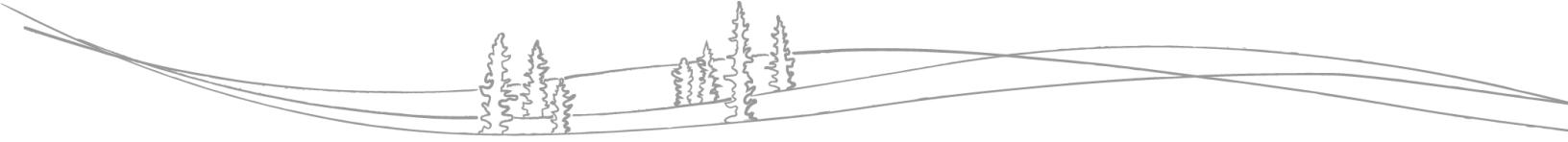




NWT Water Monitoring Bulletin

– May 8th, 2024



NWT Water Monitoring Bulletins are posted monthly. These bulletins are intended to provide an update of water flow and level data at select NWT Hydrometric Network gauge stations across the Northwest Territories.

Where available, data from river sites are presented as water level and flow (discharge) and data from lake sites are presented as level. The figures in this report represent current conditions for this year, relative to historic minimum and maximum values, as well as the average range, which is calculated as the interquartile range.

The NWT Hydrometric Network is a partnership between ECC and Environment and Climate Change Canada (ECCC) and is operated by the Water Survey of Canada (ECCC). Both historic and real-time data for all stations are available at https://wateroffice.ec.gc.ca/index_e.html. All 2023 and 2024 data are considered provisional and may contain values that are later corrected.

Any questions regarding information contained in this Bulletin can be directed to NWTWaters@gov.nt.ca.

Current status:

- This report is our **Monthly Water Monitoring Bulletin**, which provides regular updates on water levels and precipitation in the NWT;
 - Our **Spring Break up Reports** are still being published regularly, as snowmelt and the break up of river ice moves north;
 - Break up is progressing well along the Mackenzie River downstream of Fort Simpson.
- Water levels and flow rates on lakes and rivers across most of the NWT remain very low, and in some cases are the lowest ever recorded for this time of year.
 - The low water levels are the result of extremely hot and dry conditions that began during the summer of 2022 and persisted throughout 2023.
 - Much of the Great Slave Lake basin (which includes areas in northern British Columbia, Alberta, and Saskatchewan) received very little snowfall this year.
 - Flows rates on the Slave River were below average over the winter and are currently at the lowest recorded value for this time of year.
 - Great Slave Lake remains at its lowest water level recorded for this time of year and is much lower than the previously recorded lowest value at this time of year.
 - Flow rates at most locations along the Mackenzie River are either below average or at their lowest recorded value for this time of year.
 - Flow rates along the Liard River are below average for this time of year.
 - Water level on Great Bear Lake is near the lowest on record for this time of year.
- One notable exception to the low water levels across the territory is the Peel River
 - Water levels were higher than average over winter, and snowmelt and break up have yet to initiate a rise in spring water levels.¹
- In the month of April, temperatures across the territory were generally well above average. Precipitation was generally well below or below average. Exceptions include:
 - Average precipitation in Fort Simpson and above average precipitation in Fort Smith.
 - April precipitation makes up a small percentage of total spring/summer precipitation. The highest precipitation amounts usually occur in the months of July and August.
- Information provided from Environment and Climate Change meteorologists suggest that precipitation over the Mackenzie River basin in May, June, and July will be lower than normal, with the largest anomalies (i.e. the least precipitation relative to normal) occurring in June.
 - One exception is more precipitation than normal predicted for the Liard River basin in May.

¹ On the figure below, water levels on the Peel River appear average for this time of year, but a delayed spring melt in the Peel basin has meant that water levels under the ice have not yet started rising as they usually do.

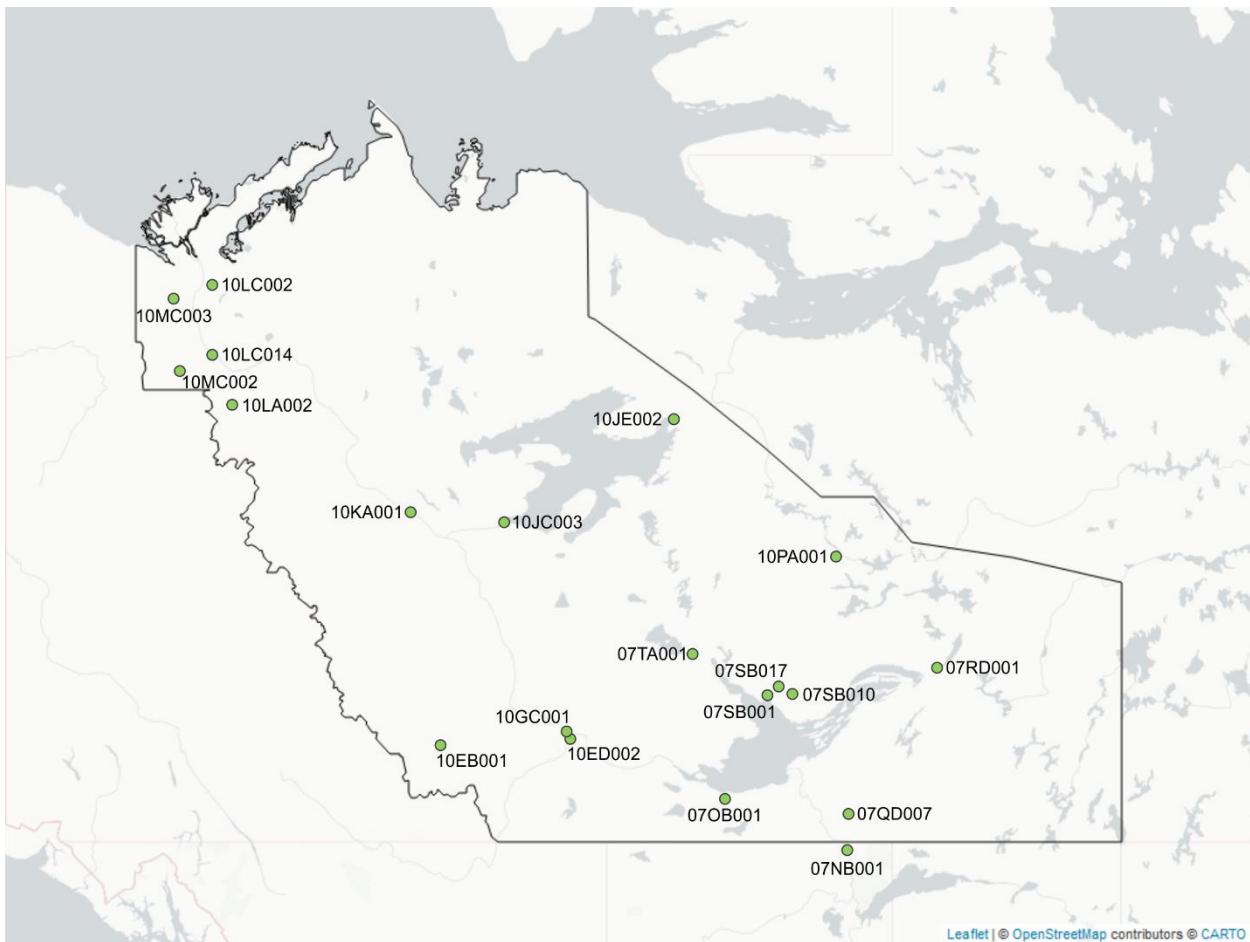
- Water levels on Great Slave Lake and the Mackenzie River this coming summer will be impacted by rainfall amounts in northern Alberta and British Columbia.
 - Precipitation data from these locations during April was approximately average.

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Hydrometric station map



Above – A map of the hydrometric stations included in this report.

Information on interpreting figures:

Water level and flow figures:

The light blue line shows water levels/flows from last year (2023), while the dark blue line shows current water levels/flows from 2024. The dark grey band represents the average range (calculated as the interquartile range), while the light grey bands represent the highest and lowest levels or flows on record. If the dark blue line is within the dark grey band, current conditions can be assumed to be normal.

Note: The grey bands are calculated for data prior to 2023. If the line from 2023 or 2024 is above (below) the grey band, it means that the water level or flow from that year was the highest (lowest) on record.

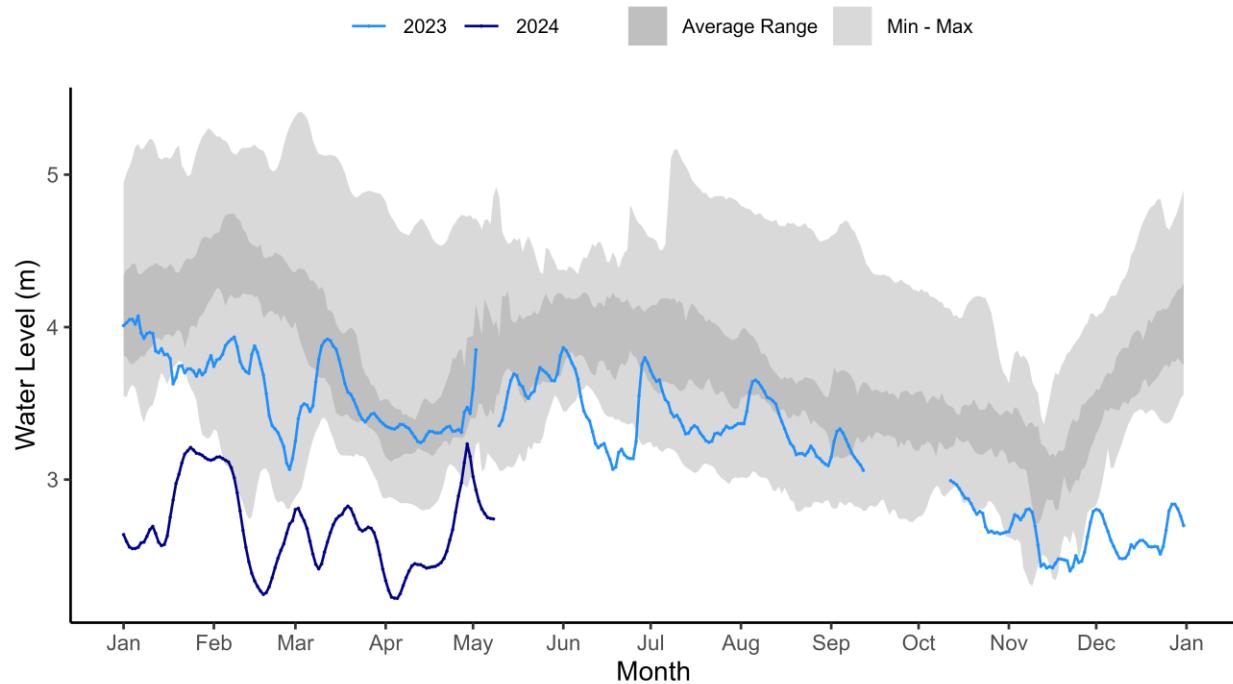
Climate figures:

Monthly air temperature and precipitation data are displayed for six communities in the NWT (Fort Smith, Hay River, Yellowknife, Fort Simpson, Norman Wells, and Inuvik) and presented as box and whisker plots. The box in each plot represents the average range (calculated as the interquartile range) for each month, and the whiskers are the vertical black lines that represent the extreme values (10th to 90th percentiles). Each grey dot is the value from a previous year, beginning in 1950. The red or blue dots represent the values for the current year. These data are acquired and managed by Environment and Climate Change Canada.

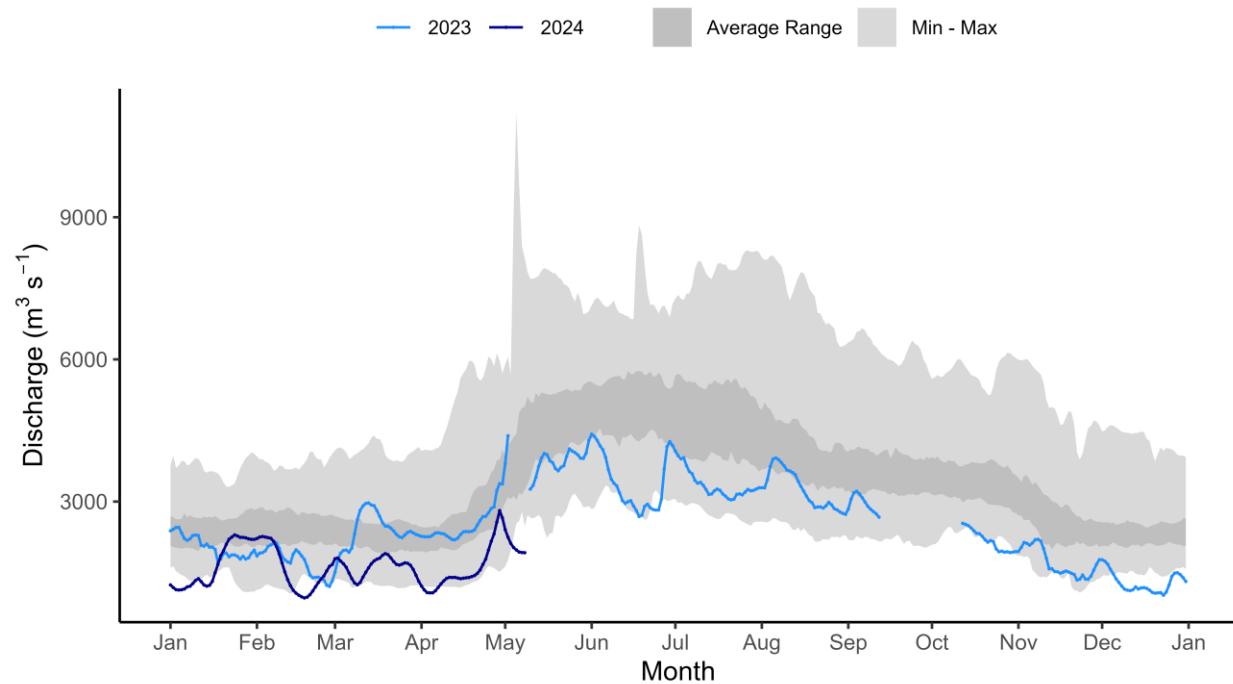
Water level and flow data:

Slave River at Fitzgerald [07NB001]

SLAVE RIVER AT FITZGERALD (ALBERTA) (07NB001)

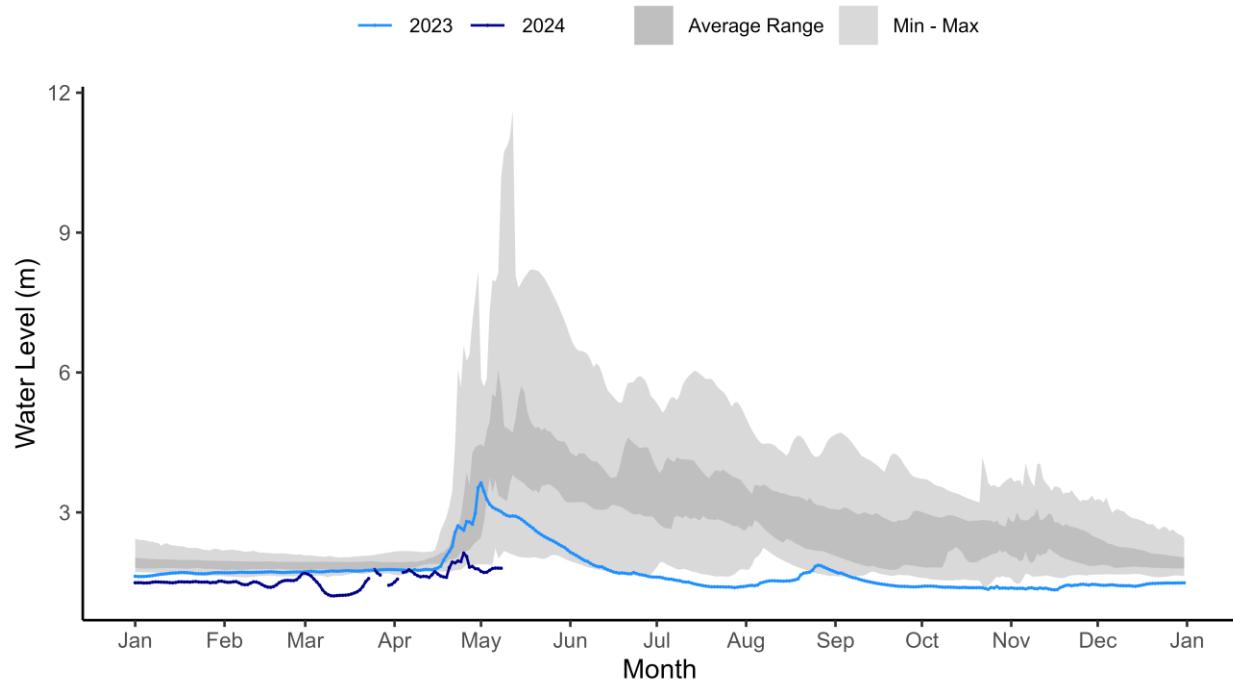


SLAVE RIVER AT FITZGERALD (ALBERTA) (07NB001)

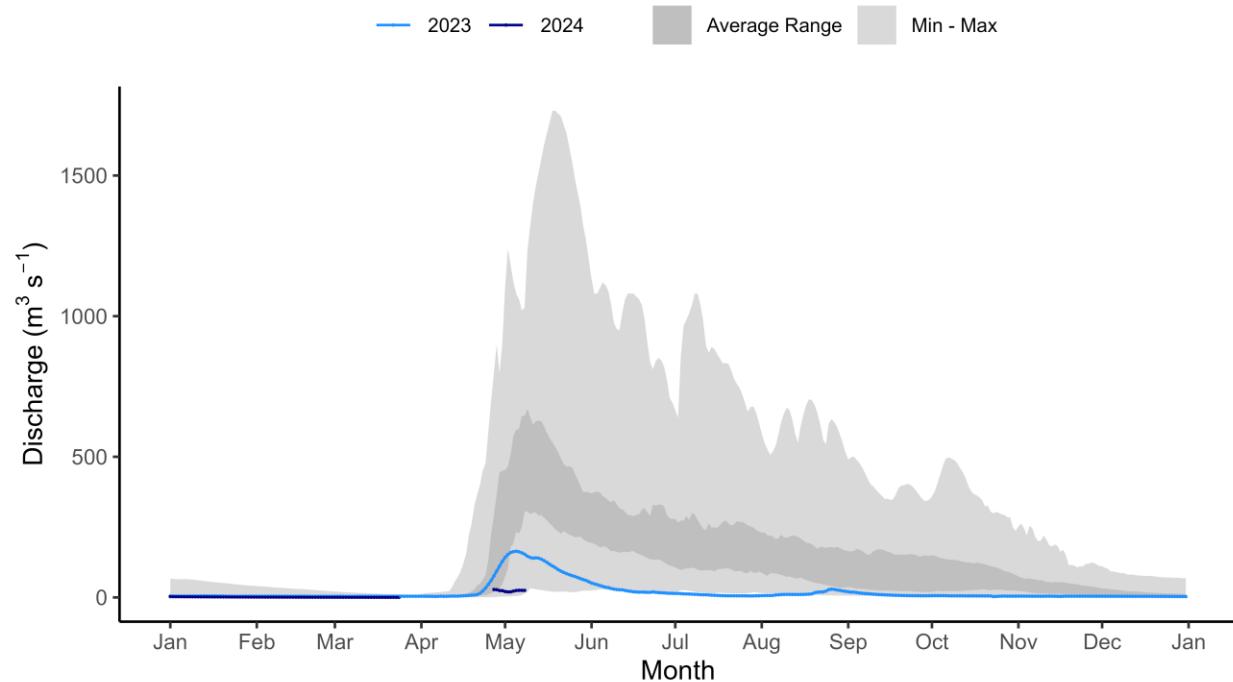


Hay River near Hay River [07OB001]

HAY RIVER NEAR HAY RIVER (07OB001)

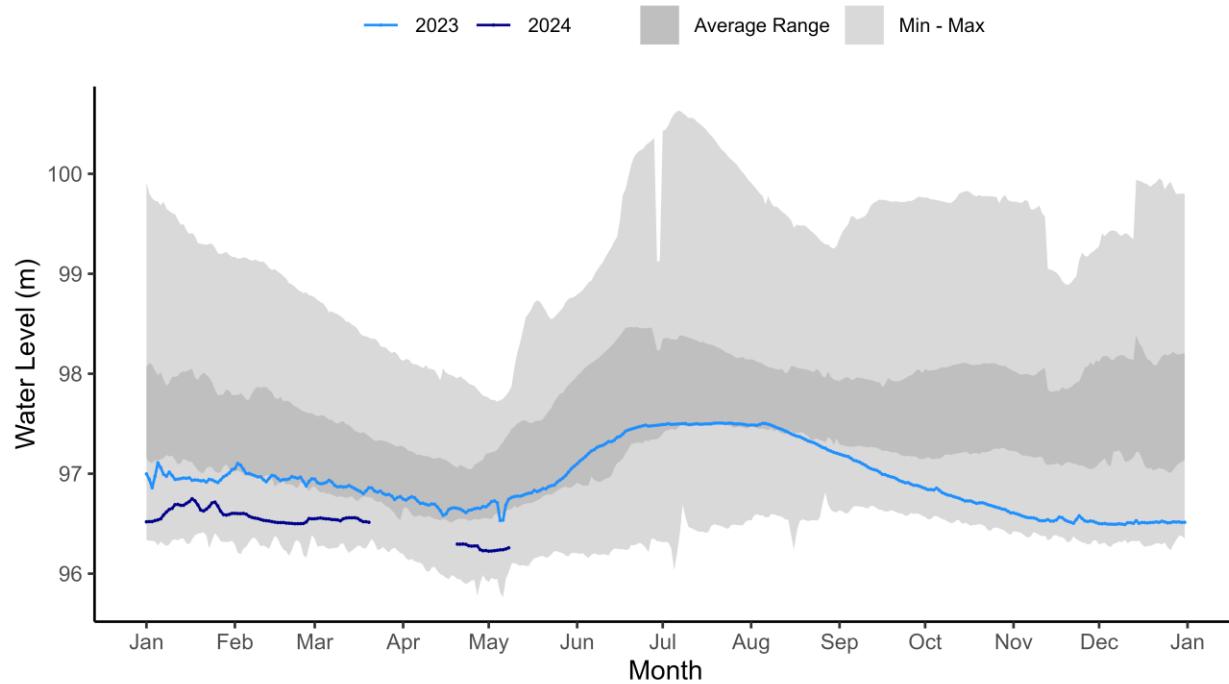


HAY RIVER NEAR HAY RIVER (07OB001)

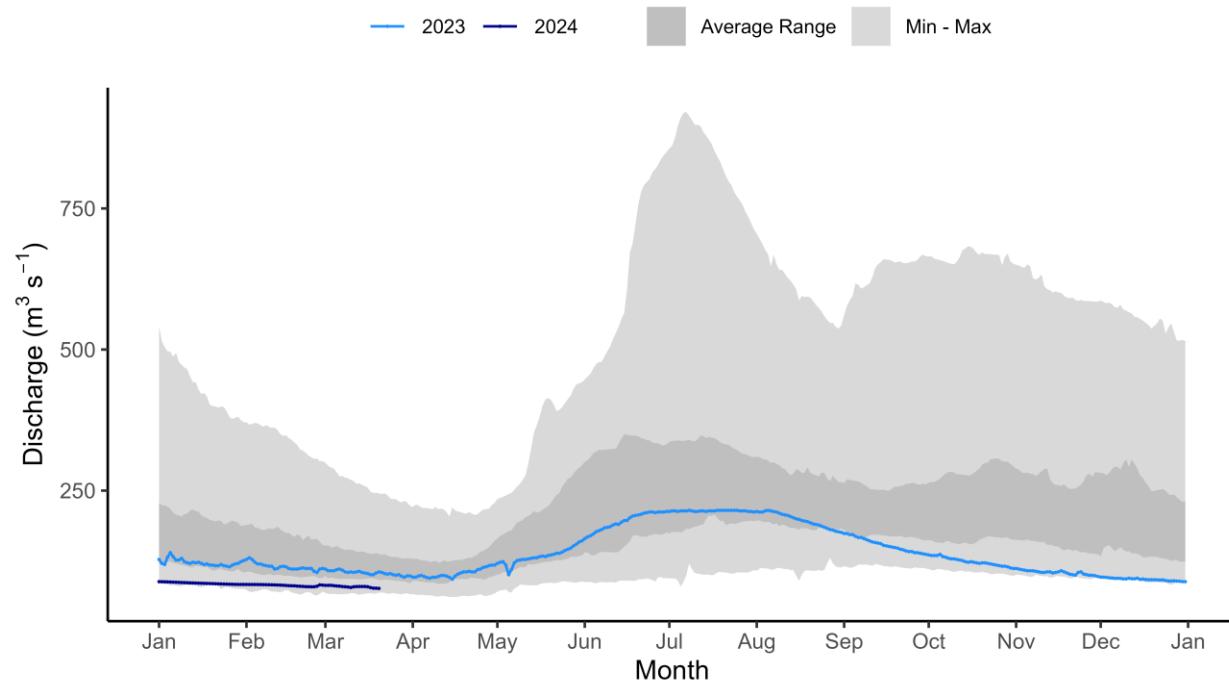


Taltson River below Hydro Dam [07QD007]

TALTSON RIVER BELOW HYDRO DAM (07QD007)

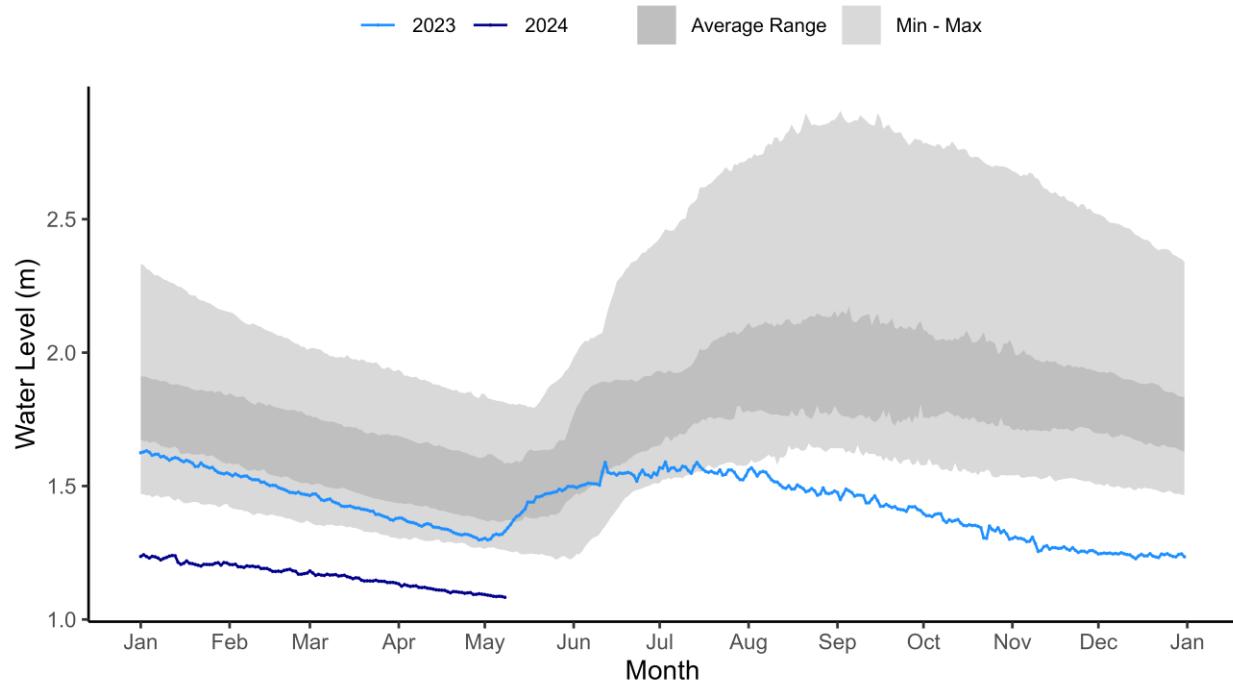


TALTSON RIVER BELOW HYDRO DAM (07QD007)

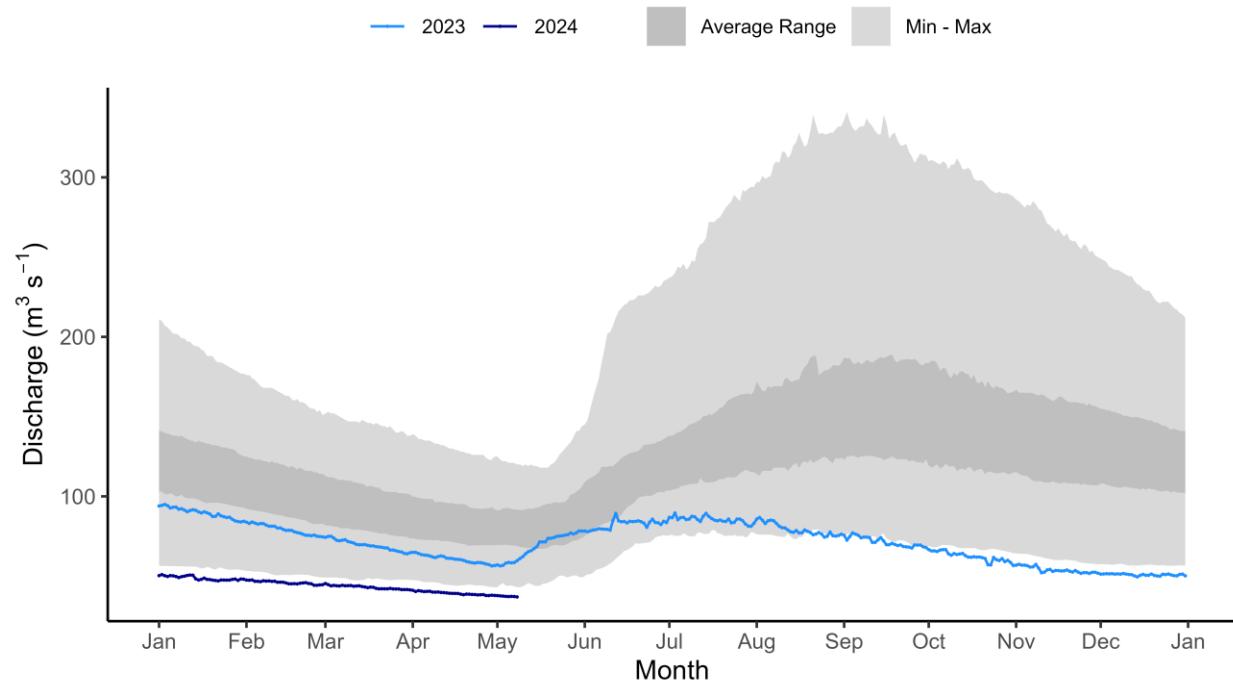


Lockhart River at outlet of Artillery Lake [07RD001]

LOCKHART RIVER AT OUTLET OF ARTILLERY LAKE (07RD001)

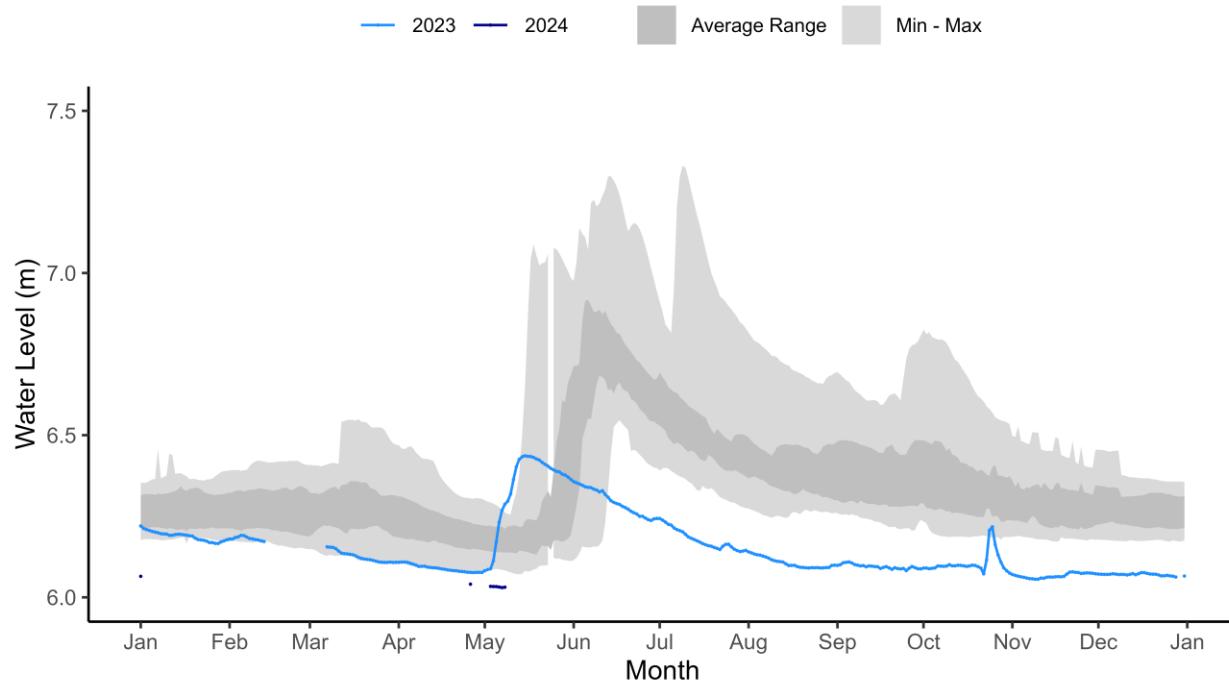


LOCKHART RIVER AT OUTLET OF ARTILLERY LAKE (07RD001)

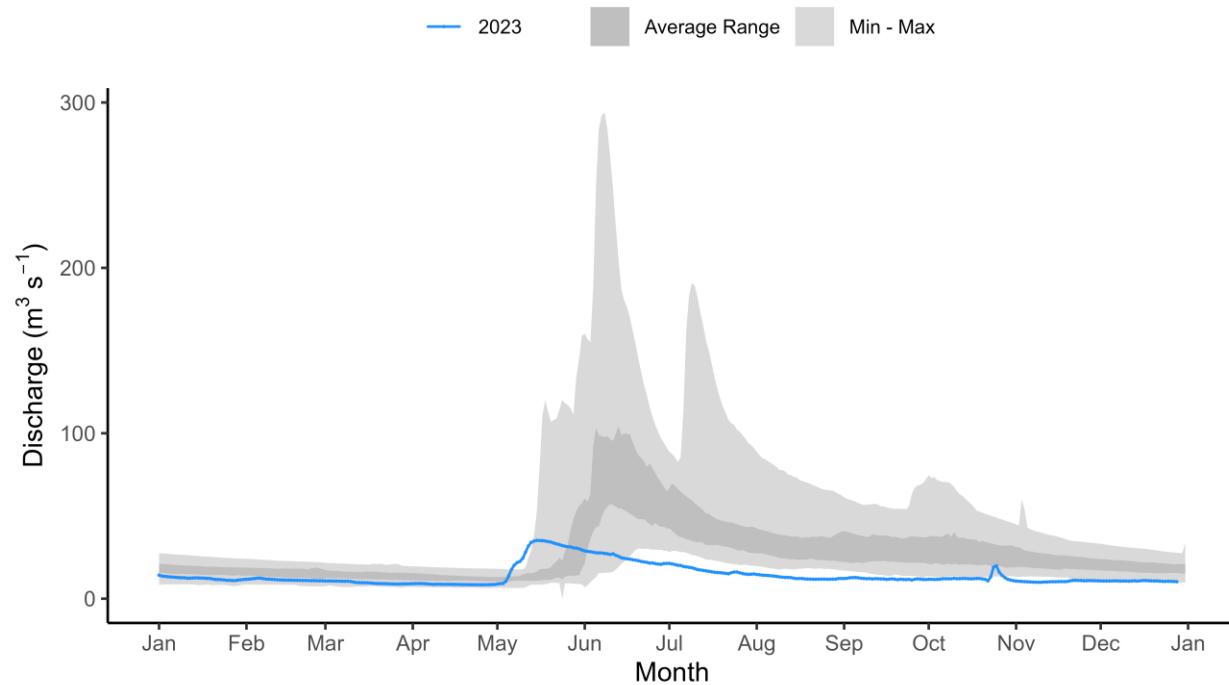


Coppermine River below Desteffany Lake [10PA001]

COPPERMINE RIVER BELOW DESTEFFANY LAKE (10PA001)



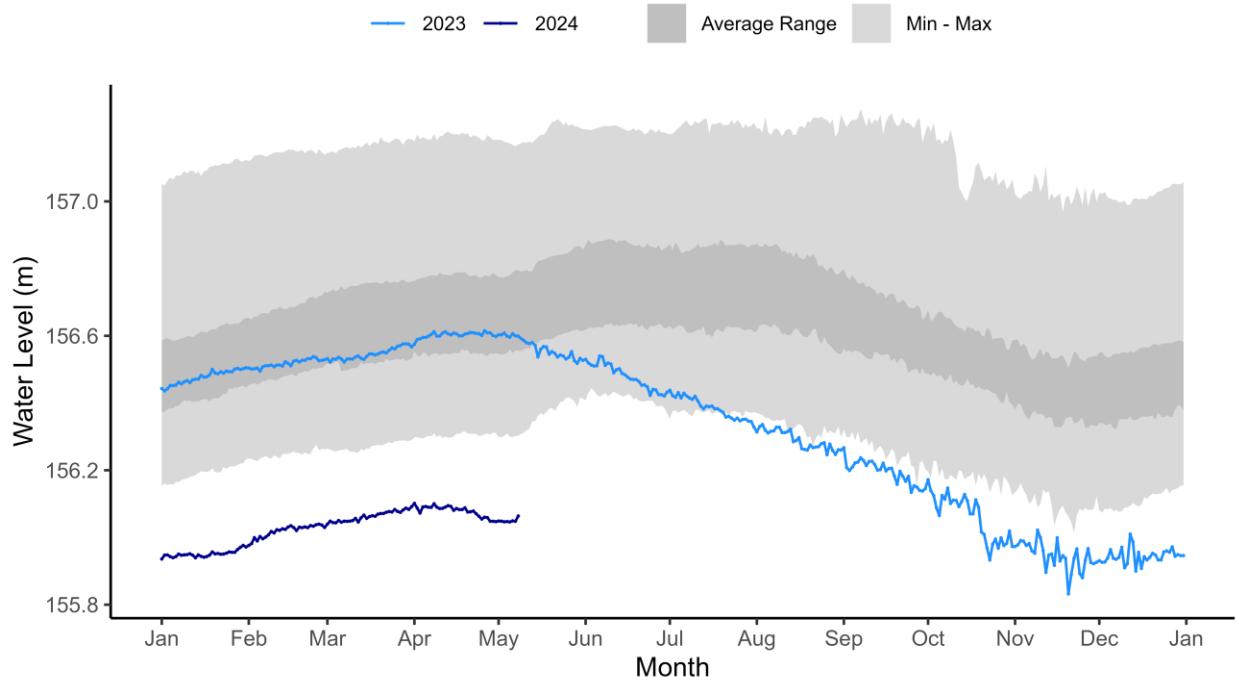
COPPERMINE RIVER BELOW DESTEFFANY LAKE (10PA001)



Note: Current data are not available for 10PA001.

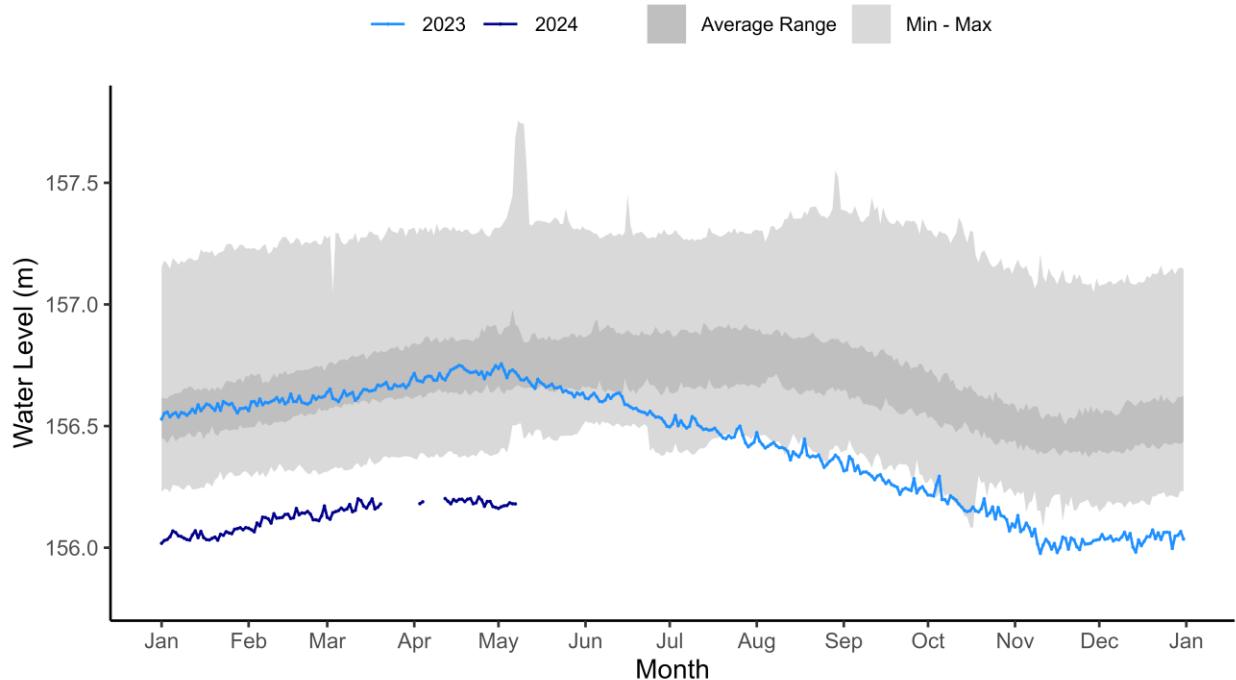
Great Slave Lake at Yellowknife Bay [07SB001]

GREAT SLAVE LAKE AT YELLOWKNIFE BAY (07SB001)



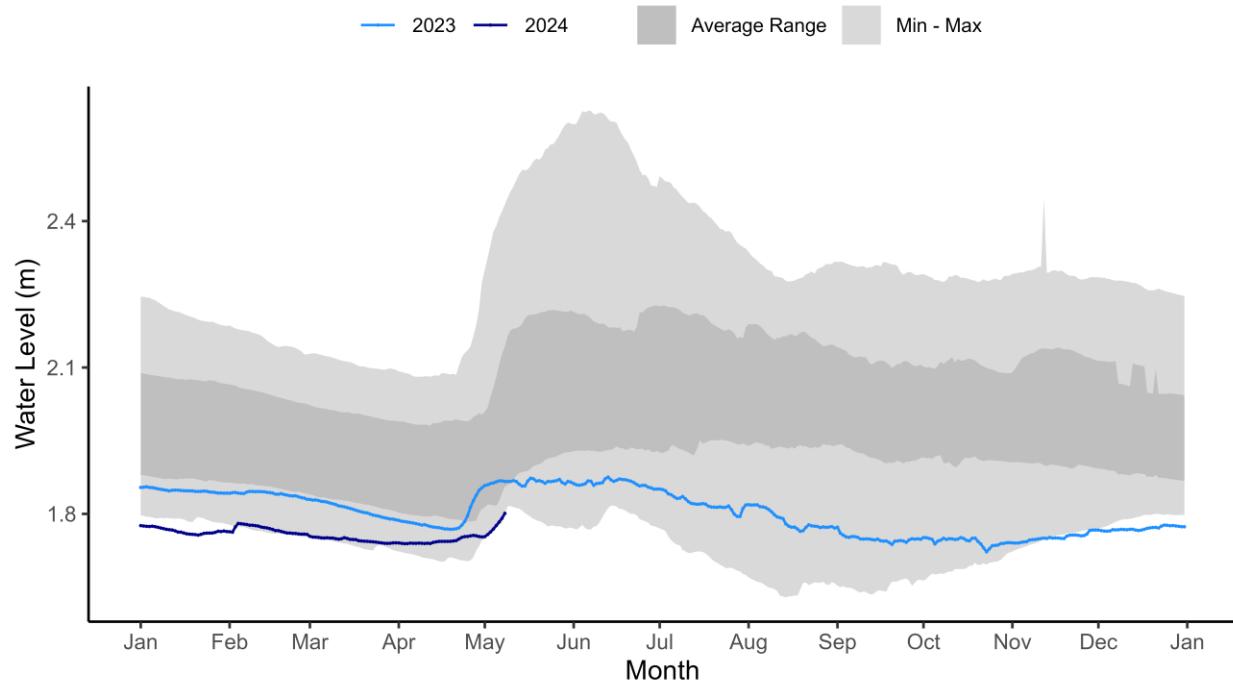
Great Slave Lake at Hay River [07OB002]

GREAT SLAVE LAKE AT HAY RIVER (07OB002)

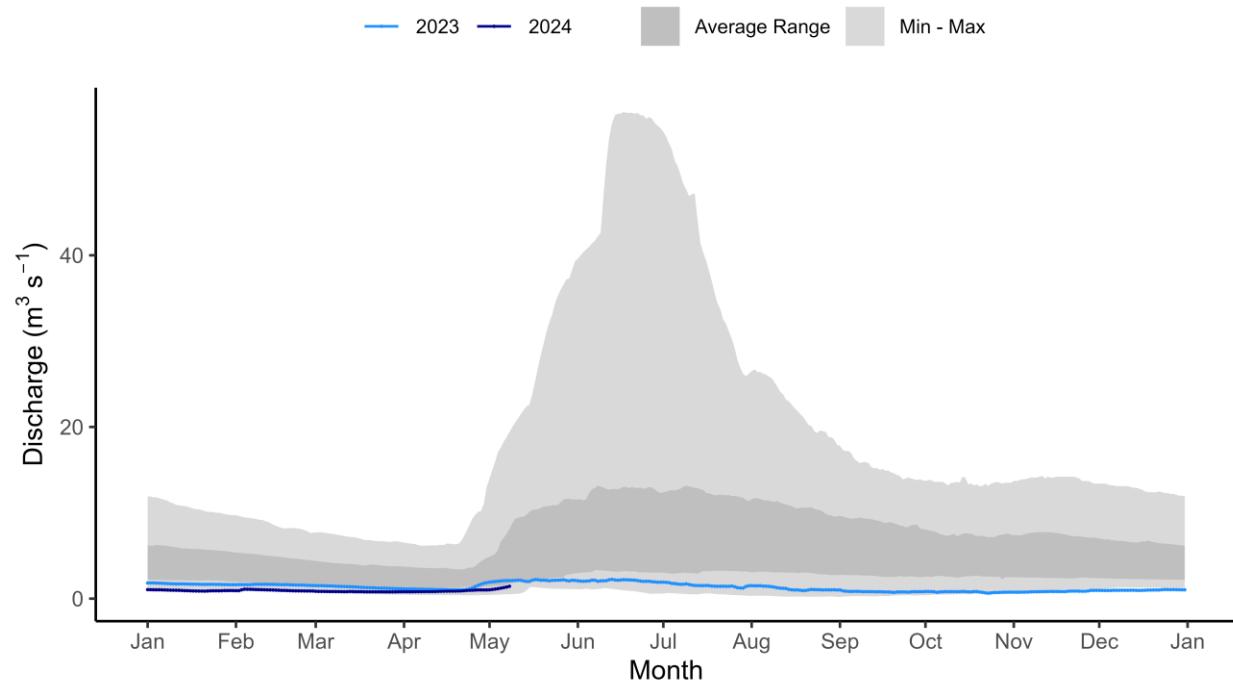


Cameron River below Reid Lake [07SB010]

CAMERON RIVER BELOW REID LAKE (07SB010)

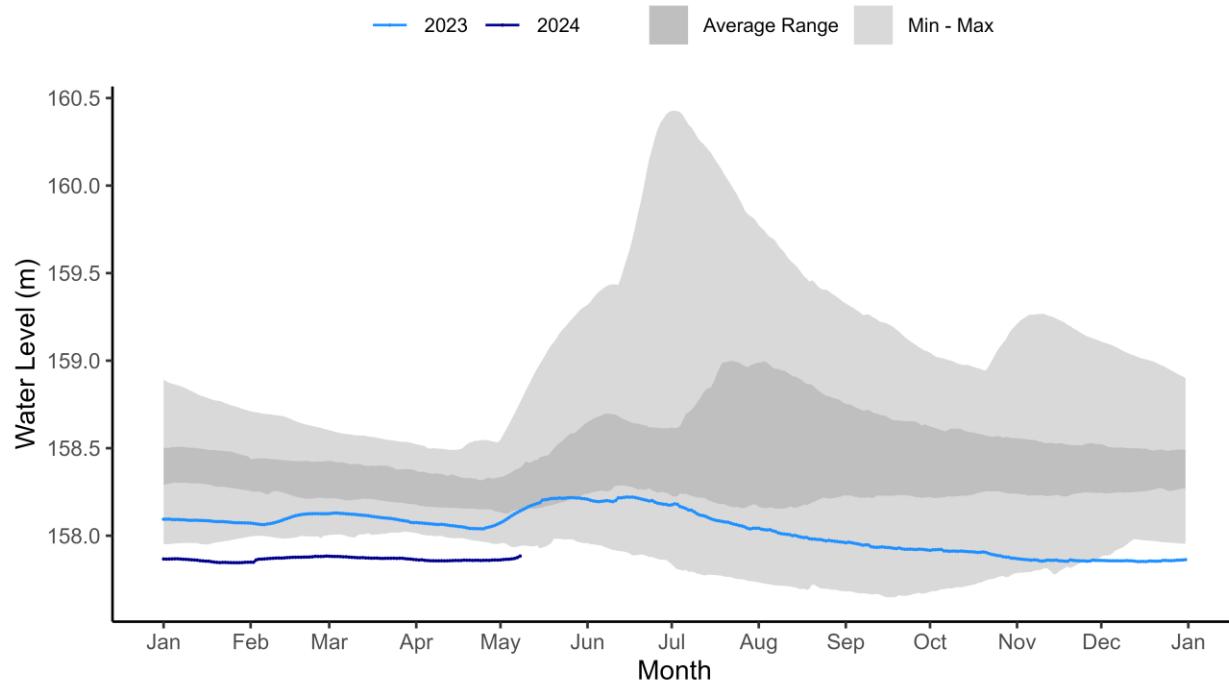


CAMERON RIVER BELOW REID LAKE (07SB010)



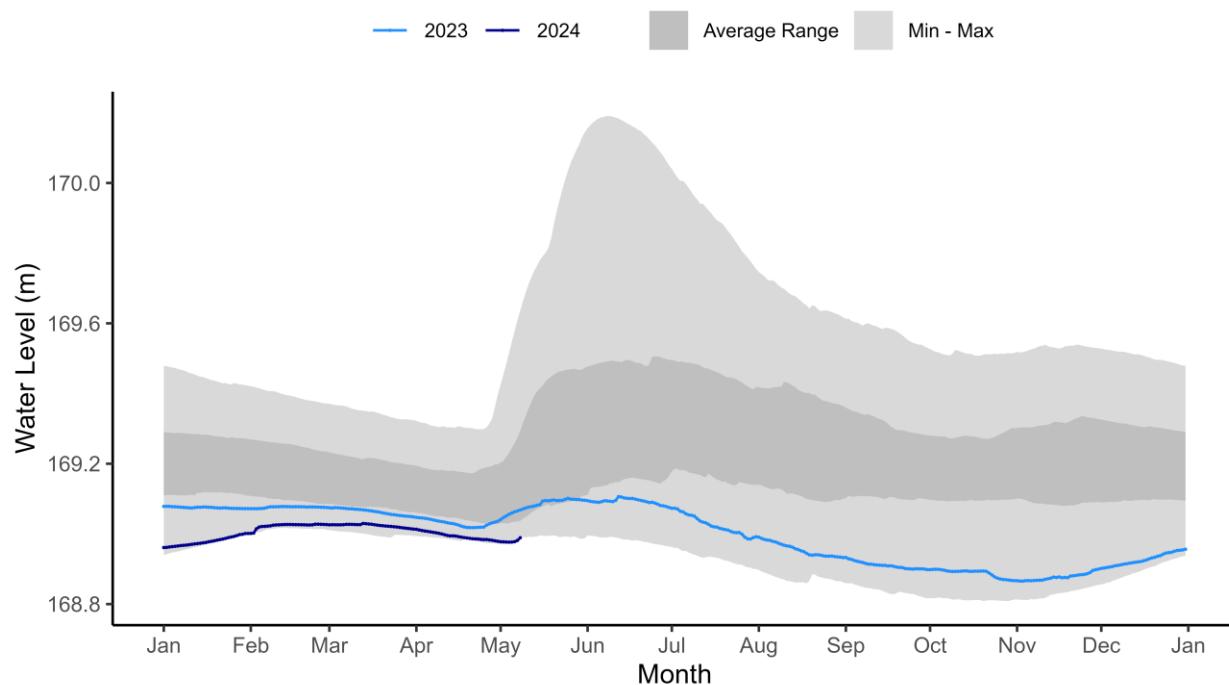
Prosperous Lake near McMeekan Bay [07SB014]

PROSPEROUS LAKE NEAR MCMEEKAN BAY (07SB014)



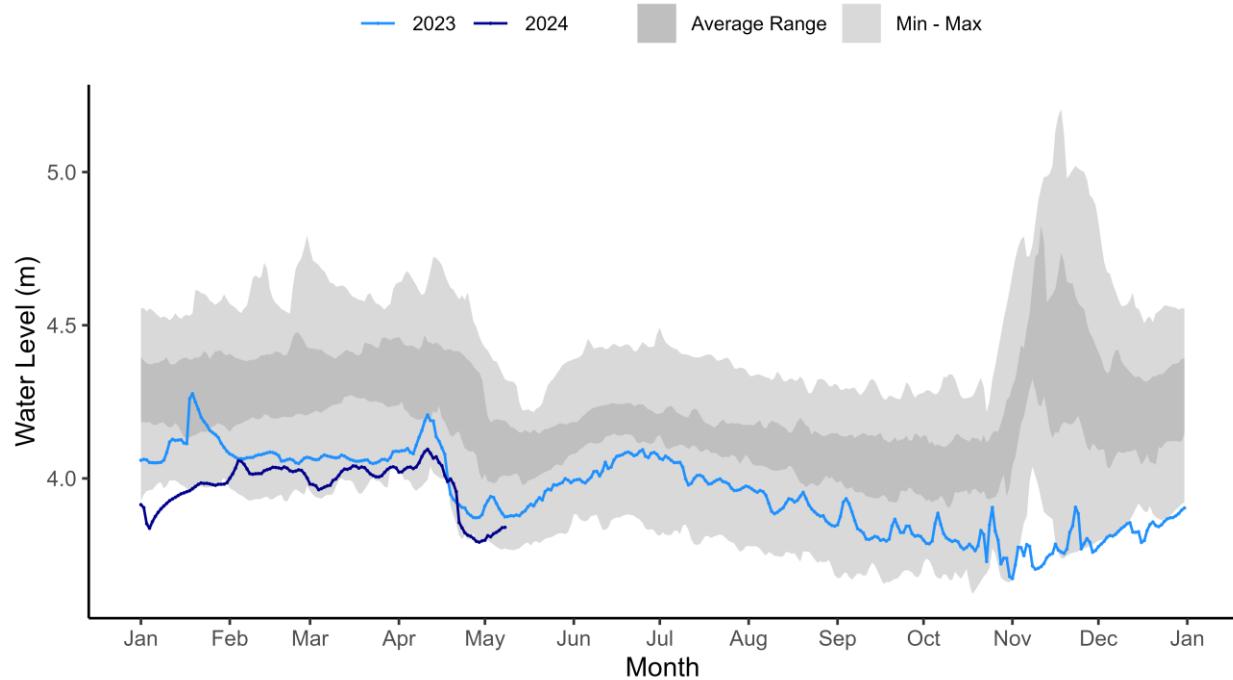
Prelude Lake near Yellowknife [07SB017]

PRELUDE LAKE NEAR YELLOWKNIFE (07SB017)

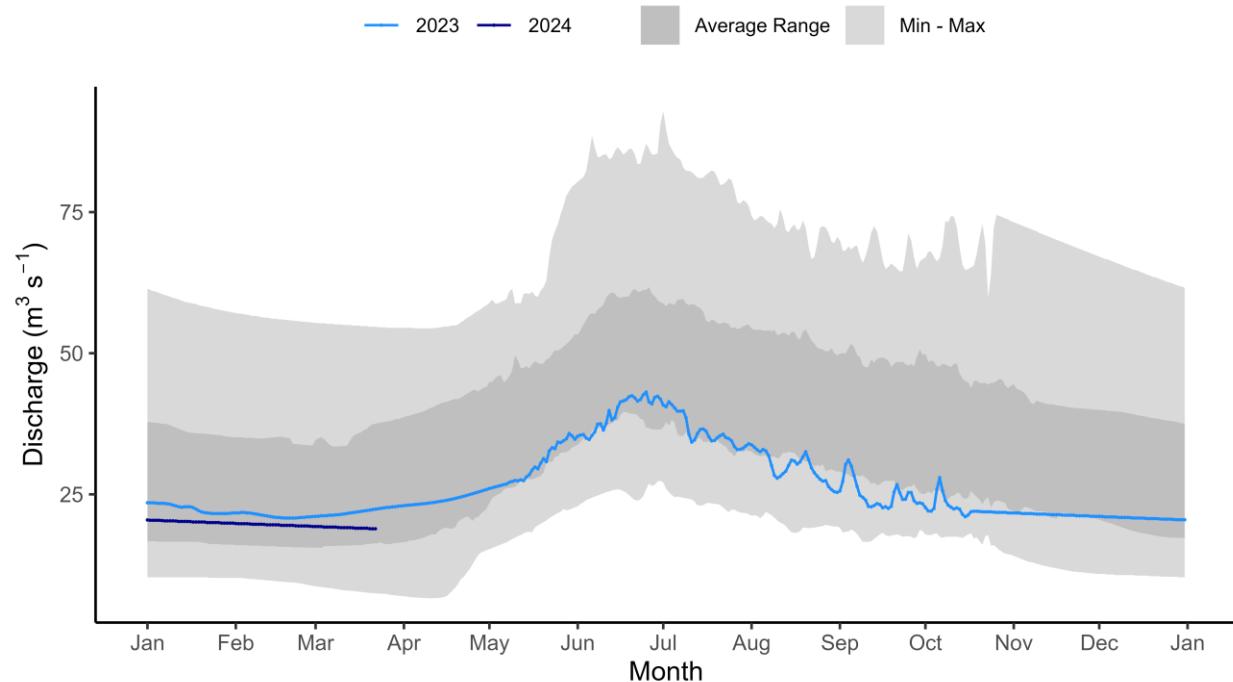


La Martre River below outlet of Lac La Martre [07TA001]

LA MARTRE RIVER BELOW OUTLET OF LAC LA MARTRE (07TA001)

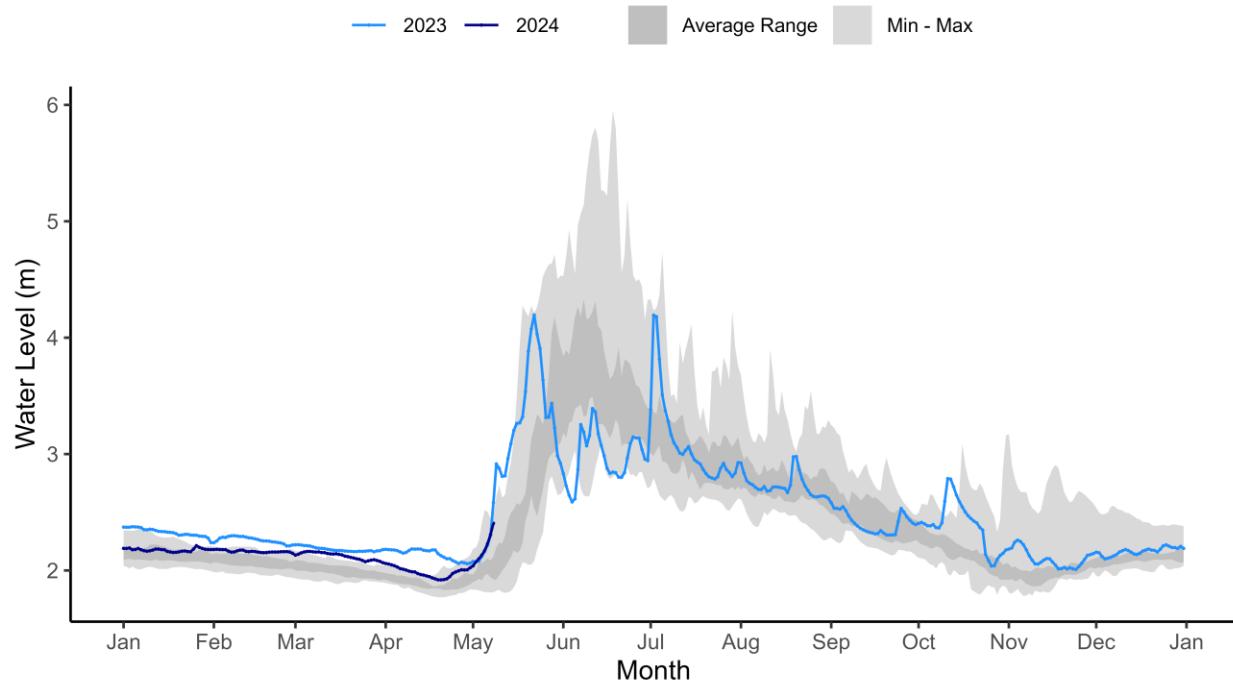


LA MARTRE RIVER BELOW OUTLET OF LAC LA MARTRE (07TA001)

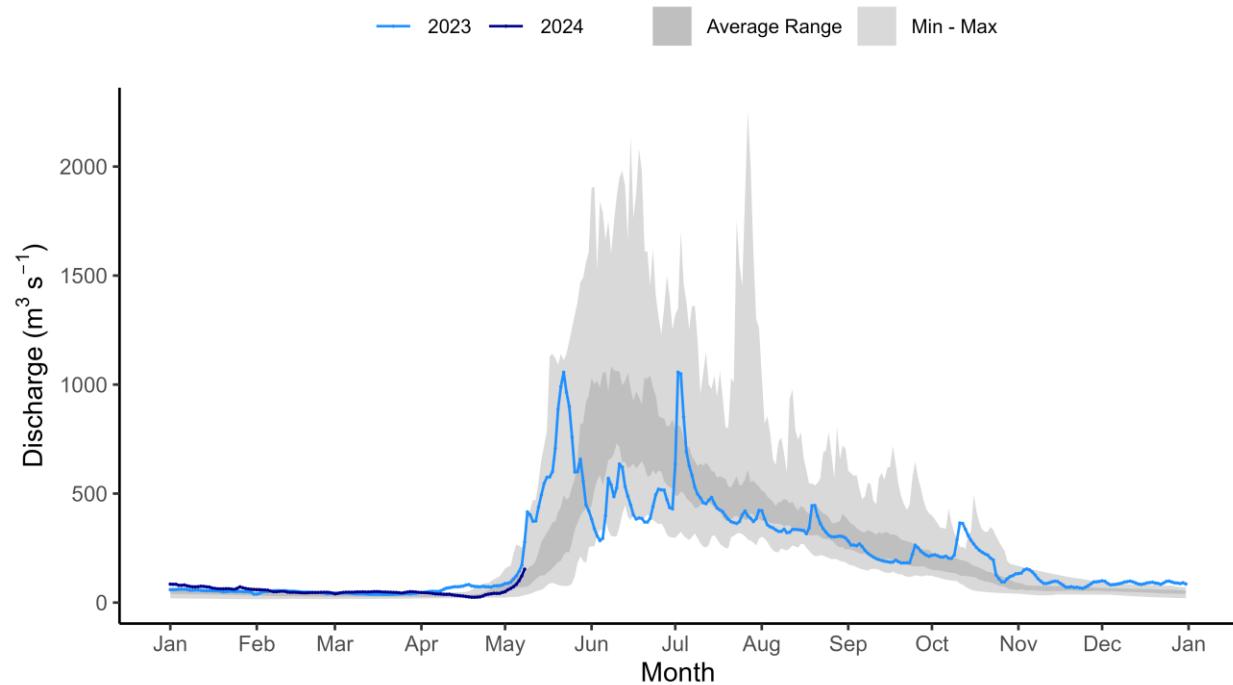


South Nahanni River above Virginia Falls [10EB001]

SOUTH NAHANNI RIVER ABOVE VIRGINIA FALLS (10EB001)

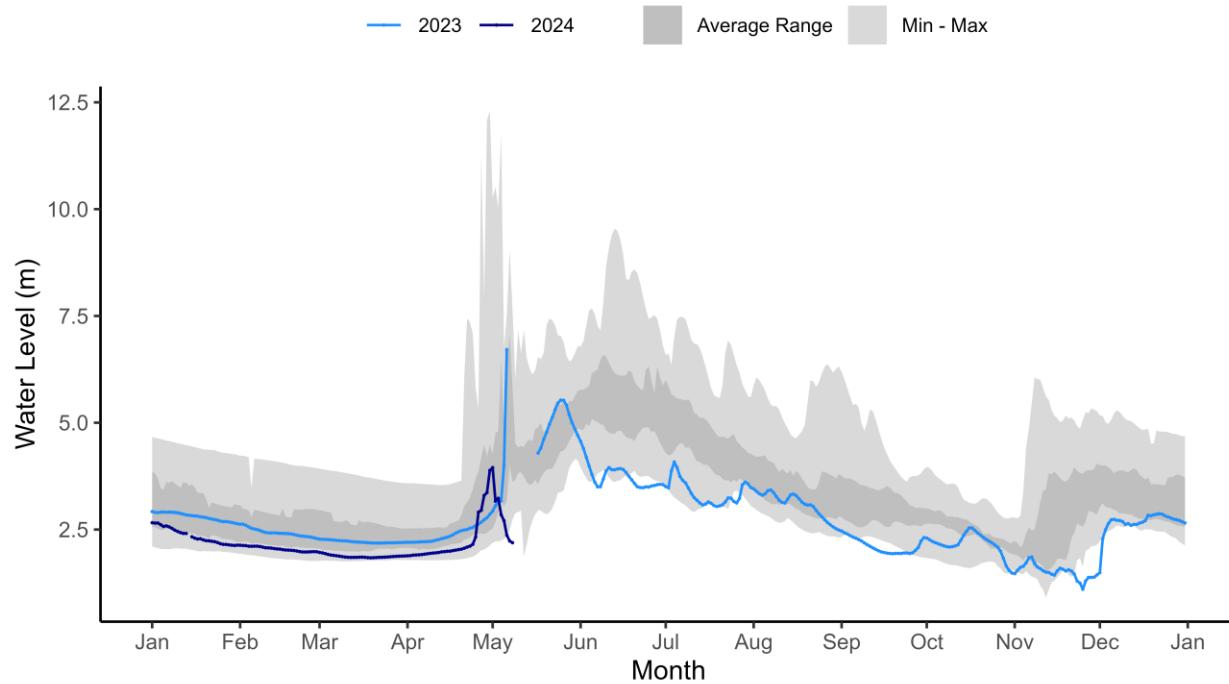


SOUTH NAHANNI RIVER ABOVE VIRGINIA FALLS (10EB001)

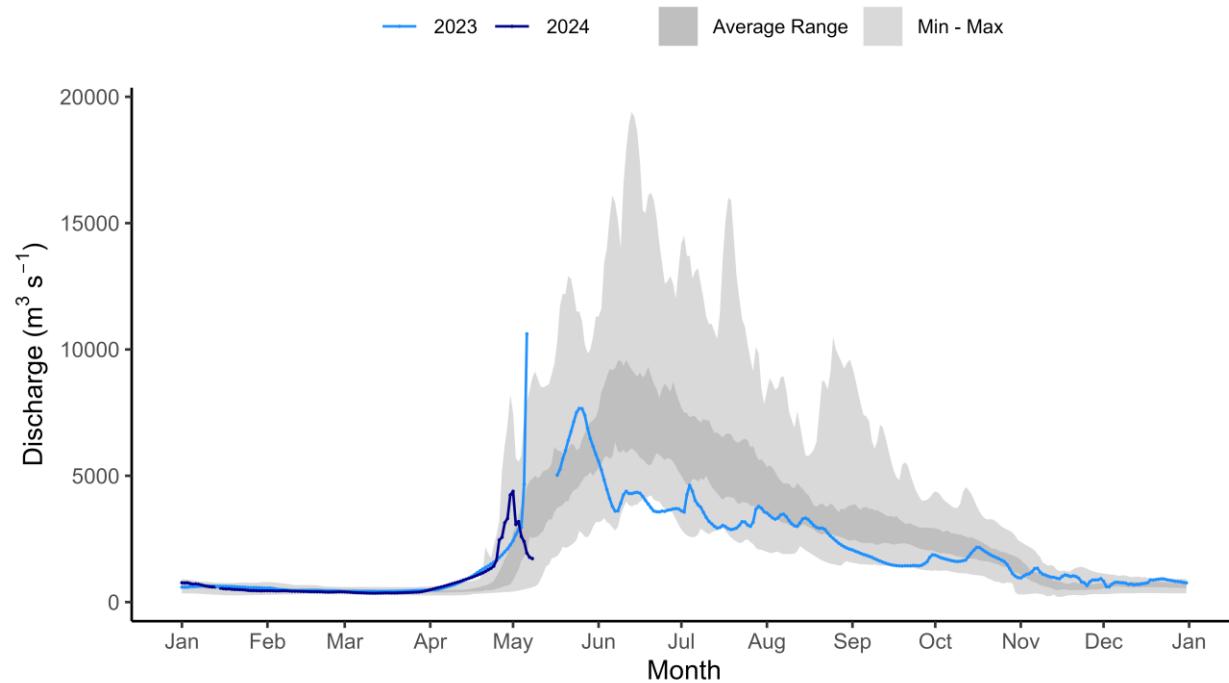


Liard River near the Mouth [10ED002]

LIARD RIVER NEAR THE MOUTH (10ED002)

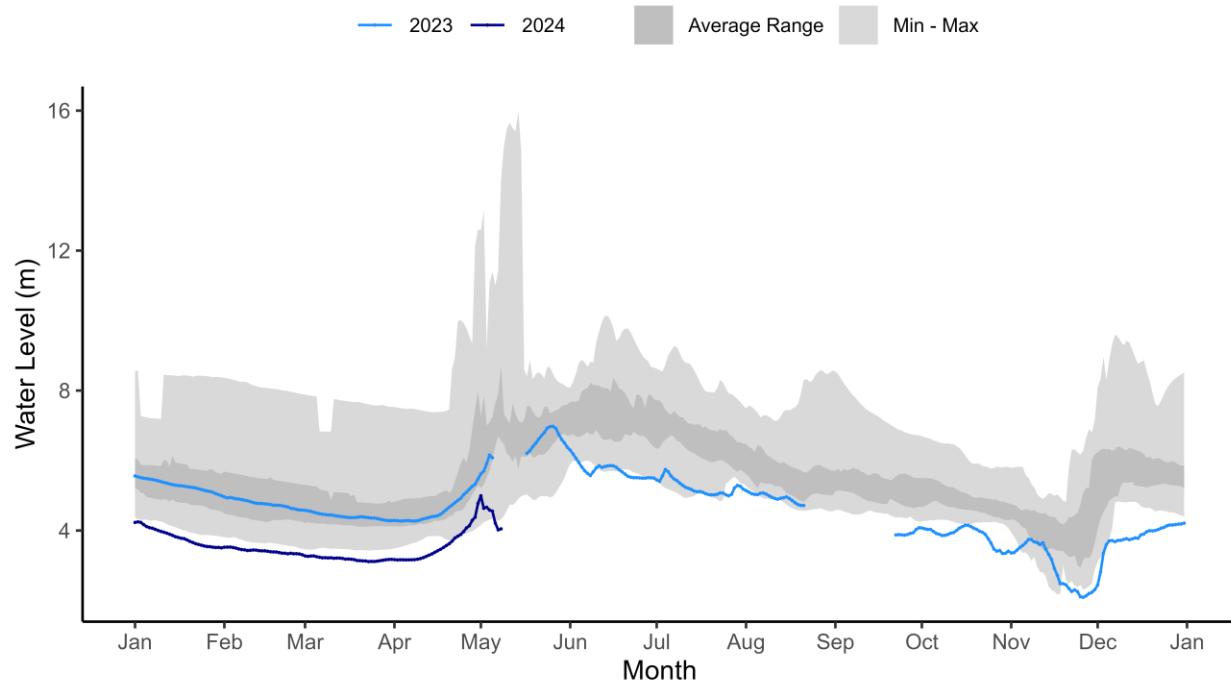


LIARD RIVER NEAR THE MOUTH (10ED002)

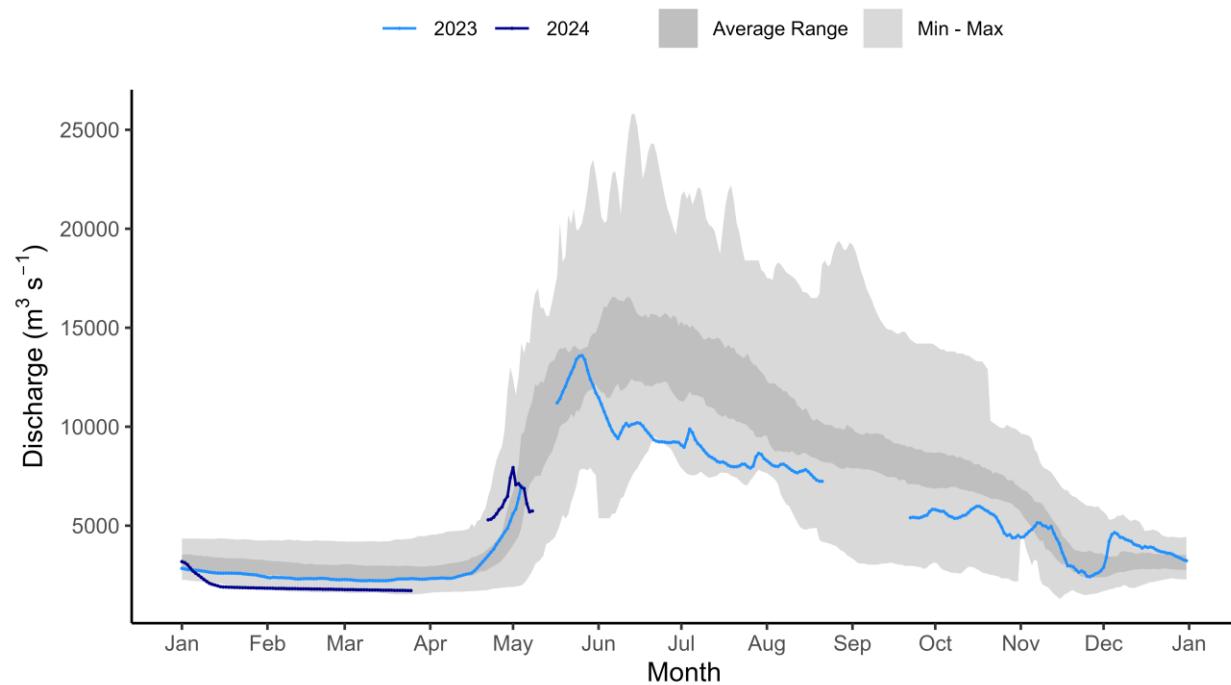


Mackenzie River at Fort Simpson [10GC001]

MACKENZIE RIVER AT FORT SIMPSON (10GC001)

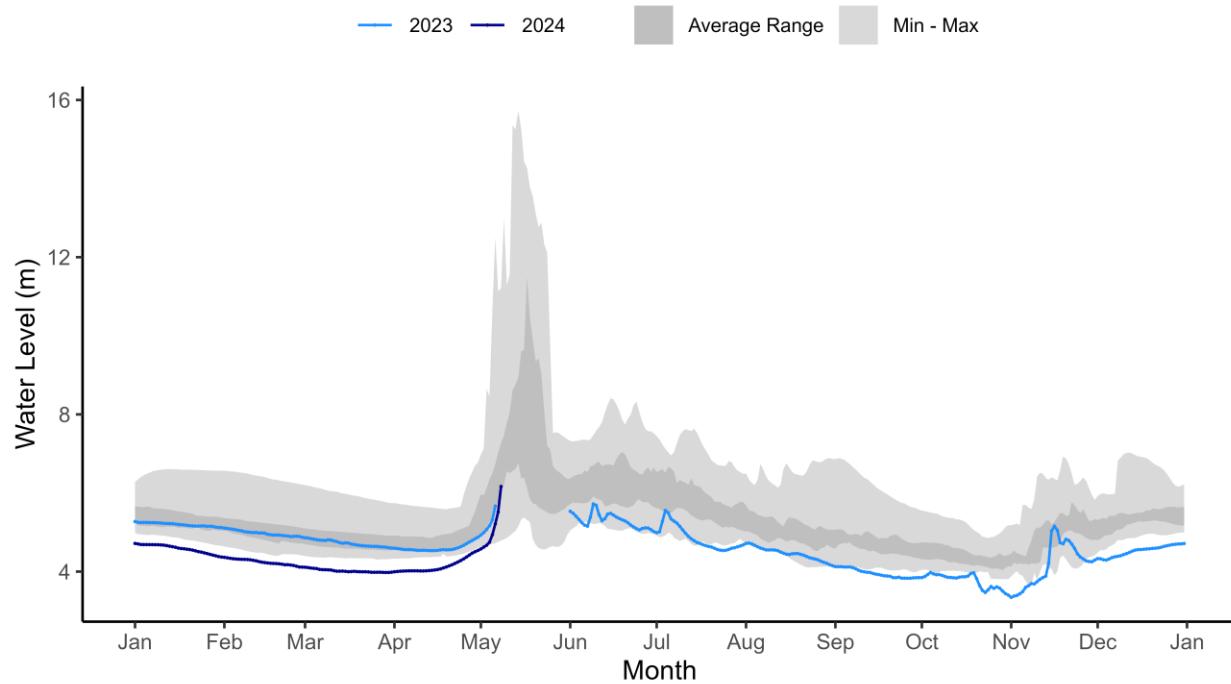


MACKENZIE RIVER AT FORT SIMPSON (10GC001)

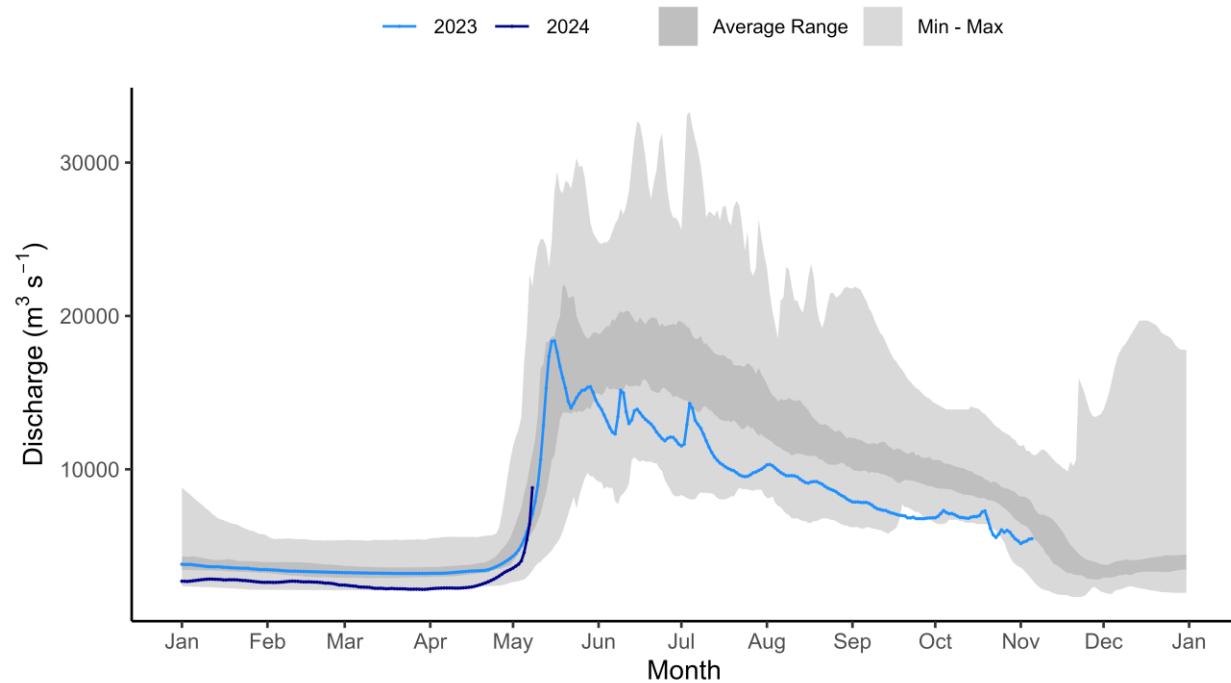


Mackenzie River at Norman Wells [10KA001]

MACKENZIE RIVER AT NORMAN WELLS (10KA001)

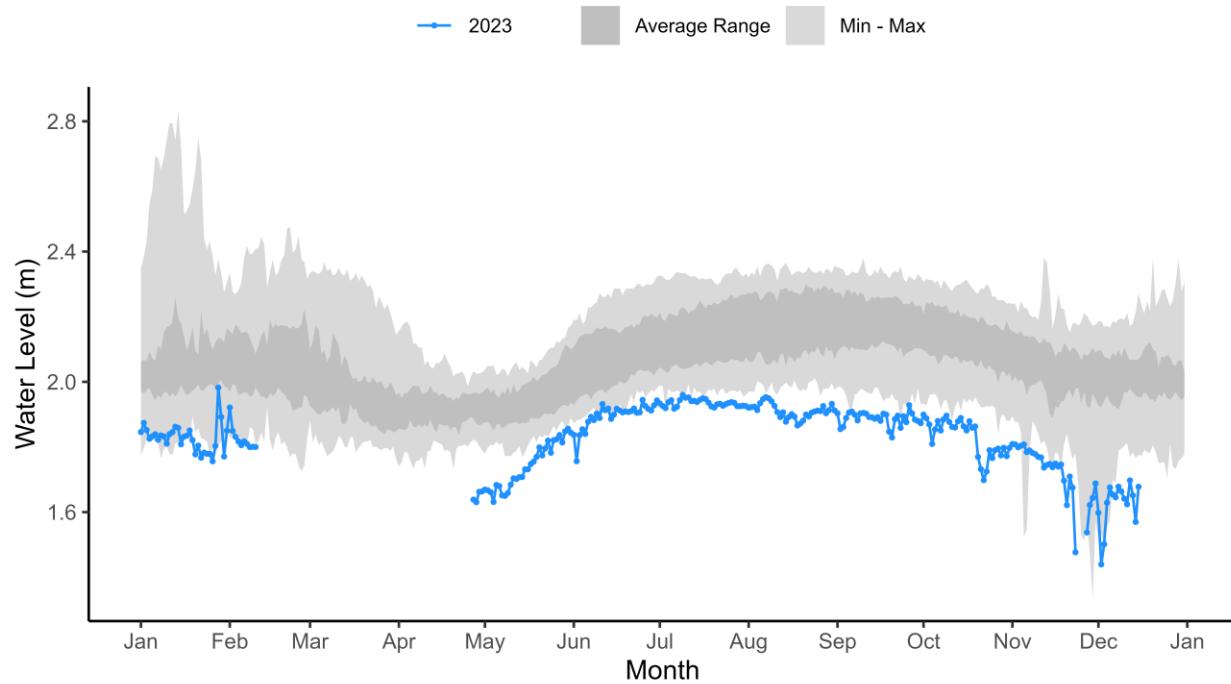


MACKENZIE RIVER AT NORMAN WELLS (10KA001)



Great Bear River at outlet of Great Bear Lake [10JC003]

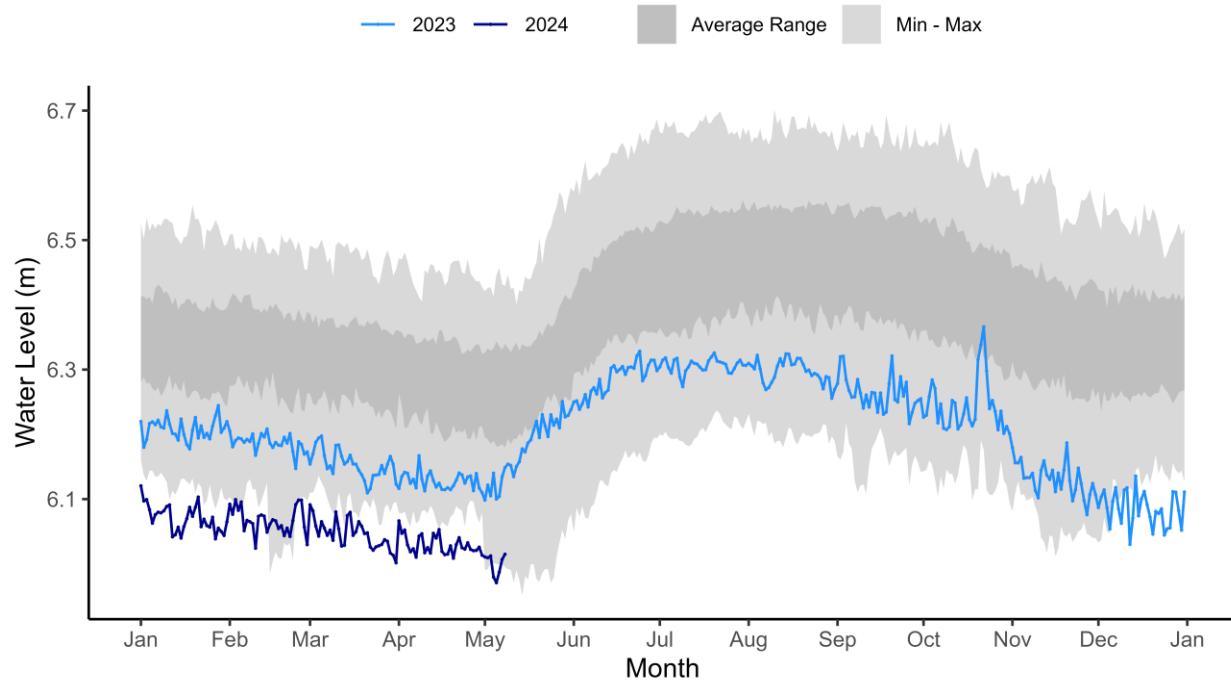
GREAT BEAR RIVER AT OUTLET OF GREAT BEAR LAKE (10JC003)



Note: Current data are not available for 10JC003.

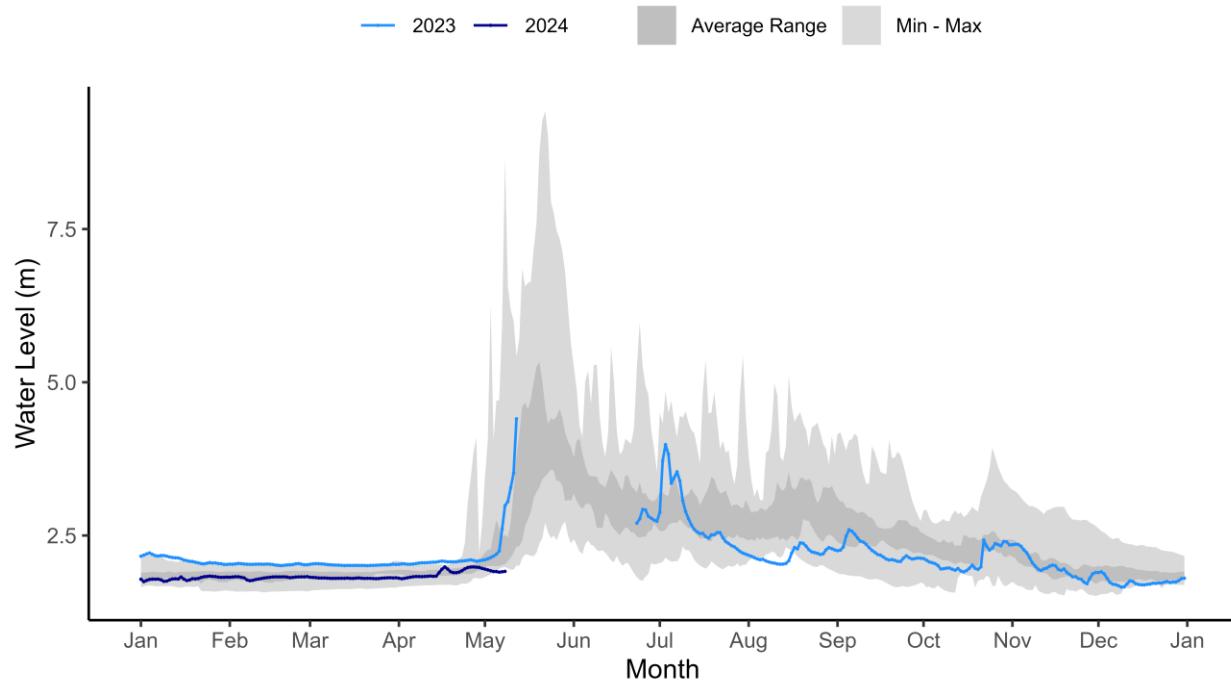
Great Bear Lake at Hornby Bay [10JE002]

GREAT BEAR LAKE AT HORNBY BAY (10JE002)

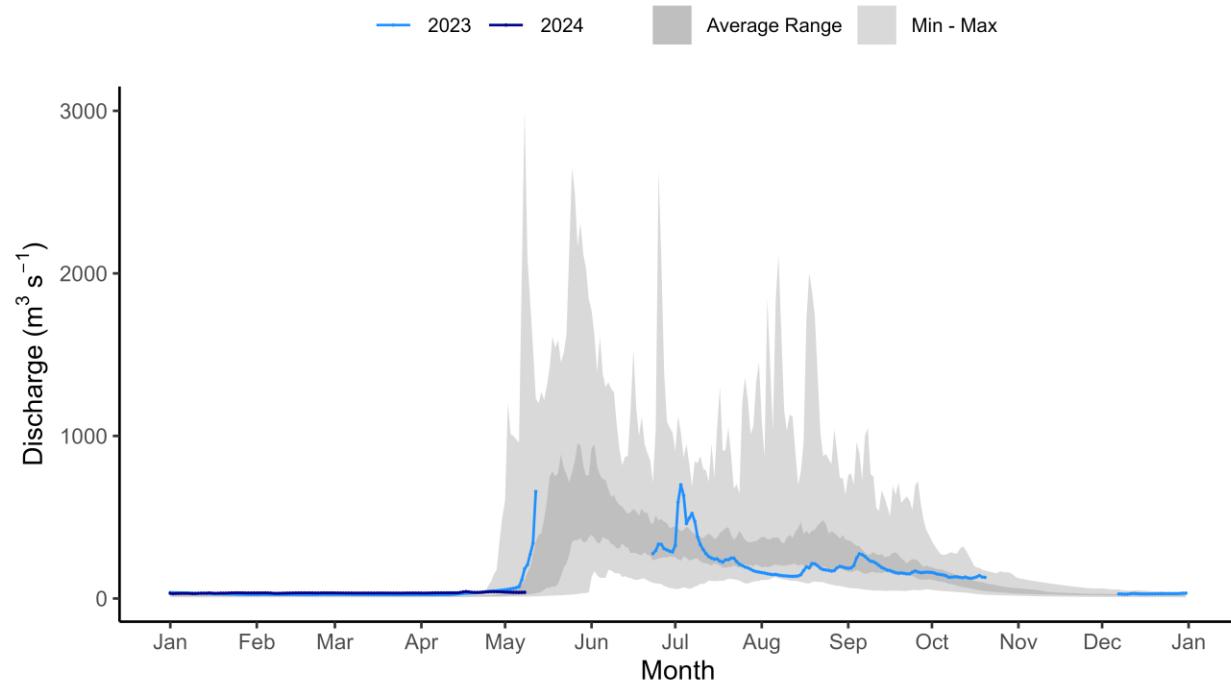


Arctic Red River near the mouth [10LA002]

ARCTIC RED RIVER NEAR THE MOUTH (10LA002)

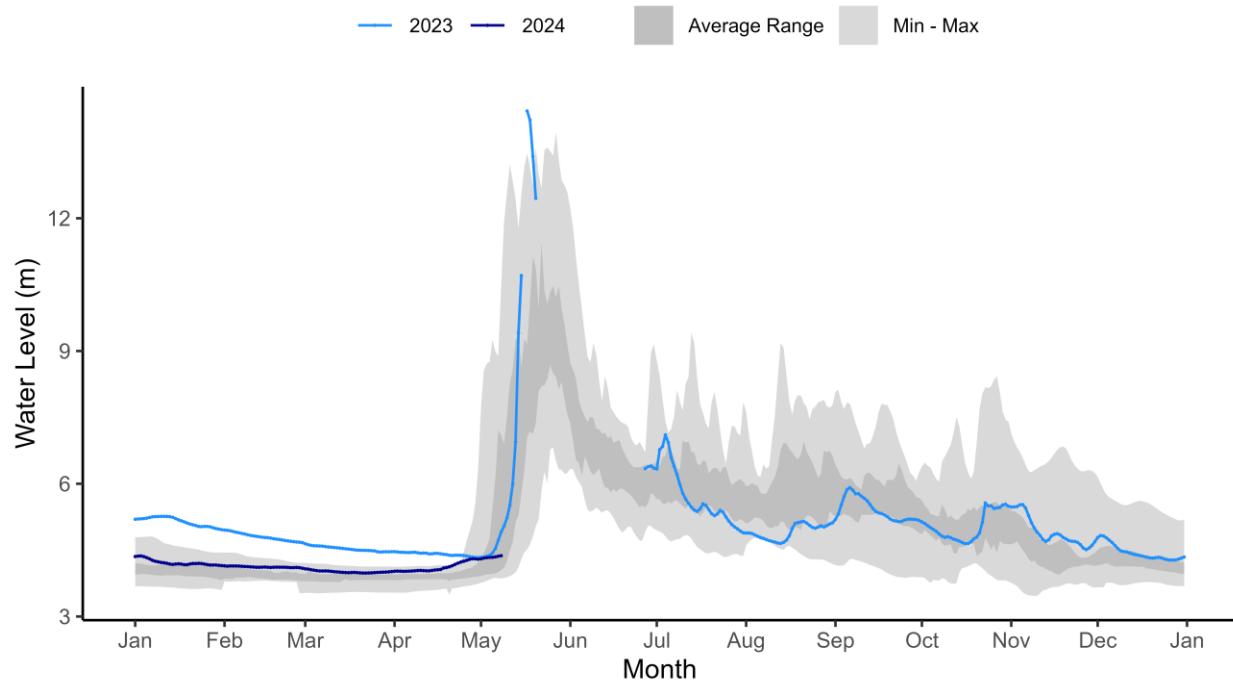


ARCTIC RED RIVER NEAR THE MOUTH (10LA002)

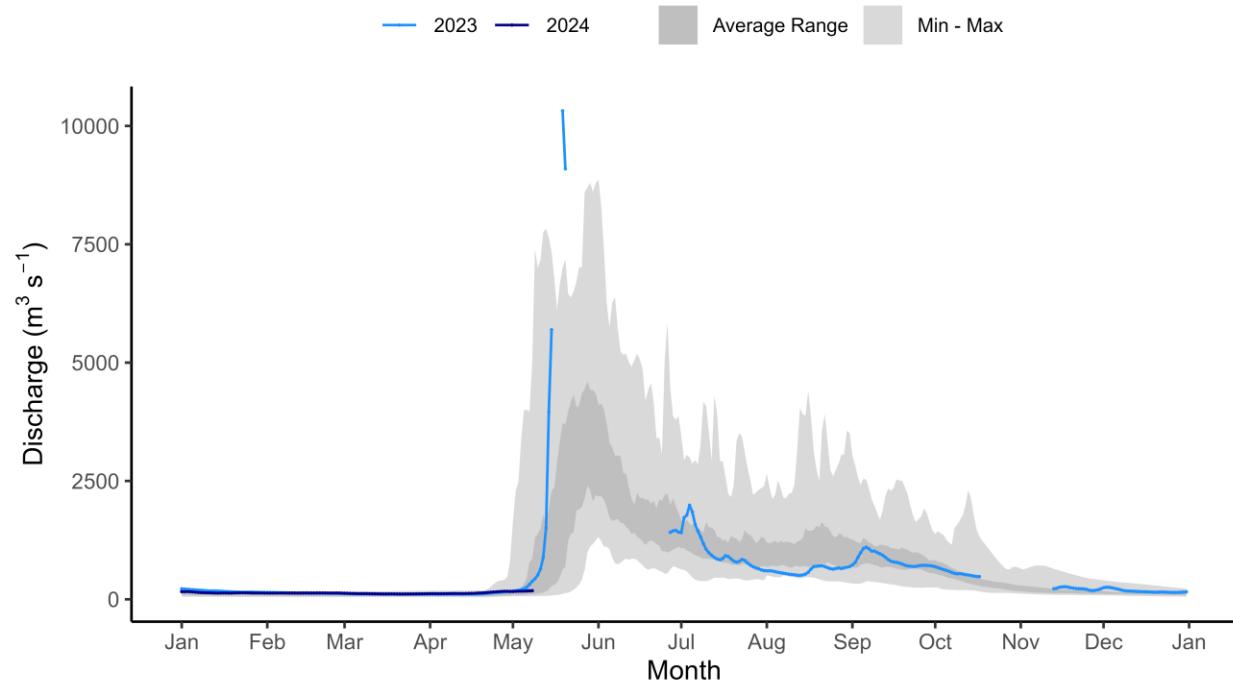


Peel River above Fort McPherson [10MC002]

PEEL RIVER ABOVE FORT MCPHERSON (10MC002)

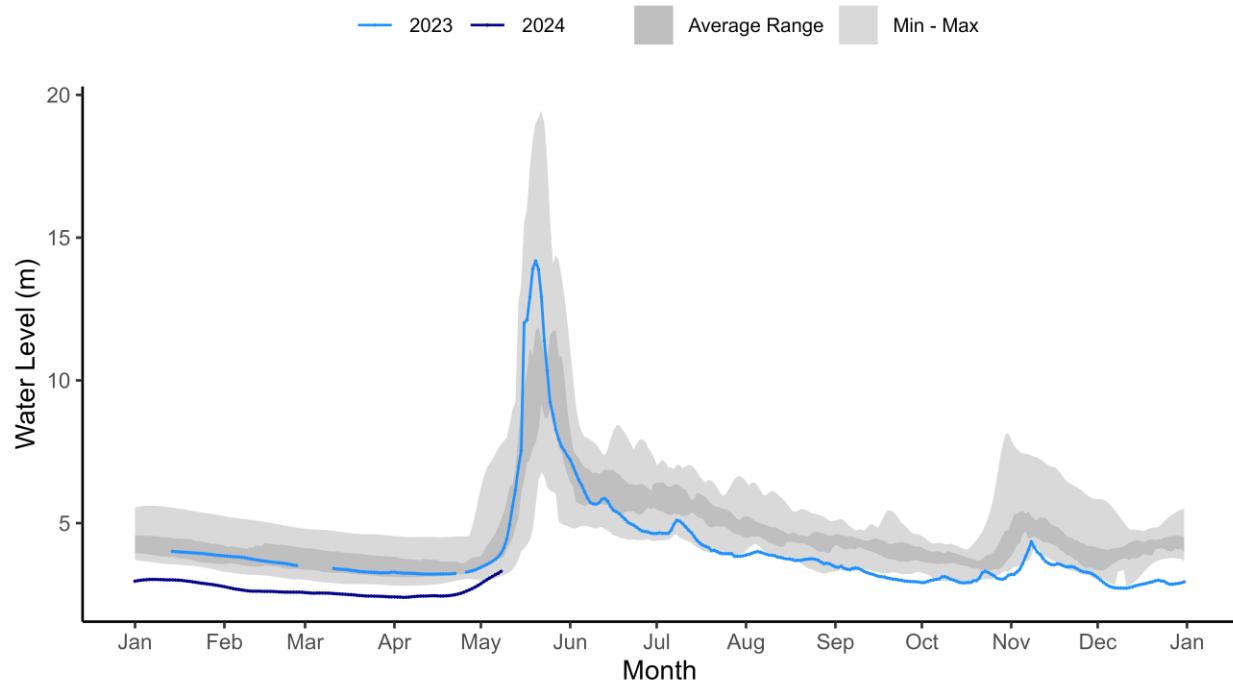


PEEL RIVER ABOVE FORT MCPHERSON (10MC002)

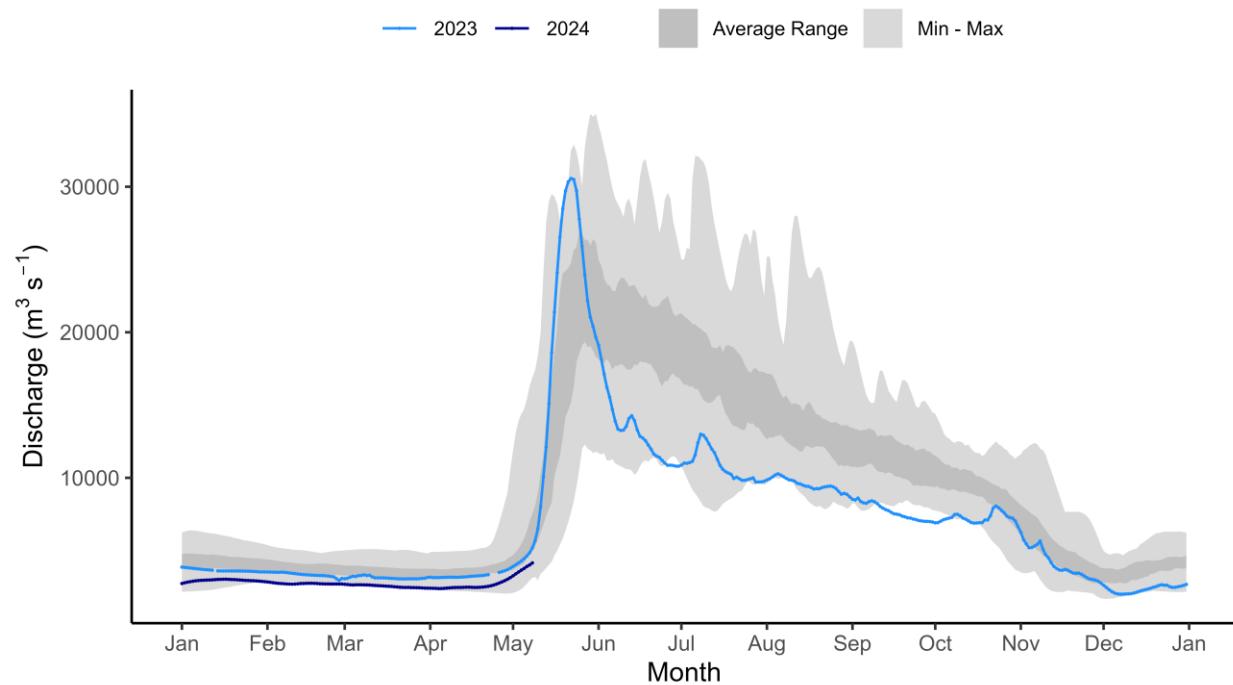


Mackenzie River at Arctic Red River [10LC014]

MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)

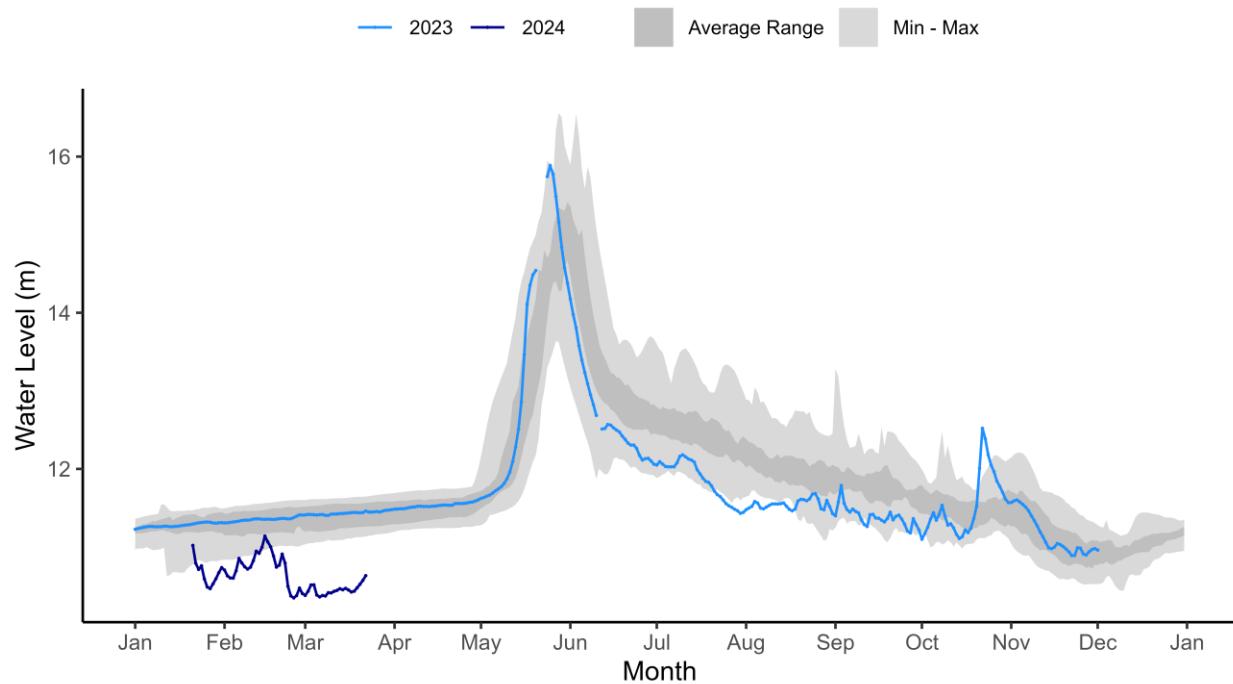


MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)



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

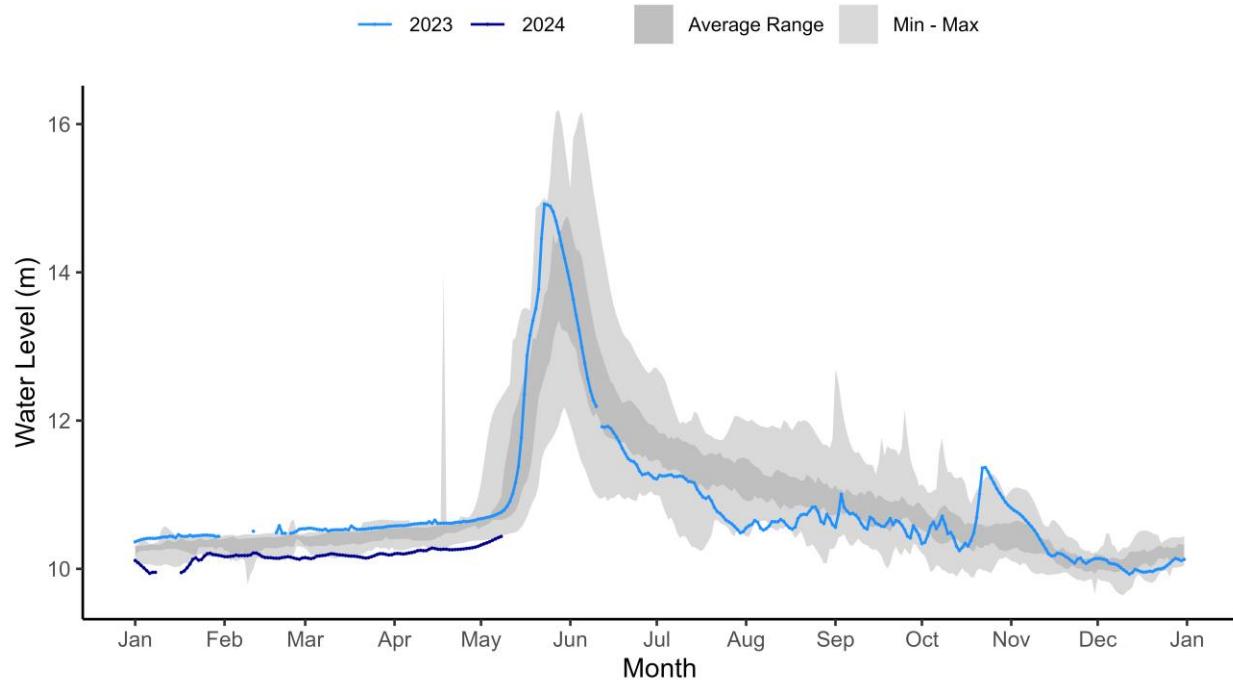
MACKENZIE RIVER (EAST CHANNEL) AT INUVIK (10LC002)



Note: Current data are not available for 10LC002.

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

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

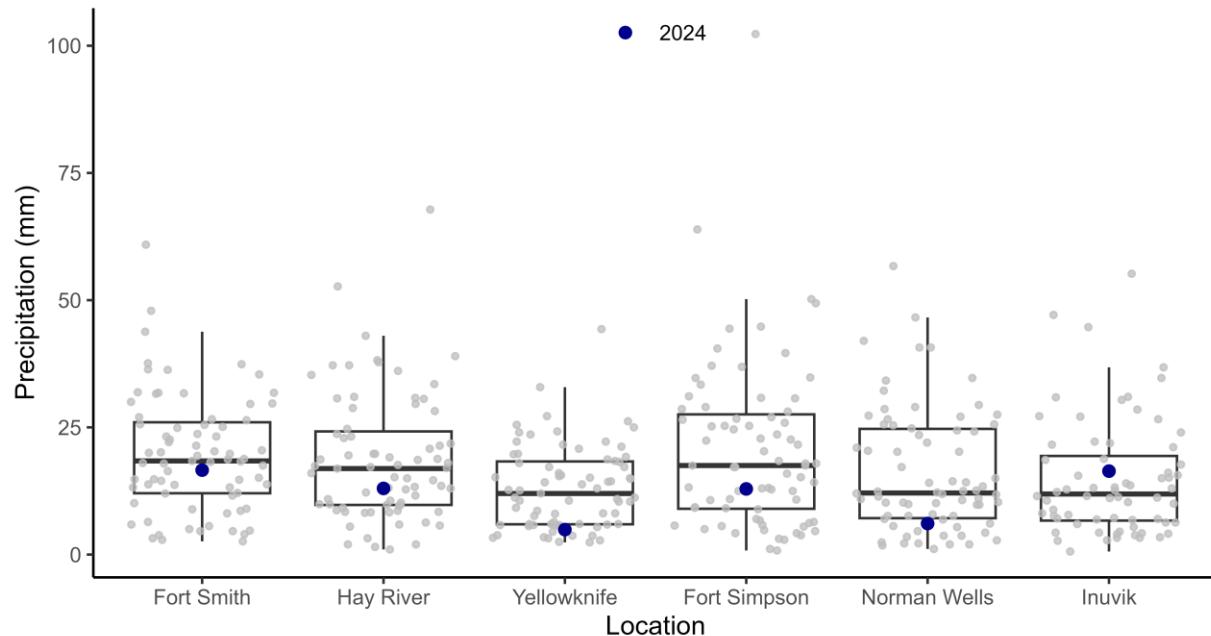


Climate Data:

Summary Data:

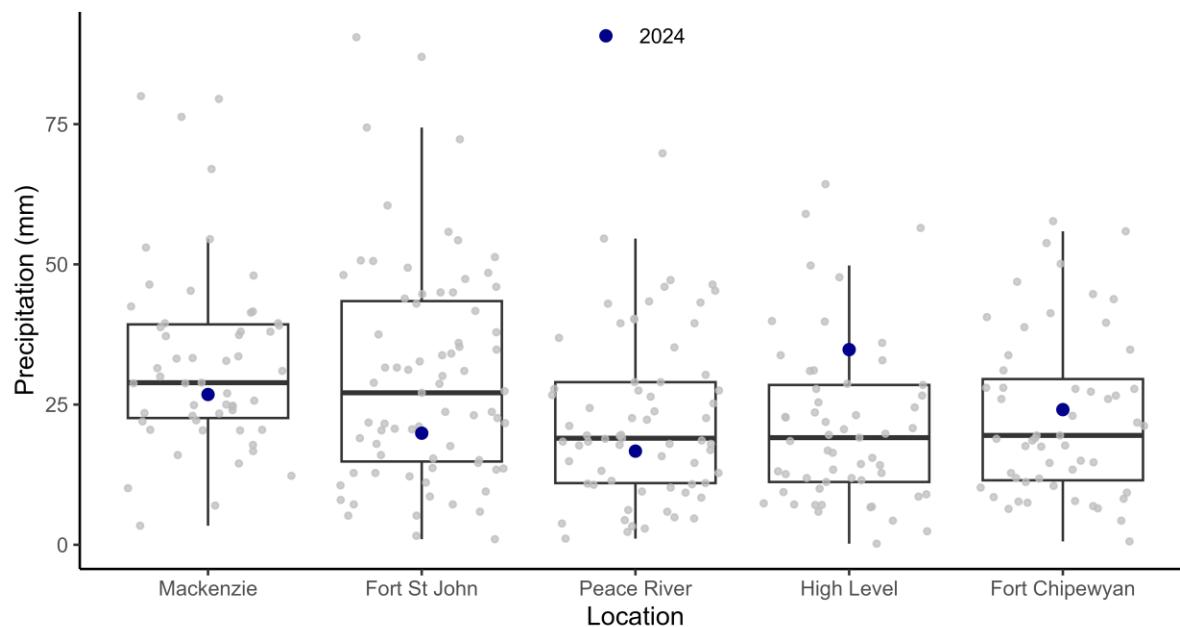
Total Precipitation for NWT Communities

April 1st to May 8th



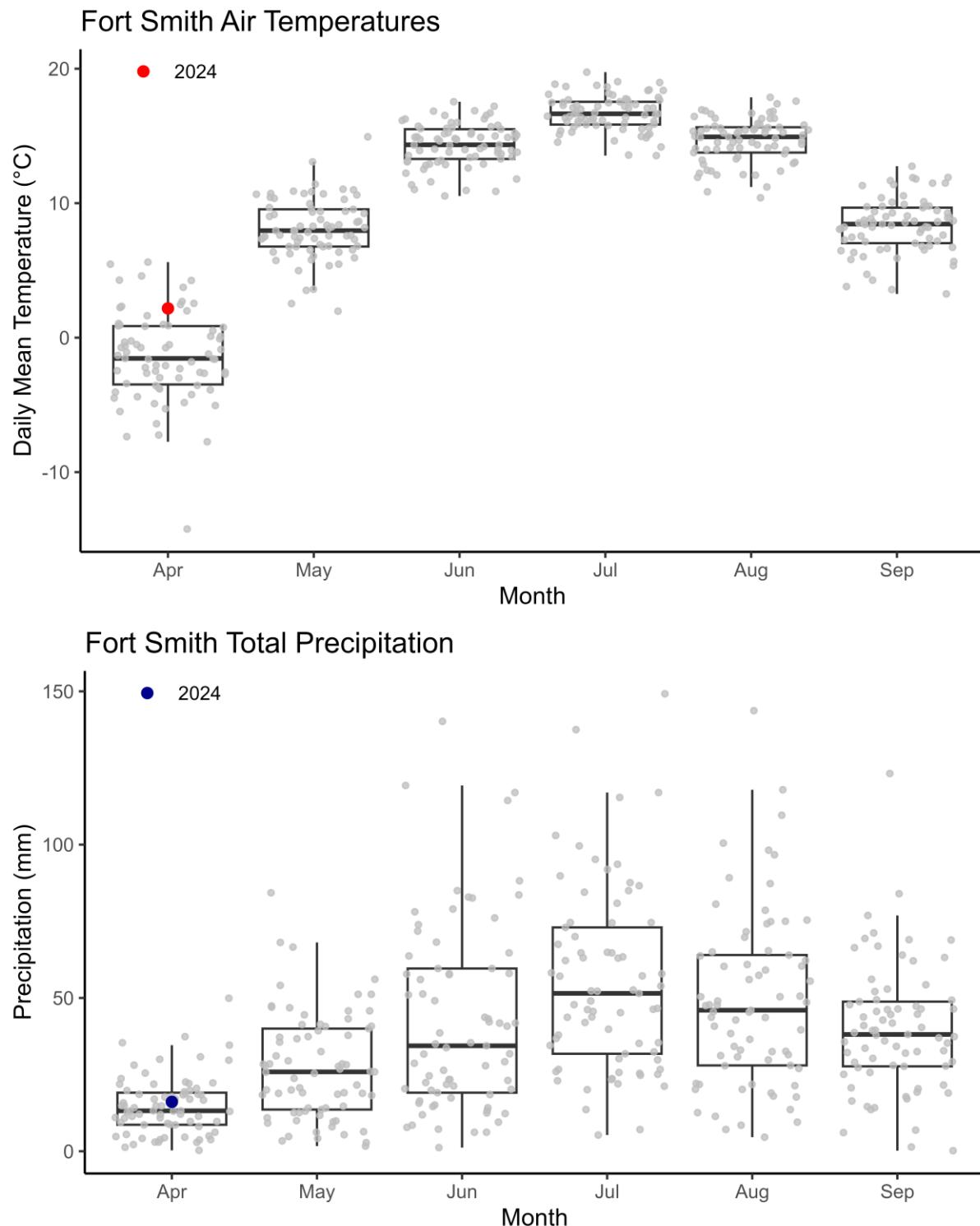
Total Precipitation for BC/AB Communities in Great Slave Lake Basin

April 1st to May 8th



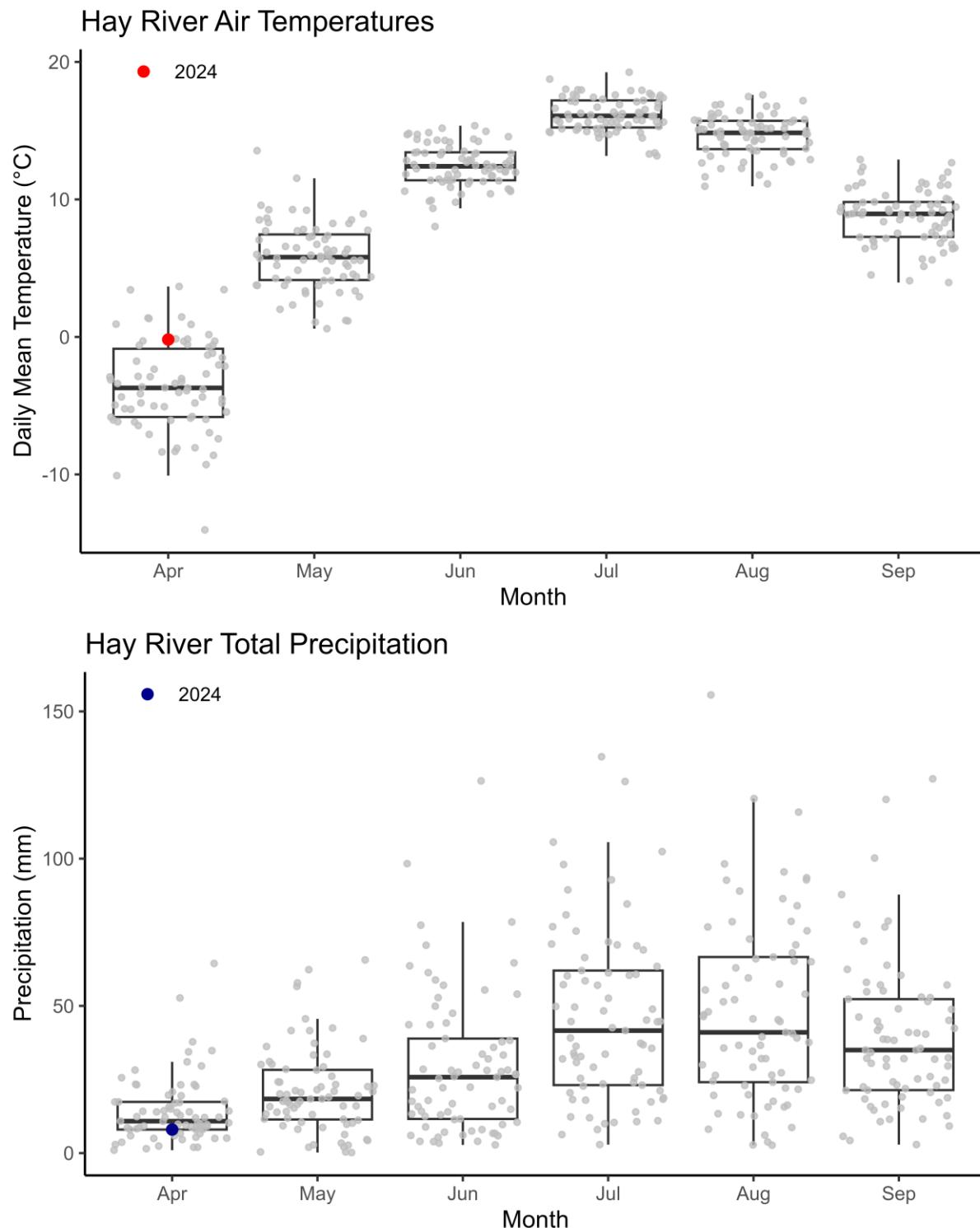
Precipitation in this figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) that has fallen in select communities a) across the NWT; and b) in British Columbia and Alberta within the Great Slave Lake basin. This figure shows precipitation from the start of April until May 8th. The blue dot is the current year, and the grey dots are all previous years from 1950 to present.

Fort Smith



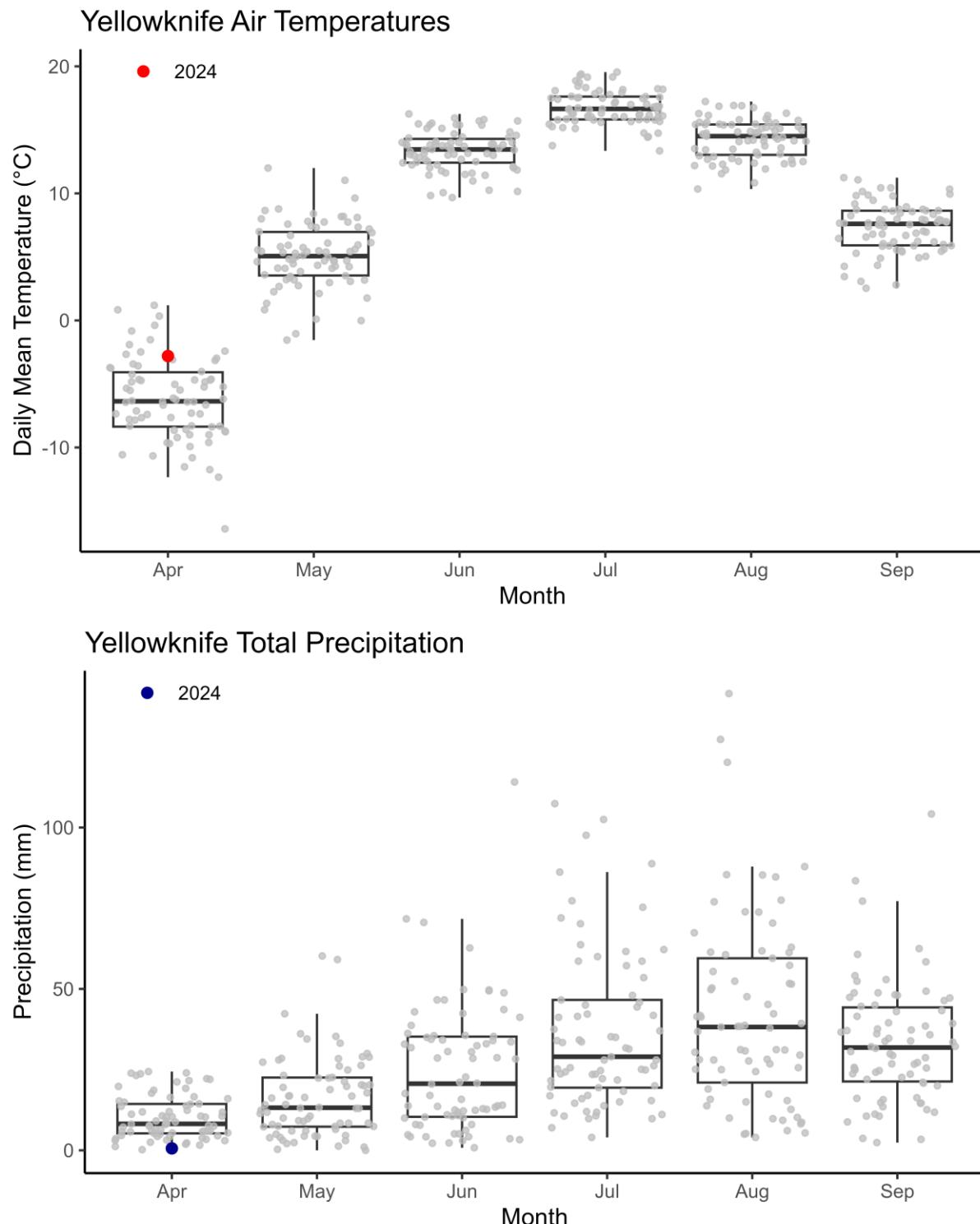
Precipitation in this figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) for April.

Hay River



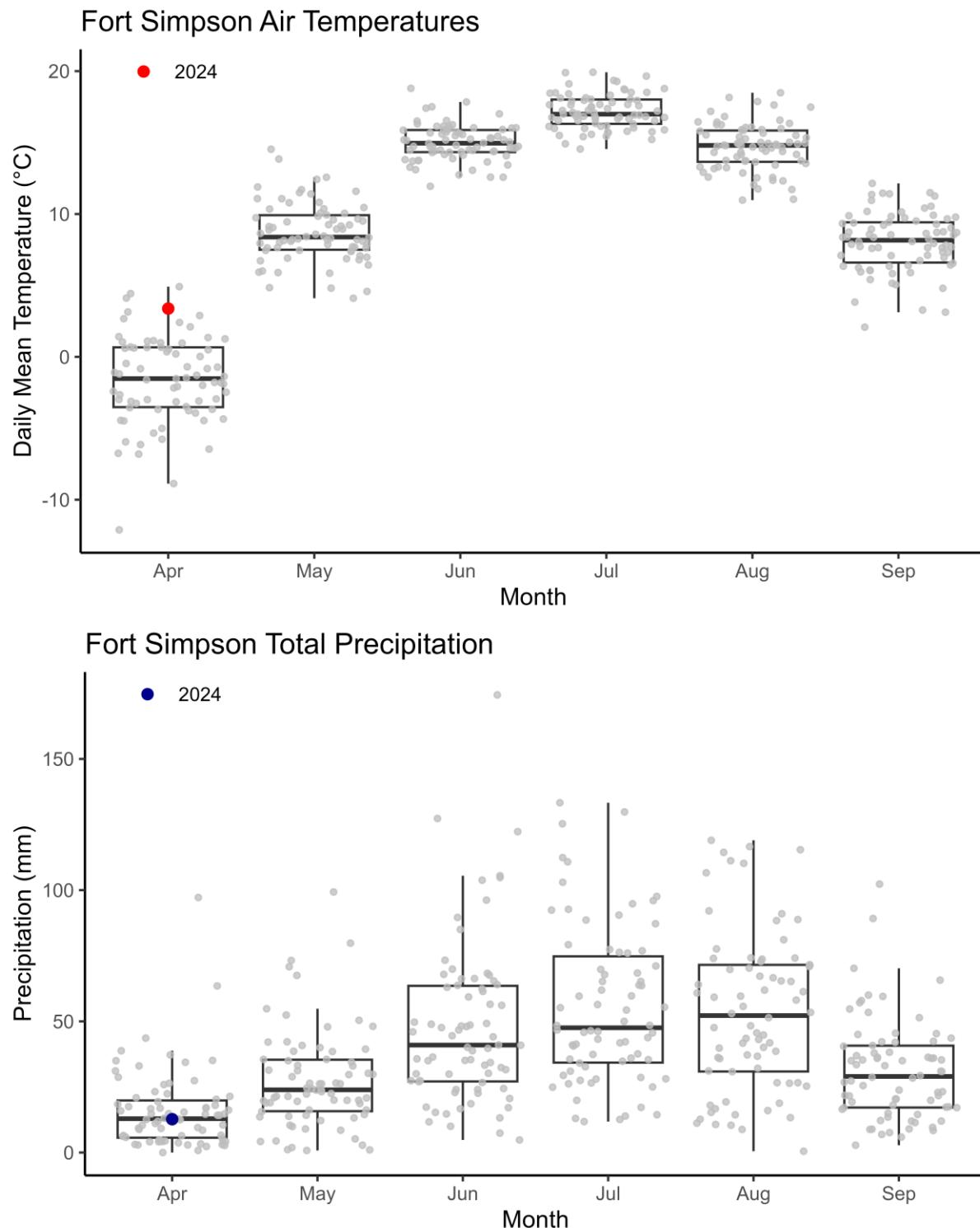
This figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) summarized as precipitation for 2024.

Yellowknife



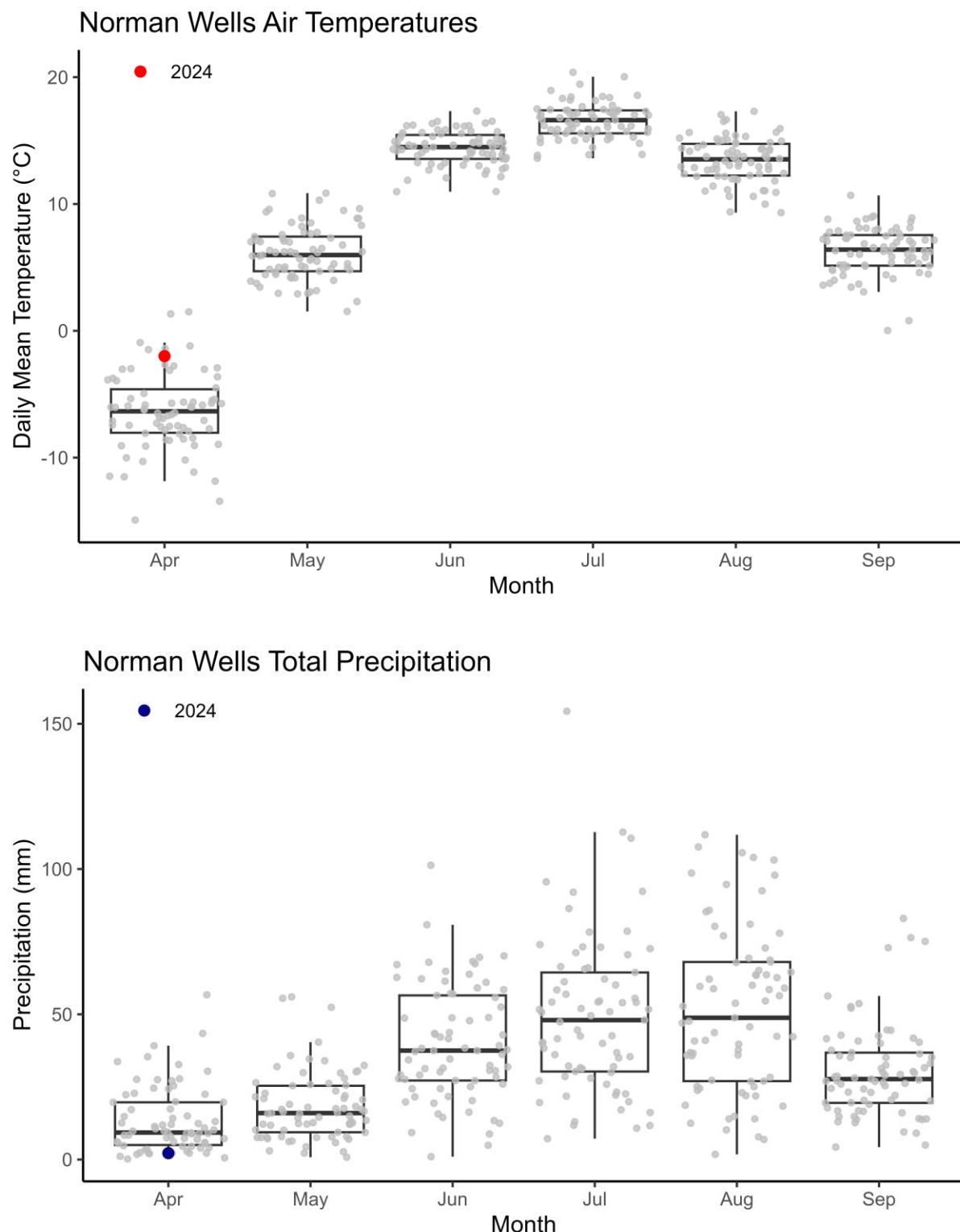
This figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) summarized as precipitation for 2024.

Fort Simpson



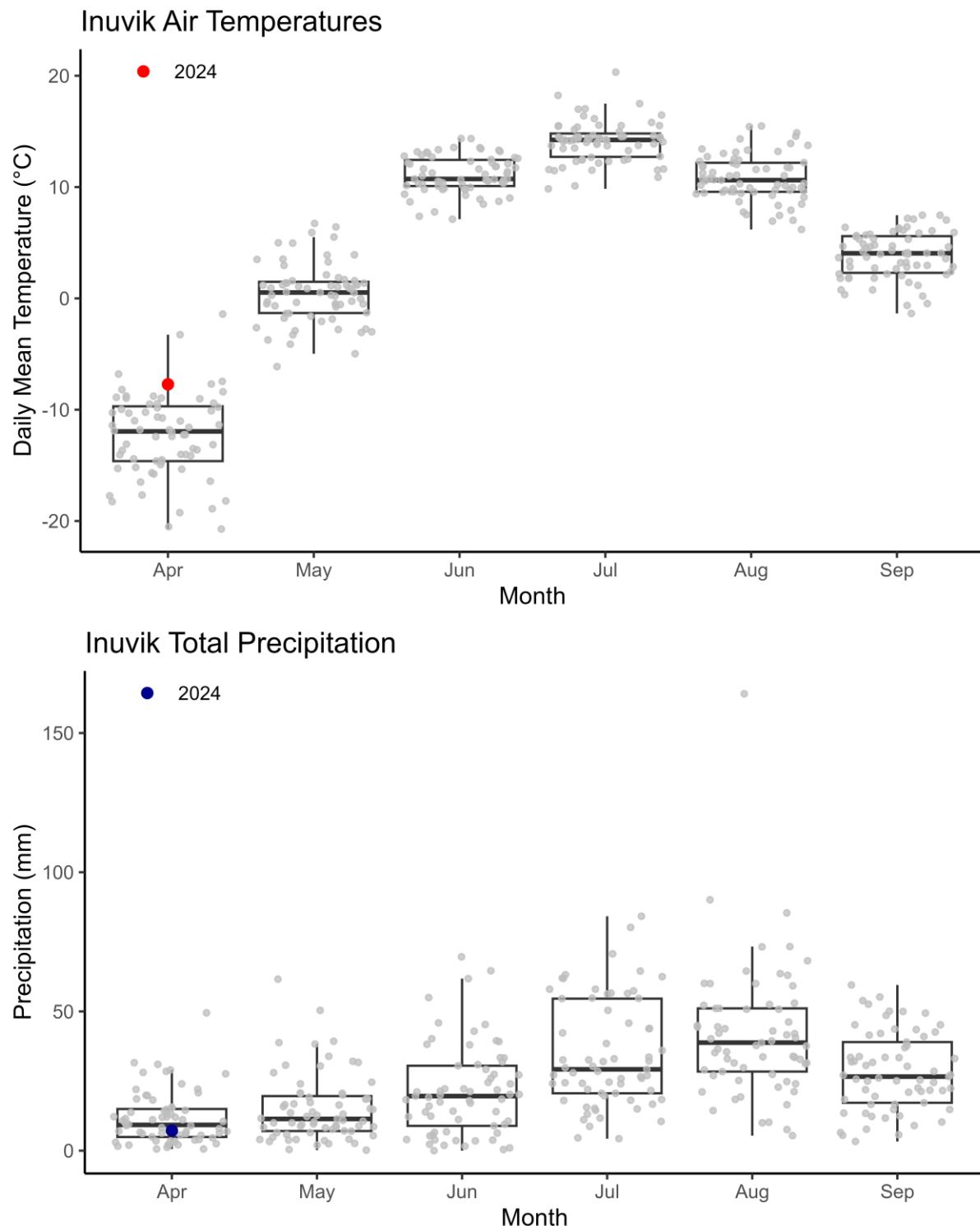
This figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) summarized as precipitation for 2024.

Norman Wells



This figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) summarized as precipitation for 2024.

Inuvik



This figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) summarized as precipitation for 2024.