

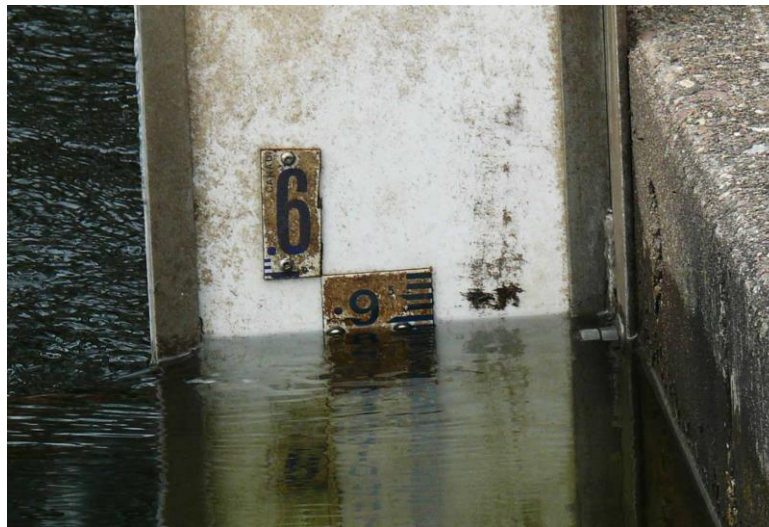


SPRING WATER LEVELS IN WHITE LAKE:2017-2023

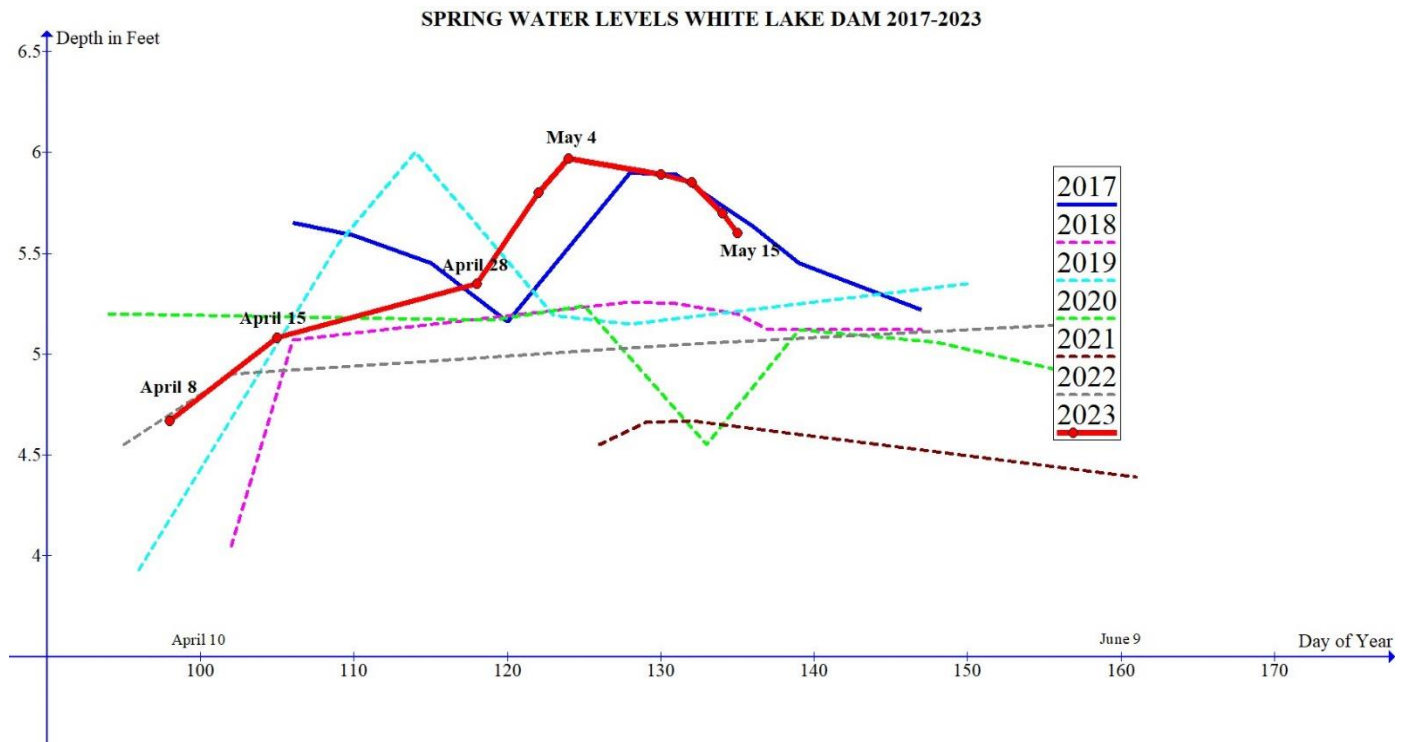
Dave Overholt & Conrad Grégoire

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, indicates a water depth of 5.89 feet above the sill.



Below is a graph for such 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, this year seems to be less severe than 2017, yet White Lake has higher spring water levels than any recorded in the previous six years. Wildlife has enjoyed these conditions, and turtles, frogs, and snakes have rediscovered their former shoreline wetlands.



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 lodged in the central and eastern bays of the dam. The central bay with stop logs set to three feet acts 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 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 is still visible, lodged on the top of the stop-logs of the eastern bay of the dam.

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.

