



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 June 2019

July 11, 2019

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Raingage Network Operations

On June 25, 2019, Dana and Kevin reconfigured the raingage station equipment at sites MTOW-6 (raingage #9) and MTOW-10 (raingage #12) to transmit the groundwater level and raingage data each hour to ISWS. The gage at site #9 was moved approximately 38 feet southwest to establish this connection. Gage #9 calibrated with a correlation coefficient of 0.99999. Gage #12 calibrated with a correlation coefficient of 1.00000.

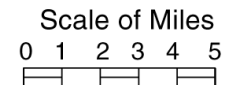
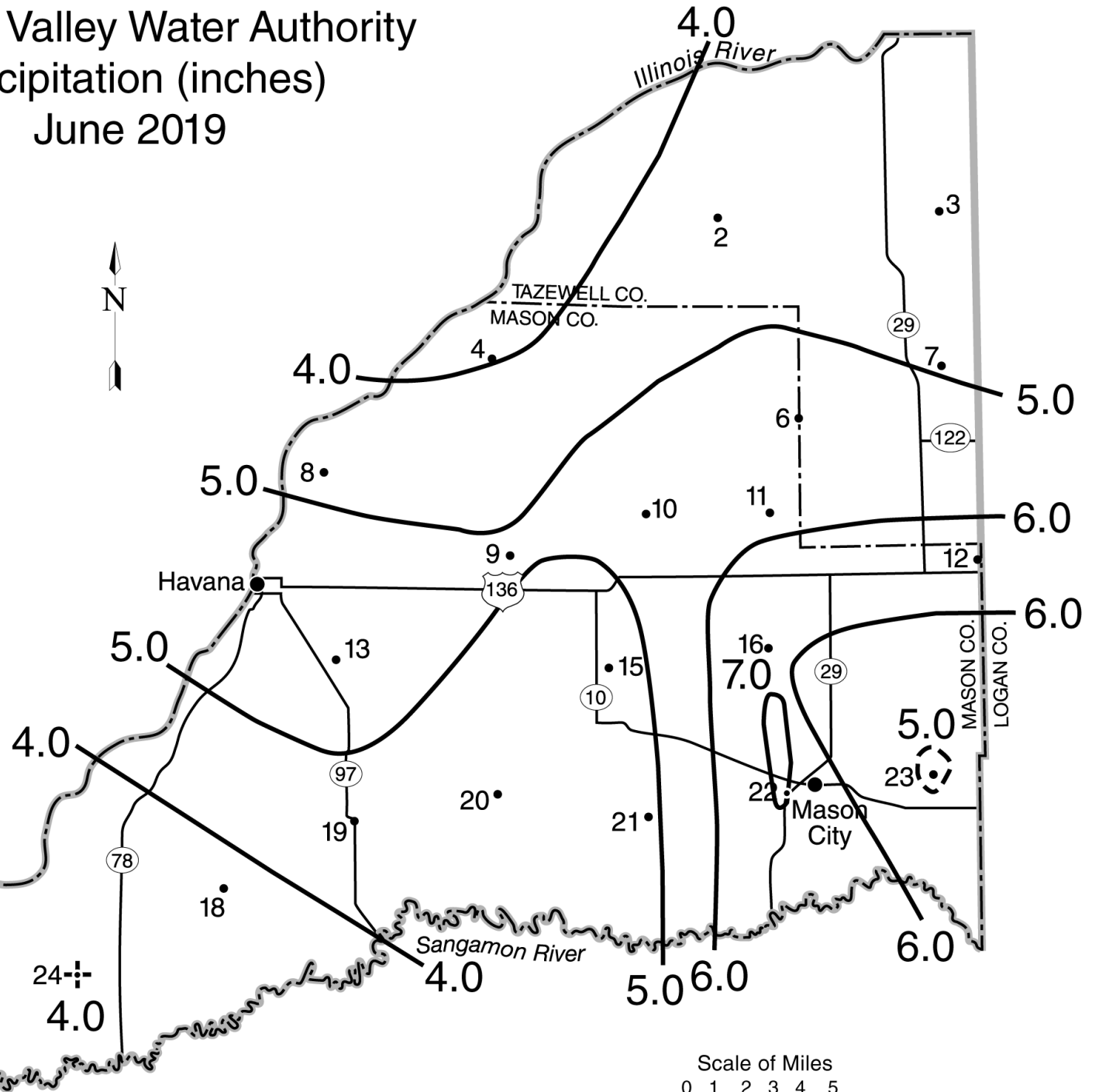
On July 1, 2019, Dana and Erin serviced all gages and downloaded the digital data. All buckets were weighed and emptied. New pictures were taken of gages #9 and #12. The gage at site #11 was removed because of persistent data issues and replaced with a different gage. Calibrations were performed at sites #8, #10, #11, #13, and #16 with correlation coefficients of 1.0000, 1.0000, 1.0000, 0.99998, and 0.99999, respectively. Site surveys were performed and pictures were taken at sites #8, #10, #11, and #13.

Data Analysis

The average network precipitation for June 2019 was 5.07 inches, which is above the previous 26-year network average. The largest monthly gage total was in the southeastern portion of the network. Monthly gage totals varied 3.45 inches across the network, from 3.69 inches at site #18, near Kilbourne, to 7.14 inches at site #22, near Mason City. The 1981–2010 30-year average precipitation amounts for June at Havana

and Mason City are 4.36 and 4.04 inches, respectively. The June 2019 network average of 5.07 inches is 120 percent of the 26-year (1993–2018) IVWA June network average of 4.24 inches.

Imperial Valley Water Authority Precipitation (inches) June 2019



June 2019 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	----	----	----	----	----	----	----	----	----	----	----	----	0.01	----	0.03	----	----	----	----	0.12
2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
4	0.09	0.01	----	----	----	----	----	----	----	----	----	----	0.01	----	0.01	----	0.02	----	----	0.02
5	0.08	----	----	0.42	0.31	0.15	0.14	0.39	0.01	0.31	----	0.24	0.23	0.03	----	0.02	0.03	0.54	0.42	0.64
6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	0.04	----	----	----	----	0.01
11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
12	0.11	0.05	0.06	0.05	0.03	0.18	0.01	0.05	0.05	----	0.05	0.02	----	0.02	0.05	0.03	0.01	0.03	----	0.10
13	0.01	0.01	0.02	0.01	----	----	----	----	----	----	0.02	----	----	0.01	0.01	----	0.01	----	----	----
14	0.04	0.14	0.01	0.01	----	0.19	0.07	0.06	0.05	0.01	0.12	0.04	0.01	0.08	0.23	0.07	0.04	0.11	0.11	0.29
15	1.12	1.20	1.36	1.69	1.34	1.42	2.22	2.09	2.05	1.34	1.12	1.15	0.91	1.43	1.33	1.38	1.04	1.15	0.96	1.05
16	----	----	0.01	0.01	0.02	----	----	0.02	----	----	0.01	----	----	----	----	----	0.02	0.02	----	----
17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
18	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
19	1.12	1.34	0.97	1.92	1.44	1.44	0.80	1.01	1.29	1.47	1.13	0.80	3.00	0.51	0.53	1.07	2.30	3.37	1.26	0.35
20	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
21	0.72	1.39	0.77	0.90	0.51	0.53	1.14	1.08	1.21	0.97	0.95	1.08	1.93	0.71	0.80	0.74	0.51	0.75	1.16	0.69
22	0.35	0.28	0.65	0.47	0.53	0.77	0.59	0.74	0.74	0.95	0.82	0.71	0.43	0.85	1.21	0.68	0.40	0.36	0.26	0.42
23	0.02	----	----	----	----	0.03	0.03	0.03	----	----	0.01	0.02	----	----	0.03	0.05	0.04	0.01	0.02	0.06
24	0.14	0.26	0.02	0.15	0.64	0.04	0.07	0.13	0.34	0.79	0.05	0.10	0.38	0.05	0.22	0.18	0.19	0.46	0.54	0.07
25	0.03	0.03	0.05	0.06	0.01	----	0.09	0.07	0.03	0.08	----	0.04	----	----	0.08	----	0.01	0.07	----	0.07
26	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	0.02	0.13	0.07	0.04
27	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
28	0.19	----	0.01	----	----	----	----	----	----	----	1.03	----	----	----	0.16	----	0.12	0.11	0.04	----
29	----	----	0.02	0.01	----	0.02	0.01	----	----	----	0.03	----	----	----	0.03	----	0.01	0.02	0.02	----
30	0.08	0.04	0.01	0.01	0.05	0.16	----	0.12	----	0.44	----	0.03	0.02	----	0.01	0.01	----	0.01	----	0.08
Monthly	4.10	4.75	3.96	5.71	4.88	4.93	5.17	5.79	5.77	6.36	5.34	4.23	6.93	3.69	4.77	4.23	4.77	7.14	4.86	4.01
Network Average =	5.07		Imperial Valley Network																	