

**SHELTER ISLAND WATER ADVISORY COMMITTEE –  
January 26 2025, Height data report DRAFT**

**Summary/Conclusion - “Guarded”**

The extended low rainfall has impacted the aquifer level. Only 1 well is over their median level. No actions are recommended at this time, and some precipitation would be very helpful!

**Discussion:**

**Section 1 - National Drought Monitoring:**

This month the U.S. Drought Monitor service maintained the drought intensity classification. Moderate Drought (although the center of Suffolk county is classified as Abnormally Dry).

**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 dropped to just below the median value. This is the 6 or 7<sup>th</sup> consecutive drop.

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

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

Only one well (Goat Hill) are above median value – all other wells are in the low 40<sup>th</sup> percentile.

**Section 4 - “Comparison of the size of the change in current well readings compared to the historic Median change for that month.”** *Table showing the current month’s change in well height from previous and comparison to change history.*

Equipment issues prevented full slate of readings in December, but the wells with readings show very strong drops in the aquifer height.

**Section 5 – 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.*

At the halfway mark, the normal seasonal recharge has not yet started. We are going into 2025 with a very weak aquifer.

**Current Rainfall versus history**

Our 2025 MTD and YTD precipitation as of 1/26/25 is 1.19" which is not good start for the new year. We had an excellent 2024 with precipitation totaling 49.59" so our aquifer should still be at typical January levels. However, a dry February will be not be a good sign for the start of this season since it is our replenishment period. There is no significant rain in the 10-day weather forecast that I use until 2/1/25.

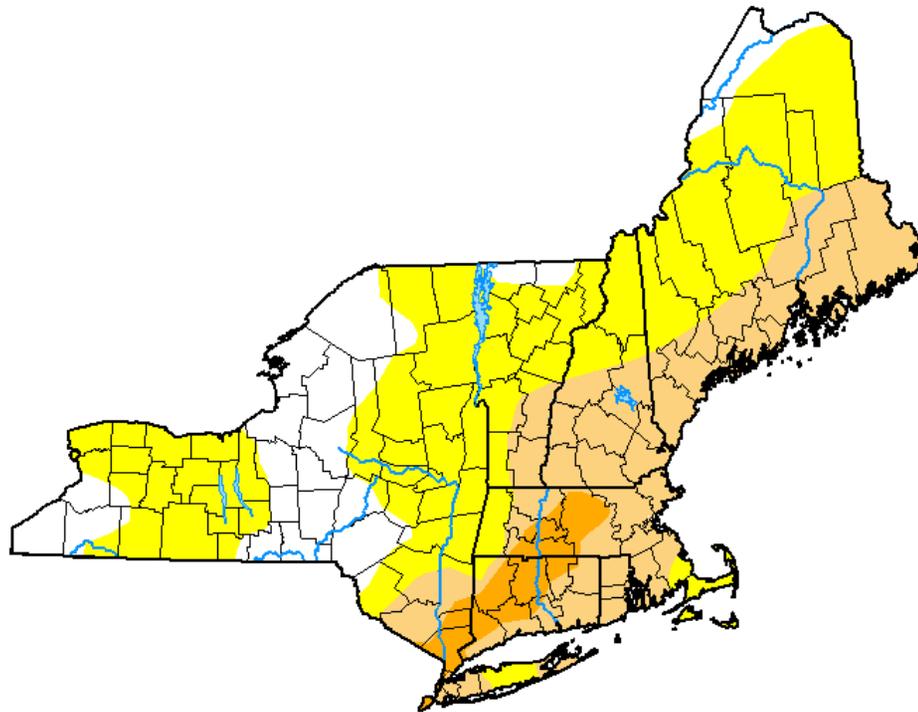
<b>Precipitation Report for January 2025</b>						
Year	2025	2024	2023	2022	2021	2020
This Month	1.19"	7.93"	6.28"	3.95"	2.73"	2.12"
Year to date	1.19"	7.93"	6.28"	3.95"	2.73"	2.12"

## Section 1 National Drought Monitoring

Sheler Island is currently as a D1 Moderate Drought by the U.S National Drought Monitor, unchanged for the last 5 weeks.

# U.S. Drought Monitor Northeast DEWS

**February 4, 2025**  
(Released Thursday, Feb. 6, 2025)  
Valid 7 a.m. EST



### Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

### Author:

Lindsay Johnson  
National Drought Mitigation Center

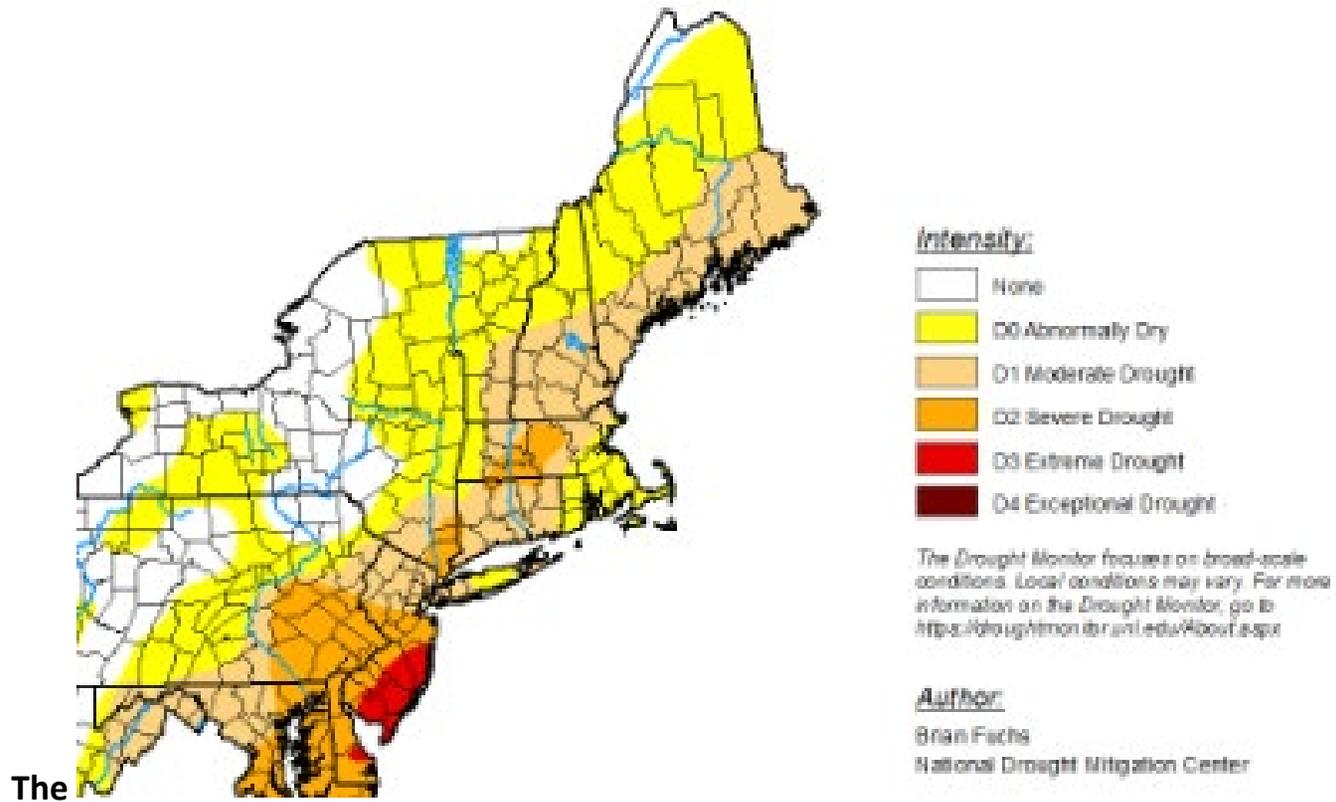


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

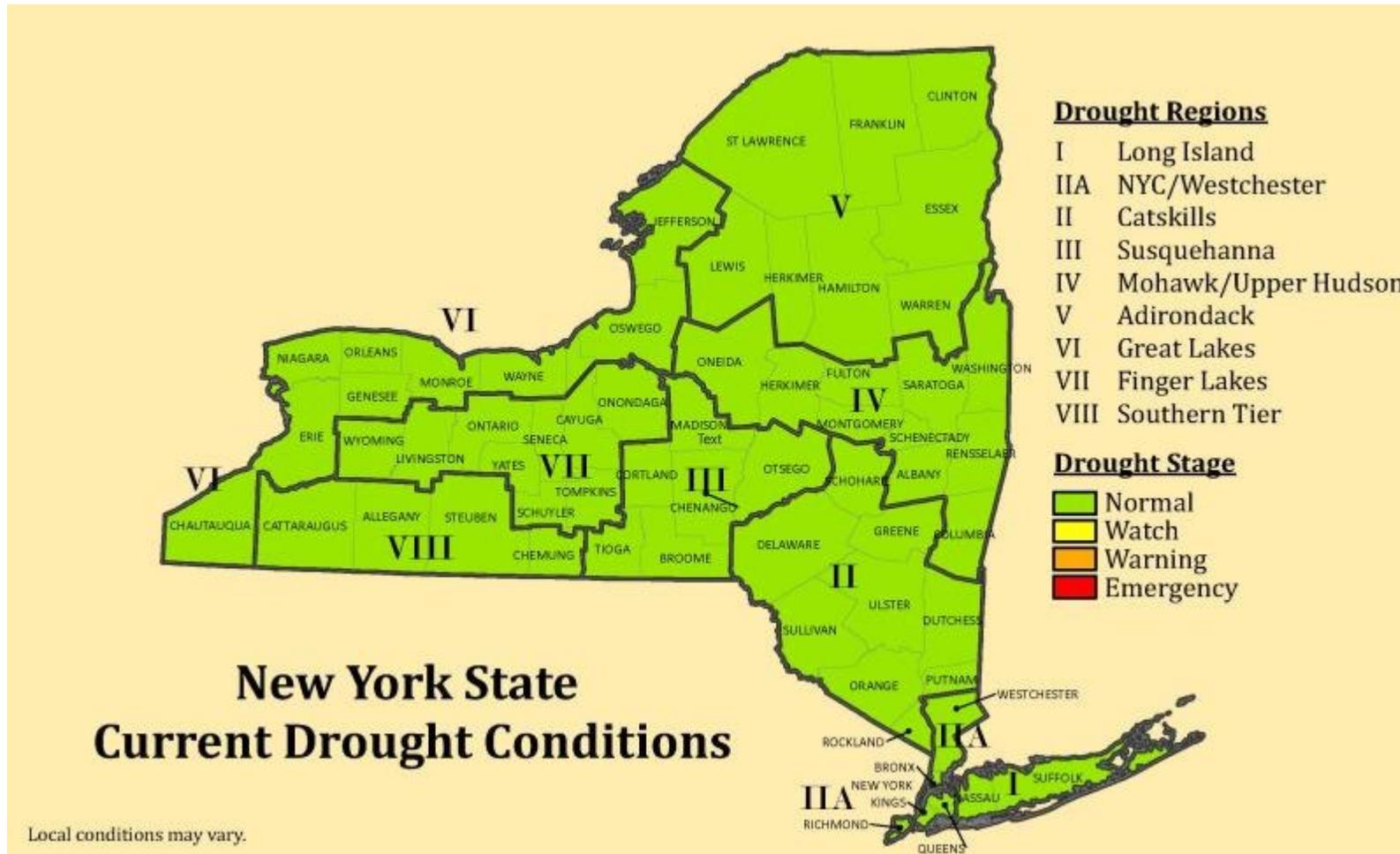
This illustration shows D2 (Severe Drought) and D3 (Extreme Drought) as close as New Jersey.

## U.S. Drought Monitor Northeast

January 28, 2025  
(Released Thursday, Jan. 30, 2025)  
Valid 7 a.m. EST



This is the New York DEC version of Drought stage. The entire state is “Normal”, which means drought is not in progress or anticipated.



## **The Four Drought Stages and What They Mean**

There are four stages of drought that can be declared in New York State. The Drought Plans describes the actions to be taken during each drought stage by water purveyors, towns and villages, water authorities, and other agencies with water supply responsibilities.

### **Normal**

Drought not in progress and is not anticipated on the future.

### **Stage 1 Drought Watch**

The least severe of the stages, a drought watch is declared when a drought is developing. Public water suppliers begin to conserve water and urge customers to reduce water use.

### **Stage 2 Drought Warning**

Voluntary water conservation is intensified. Public water suppliers and industries update and implement local drought contingency plans. Local agencies make plans in case of emergency declaration.

### **Stage 3 Drought Emergency**

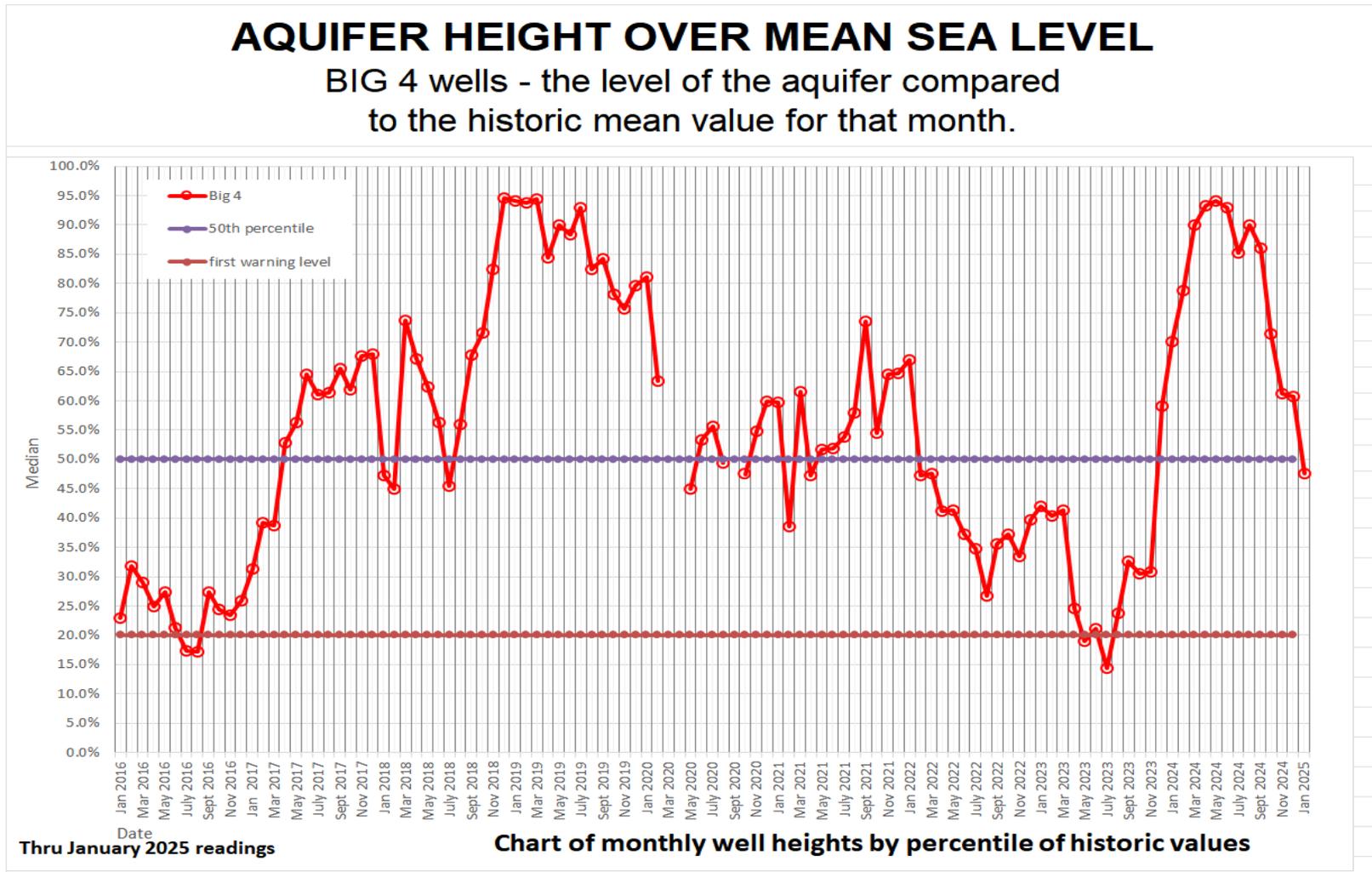
The Disaster Preparedness Commission coordinates calling a drought emergency. Mandatory local/county water restrictions may be imposed. Communities may need to tap alternative water sources to avoid depleting water supplies, protect public health and provide for essential uses.

### **Stage 4 Drought Disaster**

Disaster plans are implemented. Water use is further restricted. The Governor may declare disaster and request federal disaster assistance. Emergency legislation may be enacted. The state provides equipment and technical assistance to communities.

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

The Big Four continued to drop, with the Big 4 aquifer readings just below the median value for January. We are about halfway through the seasonal recharge with virtually no rainfall. If the lack of rainfall continues there is a prospect of significant problems this summer.





**Section 4 - “Comparison of the size of the change in current well readings compared to the historic Median change for that month.”**

Table showing the current month’s change in well height from previous and comparison to change history.

Equipment issues prevented full slate of readings in December, but the wells with readings show very strong drops in the aquifer height.

	SIZE OF CHANGE FROM PREVIOUS MONTH							JANUARY 2025						
	Manhansett, Well #1	Rocky Point Ave/Belvedere Well #2	Big Ram Island Well #3	Manwaring Rd Well #4	Congdon Well #5	Brander/Liliput 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 Beach Well#14 NADV29
Well #	1	2	3	4	5	6	7	8	9	10	11	12	13	0
Change v previous month				(0.32)	(0.45)	(0.27)	(0.12)		(0.34)	(0.19)		(0.13)	(0.21)	
Med Change	0.05	0.06	0.06	0.08	0.12	0.05	0.06	0.19	0.05	0.07	0.03	0.14	0.19	
	Big 4			Big 4	Big 4							Big 4		
				0.85								0.52		
			0.46	0.40		0.96	0.91	0.80				0.50		
	0.74	0.48	0.44	0.39	0.83	0.82	0.81	0.73				0.45	0.75	
	0.28	0.47	0.41	0.30	0.82	0.66	0.75	0.72	0.70		0.55	0.40	0.64	
	0.27	0.42	0.24	0.28	0.77	0.58	0.70	0.64	0.66	0.49	0.31	0.39	0.43	
	0.27	0.22	0.20	0.27	0.73	0.53	0.42	0.61	0.66	0.49	0.21	0.37	0.43	
	0.25	0.19	0.14	0.20	0.67	0.44	0.37	0.50	0.58	0.34	0.21	0.24	0.36	
	0.22	0.16	0.10	0.17	0.65	0.32	0.34	0.48	0.40	0.34	0.14	0.23	0.31	
	0.19	0.10	0.10	0.13	0.64	0.20	0.26	0.45	0.15	0.34	0.14	0.22	0.29	
current month	0.16	0.07	0.08	0.10	0.62	0.17	0.26	0.26	0.14	0.31	0.09	0.22	0.24	
	0.13	0.07	0.08	0.10	0.49	0.17	0.23	0.24	0.13	0.17	0.05	0.20	0.23	
	0.12	0.06	0.07	0.09	0.41	0.06	0.06	0.19	0.13	0.10	0.05	0.14	0.19	
MEDIAN		0.06	0.06		0.29	0.05	0.06	0.19			0.03	0.13	0.19	
	(0.02)	0.05	0.01	0.07	0.12	0.05	0.02	0.18	(0.04)	0.05	0.02	0.11	0.19	
	(0.03)	0.05	(0.06)	(0.01)	0.12	0.05	(0.03)	0.13	(0.12)	0.00	(0.01)	0.06	0.17	
	(0.09)	(0.04)	(0.07)	(0.01)	(0.08)	0.04	(0.03)	0.12	(0.15)	(0.03)	(0.06)	(0.03)	0.14	
	(0.11)	(0.09)	(0.15)	(0.14)	(0.09)	(0.08)	(0.10)	0.05	(0.27)	(0.11)	(0.09)	(0.03)	(0.07)	
	(0.14)	(0.13)	(0.16)	(0.19)	(0.09)	(0.09)	(0.12)	(0.06)	(0.30)	(0.13)	(0.17)	(0.06)	(0.13)	
	(0.16)	(0.17)	(0.20)	(0.23)	(0.15)	(0.12)	(0.18)	(0.07)	(0.34)	(0.19)	(0.25)	(0.07)	(0.21)	
	(0.20)	(0.26)	(0.35)	(0.24)	(0.17)	(0.18)	(0.32)	(0.16)	(0.34)	(0.36)	(0.25)	(0.13)	(0.21)	
	(0.22)	(0.36)	(0.40)	(0.25)	(0.17)	(0.20)	(0.40)	(0.17)	(0.89)	(0.43)	(0.28)	(0.31)	(0.24)	
	(0.26)	(0.42)	(0.46)	(0.30)	(0.17)	(0.22)	(0.41)	(0.21)	(0.96)		(0.29)	(0.39)	(0.34)	
	(0.27)		(0.59)	(0.32)	(0.22)	(0.27)	(1.33)	(0.31)				(0.62)	(0.37)	
			(0.68)	(0.33)	(0.41)	(0.43)							(0.49)	
				(0.44)	(0.45)									
	Big 4			Big 4	Big 4							Big 4		

The blue shaded boxes are the changes in well height from the PREVIOUS to THIS month. Negative values represent a loss from the previous month, with a comparison to the median change in that month over the years

**Section 5 - "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.

At the halfway mark, the normal seasonal recharge has not yet started. We are going into 2025 with a very weak aquifer.

