

# Lake level: The rain is the proof

**W**hat is happening to White Bear Lake? The last time the lake was at an "average" water level was the summer of 2006. While some claim it is just a lack of rain that has caused persistent low water levels, the facts contradict this theory.

According to the Minnesota Climatology Working Group (a cooperative effort by the State Climatology Office, Department of Natural Resources, and the University of Minnesota), White Bear Lake has had three extremely wet summers in a row, with only one "dry" year in the past decade. 2014 recorded the wettest six months in Minnesota history. In 2015 we had thunderstorms in November and December with record rainfall amounts.

This summer the rain has been frequent and abundant again, with a whole year's average precipitation in the first eight months of 2016. Because the lake is up three feet from the all-time record low in 2013, many local residents say, "The lake is back."

Sadly, at 922.3 feet above sea level, White Bear Lake is still more than a foot below the 100-year median of 923.5 feet, and almost three feet below the

state-established ordinary high water mark of just under 925 feet.

White Bear Lake is not suffering from a lack of rainfall. To the contrary, we have only had one statistically significant dry year in the last decade. The abundant rainfall with ongoing low lake levels confirms that White Bear has a systemic problem that rain alone will not resolve.

White Bear Lake has a water imbalance or water deficit. More water is lost from the lake to evaporation at the surface and seepage into the aquifer below the lake, than can be provided by rainfall. This fact was one of the findings of the USGS study of White Bear Lake released in 2013. With average rainfall, the USGS study predicts the lake will drop four to six inches per year. Rainfall will revert to the historical average, and as happened in recent years, the lake will drop precipitously. The difference is that the lake is now at the relatively low level of 922 feet above sea level.



**The abundant rainfall with ongoing low lake levels confirms that White Bear has a systemic problem that rain alone will not resolve.**

Starting at below average water levels, the lake is likely to hit new record lows with just one or two dry years.

We need clean surface water to supplement White Bear Lake's water balance. Most people recognize that White Bear Lake water levels have always fluctuated. What many people do not know is that these swings in water level were softened for over 60 years by augmentation. From the 1920s through the 1970s, Ramsey County operated groundwater wells around White Bear Lake, which pumped as much as three billion gallons of water into the lake some years.

While this process is known to have been inefficient, it absolutely mitigated the extreme shifts in lake level. According to the Department of Natural Resources historical graphs of White Bear Lake water elevations, in the decades when augmentation wells were

active, lake water elevations were far less volatile.

Bringing clean filtered water four miles to White Bear Lake from the St Paul Regional Water System in Vadnais Heights will greatly soften the extremes in our lake levels securing the broadest public access and enjoyment of the lake by all. This clean renewable surface water can be brought to White Bear Lake at a fraction of the cost of widely publicized estimates.

White Bear Lake is not a wild lake like those in our beautiful Boundary Waters Canoe Area. We managed water levels and navigability of our lake through augmentation and dredging for most of the 20th century. Since the 1980s, we have not provided supplemental water supply for the lake. The damage to the lake is real and worsening. Acres of trees grow on newly accredited land at Matoska Park that was navigable water only 10 years ago. Ramsey County Park beach, the largest public access point on the lake remains closed for the eighth consecutive year. It will not reopen until the lake reaches an elevation of 923.2 feet

*By Blanche Hawkins & Jim Markc  
Friends of White Bear Lake*