



SPRING WATER LEVELS IN WHITE LAKE 2017-2023

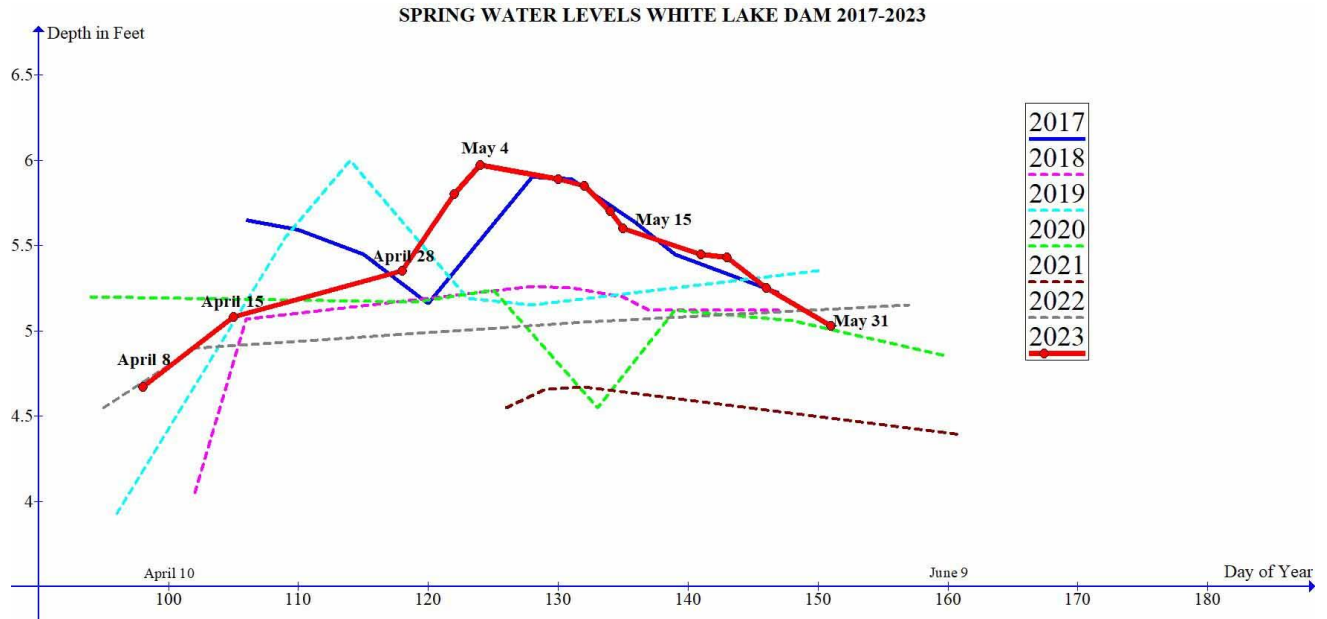
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Spring brings high water events to White Lake. Some years are more dramatic than others. A fast snow melt or heavy precipitation can produce an early rise in water levels. These are usually short-lived events. How does this spring's high water compare with those from other years?

With data taken from the White Lake dam we can compare water depth over the years. A depth gauge mounted on the dam casement shows the height of water as measured from the dam sill. This is expressed in decimals of a foot. This photo taken on May 4, 2023 and indicates a water depth of 5.89 feet above the sill.



Below is a graph for depth readings covering seven years. Water levels in 2023 (red line) are a good match to those levels recorded in 2017 (blue line). That year saw major flooding events across eastern Ontario. However, spring flooding in 2023 was less severe than in 2017, and yet White Lake had higher spring water levels than any recorded in the previous six years.



One factor that controls water levels are the stop-logs placed in the White Lake dam. Are there changes at the dam that might explain our especially high-water levels in 2023?



Recently a large mass of wetland vegetation was lodged in the central and eastern bays of the dam. The central bay with stop logs set to three feet acted as the main discharge point. However, a mass of vegetation was blocking this discharge keeping waters unusually high.



There was a second mass of vegetation (red arrow) located downstream of the eastern bay of the dam (below the dam) which was the remnant of a blockage that cleared earlier. This triggered the recent drop in water level that began after May 4th. A portion of this mass was still visible for some time after that date and was lodged on the top of the stop-logs of the eastern bay of the dam.

The Ministry of Natural Resources and Forests managed to clear all debris blocking the dam on May 23rd and since then, White Lake has returned to the managed drawdown levels expected for this time of year.

Any change affecting water levels is of interest to the lake community. Unpredicted events such as the blockage described above can influence the entire lake in surprising ways.



June 1, 2023