Water-Data Report 2013

07056000 BUFFALO RIVER NEAR ST. JOE, AR

Upper White Basin
Buffalo Subbasin

LOCATION.--Lat 35°58′59″, long 92°44′50″ referenced to North American Datum of 1983, in SW ¼ SW ¼ sec.36, T.16 N., R.17 W., Searcy County, AR, Hydrologic Unit 11010005, near right bank on downstream side of bridge on U.S. Hwy 65, 1.2 mi downstream from Mill Creek, 4.0 mi upstream from Bear Creek, 4.5 mi southeast of St. Joe, and at river mile 58.3.

DRAINAGE AREA.--829 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct 1939 to current year.

REVISED RECORDS.--WSP 1211: 1945 (M), 1949 (M). WDR Arkansas 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 560.35 ft above NGVD of 1929. Prior to Mar 1, 1940, nonrecording gage at present site and datum. Prior to Nov 6, 1990, at site 300 ft downstream at same datum.

REMARKS.--Water-discharge records fair except estimated daily discharges, which are poor. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 50.5 ft in Aug 1915, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jun 1	2200	*15,300	*15.79

Minimum discharge, 33 ft^3/s, Oct. 4, 5, gage height, 3.33 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 07056000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/07056000.2013.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	35	60	51	215	2,150	1,950	1,680	1,900	7,510	92	73	127
2	35	59	50	443	1,510	1,590	1,510	1,560	8,920	87	71	117
3	34	57	49	529	1,160	1,330	1,430	1,480	3,890	84	102	109
4	33	54	66	474	939	1,150	1,510	1,820	2,600	81	100	102
5	34	54	220	429	798	1,020	1,360	2,110	1,900	81	99	96
6	35	50	458	380	682	869	1,210	1,890	1,480	78	144	91
7	34	47	377	339	594	745	1,100	1,620	1,180	75	135	87
8	35	45	326	307	551	659	1,010	1,380	951	73	173	83
9	35	45	277	283	540	600	972	1,180	782	70	1,470	80
10	34	46	237	279	551	1,960	921	1,020	659	67	4,430	75
11	34	56	211	297	1,390	5,390	1,050	891	560	63	7,160	73
12	41	58	192	508	1,540	3,310	1,160	769	477	60	3,060	71
13	42	51	175	2,720	1,320	2,360	1,030	657	410	59	3,530	68
14	54	53	161	2,320	1,260	1,840	919	572	355	58	3,590	65
15	64	57	153	1,500	1,180	1,550	854	504	311	57	2,270	62
16	269	59	144	1,070	1,020	1,350	792	479	278	56	1,480	58
17	235	59	137	819	887	1,180	726	485	276	54	1,070	56
18	188	60	131	665	798	1,050	801	462	270	52	813	55
19	156	63	126	554	761	936	1,870	420	258	54	649	54
20	134	63	143	477	779	812	1,770	376	243	54	530	61
21	118	62	156	416	842	716	1,440	385	215	71	437	54
22	107	63	247	365	1,560	830	1,230	1,010	193	76	371	53
23	96	64	294	327	1,700	1,790	1,070	1,510	175	75	321	59
24	89	63	263	294	1,540	2,430	1,060	1,040	159	87	281	61
25	84	63	235	266	1,370	2,350	1,400	762	144	76	245	60
26	79	62	229	244	3,580	1,910	1,250	611	131	79	217	56
27	76	61	216	225	3,590	1,610	1,840	512	121	81	195	53
28	74	59	202	212	2,540	1,410	4,150	449	113	80	177	52
29	71	56	188	307	---	1,280	3,170	394	104	79	162	53
30	66	53	176	4,530	---	1,240	2,410	363	97	79	149	49
31	63	---	182	3,810	---	1,240	---	3,250	---	75	138	---
Total	2,484	1,702	6,072	25,604	37,132	48,457	42,695	31,861	34,762	2,213	33,642	2,140
Mean	80.1	56.7	196	826	1,326	1,563	1,423	1,028	1,159	71.4	1,085	71.3
Max	269	64	458	4,530	3,590	5,390	4,150	3,250	8,920	92	7,160	127
Min	33	45	49	212	540	600	726	363	97	52	71	49
Ac-ft	4,930	3,380	12,040	50,790	73,650	96,110	84,690	63,200	68,950	4,390	66,730	4,240
Cfsm	0.10	0.07	0.24	1.00	1.60	1.89	1.72	1.24	1.40	0.09	1.31	0.09
In.	0.11	0.08	0.27	1.15	1.67	2.17	1.92	1.43	1.56	0.10	1.51	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	340	960	1,167	1,194	1,589	2,064	2,229	1,815	746	238	164	226
Max	3,692	6,549	8,516	6,934	5,455	9,115	9,584	6,975	5,468	1,134	1,569	3,235
(WY)	(2010)	(1997)	(1983)	(1949)	(1989)	(2008)	(1945)	(1990)	(1945)	(1950)	(1950)	(2008)
Min	14.2	19.7	30.4	32.4	114	236	237	133	61.7	21.4	15.0	10.2
(WY)	(1964)	(1964)	(1990)	(1964)	(1963)	(1972)	(1963)	(2012)	(2012)	(2012)	(1954)	(1954)

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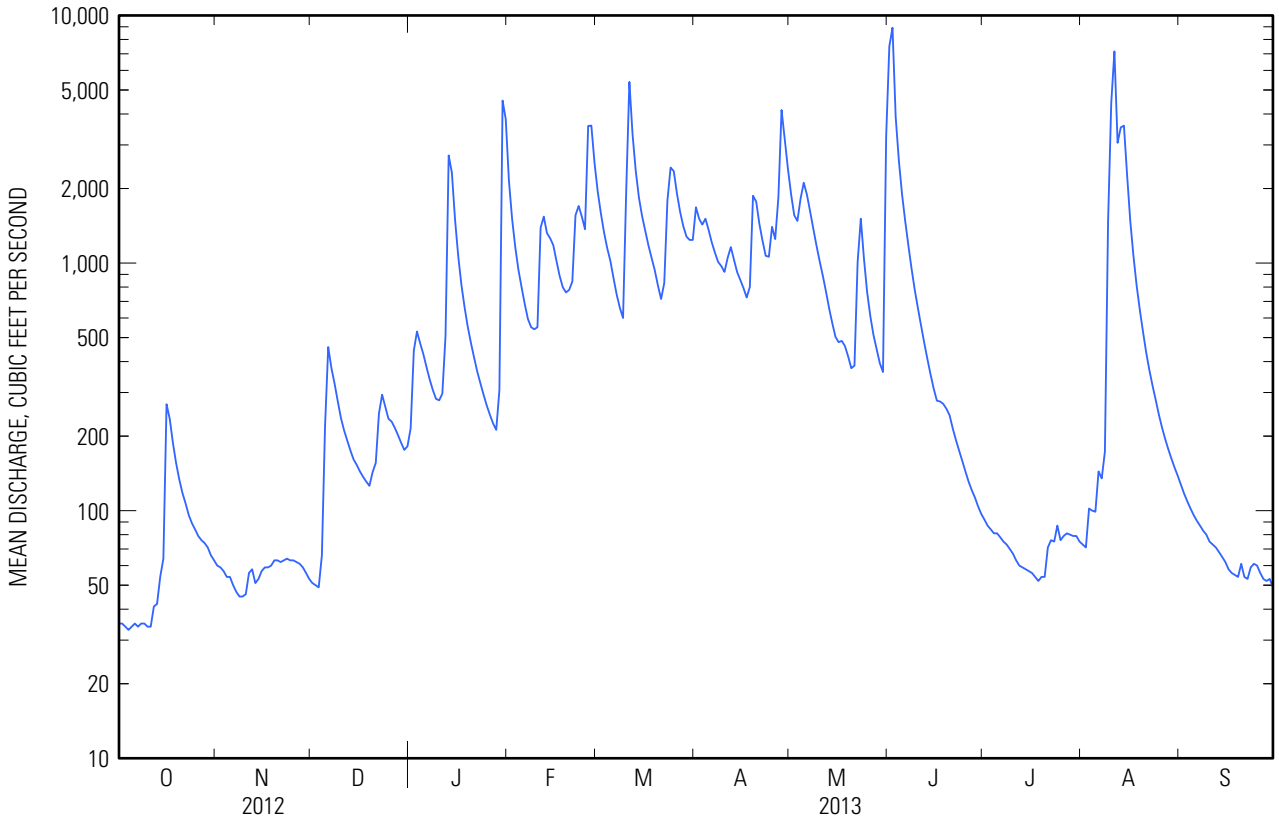
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1940 - 2013	
Annual total	269,617		268,764			
Annual mean	737		736		1,057	
Highest annual mean					2,619	1945
Lowest annual mean					316	1963
Highest daily mean	19,800	Mar 22	8,920	Jun 2	124,000	Dec 3, 1982
Lowest daily mean	12	Aug 15	33	Oct 4	7.0	Sep 17, 1954
Annual seven-day minimum	13	Aug 9	34	Oct 1	7.4	Sep 11, 1954
Maximum peak flow			15,300	Jun 1	[a]158,000	Dec 3, 1982
Maximum peak stage			15.79	Jun 1	53.75	Dec 3, 1982
Instantaneous low flow			33	Oct 4[b]	6.6	Sep 16, 1954[c]
Annual runoff (ac-ft)	534,800		533,100		766,000	
Annual runoff (cfsm)	0.889		0.888		1.28	
Annual runoff (inches)	12.10		12.06		17.33	
10 percent exceeds	1,740		1,840		2,330	
50 percent exceeds	88		277		318	
90 percent exceeds	20		54		42	

[a] From rating curve extended above 91,000 ft³/s
[b] Also Oct 5
[c] Also Sep 17, 20, 1954