



# NWT Water Monitoring Bulletin

## – Feb 14, 2025



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, extreme values (10<sup>th</sup> to 90<sup>th</sup> percentiles) and the average range, which is calculated as the interquartile range.

The NWT Hydrometric Network is a partnership between Government of Northwest Territories – Environment and Climate Change (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](https://wateroffice.ec.gc.ca/index_e.html). All 2024 and 2025 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](mailto:NWTWaters@gov.nt.ca).

## Current status:

- Winter water levels and flow rates remain low across most of the NWT. Due to challenges measuring flow rates under ice cover, water level is referenced instead of flow for some of the stations below.
  - Great Slave Lake water level has been slowly rising since mid-December 2024 and is approximately 20 cm higher than the level recorded at this time last year.
  - Slave River water level is nearly within the average range for this time of year and is approximately 2 m higher than the level recorded at this time last year.
  - Flow rates on the Hay River are well below average for this time of year.
  - Liard River water level is well below average for this time of year.
  - Mackenzie River water level, recorded at several stations along the river, is well below average for this time of year.
  - Great Bear Lake remains at its lowest water level recorded for this time of year and flow rates on the Great Bear River are well below normal for this time of year.
  - Exceptions to low water levels and flows include:
    - South Nahanni River
      - South Nahanni River water level is well above average for this time of year.
    - Some smaller rivers in the Great Slave Lake basin, including:
      - Snare River
      - Lockhart River
      - Hoarfrost River
      - Tazin River
- Low water levels are the result of extreme drought conditions that began in the summer of 2022 and have persisted through 2023 and 2024.
- **January precipitation** across the NWT was generally below average, except Norman Wells and Inuvik, which received average and well above average precipitation, respectively.
- **January temperatures** across the NWT were much warmer than average for all communities.
- Water levels on Great Slave Lake and the Mackenzie River are strongly influenced by precipitation received in northern British Columbia, Alberta, Saskatchewan, and southern NWT.
  - Precipitation in the Great Slave Lake basin in northern British Columbia and Alberta has been approximately average this winter (October 1<sup>st</sup> to present), with some variability between communities.
    - Located near the headwaters of the Peace River, the community of Mackenzie, British Columbia has received well above average cumulative precipitation this winter.

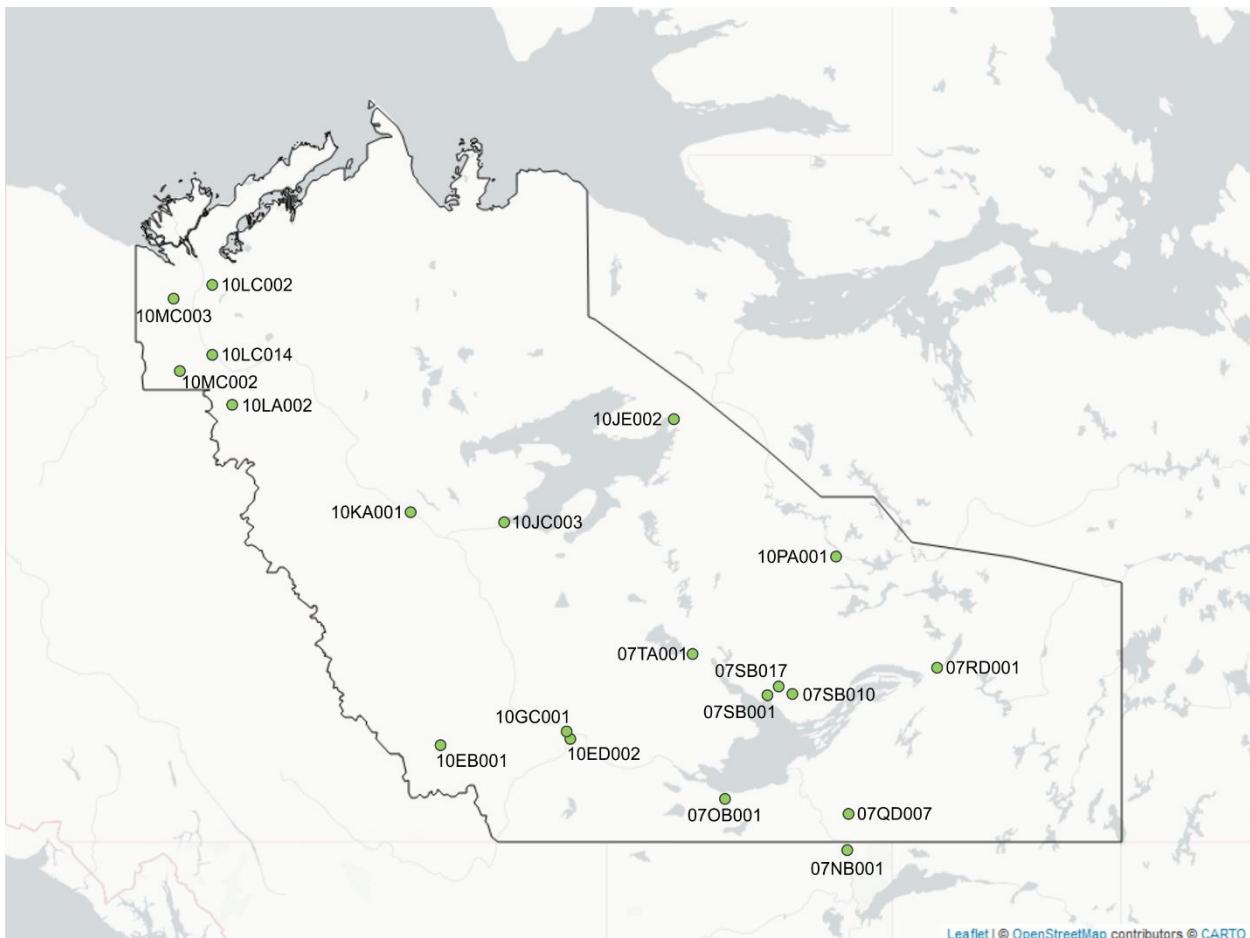
Climate forecasts from ECCC for the next three months (February, March, April) indicate near normal precipitation for most of the NWT and the Mackenzie River basin. Below average precipitation is forecast for February in the southwest areas of the NWT.

## Contents

Current status: .....	2
Contents .....	4
Hydrometric station map.....	6
Information on interpreting figures:.....	7
Water level and flow figures:.....	7
Climate figures:.....	7
Water level and flow data: .....	8
Slave River at Fitzgerald [07NB001] .....	8
Hay River near Alberta/NWT Boundary [07OB008]* .....	8
Taltson River below Hydro Dam [07QD007] .....	9
Lockhart River at outlet of Artillery Lake [07RD001].....	9
Snare River below Ghost Lake [07SA002] .....	10
Coppermine River below Desteffany Lake [10PA001].....	10
Great Slave Lake at Yellowknife Bay [07SB001].....	11
Great Slave Lake at Hay River [07OB002] .....	11
Cameron River below Reid Lake [07SB010] .....	12
Prosperous Lake near McMeekan Bay [07SB014].....	12
Prelude Lake near Yellowknife [07SB017].....	13
La Martre River below outlet of Lac La Martre [07TA001] .....	13
South Nahanni River above Virginia Falls [10EB001] .....	14
Liard River at Fort Liard [10ED001].....	14
Mackenzie River at Fort Simpson [10GC001] .....	15
Mackenzie River at Norman Wells [10KA001] .....	15
Great Bear River at outlet of Great Bear Lake [10JC003].....	16
Great Bear Lake at Hornby Bay [10JE002].....	16
Arctic Red River near the mouth [10LA002] .....	17
Peel River above Fort McPherson [10MC002] .....	17
Mackenzie River at Arctic Red River [10LC014] .....	18
Mackenzie River (East Channel) at Inuvik [10LC002] .....	18
Mackenzie River (Peel Channel) above Aklavik [10MC003].....	19
Climate Data: .....	20
NWT communities:.....	20
Slave River basin communities:.....	21

Liard River basin communities:.....	22
Fort Smith .....	23
Hay River .....	24
Yellowknife.....	25
Fort Simpson.....	26
Norman Wells .....	27
Inuvik .....	28

## Hydrometric station map



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

## Information on interpreting figures:

### Water level and flow figures:

**Note:** Additional grey bands have been added to represent the 10<sup>th</sup> and 90<sup>th</sup> percentiles.

The light blue line shows water levels/flows from last year (2024), while the dark blue line shows current water levels/flows from 2025. The darkest grey band represents the average range (calculated as the interquartile range, which is the 25<sup>th</sup> to 75<sup>th</sup> percentile), the next lightest grey bands represent a wider range of values (10<sup>th</sup> to 90<sup>th</sup> percentiles) and the lightest 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 2024. If the line from 2024 or 2025 is above (or below) the grey band, it means that the water level or flow from that year was the highest (or lowest) on record.

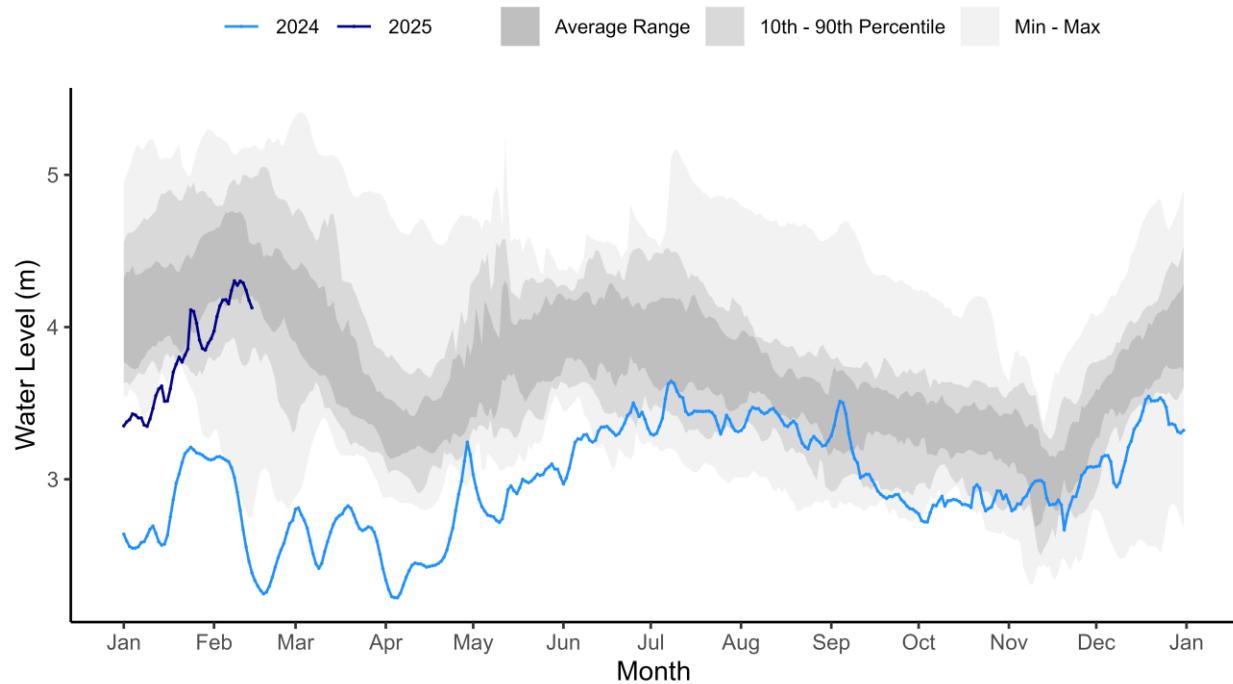
### Climate figures:

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 (10<sup>th</sup> to 90<sup>th</sup> 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 2025 values have been infilled with GNWT climate station data when ECCC data are unavailable.

Water level and flow data:

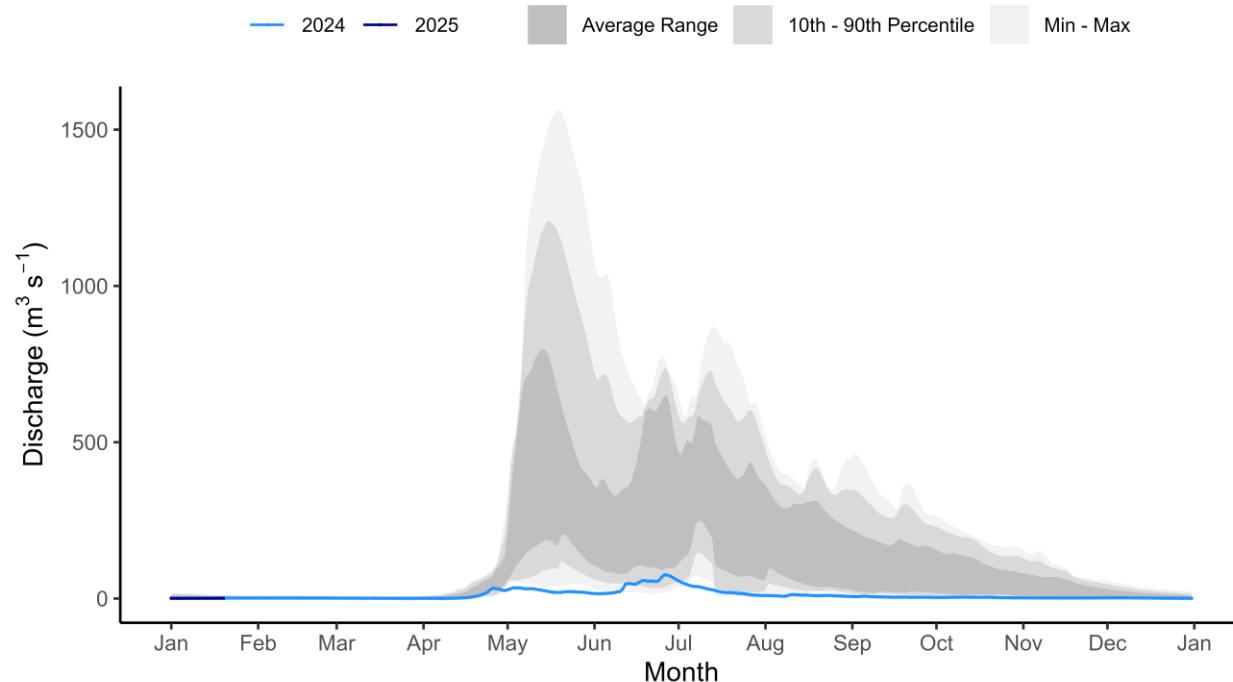
Slave River at Fitzgerald [07NB001]

### SLAVE RIVER AT FITZGERALD (ALBERTA) (07NB001)



Hay River near Alberta/NWT Boundary [07OB008]\*

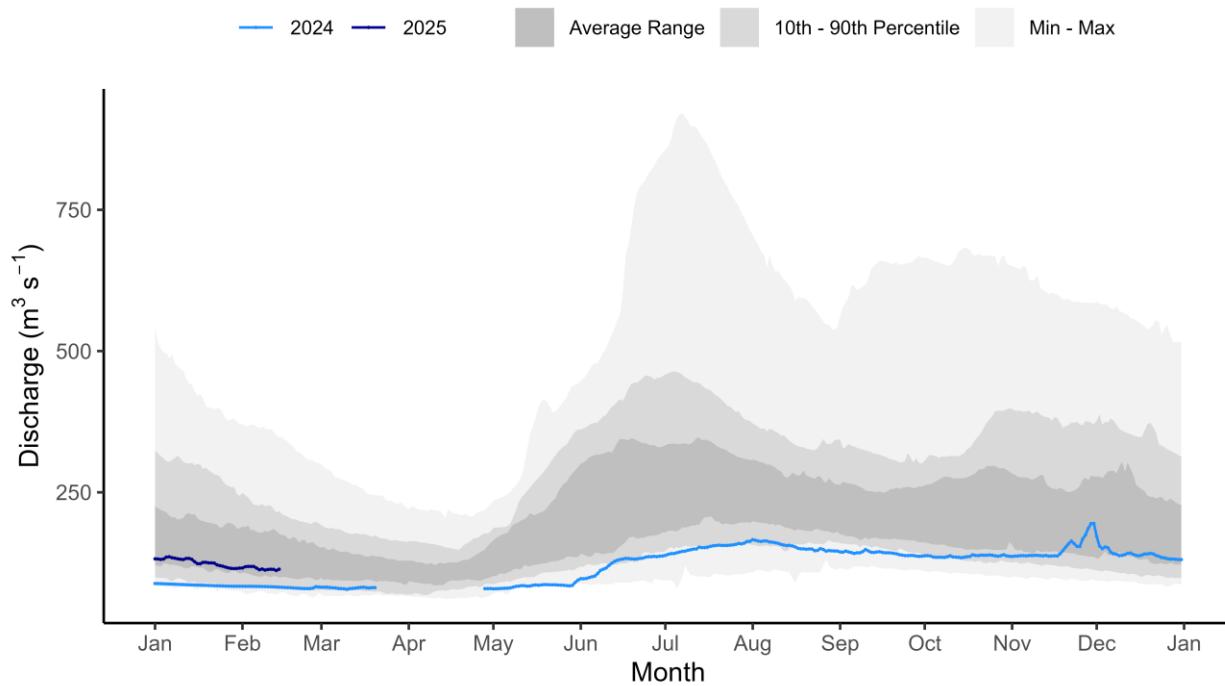
### HAY RIVER NEAR ALTA/NWT BOUNDARY (07OB008)



\*The Hay River near Hay River gauge (07OB001) is currently experiencing technical issues.

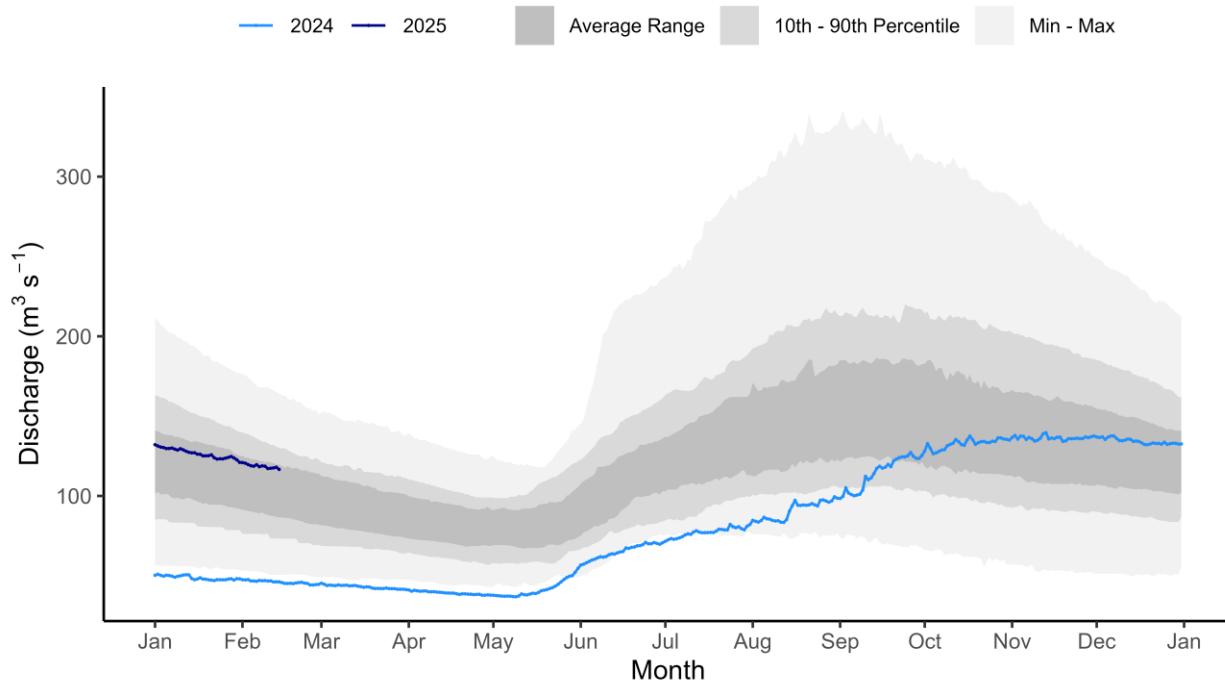
### Taltson River below Hydro Dam [07QD007]

#### TALTSON RIVER BELOW HYDRO DAM (07QD007)

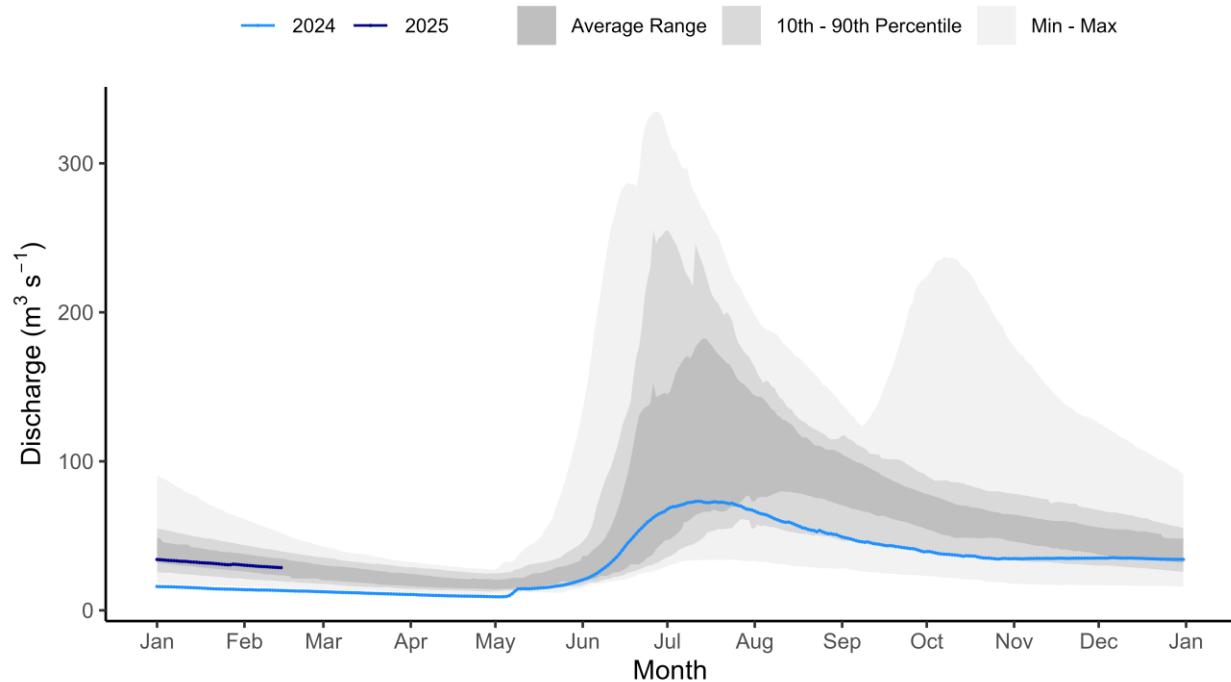


### Lockhart River at outlet of Artillery Lake [07RD001]

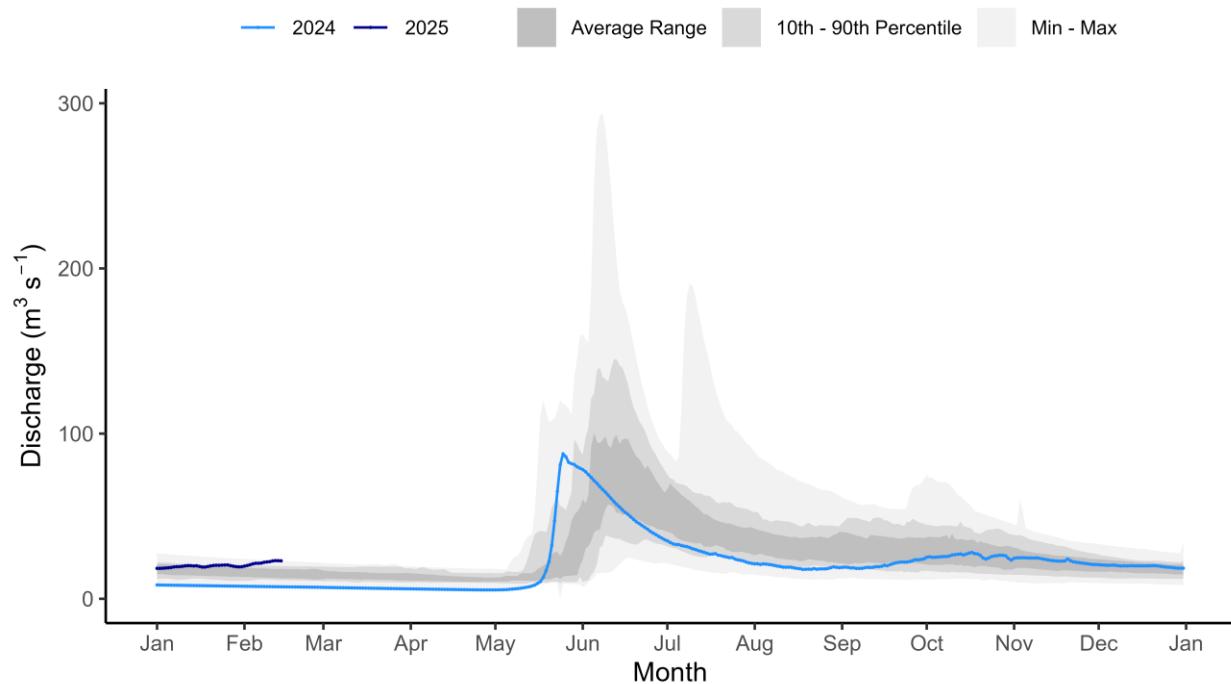
#### LOCKHART RIVER AT OUTLET OF ARTILLERY LAKE (07RD001)



Snare River below Ghost Lake [07SA002]  
SNARE RIVER BELOW GHOST RIVER (07SA002)

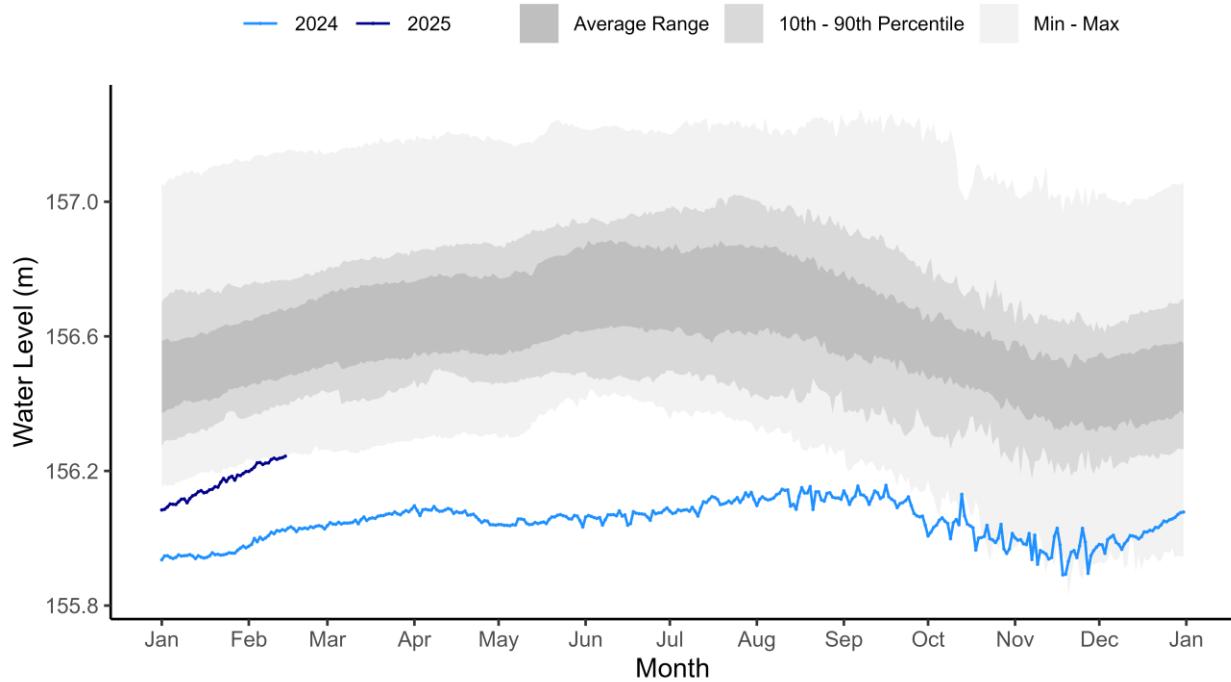


Coppermine River below Desteffany Lake [10PA001]  
COPPERMINE RIVER BELOW DESTEFFANY LAKE (10PA001)



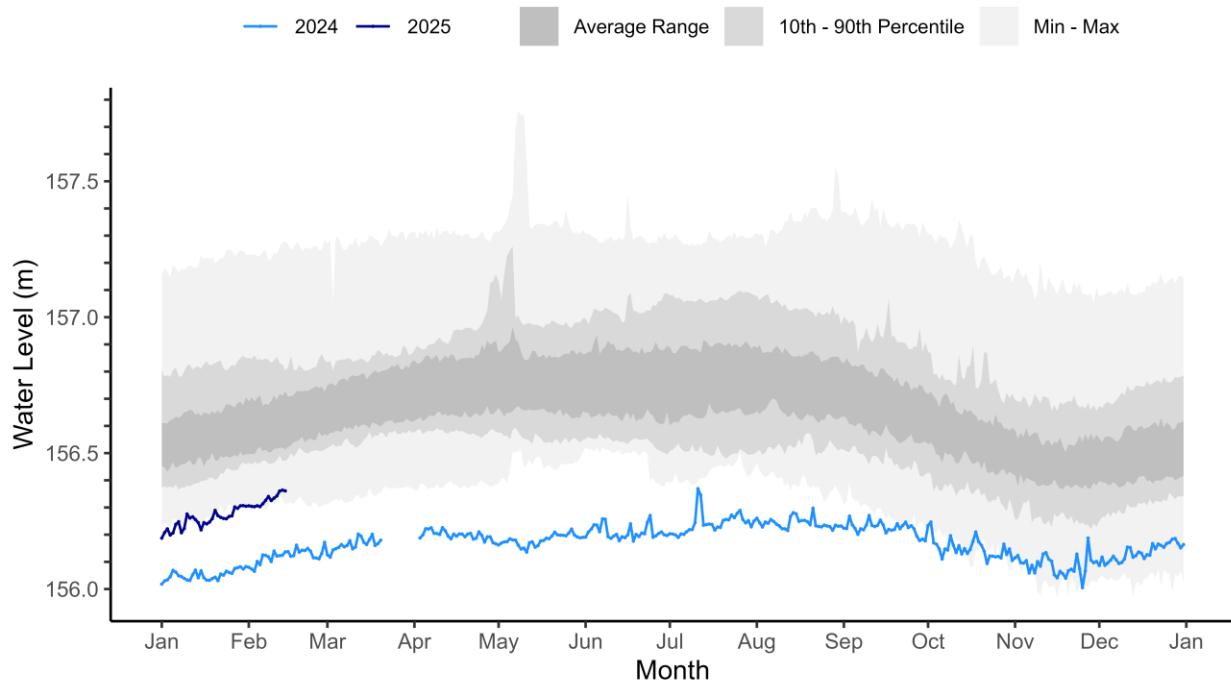
### Great Slave Lake at Yellowknife Bay [07SB001]

### GREAT SLAVE LAKE AT YELLOWKNIFE BAY (07SB001)



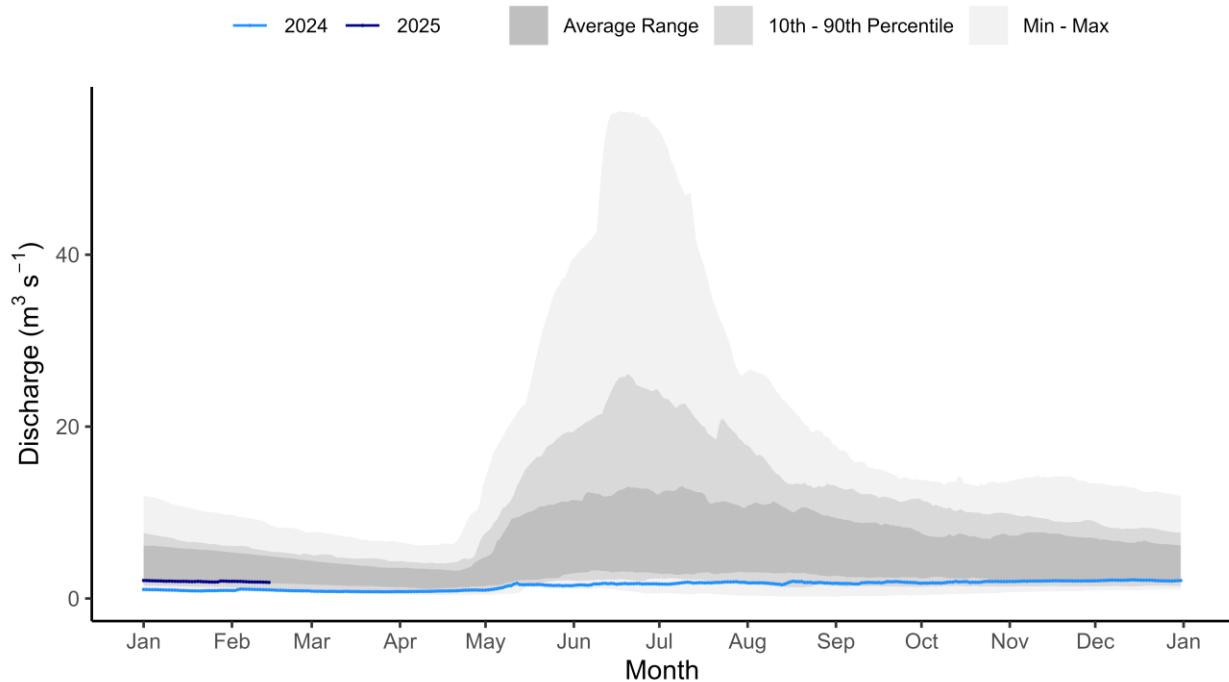
### Great Slave Lake at Hay River [070B002]

### GREAT SLAVE LAKE AT HAY RIVER (070B002)



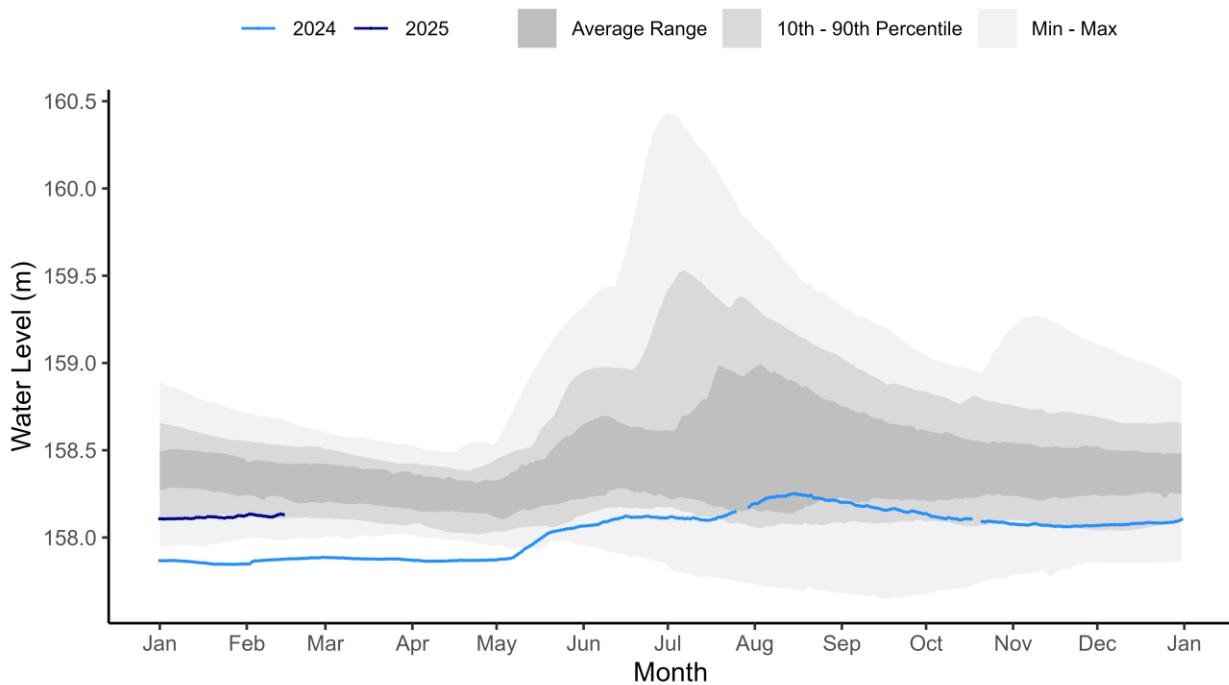
Cameron River below Reid Lake [07SB010]

CAMERON RIVER BELOW REID LAKE (07SB010)



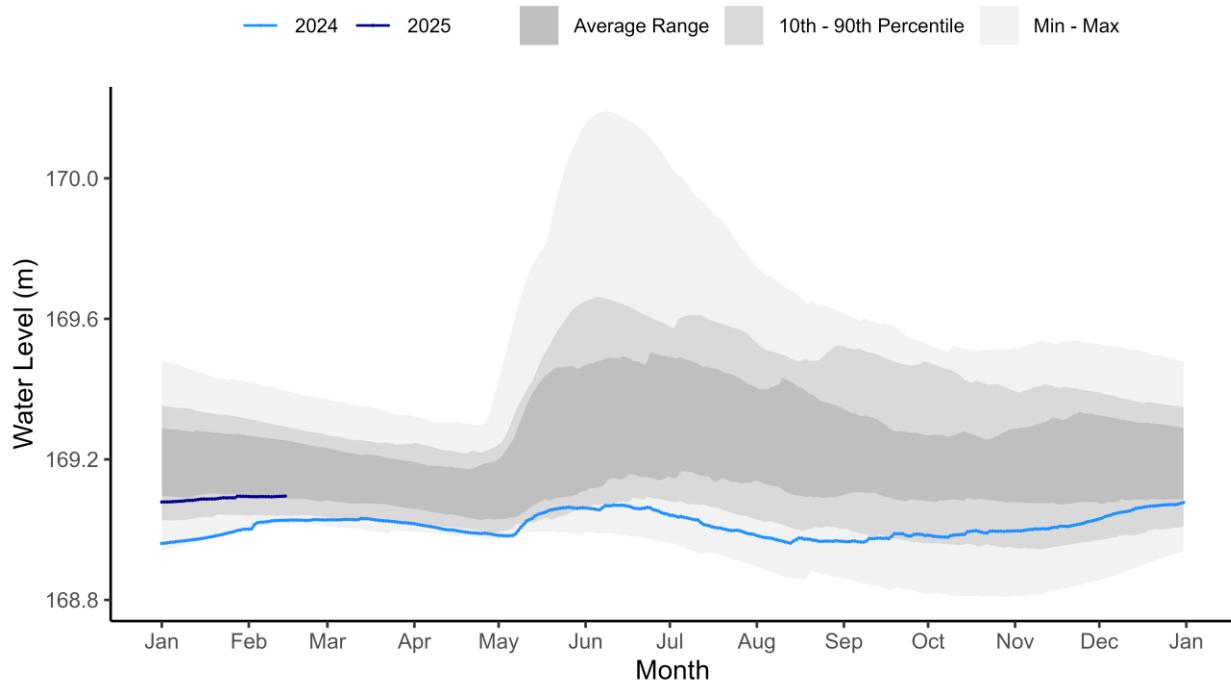
Prosperous Lake near McMeekan Bay [07SB014]

PROSPEROUS LAKE NEAR MCMEEKAN BAY (07SB014)



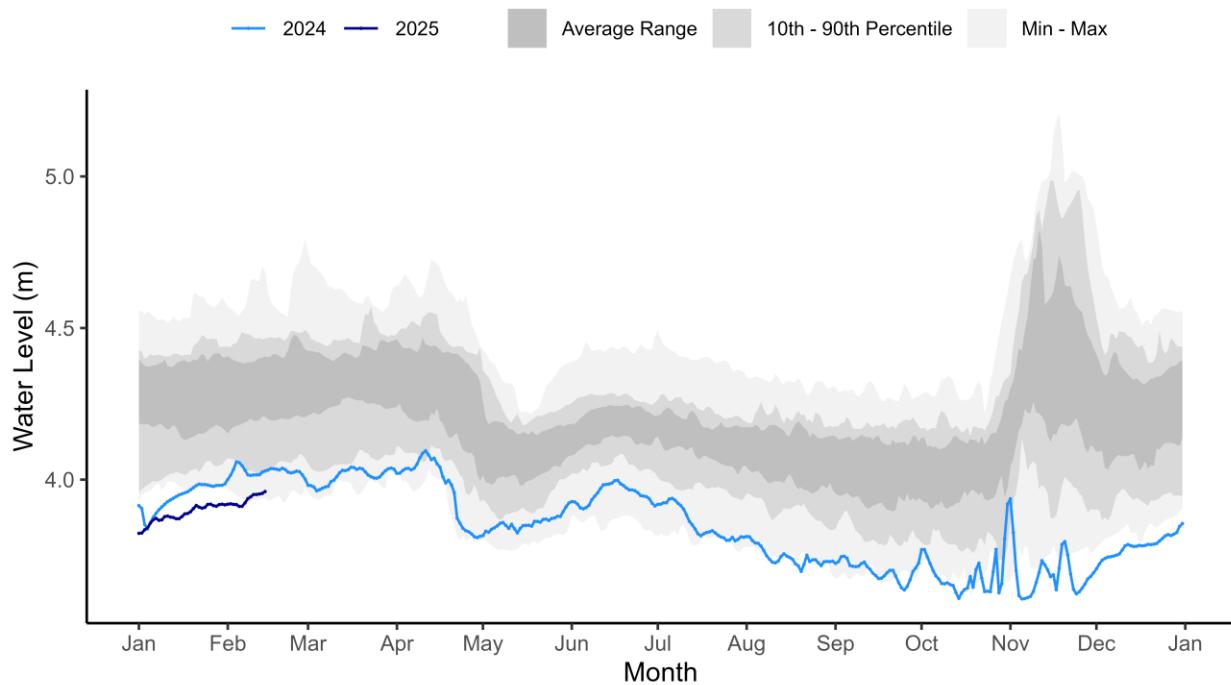
Prelude Lake near Yellowknife [07SB017]

PRELUDE LAKE NEAR YELLOWKNIFE (07SB017)



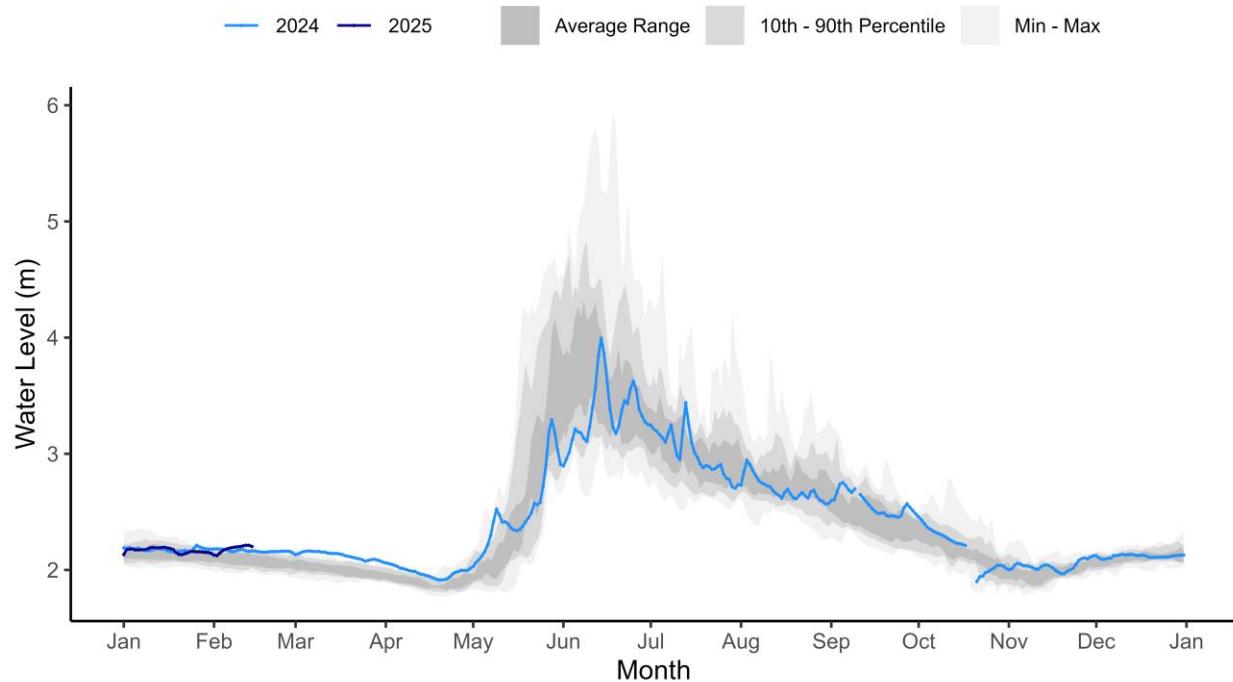
La Martre River below outlet of Lac La Martre [07TA001]

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



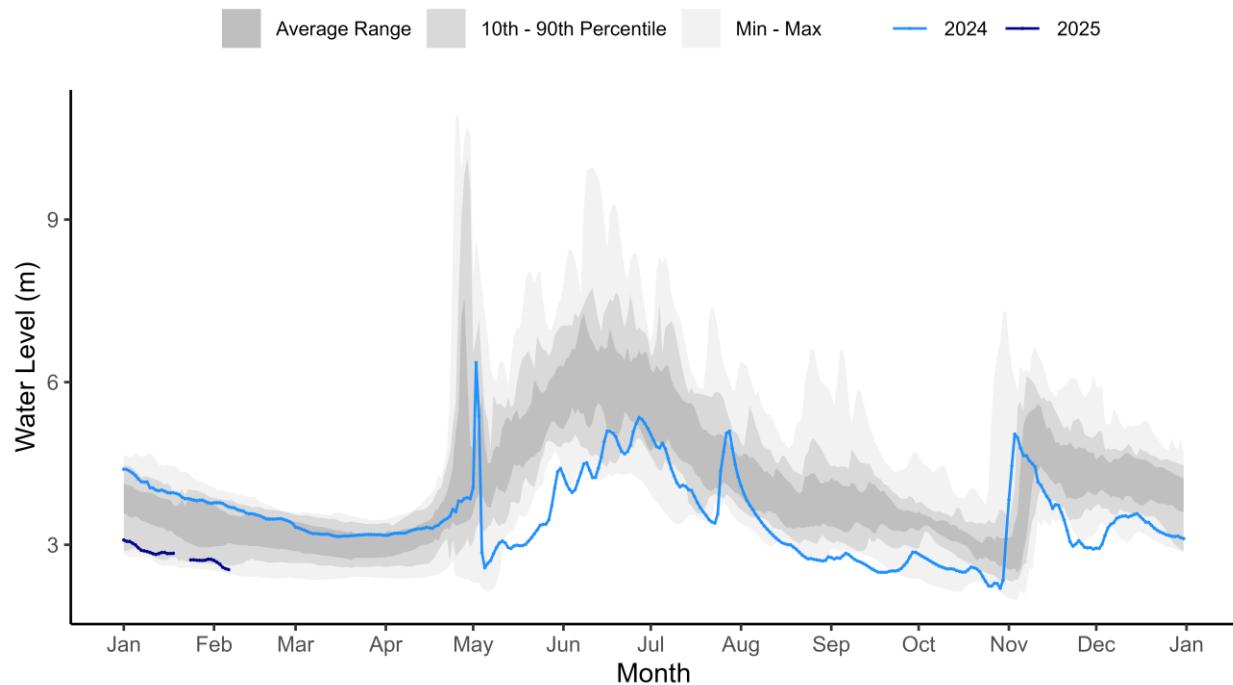
### South Nahanni River above Virginia Falls [10EB001]

### SOUTH NAHANNI RIVER ABOVE VIRGINIA FALLS (10EB001)



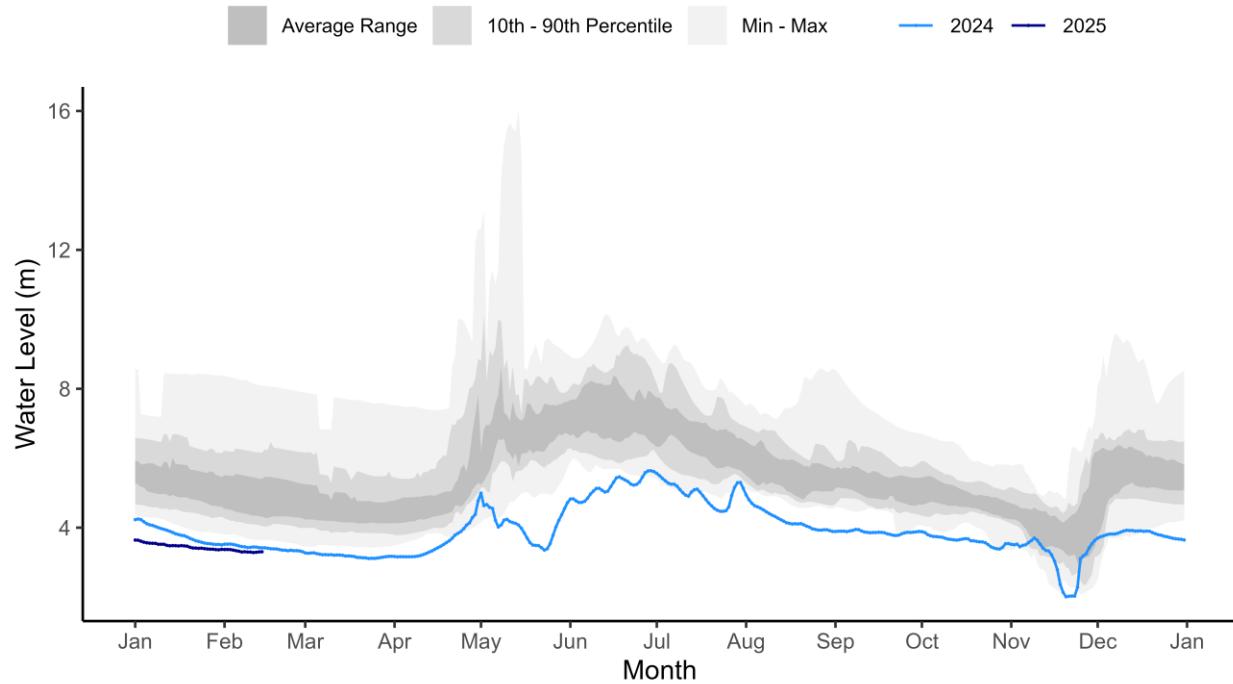
### Liard River at Fort Liard [10ED001]

### LIARD RIVER AT FORT LIARD (10ED001)



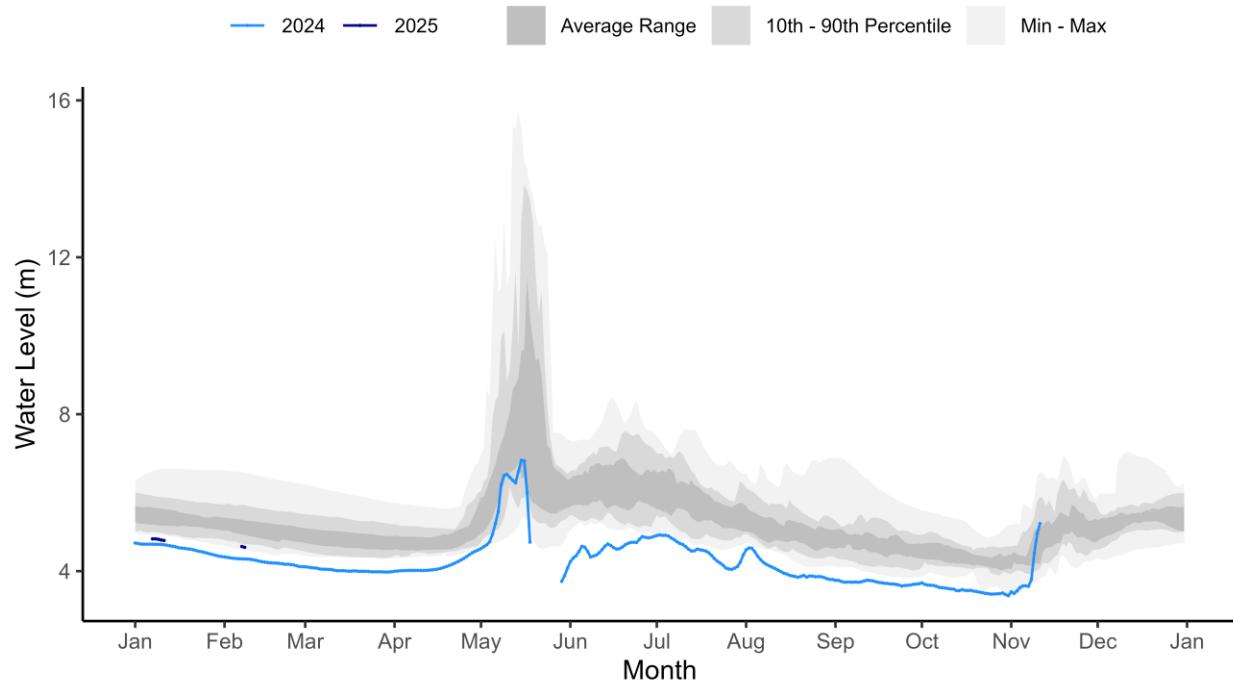
### Mackenzie River at Fort Simpson [10GC001]

#### MACKENZIE RIVER AT FORT SIMPSON (10GC001)



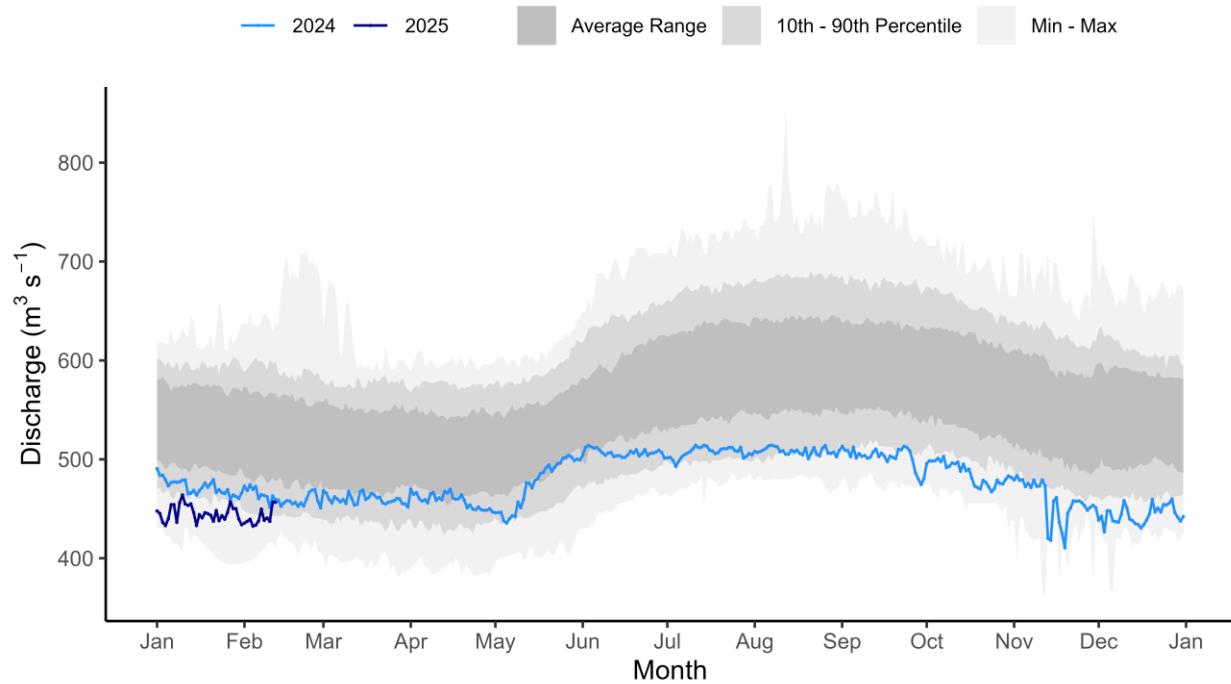
### Mackenzie River at Norman Wells [10KA001]

#### MACKENZIE RIVER AT NORMAN WELLS (10KA001)



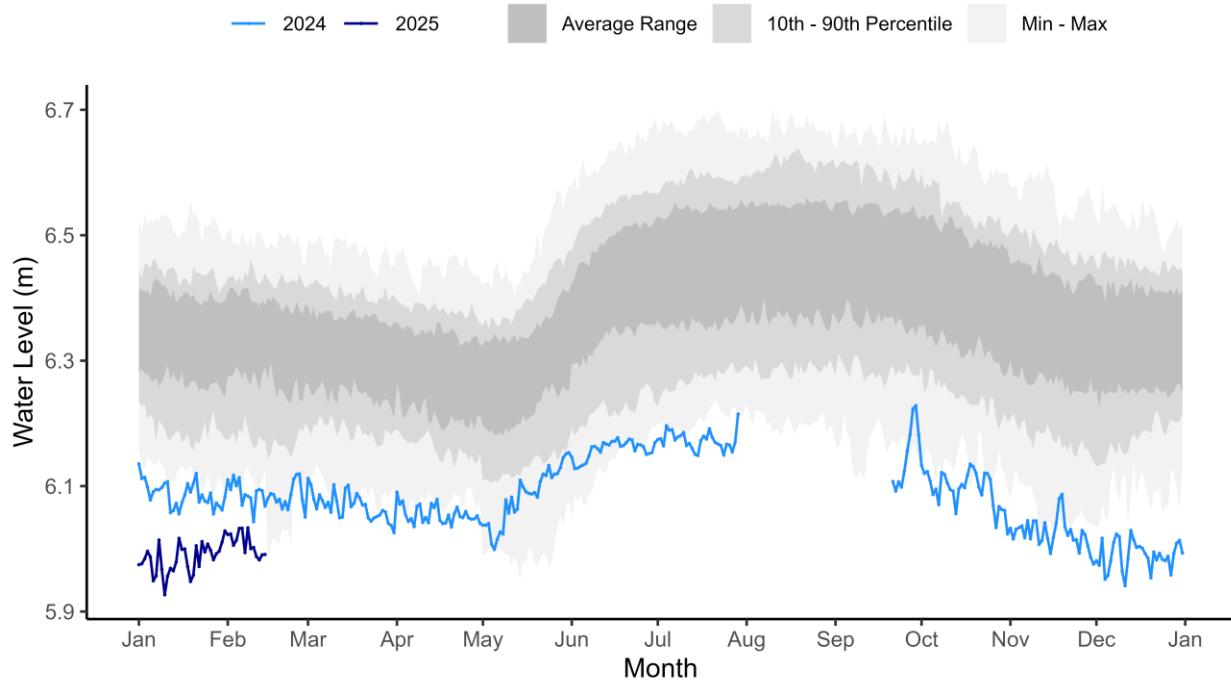
Great Bear River at outlet of Great Bear Lake [10JC003]

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



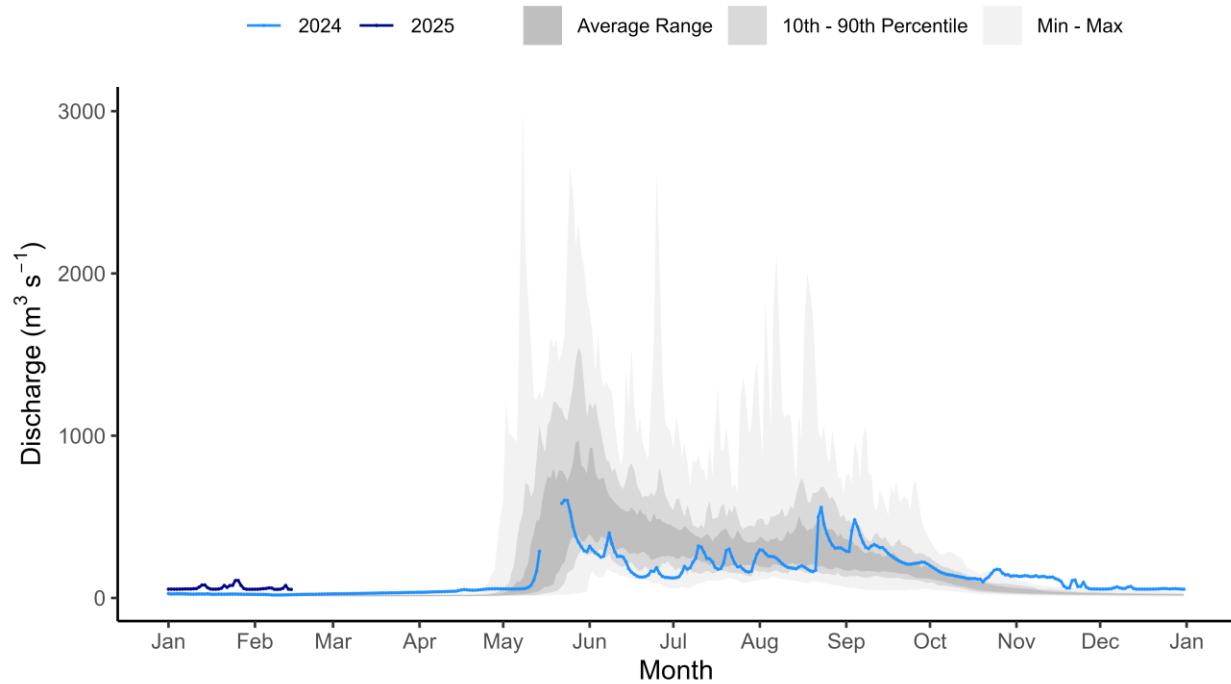
Great Bear Lake at Hornby Bay [10JE002]

GREAT BEAR LAKE AT HORNBY BAY (10JE002)



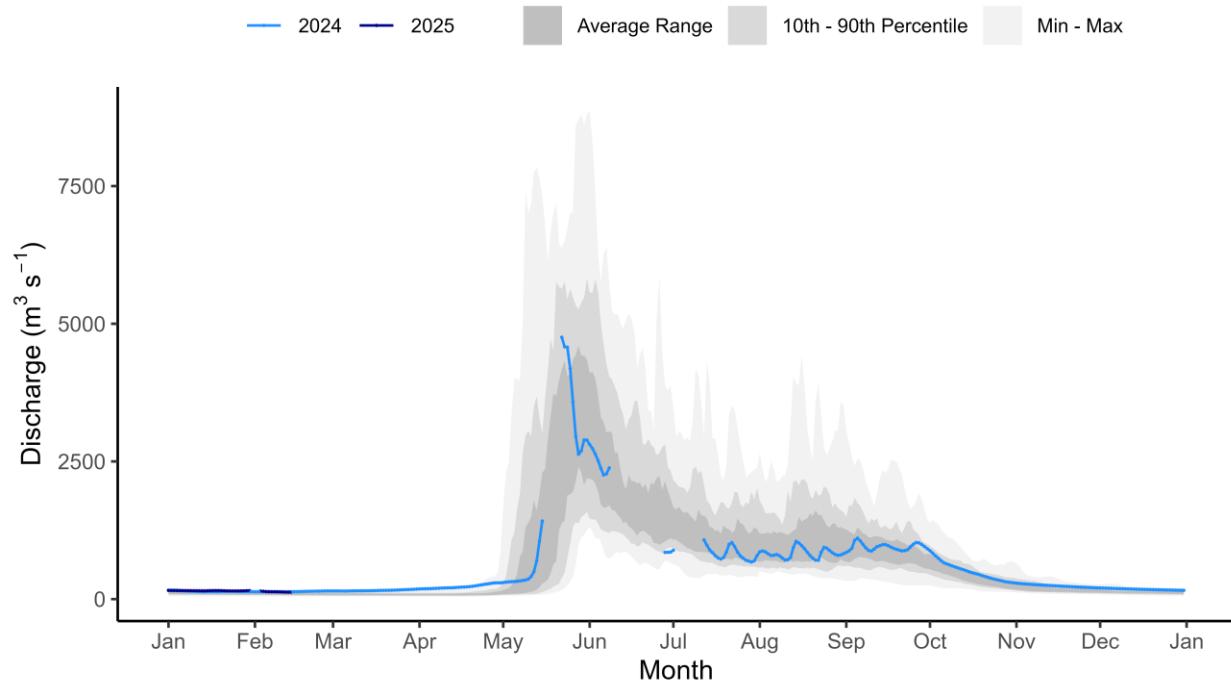
Arctic Red River near the mouth [10LA002]

ARCTIC RED RIVER NEAR THE MOUTH (10LA002)



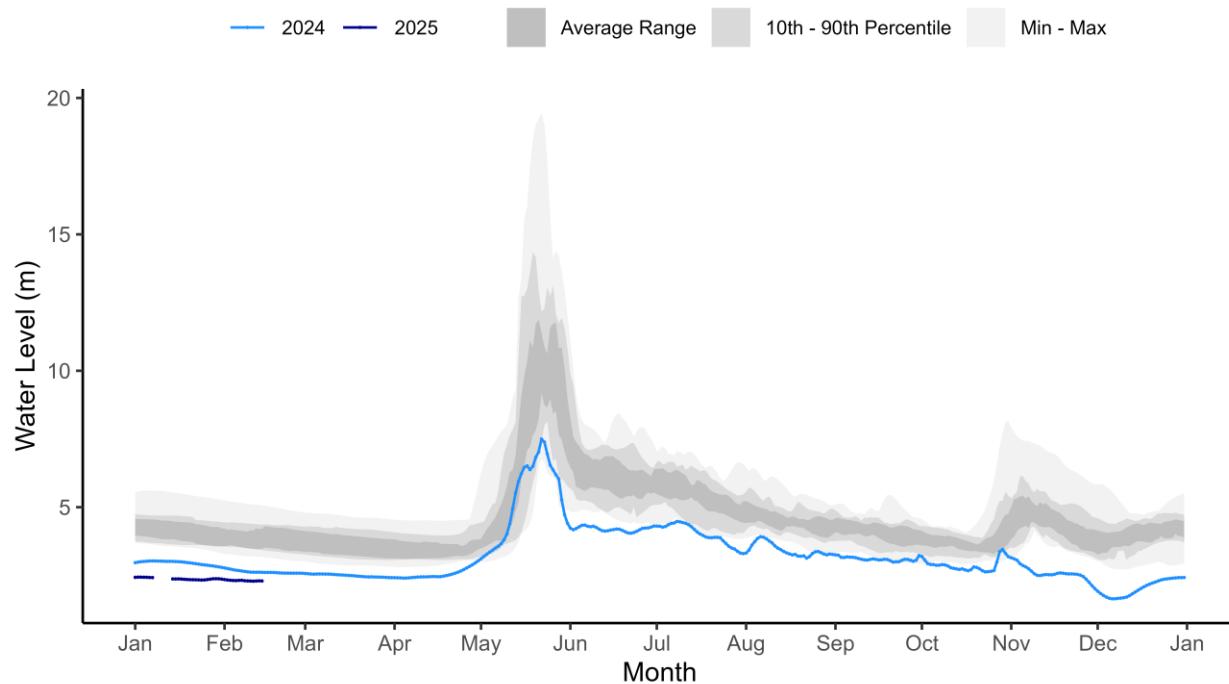
Peel River above Fort McPherson [10MC002]

PEEL RIVER ABOVE FORT MCPHERSON (10MC002)



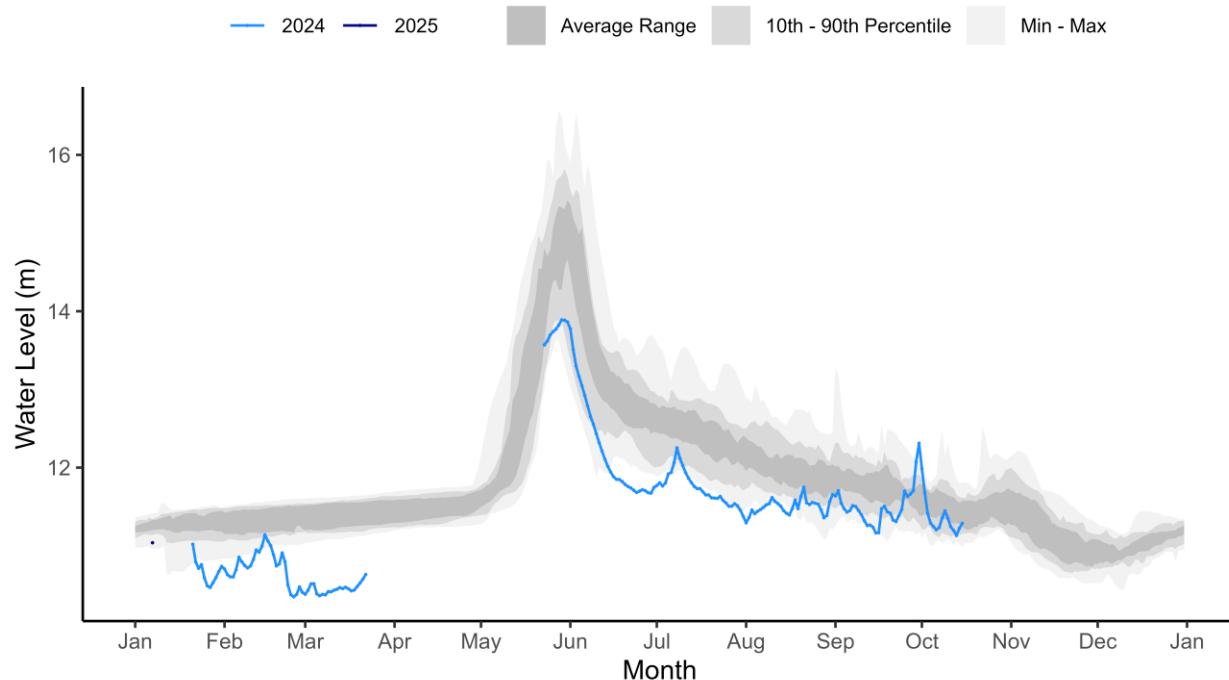
### Mackenzie River at Arctic Red River [10LC014]

#### MACKENZIE RIVER AT ARCTIC RED RIVER (10LC014)



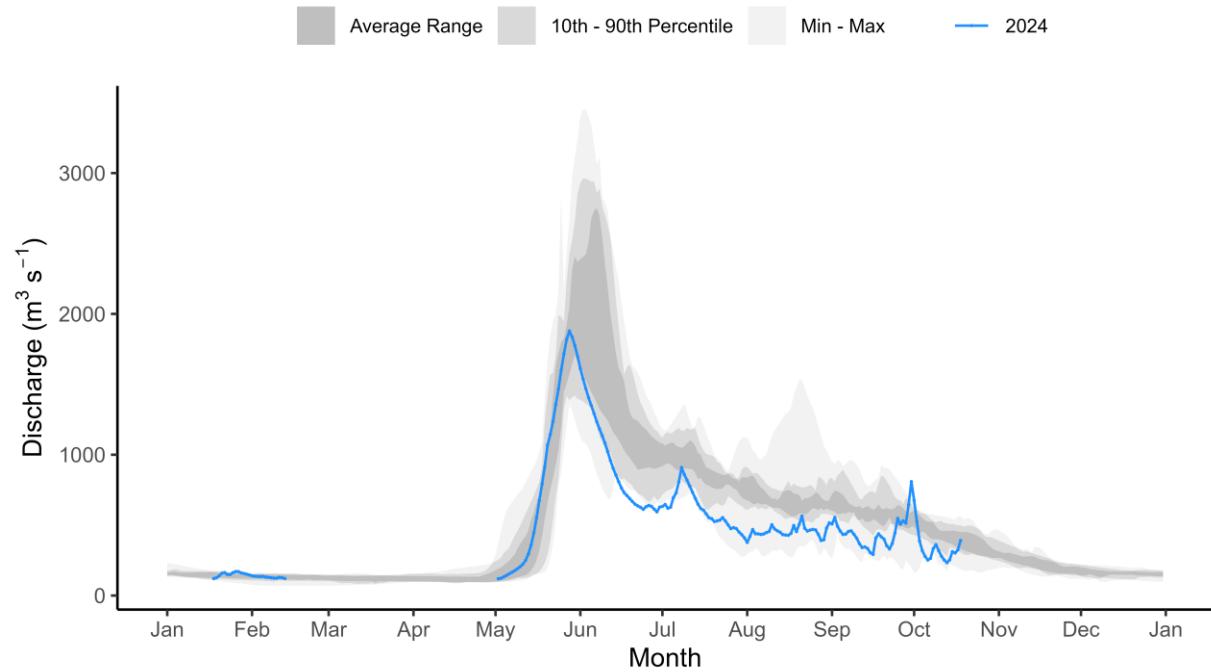
### Mackenzie River (East Channel) at Inuvik [10LC002]

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



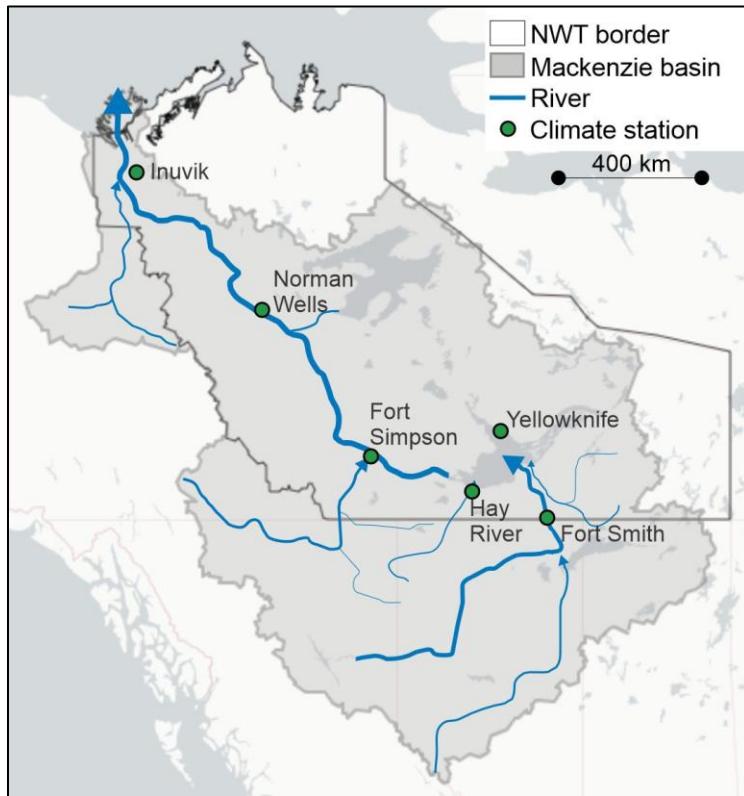
**Note:** Current data are not available for 10LC002

Mackenzie River (Peel Channel) above Aklavik [10MC003]  
MACKENZIE RIVER (PEEL CHANNEL) ABOVE AKLAVIK (10MC003)



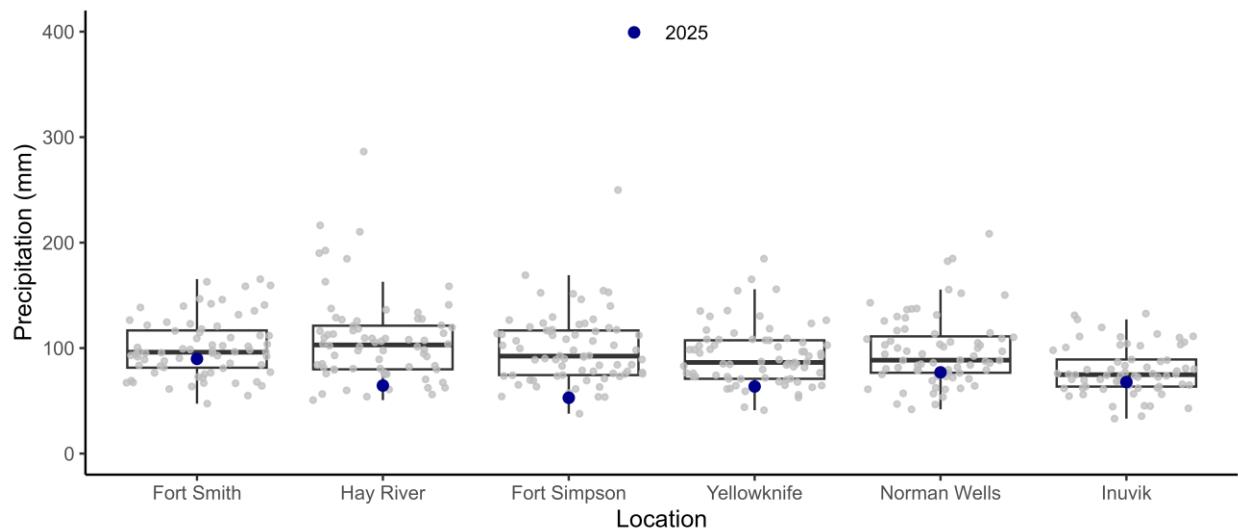
**Note:** Current data are not available for 10MC003

Climate Data:  
NWT communities:



Total Precipitation for NWT Communities

Oct. 1<sup>st</sup> 2024 to Feb. 14<sup>th</sup> 2025



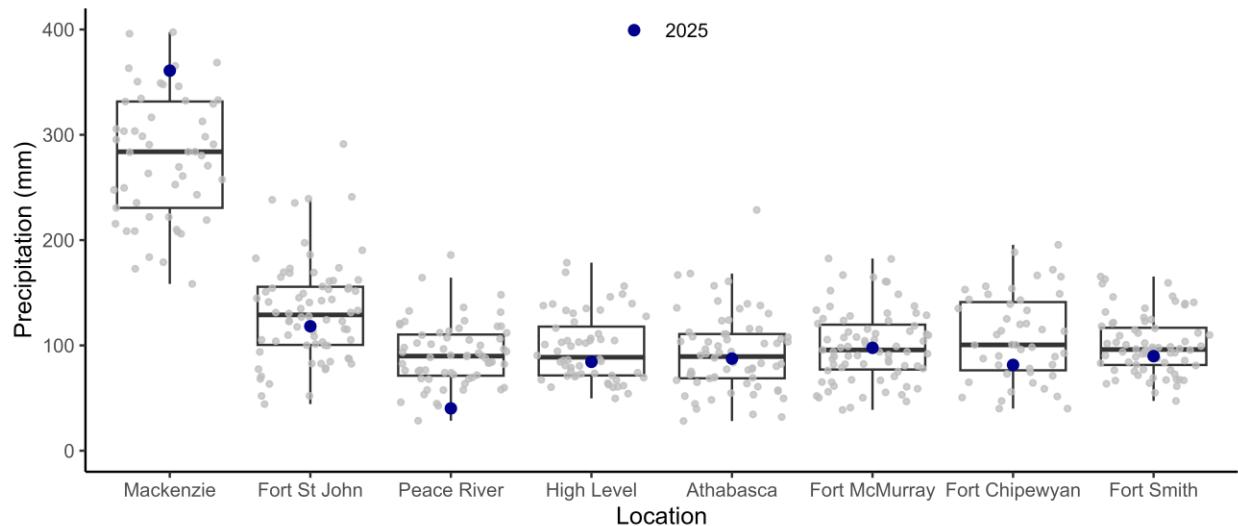
This figure shows total precipitation (rain and snow) that has fallen in select communities across the NWT from the start of October until February 14<sup>th</sup>. The blue dot is the current year, and the grey dots are all previous years from 1950 to present. See the map above for geographical context.

### Slave River basin communities:



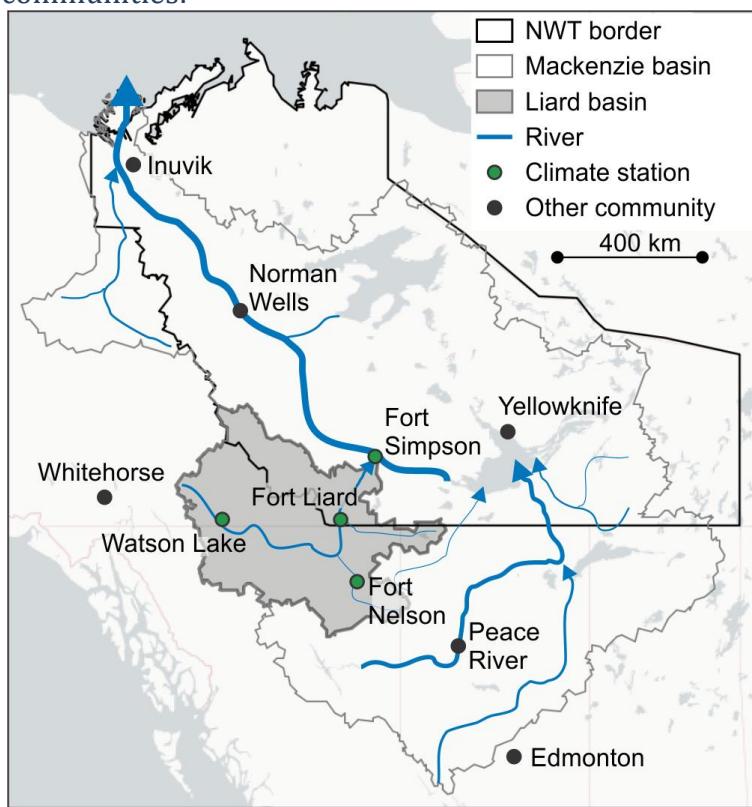
### Total Precipitation for BC/AB/NWT communities in the Slave River Basin

Oct. 1<sup>st</sup> 2024 to Feb. 14<sup>th</sup> 2025



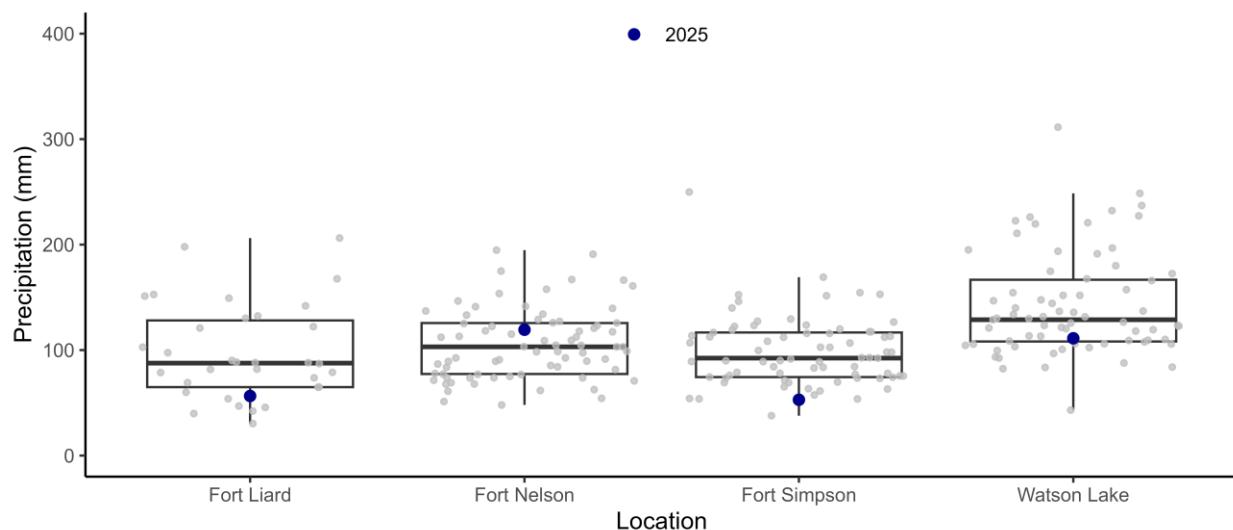
This figure shows total precipitation (rain and snow) that has fallen in select communities in the Slave River basin from the start of October until February 14<sup>th</sup>. The blue dot is the current year, and the grey dots are all previous years from 1950 to present. See the map above for geographical context.

## Liard River basin communities:



### Total Precipitation for BC/AB/NWT communities in the Liard River Basin

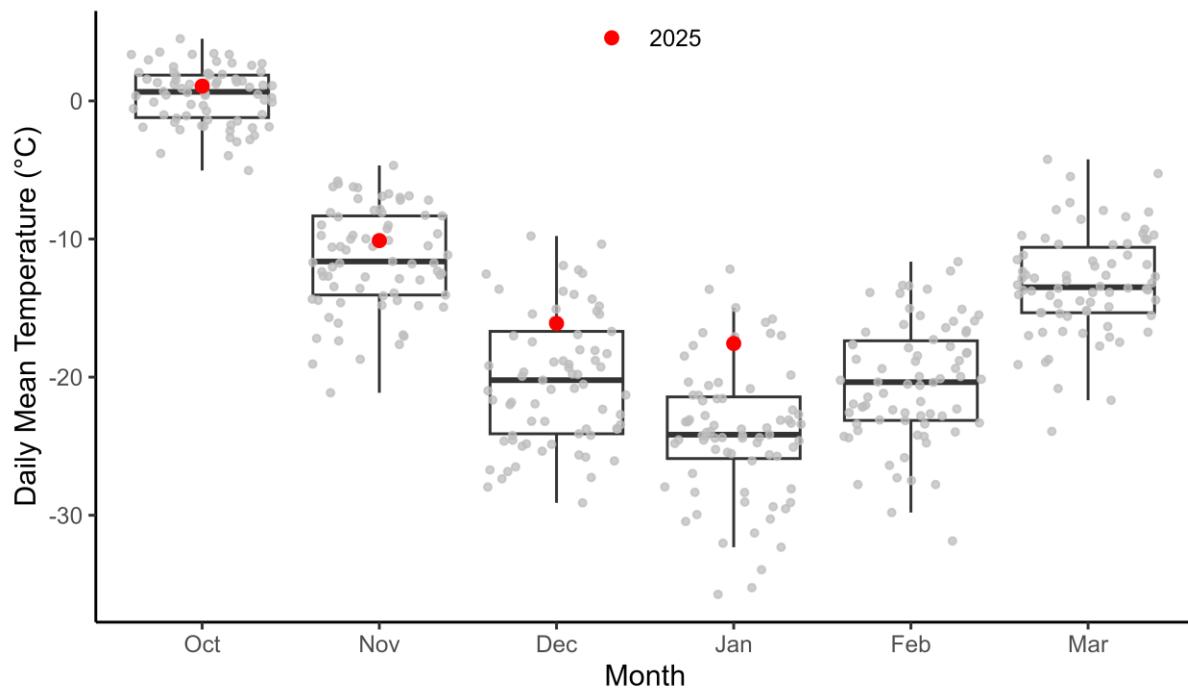
Oct. 1<sup>st</sup> 2024 to Feb. 14<sup>th</sup> 2025



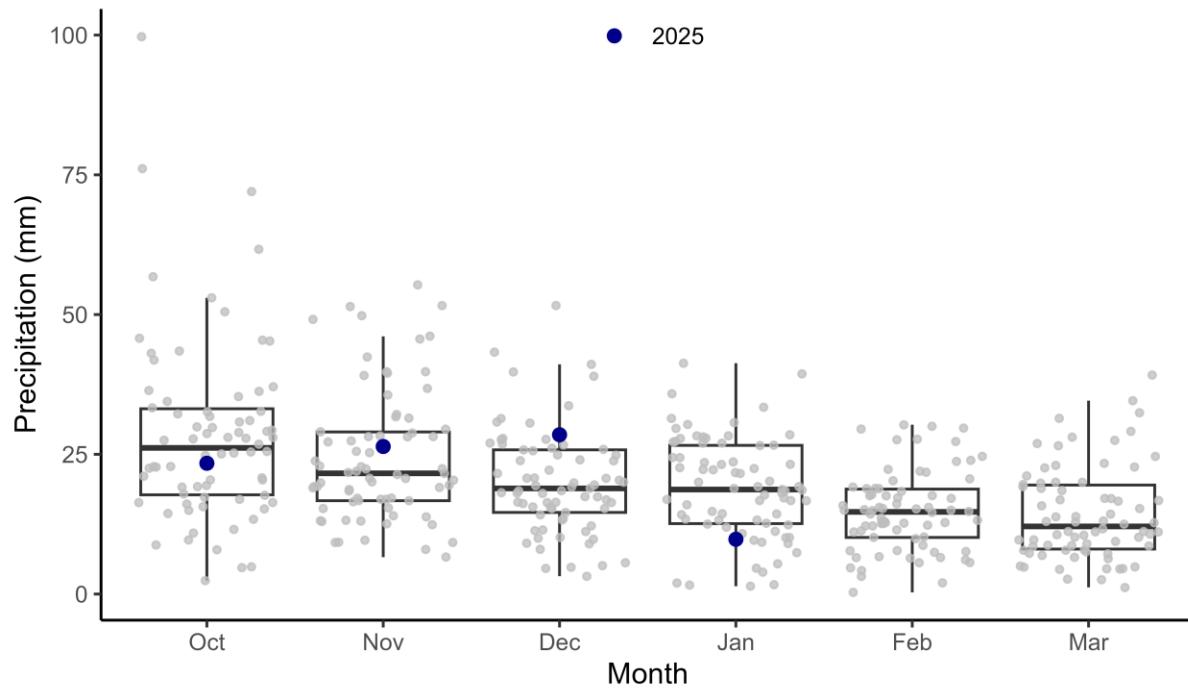
This figure shows total precipitation (rain and snow) that has fallen in select communities in the Liard River basin from the start of October until February 14<sup>th</sup>. The blue dot is the current year, and the grey dots are all previous years from 1950 to present. See the map above for geographical context.

## Fort Smith

### Fort Smith Air Temperatures

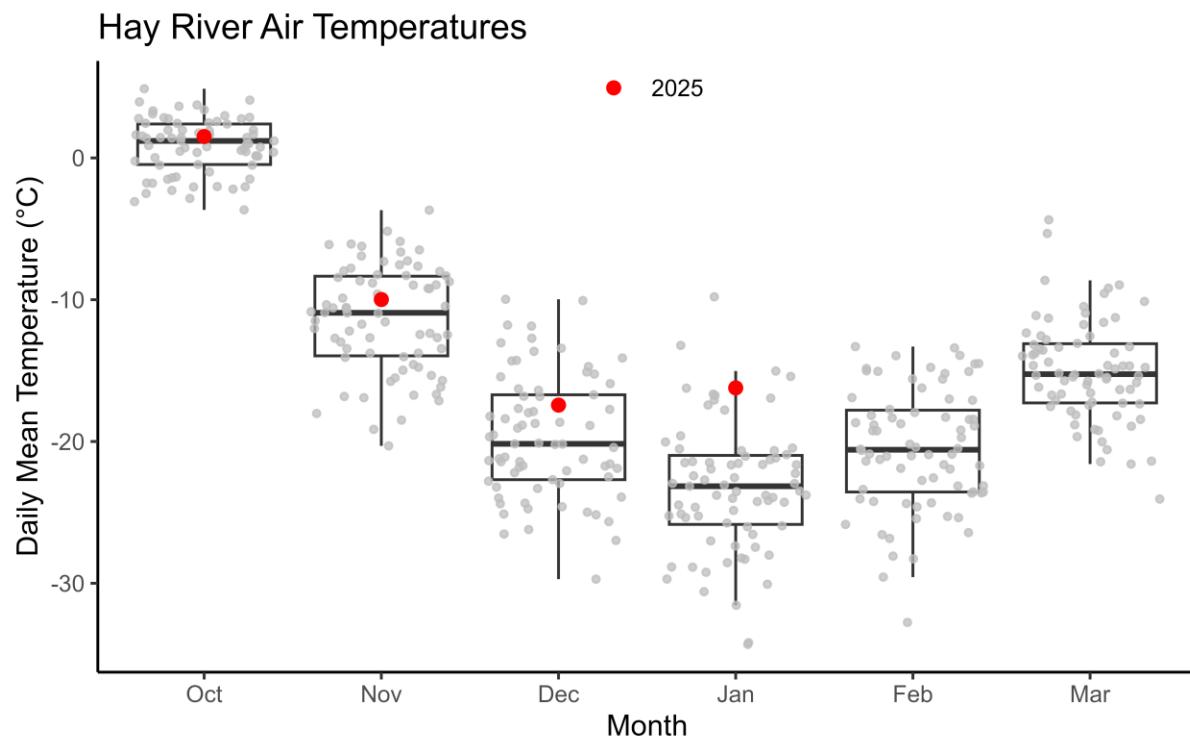


### Fort Smith Total Precipitation

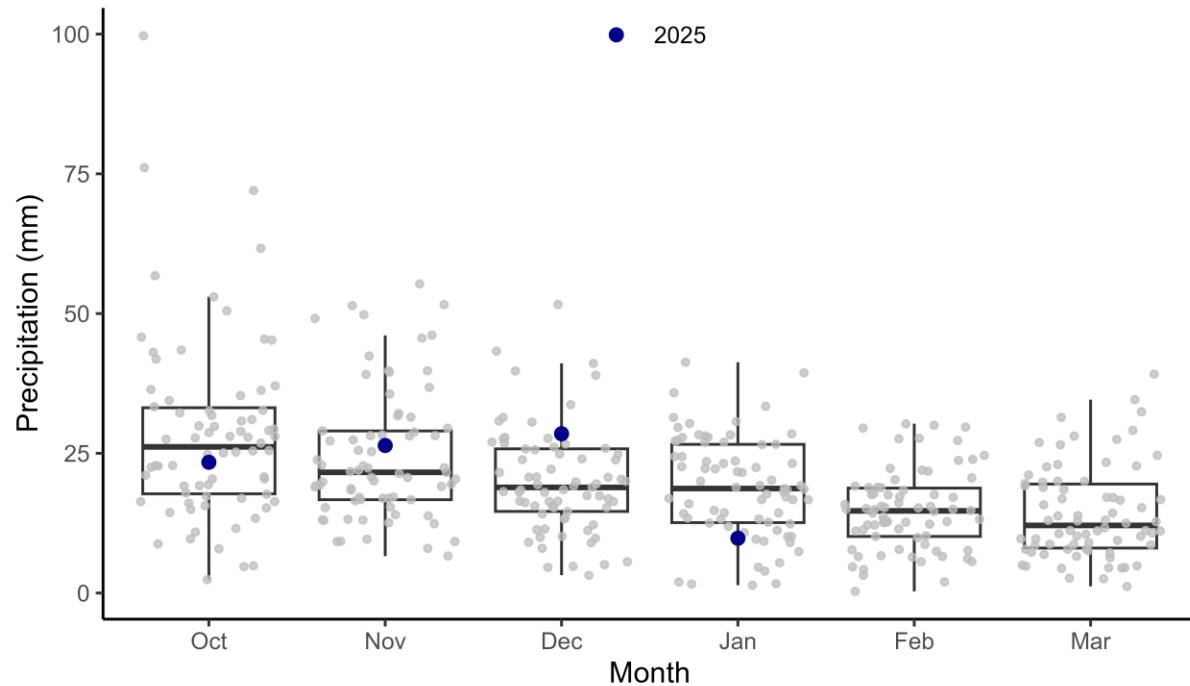


This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.

Hay River

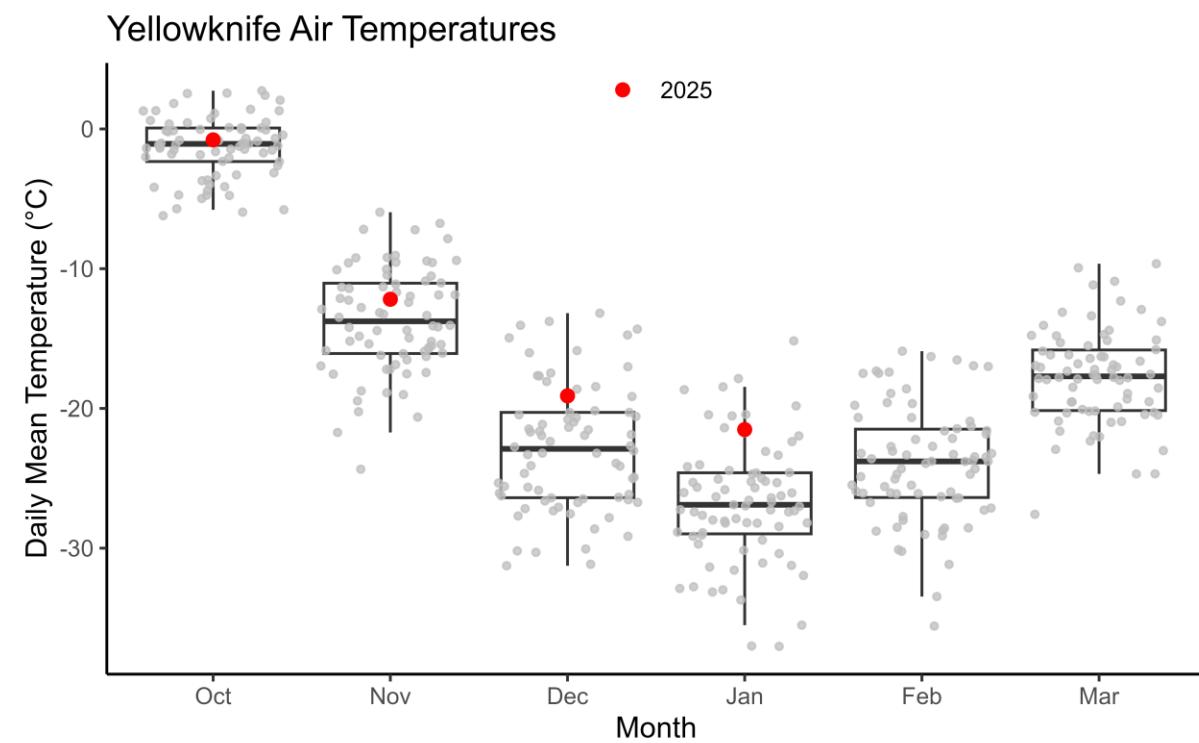


Fort Smith Total Precipitation

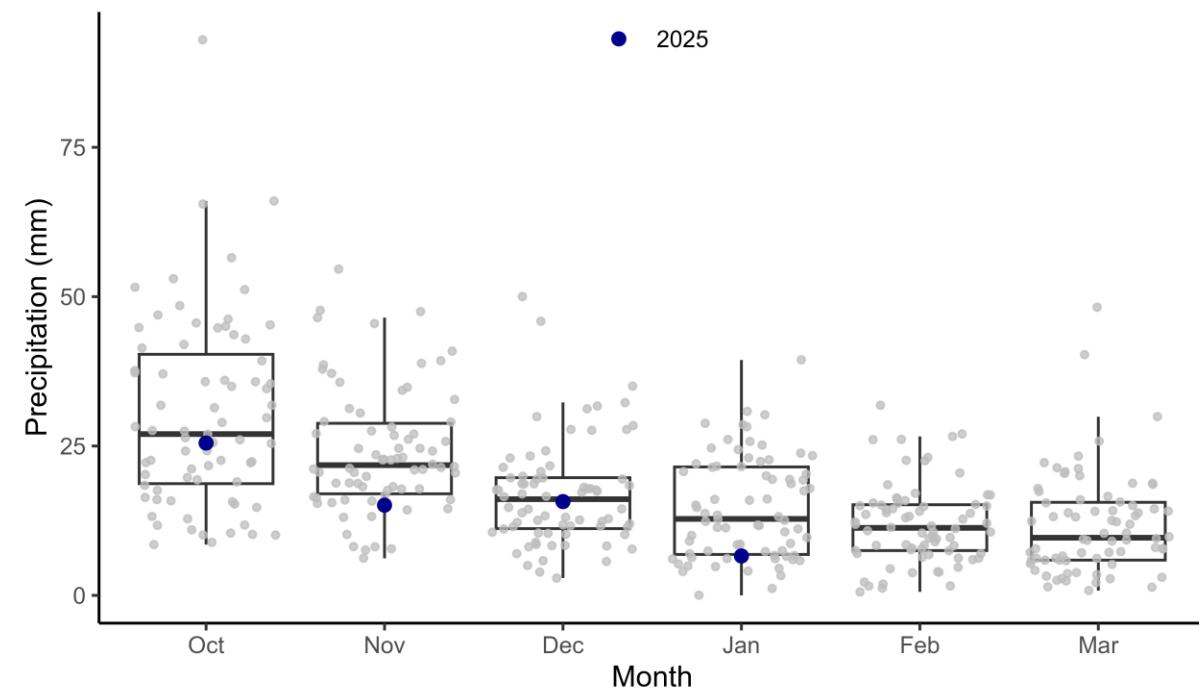


This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.

Yellowknife



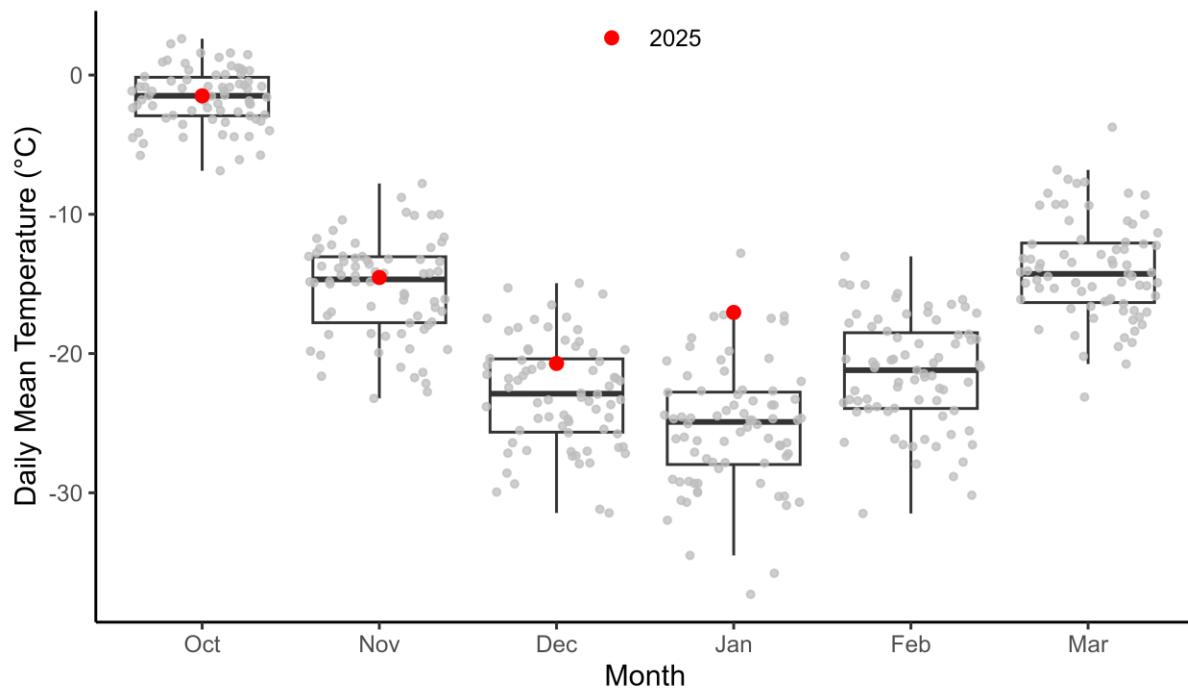
### Yellowknife Total Precipitation



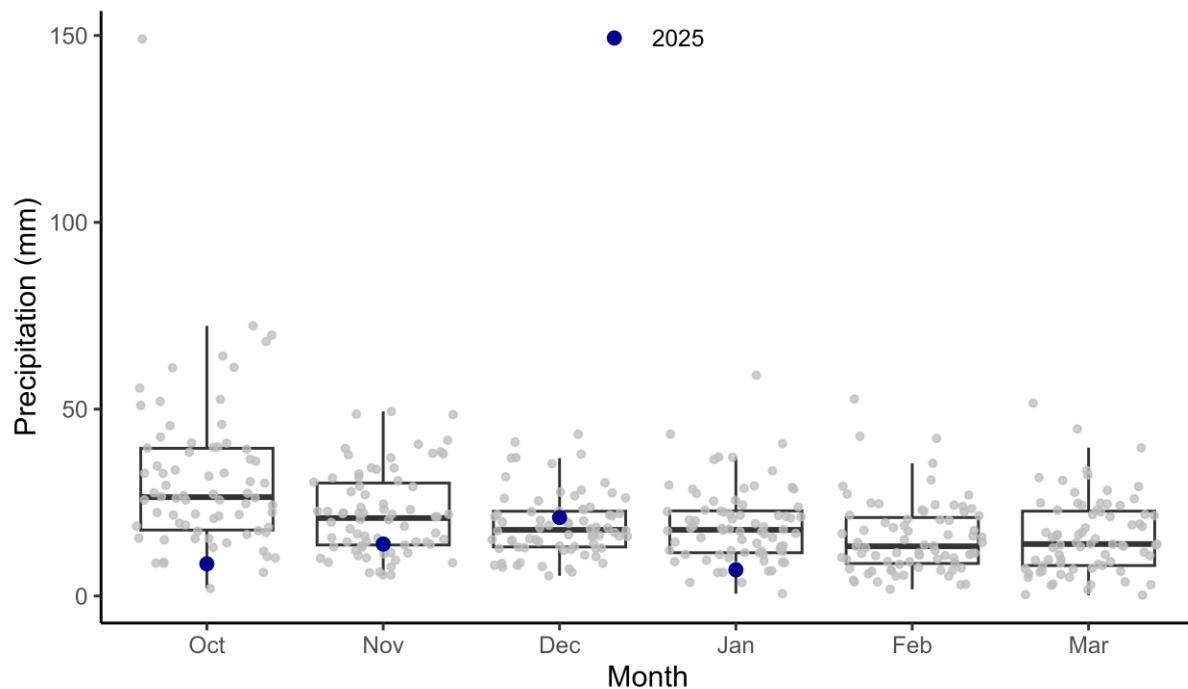
This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.

## Fort Simpson

### Fort Simpson Air Temperatures



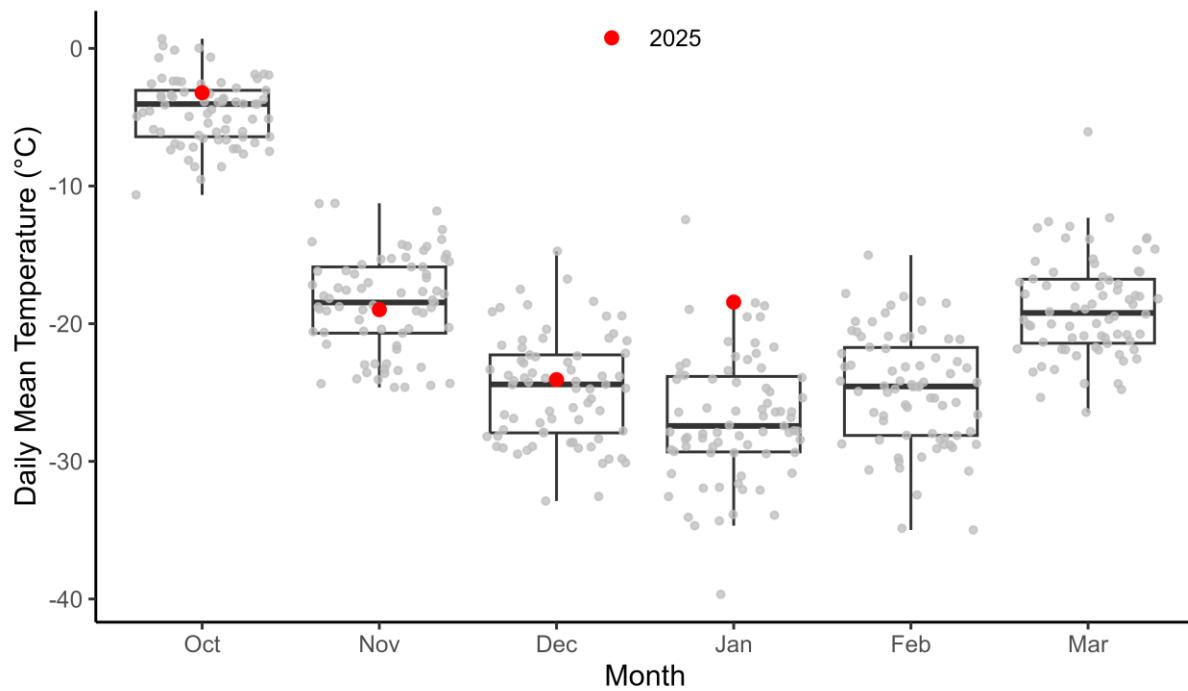
### Fort Simpson Total Precipitation



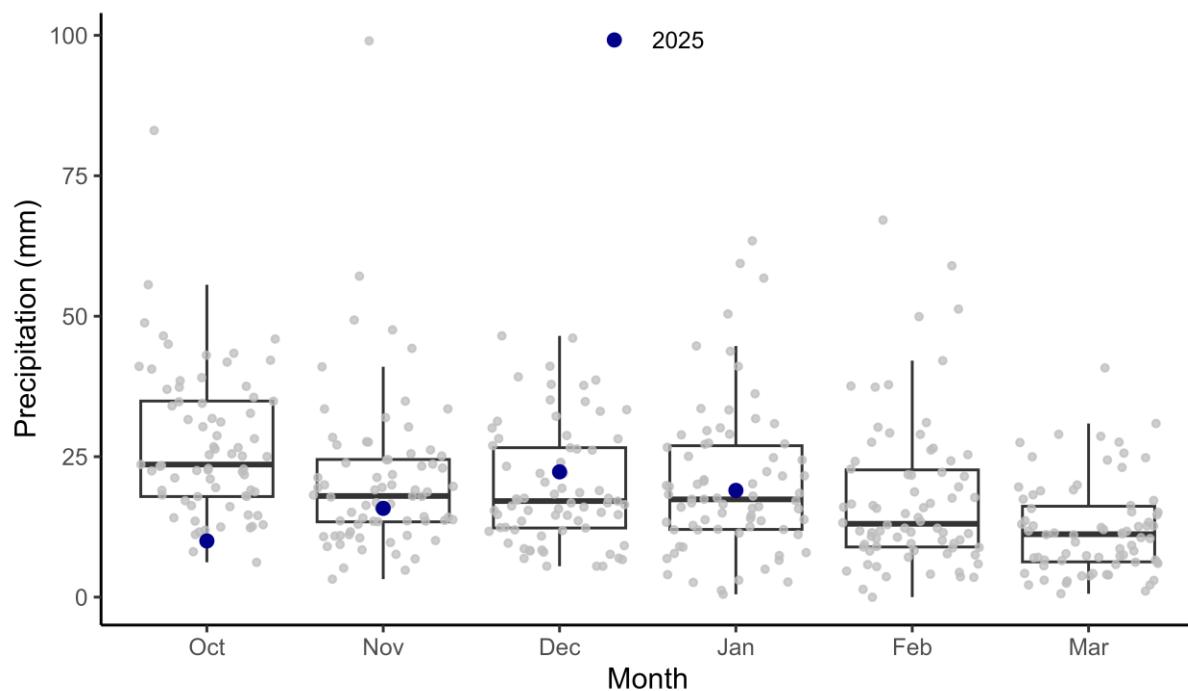
This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.

## Norman Wells

### Norman Wells Air Temperatures

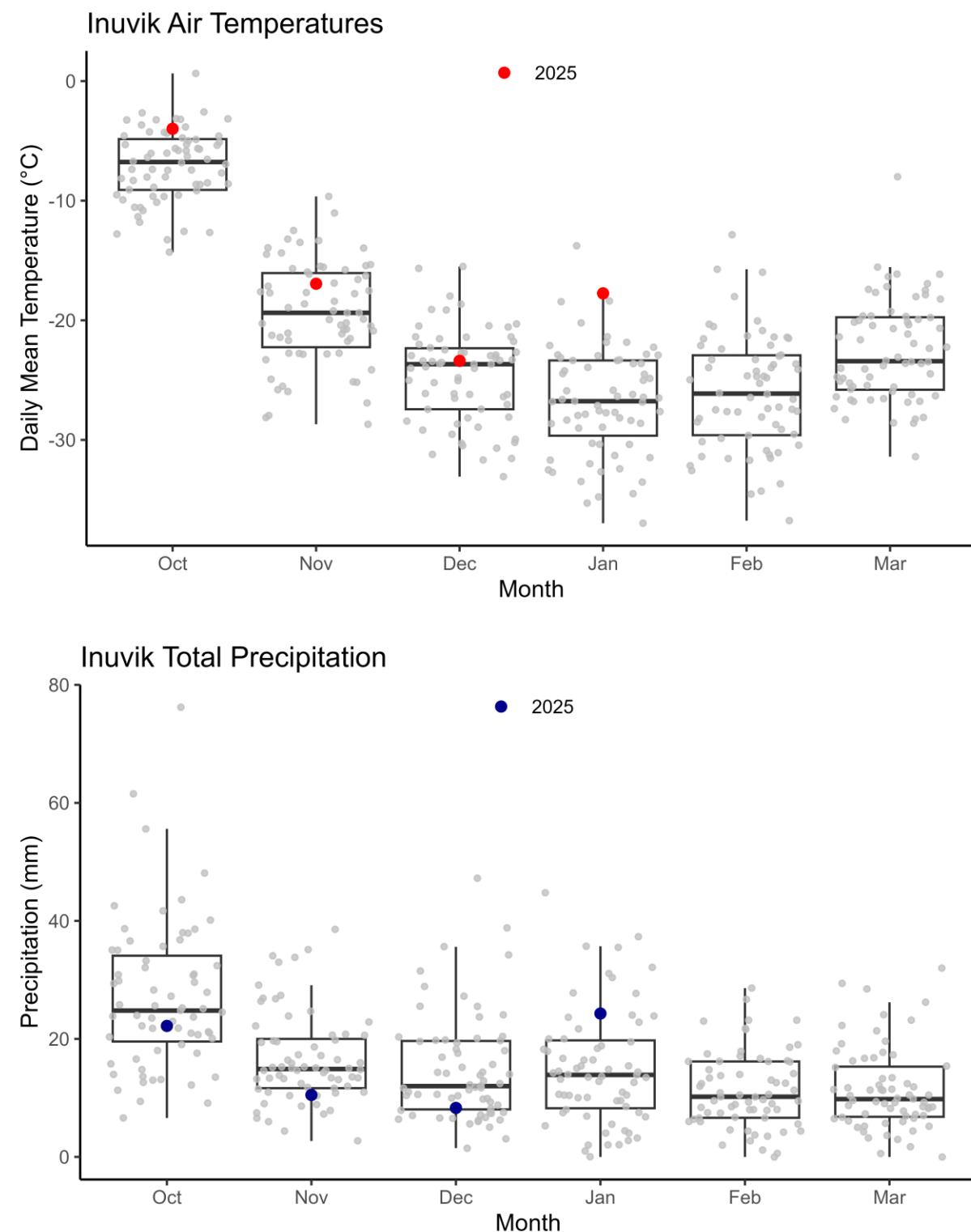


### Norman Wells Total Precipitation



This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.

Inuvik



This figure shows mean monthly air temperature and total monthly precipitation for the fall and winter of 2024/2025.