

**SHELTER ISLAND WATER ADVISORY COMMITTEE –  
JANUARY 2024, Height data report DRAFT**

**Summary/Conclusion - “Guarded”**

The aquifer has received a significant recharge this month, the WAC recommends that Islanders may now follow normal *voluntary water conservation measures*.

**Discussion:**

**Section 1A and 1B - National Drought Monitoring and Outlook Forecasting:**

Shelter Island is currently not in and is not forecast to return to drought conditions.

**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.*

Wonderful what a foot or more of precipitation can you for the aquifer level!

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

*Table “Well readings compared to the month’s Median for each well.” Current month readings compared to the month history for each well in the month.* Seven of thirteen wells at their highest level in January on record. Big 4 wells average around the 70% percentiles. Goat Hill well is equal to the high point of seasonal recharge in May 2023 (May), and the Manwaring well is ½ foot over last year’s seasonal high.

**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.* All wells gained, all wells above the history for January.

**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.* All four wells gained height this month, especially the Congdon well [this well has a history of rapid increases/decreases].

**Rainfall Status: Ken Reports:**

<b>Precipitation Report – January 2024</b>						
Year	2024	2023	2022	2021	2020	2019
Month to date	7.93"	3.27"	3.95"	2.73"	2.12"	5.84"
Year to date	7.93"	3.27"	3.95"	2.73"	2.12"	5.84"

December and January precipitation total: Very strong precipitation this December & January, over 1 foot rainfall between these months.

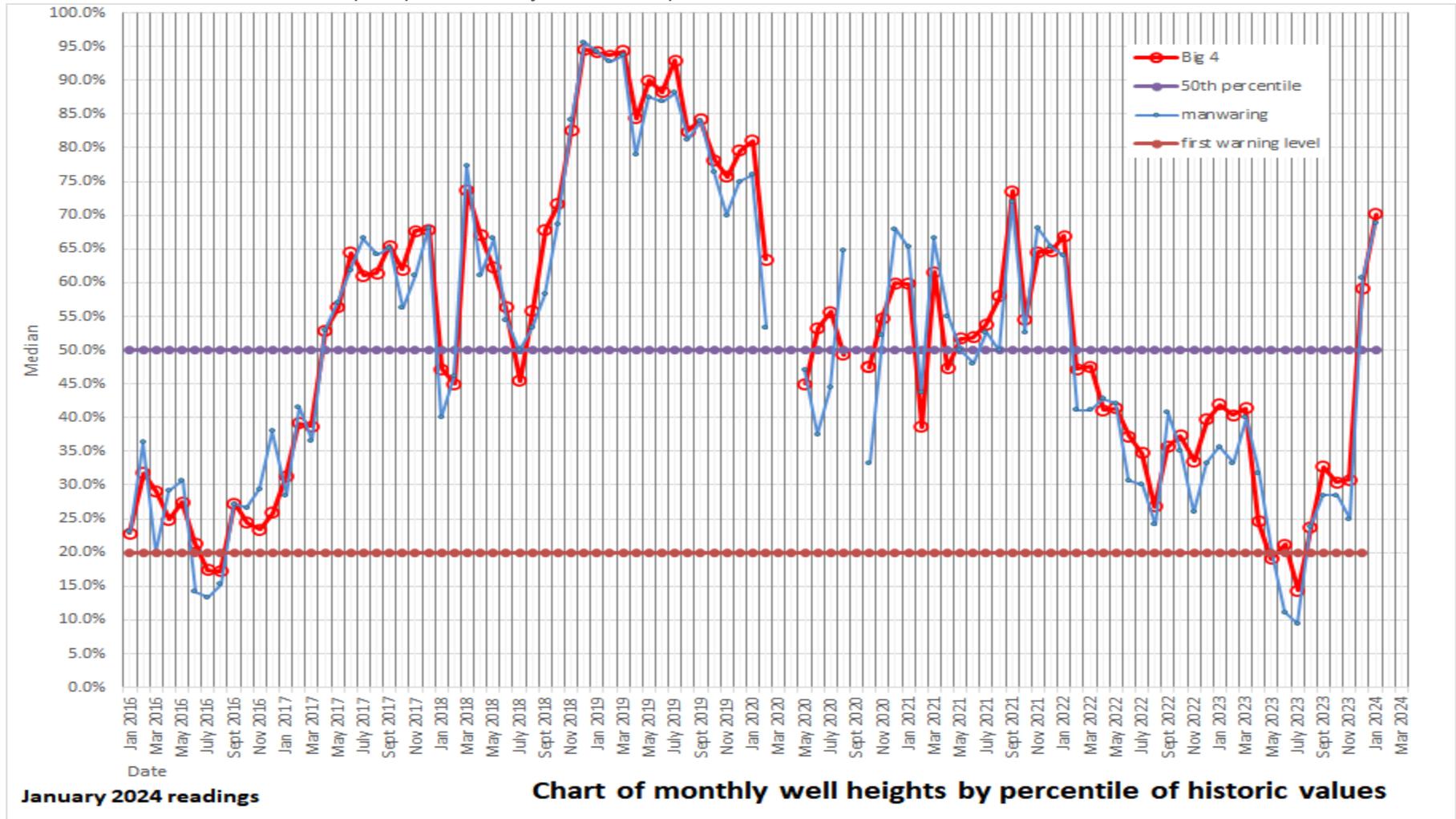
Shelter Island Water Advisory Committee issue date February 7, 2024.

## Section 1 National Drought Monitoring

The regional drought monitoring and forecast for Shelter Island is we are currently not in and not forecast to return to drought conditions. The only dry area near Long Island is southern and central New Jersey.

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

Wonderful what a foot or more of precipitation can you for the aquifer level!



### Section 3 – Comparison showing readings for the month compared to the median value history

Seven of thirteen wells at their highest level in January on record. Big 4 wells average around the 70% percentiles. Goat Hill well is equal to the high point of seasonal recharge in May 2023 (May), and the Manwaring well is ½ foot over last year’s seasonal high point.

Well readings compared to 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
<b>Number of readings</b>	<b>41</b>	<b>28</b>	<b>24</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>23</b>	<b>28</b>	<b>17</b>	<b>16</b>	<b>24</b>	<b>21</b>	<b>22</b>
<b>Median Value</b>	<b>2.45</b>	<b>1.87</b>	<b>1.40</b>	<b>3.47</b>	<b>4.70</b>	<b>1.95</b>	<b>1.76</b>	<b>3.10</b>	<b>1.43</b>	<b>1.88</b>	<b>2.09</b>	<b>5.69</b>	<b>1.57</b>
<b>Reading</b>	<b>3</b>	<b>2.62</b>	<b>2.26</b>	<b>3.9</b>	<b>5.78</b>	<b>3.25</b>	<b>2.67</b>	<b>4.11</b>	<b>2.34</b>	<b>2.61</b>	<b>2.67</b>	<b>5.94</b>	<b>2.58</b>
<b>Previous Month reading</b>	<b>2.73</b>	<b>2.15</b>	<b>1.95</b>	<b>3.3</b>	<b>4.5</b>	<b>2.23</b>	<b>2.12</b>	<b>3.08</b>	<b>1.69</b>	<b>2.04</b>	<b>2.3</b>	<b>5.65</b>	<b>1.78</b>
<b>Change from prev. month</b>	<b>0.27</b>	<b>0.47</b>	<b>0.31</b>	<b>0.60</b>	<b>1.28</b>	<b>1.02</b>	<b>0.55</b>	<b>1.03</b>	<b>0.65</b>	<b>0.57</b>	<b>0.37</b>	<b>0.29</b>	<b>0.80</b>
<b>JANUARY 2024</b>	Big 4			Big 4	Big 4							Big 4	
					7.15								
					6.92								
	3.97				6.61								
	3.85				6.46								
	3.65				6.39								
	3.40				6.38								
	3.18				6.11								
	3.11	<b>2.62</b>			6.07	<b>3.25</b>							
	3.08	2.57		5.35	6.03	2.80		4.44					
	3.07	2.26		5.17	5.85	2.71		<b>4.11</b>					
	3.01	2.15	<b>2.26</b>	4.46	<b>5.78</b>	2.61		4.08			2.96		<b>2.58</b>
	<b>3.00</b>	2.06	1.95	4.32	5.67	2.59	<b>2.67</b>	3.99			<b>2.67</b>		
	2.89	2.05	1.92	4.27	5.57	2.56	2.37	3.91			2.35	7.43	2.29
	2.73	2.05	1.77	4.25	5.51	2.46	2.26	3.70			2.33	7.21	1.85
	2.71	2.05	1.72	4.19	5.17	2.45	2.25	3.70	<b>2.34</b>	<b>2.61</b>	2.30	6.96	1.82
	2.70	2.04	1.70	4.07	5.06	2.28	2.14	3.51	2.01	2.50	2.28	6.89	1.78
	2.66	2.00	1.67	4.02	4.95	2.27	2.12	3.43	1.86	2.39	2.28	6.82	1.73
	2.56	1.96	1.63	<b>3.90</b>	4.93	2.23	2.07	3.39	1.80	2.04	2.27	6.75	1.69
	2.54	1.91	1.57	3.84	4.89	2.16	2.06	3.30	1.76	2.00	2.22	6.56	1.66
	2.52	1.90	1.52	3.65	4.81	2.16	1.99	3.29	1.69	1.98	2.19	6.38	1.65
	2.51	1.89	1.46	3.64	4.77	2.05	1.89	3.27	1.55	1.90	2.18	<b>5.94</b>	1.61
				3.50	4.75	2.01	1.84	3.11	1.46	1.90	2.12	5.90	1.58
<b>Median Value</b>	<b>2.45</b>	<b>1.87</b>	<b>1.40</b>	<b>3.47</b>	<b>4.70</b>	<b>1.95</b>	<b>1.76</b>	<b>3.10</b>	<b>1.43</b>	<b>1.88</b>	<b>2.09</b>	<b>5.69</b>	<b>1.57</b>
	2.45	1.85	1.40	3.47	4.65	1.88	1.73	3.08	1.41	1.86	2.06	5.65	1.56
	2.37	1.83	1.38	3.46	4.62	1.85	1.72	2.87	1.37	1.82	2.03	5.61	1.53
	2.36	1.77	1.36	3.36	4.51	1.81	1.72	2.82	1.36	1.82	1.97	5.59	1.46
	2.32	1.69	1.35	3.31	4.50	1.79	1.68	2.81	1.35	1.78	1.96	5.57	1.42
	2.29	1.66	1.30	3.30	4.41	1.77	1.54	2.79	1.24	1.59	1.95	5.56	1.37
	2.24	1.62	1.27	3.25	4.40	1.75	1.38	2.75	0.62	1.58	1.92	5.41	1.36
<b>current month value</b>	2.23	1.54	1.21	3.15	4.35	1.74	1.22	2.75	0.44	1.32	1.79	5.22	1.24
	2.21	1.51	1.15	3.07	4.30	1.67	1.21	2.71	0.26	1.26	1.72	5.17	1.21
	2.18	1.49	1.10	3.07	4.18	1.52	1.11	2.52			1.65	5.13	1.04
	2.14	1.39	0.84	3.03	4.11	1.45	0.88	2.43			1.60	5.12	0.84
	2.13	1.34	0.82	2.98	4.10	1.38	0.80	2.37			1.58		0.72
	2.13	1.32	0.69	2.94	4.06	1.26		2.23			1.43		
	2.09	1.12		2.91	4.01	1.22		2.20					
	2.09	0.98		2.52	4.00	1.05		1.90					
	2.09			2.42	3.96	0.89							
	2.04				3.91								
	2.04				3.82								
	1.93				3.74								
	1.90				3.62								
	1.78				3.59								
					3.52								
					3.16								
<b>CURRENT MONTH ANALYSIS</b>	Big 4			Big 4	Big 4							Big 4	
<b>percentrank current read to historic range</b>	<b>75%</b>	<b>100%</b>	<b>100%</b>	<b>69%</b>	<b>77%</b>	<b>100%</b>	<b>100%</b>	<b>96%</b>	<b>100%</b>	<b>100%</b>	<b>96%</b>	<b>60%</b>	<b>100%</b>
<b>historic minimum</b>	1.78	0.98	0.69	2.42	3.16	0.89	0.80	1.90	0.26	1.26	1.43	5.12	0.72
<b>percent above minimum</b>	<b>53%</b>	<b>119%</b>	<b>183%</b>	<b>36%</b>	<b>42%</b>	<b>151%</b>	<b>165%</b>	<b>62%</b>	<b>550%</b>	<b>62%</b>	<b>61%</b>	<b>10%</b>	<b>147%</b>

**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.

All wells gained, all well above the history for January.

	SIZE OF CHANGE FROM PREVIOUS MONTH							JANUARY 2024					
	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
Well #	1	2	3	4	5	6	7	8	9	10	11	12	13
Change v previous month	0.27	0.48	0.46	0.39	0.73	0.66	0.42	0.73	0.66	0.49	0.31	0.50	0.64
Med Change	0.05	0.06	0.06	0.09	0.21	0.06	0.06	0.19	0.13	0.12	0.03	0.20	0.19
	Big 4			Big 4	Big 4							Big 4	
			0.53										
			0.46	0.85	0.83			0.80					
	0.74	0.48	0.44	0.40	0.82	0.96	0.91	0.73				0.52	0.75
	0.28	0.47	0.41	0.39	0.77	0.82	0.81	0.72			0.55	0.50	0.64
	0.27	0.42	0.24	0.30	0.73	0.66	0.75	0.64		0.49	0.31	0.45	0.43
	0.27	0.22	0.20	0.28	0.67	0.58	0.70	0.61	0.70	0.49	0.21	0.40	0.43
	0.25	0.19	0.14	0.27	0.65	0.53	0.42	0.50	0.66	0.34	0.21	0.39	0.36
	0.22	0.16	0.10	0.20	0.64	0.44	0.37	0.48	0.66	0.34	0.14	0.37	0.31
	0.19	0.10	0.10	0.17	0.62	0.32	0.34	0.45	0.58	0.34	0.14	0.24	0.29
	0.16	0.07	0.08	0.13	0.49	0.20	0.26	0.26	0.40	0.31	0.09	0.23	0.24
	0.13	0.07	0.08	0.10	0.41	0.17	0.26	0.24	0.15	0.17	0.05	0.22	0.23
	0.12	0.06	0.07	0.10	0.29	0.17	0.23	0.19	0.14	0.14	0.05	0.22	0.19
<b>MEDIAN</b>		0.06	0.06	0.09		0.06	0.06	0.19	0.13			0.20	0.19
	(0.02)	0.05	0.01	0.07	0.12	0.05	0.06	0.18	0.13	0.10	0.02	0.14	0.19
	(0.03)	0.05	(0.06)	(0.01)	0.12	0.05	0.02	0.13	(0.04)	0.05	(0.01)	0.13	0.17
	(0.09)	(0.04)	(0.07)	(0.01)	(0.08)	0.05	(0.03)	0.12	(0.12)	0.00	(0.06)	0.11	0.14
	(0.11)	(0.09)	(0.15)	(0.14)	(0.09)	0.04	(0.03)	0.05	(0.15)	(0.03)	(0.09)	0.06	(0.07)
	(0.14)	(0.13)	(0.16)	(0.19)	(0.09)	(0.08)	(0.10)	(0.06)	(0.27)	(0.11)	(0.17)	(0.03)	(0.13)
	(0.16)	(0.17)	(0.20)	(0.23)	(0.15)	(0.09)	(0.18)	(0.07)	(0.30)	(0.13)	(0.25)	(0.03)	(0.21)
	(0.20)	(0.26)	(0.35)	(0.24)	(0.17)	(0.12)	(0.32)	(0.16)	(0.89)	(0.36)	(0.25)	(0.06)	(0.24)
	(0.22)	(0.36)	(0.40)	(0.25)	(0.17)	(0.18)	(0.40)	(0.17)	(0.96)	(0.43)	(0.28)	(0.07)	(0.34)
	(0.26)	(0.42)	(0.46)	(0.30)	(0.17)	(0.20)	(0.41)	(0.21)			(0.29)	(0.31)	(0.37)
<b>current month</b>	(0.27)		(0.59)	(0.33)	(0.22)	(0.22)	(1.33)	(0.31)				(0.62)	(0.49)
			(0.68)	(0.44)	(0.41)	(0.43)							
	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.

All four wells gained height this month, especially the Congdon well [this well has a history of rapid increases/decreases].

