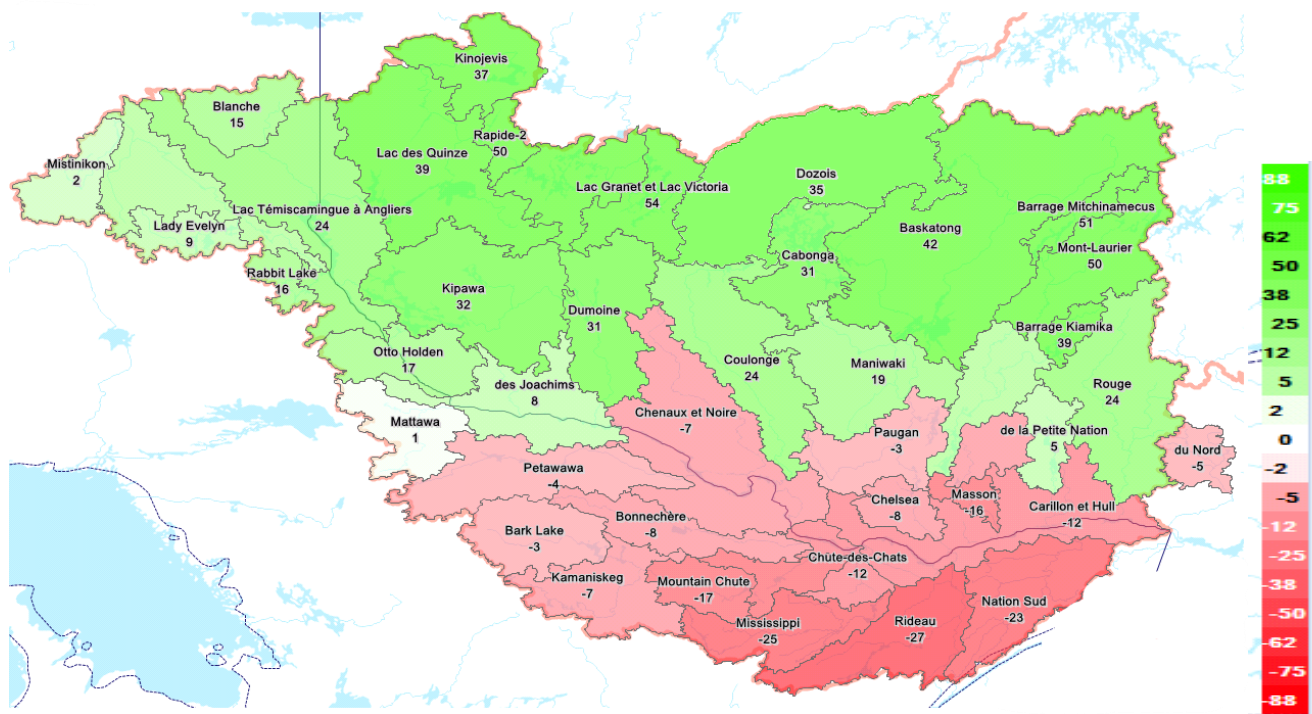




**Fall Conditions Overview in the Ottawa River Basin**

**OTTAWA/GATINEAU, Friday December 11, 2020** — The Ottawa River Regulating Committee provides integrated management of the principal reservoirs in the Ottawa River basin throughout the year, including during the fall period when river conditions can change rapidly in response to changing weather conditions. This report is a summary of fall conditions in the Ottawa River basin.

**Fall River Conditions:** Water levels on the Ottawa River through much of the fall have been above normal this year due to wet conditions over a significant portion of the basin. Contrary to conditions observed in the south and central portions of the basin, areas in the northern portion of the basin received above normal precipitation in September and October as shown in the figure below. As a result of significant rainfall received in the Abitibi-Timiskaming region between October 22 and October 24, water levels rose rapidly at the end of October in many locations along the main stem of the Ottawa River. The significant rise in flows and levels resulted in water elevations as much as 60 cm above median<sup>a</sup> levels at their peak, depending on location.



CUMULATIVE PRECIPITATION ANOMALIES FOR SEPTEMBER AND OCTOBER  
COMPARED TO CLIMATOLOGICAL NORMS (1981 – 2010) IN %

<sup>a</sup> The median is a measure of average conditions and is determined by the value that is exceeded 50% of the time.

As river flows have decreased in the ensuing weeks, water levels and flows have gone back to being close to normal in the river reach upstream of Gatineau-Ottawa. On the lower river reach

*To find out about water levels in your area and how they compare with normal conditions, visit the 'Current Conditions' webpage and click on the map marker closest to where you live. In the pop-up box, click on 'Graph View and Advanced Data'.*

between Gatineau-Ottawa and the Montreal region, water levels and flows increased slightly following a late November rainfall event but have returned close to normal with the arrival of seasonal temperatures.

**Did you know?** Rainfall has a strong influence over river flows during the fall compared to summer because reduced evapotranspiration during fall lessens the soil's capacity to absorb precipitation (See our [new FAQ - Why are high water levels common during the fall on the Ottawa River?](#))

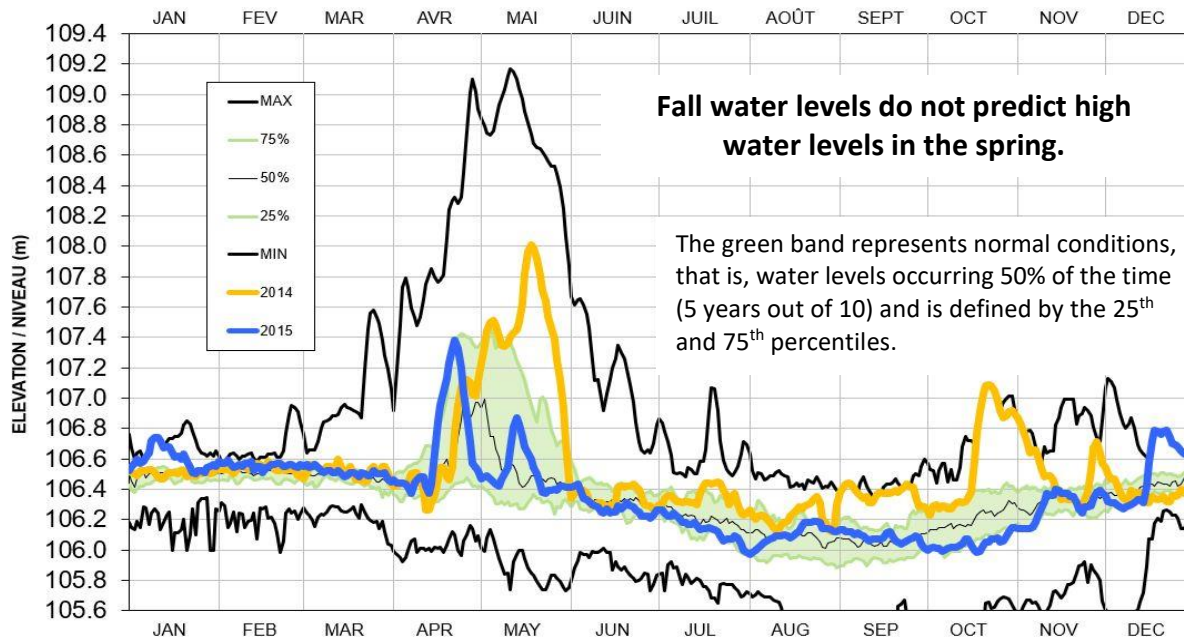
While the water level fluctuations experienced this October were highly visible, they are not exceptional. Check the table below to see how many times the highest level observed this October was exceeded in the last 30 years in your area.

TOP 10 FALL WATER LEVELS ON THE OTTAWA RIVER SINCE 1990 (m)

Mattawa		Pembroke		Lac Coulonge		Lac Chats		Lac Deschênes		Gatineau (Hull)	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
1990-11-29	153.88	2014-10-21	112.40	2014-10-23	107.09	2003-11-25	74.57	2003-11-29	59.23	2003-10-07	43.00
2014-10-20	153.81	1990-12-01	112.39	2001-10-30	107.01	2006-11-21	74.49	2006-11-21	59.13	2006-11-22	42.77
2018-10-18	153.80	2001-10-29	112.30	2003-11-25	106.94	2014-10-22	74.45	2014-10-24	59.10	1992-11-18	42.35
2001-10-19	153.67	2018-10-20	112.26	2006-11-21	106.86	1990-12-01	74.38	1992-11-19	58.99	2014-10-23	42.34
<b>2020-10-25</b>	<b>153.58</b>	2003-11-22	112.25	1990-12-01	106.85	2001-10-30	74.36	2001-10-30	58.98	2001-10-31	42.26
2013-11-19	153.50	2012-11-03	112.23	2012-11-05	106.75	1992-11-19	74.30	1990-12-01	58.93	2017-11-03	42.26
2012-11-02	153.47	2006-11-19	112.18	2018-10-15	106.75	1991-11-25	74.27	1999-11-06	58.91	2013-11-21	42.22
2003-11-21	153.44	<b>2020-10-28</b>	<b>112.16</b>	<b>2020-10-28</b>	<b>106.72</b>	1999-11-06	74.23	2013-11-24	58.91	1990-12-01	42.21
1993-10-26	153.40	2013-11-22	112.15	1992-11-17	106.71	2017-11-16	74.23	<b>2020-10-30</b>	<b>58.89</b>	<b>2020-10-29</b>	<b>42.21</b>
1999-11-12	153.33	1992-11-16	112.09	2013-11-23	106.70	<b>2020-10-29</b>	<b>74.22</b>	2012-11-05	58.87	2010-12-01	42.19

Sharp increases in water levels often bring about questions regarding what conditions the following spring may bring. A review of historic river conditions shows that there is no direct correlation between high water levels in the fall and high water levels the next spring. For instance, in the last 10 years, 2014 was the year when the highest fall water levels occurred on the Ottawa River. Yet, the spring freshet conditions in 2015 were very close to normal at all river locations. An example of the historical 2014-15 water levels on the Ottawa River is provided at Fort-Coulonge in the figure below.

OBSERVED WATER LEVELS AT FORT-COULONGE  
ON THE OTTAWA RIVER IN METRES (2014-2015)



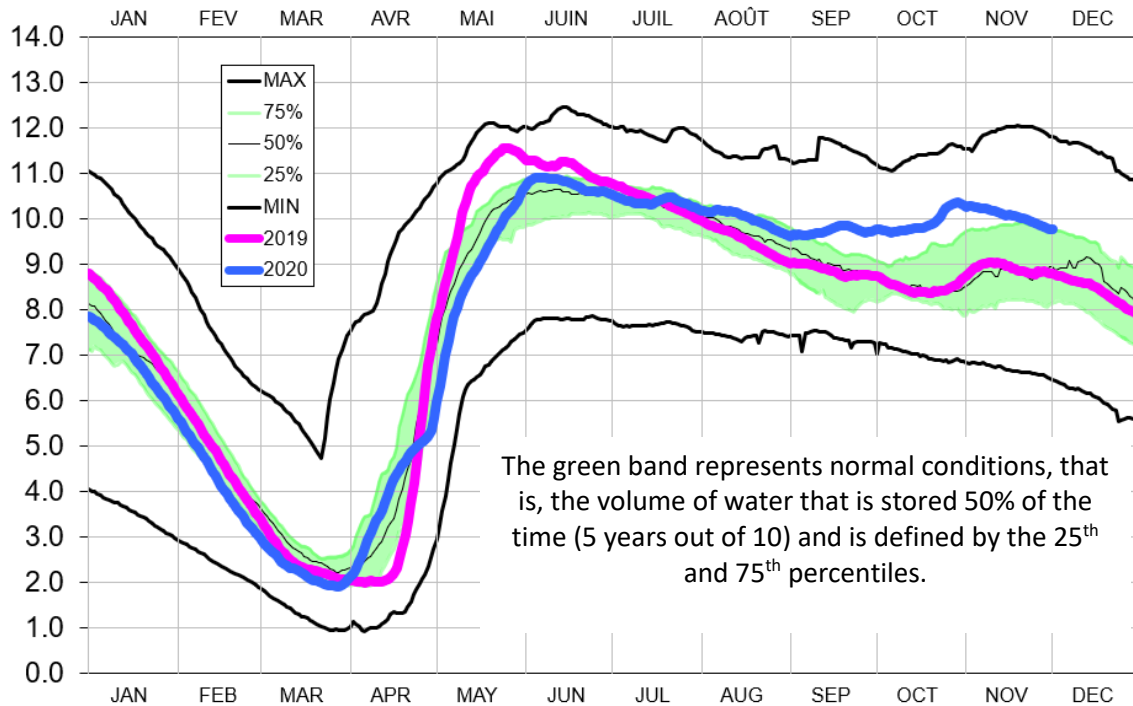
**Did you know?** Several factors influence the severity of a spring flood. Unfortunately, the factors with the largest influence are the result of active weather systems that may or may not occur once the spring freshet has started (**See our [new FAQ – What are the factors that contribute to flooding?](#)**)

Reservoir Regulation Strategy: Water levels in the principal reservoirs will be lowered progressively from approximately mid-December to the end of March as shown in the figure below. The Des Joachims reservoir requires less time to empty (as it is the smallest of the thirteen principal reservoirs) and will be emptied during the month of March.

This strategy allows the flows from the principal reservoirs in the Ottawa River to decline to a minimum at the end of March, prior to the beginning of the usual snow melt period when natural increases of river flows and levels occur.

The annual emptying of the principal reservoirs can be followed on the Planning Board’s website [here](#).

WATER STORED IN PRINCIPAL RESERVOIRS  
IN BILLIONS OF CUBIC METRES (1963-2019)



Long-term Overview: End of fall early winter levels will continue to be highly dependent on weather conditions. During the winter months, when most precipitation accumulates on the ground as snow, water levels and flows in natural tributaries are generally decreasing. However, in the Ottawa River, flows and water levels are generally stable because of the continuous release of water from the principal reservoirs as they are gradually emptied. However, river conditions can fluctuate when a winter thaw occurs or, more rarely, when extreme cold weather causes the thickening of the ice cover and/or the accumulation of frazil ice to restrict the river flow.

*Did you know?* The remaining flow in the river, just before the spring starts, is the total of all the natural tributaries (Petawawa River, Rouge River, etc.) in the basin and is termed the base flow. This base flow varies naturally depending on overwinter conditions and thaw cycles.

The Ottawa River Regulating Committee will continue to monitor basin conditions and report conditions to residents on its website [www.ottawariver.ca/](http://www.ottawariver.ca/)

*Ottawa River Regulating Committee*