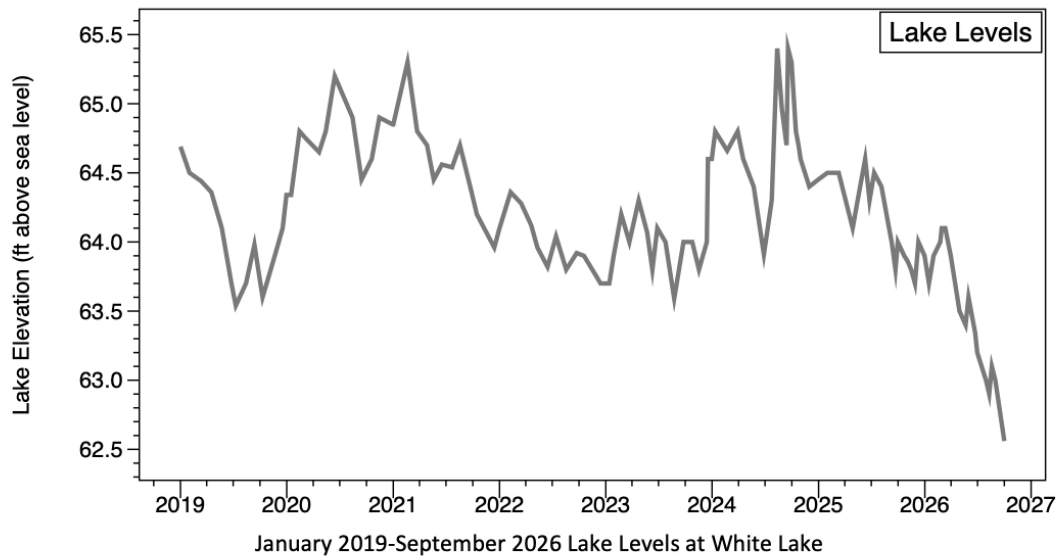


Report to White Lake Town Board
October 2026
Diane Lauritsen, Ph.D. LIMNOSCIENCES



White Lake Annual Lake Elevations, High and Low

2019 High (January 25): 64.6 Ft NAVD 88	2019 Low (July 9): 63.5 Ft NAVD 88
2020 High (June 16): 65.2 Ft NAVD 88	2020 Low (January 1): 64.3 Ft NAVD 88
2021 High (February 19): 65.3 Ft NAVD 88	2021 Low (November 29): 63.9 Ft NAVD 88
2022 High (January 17): 64.3 Ft NAVD 88	2022 Low (May, Oct-Dec.): 63.7 Ft NAVD 88
2023 High (December 18): 64.6 Ft NAVD 88	2023 Low (August 28): 63.6 Ft NAVD 88
2024 High (Aug. 12, Sept. 18): 65.4 Ft NAVD 88	2024 Low (July 5): 63.7 Ft NAVD 88
2025 High (June 10): 64.6 Ft NAVD 88	2025 Low (November 3): 63.7 Ft NAVD 88
Through September 2026:	
2026 High (Feb-Mar): 64.1 Ft NAVD	2026 Low (Oct. 1): 62.56 Ft. NAVD 88

2019 Lake Level Variation (High to Low): 12.7 Inches
2020 Lake Level Variation (High to Low): 10.3 Inches
2021 Lake Level Variation (High to Low): 16.8 Inches
2022 Lake Level Variation (High to Low): 7.2 Inches
2023 Lake Level Variation (High to Low): 12.0 Inches
2024 Lake Level Variation Between Jul 5 and Aug 12: 20.4 inches
2025 Lake Level Variation (High to Low): 10.8 Inches
2026 Lake Level Variation through September: 18.48 inches

Variation (Highest-Lowest) Over the Seven-Year Period 2019-2025: 22.8 Inches

Variation (Highest-Lowest) Over the Eight-Year Period 2019-2026: 34.08 inches

Eight-Year Mean High Water Level: 64.76 Feet NAVD 88

Monthly Rainfall (inches) for White Lake 2012-2026

Month	2026	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2013	2012	Monthly Average for Region
January	2.4	2.5	2.75	4.3	5.75	8.25	4.5	2.75	4.20	7.0	3.0	2.5	1.75	2.75	3.81
February	2.8*	2.6	2.5	3.6	1.0	9.2	6.7	2.25	2.00	1.5	10.7	5.5	2.5	4.0	3.44
March	1.4	2.6	5.0	2.5	2.45	2.7	3.7	3.25	3.95	3.7	1.55	4.15	1.0	7.0	3.91
April	1.1	1.4	1.75	8.5	3.75	1.75	5.1	7.25	6.75	6.75	6.75	4.55	1.75	2.25	3.12
May	5.1	7.5	2.3	1.5	2.2	3.0	12.25	1.20	7.70	2.7	4.5	4.20	2.25	9.25	3.67
June	2.2	6.15	1.5	6.3	6.2	7.9	7.15	5.25	10.00	4.5	3.65	8.70	17.0	2.0	4.70
July	5.25	7.15	9.5	3.8	10.5	7.5	6.85	6.00	4.75	6.75	3.75	3.0	11.25	8.6	5.75
August	5.9	3.8	21.6	7.5	5.5	6.5	7.55	5.35	6.25	5.6	4.12	9.4	8.25	9.75	5.95
September	0.5	2.7	15.4	3.05	6.5	3.2	5.95	5.00	29.45	5.2	15.0	4.7	1.0	5.0	5.29
October		1.9	0.0	1.75	0.6	0.6	3.35	3.60	2.25	2.95	14.25	9.75	1.75	2.25	3.38
November		0.7	1.0	3.25	1.55	0.4	7.5	4.90	4.25	1.0	0.50	7.25	0	2.25	3.16
December		3.8	2.3	8.5	1.2	3.4	4.25	6.00	7.5	5.45	5.1	6.5	5.75	4.25	3.14
Total		42.8	65.6	54.55	47.2	54.4	74.85	52.80	89.05	53.1	72.87	70.20	54.25	59.35	49.32
% of Lake Volume		56	85.9	71.4	61.8	71	97	69	116	69	95	91	70	77	64

*6-8" Snow on
1/31-2/1, equivalent
to about 0.5" rain

With higher-than-normal temperatures in September, and exceedingly low groundwater levels in the area, **losses from the lake** (from evaporation and movement of water out of the lake to recharge the low water table) **greatly exceeded gains** (from three brief showers, total for the month = 0.5"). As a result, there was a drop of 5 inches in lake level for the month, with a new low since monitoring was initiated in 2019. The difference between high and low lake levels for the year is 1.5 feet. The other Bay lakes are similarly low.

What is the Town's responsibility regarding lake level variations in this shallow, natural lake?

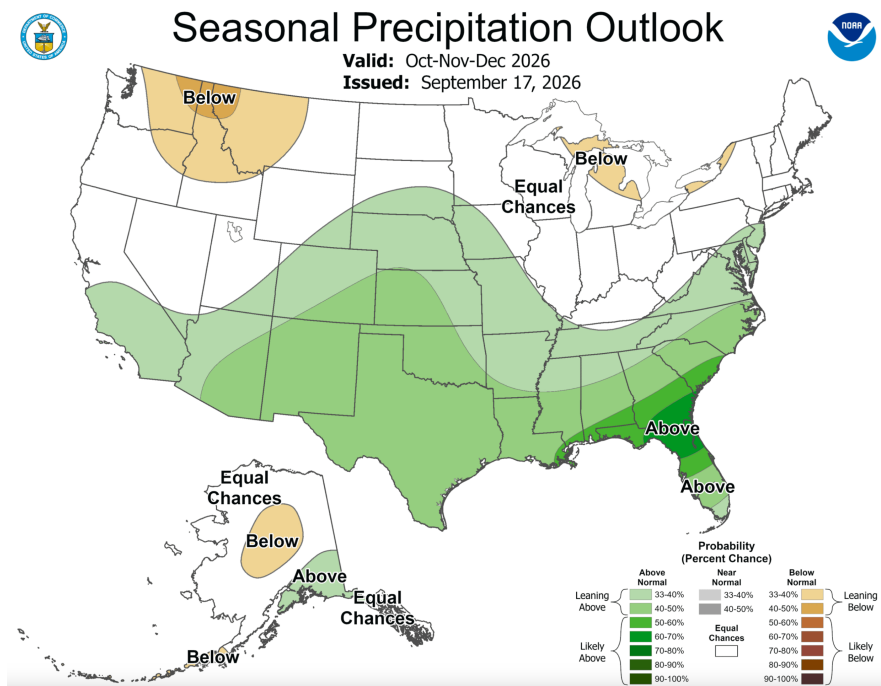
First and foremost, it is to provide accurate and honest communications about the connections between precipitation and lake levels, with an understanding that low lake levels occur with some regularity. There will be constraints on the use of boat lifts and ramps during low lake level periods and property owners need to plan for that. There is no ability to raise lake levels, especially during droughts, because of the connection with water table levels—what goes in will go right back out if the water table level is low—while the opposite will happen when the water table is higher than the lake level, as groundwater (=springs) will then enter the lake. Because the lake is a basin situated within the surficial aquifer, **water levels are always seeking equilibrium.**

The second responsibility is to accurately communicate the consequences of boating activity which stirs up the lake bottom. It **is not** accurate to say that stirring up the lake bottom is beneficial because it is stirring up the material from the 2018 alum treatment (which dissipated within a matter of months). It seems that notion continues to circulate as an excuse to not address the cause of the harms (impaired water clarity and nearshore aesthetics), which often worsen during low lake levels. At present, **any** boating activity can stir up the lake bottom:



Trails of brown left by the State Parks boat after leaving the marina pier on 10-1-2020

While our Super El Niño means higher temperatures and fewer hurricanes, there is the possibility of big rains in the last quarter of this year. The probability for above average precipitation in the region through the end of the year is 40-50%. It is the larger rains which will recharge the lake and the surficial aquifer, as was seen quite dramatically in the summer of 2024.



Problems the Town May Assist With—Policies Need to Be Developed



69 Canada
geese,
feeding,
pooping, and
lounging at
Camp
Clearwater
on October 1

I spoke with Mayor Womble on the evening of October 1, to convey my concerns about the excessive amount of goose droppings along the water's edge at Camp Clearwater—an area that is normally underwater--particularly with the Fall Festival coming up. I suggested that a partnership between the Town and Clearwater to remove the material and keep the geese away from the beach might be an effective approach, and that State Parks needed to give approval for any mechanical options utilized, since this zone is below the mean high-water elevation (so is under State Parks jurisdiction). Hopefully, an update on this will be a discussion item for your October meeting.

What needs to happen next is a full board discussion of issues like this that the Town may want to consider assisting with, followed by a drafting of policies which can be reviewed by the Town lawyer. The objectives are to be fair to any parties which request assistance, and transparent in decision-making, budgeting, and reporting on the use of Town resources.

As I indicated last month, the Town board needs to agree to work collaboratively as a team, to prioritize reasonable, effective actions for issues where possible. Winter is often the time for policy review—what do we have, what do we need to revise, what new policies are needed (any maybe new policies need to start as pilot programs)—so that staff can provide honest input and ultimately do their jobs and make decisions based on the policies that have been established and funded by the Board.