

International Lake Ontario-St. Lawrence River Board

Quarterly Newsletter: Spring 2020



Introduction

The spring issue has arrived. Throughout the winter the International Lake Ontario – St. Lawrence River Board actively worked to get as much water off Lake Ontario as possible. This issue will highlight the deviation strategies used by the Board, spring forecast and outlook, an update on municipal meetings, and many references to dive deeper into factual, science-based information.

Winter Operations

The Board's proactive deviation strategy though the winter and into the spring, communicated through press releases, has focused on reducing Lake Ontario's rise, while minimizing impacts to the various stakeholders throughout the system. This past winter was mild. Very little ice formed in critical areas of the St. Lawrence River, and when it did, it did not last long. This allowed outflows to be set well above average, and often near or above recordhighs, for most of the season. An ice jam in the Beauharnois Canal occurred as the remaining ice broke-up rapidly during a late-season storm, and this required temporary flow reductions, but flows remained well above average for that time of year. Overall, outflows set a new record-high during the winter season, which has helped reduce the risk of flooding on Lake Ontario this spring.

January and February by the numbers:

- Outflows removed a total of 2.56 m from the lake in January – February
- Net total supply added 2.66 m
- Beginning-of-month levels: the lake rose 13 cm in January, but fell 5 cm in February.

Outflow Storyman

December 2019 Press Release

March 2020 Press Release



Upstream face of the Beauharnois Dam, February 29, 2020.

Coming this Spring

Spring has arrived, and one thing is certain – water levels across the Great Lakes remain high. Levels also tend to rise at this time of year, as snow melts, rainfall increases, and stream flow increases.

One of the many factors the Board closely monitors is the snow pack, not only in the Lake Ontario Basin, but also around the other Great Lakes, the St. Lawrence and Ottawa River basin.

It is critical to watch the Ottawa River basin closely at this time of year, as the magnitude, timing and rate of snowmelt, along with spring rains, all contribute to what is typically a rapid rise and the eventual peak flow of the Ottawa River.



Since the Ottawa River is a major tributary to the St. Lawrence River, its high flows may easily contribute to flooding in Lake St. Louis, just to the west of Montreal, and in Lake St. Peter, further east between the cities of Sorel and Trois-Rivieres, Quebec. The outflows from the Moses-Saunders dam are temporarily reduced nearly every spring to lower the risk of flooding when the Ottawa River flows are highest. The effects of these flow reductions upstream and downstream vary significantly due to the relative size of Lake Ontario in comparison to the channel and "lakes" in the St. Lawrence River. For example, the flow reduction required to lower the water levels around Montreal a certain amount, temporarily increases Lake Ontario's level by about one eleventh of that amount.

Timing of the Ottawa River freshet (the term used when river flows rise from melting snow) depends mostly on the weather conditions in the coming weeks. The Ottawa River Regulation and Planning Board tracks this information, and closely coordinates with the Board.

Ottawa River Regulation and Planning Board

Municipal Meetings

Supporting the Great Lakes-St. Lawrence River Adaptive Management (GLAM) Committee's effort to collect information on the impacts of the 2017 and 2019 high water events, the Board has been meeting with municipal leaders from around the basin. These meetings have been very informative to understand the unique issues and impacts each municipality is facing and for the Board to share information and updates on the 2020 season. It is the Board's intent to continue to engage with municipal leaders as much as possible.

The International Joint Commission also hosted a webinar on February 23, 2020, and plans to host another webinar April 3, 2020. More Information



February Webinar

Resources shared with municipal leaders:

High Water Q&A's

Plan Comparison





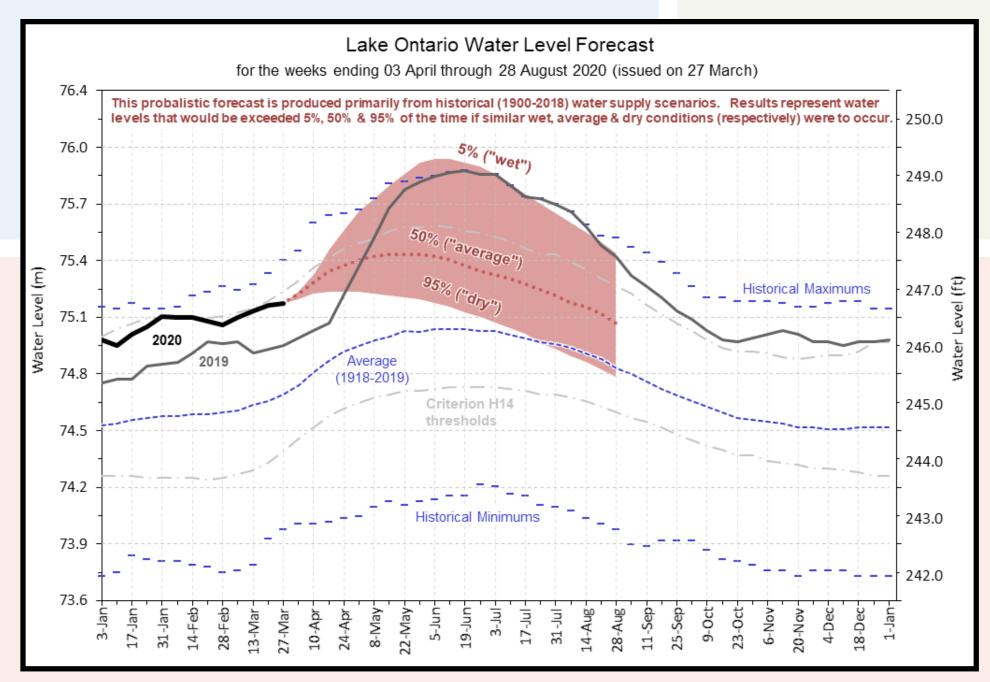
Forecast and Outlook

The forecast is based on current levels of Lake Erie and Lake Ontario, short-term weather predictions, an ensemble of historical water supplies, and the current outflow strategy. The Board will continue to assess every possible opportunity to safely lower Lake Ontario water level in consideration of all interests. It is important to remember:

- · Levels are dictated primarily by water supplies
- Regulation of outflows has a limited role and cannot prevent high levels during periods of persistent and excessive wet weather
- Outflows will remain high, but drier weather would help. However, if it's wet enough, there will be no way of avoiding high water levels this year or in the future



Lake Ontario Water Level Forecast



For the most up to date forecast information visit: https://ijc.org/en/loslrb/watershed/forecasts



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