Water-Data Report 2012

05470000 South Skunk River near Ames, IA

Upper Mississippi-Skunk-Wapsipinicon Basin
South Skunk Subbasin

LOCATION.--Lat 42°03'59.5", long 93°37'11.7" referenced to North American Datum of 1927, in NW ¼ SW ¼ SW ¼ sec.23, T.84 N., R.24 W., Story County, IA, Hydrologic Unit 07080105, on left bank 20 ft downstream from bridge on West Riverside Road, at northern edge of Ames, 4.4 mi downstream from Keigley Branch, 5.2 mi upstream from Squaw Creek, 132.7 mi upstream from confluence with the North Skunk River, and 227.4 mi upstream from mouth of Skunk River.

DRAINAGE AREA.--315 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records from July 1920 to September 1927, October 1932 to September 1995, October 1996 to current year. August to September 1927 and October 1932 to March 1933, monthly mean discharge published in WSP 1308. Prior to October 1966, published as "Skunk River near Ames".

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1308: 1921, 1925-26, 1934-35 (M), 1937 (M), 1939 (M), 1947-50 (M). WDR IA-67-1: 1965. WDR IA-74-1: 1973 (P).

GAGE.--Water-stage recorder. Concrete control from July 21, 1934, to October 1, 2003. Datum of gage is 888.61 ft above National Geodetic Vertical Datum of 1929. Prior to August 25, 1921, non-recording gage, and July 21, 1934, to September 30, 2003, water-stage recorder, both at site 0.25 mi upstream at datum 5.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. U.S. Geological Survey data collection platform with satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1996, reached a stage of 15.89 ft, from floodmark, discharge about 14,000 ft^3/s, from rating curve extension.

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 05470000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/05470000.2012.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	2.5	2.8	6.5	14	e13	65	51	144	82	47	2.7	2.1
2	2.6	4.3	5.9	e10	e13	70	50	186	81	48	2.1	1.5
3	2.5	6.7	10	e10	e13	55	46	632	80	33	2.3	1.0
4	2.5	7.8	17	13	e15	41	42	431	80	31	3.6	1.3
5	e2.5	6.4	e13	13	e14	55	38	316	73	31	5.4	1.4
6	e2.5	7.4	e8.6	13	e14	50	35	289	75	30	6.6	0.74
7	e2.3	5.5	e9.2	12	e14	46	35	330	70	21	3.6	4.3
8	1.9	8.8	e10	12	e13	49	34	299	67	14	3.6	6.9
9	2.0	25	e8.7	12	e14	45	34	250	65	6.8	2.8	5.1
10	1.5	21	e8.2	13	e12	41	34	225	63	4.3	2.3	2.2
11	1.8	17	e8.6	12	e11	39	32	199	65	3.4	2.0	1.3
12	3.0	14	e9.9	e10	e9.1	48	29	173	60	2.9	1.6	0.81
13	14	13	13	e8.4	e9.8	49	32	157	54	2.8	1.6	0.79
14	11	12	19	e7.2	e10	52	41	153	54	2.5	1.5	0.80
15	8.8	11	25	8.5	e11	49	201	148	58	5.8	1.5	0.79
16	5.7	9.3	23	8.9	e12	49	221	136	98	5.6	1.2	1.1
17	4.7	9.3	21	e6.9	e13	48	157	127	95	3.5	1.2	0.76
18	3.8	9.0	18	e5.8	e11	46	130	124	91	2.6	1.1	0.45
19	3.1	8.0	17	e5.5	e11	44	119	119	86	1.8	1.2	0.46
20	2.9	7.0	15	e4.7	e13	48	224	111	67	1.2	1.1	0.26
21	2.5	6.9	17	e3.3	e16	51	274	102	80	1.0	0.99	0.23
22	2.5	8.1	15	e4.7	e16	56	211	100	90	1.2	1.2	0.11
23	2.6	9.1	12	e5.3	e18	69	169	101	94	1.1	0.97	0.13
24	2.9	10	e12	e6.3	e17	80	158	99	83	1.0	0.83	0.12
25	3.9	9.8	e12	e7.6	e14	74	146	96	76	1.1	0.78	0.13
26	2.8	9.2	12	e8.1	e14	63	126	93	65	1.8	1.7	0.12
27	2.9	8.9	13	e8.5	e13	58	105	95	59	8.9	3.9	0.10
28	2.3	8.1	13	e9.3	e18	54	105	90	56	6.8	2.1	0.10
29	2.1	8.1	14	e7.8	32	50	108	80	51	8.4	1.7	0.10
30	2.2	7.4	15	e8.2	---	56	122	73	48	5.6	1.4	0.11
31	5.8	---	16	e12	---	54	---	80	---	4.2	1.3	---
Total	114.1	290.9	417.6	281.0	403.9	1,654	3,109	5,558	2,166	339.3	65.87	35.31
Mean	3.68	9.70	13.5	9.06	13.9	53.4	104	179	72.2	10.9	2.12	1.18
Max	14	25	25	14	32	80	274	632	98	48	6.6	6.9
Min	1.5	2.8	5.9	3.3	9.1	39	29	73	48	1.0	0.78	0.10
Ac-ft	226	577	828	557	801	3,280	6,170	11,020	4,300	673	131	70
Cfsm	0.01	0.03	0.04	0.03	0.04	0.17	0.33	0.57	0.23	0.03	0.01	0.00
In.	0.01	0.03	0.05	0.03	0.05	0.20	0.37	0.66	0.26	0.04	0.01	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	104	104	71.3	52.9	120	327	301	314	408	228	129	95.3
Max	785	726	537	320	623	1,604	1,208	1,193	2,095	2,628	1,804	577
(WY)	(2008)	(1973)	(1983)	(2007)	(1984)	(2010)	(1965)	(1944)	(2008)	(1993)	(2010)	(1926)
Min	0.12	0.14	0.00	0.00	0.31	6.35	5.44	2.28	0.01	0.02	0.09	0.08
(WY)	(1954)	(1956)	(1977)	(1977)	(1956)	(1981)	(2000)	(1934)	(1977)	(1977)	(1934)	(1976)

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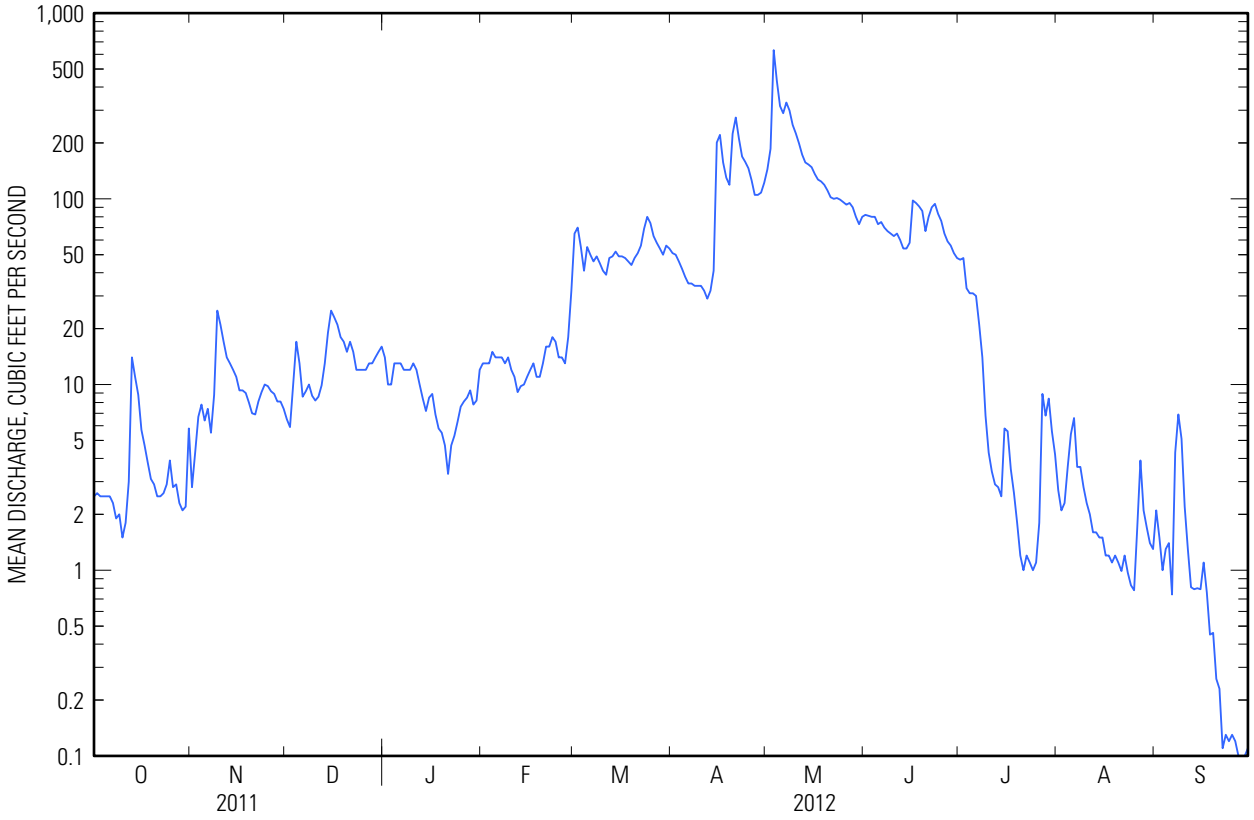
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1921 - 2012	
Annual total	58,167.4		14,434.98			
Annual mean	159		39.4		188	
Highest annual mean					752	1993
Lowest annual mean					5.58	1956
Highest daily mean	1,460	Apr 27	632	May 3	12,400	Aug 11, 2010
Lowest daily mean	1.5	Oct 10	0.10	Sep 27[a]	0.00	Jun 20, 1934[b]
Annual seven-day minimum	2.1	Oct 5	0.11	Sep 24	0.00	Jun 20, 1934
Maximum peak flow			730	May 3	14,800	Aug 11, 2010
Maximum peak stage			5.07	May 3	19.04	Aug 11, 2010
Instantaneous low flow			0.03	Sep 27[c]	0.00	Jun 20, 1934
Annual runoff (ac-ft)	115,400		28,630		136,200	
Annual runoff (cfsm)	0.506		0.125		0.597	
Annual runoff (inches)	6.87		1.70		8.11	
10 percent exceeds	412		103		450	
50 percent exceeds	65		12		62	
90 percent exceeds	4.9		1.2		2.8	

[a] Also Sep 28, 29.
[b] Many days in 1934, 1953-1956, 1976-1977.
[c] Also Sep 29.