



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 July 2020
August 17, 2020

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Raingage Network Operations

On August 4, Erin visited all 19 gages, weighed and emptied the collections and cleaned and established a new tare for each bucket. Some damage was discovered on the gage #12 housing. The gage shell housing appears to have been pried off, the metal around the screw holes that secure the housing were ripped. The bucket was also ajar on the gage inside. Gages #7 and #10 were calibrated with 0.99997 and 1.00000 correlation coefficients. All gages operated properly. Precipitation data for gages #9 and #12 are downloaded by modem every hour.

On August 6, Erin calibrated eight gages. Gage #20 had a coefficient of 1.00000. Gages #13, #15, #16, and #22 had a coefficient of 0.99999. And gages #21 and #23 had coefficients of 0.99998 and 0.99993, respectively.

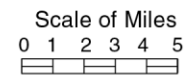
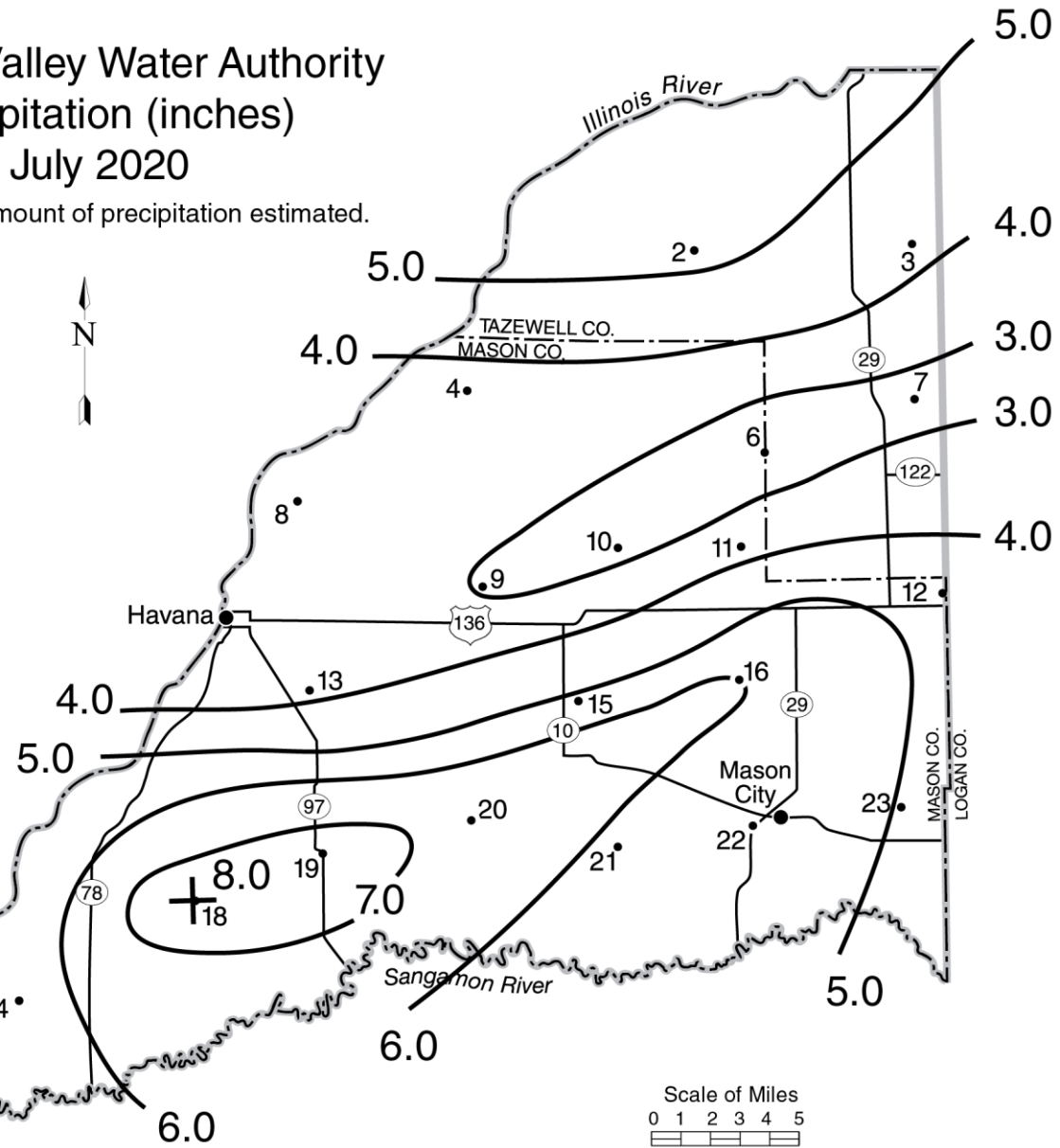
Precipitation data from gage #24 near Snicarte, IL is missing from July 12 thru July 21, 2020. On the morning of July 12 between midnight and 1:00 am, the Water, Atmospheric, Resources Monitoring (WARM) gage and wind screen (gage #24) were stolen. A replacement precipitation station was installed on July 21.

Data Analysis

The average network precipitation for July 2020 was 4.60 inches, which is above the previous 27-year network average. Monthly gage totals varied 5.33 inches across the network, from 2.67 inches at site #7, southwest of Green Valley, to 8.00 inches at site #18, south of the Sand Prairie–Scrub Oak Nature Preserve. Significant rain events on July 15 and July 27 contributed to this large variation. The four gages with the least precipitation are adjacent to each other forming a linear region of lower precipitation. Similarly, the three gages with the most precipitation formed a linear region of high precipitation. The 1981–2010 30-year average precipitation amounts for July at Havana and Mason City are 4.36 and 4.60 inches, respectively. The July 2020 network average of 4.60 inches is 122 percent of the 27-year (1993–2019) IVWA July network average of 3.76 inches.

Imperial Valley Water Authority Precipitation (inches) July 2020

* Significant amount of precipitation estimated.



July 2020 Daily and Monthly Precipitation Amounts (inches), Imperial Valley Network

1	0.01	0.01	0.01	----	0.03	0.10	0.12	----	----	0.07	0.08	0.14	0.03	0.01	0.05	0.13	0.21	0.05	----	0.06	
2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
9	0.77	0.95	0.85	0.18	0.53	0.59	0.01	0.05	0.44	----	0.14	0.15	0.06	0.60	0.61	0.29	0.17	0.05	----	0.30	
10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
11	----	0.71	----	0.01	0.12	0.07	----	0.09	----	0.07	----	0.10	----	----	0.01	0.03	----	0.61	0.67	----	----
12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
13	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
15	4.10	2.14	2.40	1.17	1.43	1.69	1.75	1.32	2.01	2.36	1.47	1.74	2.20	1.79	1.24	1.38	1.99	2.31	2.18	----	----
16	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
18	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
19	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
20	----	----	----	----	----	----	----	----	----	----	----	0.01	----	0.19	0.05	0.01	----	----	----	----	----
21	0.16	0.19	0.15	0.28	0.23	0.37	0.25	0.30	0.39	0.19	0.59	1.10	0.83	1.66	2.02	1.38	1.22	1.10	1.33	0.16	----
22	0.01	0.09	0.01	0.18	0.17	0.02	0.05	0.14	0.19	0.15	0.07	0.16	0.04	0.10	0.11	0.11	0.07	0.03	0.01	0.01	----
23	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
24	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
26	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
27	0.03	0.08	0.06	0.14	0.06	0.30	0.35	0.43	0.56	1.70	0.88	1.28	2.51	3.23	2.88	2.77	1.87	1.21	0.60	1.64	----
28	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
29	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
30	0.17	0.05	0.26	0.28	0.10	0.50	0.43	0.35	0.38	0.06	0.51	0.43	0.38	0.42	0.62	0.54	0.24	0.26	0.18	0.45	----
31	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Monthly	5.25	4.22	3.74	2.24	2.67	3.64	2.96	2.68	3.97	4.60	3.74	5.11	6.05	8.00	7.59	6.64	5.77	5.62	4.97	2.62	----
Network Average =	4.60	Imperial Valley Network																			