Hope [10LD001] hydrometric gauge photo from May 19 at 09:00 MDT. Photo courtesy of Water Survey of Canada and GNWT.

Peel River & Beaufort Delta

Current Status:

- Break-up along the Peel River is near complete.
 - Water levels rose on May 18, above those from the previous peak on May 9. However, there is now an issue with the water level sensor and data is being suppressed.
 - According to optical satellite imagery acquired on May 17 and gauge photos on May 18, an ice jam that was upstream of the ferry crossing released around May 18. There are still sections of rubble ice upstream and downstream of Fort McPherson.
- Break-up has started in the Mackenzie Delta.
 - According to optical satellite imagery acquired on May 18, ice movement is apparent downstream of Point Separation within the formation of islands termed the “Turtle”.
 - Water levels measured on the East Channel, Middle Channel and Peel Channel are continuing to rise underneath relatively intact ice. Water levels are within the normal range for this time of year.
- Warmer than average temperatures were observed over the past 4 days which resulted in continued river ice movement downstream, and ice degradation for intact ice in place.
 - A small-moderate rain event (~10-20 mm) is forecasted starting Wednesday through to Thursday in the Peel River basin upstream of the Yukon border. There is potential for water levels to increase slightly, but remain within normal ranges.

Station Map:



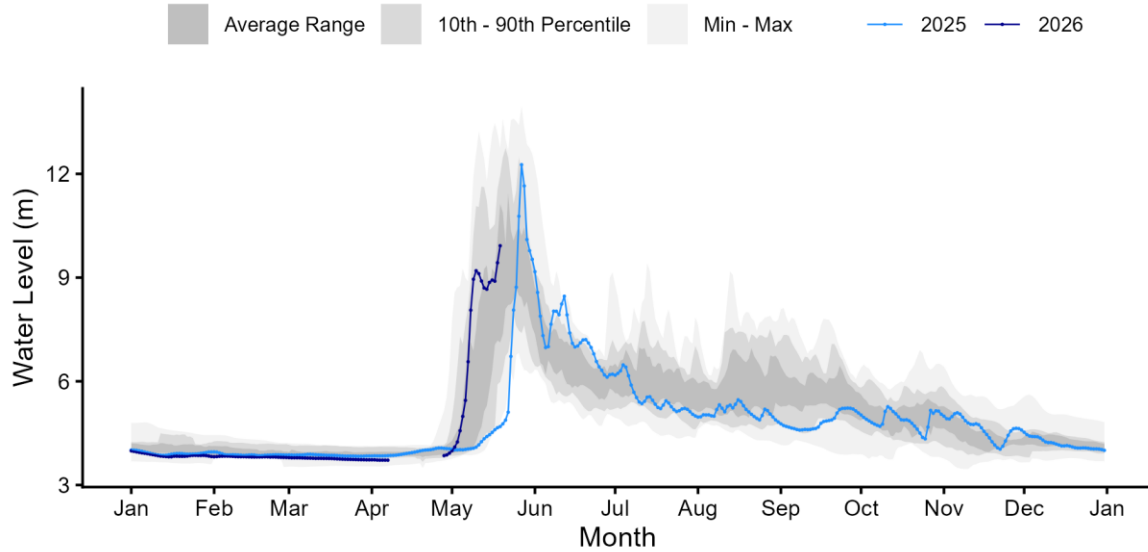
Above: Map of Hydrometric Stations and nearby communities for the plots included in this section.

Hydrometric Data:

Peel River above Fort McPherson [10MC002]

PEEL RIVER ABOVE FORT MCPHERSON (10MC002)

Record Length: 20 years | Period of Record: 2002-2018; 2024-2026

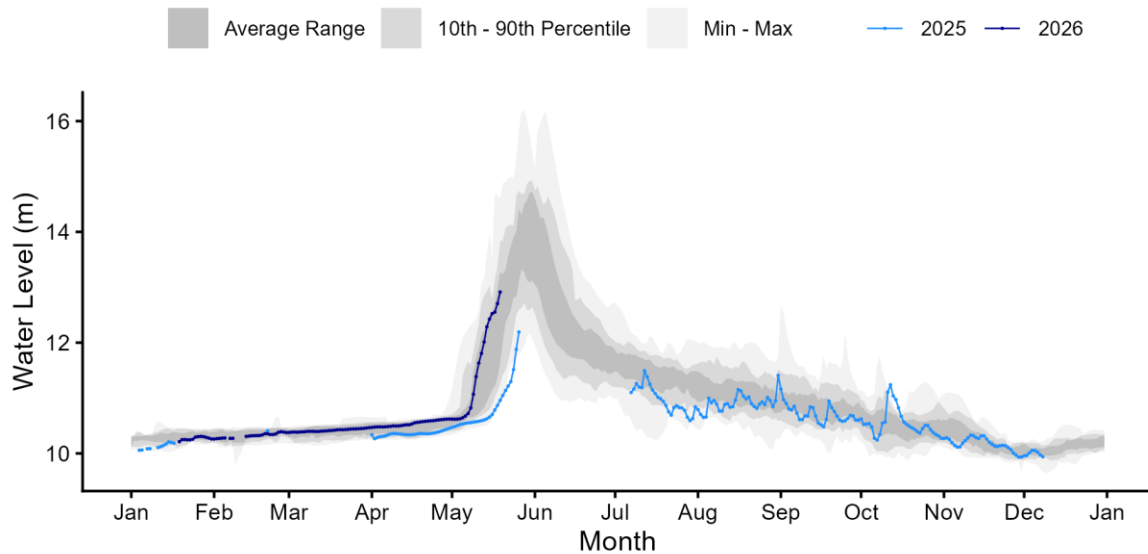


Above - Water level data for Peel River above Fort McPherson [10MC002]. Daily average levels for the previous year also are shown here.

Mackenzie River (Peel Channel) above Aklavik [10MC003]

MACKENZIE RIVER (PEEL CHANNEL) ABOVE AKLAVIK (10MC003)

Record Length: 37 years | Period of Record: 1982-1986; 1991-2019; 2024-2026

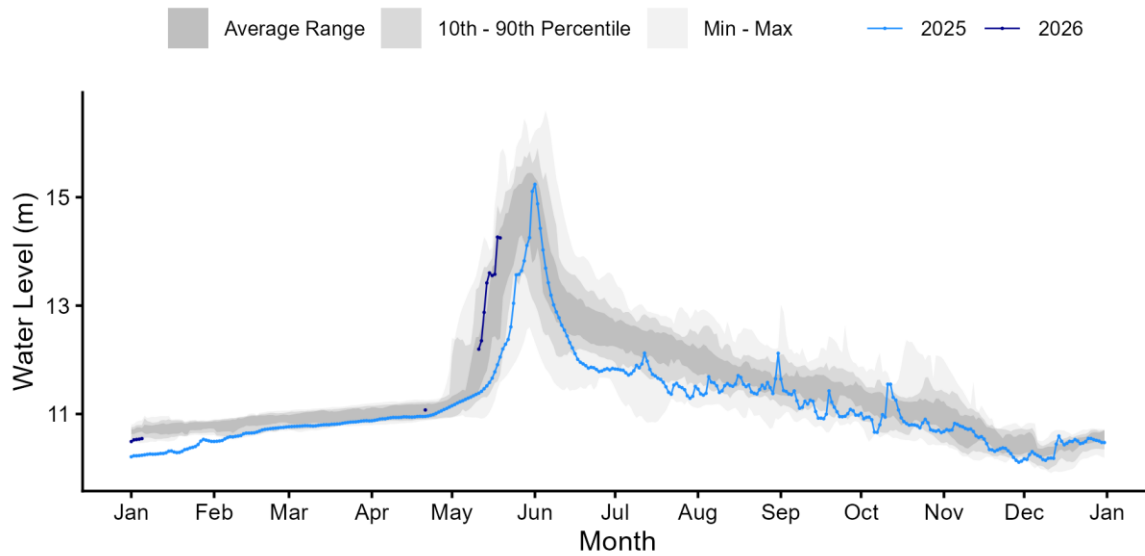


Above - Water level data for Mackenzie River (Peel Channel) above Aklavik [10MC003]. Daily average levels for the previous year also are shown here.

Mackenzie River (Middle Channel) below Raymond Channel [10MC008]

MACKENZIE RIVER (MIDDLE CHANNEL) BELOW RAYMOND CHANNEL (10

Record Length: 36 years | Period of Record: 1982-1986; 1991-2018; 2024-2026

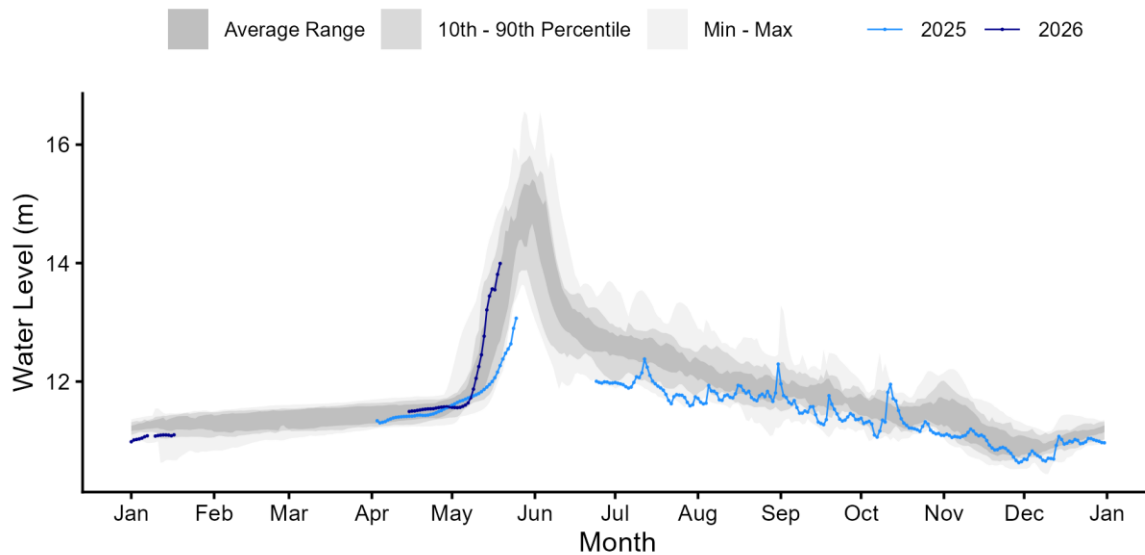


Above - Water level data for Mackenzie River (Middle Channel) below Raymond Channel [10MC008]. Daily average levels for the previous year also are shown here.

Mackenzie River (East Channel) at Inuvik [10LC002]

MACKENZIE RIVER (EAST CHANNEL) AT INUVIK (10LC002)

Record Length: 25 years | Period of Record: 1984-1990; 2002-2017; 2025-2026



Above - Water level data for Mackenzie River (East Channel) at Inuvik [10LC002]. Daily average levels for the previous year also are shown here.

Gauge photos:

Peel River above Fort McPherson [10MC002]

10MC002 2026-05-19 17:01:15 UTC
67.25676, -134.88882 11.6V 6.0°C P



Above – Peel River above Fort McPherson [10MC002] hydrometric gauge photo from May 19 at 11:00 MDT. Photo courtesy of Water Survey of Canada and GNWT.

Mackenzie River (Peel Channel) above Aklavik [10MC003]

10MC003 2026-05-19 15:01:09 UTC
68.20370, -135.11475 12.9W 3.0°C P



Above – Mackenzie River above Aklavik [10MC003] hydrometric gauge photo from May 19 at 09:00. Photo courtesy of Water Survey of Canada and GNWT.

Weather Data:

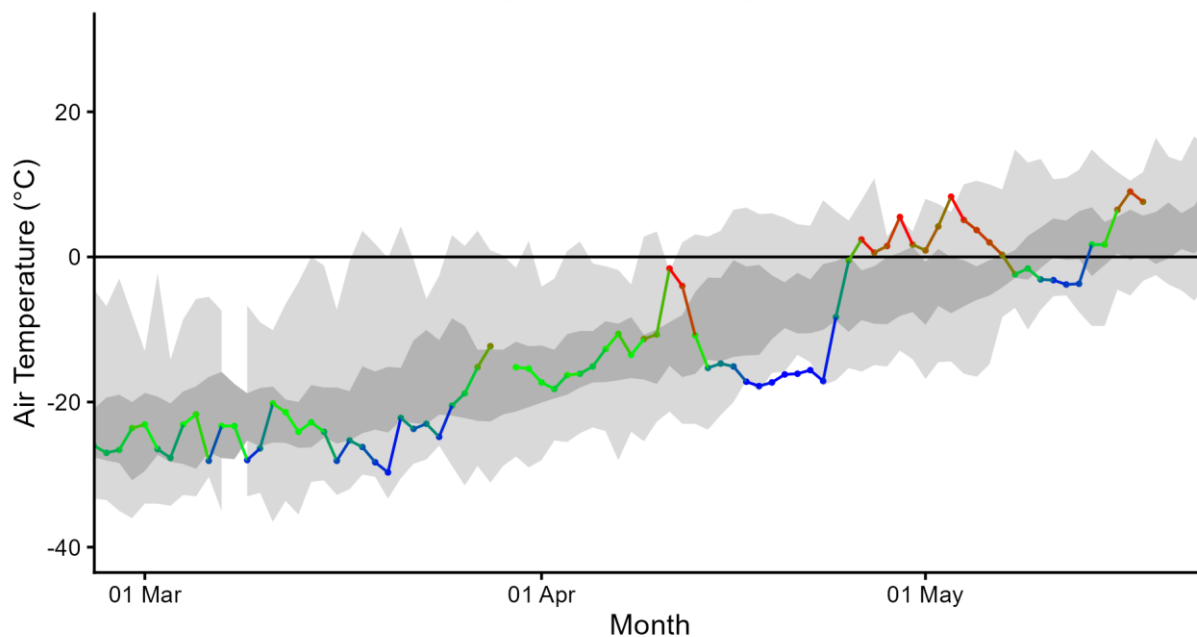
Weather information informs how snow and ice will melt and provides information about how this spring is unfolding relative to previous springs. Warmer than normal conditions early in the spring allow for additional energy to melt the snowpack and soften river ice. Rain-on-snow events can cause rapid melt of snowpacks and facilitate quick delivery of snowmelt water to rivers. Locations included here cover basin areas that feed into NWT rivers that are currently undergoing break-up.

The first set of figures show how temperatures have been relative to average (dark grey band) this spring, while the second set is Environment and Climate Change Canada (ECCC) weather forecast data for the next seven days.

- Central Mackenzie River basin (Sahtu Region): Temperatures over the last few days have been above average. No significant precipitation was recorded.
- Peel, Arctic Red, and lower Mackenzie River basins (Beaufort Delta Region): Temperatures over the last few days have been above average. No significant precipitation was recorded.

Fort McPherson Air Temperature

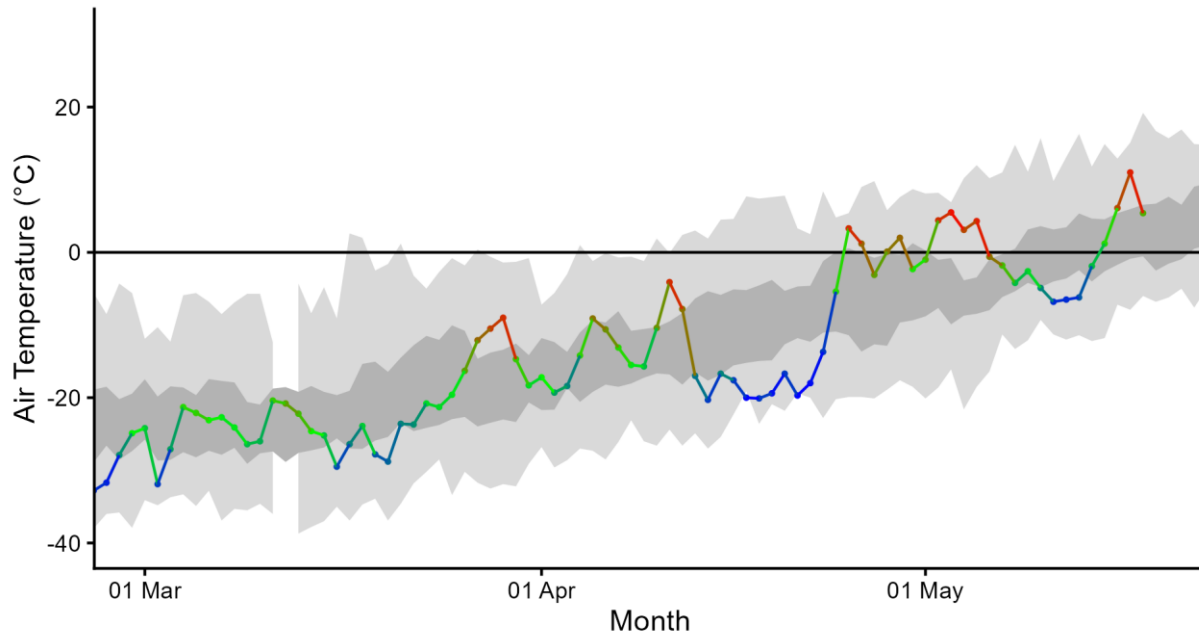
2026 Fort McPherson Daily Mean Air Temperatures



Above - Daily mean air temperature for Fort McPherson. Shaded areas represent the historical range (1991-2025).

Inuvik Air Temperature

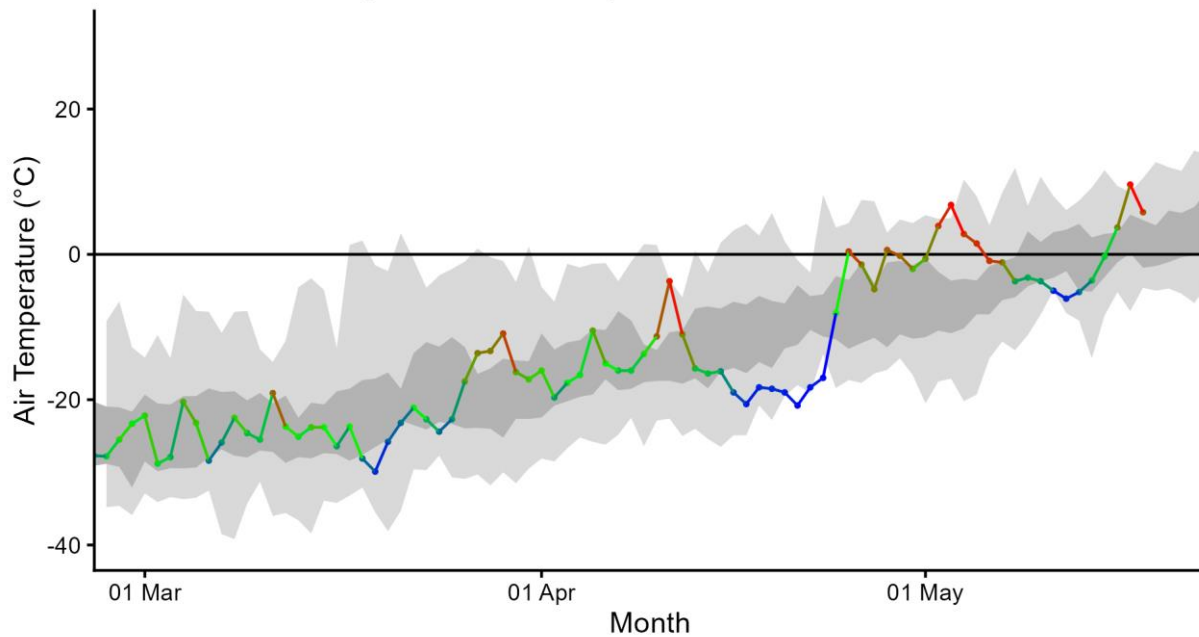
2026 Inuvik Daily Mean Air Temperatures



Above - Daily mean air temperature for Inuvik. Shaded areas represent the historical range (1991-2025).

Aklavik Air Temperature

2026 Aklavik Daily Mean Air Temperatures
















Above - Daily mean air temperature for Aklavik. Shaded areas represent the historical range (1991-2025).














Weather Forecasts:

- Central Mackenzie River basin (Sahtu Region): Forecast temperatures from May 19-25 are average. Scattered showers are expected in the basin throughout the forecast period, with no anticipated impact on water levels.
- Peel, Arctic Red, and lower Mackenzie River basins (Beaufort Delta Region): Forecast temperatures from May 19-25 are average. Showers in the order of 10-15mm are expected upstream in the Peel River basin on Thursday and Friday, with minimal anticipated impact on water levels.














Fort McPherson seven-day weather forecast:

▼ Forecast							Hourly Forecast	Air Quality	Alerts	Jet Stream
Tue 19 May	Wed 20 May	Thu 21 May	Fri 22 May	Sat 23 May	Sun 24 May	Mon 25 May				
 10°C A mix of sun and cloud	 19°C Sunny	 8°C Cloudy	 10°C Cloudy	 7°C Cloudy	 7°C A mix of sun and cloud	 7°C A mix of sun and cloud				
Tonight	Night	Night	Night	Night	Night					
 2°C Clearing	 2°C Cloudy	 2°C Cloudy	 1°C Cloudy	 -2°C Cloudy periods	 -2°C Cloudy periods					

Inuvik seven-day weather forecast:

▼ Forecast							Hourly Forecast	Air Quality	Alerts	Jet Stream
Tue 19 May	Wed 20 May	Thu 21 May	Fri 22 May	Sat 23 May	Sun 24 May	Mon 25 May				
 6°C Clearing	 13°C Sunny	 7°C Cloudy	 6°C Cloudy	 5°C Cloudy	 10°C A mix of sun and cloud	 10°C A mix of sun and cloud				
Tonight	Night	Night	Night	Night	Night					
 3°C A few clouds	 2°C Cloudy	 0°C Cloudy	 -1°C Cloudy	 -2°C A mix of sun and cloud	 -2°C A mix of sun and cloud					

Aklavik seven-day weather forecast:

▼ Forecast							Hourly Forecast	Air Quality	Alerts	Jet Stream
Tue 19 May	Wed 20 May	Thu 21 May	Fri 22 May	Sat 23 May	Sun 24 May	Mon 25 May				
 6°C 30% Chance of flurries	 10°C Mainly sunny	 6°C Cloudy	 4°C Cloudy	 4°C Cloudy	 5°C A mix of sun and cloud	 6°C A mix of sun and cloud				
Tonight	Night	Night	Night	Night	Night					
 -1°C A few clouds	 1°C Cloudy periods	 0°C Cloudy	 -1°C Cloudy	 -4°C A mix of sun and cloud	 -4°C A mix of sun and cloud					

Factors to Watch:

It is important to note that much of the water contributing to NWT rivers originates from outside of the NWT, which is why we also rely on information from the Yukon, British Columbia, Alberta and Saskatchewan.

The potential and severity of flooding will depend in large part on the weather over the upcoming weeks and how this interacts with existing ice conditions, water levels and snowpack amounts.

The primary factors that influence water levels in the spring are:

- Ice jams (can result in out-of-bank flows, even if there are below normal flows)
- Rate of melt of ice and snow:
 - Gradual vs quick melt
 - Rain on snow or ice events (rain brings a lot of energy to help melt happen more quickly)
- Current water levels
- How wet the ground was in the fall
- Snowpack

Spring Break-up on NWT Rivers: Mechanical vs Thermal

In any given year, spring flooding can occur in a number of NWT communities, including Hay River, Jean Marie River, Fort Simpson, Fort Liard, Tulita, Fort Good Hope, Fort McPherson and Aklavik. Spring flooding is caused by ice jam-induced flooding and can occur irrespective of existing water levels. However, if existing water levels are high, the impact of an ice jam flood can be much worse.

Ice jams typically occur on north-flowing rivers where warm weather and snowmelt cause ice to break-up on the southern reaches of a river. As this ice flows north (downstream), it meets a more solid ice cover, hits the ground, or gets stuck in a river bend. When this happens, the pieces of floating ice jam can form a dam, which causes water levels to rise rapidly. This is called a **mechanical break-up**, whereby the ice downstream is broken up by the force of ice moving into it.

If there is warm and sunny weather throughout early spring, the ice may thermally erode and weaken. This provides less of a resisting force for ice and water moving down the river and will have less of a chance of causing water levels to rise behind an ice jam. This is called a **thermal break-up**.

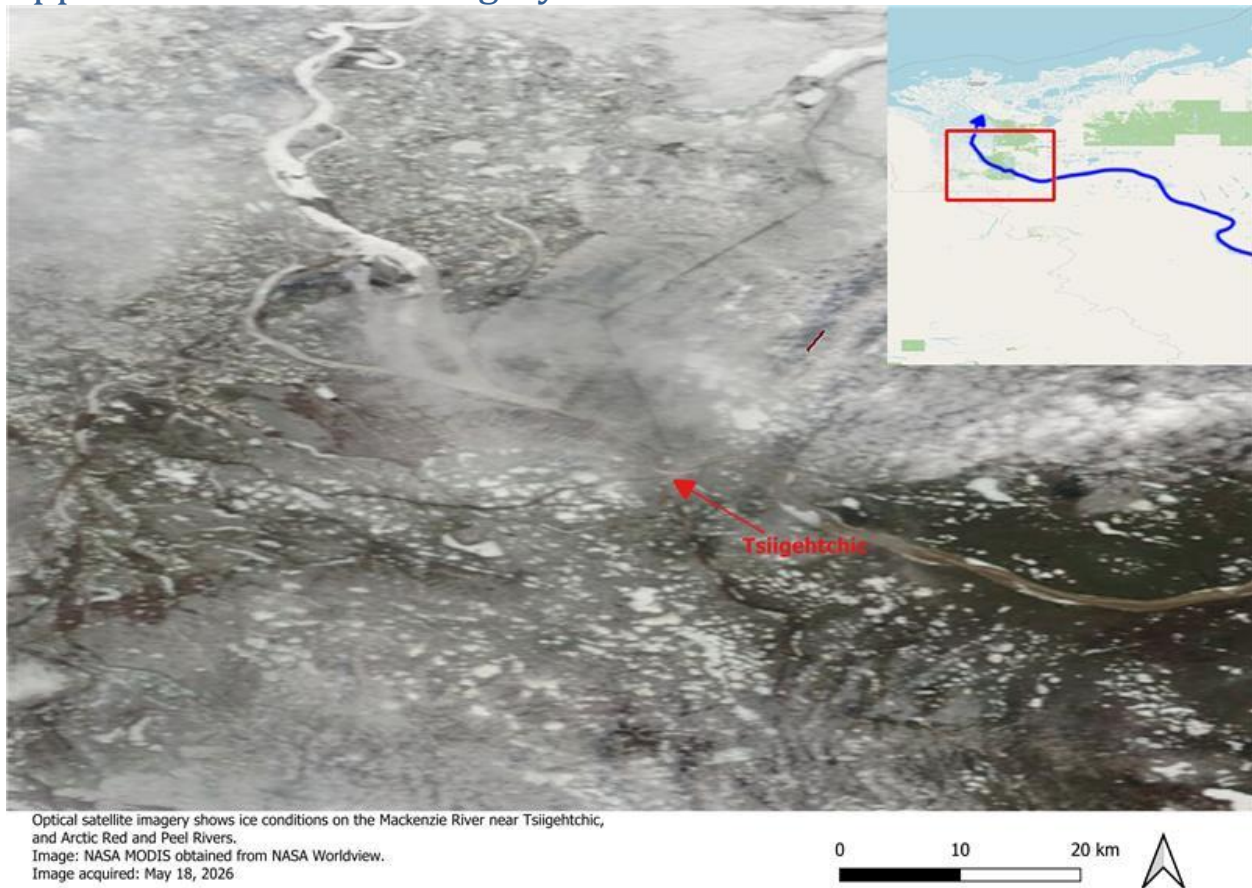
The causes of mechanical and thermal break-ups are usually dependent on the weather during early spring. Warm weather, sunshine, and rain on snow events are usually a good way to bring extra energy into the system to help melt the ice. Warm temperatures in the upstream part of a basin could also cause a rapid snowmelt and move water to the river very quickly. This could lead to ice-jam conditions downstream if the ice has not yet received

enough energy to degrade. Another important factor is the thickness of the ice. Thicker ice takes longer to melt and can increase the chances of ice jams. If an ice jam occurs, the location of the ice jam is also very important. Each river reach has different locations that are prone to ice jams. The location of the ice jam can be an important factor as to whether or not a community floods. Furthermore, ice will jam and then move again at multiple locations along a river as break-up progresses downstream. The timing and location of each jam can also influence if a community will flood.

Technical Note:

- The figures in this report plot water levels. The values on the y-axis are (in most cases) relative to an arbitrary datum. This means that the values on each gauge can be compared to different years but should not be used to compare water levels from one location to the next.
- For example, the Hay River near the border gauge (070B008) records a level of about 288 m. The Hay River near Hay River gauge (070B001) usually records a level of about 4 m. This **does not mean** that the water level at the Hay River at the border site is 284 m higher than the water level at the Hay River near Hay River site.

Appendix A: River Ice Imagery



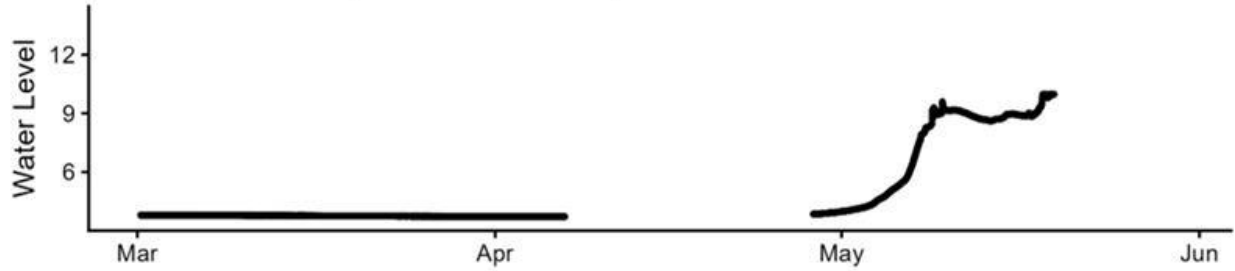
Above - optical satellite imagery captured on May 18 shows river ice conditions on the Peel, Arctic Red, and Mackenzie Rivers. The ice front has moved downstream, with intact ice now downstream of the "Turtle" (Mackenzie Islands, where the river is in three channels), and rubble ice extends upstream to approximately Point Separation. Image: NASA MODIS acquired from NASA Worldview data explorer.

Appendix B: High resolution and historic water level plots

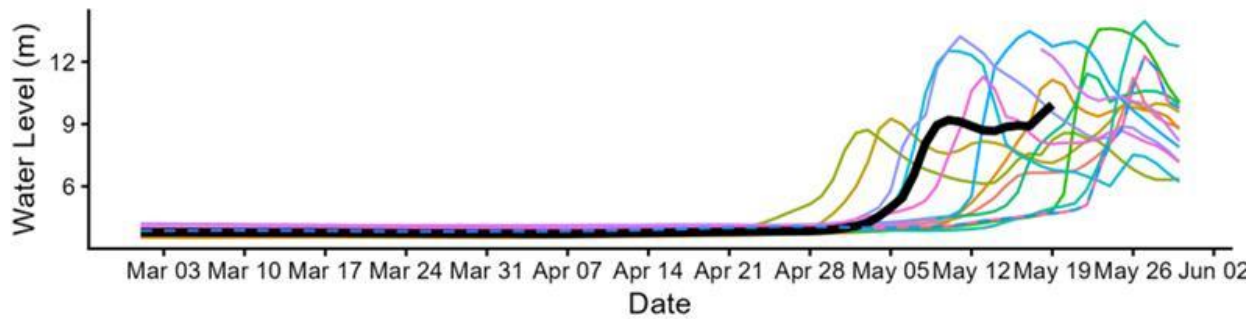
Peel River above Fort McPherson (10MC002)

PEEL RIVER ABOVE FORT MCPHERSON (10MC002)

2026 Water Levels (5 minute resolution)



Historic Daily Water Levels

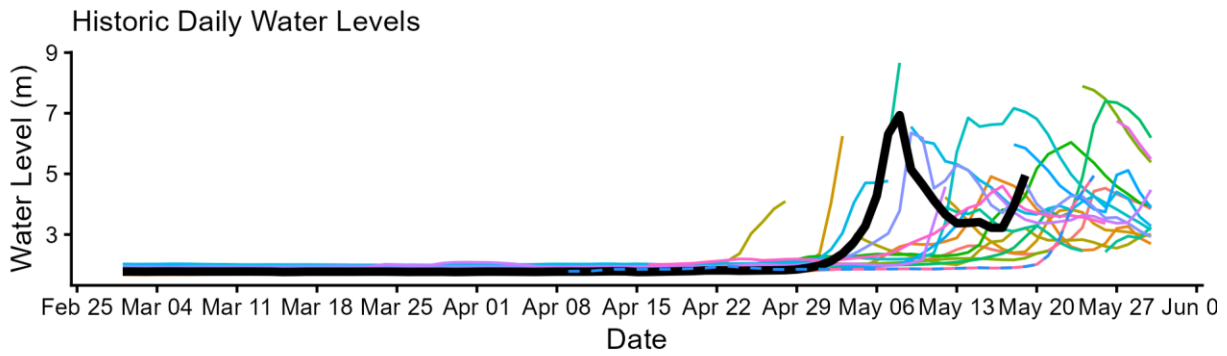
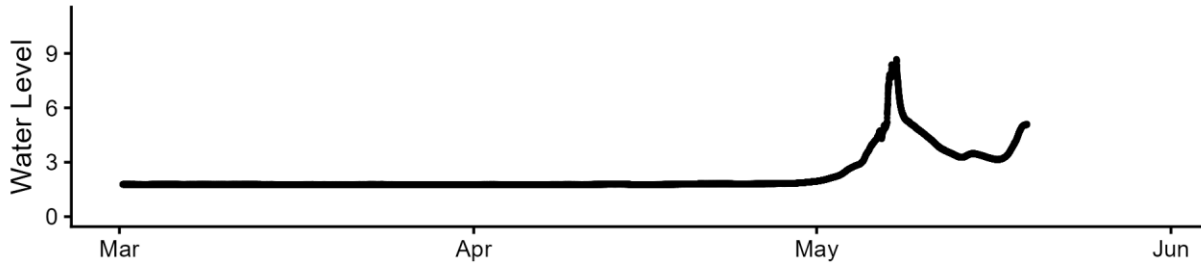


Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

Arctic Red River near the mouth (10LA002)

ARCTIC RED RIVER NEAR THE MOUTH (10LA002)

2026 Water Levels (5 minute resolution)

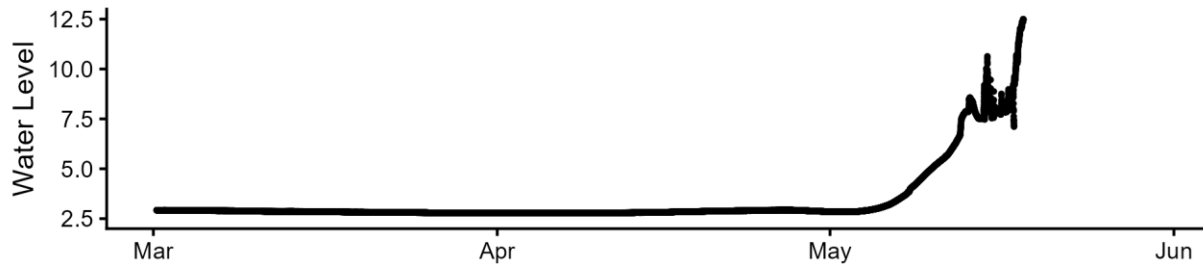


Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

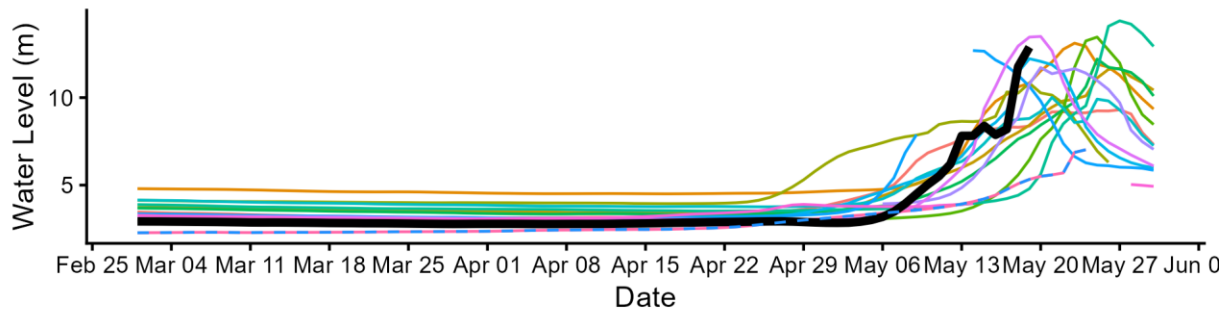
Mackenzie River at Arctic Red River (10LC014)

MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)

2026 Water Levels (5 minute resolution)



Historic Daily Water Levels

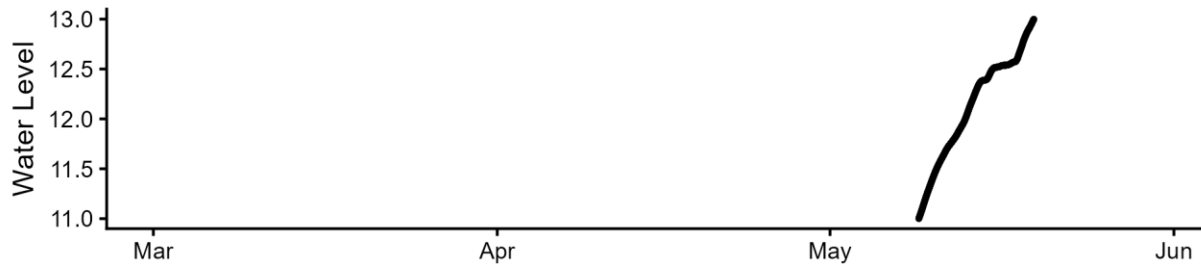


Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

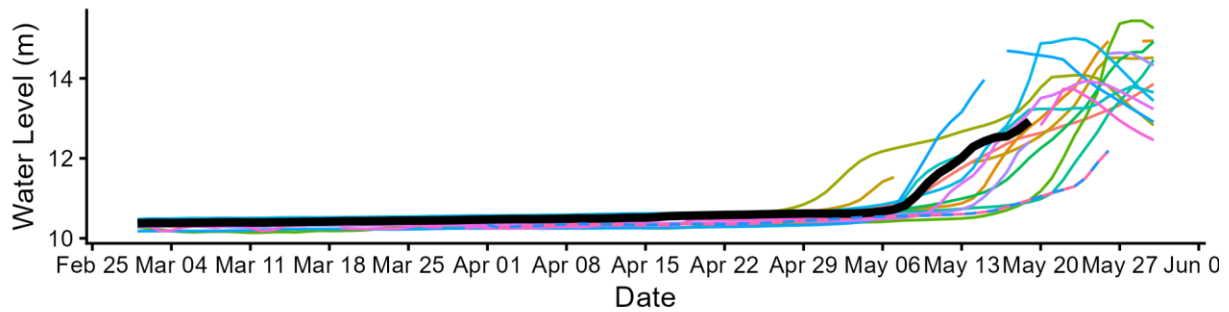
Mackenzie River (Peel Channel) above Aklavik (10MC003)

MACKENZIE RIVER (PEEL CHANNEL) ABOVE AKLAVIK (10MC003)

2026 Water Levels (5 minute resolution)



Historic Daily Water Levels

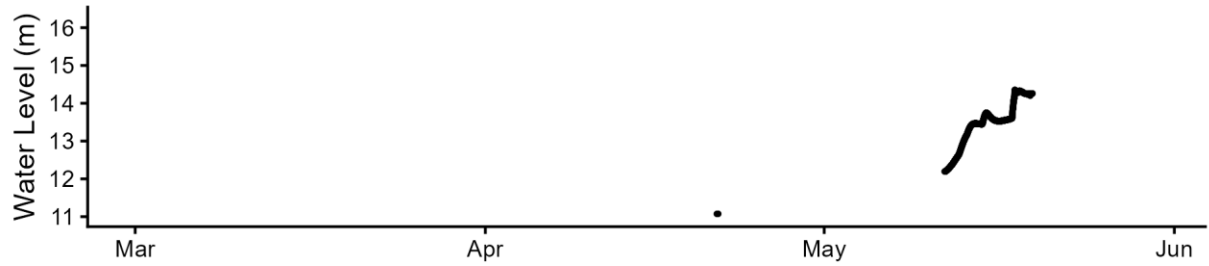


Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

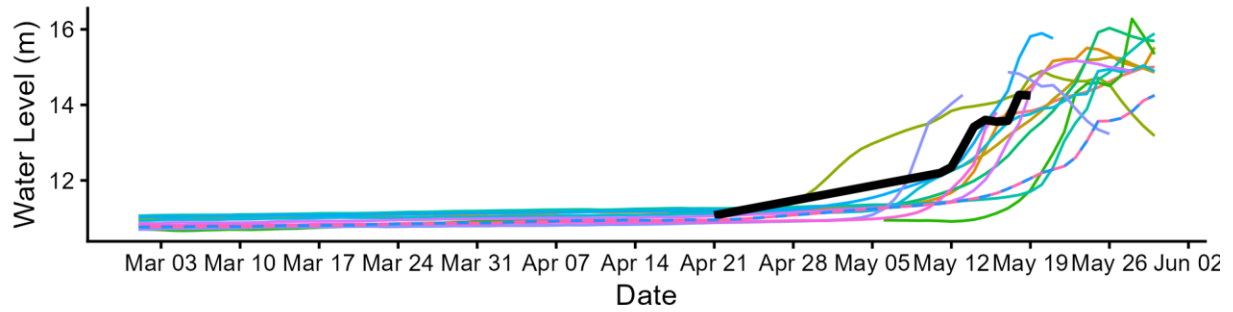
Mackenzie River (Middle Channel) below Raymond Channel (10MC008)

MACKENZIE RIVER BELOW RAYMOND CHANNEL (10MC008)

2026 Water Levels (5 minute resolution)



Historic Daily Water Levels

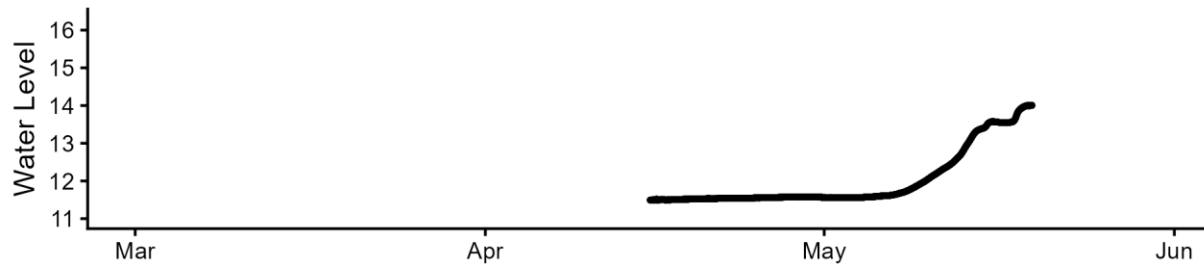


Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

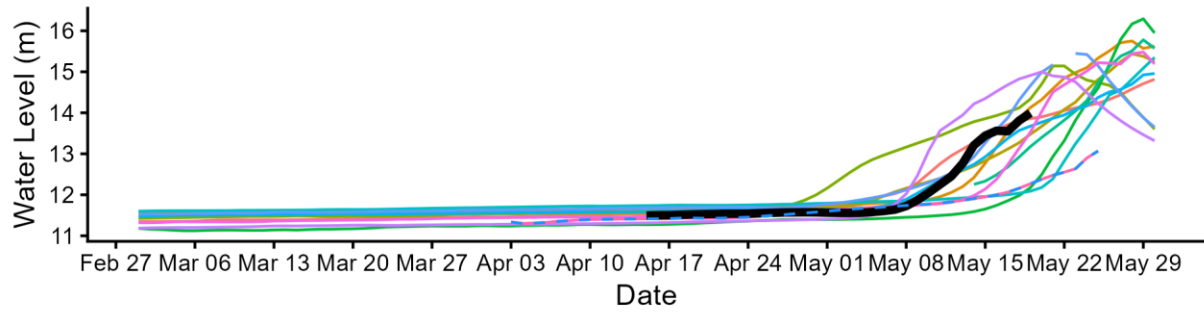
Mackenzie River (East Channel) at Inuvik (10LC002)

MACKENZIE RIVER (EAST CHANNEL) AT INUVIK (10LC002)

2026 Water Levels (5 minute resolution)



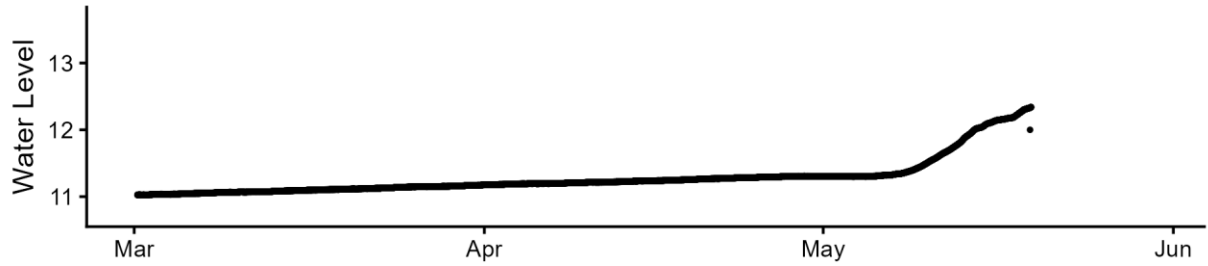
Historic Daily Water Levels



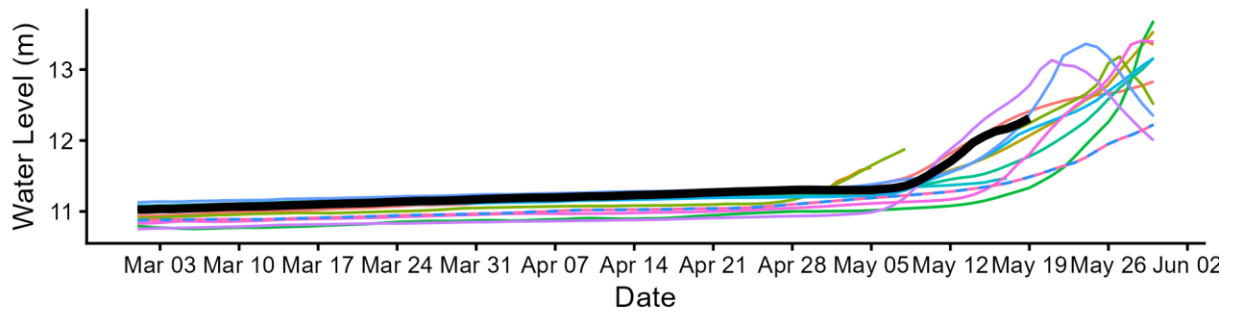
Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.

Mackenzie River (Napoia Channel) above Shallow Bay (10MC023)

MACKENZIE RIVER (NAPOIAK CHANNEL) ABOVE SHALLOW BAY (10MC023)
2026 Water Levels (5 minute resolution)



Historic Daily Water Levels



Above - The upper graph in the figure presents real time water level data at 5-minute resolution. The lower graph shows daily average levels relative to the previous 20 years.