Water-Data Report 2013

07039500 ST. FRANCIS RIVER AT WAPPAPELLO, MO

Lower Mississippi Basin
St. Francis Subbasin

LOCATION.--Lat 36°55'41.2", long 90°15'55.0" referenced to North American Datum of 1983, in NW ¼ SE ¼ sec.2, T.26 N., R.7 E., Wayne County, MO, Hydrologic Unit 08020203, on right bank at downstream side of highway bridge, 0.5 mi southeast of Wappapello, and 1.25 mi downstream from Wappapello Dam.

DRAINAGE AREA.--1,311 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1940 to Sept. 30, 1997, Oct. 1, 1998 to current year. Since January 1939 in reports of the Mississippi River Commission. Gage-height records collected in this vicinity since April 1920 in reports of the U.S. Army Corps of Engineers.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 314.56 ft above North American Vertical Datum of 1988. Prior to Oct. 1, 1984, at datum 10.00 ft higher at present site. Prior to Oct. 14, 1940, nonrecording gage at same site.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated by Wappapello Lake, 1.3 mi upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1920, 30.7 ft, former datum, May 15, 1933, discharge 82,500 ft^3/s, determined by the U.S. Army Corps of Engineers. Maximum discharge, as determined by the U.S. Army Corps of Engineers, 85,000 ft^3/s, Aug. 1915, stage unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,630 ft^3/s, Jan. 17, gage height, 24.47 ft; minimum discharge, 10 ft^3/s, Oct. 21, gage height, 3.87 ft.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 07039500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/07039500.2013.pdf

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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	412	663	358	1,470	3,160	4,950	3,150	3,810	2,620	319	368	395
2	261	399	357	1,460	3,180	4,820	3,030	3,780	2,630	307	375	390
3	165	339	356	1,390	3,150	4,510	2,760	3,850	2,750	304	401	381
4	51	284	358	1,030	3,100	4,180	2,420	4,120	3,230	298	376	379
5	43	220	354	755	2,970	3,720	1,840	4,310	3,580	292	421	342
6	142	74	353	731	2,750	3,220	1,400	4,350	3,910	289	517	295
7	254	66	352	727	2,600	2,960	1,190	4,190	3,910	282	655	287
8	81	65	351	726	2,360	2,710	1,070	4,160	3,870	279	1,160	285
9	67	64	291	724	2,080	2,350	1,020	4,150	3,840	253	2,240	282
10	62	65	209	725	1,890	2,090	961	4,130	3,800	232	3,010	279
11	59	174	205	724	1,770	2,160	979	4,110	3,740	226	3,220	280
12	58	316	205	607	1,880	2,510	989	4,080	3,690	221	3,260	280
13	160	509	206	1,420	2,070	2,580	1,010	4,050	3,630	215	3,250	233
14	351	896	206	3,450	2,070	2,580	1,020	4,020	3,570	203	3,220	165
15	487	1,120	208	4,950	2,060	2,560	1,020	3,980	3,380	184	3,180	157
16	570	1,240	209	5,310	1,900	2,440	1,020	3,950	2,920	112	3,140	154
17	493	1,250	210	5,610	1,650	2,240	1,020	3,920	2,580	103	3,090	151
18	191	1,250	211	5,570	1,620	2,500	1,040	3,880	2,410	102	3,030	149
19	58	1,250	211	5,450	1,620	3,840	1,560	3,840	2,320	100	2,990	148
20	32	1,240	215	5,300	1,560	5,010	2,810	3,790	2,150	96	2,870	148
21	40	1,140	414	5,150	1,480	5,150	3,620	3,770	1,830	92	2,590	145
22	49	980	976	4,840	1,650	4,960	3,720	3,720	1,530	94	2,310	141
23	21	890	1,360	4,360	1,960	4,610	3,780	3,770	1,230	89	2,030	139
24	20	748	1,510	3,940	2,270	4,470	3,870	3,880	1,200	118	1,790	139
25	163	734	1,520	3,540	2,640	4,320	3,870	3,830	1,190	177	1,520	142
26	513	642	1,520	3,200	3,150	3,990	3,900	3,770	1,180	174	1,190	140
27	741	511	1,510	2,920	4,170	3,600	3,980	3,670	1,120	174	897	140
28	819	500	1,500	2,550	4,900	3,400	3,930	3,440	1,010	175	664	140
29	822	443	1,500	2,310	---	3,290	3,820	3,080	852	153	454	141
30	820	364	1,480	2,470	---	3,210	3,820	2,750	565	89	396	140
31	818	---	1,480	2,900	---	3,170	---	2,410	---	202	394	---
Mean	285	615	651	2,784	2,416	3,487	2,321	3,825	2,541	192	1,774	220
Max	822	1,250	1,520	5,610	4,900	5,150	3,980	4,350	3,910	319	3,260	395
Min	20	64	205	607	1,480	2,090	961	2,410	565	89	368	139
In.	0.25	0.52	0.57	2.45	1.92	3.07	1.98	3.36	2.16	0.17	1.56	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2013[a], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	406	973	2,079	2,349	2,326	2,745	2,821	2,704	1,490	643	374	374
Max	3,239	4,959	8,897	8,867	7,796	7,072	11,920	11,170	6,442	4,866	3,385	2,239
(WY)	(1950)	(1952)	(1983)	(1950)	(1949)	(1979)	(1945)	(2011)	(2002)	(1945)	(1945)	(1982)
Min	33.9	43.8	167	188	286	474	63.5	62.3	6.00	60.2	40.0	34.0
(WY)	(1949)	(1954)	(1990)	(1981)	(1963)	(1981)	(1981)	(1987)	(1978)	(2012)	(1965)	(1955)

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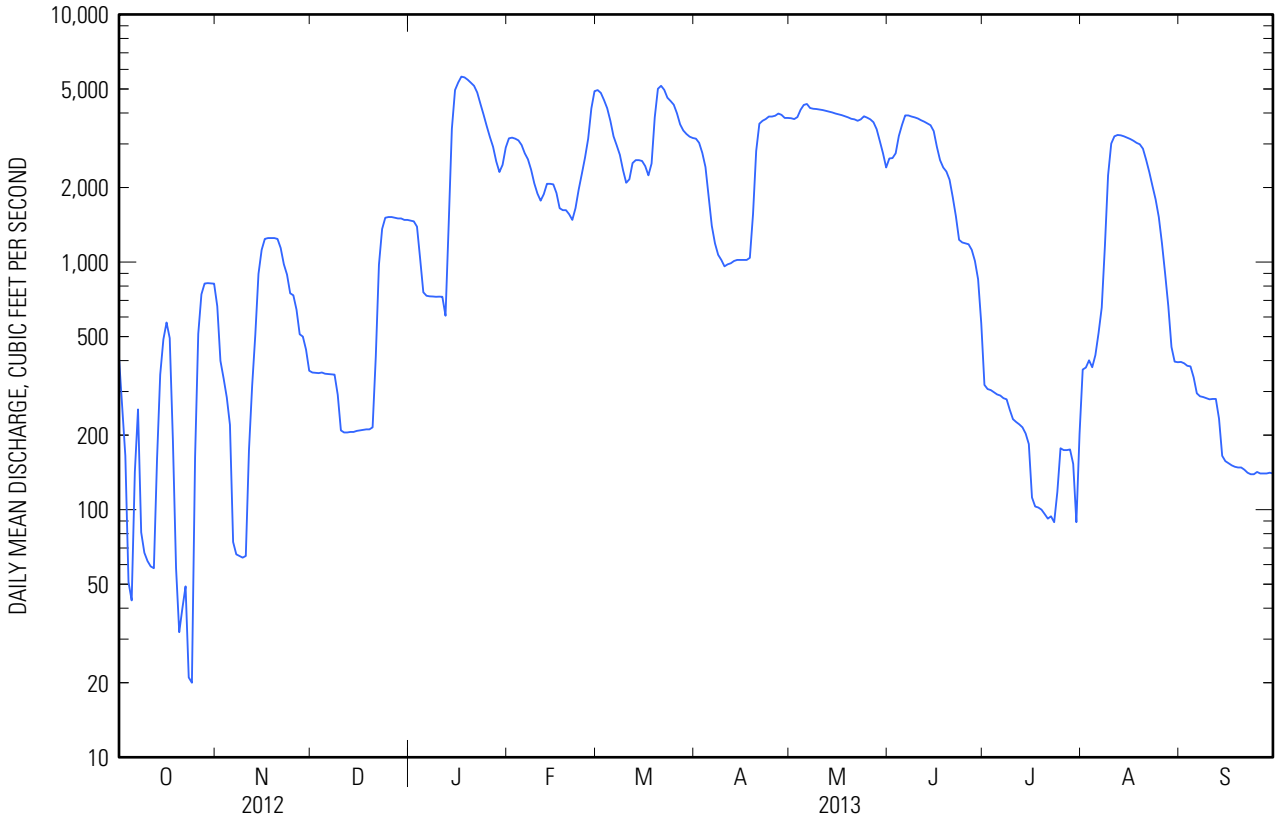
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1942 - 2013[a]	
Annual mean	709		1,758		1,604	
Highest annual mean					3,534	1985
Lowest annual mean					579	1954
Highest daily mean	5,480	Mar 20	5,610	Jan 17	25,600	May 3, 2011
Lowest daily mean	20	Oct 24	20	Oct 24	0.00	Several Years
Annual seven-day minimum	54	Aug 15	55	Oct 19	0.00	At Times
Maximum peak flow			5,630	Jan 17	28,100	May 3, 2011
Maximum peak stage			24.47	Jan 17	35.64	May 3, 2011
Instantaneous low flow			10	Oct 21	0.00	Several Years
Annual runoff (inches)	7.36		18.20		16.62	
10 percent exceeds	1,930		3,940		4,050	
50 percent exceeds	294		1,240		698	
90 percent exceeds	57		142		52	

[a] For Period of Record during Regulated Streamflow



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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
OBSERVATION AT 0800

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	6.67	8.68	6.18	11.69	17.82	22.96	17.78	19.75	15.62	5.77	6.05	6.19
2	5.49	6.42	6.18	11.62	17.89	22.75	17.69	19.66	15.93	5.69	6.08	6.20
3	5.41	6.28	6.17	11.55	17.82	22.05	16.80	19.59	15.73	5.68	6.38	6.12
4	4.28	5.76	6.20	10.39	17.66	21.18	15.82	20.63	17.51	5.65	6.13	6.12
5	4.20	5.74	6.16	8.39	17.46	20.33	13.77	21.10	18.68	5.60	5.97	6.10
6	4.22	4.44	6.15	8.25	16.49	18.21	11.69	21.63	20.02	5.59	6.91	5.63
7	5.74	4.38	6.14	8.23	16.17	17.41	10.82	20.90	20.08	5.55	6.95	5.58
8	4.49	4.38	6.14	8.22	15.36	16.52	9.89	20.80	19.95	5.53	9.04	5.56
9	4.40	4.37	6.13	8.21	14.42	15.43	9.83	20.75	19.82	5.40	13.45	5.55
10	4.38	4.38	5.30	8.23	13.50	14.22	9.37	20.73	19.72	5.23	17.03	5.52
11	4.34	4.39	5.27	8.21	12.93	13.86	9.47	20.66	19.55	5.20	17.81	5.52
12	4.33	5.95	5.26	8.19	12.88	15.54	9.49	20.57	19.38	5.16	17.99	5.53
13	4.32	5.97	5.27	8.22	14.02	15.86	9.60	20.48	19.21	5.15	17.97	5.53
14	5.82	8.61	5.27	16.61	14.07	15.89	9.65	20.37	19.02	5.06	17.87	4.82
15	6.65	9.75	5.28	22.84	13.99	15.81	9.68	20.29	18.84	5.00	17.76	4.77
16	7.36	10.68	5.29	23.42	13.93	15.66	9.68	20.18	17.22	4.49	17.65	4.75
17	7.40	10.71	5.30	24.41	12.44	14.67	9.68	20.10	15.97	4.43	17.47	4.73
18	5.60	10.71	5.29	24.38	12.29	14.78	9.67	19.97	15.19	4.41	17.28	4.71
19	4.31	10.69	5.30	24.13	12.27	18.67	10.14	19.84	14.99	4.40	17.12	4.71
20	4.29	10.67	5.33	23.81	12.22	22.96	15.61	19.72	14.54	4.39	16.98	4.70
21	3.88	10.65	5.32	23.45	11.62	23.43	19.10	19.61	13.35	4.34	16.07	4.70
22	4.40	9.48	8.49	23.07	11.92	23.32	19.46	19.47	12.40	4.36	15.17	4.67
23	4.01	9.42	10.91	21.78	13.23	22.23	19.43	19.31	10.64	4.33	14.13	4.65
24	4.00	8.34	11.83	20.59	14.34	21.83	19.94	19.95	10.48	4.31	13.23	4.65
25	3.99	8.26	11.88	19.39	15.69	21.54	19.90	19.84	10.42	4.88	12.32	4.67
26	6.70	8.24	11.89	18.17	17.07	20.74	19.98	19.65	10.38	4.87	10.94	4.66
27	8.04	7.04	11.83	17.35	20.35	19.49	20.15	19.43	10.34	4.87	9.40	4.66
28	8.69	6.97	11.80	16.19	22.83	18.66	20.42	18.95	9.81	4.87	8.24	4.66
29	8.70	6.96	11.79	14.92	---	18.31	19.74	17.74	9.24	4.88	6.76	4.66
30	8.70	6.22	11.73	14.97	---	18.02	19.77	16.63	8.16	4.31	6.22	4.66
31	8.68	---	11.68	16.56	---	17.88	---	15.57	---	4.29	6.20	---
Mean	5.60	7.48	7.51	15.66	15.10	18.72	14.47	19.80	15.41	4.96	12.21	5.17
Max	8.70	10.71	11.89	24.41	22.83	23.43	20.42	21.63	20.08	5.77	17.99	6.20
Min	3.88	4.37	5.26	8.19	11.62	13.86	9.37	15.57	8.16	4.29	5.97	4.65