



## **PRAIRIE RESEARCH INSTITUTE**

Illinois State Water Survey  
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# OPERATION OF THE IMPERIAL VALLEY WATER AUTHORITY (IVWA) PRECIPITATION NETWORK

Monthly Progress Report for April 2021  
May 19, 2021

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### Raingage Network Operations

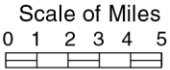
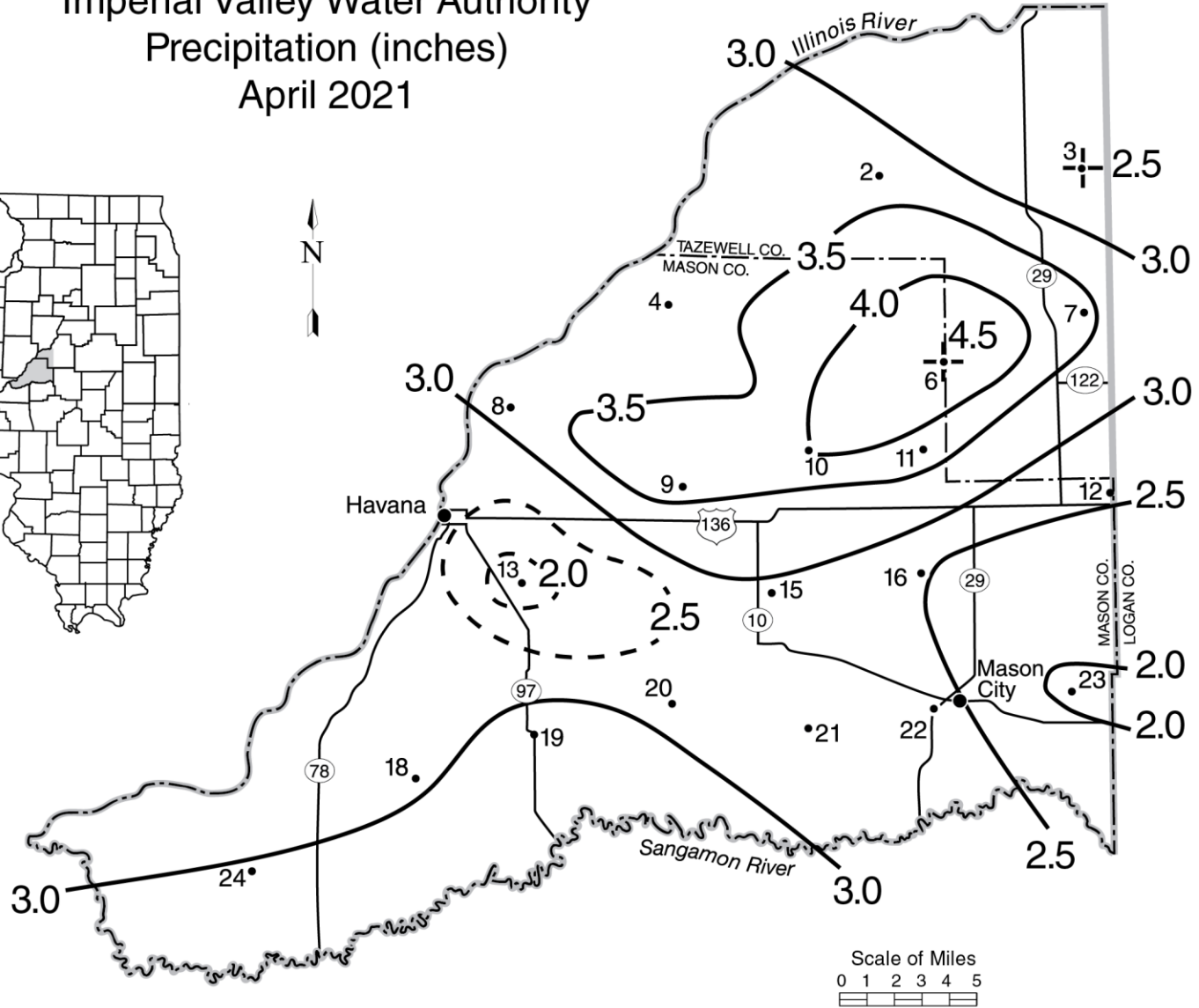
On May 5, Erin downloaded the data, weighed the precipitation collections, and emptied, cleaned, and tared the buckets for all gages except gages #9 and #12. Eight gages were calibrated, and the correlation coefficients were as follows: gages #18 and #20 had 1.00000; gages #19, #21, #22, and #23 had 0.99999; gage #15 had 0.99899, and gage #16 had 0.99989. Gage #18 data were not retrieved. The precipitation for gage #18 in the table and map in this report are estimated.

Precipitation data for gages #9 and #12 are downloaded by modem every hour to an Illinois State Water Survey server.

### Data Analysis

The average network precipitation for April 2021 was 3.04 inches, which is below the previous 28-year network average. Monthly gage totals varied 2.71 inches across the network, from 1.77 inches at site #13, southeast of Havana, to 4.48 inches at site #6, southeast of Manito. The National Centers for Environmental Information (NCEI) issued the new 30-year (1991-2020) average precipitation amounts in April 2021 for most precipitation sites. The 30-year (1991-2020) average precipitation for the month of April at Havana and Mason City are 4.22 and 3.73 inches, respectively. The April 2021 network average of 3.04 inches is 86 percent of the 28-year (1993–2020) IVWA April network average of 3.60 inches.

# Imperial Valley Water Authority Precipitation (inches) April 2021



April 2021 Daily and Monthly Precipitation Amounts (inches), Imperial Valley Network

| DAY     | G 2  | G 3  | G 4  | G 6  | G 7  | G 8  | G 9  | G 10 | G 11 | G 12 | G 13 | G 15 | G 16 | G 18  | G 19 | G 20 | G 21 | G 22 | G 23 | G 24 |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|
| 1       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 2       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 3       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 4       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 5       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 6       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 7       | 0.27 | 0.21 | 0.30 | 0.40 | 0.33 | 0.30 | 0.03 | 0.27 | 0.29 | 0.26 | ---- | 0.53 | 0.24 | 0.14* | 0.46 | 0.30 | 0.51 | 0.49 | 0.30 | 0.50 |
| 8       | 0.08 | 0.17 | 0.03 | 0.17 | 0.06 | 0.05 | 0.24 | 0.13 | 0.16 | 0.12 | 0.08 | 0.06 | 0.15 | 0.12* | 0.05 | 0.11 | 0.05 | 0.13 | 0.13 | 0.15 |
| 9       | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 0.01 | ---- | ---- | ----  | ---- | ---- | ---- | ---- | 0.01 | ---- |
| 10      | 0.65 | 0.51 | 0.62 | 0.57 | 0.33 | 0.58 | 0.48 | 0.48 | 0.43 | 0.28 | 0.53 | 0.47 | 0.41 | 0.49* | 0.54 | 0.59 | 0.49 | 0.43 | 0.28 | 0.67 |
| 11      | 0.55 | 0.23 | 0.67 | 0.66 | 0.36 | 0.60 | 0.86 | 0.65 | 0.47 | 0.47 | 0.56 | 0.78 | 0.62 | 0.63* | 0.64 | 0.72 | 0.74 | 0.74 | 0.57 | 0.34 |
| 12      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 13      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 14      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 15      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 16      | 0.01 | ---- | ---- | ---- | ---- | ---- | ---- | 0.02 | ---- | 0.01 | 0.01 | ---- | ---- | 0.01* | ---- | ---- | ---- | ---- | ---- | 0.01 |
| 17      | 0.02 | ---- | ---- | ---- | ---- | 0.03 | 0.01 | 0.01 | ---- | ---- | ---- | ---- | ---- | ----  | 0.01 | ---- | ---- | 0.02 | ---- | 0.10 |
| 18      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 19      | ---- | ---- | 0.02 | ---- | ---- | 0.01 | 0.01 | ---- | ---- | 0.01 | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 20      | 0.15 | 0.09 | 0.11 | 0.17 | 0.12 | 0.17 | 0.05 | 0.06 | 0.05 | 0.04 | 0.01 | 0.10 | 0.04 | 0.04* | 0.17 | 0.02 | 0.02 | 0.11 | 0.23 | 0.14 |
| 21      | 0.01 | 0.03 | ---- | 0.01 | 0.01 | ---- | 0.01 | ---- | 0.01 | ---- | ---- | 0.02 | 0.02 | ----  | 0.02 | ---- | ---- | 0.01 | ---- | ---- |
| 22      | 0.01 | ---- | 0.01 | ---- | ---- | ---- | 0.01 | ---- | 0.01 | ---- | ---- | 0.01 | 0.01 | ----  | 0.02 | ---- | ---- | 0.01 | ---- | ---- |
| 23      | 0.03 | ---- | 0.04 | 0.05 | 0.03 | 0.05 | ---- | 0.02 | ---- | ---- | 0.02 | 0.02 | 0.03 | 0.01* | ---- | 0.01 | ---- | 0.03 | ---- | 0.02 |
| 24      | 0.09 | 0.07 | 0.07 | 0.13 | 0.09 | 0.08 | 0.07 | 0.12 | 0.10 | 0.06 | 0.02 | 0.13 | 0.07 | 0.06* | 0.16 | 0.16 | 0.14 | 0.12 | 0.07 | 0.25 |
| 25      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 26      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 27      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| 28      | 1.31 | 1.04 | 1.20 | 2.27 | 2.26 | 1.39 | 1.95 | 2.06 | 2.13 | 1.19 | 0.31 | 0.72 | 0.75 | 1.22* | 1.13 | 0.81 | 0.65 | 0.41 | 0.25 | 0.77 |
| 29      | 0.15 | 0.13 | 0.06 | 0.05 | 0.04 | 0.07 | 0.10 | 0.16 | 0.10 | 0.08 | 0.22 | 0.07 | 0.18 | 0.15* | 0.09 | 0.11 | 0.09 | 0.07 | 0.07 | 0.13 |
| 30      | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ----  | ---- | ---- | ---- | ---- | ---- | ---- |
| Monthly | 3.33 | 2.48 | 3.13 | 4.48 | 3.63 | 3.33 | 3.82 | 3.98 | 3.75 | 2.52 | 1.77 | 2.91 | 2.52 | 2.87* | 3.29 | 2.83 | 2.69 | 2.57 | 1.91 | 3.08 |

Network Average = 3.04 Imperial Valley Network

Note: \* indicates estimated data