Estimating Mean Water Level

Mean Water Level

Some large lakes, like Lake Champlain and Lake Memphremagog, have established summer water level elevations that are considered their mean water level (MWL). Other lakes have operational permits for their dams, often related to hydro generation or dam safety permits, that also establish MWL. In other cases, water level readings, taken over many years by the VT DEC Lakes and Ponds Program at set locations, have been used to establish MWL. Measurements by the Lakes and Ponds Program are taken in accordance with the *Rules for Determining Mean Water Levels*. Lakes with established MWLs are listed on the back of this sheet.

Estimating Mean Water Level

For the purposes of applying for a shoreland permit or registration and in cases where actual water levels are not recorded, or where the reference point can no longer be located, shoreland homeowners can estimate the MWL using observations along the lake edge between June 1 and September 15. Typically ***the extent of the terrestrial plant growth along the shoreline during the summer season marks the MWL.*** The arrows on the photos to the right indicate the point on the shore that could be considered the MWL.

Shoreland Protection Act

The jurisdiction of the Shoreland Protection Act starts at MWL and extends 250 feet away from the lakeshore (measured on a horizontal plane). The jurisdiction of Lake Encroachment Permitting starts at MWL and extends towards the lake, including above and below the lake surface. For more information regarding the Shoreland Permitting or for questions regarding MWL, visit the Shoreland Permitting webpage, or contact Shoreland Permitting via email: ANR.WSMDShoreland@vermont.gov

Lakes with Established Mean Water Levels (*greater than 10 acres*)

The following table lists the lakes for which there are established MWLs, either through statutory reference, permit, or surface level rules. Since the inception of Lake Encroachment Permitting in 1968, the Lakes and Ponds Program has collected MWL measurements for many of the Vermont Lakes that do not have established MWLs. These measurements are available upon request but may no longer be accurate due to a variety of changes, such as dam reconstruction.

Lake/Pond	Mean Water Level (ft)	Notes
Champlain	95.5	
Memphremagog	682.0	
Bomoseen	409.9	
Burr	498.0	
Carmi	435.5	
Coles	2,191.9	
Crystal	944.8	
Eden	N/A	14" below spillway crest.
Great Hosmer	N/A	No rules adopted, maintained at 1.1' below east abutment of dam since 1954.
Groton	1,077.1	
Harveys	892.3	No rules adopted, trial period MWL.
Hortonia	487.5	Water level not to exceed 2.5' .
Keiser	94.0	
Little Hosmer	1,065.7	
Miles	98.5	
Morey	415.7	No rules adopted, 32" above floor of main outlet.
Parker	97.4	
Perch	99.4	
Sadawga	96.2	
Silver	1,307.5	Top SE corner of drop inlet of principal spillway.
Willoughby	1,168.7	
Wolcott	100.0	