

Water-Data Report 2013

414757087490401 SUMMIT CONDUIT AT SUMMIT, IL

Upper Illinois Basin
Des Plaines Subbasin

LOCATION.--Lat 41°47'57", long 87°49'04" referenced to North American Datum of 1983, in SE ¼ SW ¼ NW ¼ sec.12, T.38 N., R.12 E., Cook County, IL, Hydrologic Unit 07120004, Conduit receiving flows from Summit Ditch and East Avenue Ditch, passing under Des Plaines River, and discharging to Chicago Sanitary Ship Canal at river mile 313.3, 0.3 miles northeast of west Lawndale Avenue near Summit, IL.

DRAINAGE AREA.--5.4 square miles.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--

SURFACE-WATER DISCHARGE AND STAGE

DISCHARGE: October 2010 to February 2013.

GAGE.--Water-stage recorder, acoustic-velocity meter, satellite telemeter, and crest-stage gage. Datum of gage is 578.858 ft. above NAVD 1988.

REMARKS.--Discharge records fair except for those greater than 18 ft³/s and estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--

SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 220 ft³/s, based on a stage-area and velocity rating, July 23, 2011, gage height, 6.95 ft; maximum gage height, 7.18 ft, May 29, 2011; minimum daily discharge, 0.61 ft³/s, Jan. 23, 2011.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.4	5.9	4.9	3.7	12	---	---	---	---	---	---	---
2	4.6	5.0	3.9	3.6	7.9	---	---	---	---	---	---	---
3	4.9	4.6	5.2	4.9	2.3	---	---	---	---	---	---	---
4	4.6	3.8	5.0	6.7	4.9	---	---	---	---	---	---	---
5	3.9	4.9	5.0	3.2	8.7	---	---	---	---	---	---	---
6	e4.2	5.2	4.7	3.0	8.9	---	---	---	---	---	---	---
7	e4.0	5.8	5.6	4.2	21	---	---	---	---	---	---	---
8	e3.8	5.0	5.2	7.1	17	---	---	---	---	---	---	---
9	e3.5	4.9	5.3	8.4	8.0	---	---	---	---	---	---	---
10	e5.8	8.5	5.4	10	19	---	---	---	---	---	---	---
11	5.3	9.0	5.2	27	19	---	---	---	---	---	---	---
12	5.0	10	6.4	9.3	11	---	---	---	---	---	---	---
13	10	5.5	6.1	10	9.5	---	---	---	---	---	---	---
14	22	5.3	5.8	7.4	8.8	---	---	---	---	---	---	---
15	7.8	5.2	6.5	4.7	7.7	---	---	---	---	---	---	---
16	4.4	5.2	4.7	2.4	6.7	---	---	---	---	---	---	---
17	10	3.9	5.5	2.7	6.6	---	---	---	---	---	---	---
18	12	3.8	5.5	3.2	7.1	---	---	---	---	---	---	---
19	9.6	5.4	5.3	6.8	5.0	---	---	---	---	---	---	---
20	5.8	5.1	46	7.1	2.0	---	---	---	---	---	---	---
21	4.2	5.3	16	6.7	5.3	---	---	---	---	---	---	---
22	7.0	5.1	7.5	5.9	7.9	---	---	---	---	---	---	---
23	7.5	4.3	5.5	3.9	7.3	---	---	---	---	---	---	---
24	5.3	3.7	4.8	3.7	7.7	---	---	---	---	---	---	---
25	12	3.7	4.5	4.1	8.1	---	---	---	---	---	---	---
26	13	4.9	5.7	5.8	9.4	---	---	---	---	---	---	---
27	e5.9	5.1	6.7	7.5	13	---	---	---	---	---	---	---
28	e4.1	4.5	6.7	13	11	---	---	---	---	---	---	---
29	e5.0	5.9	6.5	20	---	---	---	---	---	---	---	---
30	6.1	4.7	6.3	47	---	---	---	---	---	---	---	---
31	5.8	---	5.4	17	---	---	---	---	---	---	---	---
Total	211.5	159.2	222.8	270.0	262.8	---	---	---	---	---	---	---
Mean	6.82	5.31	7.19	8.71	9.39	---	---	---	---	---	---	---
Max	22	10	46	47	21	---	---	---	---	---	---	---
Min	3.5	3.7	3.9	2.4	2.0	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2010 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.12	7.09	7.05	7.12	8.45	7.24	9.54	8.93	8.55	6.48	7.20	5.92
Max	6.82	9.04	7.73	8.71	10.2	8.44	12.3	11.6	13.2	7.34	7.30	6.66
(WY)	(2013)	(2012)	(2012)	(2013)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2012)	(2011)
Min	5.47	5.31	6.25	5.28	5.89	6.05	6.74	6.26	3.92	5.61	7.11	5.18
(WY)	(2011)	(2013)	(2011)	(2011)	(2012)	(2012)	(2012)	(2012)	(2012)	(2012)	(2011)	(2012)

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SUMMARY STATISTICS

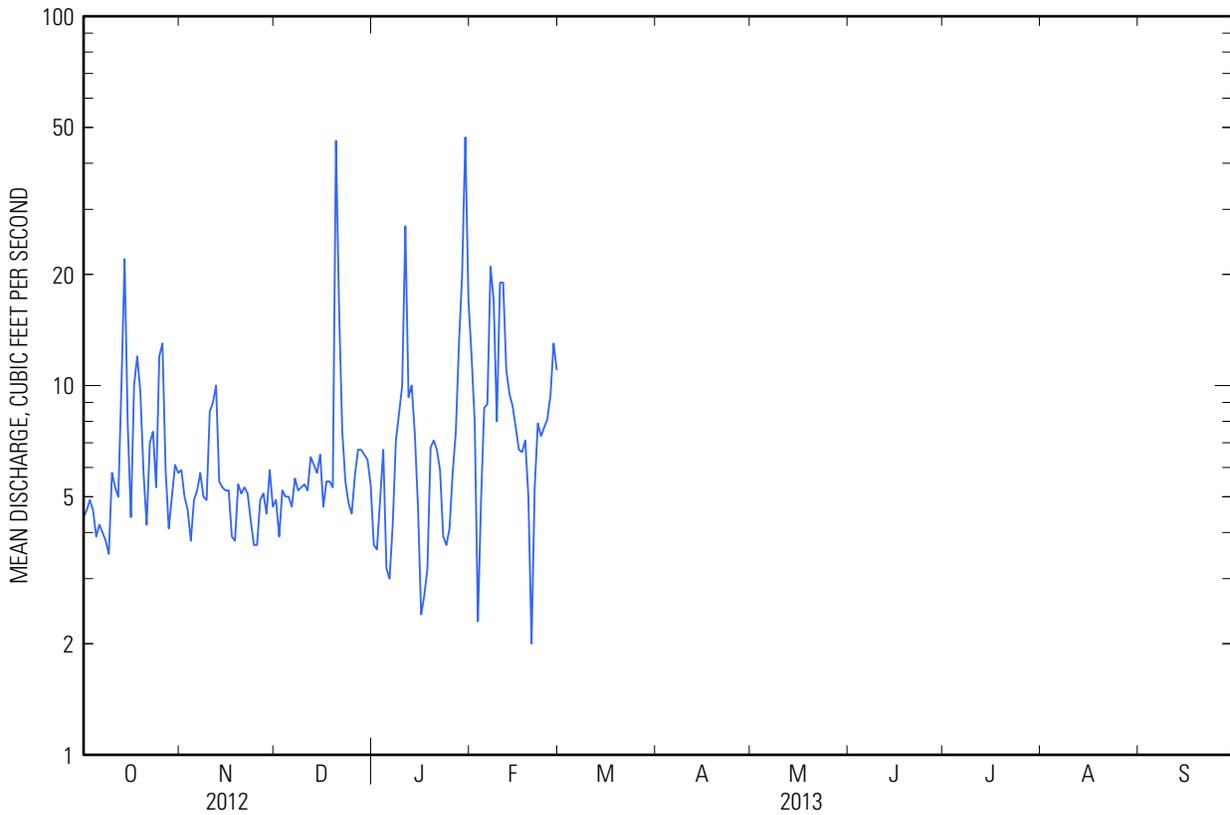
	Calendar Year 2012	Water Years 2010 - 2013
Annual total	2,249.5	
Annual mean	6.15	
Highest daily mean	51 Jan 23	^A 120 Jun 9, 2011
Lowest daily mean	2.1 B	0.61 Jan 23, 2011
Annual seven-day minimum	3.1 Jun 10	2.1 Jan 20, 2011
Maximum peak flow		^C 220 Jul 23, 2011
Maximum peak stage		^D 7.18 May 29, 2011
Instantaneous low flow		0.61 Jan 23, 2011
10 percent exceeds	9.3	11
50 percent exceeds	5.0	5.6
90 percent exceeds	3.5	3.7

^AEstimated.

^B May 23 and June 16.

^C Gage height, 6.95 ft.

^D Discharge, 175 ft³/s.



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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.62	1.70	1.60	1.48	2.29	---	---	---	---	---	---	---
2	1.66	1.61	1.48	1.47	1.89	---	---	---	---	---	---	---
3	1.69	1.56	1.62	1.58	1.26	---	---	---	---	---	---	---
4	1.67	1.46	1.60	1.73	1.54	---	---	---	---	---	---	---
5	1.59	1.59	1.61	1.35	1.96	---	---	---	---	---	---	---
6	---	1.62	1.58	1.33	1.99	---	---	---	---	---	---	---
7	---	1.71	1.67	1.49	2.73	---	---	---	---	---	---	---
8	---	1.61	1.62	1.77	2.57	---	---	---	---	---	---	---
9	---	1.60	1.63	1.88	1.89	---	---	---	---	---	---	---
10	---	1.93	1.64	1.97	2.54	---	---	---	---	---	---	---
11	1.86	2.01	1.62	2.95	2.70	---	---	---	---	---	---	---
12	1.75	2.14	1.76	2.00	2.18	---	---	---	---	---	---	---
13	2.13	1.69	1.74	2.06	2.04	---	---	---	---	---	---	---
14	2.97	1.67	1.64	1.84	1.99	---	---	---	---	---	---	---
15	1.99	1.65	1.74	1.53	1.97	---	---	---	---	---	---	---
16	1.56	1.66	1.60	1.20	1.91	---	---	---	---	---	---	---
17	1.99	1.46	1.63	1.25	1.89	---	---	---	---	---	---	---
18	2.28	1.47	1.60	1.29	1.87	---	---	---	---	---	---	---
19	2.11	1.66	1.58	1.78	1.58	---	---	---	---	---	---	---
20	1.73	1.63	3.85	1.80	1.20	---	---	---	---	---	---	---
21	1.53	1.66	2.61	1.79	1.62	---	---	---	---	---	---	---
22	1.84	1.61	1.93	1.70	1.95	---	---	---	---	---	---	---
23	1.89	1.56	1.66	1.45	1.88	---	---	---	---	---	---	---
24	1.67	1.47	1.57	1.43	1.91	---	---	---	---	---	---	---
25	1.92	1.47	1.53	1.51	1.95	---	---	---	---	---	---	---
26	2.27	1.60	1.70	1.78	2.07	---	---	---	---	---	---	---
27	---	1.63	1.82	1.93	2.37	---	---	---	---	---	---	---
28	---	1.55	1.80	2.31	2.27	---	---	---	---	---	---	---
29	---	1.72	1.79	2.32	---	---	---	---	---	---	---	---
30	1.76	1.58	1.79	3.99	---	---	---	---	---	---	---	---
31	1.72	---	1.68	2.61	---	---	---	---	---	---	---	---
Mean	---	1.64	1.76	1.82	2.00	---	---	---	---	---	---	---
Max	---	2.14	3.85	3.99	2.73	---	---	---	---	---	---	---
Min	---	1.46	1.48	1.20	1.20	---	---	---	---	---	---	---

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