Water-Data Report 2013

05421000 Wapsipinicon River at Independence, IA

Upper Mississippi-Skunk-Wapsipinicon Basin
Upper Wapsipinicon Subbasin

LOCATION.--Lat 42°27′49″, long 91°53′42″ referenced to North American Datum of 1927, in NW ¼ NE ¼ SE ¼ sec.4, T.88 N., R.9 W., Buchanan County, IA, Hydrologic Unit 07080102, on right bank at end of 6th Street in Independence, 1,800 ft downstream from dam at abandoned hydroelectric plant, 4.9 mi downstream from Otter Creek, 9.7 mi upstream from Pine Creek, and 158 mi upstream from mouth.

DRAINAGE AREA.--1,048 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records from July 1933 to current year.

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1508: 1938-39, 1940 (M), 1947.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 882.85 ft above National Geodetic Vertical Datum of 1929. Prior to May 24, 1941, non-recording gage in tailrace of power plant, 1,800 ft upstream, at datum 80.00 ft lower.

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.--Since at least 1901, no flood outside the period of record exceeded the June 14, 1947, stage of 18.74 ft.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	22	67	68	53	117	154	1,920	1,830	11,000	4,260	212	139
2	17	61	68	50	125	143	2,040	1,660	8,700	3,400	201	129
3	14	60	70	51	115	144	2,110	2,120	6,750	2,560	195	121
4	19	58	70	49	108	149	2,050	4,040	6,090	1,960	187	116
5	19	58	62	47	104	146	1,760	5,150	5,540	1,570	231	114
6	20	62	69	47	102	133	1,650	4,730	4,420	1,300	304	112
7	15	60	68	47	107	130	1,330	4,610	3,560	1,090	288	110
8	15	57	66	47	104	131	1,100	4,430	3,050	939	258	105
9	21	57	71	50	109	177	1,170	4,450	2,790	836	331	102
10	26	57	70	52	136	1,440	2,160	4,920	2,660	790	414	102
11	29	87	53	60	421	4,870	3,160	4,630	2,390	718	371	99
12	25	87	60	70	588	5,860	3,410	4,030	2,010	658	347	98
13	31	80	66	71	483	4,950	3,430	3,490	2,120	601	311	95
14	126	82	67	68	595	4,090	3,360	3,150	2,220	545	277	93
15	140	83	85	71	611	4,970	3,780	2,800	2,180	503	270	98
16	131	79	94	70	578	4,980	4,300	2,280	2,230	475	362	100
17	112	73	88	71	545	4,100	4,460	1,820	2,550	438	369	95
18	89	72	92	73	525	3,640	6,050	1,520	3,110	406	307	98
19	81	76	96	76	451	2,750	7,120	1,380	3,040	378	261	105
20	71	74	92	76	358	2,180	6,760	2,920	2,400	343	235	114
21	61	71	43	77	303	1,590	5,950	3,410	2,220	313	213	114
22	82	76	69	71	264	1,220	4,960	3,190	3,950	304	262	108
23	77	69	70	66	228	1,060	4,190	3,400	2,540	292	246	100
24	68	58	68	64	203	1,160	3,570	3,450	2,120	266	210	96
25	78	66	62	61	192	1,120	3,050	3,660	2,110	261	192	91
26	64	65	54	59	184	1,050	2,660	4,810	10,300	340	183	89
27	62	49	50	63	176	1,030	2,450	6,770	10,400	314	173	85
28	62	55	51	71	161	1,140	2,240	6,540	6,000	276	163	86
29	62	61	55	168	---	1,350	2,010	6,600	4,940	247	156	89
30	66	67	56	204	---	1,600	1,950	11,700	4,770	229	149	86
31	66	---	56	141	---	1,770	---	14,500	---	221	142	---
Total	1,771	2,027	2,109	2,244	7,993	59,227	96,150	133,990	128,160	26,833	7,820	3,089
Mean	57.1	67.6	68.0	72.4	285	1,911	3,205	4,322	4,272	866	252	103
Max	140	87	96	204	611	5,860	7,120	14,500	11,000	4,260	414	139
Min	14	49	43	47	102	130	1,100	1,380	2,010	221	142	85
Ac-ft	3,510	4,020	4,180	4,450	15,850	117,500	190,700	265,800	254,200	53,220	15,510	6,130
Cfsm	0.05	0.06	0.06	0.07	0.27	1.82	3.06	4.12	4.08	0.83	0.24	0.10
In.	0.06	0.07	0.07	0.08	0.28	2.10	3.41	4.76	4.55	0.95	0.28	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	406	430	302	237	372	1,437	1,460	1,151	1,170	794	542	357
Max	2,541	2,280	1,962	1,411	1,698	3,580	5,960	4,436	7,491	5,175	5,443	1,940
(WY)	(2008)	(1992)	(1992)	(1946)	(1984)	(2010)	(2008)	(2004)	(2008)	(2010)	(1993)	(1981)
Min	29.3	42.2	26.9	12.6	19.0	68.4	198	45.3	12.4	18.9	21.5	20.5
(WY)	(1989)	(1977)	(1977)	(1977)	(1956)	(1934)	(1957)	(1934)	(1934)	(1936)	(1934)	(1976)

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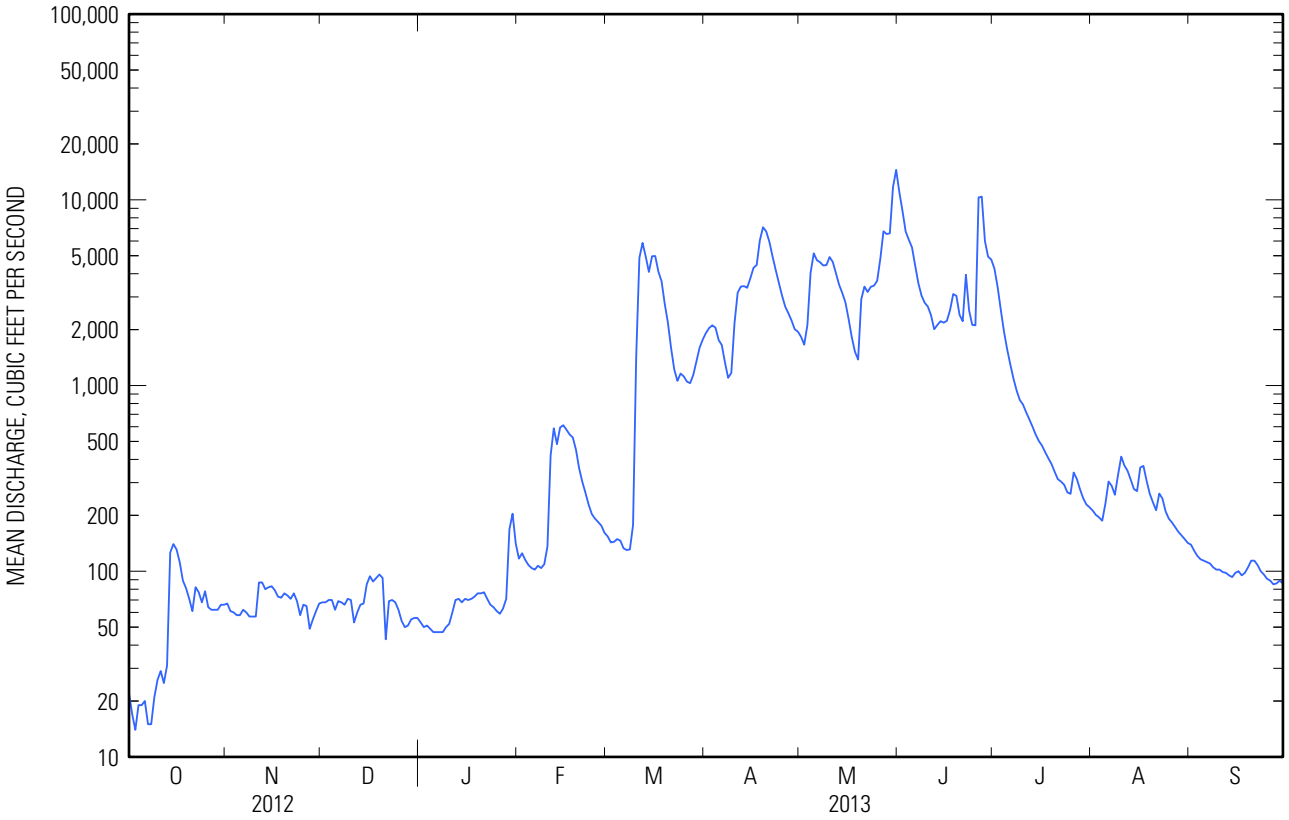
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1934 - 2013	
Annual total	137,815		471,413			
Annual mean	377		1,292		723	
Highest annual mean					2,304	1993
Lowest annual mean					74.5	1934
Highest daily mean	2,500	May 9	14,500	May 31	28,000	May 18, 1999
Lowest daily mean	14	Oct 3	14	Oct 3	7.0	Oct 1, 1933 [a]
Annual seven-day minimum	17	Oct 2	17	Oct 2	7.1	Jan 24, 1977
Maximum peak flow			15,300	May 31	31,100	May 18, 1999
Maximum peak stage			14.46	May 31	22.35	May 18, 1999
Annual runoff (ac-ft)	273,400		935,000		523,600	
Annual runoff (cfsm)	0.359		1.23		0.690	
Annual runoff (inches)	4.89		16.73		9.37	
10 percent exceeds	914		4,280		1,780	
50 percent exceeds	142		192		289	
90 percent exceeds	34		58		56	

[a] Many days in 1933 and 1934 when power plant shut down; Jan 25-30, 1977.