



Ice On and Ice Off Dates, and Lake Level Monitoring

Monitoring Ice On and Ice Off dates

Tracking Ice on and Ice off dates over time may give some indication of changes in climate. In addition, tracking this data may show a correlation between the ice conditions and lake conditions, such as winter fish kills, how quickly aquatic plants grow in the spring, and perhaps even plant diversity.

Lake Level Monitoring

Water levels fluctuate at all our lakes, which can affect lakeshore development, recreation use, as well as the many lake shore creatures living in the riparian zone. It's important to document our lake levels on a regular basis to create a permanent public record. Fluctuations are primarily a response to changes in precipitation (rain or snow), or a response to controls at a dam or outlet. Keeping track of lake levels that have a dam with controlled releases may be helpful information when discussing the lake level management with the dam's manager. Lake level information can be used by local zoning officials to locate buildings and to establish low floor elevations for new construction. Watershed managers use historic lake levels for water management plans and model water quality characteristics. Lake level changes are useful for property owners to know.

Setting up a Staff Gauge

A staff gauge is simply a long ruler. It can be installed permanently, as on a bridge pier, or dam abutment, or seasonally, as on a dock leg or steel fence post. Site selection is very important. Do not install your gauge too near to the shore, the staff may be dry during summer months if you do. If you attach the staff gauge to your dock, or drive a steel fence post into the lake bed in an area that is convenient for the reader, it's important to calibrate the gauge from year to year. A floating dock will not work, if you want to use your dock, ensure it is anchored to the lake bottom. A temporary gauge needs to be calibrated or reset each spring to a fixed permanent point so that year to year changes are understood. Using an inexpensive laser level to calibrate your staff to a fixed (non moving) permanent point on land is an easy way to ensure your lake level gauge will read the same year to year.

Reading Your Gauge

You should read your lake gauge at least once per week the same day of the week, unless you experience precipitation of greater than two inches within 24 hours. Readings taken after a large rainfall event shows the interaction of the lake and the watershed. Lake level readings should be attached to the blank lake level spreadsheet, found with your CSLAP paperwork. For the lakes not participating in CSLAP, please e-mail lake levels data to Nancy Mueller at foia@nysfoia.org or Scott Kishbaugh at sakishba@gw.dec.state.ny.us

Lake Level Record



Lake Name _____ Year _____

Gauge Location _____ Recorders Name _____

Ice Out Date _____

Ice On Date _____

Week	Date	Lake Level	Inches of rain	Water Temp.	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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32					

If you record gauge data more frequently, extend the spreadsheet or create duplicate pages.

Record the total amount of precipitation that has fallen since the prior measurement.

Water temperature is optional, but make sure you record whether it is in °F or °C.

"Ice On" = A lake is considered ice covered when the deepest part of the lake is ice covered

"Ice Off" = The lake is considered thawed when it is possible to boat from any shore to the deepest part of the lake without encountering ice.

If you or past observers on your lake have always used another method to judge ice-on and ice-off, please describe the method.

At end of season, email the completed copy of this form to

Nancy Mueller at foia@nysfoia.org or Scott Kishbaugh at sakishba@gw.dec.state.ny.us