

**SHELTER ISLAND WATER ADVISORY COMMITTEE –
APRIL 14, 2025, Height data report DRAFT**

Summary/Conclusion - “Guarded”

TBD

Discussion:

AQUIFER HEIGHT REPORTS

Section 1a - National Drought Monitoring:

Shelter Island (and the balance of the east end) remains in D0 Abnormally Dry status. Central Long Island remains “None. The lower Hudson Valley, New Jersey and most of Connecticut remain in drought conditions, with pockets of D2 Severe Drought in New Jersey, Pennsylvania and Maryland.

Section 1b – New York DEC Drought monitor.

The entire state is “Normal,” which means drought is not in progress or anticipated.

Section 2 – Chart showing “ranking of monthly well heights by percentile of historic values.” *The chart is a graphic of the data for the Big Four feeder wells showing the percentile rank for the current month versus history for each month.*

The Big Four wells continued to drop compared to history, now at the 8th percentile for the mid-April aquifer height readings. These values is similar to 2016 and 2023, although these lows were both in mid-summer, after the summer draw-down had already lowered the aquifer.

Section 3 - Table of well readings compared to historic and median values.

“Well readings compared to the month’s Median for each well.”

The positive news is that all wells have increased in water level. Observations: The extremely low percentile results in the Big 4 group contrasts significantly with the increased Near Shore wells. Potential factors on this include the rapid percolation in the near shore wells from the ground surface to the aquifer, as well as probable impact of strong gale force winds and associated high tides. Regardless, the start of the summer draw-down is approaching and unless some major rainfall event(s) occurs in the next 2 months we can expect the Big 4 wells will drop.

Section 4 – Raw well height readings for the Big 4 wells

Raw well height graph is independent of the median history. It presents a direct comparison of aquifer heights. The March and April readings increased slightly, similar in size to the “peaks” from prior years during the transition from winter recharge to summer draw-down. The low points for Goat Hill. Manwaring and Condon wells are slightly higher than in previous years.

PRECIPITATION REPORT

Rainfall for the previous 30 days versus history
30 days from March 11 to April 14 - 4.07 inches. Year to date up to April 14 – 9.76 inches

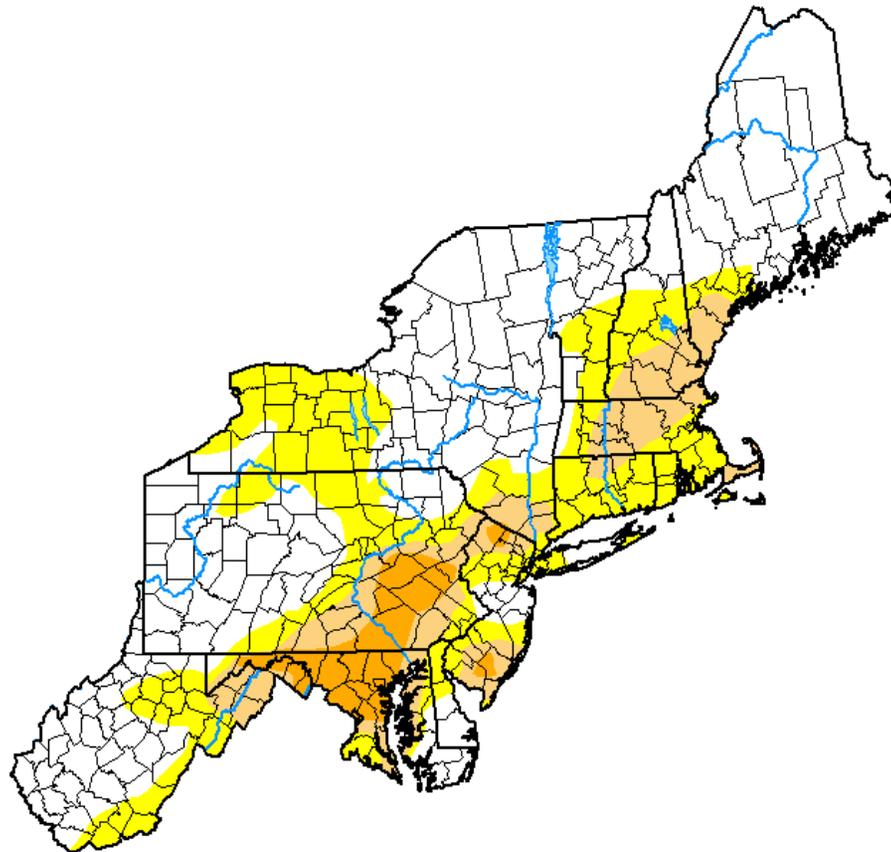
Monthly Precipitation Report through March							
	2025	2024	2023	2022	2021	2020	2019
Rainfall in Month	3.01	4.33	3.5	3.52	3.94	3.61	5.61
Rainfall year to date	8.24	22.7	15.18	14.71	13.29	13.23	13.525

Section 1a National Drought Monitoring

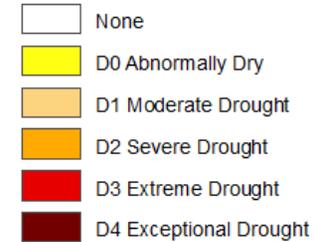
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U.S. Drought Monitor Northeast

April 15, 2025
(Released Thursday, Apr. 17, 2025)
Valid 8 a.m. EDT



Intensity:



The Drought Monitor focuses on broad conditions. Local conditions may vary. Information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About>.

Author:

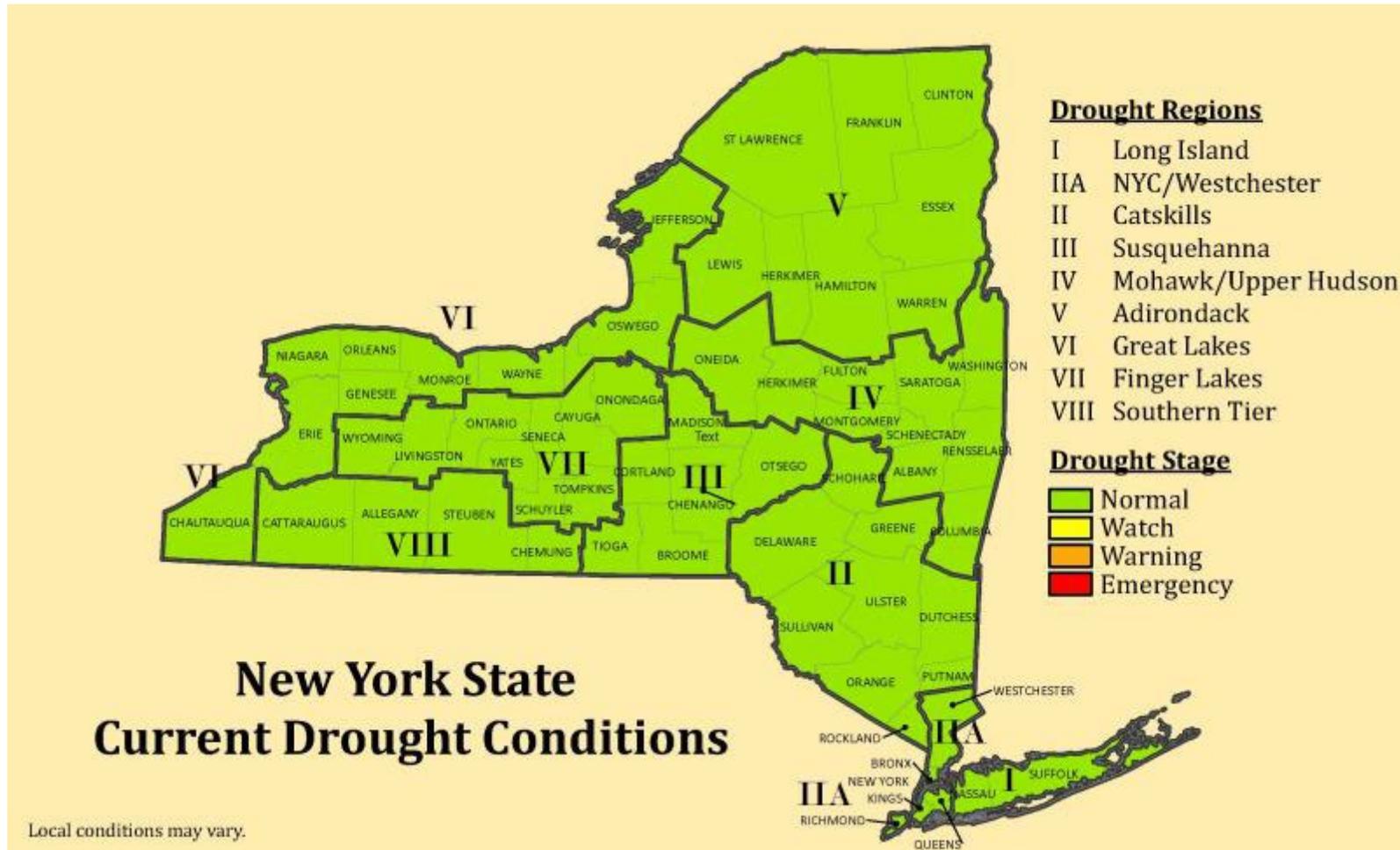
Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu

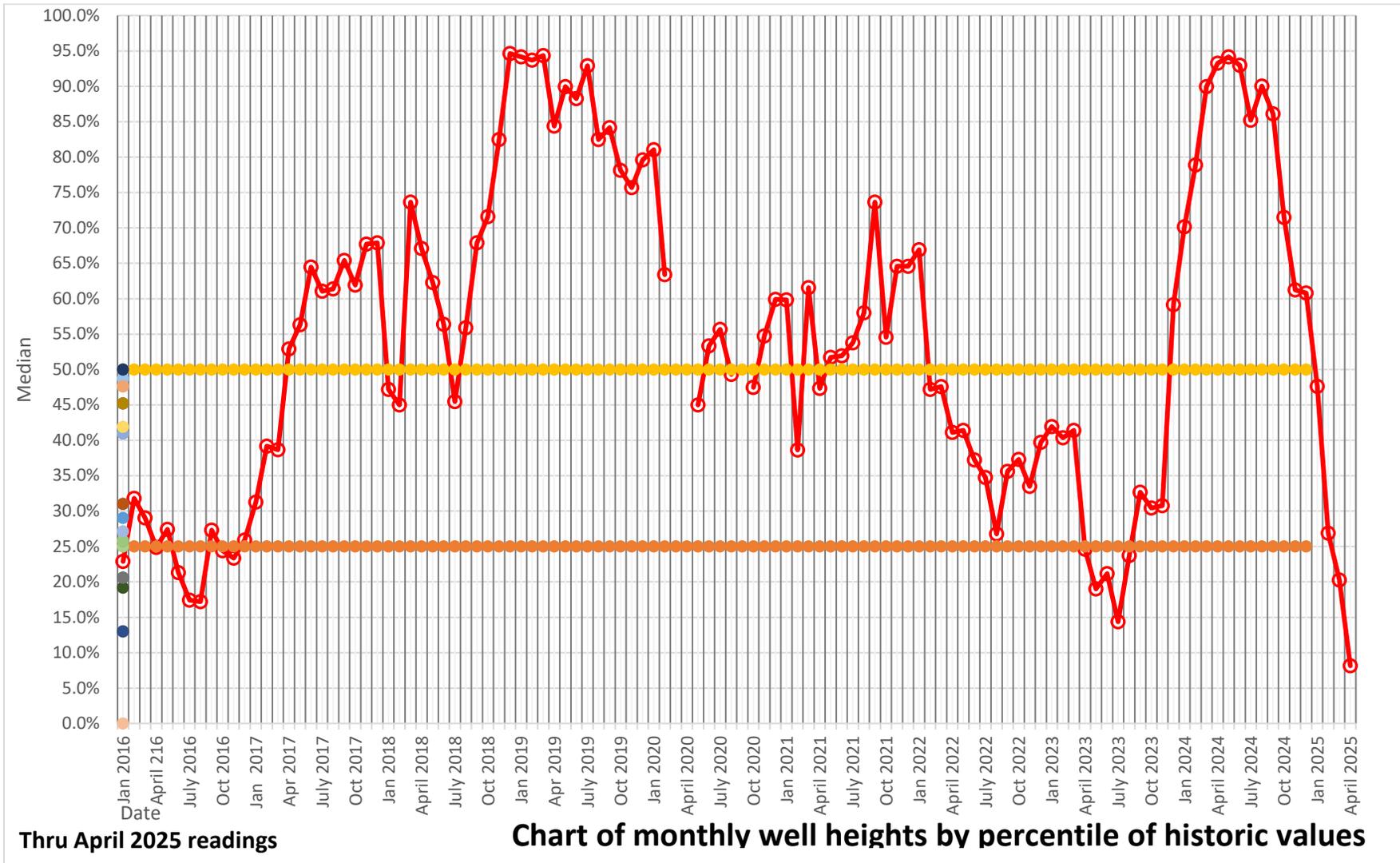
Section 1b – New York DEC Drought monitor

The New York DEC version of Drought stage shows the entire state as “Normal,” which means drought is not in progress or anticipated. The date of issue is not known, this map was pulled from the DEC website on April 16.



Section 2. Ranking of monthly well heights by percentile of historic values.

The Big Four wells continued to drop compared to history, now at the 8th percentile for the mid-April aquifer height readings. These values are similar to 2016 and 2023, although these lows were both in mid-summer, after the summer draw-down had already lowered the aquifer.



Section 3 – Comparison showing aquifer height readings for the month compared to the median history

The positive news is that all wells have increased in water level. Observations: The extremely low percentile results in the Big 4 group contrasts significantly with the increased Near Shore wells. Potential factors on this include the rapid percolation in the near shore wells from the ground surface to the aquifer, as well as probable impact of strong gale force winds and associated high tides. Regardless, the start of the summer draw-down is approaching and unless some major rainfall event(s) occurs in the next 2 months we can expect the Big 4 wells will drop.

Well readings compared to the the months Median for each well for:	Manhansett, Well #1	Rocky Point Ave/Belvedere Well #2	Big Ram Island Well #3	Manwaring Rd Well #4	Congdon Well #5	Brander/Lilliput Well #6	Menantic Rd Well #7	Deer Park Lane Well #8	LITTLE RAM Well #9	DERING HARBOR Well #10	HAY BEACH Well #11	Goat Hill Well #12	SHOREWOOD Well #13	White Birch Well #14 NADV 1929
April 14 2025	26	24	22	26	30	25	23	25	12	15	20	23	21	11
Median Value	3.45	2.07	1.45	4.57	6.27	2.30	1.96	3.97	1.31	2.00	2.52	6.92	1.70	1.59
Reading	2.66	2.05	1.92	3.55	5.01	2.15	2.12	4.44	1.87	2.09	2.25	6.24	1.74	1.95
Prior Month	2.46	1.63	1.35	3.38	4.94	1.85	1.67	3.03	1.34	1.61	1.96	6.18	1.26	1.26
Change from prev. month	0.20	0.42	0.57	0.17	0.07	0.30	0.45	1.41	0.53	0.48	0.29	0.06	0.48	0.69
	Big 4			Big 4	Big 4							Big 4		
					10.22									
					8.24									
	7.05			8.88	7.96	3.56		6.26						
	5.37	3.61	1.96	6.86	7.67	3.06	2.73	5.03				10.12		
	5.22	2.90	1.92	6.76	7.37	2.86	2.49	4.74			5.65	8.16	2.80	
	4.56	2.77	1.91	6.08	7.33	2.84	2.44	4.72			3.79	8.09	2.41	
	4.38	2.56	1.81	6.04	7.05	2.78	2.32	4.66			3.24	7.98	2.37	
	4.36	2.45	1.77	5.97	6.97	2.77	2.24	4.45			2.99	7.85	2.12	
	4.28	2.42	1.72	5.75	6.86	2.68	2.24	4.44		3.60	2.88	7.39	2.07	
	4.26	2.37	1.63	5.45	6.67	2.60	2.12	4.43	1.87	2.63	2.87	7.24	1.92	1.95
	3.95	2.28	1.57	5.32	6.60	2.49	2.01	4.26	1.78	2.46	2.62	7.09	1.77	1.90
	3.75	2.23	1.49	5.22	6.54	2.47	1.99	4.12	1.67	2.22	2.58	7.03	1.74	1.84
	3.71	2.09	1.46	5.03	6.35	2.40	1.97	4.09	1.61	2.10	2.58	6.98	1.73	1.64
	3.48	2.08	1.45	4.79	6.34	2.33	1.96	4.04	1.51	2.09	2.57	6.96	1.71	1.59
MEDIAN	3.45	2.07	1.45	4.57	6.27	2.30	1.96	3.97	1.33	2.00			1.70	1.59
	3.45	2.06	1.44	4.46	6.07	2.28	1.90	3.96	1.29	2.00	2.47	6.88	1.69	1.58
	3.39	2.05	1.42	4.42	5.97	2.26	1.88	3.72	1.21	1.97	2.47	6.73	1.68	1.46
	3.31	2.05	1.40	4.37	5.90	2.24	1.87	3.66	1.11	1.95	2.46	6.71	1.68	1.43
	3.22	2.02	1.35	4.07	5.82	2.22	1.86	3.61	0.99	1.94	2.29	6.66	1.63	1.43
	2.99	1.95	1.30	4.05	5.67	2.15	1.72	3.57	0.96	1.93	2.28	6.65	1.62	1.23
	2.98	1.94	1.25	3.98	5.59	2.15	1.71	3.57	0.74	1.79	2.25	6.61	1.57	
	2.98	1.93	1.24	3.92	5.55	2.14	1.59	3.53		1.74	2.24	6.42	1.49	
	2.91	1.90	1.22	3.83	5.46	2.07	1.36	3.50		1.69	2.24	6.26	1.43	
	2.77	1.88	1.06	3.74	5.41	1.78	1.34	3.45			2.22	6.24	1.31	
	2.69	1.84	1.02	3.55	5.17	1.75	1.18	3.20			2.18	5.78	0.94	
	2.66	1.65		3.50	5.01	1.26	1.00	3.05				5.00		
	1.81	1.30		2.57	4.97	0.86		2.42						
					4.62									
					3.94									
	Big 4			Big 4	Big 4							Big 4		
CURRENT MONTH ANALYSIS														
percentrank current read to historic range	4%	39%	95%	8%	11%	25%	73%	75%	100%	64%	21%	10%	65%	8%
Big 4 wells percentile	8%													

Section 4 - "Raw" aquifer readings for the Big 4 wells.

Raw well height graph is independent of the median history. It presents a direct comparison of aquifer heights by month.

The March and April readings increased slightly, similar in size to the "peaks" from prior years during the transition from winter recharge to summer draw-down.

