Water-Data Report 2012

05529500 McDONALD CREEK NEAR MOUNT PROSPECT, IL

Upper Illinois Basin
Des Plaines Subbasin

LOCATION.--Lat 42°05′43″, long 87°54′46″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.23, T.42 N., R.11 E., Cook County, IL, Hydrologic Unit 07120004, on left bank at upstream side of bridge on Camp McDonald Road, 2.5 mi northeast of Mount Prospect, and at mile 2.0.

DRAINAGE AREA.--7.93 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: August 1952 to current year.
STAGE: Water years 1994 to current year.

REVISED RECORDS.--WSP 1915: 1958. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder, phone telemeter, and crest-stage gage. Datum of gage is 639.12 ft above NGVD of 1929 (Cook County Highway Department bench mark) (638.87 ft NAVD 1988). Prior to May 9, 1978, at site 55 ft downstream of present location at same datum. May 1978 to Mar. 1994, at present location. Mar. 7 to Sept. 30, 1994, at temporary site 50 ft upstream of present location at same datum. Oct. 1994, moved back to present location.

REMARKS.--Discharge records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 806 ft^3/s, Aug. 14, 1987, gage height, 8.08 ft; no flow at times in several years.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 05529500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/05529500.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.7	1.2	2.8	4.9	7.7	14	4.3	4.9	16	0.43	1.5	0.32
2	3.9	1.0	2.4	3.6	6.5	12	3.9	6.0	7.7	0.28	0.93	0.31
3	2.5	2.5	3.8	3.5	5.4	12	3.5	5.2	4.8	0.22	0.73	0.29
4	1.7	2.3	6.1	3.0	4.7	8.8	3.0	7.1	3.0	0.20	0.76	2.2
5	1.5	1.6	4.2	2.8	4.1	6.9	2.6	4.9	2.0	0.62	0.68	2.7
6	0.82	1.3	3.6	2.6	4.0	6.3	1.9	8.6	1.6	0.18	0.56	1.4
7	0.66	1.3	2.8	2.0	3.5	5.1	1.9	12	1.4	0.09	0.44	1.0
8	0.67	20	2.3	1.5	3.3	11	1.5	8.8	0.92	0.24	0.37	1.2
9	0.61	35	1.6	1.7	3.1	7.2	1.3	6.3	0.74	0.06	2.6	3.0
10	0.69	16	1.1	1.4	2.8	6.0	1.1	5.0	0.54	0.32	11	1.6
11	0.89	8.0	0.92	1.5	e2.8	5.1	0.92	3.9	0.46	0.05	5.2	1.0
12	0.94	5.3	0.72	2.1	e2.6	7.0	1.5	2.7	0.42	0.13	2.8	0.61
13	1.7	3.9	0.68	2.7	2.4	6.8	1.1	2.3	0.26	0.72	2.6	0.44
14	1.2	2.5	41	2.2	2.5	5.6	1.4	2.0	0.28	3.4	2.3	0.57
15	0.86	1.7	32	2.2	2.3	5.2	35	1.6	0.32	0.49	1.7	0.42
16	1.5	1.1	16	2.7	3.8	4.5	15	0.99	4.2	0.21	2.7	0.29
17	1.0	0.94	13	5.2	3.3	4.1	17	1.0	8.4	0.11	2.1	0.91
18	0.78	1.2	11	5.1	2.8	3.7	12	1.0	3.1	2.9	1.0	0.78
19	2.9	1.3	9.0	4.0	2.5	3.4	7.4	0.97	1.2	17	0.66	0.43
20	6.4	0.96	7.2	4.3	2.4	3.4	6.0	0.91	0.97	8.9	1.2	0.21
21	3.6	0.98	5.8	e3.8	2.5	3.0	4.9	0.59	2.3	4.1	1.3	0.53
22	2.5	1.5	4.6	e3.3	2.5	3.8	6.3	0.59	1.9	2.0	0.88	0.46
23	2.0	2.0	3.9	31	3.3	22	6.8	0.61	1.1	1.4	0.61	0.14
24	5.5	1.7	3.4	18	8.0	20	5.5	0.73	0.80	7.7	0.46	0.11
25	3.7	1.5	3.1	11	7.2	11	4.8	0.75	0.46	4.5	0.38	0.11
26	2.1	7.6	2.6	8.6	7.3	7.1	4.3	7.2	0.53	3.0	1.8	0.14
27	1.8	23	2.5	7.4	8.2	5.8	3.3	5.1	0.30	1.9	2.7	0.07
28	1.7	10	2.1	7.2	7.0	4.9	4.4	3.2	0.26	1.1	1.8	0.07
29	1.1	6.2	2.3	6.2	21	3.8	4.7	1.7	0.90	0.63	1.3	0.08
30	1.1	3.9	5.1	5.6	---	6.0	6.3	1.0	0.74	0.56	0.75	0.09
31	1.8	---	5.6	7.6	---	4.9	---	17	---	2.4	0.47	---
Total	63.82	167.48	203.22	168.7	139.5	230.4	173.62	124.64	67.60	65.84	54.28	21.48
Mean	2.06	5.58	6.56	5.44	4.81	7.43	5.79	4.02	2.25	2.12	1.75	0.72
Max	6.4	35	41	31	21	22	35	17	16	17	11	3.0
Min	0.61	0.94	0.68	1.4	2.3	3.0	0.92	0.59	0.26	0.05	0.37	0.07
Cfsm	0.26	0.70	0.83	0.69	0.61	0.94	0.73	0.51	0.28	0.27	0.22	0.09
In.	0.30	0.79	0.95	0.79	0.65	1.08	0.81	0.58	0.32	0.31	0.25	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.25	5.08	5.44	4.58	6.58	10.1	11.6	8.27	7.31	5.01	5.81	4.68
Max	31.2	28.5	27.2	20.7	26.5	36.2	35.0	31.3	33.5	26.2	40.0	41.6
(WY)	(2002)	(1986)	(1983)	(1999)	(1997)	(1979)	(1999)	(1996)	(1970)	(1957)	(2007)	(2008)
Min	0.00	0.00	0.00	0.00	0.00	1.58	2.05	1.46	0.50	0.02	0.00	0.00
(WY)	(1953)	(1954)	(1954)	(1954)	(1954)	(1956)	(1989)	(1988)	(1963)	(1953)	(1953)	(1953)

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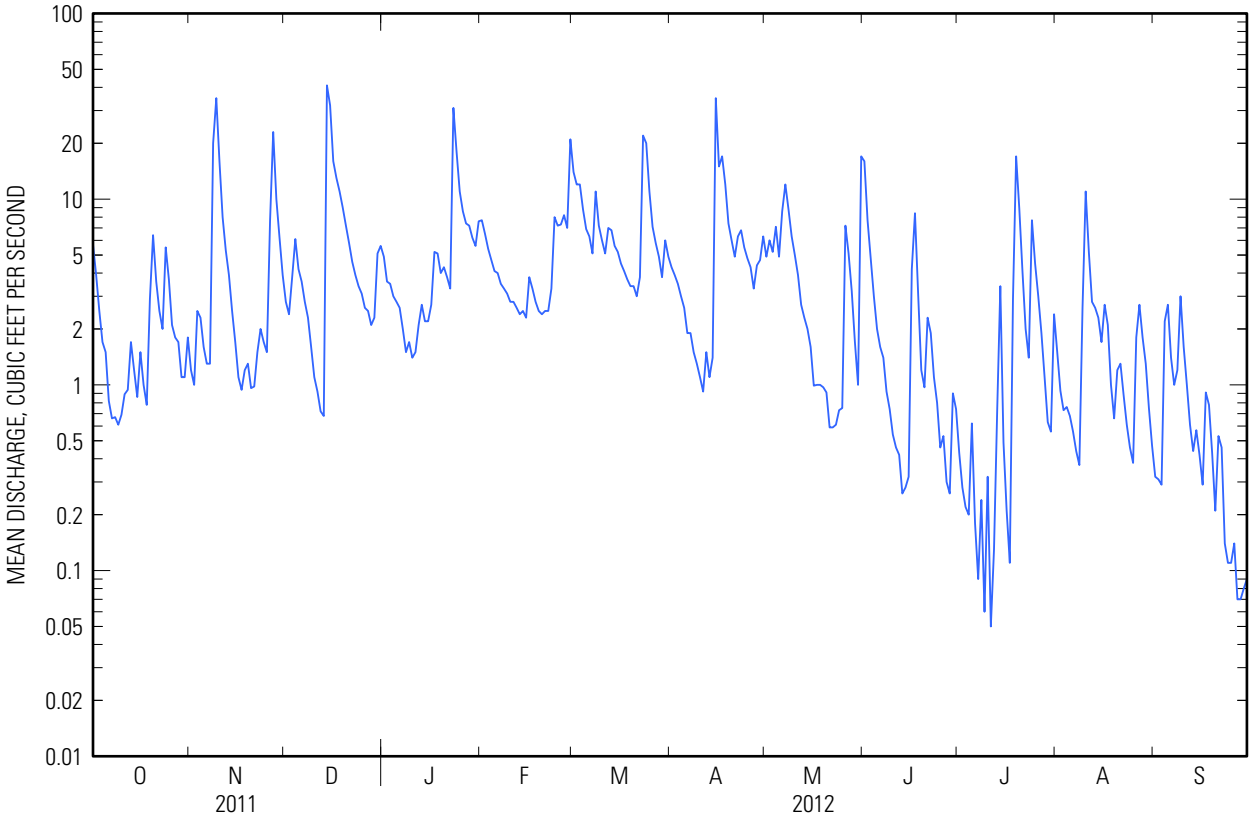
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1952 - 2012	
Annual total	3,700.78		1,480.58			
Annual mean	10.1		4.05		6.56	
Highest annual mean					13.0	2007
Lowest annual mean					1.17	1963
Highest daily mean	331	Jul 23	41	Dec 14	476	Aug 14, 1987
Lowest daily mean	0.32	Sep 15	0.05	Jul 11	0.00	[A]
Annual seven-day minimum	0.46	Sep 11	0.10	Sep 24	0.00	Sep 12, 1952
Maximum peak flow			72	Apr 15	806	Aug 14, 1987
Maximum peak stage			3.14	Apr 15	8.08	Aug 14, 1987
Instantaneous low flow			0.02	[B]		
Annual runoff (cfsm)	1.28		0.510		0.828	
Annual runoff (inches)	17.36		6.95		11.25	
10 percent exceeds	24		8.5		15	
50 percent exceeds	4.4		2.5		2.4	
90 percent exceeds	1.1		0.44		0.11	

[A] At times in several years.
[B] July 9, 11, 12.



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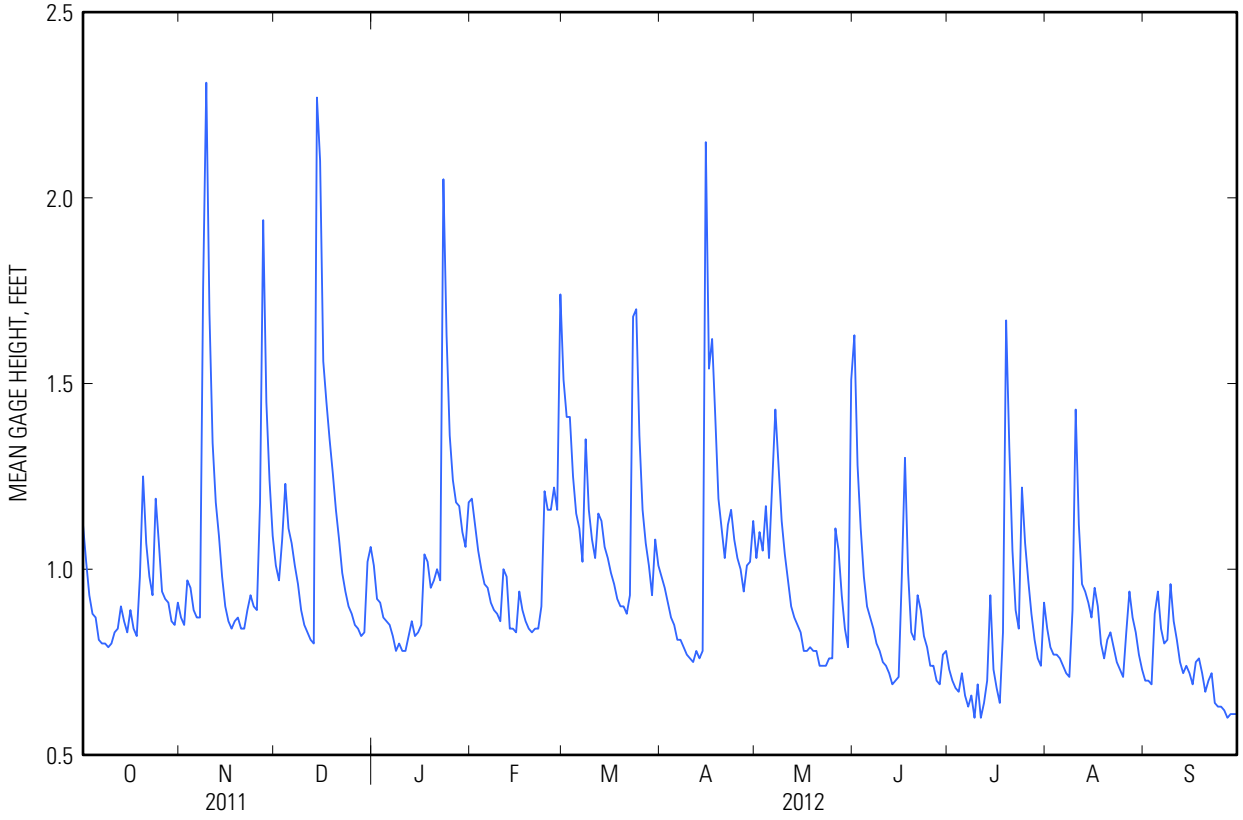
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.12	0.87	1.01	1.01	1.19	1.51	0.98	1.03	1.63	0.73	0.84	0.70
2	1.02	0.85	0.97	0.92	1.12	1.41	0.95	1.10	1.28	0.70	0.79	0.70
3	0.93	0.97	1.08	0.91	1.05	1.41	0.91	1.05	1.11	0.68	0.77	0.69
4	0.88	0.95	1.23	0.87	1.00	1.25	0.87	1.17	0.98	0.67	0.77	0.88
5	0.87	0.89	1.11	0.86	0.96	1.15	0.85	1.03	0.90	0.72	0.76	0.94
6	0.81	0.87	1.07	0.85	0.95	1.11	0.81	1.23	0.87	0.66	0.74	0.84
7	0.80	0.87	1.01	0.82	0.91	1.02	0.81	1.43	0.84	0.63	0.72	0.80
8	0.80	1.76	0.96	0.78	0.89	1.35	0.79	1.28	0.80	0.66	0.71	0.81
9	0.79	2.31	0.89	0.80	0.88	1.16	0.77	1.13	0.78	0.60	0.89	0.96
10	0.80	1.69	0.85	0.78	0.86	1.08	0.76	1.04	0.75	0.69	1.43	0.86
11	0.83	1.34	0.83	0.78	1.00	1.03	0.75	0.97	0.74	0.60	1.12	0.81
12	0.84	1.18	0.81	0.82	0.98	1.15	0.78	0.90	0.72	0.64	0.96	0.75
13	0.90	1.09	0.80	0.86	0.84	1.13	0.76	0.87	0.69	0.70	0.94	0.72
14	0.86	0.98	2.27	0.82	0.84	1.06	0.78	0.85	0.70	0.93	0.91	0.74
15	0.83	0.90	2.10	0.83	0.83	1.03	2.15	0.83	0.71	0.73	0.87	0.72
16	0.89	0.86	1.56	0.85	0.94	0.99	1.54	0.78	0.98	0.68	0.95	0.69
17	0.84	0.84	1.45	1.04	0.89	0.96	1.62	0.78	1.30	0.64	0.90	0.75
18	0.82	0.86	1.35	1.02	0.86	0.92	1.41	0.79	0.99	0.83	0.80	0.76
19	0.98	0.87	1.26	0.95	0.84	0.90	1.19	0.78	0.83	1.67	0.76	0.72
20	1.25	0.84	1.16	0.97	0.83	0.90	1.11	0.78	0.81	1.33	0.81	0.67
21	1.07	0.84	1.08	1.00	0.84	0.88	1.03	0.74	0.93	1.05	0.83	0.70
22	0.98	0.89	0.99	0.97	0.84	0.93	1.12	0.74	0.89	0.89	0.79	0.72
23	0.93	0.93	0.94	2.05	0.90	1.68	1.16	0.74	0.82	0.84	0.75	0.64
24	1.19	0.90	0.90	1.63	1.21	1.70	1.08	0.76	0.79	1.22	0.73	0.63
25	1.07	0.89	0.88	1.36	1.16	1.36	1.03	0.76	0.74	1.07	0.71	0.63
26	0.94	1.18	0.85	1.24	1.16	1.16	1.00	1.11	0.74	0.97	0.83	0.62
27	0.92	1.94	0.84	1.18	1.22	1.07	0.94	1.05	0.70	0.88	0.94	0.60
28	0.91	1.45	0.82	1.17	1.16	1.01	1.01	0.93	0.69	0.81	0.87	0.61
29	0.86	1.24	0.83	1.10	1.74	0.93	1.02	0.84	0.77	0.76	0.83	0.61
30	0.85	1.09	1.02	1.06	---	1.08	1.13	0.79	0.78	0.74	0.77	0.61
31	0.91	---	1.06	1.18	---	1.01	---	1.51	---	0.91	0.73	---
Mean	0.92	1.10	1.10	1.02	1.00	1.14	1.04	0.96	0.88	0.83	0.85	0.73
Max	1.25	2.31	2.27	2.05	1.74	1.70	2.15	1.51	1.63	1.67	1.43	0.96
Min	0.79	0.84	0.80	0.78	0.83	0.88	0.75	0.74	0.69	0.60	0.71	0.60

	Water Year 2012
Mean	0.96
Max	2.31
Min	0.60

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