Government of Northwest Territories



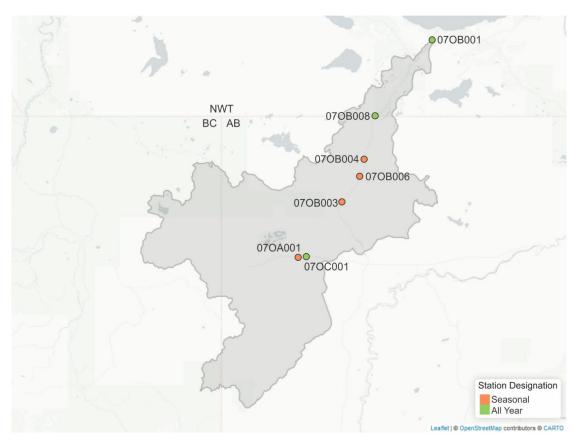
# Hay River Morning Update – May 12, 2022: 09:00

### Hay River:

This is a morning update on the status of water levels on the Hay River and its tributaries produced by the Environment and Natural Resources hydrology group.

#### **Current Status:**

- Provisional water levels at the Hay River near Hay River gauge have increased approximately 1.7 m over the past three days.
  - Prior to this, water levels had remained steady for approximately three days as ice held in the river channel due to cool temperatures;
- Ice began to shift yesterday with an ice jam from upstream moving into the downstream ice jam near town. This shift in ice caused water levels to increase rapidly through the Town of Hay River and K'atl'odeeche First Nation;
- Water levels are extremely volatile right now and impacted by ice in the channel. Rapid changes in water levels are possible;
- The upstream gauges on the main stem of the Hay River continue to slowly increase as snowmelt water moves through the system;
- The smaller upstream tributaries to the Hay River (in Alberta) are starting to decrease.
- The water level response on the Hay River and its tributaries to precipitation is very rapid at this time of year due to low basin storage and frozen ground;
- Refer to the <u>Town of Hay River website</u> for the most up-to-date information, as well as webcam images of current conditions.

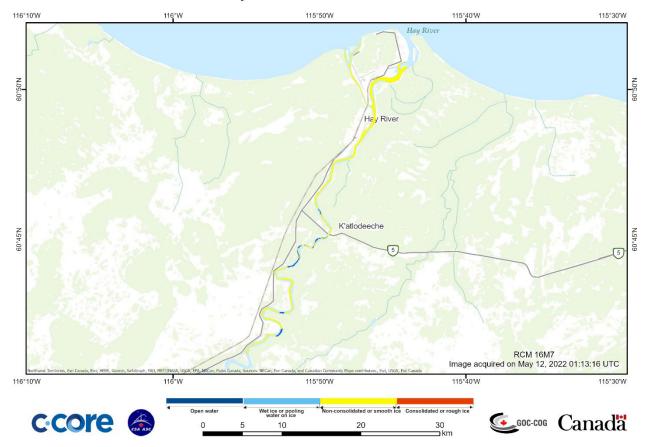


*Above* – Map of hydrometric stations in the Hay River basin. The station numbers are referenced in the water level plots below.

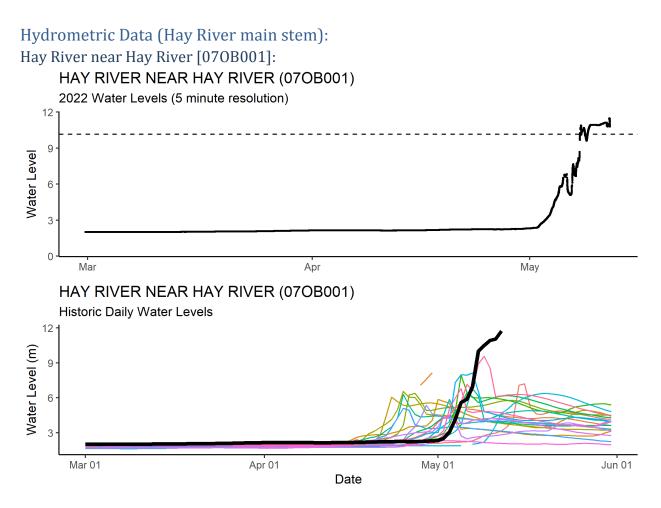


Above – Map of the two hydrometric gauges near Hay River. The lower green dot is "Hay River near Hay River [07OB001]" the upper red dot (gauge is currently not transmitting data) is "Great Slave Lake at Hay River [07OB002]".

## Hay River Ice Classification



*Above* – Map of classified river ice in Hay River as of May 11 at 19:00. The yellow sections denote ice and the blue sections denote open water.



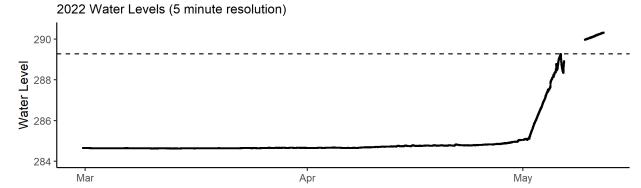
Above - The upper graph in this figure presents real time provisional water level data at 5-minute resolution with the dashed line representing the peak water level from last year (2021). The lower graph shows daily average levels relative to the previous 20 years. Water levels are severely impacted by ice and subject to major fluctuations.



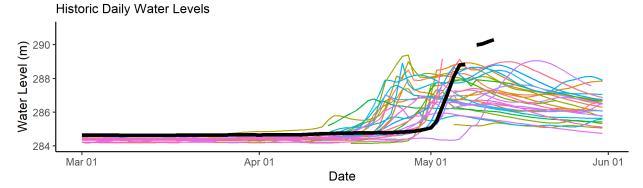
*Above* – Hay River near the Town of Hay River hydrometric gauge photo on May 12 at 08:00. Photo courtesy of Water Survey of Canada and GNWT.

### Hay River near the border [070B008]:

## HAY RIVER NEAR ALTA/NWT BOUNDARY (070B008)



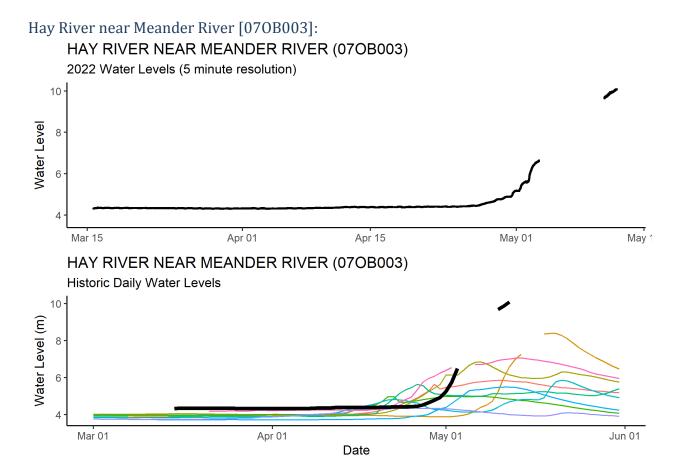
### HAY RIVER NEAR ALTA/NWT BOUNDARY (07OB008)



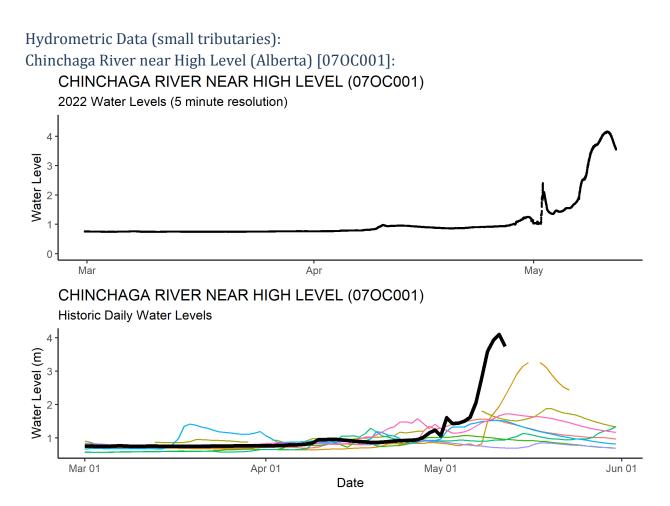
Above - The upper graph in this figure presents provisional real time water level data at 5-minute resolution with the dashed line representing the peak water level from last year (2021). The lower graph shows daily average levels relative to the previous 20 years. Water levels are slowly rising at this location.



*Above* – Hay River near the border hydrometric gauge photo on May 12 at 08:00. Photo courtesy of Water Survey of Canada and GNWT.



Above – Water level data at the Hay River near Meander River, AB. This plot shows high resolution (5 minute) water level data in the middle, and daily average data on the bottom. Water levels are slowly rising at this location.

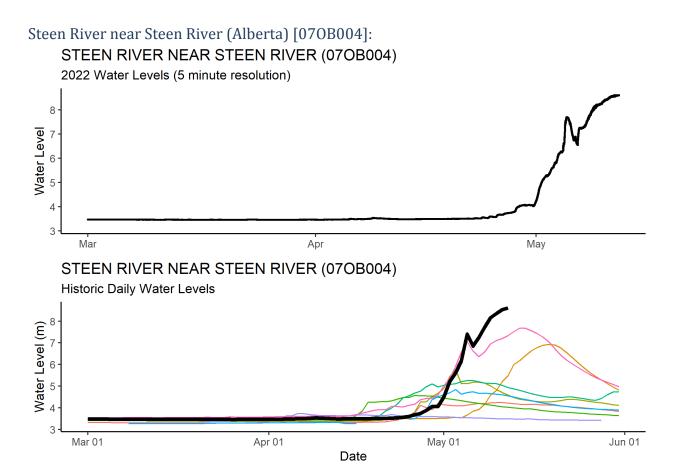


Above – Water level data at the Chinchaga River near High Level, AB. This plot shows high resolution (5 minute) water level data in the middle, and daily average data on the bottom. **Water levels are slowly receding at this location.** 

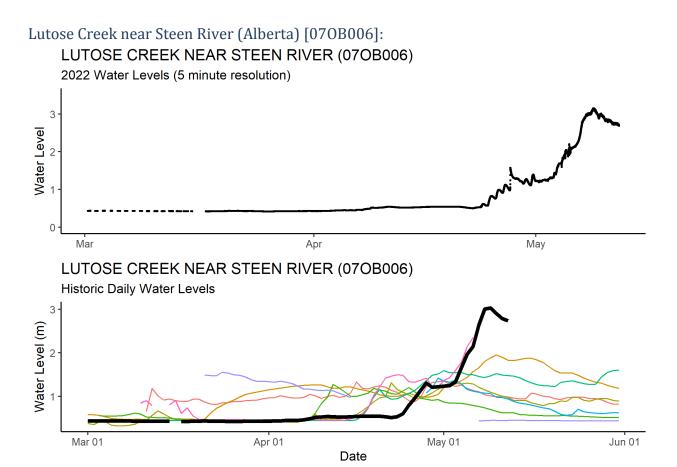
## Sousa Creek near High Level (Alberta) [070A001]: SOUSA CREEK NEAR HIGH LEVEL (07OA001) 2022 Water Levels (5 minute resolution) Water Level 3 Mar Apr May SOUSA CREEK NEAR HIGH LEVEL (07OA001) Historic Daily Water Levels Water Level (m) 3 2 Mar 01 Apr 01 May 01 Jun 01

Above – Water level data on Sousa Creek near High Level, AB. The Sousa River is a small tributary to the Hay River. Water levels are slowly receding at this location.

Date



Above – Water level data on the Steen River near Steen River, AB. The Steen River is a tributary to the Hay River. Water levels are slowly rising at this location.



Above – Water level data on Lutose Creek near Steen River, AB. Lutose Creek is a small tributary to the Hay River. Water levels have risen 0.9 m over the course of the storm. Water levels are slowly receding at this location.