

**SHELTER ISLAND WATER ADVISORY COMMITTEE –  
MARCH 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.*

The influence of the heavy rain event on March 20 coupled with the earlier rainfalls December to January has pushed aquifer levels to near historic highs in both shallow and deeper well sites.

**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. All thirteen wells are well above their Median values for March, even with the relatively low precipitation in February. The Deer Park Lane well drop reflects a more accurate level after maintenance on the well screen.*

**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 are near historic highs.*

**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. A very strong recharge continues!*

**Rainfall Status: Ken Reports:**

March 2024 was banner month for SI's precipitation.

| <b>Precipitation Report – March 2024</b> |              |        |        |       |       |        |
|--|--------------|--------|--------|-------|-------|--------|
| Year                                     | 2024         | 2023   | 2022   | 2021  | 2020  | 2019   |
| Month to date                            | <b>8.3</b>   | 4.15"  | 3.13"  | 2.99" | 3.91" | 3.05"  |
| Year to date                             | <b>18.37</b> | 11.68" | 11.19" | 9.35" | 9.62" | 11.73" |

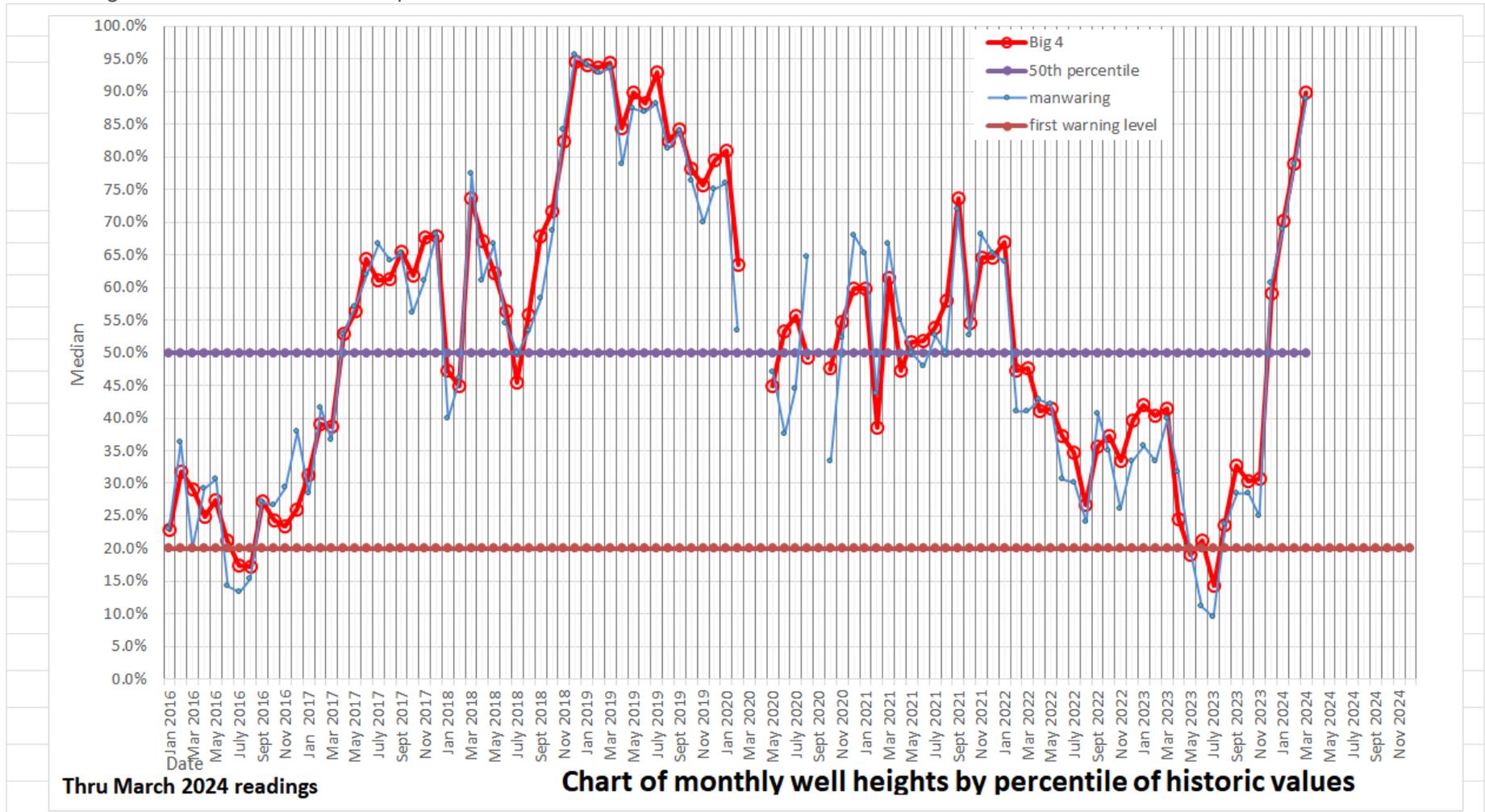
Shelter Island Water Advisory Committee issue date March 28, 2024.

## 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.

The influence of the heavy rain event on March 20 coupled with the earlier rainfalls December to January has pushed aquifer levels to near historic highs in both shallow and deeper well sites.



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

A very strong recharge continues.

| Well readings in FEET compared to the the months Median for each well for: | Manhasset, Well #1 Big 4 | Rocky Point Ave/Belvd'r Well #2 | Big Ram Island Well #3 | Manwaring Rd Well #4 | Congdon Well #5 Big 4 | 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 Big 4 | Shorewood Well #13 |
|--|--------------------------|---------------------------------|------------------------|----------------------|-----------------------|--------------------------|---------------------|------------------------|--------------------|------------------------|--------------------|--------------------------|--------------------|
| <b>March 2024</b>  | 42                       | 2                               | 0                      | 24                   | 46                    | 11                       | 0                   | 8                      | 0                  | 0                      | 0                  | 1                        | 0                  |
| <b>Median Value</b>  | 3.03                     | 1.77                            | 1.33                   | 4.22                 | 5.72                  | 1.99                     | 1.72                | 3.43                   | 1.18               | 1.76                   | 2.15               | 6.78                     | 1.51               |
| <b>Reading March 25 2024</b>   | 4.45                     | 2.68                            | 1.98                   | 5.62                 | 7.5                   | 3.13                     | 2.44                | 5.58                   | 1.9                | 2.51                   | 3.31               | 7.37                     | 2.37               |
| <b>Prior Month</b>   | 3.89                     | 2.43                            | 1.6                    | 4.91                 | 6.65                  | 2.64                     | 2.14                | 7.28                   | 1.11               | 2.25                   | 2.88               | 6.68                     | 2                  |
| <b>Change from previous</b>  | 0.56                     | 0.25                            | 0.38                   | 0.71                 | 0.85                  | 0.49                     | 0.30                | (1.70)                 | 0.79               | 0.26                   | 0.43               | 0.69                     | 0.37               |
|  | Big 4                    |                                 |                        | Big 4                | Big 4                 |                          |                     |                        |                    |                        |                    | Big 4                    |                    |
|  |                          |                                 |                        |                      | 10.16                 |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 7.01                     |                                 |                        |                      | 8.36                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 5.21                     |                                 |                        |                      | 7.68                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 4.45                     |                                 |                        |                      | 7.55                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 4.37                     |                                 |                        |                      | 7.5                   |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 4.29                     |                                 |                        |                      | 7.44                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 4.28                     |                                 |                        | 8.45                 | 7.35                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 4.18                     |                                 |                        | 6.86                 | 7.32                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 3.95                     |                                 |                        | 6.05                 | 7.19                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 3.91                     |                                 |                        | 6.00                 | 7.09                  | 4.94                     |                     |                        |                    |                        |                    |                          |                    |
|  | 3.89                     |                                 |                        | 5.62                 | 7.02                  | 3.13                     |                     |                        |                    |                        |                    |                          |                    |
|  | 3.87                     | 4.47                            |                        | 5.57                 | 6.85                  | 3.03                     |                     | 6.94                   |                    |                        |                    |                          |                    |
|  | 3.8                      | 2.68                            |                        | 5.27                 | 6.79                  | 2.76                     | 3.8                 | 4.84                   |                    |                        |                    |                          |                    |
|  | 3.74                     | 2.61                            |                        | 5.24                 | 6.62                  | 2.74                     | 2.49                | 4.52                   |                    | 5.00                   |                    |                          | 3.84               |
|  | 3.57                     | 2.3                             | 2.5                    | 5.15                 | 6.55                  | 2.33                     | 2.44                | 4.17                   |                    | 3.41                   | 10.07              |                          | 2.37               |
|  | 3.54                     | 2.23                            | 1.98                   | 4.87                 | 6.38                  | 2.29                     | 2.37                | 4.03                   |                    | 2.89                   | 7.87               | 8.13                     | 2.31               |
|  | 3.51                     | 2.15                            | 1.92                   | 4.79                 | 6.28                  | 2.21                     | 2.21                | 3.97                   | 1.9                | 2.51                   | 2.87               | 7.37                     | 1.95               |
|  | 3.51                     | 2.05                            | 1.74                   | 4.77                 | 6.17                  | 2.19                     | 2.01                | 3.97                   | 1.75               | 2.44                   | 2.57               | 7.12                     | 1.9                |
|  | 3.4                      | 2.03                            | 1.58                   | 4.74                 | 6.03                  | 2.17                     | 2.01                | 3.85                   | 1.72               | 2.39                   | 2.54               | 7.09                     | 1.83               |
|  | 3.35                     | 1.97                            | 1.45                   | 4.73                 | 5.84                  | 2.15                     | 1.99                | 3.82                   | 1.65               | 2.24                   | 2.4                | 7.01                     | 1.74               |
|  | 3.24                     | 1.93                            | 1.43                   | 4.72                 | 5.75                  | 2.14                     | 1.91                | 3.79                   | 1.56               | 2.14                   | 2.31               | 6.94                     | 1.74               |
|  | 3.18                     | 1.88                            | 1.43                   | 4.54                 | 5.75                  | 2.09                     | 1.88                | 3.55                   | 1.48               | 1.99                   | 2.28               | 6.92                     | 1.57               |
|  | 3.12                     | 1.83                            | 1.42                   | 4.54                 | 5.73                  | 2.07                     | 1.86                | 3.54                   | 1.43               | 1.97                   | 2.25               | 6.80                     | 1.52               |
|  | 3.04                     | 1.8                             | 1.38                   | 4.23                 | 5.73                  | 2.05                     | 1.77                | 3.46                   | 1.21               | 1.85                   | 2.15               |                          |                    |
| <b>MEDIAN</b>  |                          | 1.77                            |                        | 4.22                 |                       | 1.99                     | 1.72                | 3.43                   | 1.18               |                        | 2.14               | 6.76                     | 1.49               |
|  | 3.01                     | 1.76                            | 1.28                   | 4.18                 | 5.70                  | 1.98                     | 1.71                | 3.43                   | 1.18               | 1.76                   | 2.13               | 6.52                     | 1.47               |
|  | 2.93                     | 1.66                            | 1.24                   | 4.10                 | 5.68                  | 1.98                     | 1.71                | 3.43                   | 1.12               | 1.74                   | 2.11               | 6.45                     | 1.47               |
|  | 2.93                     | 1.65                            | 1.18                   | 4.10                 | 5.57                  | 1.96                     | 1.68                | 3.42                   | 1.03               | 1.65                   | 2.03               | 6.26                     | 1.45               |
|  | 2.91                     | 1.63                            | 1.14                   | 4.00                 | 5.49                  | 1.89                     | 1.59                | 3.41                   | 0.99               | 1.57                   | 2.01               | 6.26                     | 1.44               |
|  | 2.80                     | 1.62                            | 1.13                   | 3.98                 | 5.47                  | 1.85                     | 1.58                | 3.38                   | 0.95               | 1.55                   | 1.91               | 6.16                     | 1.34               |
|  | 2.78                     | 1.58                            | 1.08                   | 3.92                 | 5.42                  | 1.80                     | 1.53                | 3.37                   | 0.90               | 1.55                   | 1.90               | 6.02                     | 1.28               |
|  | 2.76                     | 1.57                            | 1.05                   | 3.82                 | 5.40                  | 1.74                     | 1.49                | 3.31                   | 0.89               | 1.49                   | 1.85               | 5.79                     | 1.23               |
|  | 2.73                     | 1.56                            | 0.96                   | 3.72                 | 5.40                  | 1.68                     | 1.38                | 3.24                   | 0.68               | 1.49                   | 1.52               | 5.39                     | 1.15               |
|  | 2.72                     | 1.56                            | 0.92                   | 3.70                 | 5.37                  | 1.62                     | 1.34                | 3.22                   | 0.62               | 1.18                   | 1.50               | 5.00                     | 1.06               |
|  | 2.71                     | 1.54                            | 0.92                   | 3.69                 | 5.34                  | 1.62                     | 1.26                | 3.21                   |                    |                        | 1.37               |                          | 0.87               |
|  | 2.60                     | 1.28                            |                        | 3.69                 | 5.19                  | 1.56                     | 1.25                | 3.08                   |                    |                        | 0.88               |                          |                    |
|  | 2.47                     | 1.18                            |                        | 3.60                 | 5.03                  | 1.45                     | 1.04                | 3.01                   |                    |                        |                    |                          |                    |
|  | 2.45                     | 1.05                            |                        | 3.47                 | 4.98                  | 1.43                     |                     | 2.57                   |                    |                        |                    |                          |                    |
|  | 2.40                     |                                 |                        | 3.35                 | 4.95                  | 1.11                     |                     | 2.41                   |                    |                        |                    |                          |                    |
|  | 2.40                     |                                 |                        | 3.26                 | 4.94                  | 1.02                     |                     | 2.14                   |                    |                        |                    |                          |                    |
|  | 2.35                     |                                 |                        | 2.67                 | 4.87                  |                          |                     | 2.11                   |                    |                        |                    |                          |                    |
|  | 2.30                     |                                 |                        | 2.46                 | 4.75                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.97                     |                                 |                        | 2.45                 | 4.57                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.94                     |                                 |                        |                      | 4.50                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.91                     |                                 |                        |                      | 4.13                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.77                     |                                 |                        |                      | 3.97                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.74                     |                                 |                        |                      | 3.94                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | 1.71                     |                                 |                        |                      | 3.91                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  |                          |                                 |                        |                      | 3.56                  |                          |                     |                        |                    |                        |                    |                          |                    |
|  | Big 4                    |                                 |                        | Big 4                | Big 4                 |                          |                     |                        |                    |                        |                    | Big 4                    |                    |
| <b>CURRENT MONTH ANALYSIS</b>  |                          |                                 |                        |                      |                       |                          |                     |                        |                    |                        |                    |                          |                    |
| percentrank current read to historic range                                 | 96%                      | 96%                             | 95%                    | 89%                  | 91%                   | 97%                      | 92%                 | 97%                    | 100%               | 100%                   | 91%                | 84%                      | 95%                |
| historic minimum   | 1.71                     | 1.05                            | 0.92                   | 2.45                 | 3.56                  | 1.02                     | 1.04                | 2.11                   | 0.62               | 1.18                   | 0.88               | 5.00                     | 0.87               |
| Current height compared to median (feet)                                   | 1.43                     | 0.91                            | 0.65                   | 1.40                 | 1.79                  | 1.14                     | 0.72                | 2.15                   | 0.72               | 0.75                   | 1.17               | 0.59                     | 0.87               |

**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.

March well levels typically increase in March, although this month the increase was much stronger than the norm. The strong drop in the Deer Park land is due to well maintenance.

| <b>March 2024 SIZE OF CHANGE FROM PREVIOUS MONTH</b>                    |                     |                                   |                        |                      |                 |                         |                     |                        |                    |                        |                    |                    |                    |
|---|---------------------|-----------------------------------|------------------------|----------------------|-----------------|-------------------------|---------------------|------------------------|--------------------|------------------------|--------------------|--------------------|--------------------|
| Measure in FEET   | 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 prior month  | 0.89                | (0.19)                            | (0.66)                 | 1.01                 | 0.87            | (0.61)                  | (0.53)              | 3.17                   | (1.23)             | (0.36)                 | 0.21               | 0.74               | (0.58)             |
| Change this month   | 0.56                | 0.25                              | 0.38                   | 0.71                 | 0.85            | 0.49                    | 0.30                | (1.70)                 | 0.79               | 0.26                   | 0.43               | 0.69               | 0.37               |
| Med Change  | 0.12                | (0.01)                            | 0.01                   | 0.26                 | 0.40            | 0.06                    | 0.08                | 0.10                   | 0.04               | (0.02)                 | 0.05               | 0.21               | 0.07               |
|   | Big 4               |                                   |                        | Big 4                | Big 4           |                         |                     |                        |                    |                        |                    | Big 4              |                    |
|   |                     |                                   |                        |                      | 0.85            |                         |                     |                        |                    |                        |                    | 1.47               |                    |
|   |                     |                                   | 0.45                   |                      | 0.62            | 0.61                    | 0.87                | 0.69                   |                    |                        |                    | 0.69               | 0.60               |
|   | 0.56                | 0.35                              | 0.38                   | 1.01                 | 0.54            | 0.55                    | 0.46                | 0.56                   |                    |                        |                    | 0.51               | 0.37               |
|   | 0.45                | 0.34                              | 0.38                   | 0.76                 | 0.54            | 0.49                    | 0.36                | 0.46                   | 0.79               | 0.35                   |                    | 0.50               | 0.36               |
|   | 0.44                | 0.25                              | 0.27                   | 0.71                 | 0.51            | 0.47                    | 0.31                | 0.40                   | 0.26               | 0.26                   | 0.43               | 0.37               | 0.32               |
|   | 0.35                | 0.22                              | 0.24                   | 0.55                 | 0.49            | 0.25                    | 0.30                | 0.32                   | 0.23               | 0.18                   | 0.41               | 0.35               | 0.30               |
|   | 0.33                | 0.16                              | 0.19                   | 0.47                 | 0.47            | 0.23                    | 0.29                | 0.27                   | 0.14               | 0.17                   | 0.29               | 0.30               | 0.25               |
|   | 0.27                | 0.15                              | 0.18                   | 0.37                 | 0.45            | 0.23                    | 0.28                | 0.24                   | 0.14               | 0.10                   | 0.10               | 0.30               | 0.16               |
|   | 0.16                | 0.14                              | 0.10                   | 0.35                 | 0.44            | 0.15                    | 0.15                | 0.19                   | 0.10               | 0.03                   | 0.09               | 0.28               | 0.15               |
|   | 0.12                | 0.12                              | 0.08                   | 0.31                 | 0.41            | 0.13                    | 0.11                | 0.16                   | 0.07               | 0.02                   | 0.08               | 0.25               | 0.14               |
| <b>MEDIAN</b>   | 0.12                | (0.01)                            | 0.01                   |                      | 0.40            | 0.06                    | 0.08                |                        |                    |                        | 0.06               |                    | 0.07               |
|   | 0.12                | (0.02)                            | (0.03)                 | 0.21                 | 0.29            | (0.03)                  | 0.07                | 0.03                   | 0.00               | (0.05)                 | 0.04               | 0.17               | 0.02               |
|   | 0.09                | (0.07)                            | (0.07)                 | 0.19                 | 0.26            | (0.04)                  | 0.05                | 0.02                   | (0.08)             | (0.06)                 | 0.01               | 0.17               | 0.01               |
|   | 0.05                | (0.07)                            | (0.09)                 | 0.11                 | 0.21            | (0.06)                  | 0.03                | 0.02                   | (0.20)             | (0.07)                 | (0.05)             | 0.14               | (0.05)             |
|   | 0.02                | (0.11)                            | (0.22)                 | 0.08                 | 0.17            | (0.08)                  | (0.07)              | 0.02                   | (0.45)             | (0.12)                 | (0.06)             | 0.12               | (0.10)             |
|   | 0.00                | (0.12)                            | (0.27)                 | 0.05                 | 0.16            | (0.10)                  | (0.09)              | (0.10)                 | (0.65)             | (0.27)                 | (0.06)             | 0.11               | (0.11)             |
|   | (0.01)              | (0.24)                            | (0.31)                 | (0.02)               | 0.09            | (0.20)                  | (0.16)              | (0.13)                 | (1.04)             | (0.74)                 | (0.10)             | 0.10               | (0.11)             |
|   | (0.05)              | (0.37)                            | (0.44)                 | (0.11)               | (0.03)          | (0.23)                  | (0.17)              | (0.20)                 | (1.32)             | (0.78)                 | (0.16)             | 0.09               | (0.15)             |
|   | (0.05)              | (1.25)                            | (0.59)                 | (0.12)               | (0.07)          | (0.59)                  | (0.21)              | (0.29)                 |                    |                        |                    | 0.06               | (0.18)             |
|   | (0.10)              |                                   | (0.79)                 |                      | (0.09)          | (0.72)                  | (0.22)              | (1.70)                 |                    |                        |                    | 0.05               | (0.37)             |
|   | (0.15)              |                                   |                        |                      | (0.41)          |                         | (0.65)              |                        |                    |                        |                    | (0.04)             |                    |
| March   | Big 4               |                                   |                        | Big 4                | Big 4           |                         |                     |                        |                    |                        |                    | Big 4              |                    |
| <b>History of Change on record in Current month from Previous month</b> |                     |                                   |                        |                      |                 |                         |                     |                        |                    |                        |                    |                    |                    |
| # of tests  | 19                  | 17                                | 19                     | 16                   | 21              | 19                      | 20                  | 18                     | 14                 | 14                     | 14                 | 20                 | 19                 |
| # with gain in height   | 13                  | 8                                 | 10                     | 13                   | 17              | 10                      | 13                  | 13                     | 7                  | 7                      | 9                  | 19                 | 12                 |
| History # times well gained on March                                    | 13/19               | 8/17                              | 10/19                  | 13/16                | 17/21           | 10/19                   | 13/20               | 13/18                  | 7/14               | 7/14                   | 9/14               | 19/20              | 12/19              |

**Section 5 - "Raw" aquifer readings for the Big 4 wells.** A very strong recharge continues!

