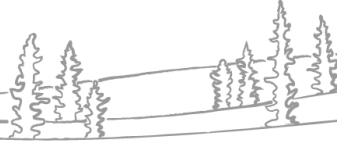




NWT Water Monitoring Bulletin

– August 2nd, 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 flow (discharge) or water level 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:

- Water levels and flow rates remain very low across most of the NWT, but flow rates have started to slowly rise in July on some rivers.
 - Great Slave Lake remains at its lowest water level recorded for this time of year but has increased by 7 cm since early June.
 - Flow rates on the Slave River, Lockhart River and Cameron River have increased in July, but are still below average for this time of year.
 - Flow rates on the Hay River are at their second lowest recorded value for this time of year, second only to flow rates in 2023.
 - Most other gauged tributaries to Great Slave Lake are below average for this time of year.
 - Flow rates on the Liard River are responding to recent precipitation events and have increased to approximately average for this time of year.
 - Water levels on Great Bear Lake and Great Bear River are at or near their lowest recorded values for this time of year.
 - Flow rates at most locations along the Mackenzie River are well below average or at their lowest recorded values for this time of year.
 - Water levels and flow rates in the Beaufort Delta region, including the Peel River, Arctic Red River, Mackenzie River East Channel (at Inuvik) and Main Channel are either below average or at their lowest recorded values for this time of year.
- Low water levels continue to be the result of extreme drought conditions that began in the summer of 2022.
- Cumulative precipitation so far this spring and summer has been below average for NWT communities, with the exception of Inuvik. Cumulative rainfall in Yellowknife has been very low relative to normal.
- Low water levels on Great Slave Lake and the Mackenzie River are influenced by rainfall received in northern British Columbia, Alberta, Saskatchewan, and southern NWT.
 - Precipitation in the Mackenzie River basin in northern BC and AB has been approximately average so far this summer, with some variability between communities.
- July temperatures across the NWT were either much warmer than average or warmer than average.
- July precipitation across the NWT was variable: Inuvik and Fort Simpson received above average precipitation, Norman Wells and Yellowknife received below or well below average precipitation, and Fort Smith and Hay River received approximately average precipitation.
- A precipitation outlook provided by Environment and Climate Change Canada (ECCC) meteorologists suggests that precipitation for the period of August-September-October will be above average in the NWT.

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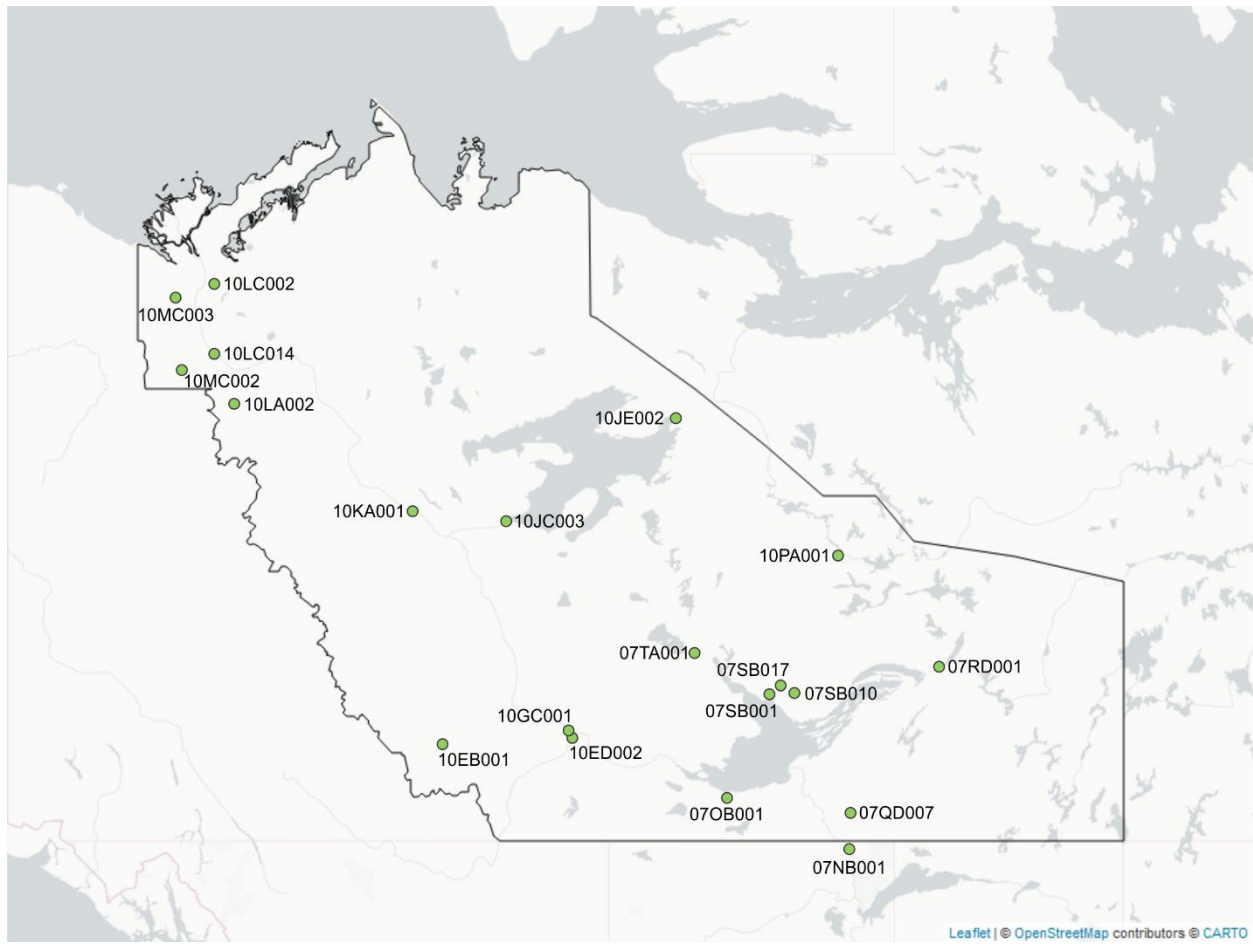
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Hydrometric station map



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.

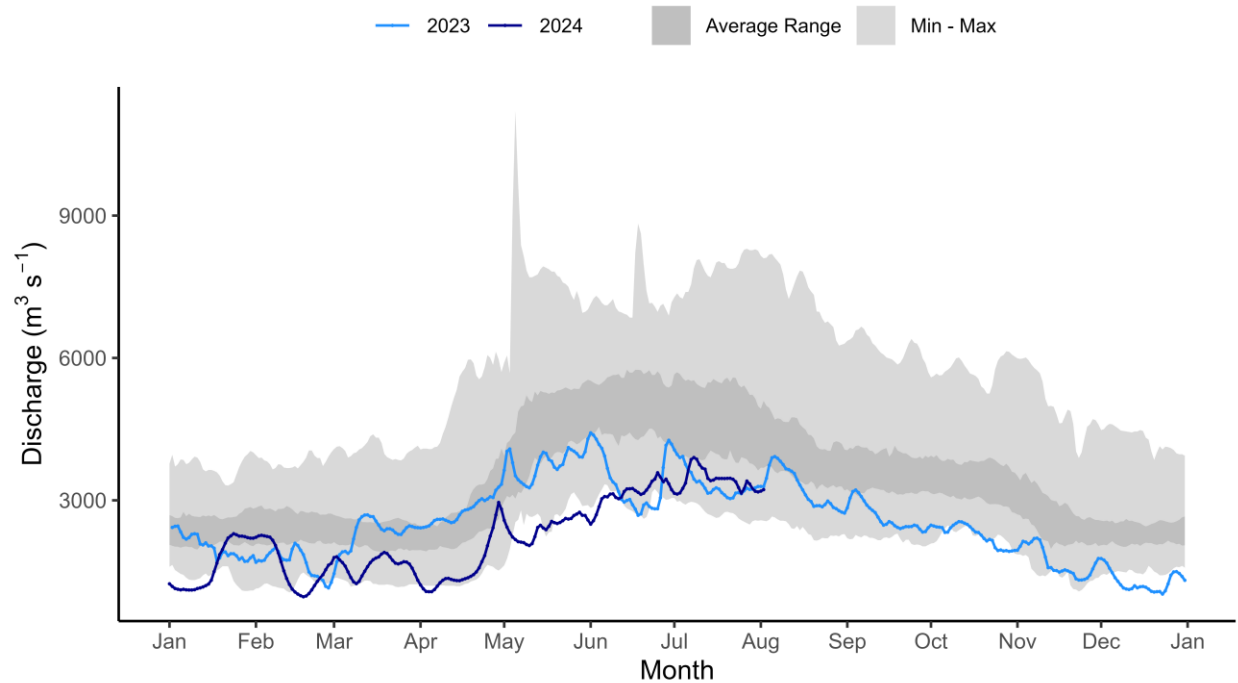
Climate figures:

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 primarily acquired and managed by Environment and Climate Change Canada, but in some cases 2024 values have been infilled with GNWT climate station data when ECCC data are unavailable.

Water level and flow data:

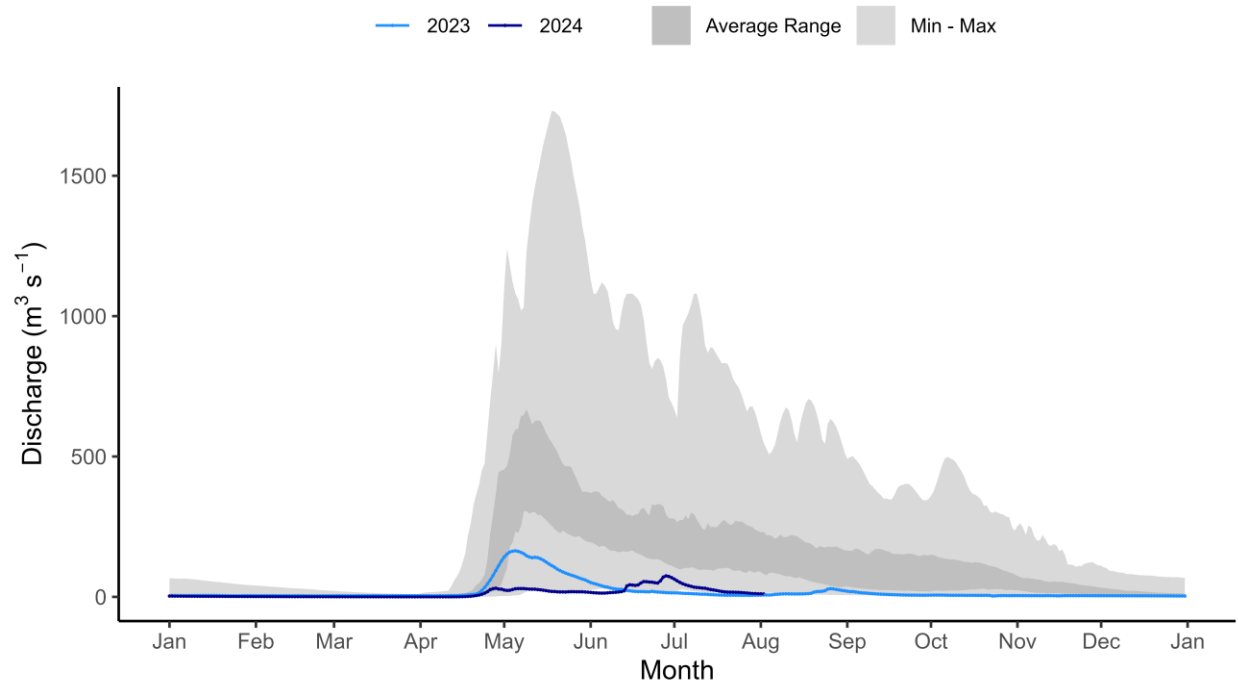
Slave River at Fitzgerald [07NB001]

SLAVE RIVER AT FITZGERALD (ALBERTA) (07NB001)



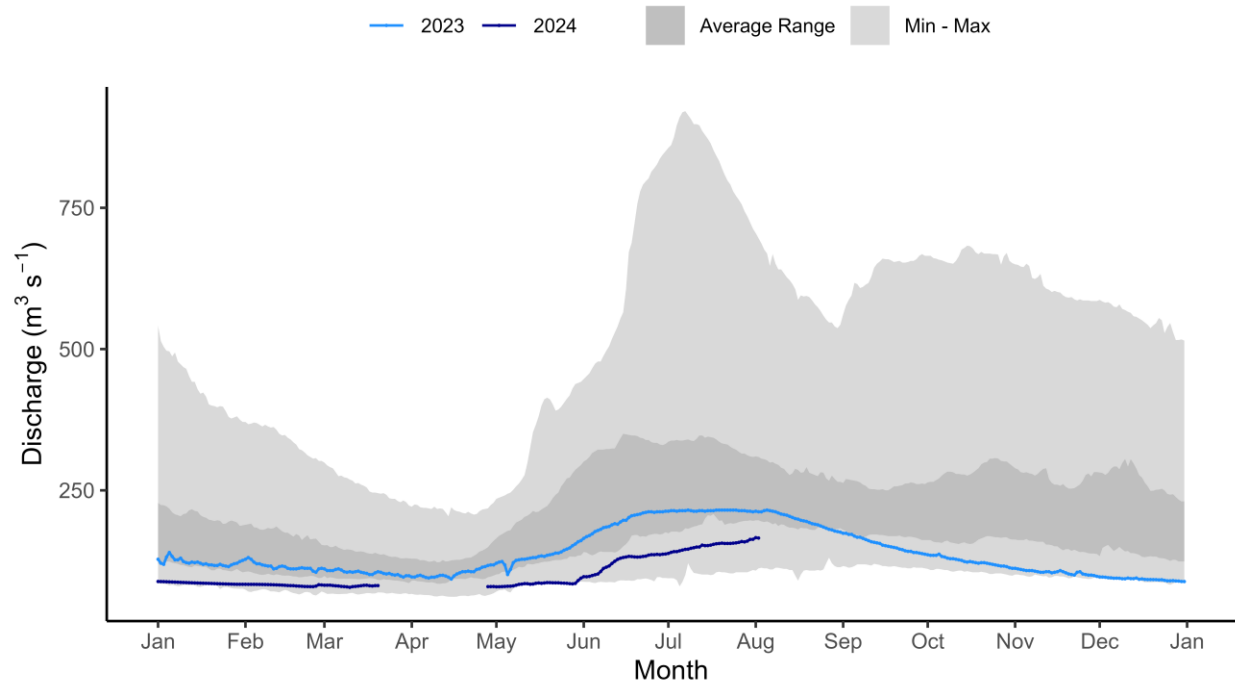
Hay River near Hay River [07OB001]

HAY RIVER NEAR HAY RIVER (07OB001)



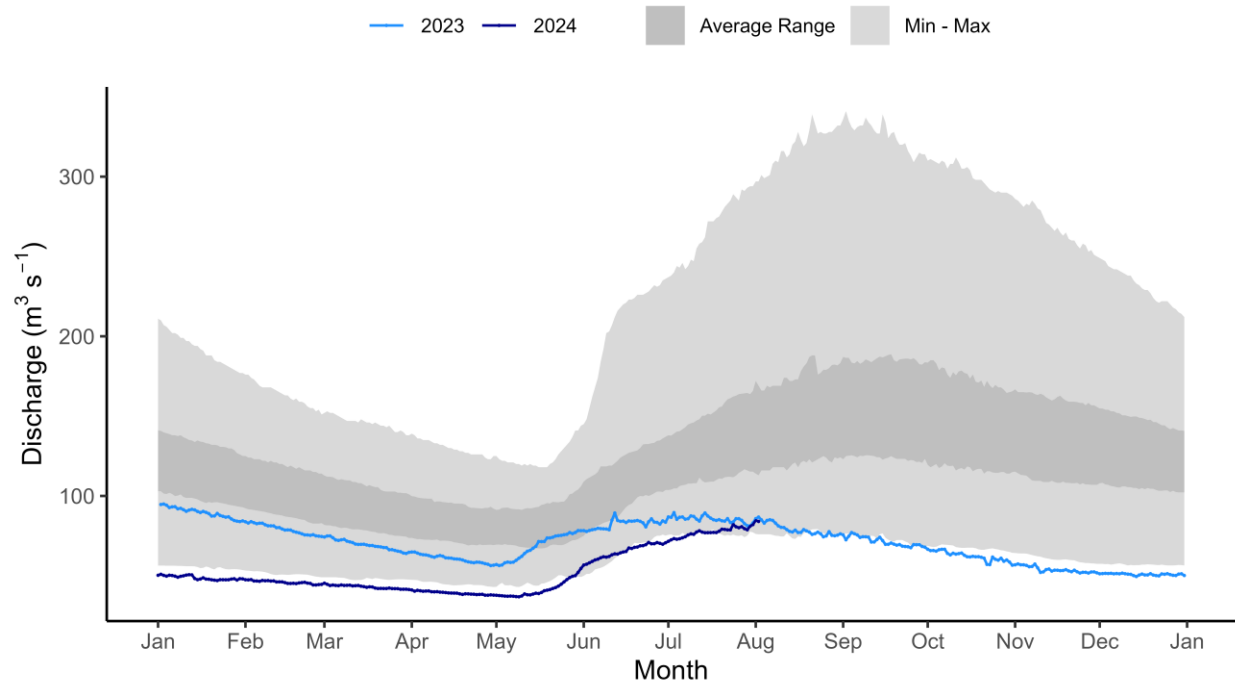
Taltson River below Hydro Dam [07QD007]

TALTSON RIVER BELOW HYDRO DAM (07QD007)



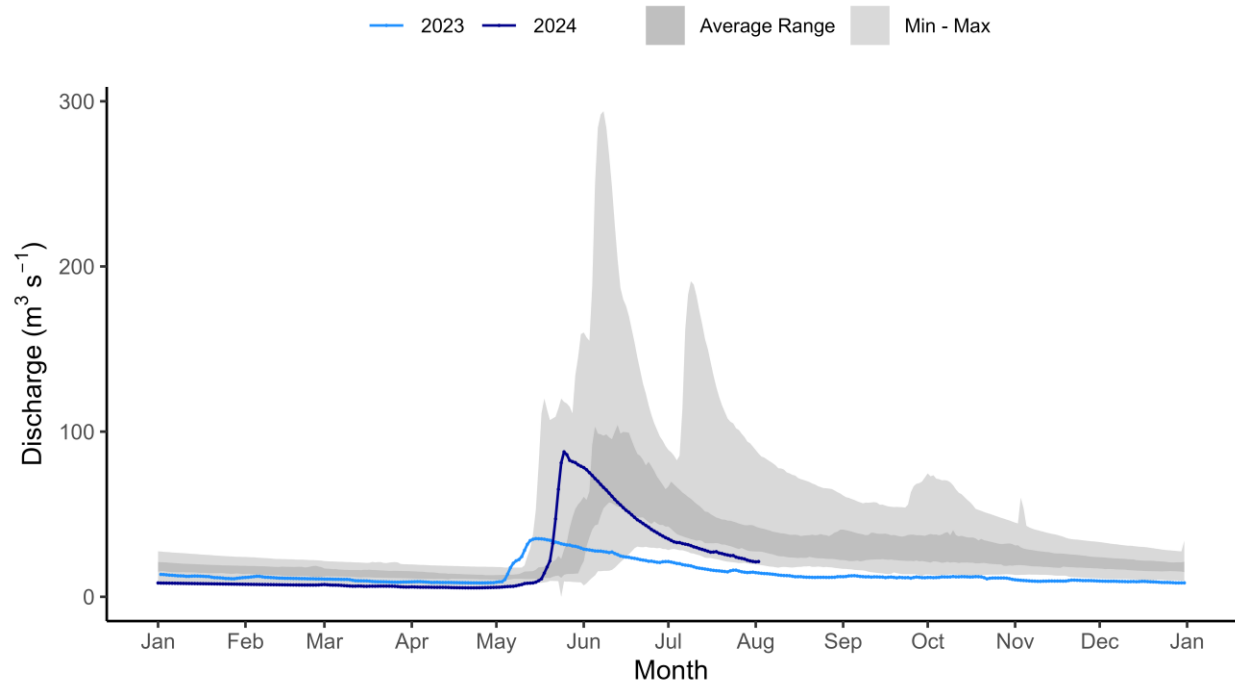
Lockhart River at outlet of Artillery Lake [07RD001]

LOCKHART RIVER AT OUTLET OF ARTILLERY LAKE (07RD001)



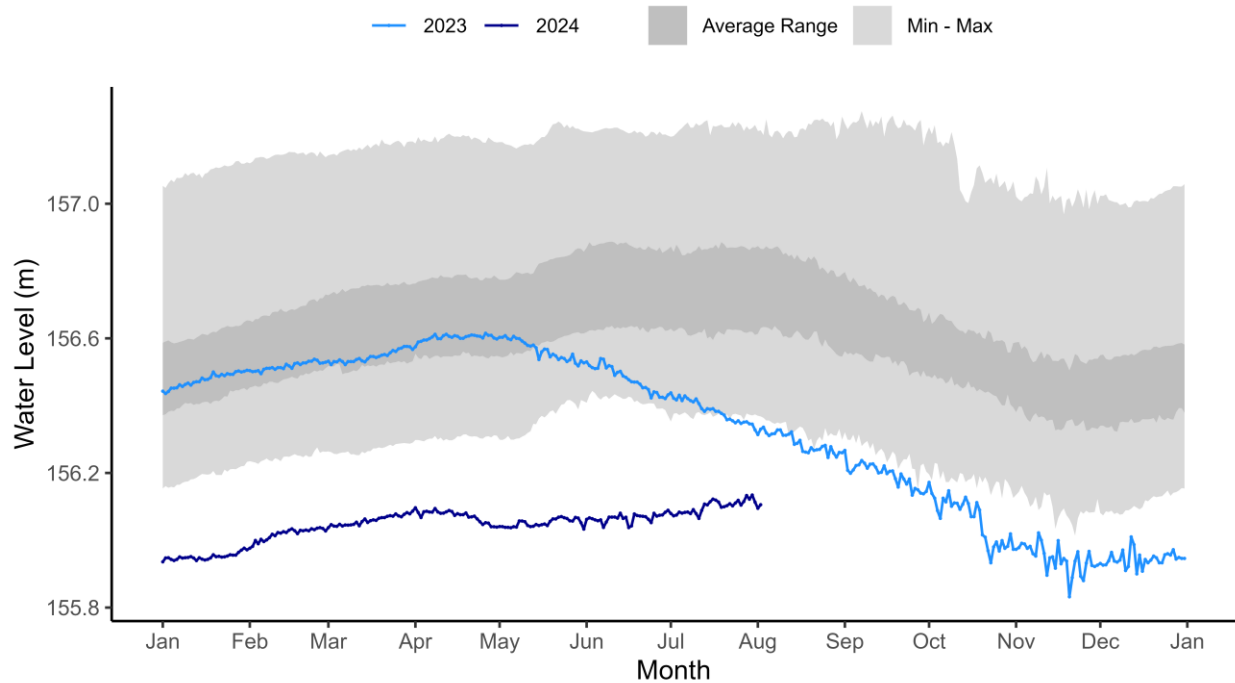
Coppermine River below Desteffany Lake [10PA001]

COPPERMINE RIVER BELOW DESTEFFANY LAKE (10PA001)



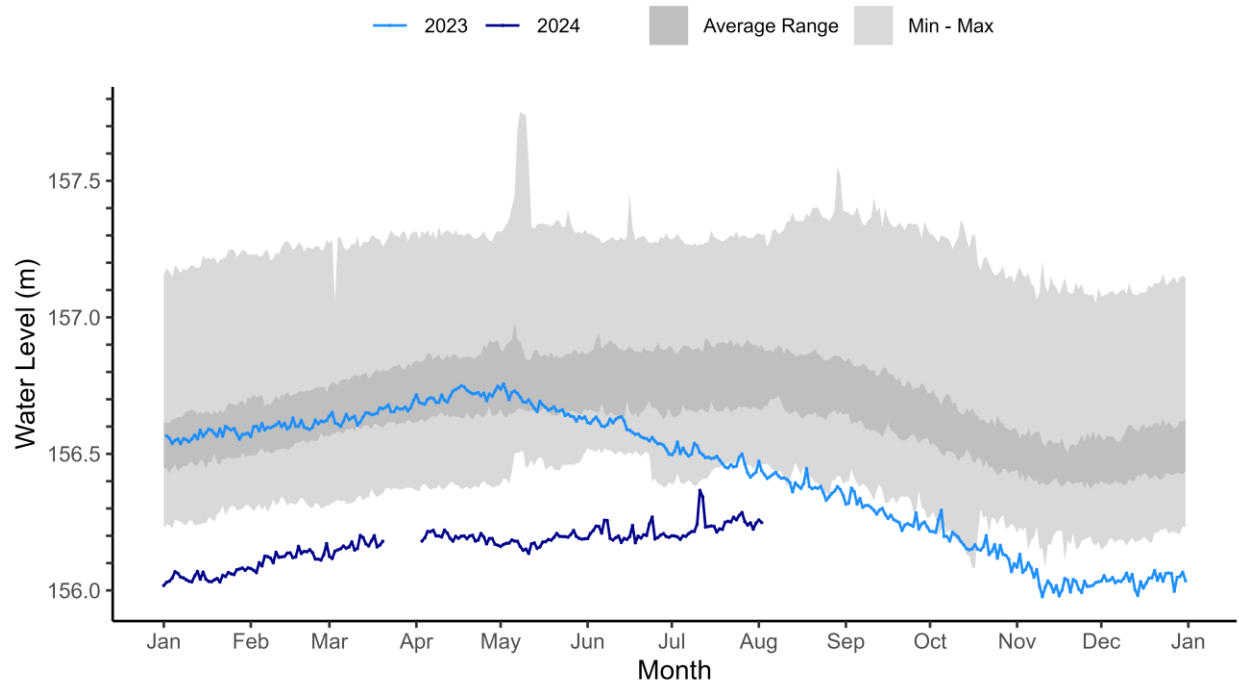
Great Slave Lake at Yellowknife Bay [07SB001]

GREAT SLAVE LAKE AT YELLOWKNIFE BAY (07SB001)



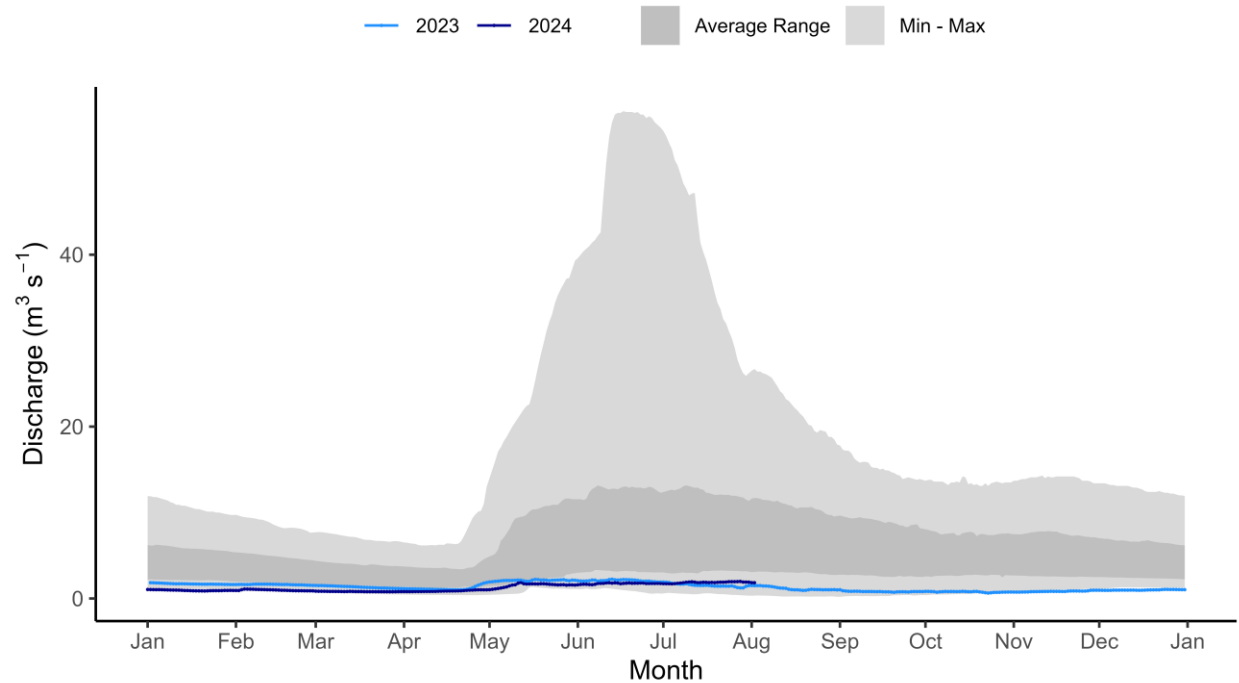
Great Slave Lake at Hay River [07OB002]

GREAT SLAVE LAKE AT HAY RIVER (07OB002)



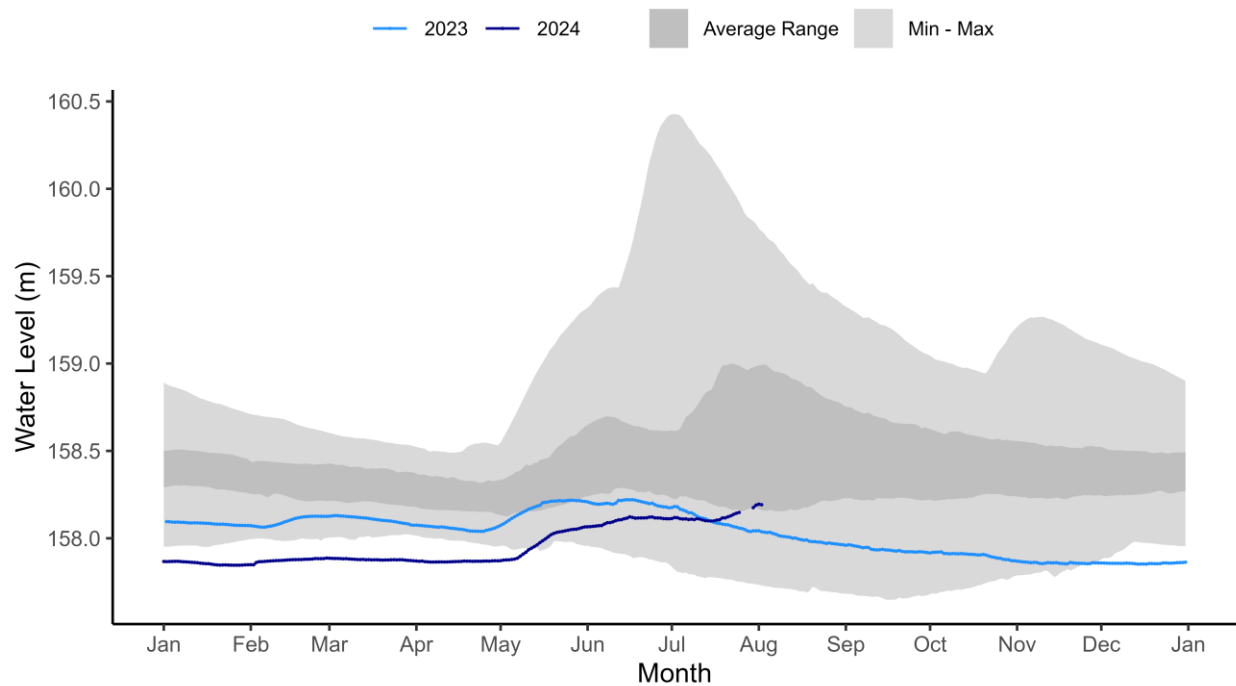
Cameron River below Reid Lake [07SB010]

CAMERON RIVER BELOW REID LAKE (07SB010)



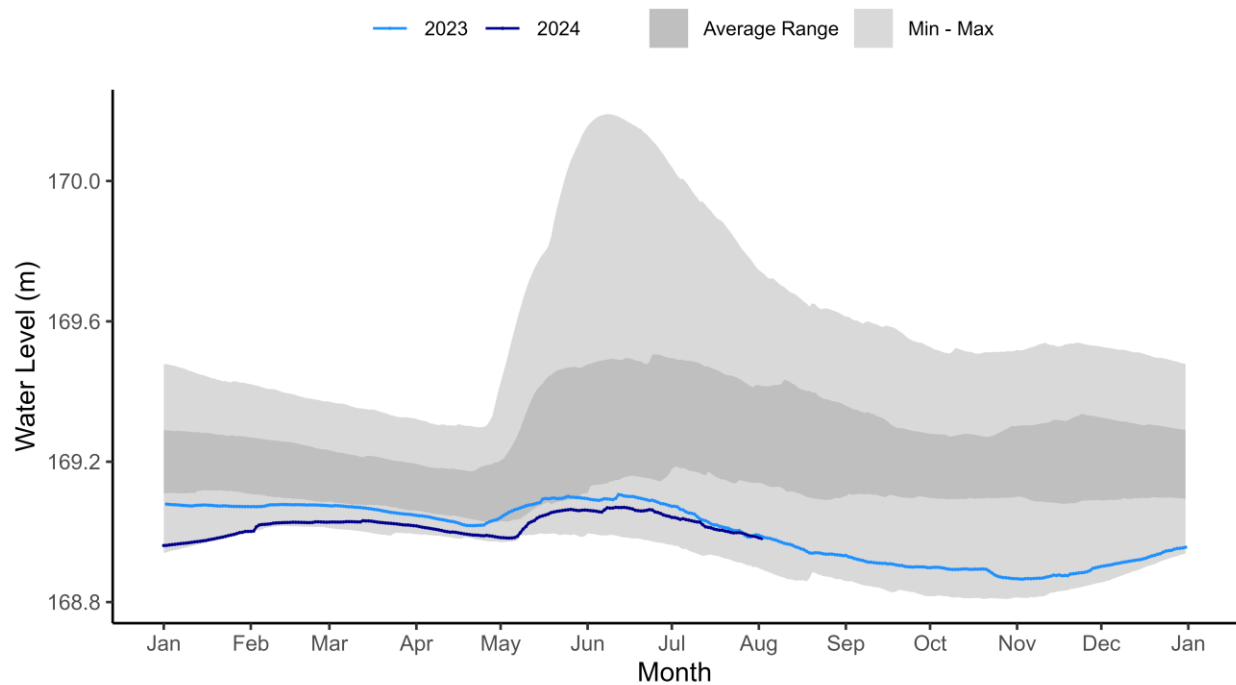
Prosperous Lake near McMeekan Bay [07SB014]

PROSPEROUS LAKE NEAR MCMEEKAN BAY (07SB014)



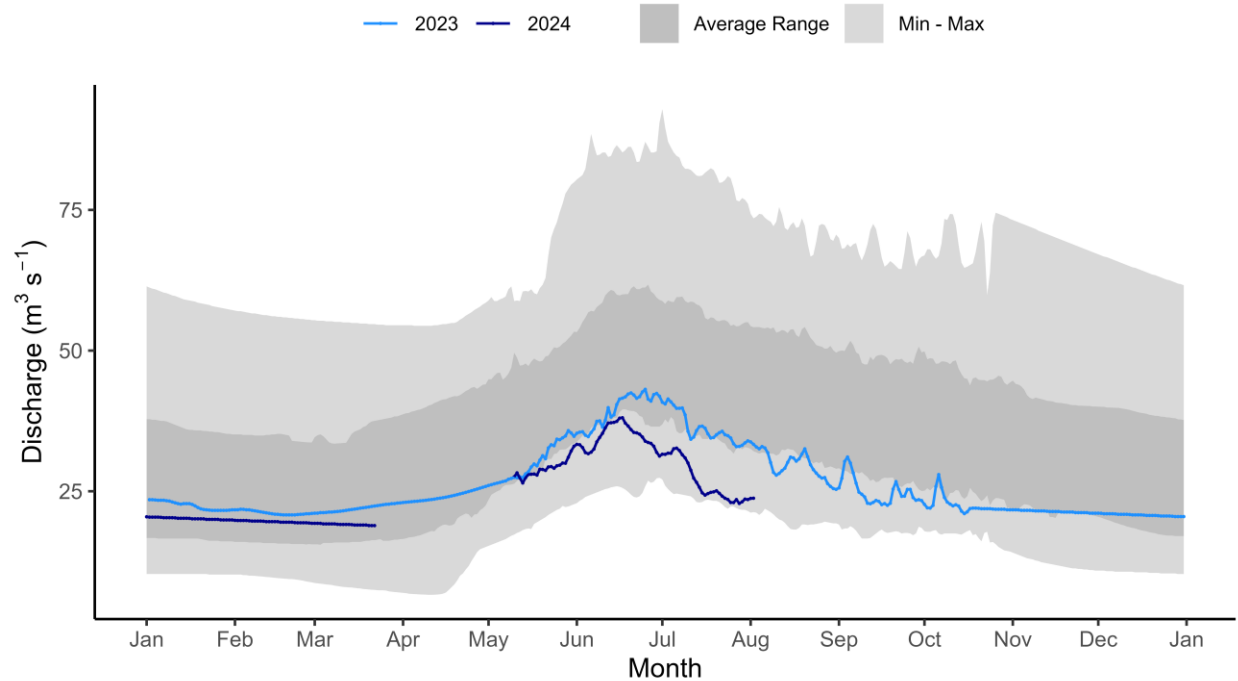
Prelude Lake near Yellowknife [07SB017]

PRELUDE LAKE NEAR YELLOWKNIFE (07SB017)



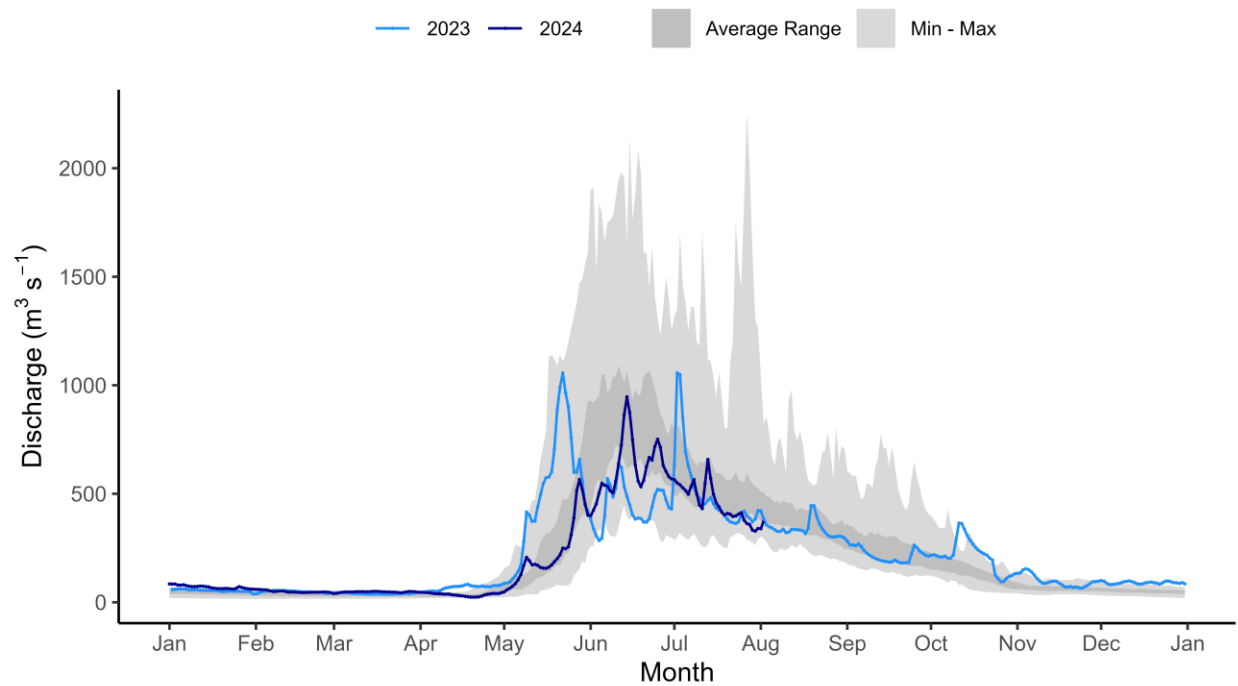
La Martre River below outlet of Lac La Martre [07TA001]

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



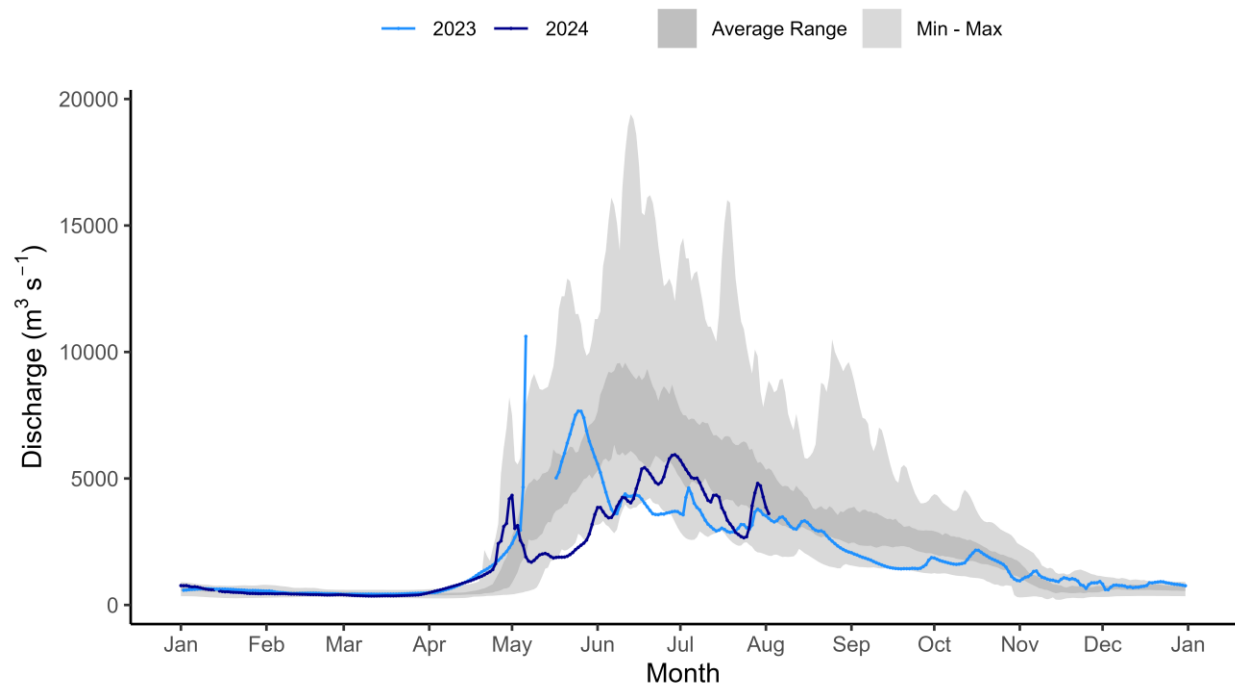
South Nahanni River above Virginia Falls [10EB001]

SOUTH NAHANNI RIVER ABOVE VIRGINIA FALLS (10EB001)



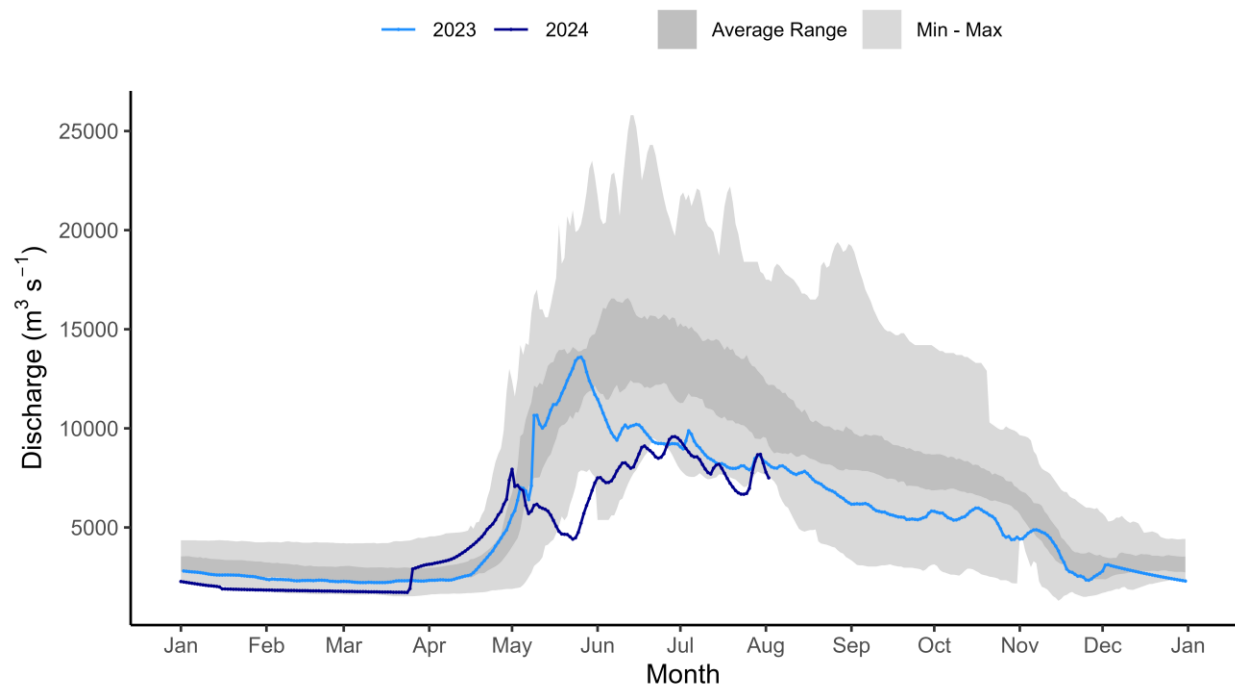
Liard River near the Mouth [10ED002]

LIARD RIVER NEAR THE MOUTH (10ED002)



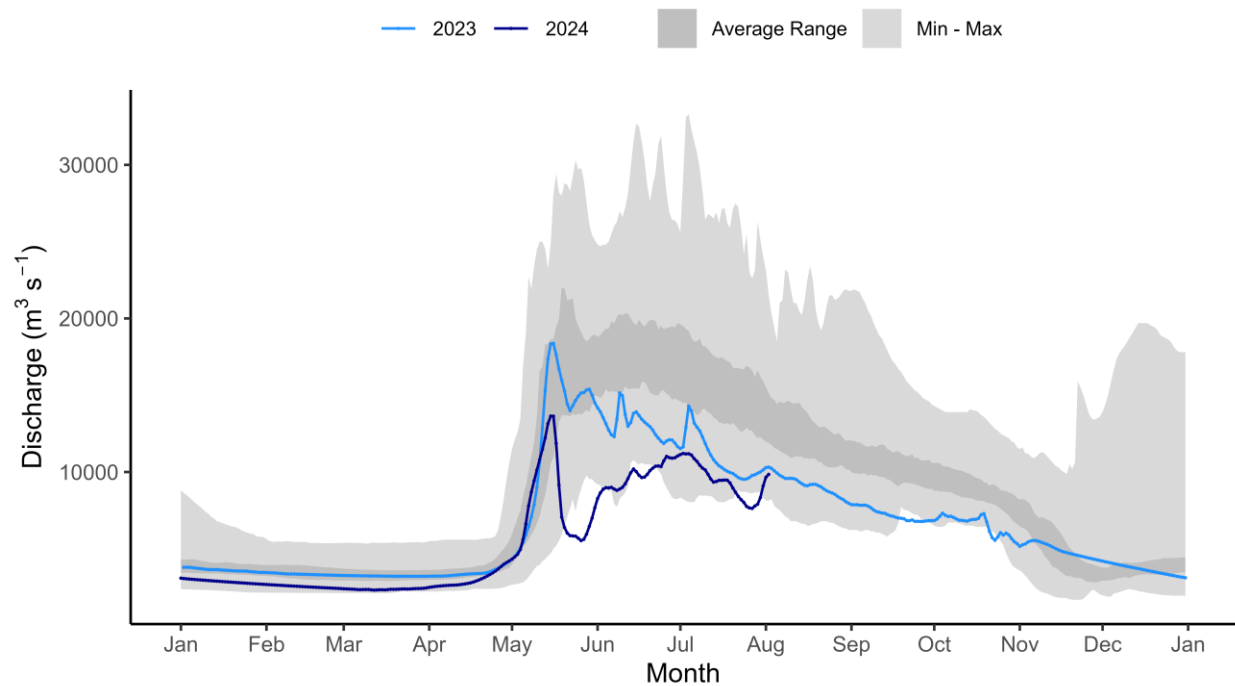
Mackenzie River at Fort Simpson [10GC001]

MACKENZIE RIVER AT FORT SIMPSON (10GC001)



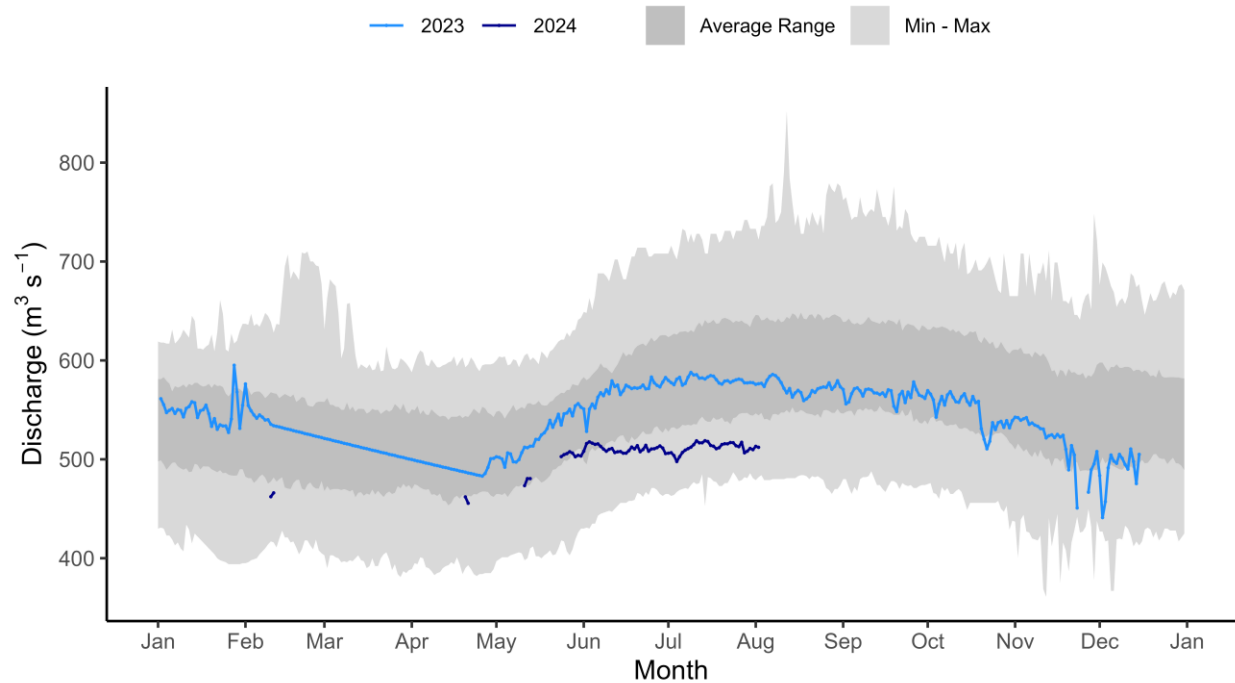
Mackenzie River at Norman Wells [10KA001]

MACKENZIE RIVER AT NORMAN WELLS (10KA001)



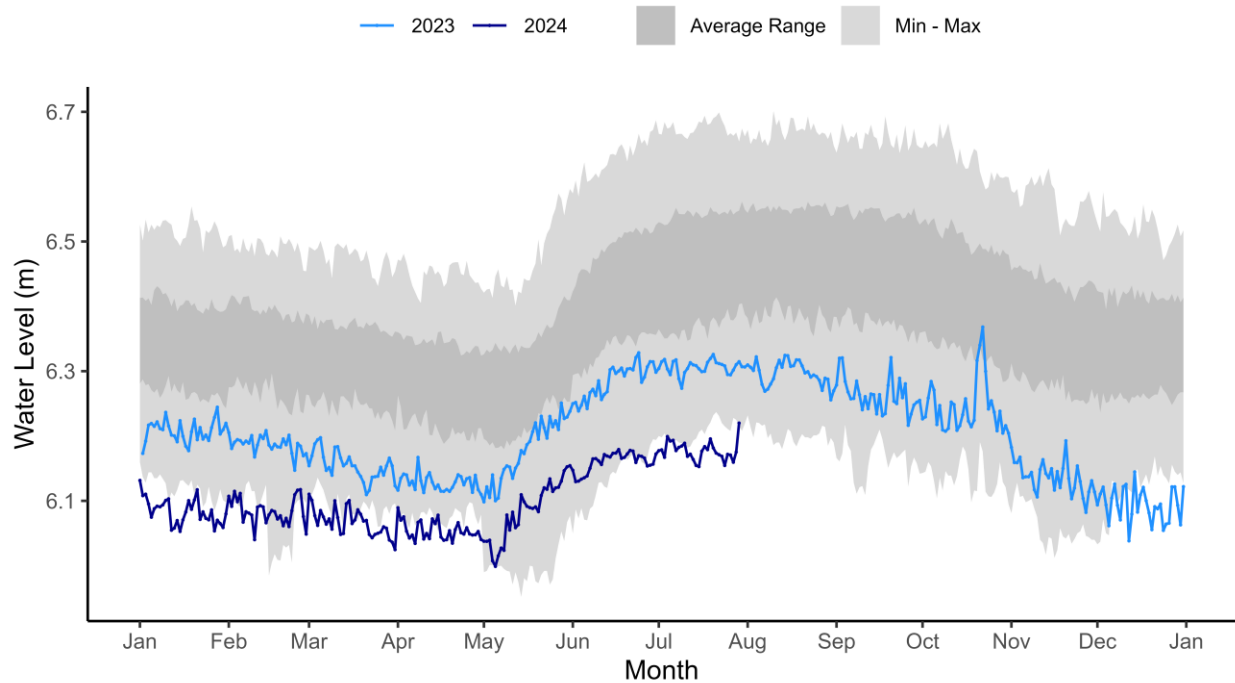
Great Bear River at outlet of Great Bear Lake [10JC003]

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



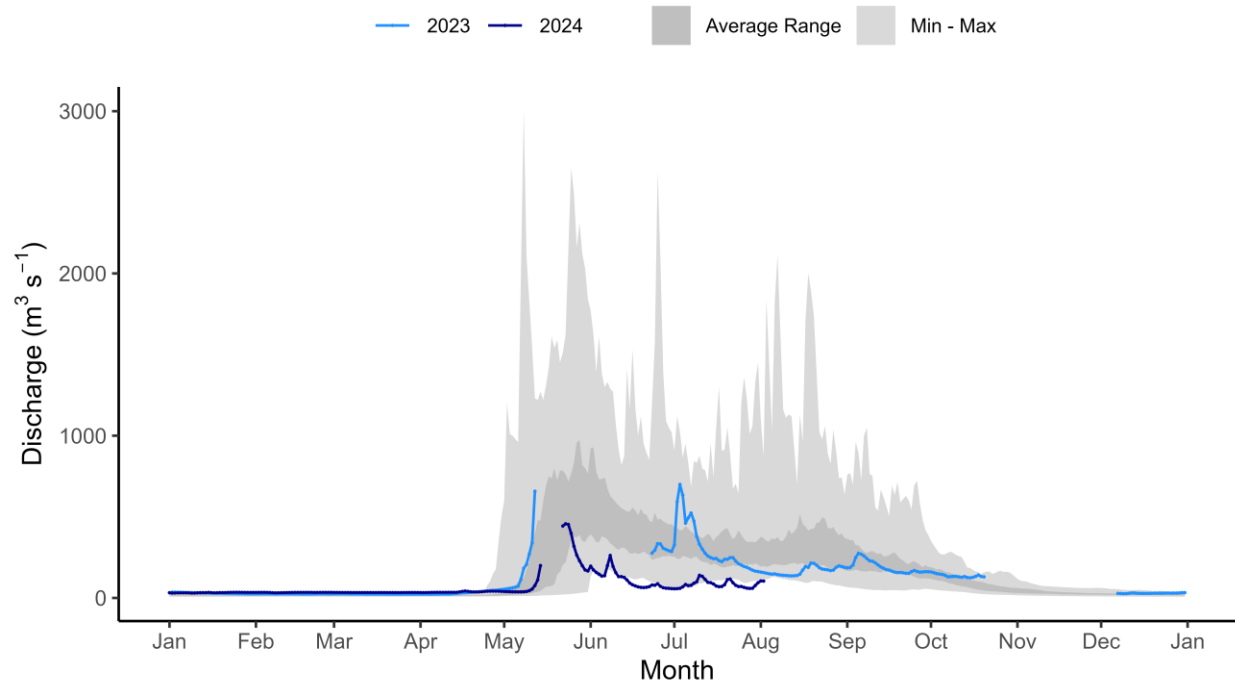
Great Bear Lake at Hornby Bay [10JE002]

GREAT BEAR LAKE AT HORNBY BAY (10JE002)



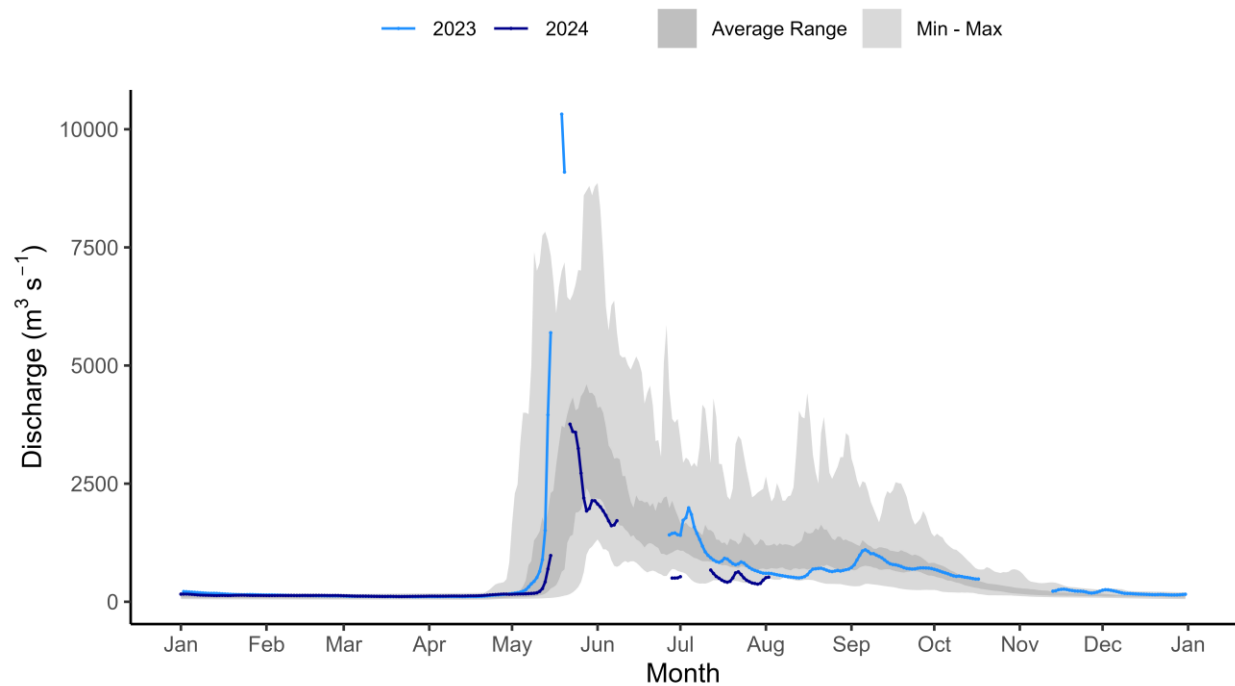
Arctic Red River near the mouth [10LA002]

ARCTIC RED RIVER NEAR THE MOUTH (10LA002)



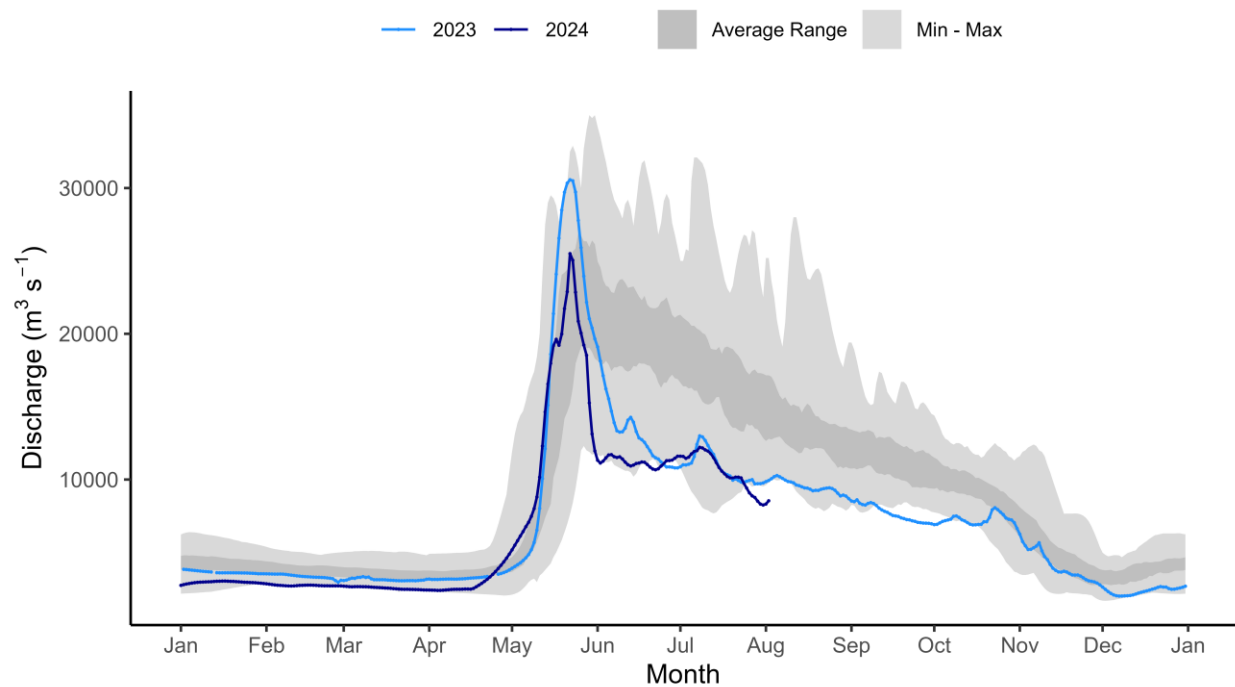
Peel River above Fort McPherson [10MC002]

PEEL RIVER ABOVE FORT MCPHERSON (10MC002)



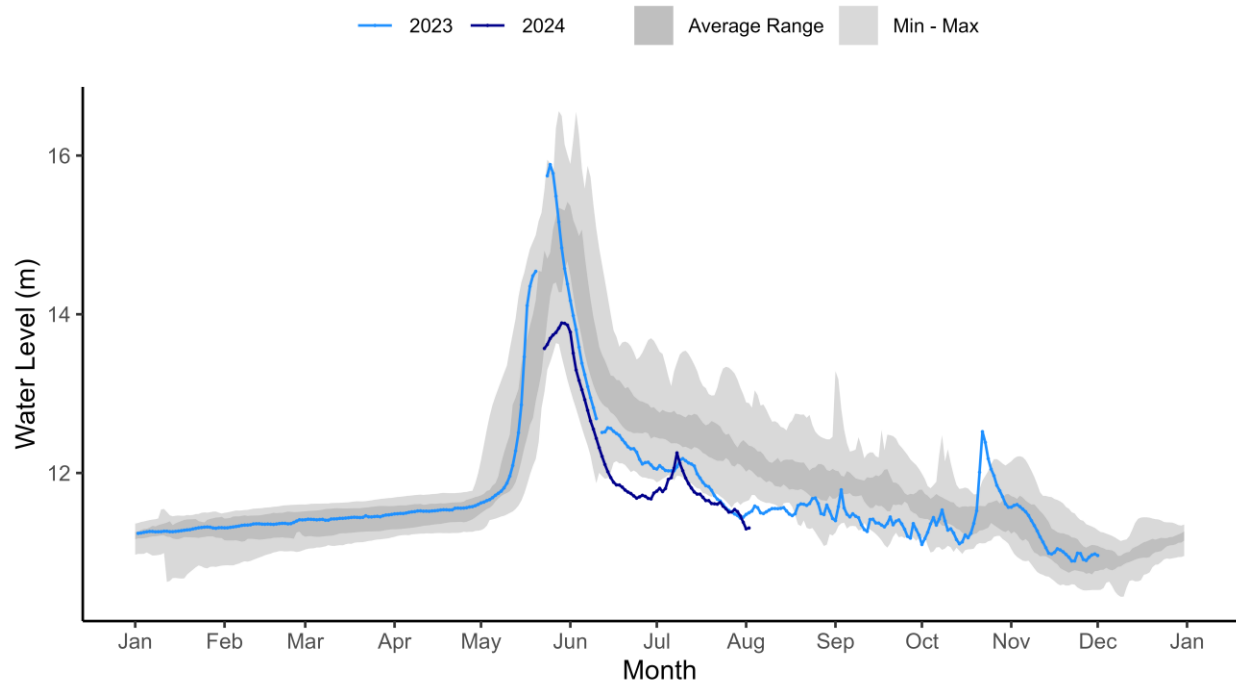
Mackenzie River at Arctic Red River [10LC014]

MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)



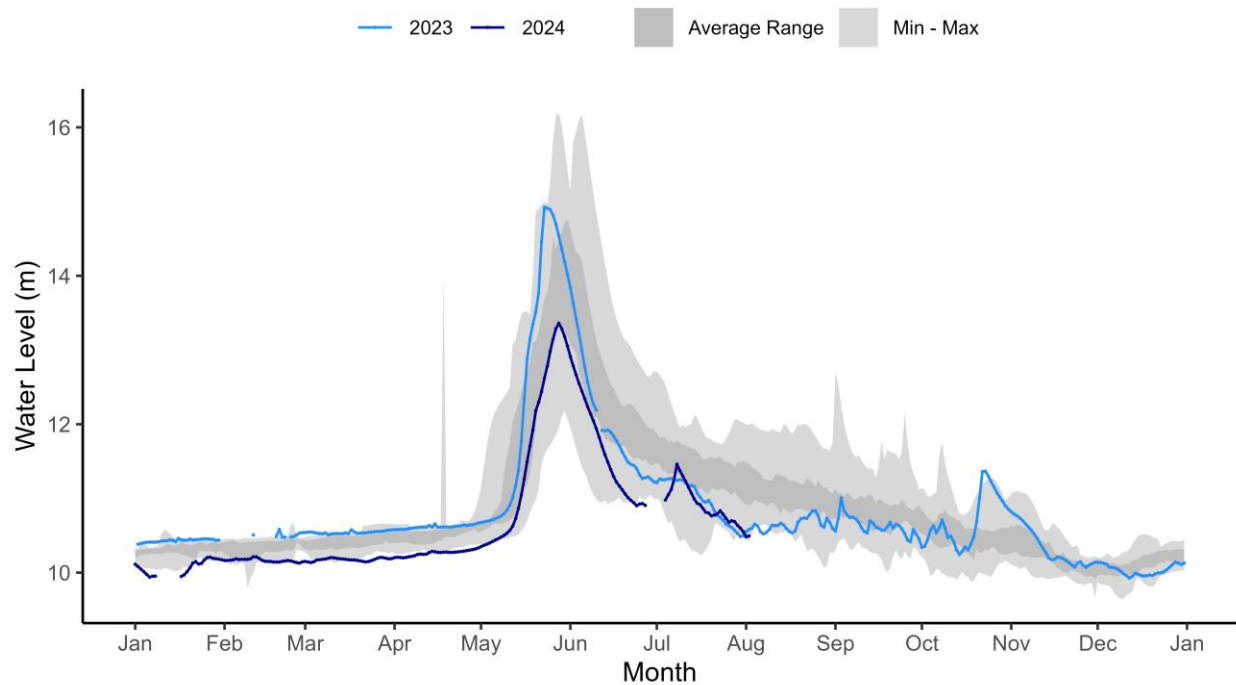
Mackenzie River (East Channel) at Inuvik [10LC002]

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



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

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

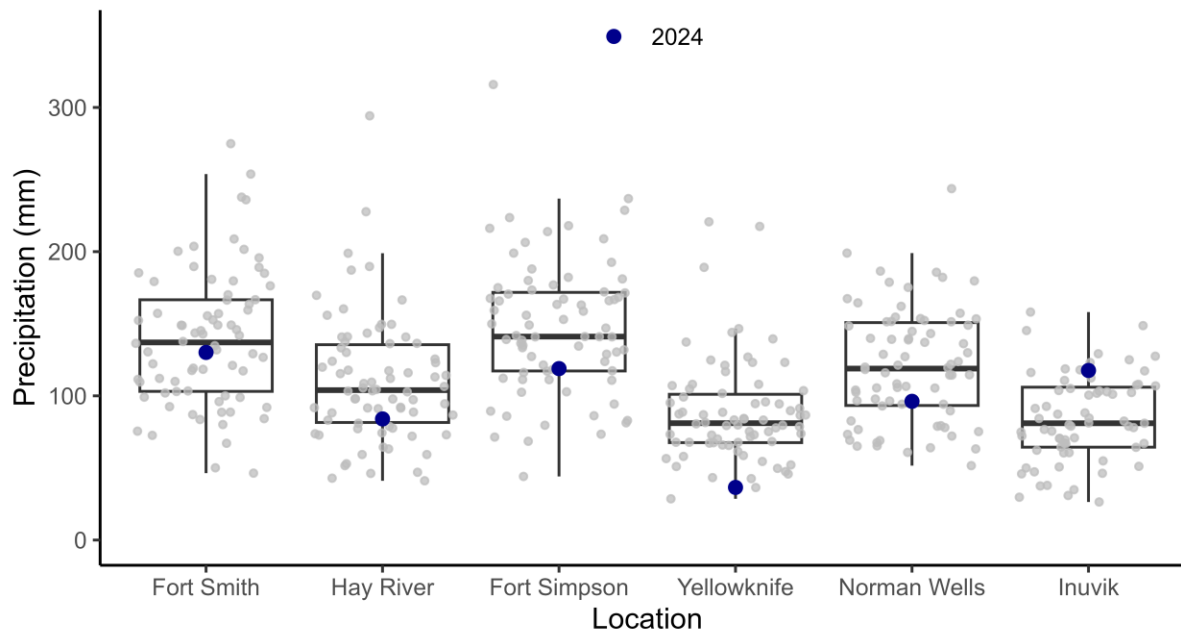


Climate Data:

Summary Data:

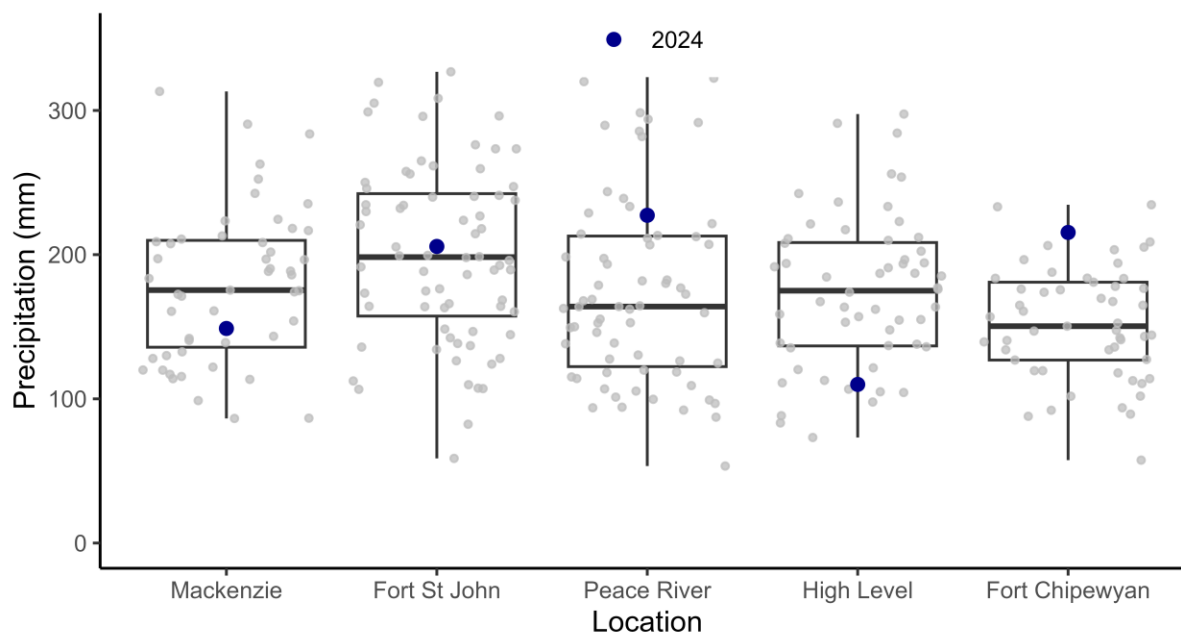
Total Precipitation for NWT communities

Apr. 1st to Aug. 1st



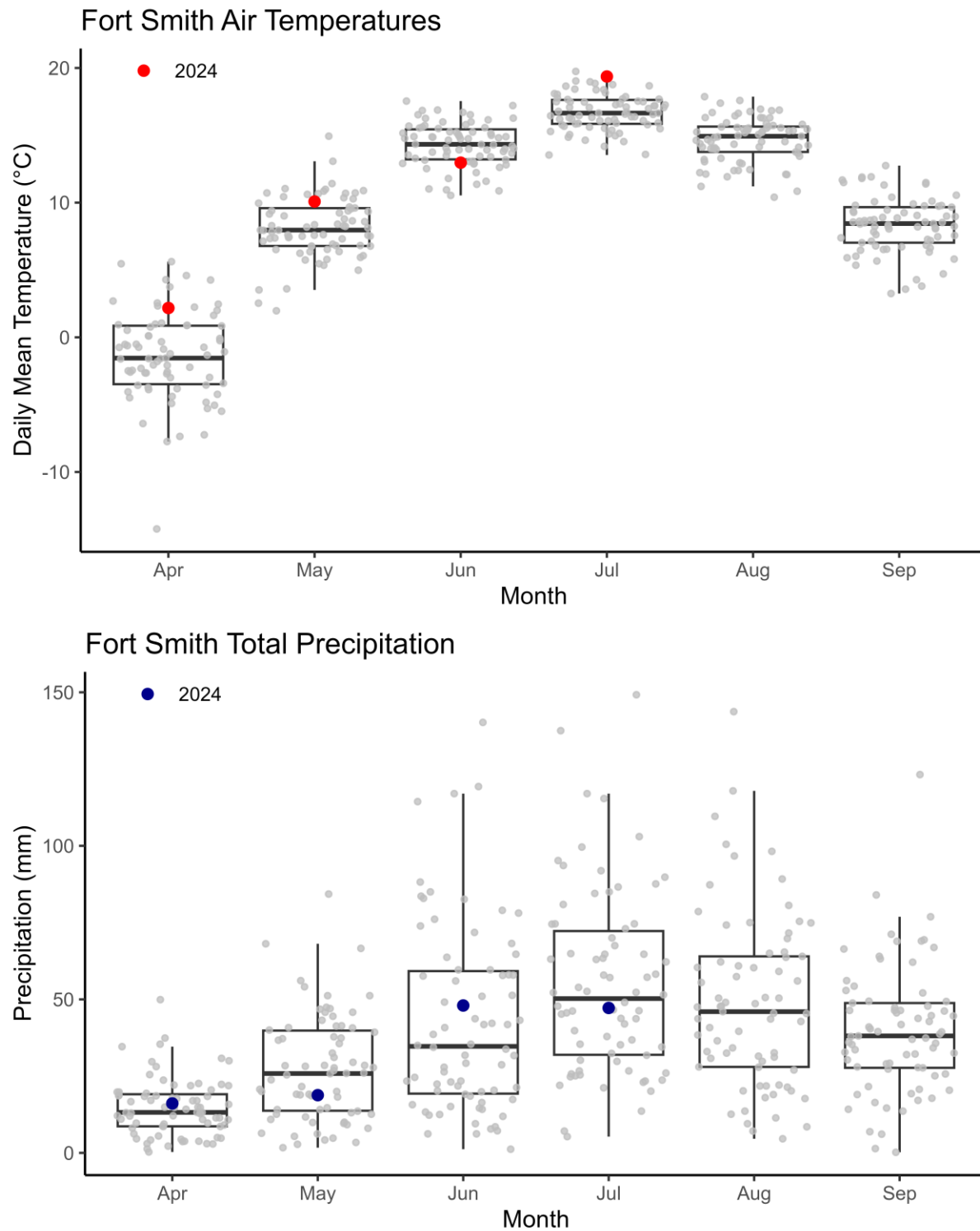
Total Precipitation for BC/AB communities in Great Slave Lake Basin

Apr. 1st to Aug. 1st



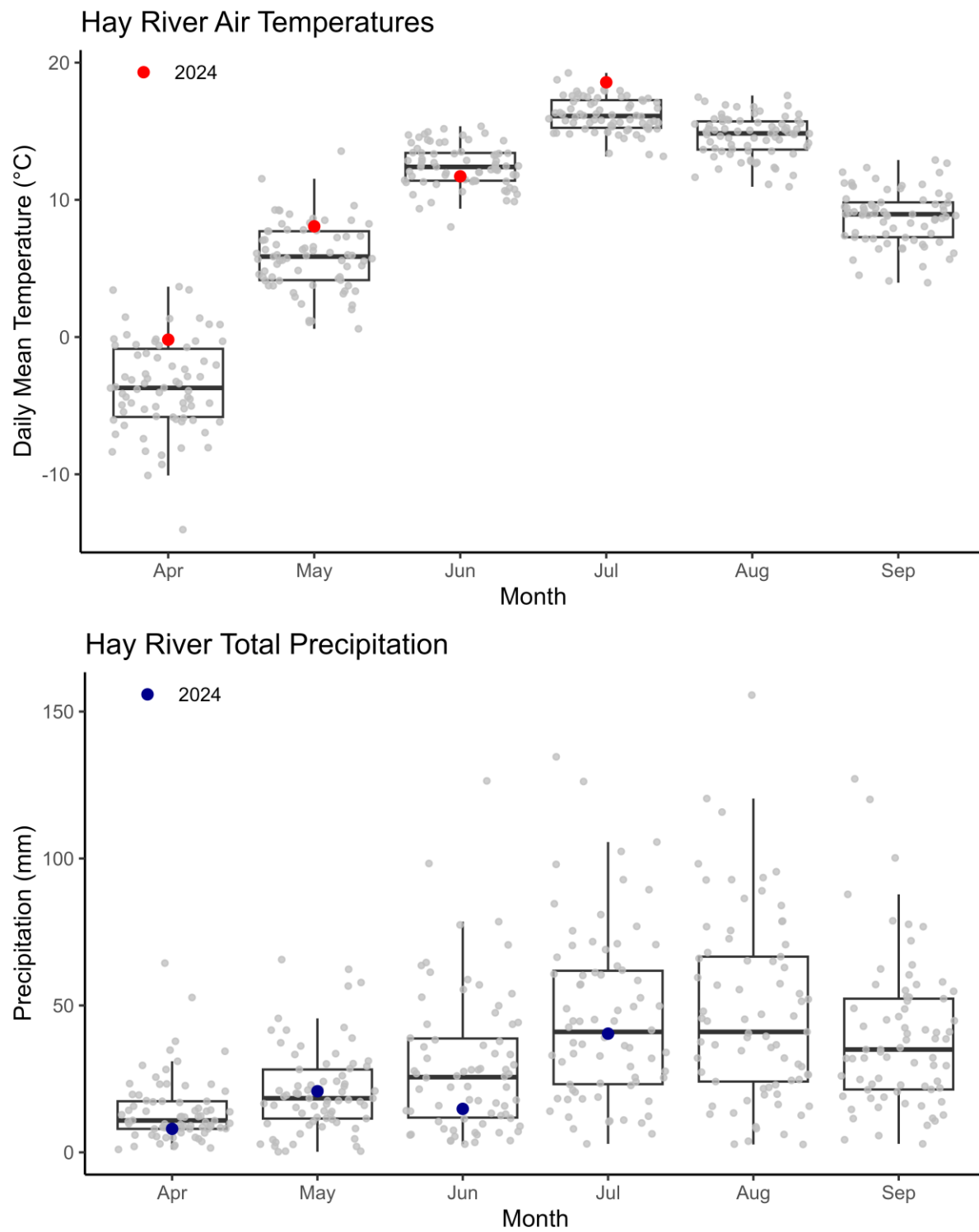
Precipitation in this figure shows the combined amount of rain and snow water equivalent (i.e., amount of water that results from when a snowpack is melted) that has fallen in select communities a) across the NWT; and b) in British Columbia and Alberta within the Great Slave Lake basin. This figure shows precipitation from the start of April until August 1st. The blue dot is the current year, and the grey dots are all previous years from 1950 to present.

Fort Smith



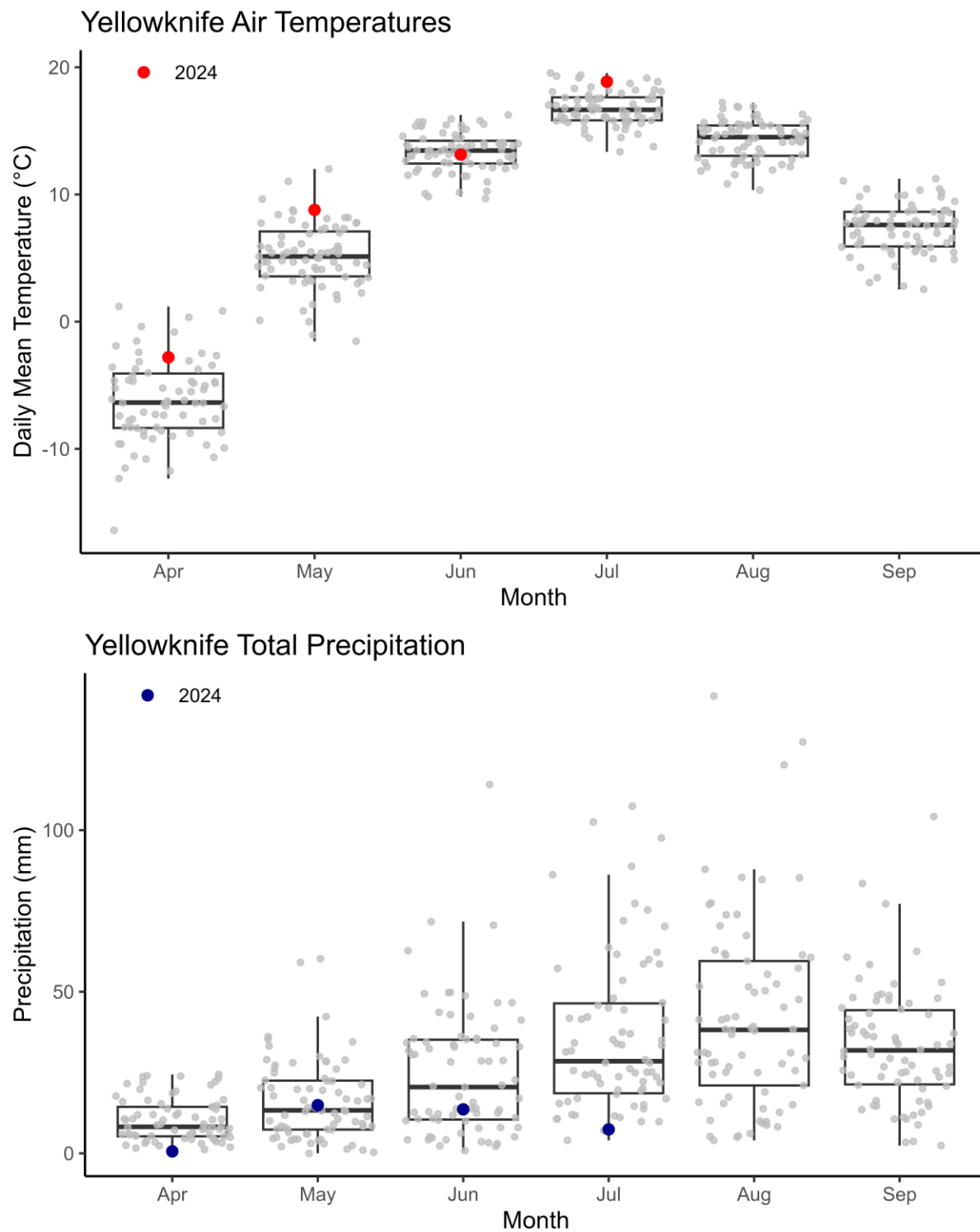
This figure shows mean monthly air temperature and total monthly precipitation for 2024.

Hay River



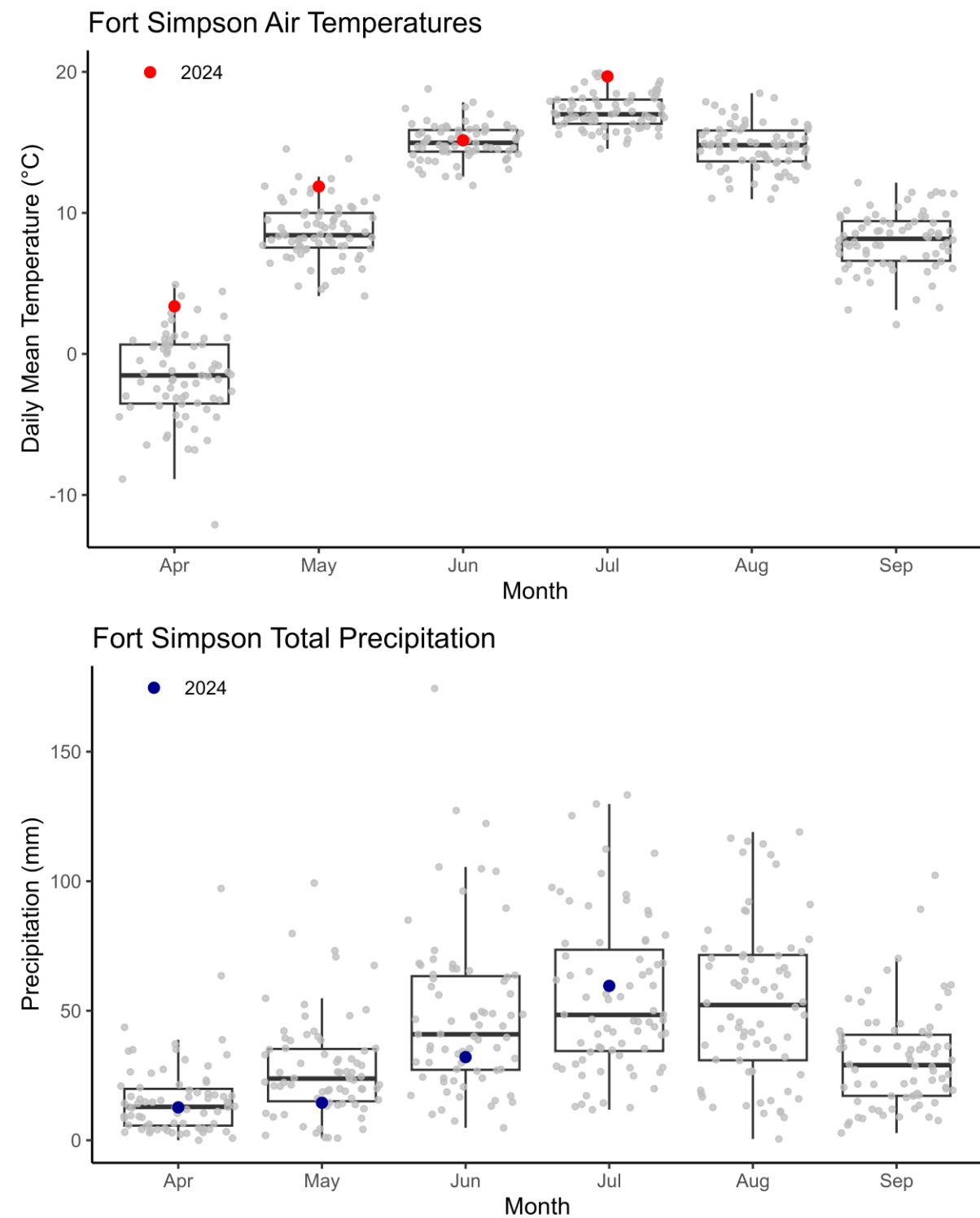
This figure shows mean monthly air temperature and total monthly precipitation for 2024.

Yellowknife



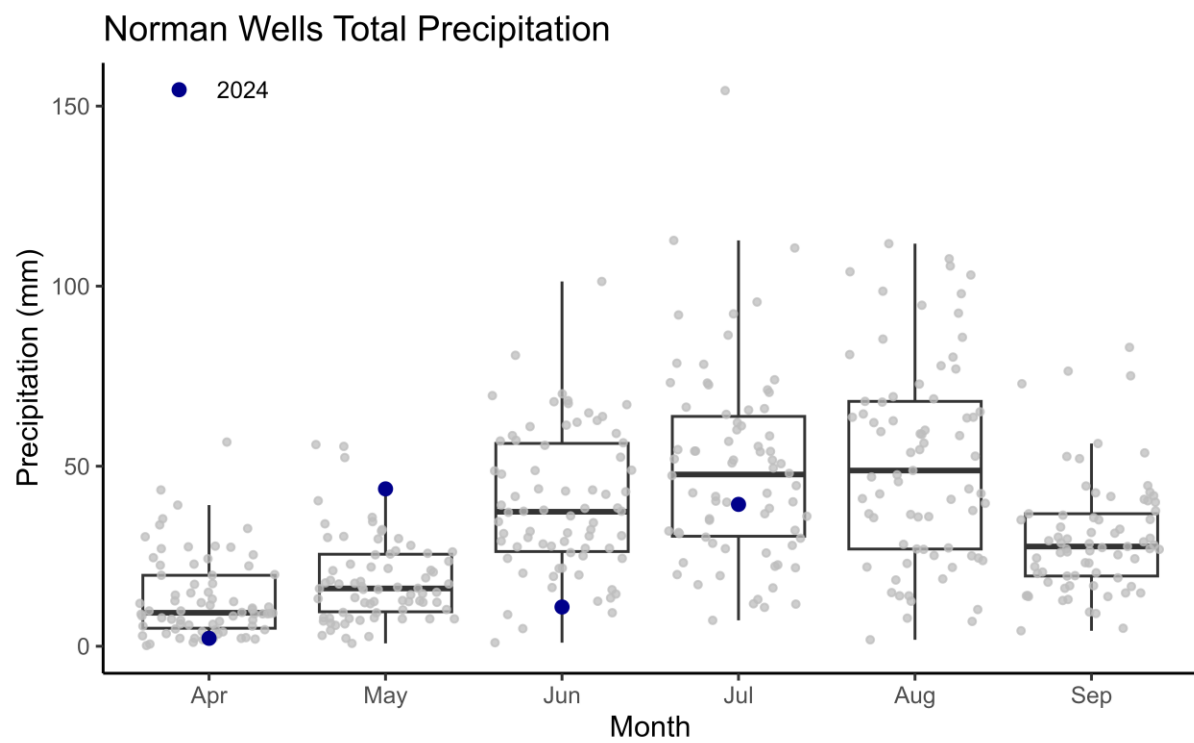
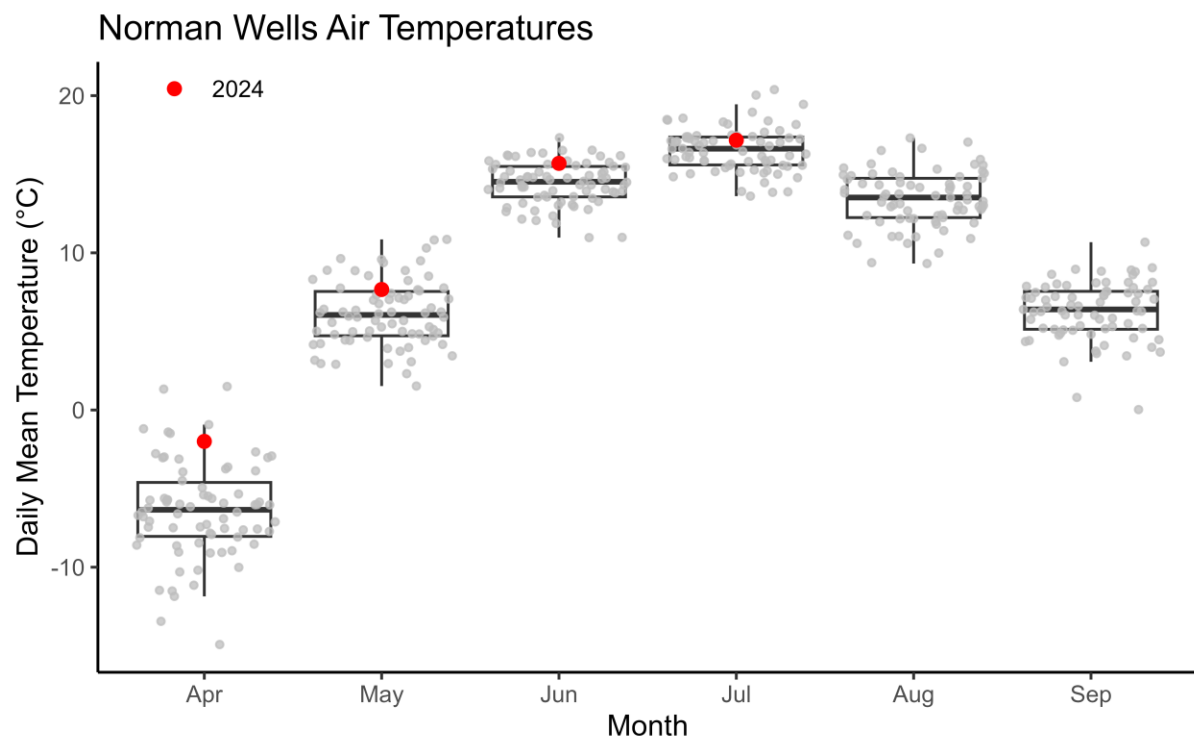
This figure shows mean monthly air temperature and total monthly precipitation for 2024.

Fort Simpson



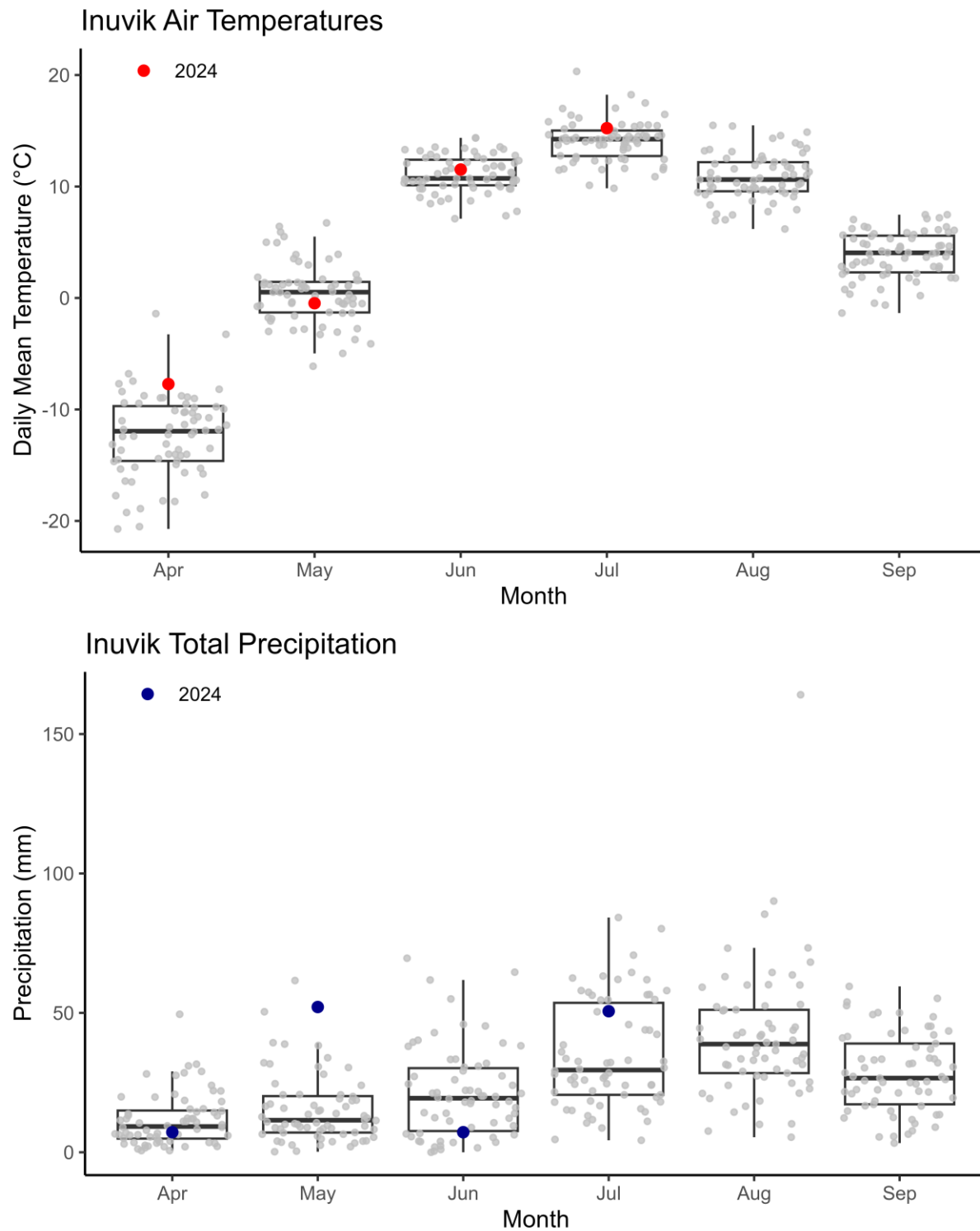
This figure shows mean monthly air temperature and total monthly precipitation for 2024.

Norman Wells



This figure shows mean monthly air temperature and total monthly precipitation for 2024.

Inuvik



This figure shows mean monthly air temperature and total monthly precipitation for 2024.