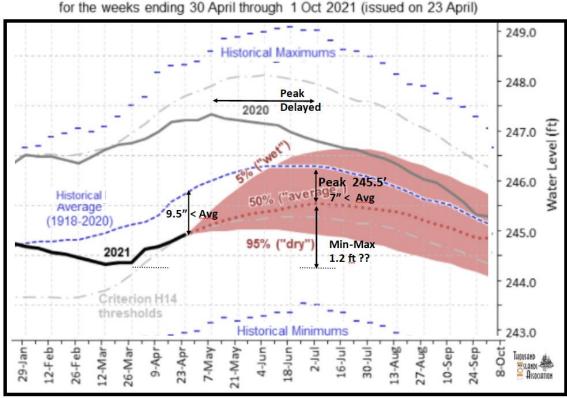
The River Rocks Have Risen for this Season

TIA Water Levels Committee – by Ken White & Vince Barton April 26th, 2021

All signs point to the 2021 season's water levels being well below average throughout the spring, summer and fall. Near the end of April, levels are 9.5" below average!

The wildcard <u>Ottawa River freshet</u>* came and went without causing a backup of water in the Lake Ontario-SL River basin. This season we *actually needed it*, while in wet flood years like 2019 *we dreaded it*! *(*Reading type: Average Outflow, then click Apply Filters*)

- 2021's dry weather continued throughout March.
- April precipitation is also well below average Lake Ontario basin was 63% of average as of April 24th.



Lake Ontario Water Level Forecast

Source: https://www.ijc.org/en/losIrb/watershed/forecasts

What do spring and summer water levels look like?

- Today we're about 9.5" below 'Average' (100 year data).
- This article uses the 50% curve as a "best guess", where a 50/50 chance exists for higher or lower levels. *See chart*.
- June would begin at 245.3 ft, 2.0 feet above Lake Ontario's 243.3 ft chart datum.
- Early July would peak at 245.5 ft, just 2¹/₂ inches higher than June.
- October could begin similar to today's levels.

Historical Data - The River Has Been This Low Before

- The 2013 & 2003 seasons were lower in late March but rebounded with a ~3 feet min-to-max rise.
- ~2.5 ft has been the historical average min-to-max annual swing since construction of the Moses-Saunders Dam.
- Specifically on April 22nd 2021, our water level was 244.91 ft. 2010 & 1999 were ~1" higher. The last time levels were lower on this date was 1965, by a full foot!
- 2021 could be similar to 1987's record lowest min-to-max seasonal level swing since the dam was built, a meager 1.3 feet!
- 2021's range *might* be less. The *forecasted* July peak of 245.5 feet yields only a 1.2 foot min-to-max!

LOW Water Mitigation

- Beginning April 10th, the IJC's River Board (ILOSLRB) <u>reduced outflows</u> to compensate for 3.7" extra water removed during Jan/Feb winter months. This 3 week reduction will add back 2.4" before flows return to Plan 2014 rates.
- Continuation of reduced flows doesn't make sense due to levels and supplies in 3 key places downriver, especially with low Ottawa River flow into Montreal.

Opinion from the River Board (ILOSLRB)

- "It now appears likely that Lake Ontario levels will remain below long-term average over the summer unless very wet weather occurs."
- "Most forecast scenarios suggest that Lake Ontario levels will remain above critical low water level thresholds due to lower than average precipitation."