# Citizen Lake Level Monitoring

## 2017 Archibald Lake Report

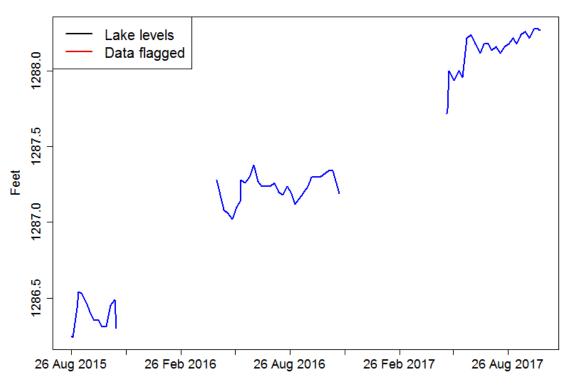
Tim Counihan

**Goal**: Long-term lake level monitoring to understand natural lake level fluctuations and guide management decisions

#### Archibald Lake Quick Facts

Swims Station ID	10044947
WBIC	417400
County	Oconto
Area	392 acres
Max Depth	50 feet
Hydrologic Lake Type	deep seepage
Readings in 2017	25

### 2017 Lake Levels

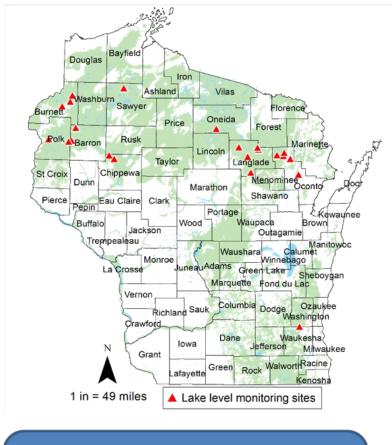




\*\*Data will be automatically "flagged" if there is a large change in lake level between consecutive readings, or if the volunteer marks that the staff gage has moved.

**Background:** In 2015, the Wisconsin Department of Natural Resources (WDNR) developed a statewide volunteer lake-level monitoring program in partnership with the University of Wisconsin – Extension. Counties and other partners install staff gauges, and volunteers report lake levels. Regional CLMN coordinators oversee the program across the state.





Consistent records allow trend analysis. Please record data regularly even if lake levels stay the same. Thank you!

Why it Matters: Long-term data can address growing concern for lake health and recreation brought on by drought, groundwater withdrawals, precipitation and climate change.

Lake and groundwater well records in northern Wisconsin show that lake levels oscillate in unison every ~13 years and have been declining since 1998. Citizen monitoring will expand the number of lakes with long-term records and enable us to recognize future trends across the state.

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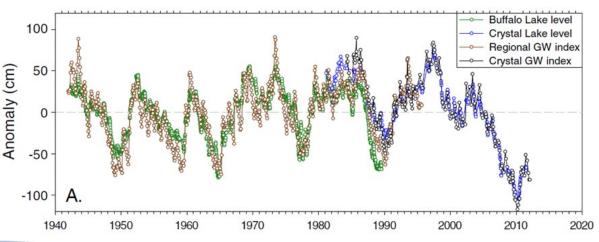


Figure from Watras et al. 2013 Geophysical Research Letters. GW = groundwater monitoring wells



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