

07077000 WHITE RIVER AT DEVALLS BLUFF, AR

White Basin
Lower White-Bayou Des Arc Subbasin

LOCATION.--Lat 34°47'25", long 91°26'45" referenced to North American Datum of 1983, in SE ¼ sec.17, T.2 N., R.4 W., Prairie County, AR, Hydrologic Unit 08020301, near center of span on downstream side of bridge on U.S. Hwy 70, 1.0 mi northeast of DeValls Bluff, 7.5 mi downstream from Wattensaw Bayou, 24.1 mi upstream from Cache River, and at river mile 125.3.

DRAINAGE AREA.—23,431 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct 1927 to Sep 1945 (large part of floodflow above station overflowed into Cache River and was not included in the records), Oct 1949 to Sep 1970, Oct 1988 to current year. Monthly discharge only for some periods, published in WSP 1311. Daily stages for the period Oct 1970 to date published in reports of the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 152.93 ft above NGVD of 1929. Prior to Dec 22, 1933, nonrecording gage at same site and datum.

COOPERATION.--Gage-height record was provided by the U.S. Army Corps of Engineers.

REMARKS.--Water-discharge records fair except estimated daily discharges, which are poor. Some regulation since 1943 by Norfolk Lake, capacity, 1,983,000 ac-ft, since 1948 by Clearwater Lake (Missouri), capacity, 413,700 ac-ft, since Jul 24, 1951, by Bull Shoals Lake, capacity, 5,408,000 ac-ft, since Sep 9, 1956, by Table Rock Lake (Missouri), capacity, 3,567,500 ac-ft, since Mar 30, 1962, by Greers Ferry Lake, capacity, 2,926,500 ac-ft, and since Dec 26, 1963, by Beaver Lake, capacity, 1,951,500 ac-ft. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr 23, 1927, reached a stage of 34.6 ft. Flood of Feb 3, 1949, reached a stage of 31.35 ft, discharge, 220,000 ft³/s by current-meter measurement, furnished by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94,300 ft³/s, Jan 24, gage height, 25.16 ft; minimum discharge, 8,140 ft³/s, Oct 18, gage height, 3.61 ft.

07077000 WHITE RIVER AT DEVALLS BLUFF, AR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e21,000	18,600	e18,300	41,100	74,800	52,900	20,800	29,000	17,000	14,600	11,900	9,190
2	e21,400	e21,000	21,700	43,300	73,900	53,400	19,700	27,700	16,700	15,900	10,700	9,360
3	e21,700	e19,600	26,400	44,500	73,100	53,400	18,300	25,300	16,400	17,900	10,200	9,370
4	e21,800	e21,000	31,400	45,800	73,100	53,400	17,600	23,000	15,900	20,100	11,100	9,140
5	e22,300	e20,300	34,400	47,100	72,900	53,100	17,000	22,100	15,000	21,400	12,200	9,670
6	e22,800	e17,900	37,100	47,800	72,100	52,500	16,600	22,400	14,300	21,800	12,700	11,600
7	e22,200	e17,300	39,400	49,200	71,800	51,500	16,800	22,800	13,800	22,300	12,600	11,800
8	e21,400	e17,400	41,200	50,100	70,800	50,200	17,200	23,800	13,800	22,400	12,500	11,000
9	e19,800	e18,600	42,400	50,400	68,900	48,000	17,500	25,300	13,500	22,400	12,300	11,600
10	e17,600	e21,000	43,200	50,400	66,300	45,500	17,200	26,800	12,700	23,000	12,500	14,800
11	e15,500	e23,400	43,500	49,900	63,300	42,700	17,300	28,700	12,300	24,000	12,900	19,300
12	e13,400	e24,000	43,900	49,600	60,400	39,500	17,700	29,900	12,200	24,500	13,200	20,000
13	e11,900	e23,000	43,800	49,800	58,000	36,600	17,500	30,900	12,200	24,400	13,400	19,000
14	e11,000	e21,600	43,200	51,900	55,900	34,200	17,400	31,400	12,400	23,100	13,100	17,600
15	10,700	e20,500	42,200	55,800	53,700	32,300	17,700	31,500	13,000	21,500	12,600	16,300
16	9,620	e19,900	40,400	59,600	51,500	29,900	17,700	32,200	14,200	19,700	12,200	15,200
17	8,960	e20,400	38,600	63,900	50,500	27,700	17,800	32,600	15,300	18,000	e12,000	14,100
18	8,380	e23,800	36,400	68,600	50,100	26,200	19,000	32,500	16,600	16,600	e11,900	13,300
19	8,860	e30,500	34,100	73,400	49,400	24,600	21,200	32,100	17,900	15,700	e12,300	12,800
20	12,700	e33,400	32,100	78,100	49,500	23,000	23,600	31,500	18,500	15,500	e12,400	12,300
21	17,100	e34,300	30,800	84,800	50,100	21,500	25,000	30,800	18,600	15,500	e11,600	12,100
22	18,700	e35,200	29,800	90,100	50,500	20,000	25,900	30,000	18,700	15,300	e11,400	12,000
23	18,600	e34,200	28,800	93,000	50,600	18,600	26,700	29,100	18,200	14,800	e10,900	11,400
24	17,700	e33,200	27,700	93,400	50,600	17,400	26,900	27,400	17,400	13,800	e10,100	10,700
25	16,500	e32,700	27,200	92,000	52,100	16,600	27,200	25,600	16,800	12,600	10,100	10,100
26	15,600	e31,000	28,200	89,000	52,600	16,200	27,800	23,800	16,900	11,800	10,400	9,760
27	15,000	e28,200	29,000	86,900	53,000	16,900	28,500	22,400	16,900	11,300	11,000	9,860
28	14,900	e24,700	30,000	83,800	52,800	18,400	28,500	20,900	15,700	11,400	11,000	9,800
29	15,300	e24,100	31,200	80,600	---	19,400	29,300	19,600	14,500	12,100	10,300	9,850
30	15,900	e18,900	33,100	78,000	---	19,400	29,700	18,400	14,000	12,500	9,840	9,300
31	17,300	---	36,900	76,300	---	19,800	---	17,600	---	12,400	9,530	---
Total	505,620	729,700	1,066,400	2,018,200	1,672,300	1,034,800	641,100	827,100	461,400	548,300	360,870	372,300
Mean	16,310	24,320	34,400	65,100	59,720	33,380	21,370	26,680	15,380	17,690	11,640	12,410
Max	22,800	35,200	43,900	93,400	74,800	53,400	29,700	32,600	18,700	24,500	13,400	20,000
Min	8,380	17,300	18,300	41,100	49,400	16,200	16,600	17,600	12,200	11,300	9,530	9,140
Ac-ft	1,003,000	1,447,000	2,115,000	4,003,000	3,317,000	2,053,000	1,272,000	1,641,000	915,200	1,088,000	715,800	738,500

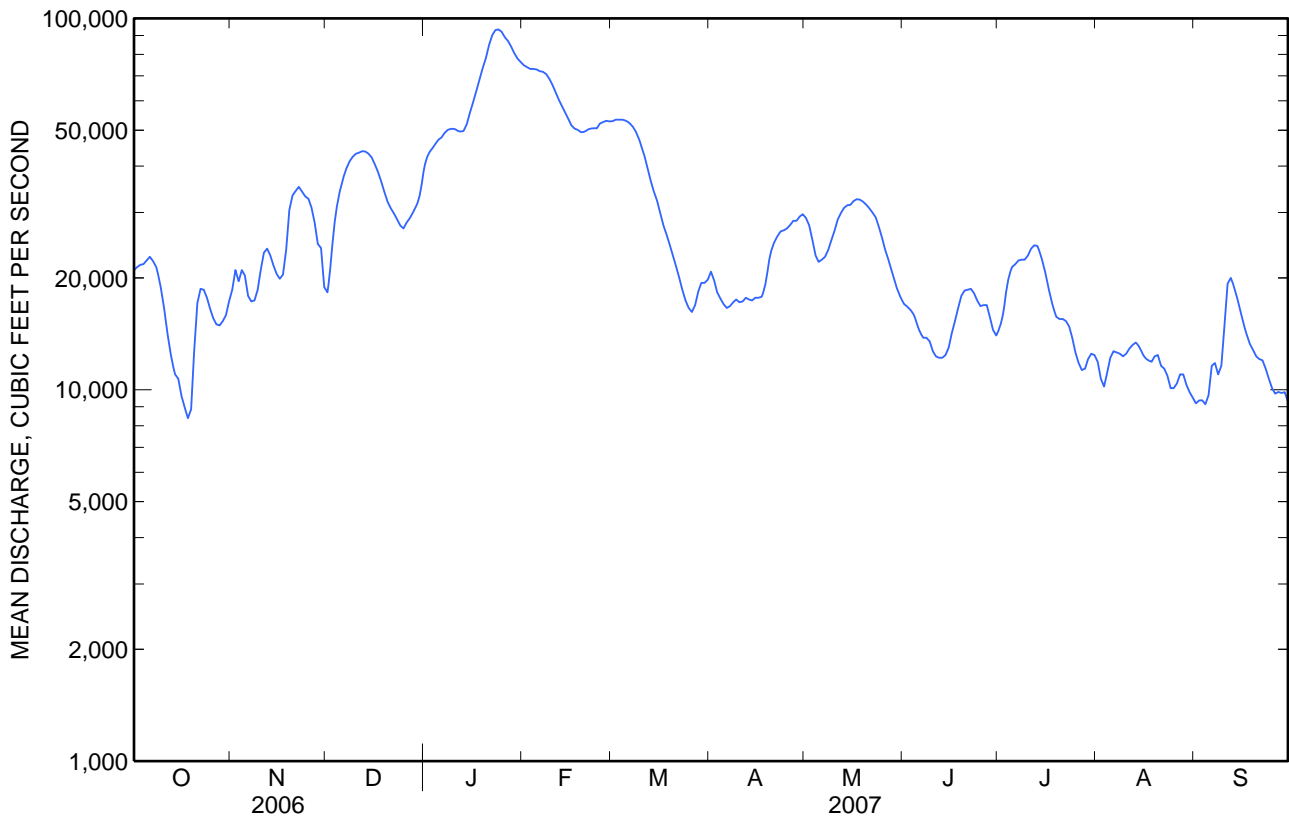
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11,680	15,710	24,520	31,030	36,170	39,010	40,040	39,660	25,260	19,200	15,870	12,850
Max	30,100	48,890	67,180	110,000	107,100	73,060	75,360	90,730	73,590	48,560	48,900	36,450
(WY)	(1950)	(1958)	(1952)	(1950)	(1950)	(1989)	(1957)	(1957)	(1957)	(1951)	(1957)	(1950)
Min	3,715	3,831	5,260	6,042	7,974	13,240	13,230	7,448	6,676	7,822	7,112	4,276
(WY)	(1955)	(1955)	(1955)	(1964)	(1964)	(1996)	(1963)	(2001)	(2001)	(1954)	(1954)	(1954)

07077000 WHITE RIVER AT DEVALLS BLUFF, AR—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1950 - 2007	
Annual total	5,929,370		10,238,090			
Annual mean	16,240		28,050		25,870	
Highest annual mean					51,270	1950
Lowest annual mean					11,900	2006
Highest daily mean	43,900	Dec 12	93,400	Jan 24	154,000	Jan 19, 1950
Lowest daily mean	4,400	Jan 8	8,380	Oct 18	2,830	Nov 12, 2005
Annual seven-day minimum	4,710	Jan 6	9,440	Aug 30	3,290	Sep 26, 1954
Maximum peak flow			94,300	Jan 24	154,000	Jan 19, 1950
Maximum peak stage			25.16	Jan 24	28.42	Jan 20, 1950
Instantaneous low flow			8,140	Oct 18	2,620	Nov 12, 2005
Annual runoff (ac-ft)	11,760,000		20,310,000		18,740,000	
10 percent exceeds	32,100		53,000		53,100	
50 percent exceeds	12,000		21,200		18,800	
90 percent exceeds	6,890		11,600		7,920	



07077000 WHITE RIVER AT DEVALLS BLUFF, AR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-60, 1968-70, 1974-95, and 2001 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 3

[Remark codes: <, less than; E, estimated.]

Date	Time	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Sam- pling method, code (82398)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif- ic conduc- tance, wat unf µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)
Nov 28...	0815	80020	24,900	30	769	9.6	85	7.5	235	10.2	120	29.6	12.2
Jan 24...	1115	80020	92,900	10	778	10.9	83	6.9	146	4.8	65	16.7	5.71
Mar 14...	0745	--	34,600	10	770	10.9	105	7.5	258	14.0	110	26.5	11.1
Apr 17...	0900	--	17,700	10	773	10.0	95	8.0	269	13.7	140	31.5	15.0
Jun 29...	1030	--	14,500	10	771	6.7	83	8.1	2,570	26.3	110	26.9	10.6
Aug 23...	1030	--	10,900	10	777	9.1	112	8.1	314	26.9	140	34.2	14.3

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 3

[Remark codes: <, less than; E, estimated.]

Date	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium frac- tion of cations percent (00932)	Sodium, water, fltrd, mg/L (00930)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)
Nov 28...	2.67	.1	4	2.62	3.91	<.10	5.26	132	.32	E.010	--	--	.27
Jan 24...	1.63	.1	4	1.34	1.92	E.07	3.80	83	.34	E.013	1.02	.23	.23
Mar 14...	1.40	.1	4	2.26	3.83	E.05	5.83	128	.28	<.020	--	--	.15
Apr 17...	1.64	.1	5	3.56	4.20	E.09	5.86	147	.44	<.020	.717	.16	.17
Jun 29...	1.73	.1	6	3.23	5.34	.11	6.09	139	.45	<.020	1.00	.23	.23
Aug 23...	1.48	.2	6	4.24	6.27	E.06	6.84	169	.48	<.020	--	--	<.06

07077000 WHITE RIVER AT DEVALLS BLUFF, AR—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 3

[Remark codes: <, less than; E, estimated.]

Date	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
Nov 28...	--	E.002	.59	.072	.023	E.02	.08	E36	E18	86	27	1,820	8010
Jan 24...	.010	.003	.57	.061	.020	<.04	.10	E70	73	18	213	53,400	3055
Mar 14...	--	E.001	.43	.023	.008	<.04	.06	44	E7	91	46	4,300	3052
Apr 17...	.010	.003	.60	.037	.012	<.04	.07	23	39	93	40	1,910	3070
Jun 29...	.024	.007	.68	.070	.023	<.04	.11	33	47	96	94	3,680	3052
Aug 23...	--	E.002	--	.020	.007	<.04	.05	E5	24	90	61	1,800	3052