

07077500 CACHE RIVER AT PATTERSON, ARWhite Basin
Cache Subbasin

LOCATION.--Lat 35°16'10", long 91°14'15" referenced to North American Datum of 1927, in SE ¼ SE ¼ sec.31, T.8 N., R.2 W., Woodruff County, AR, Hydrologic Unit 08020302, at bridge on U.S. Highway 64 at Patterson, 10.9 mi upstream from Maple Slough, at mile 77.2.

DRAINAGE AREA.--1,037 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct 1927 to Sep 1931, Feb 1937, Aug 1937 to Sep 1960, Oct 1965 to Sep 1977, Oct 1997 to current year in reports of the U.S. Geological Survey. Monthly discharge is periodic, published in WSP 1311 and WSP 1731. Jan 1947 to Dec 1963 in reports from the Mississippi River Commission. Jan 1964 to date in reports from the U.S. Army Corps of Engineers, Memphis District. Gage height records Jul 11, 1916, to Dec 31, 1931, are contained in reports from the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 182.96 ft above NGVD of 1929. Prior to Oct 3, 1966, nonrecording and recording gages at or within 1,000 ft of old U.S. Highway 64 crossing, 1.4 mi downstream as follows: Prior to 1931, nonrecording gage at datum 183.17 ft above NGVD of 1929; Jan 1937 to Oct 5, 1949, nonrecording gage; and Oct 6, 1949, to Dec 31, 1950, water-stage recorder at mean Gulf level, or 0.24 ft below sea level; Jan 1, 1950, to Oct 2, 1966, water-stage recorder at present datum.

COOPERATION.--U.S. Army Corps of Engineers.

REMARKS.--Water-discharge records poor, including estimated record. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr 19, 1927, reached a stage of 16.1 ft, present datum, from floodmarks, discharge, 24,500 ft³/s, due to break in White River levee.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,740 ft³/s, Mar 16 and 17, maximum gage height, 9.79 ft, Sep 30; minimum discharge, 3.6 ft³/s, Nov 2- 5, minimum gage height, 2.39 ft.

07077500 CACHE RIVER AT PATTERSON, AR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	668	3.8	21	30	815	348	465	218	23	213	793	661
2	704	3.6	21	e27	705	332	340	282	26	138	924	742
3	656	3.6	22	e25	732	273	272	367	28	96	1,060	816
4	550	3.6	22	e25	814	212	242	536	32	81	e1,050	820
5	415	e4.3	22	e25	797	178	233	827	35	79	882	756
6	293	4.1	22	e26	766	170	210	1,170	32	73	668	665
7	198	4.0	22	e27	913	171	197	1,190	33	71	480	554
8	126	4.0	24	e35	1,190	168	218	1,070	32	78	354	439
9	80	3.9	23	e33	1,400	211	220	992	30	83	371	339
10	53	3.9	24	e31	1,420	649	187	1,050	27	82	463	262
11	38	4.0	24	e30	1,240	1,140	139	1,320	25	82	515	218
12	29	10	24	e30	987	1,230	99	1,510	26	94	507	205
13	23	14	25	e30	754	1,390	71	1,560	25	107	477	178
14	20	14	26	34	556	2,060	55	1,740	25	137	536	155
15	18	13	25	34	397	2,600	45	1,940	25	296	755	133
16	e16	12	25	34	291	2,740	40	1,900	24	554	1,040	114
17	e14	12	25	37	234	2,690	36	1,590	25	907	1,260	96
18	e12	12	26	57	202	2,490	32	1,170	32	1,290	1,260	131
19	e9.4	12	27	125	183	2,120	31	806	60	1,550	1,160	194
20	e7.4	13	27	158	185	1,740	34	539	115	1,550	1,040	192
21	e5.8	14	27	172	217	1,530	43	342	195	1,300	909	179
22	4.6	15	27	196	248	1,660	46	215	343	978	790	218
23	4.6	15	28	328	276	1,770	47	134	553	674	666	268
24	4.5	17	28	605	282	1,830	47	88	837	439	587	316
25	4.4	21	27	771	249	2,080	46	63	1,040	314	565	356
26	4.4	19	28	813	219	2,250	39	48	1,050	261	615	539
27	4.4	19	29	892	230	2,100	31	38	893	231	684	1,040
28	4.4	22	29	1,060	292	1,710	26	33	691	352	729	1,770
29	4.2	22	29	1,220	---	1,290	30	29	502	870	732	2,200
30	4.2	21	30	1,210	---	944	115	26	334	1,000	698	2,410
31	4.0	---	30	1,030	---	662	---	25	---	848	659	---
Total	3,979.3	339.8	789	9,150	16,594	40,738	3,636	22,818	7,118	14,828	23,229	16,966
Mean	128	11.3	25.5	295	593	1,314	121	736	237	478	749	566
Max	704	22	30	1,220	1,420	2,740	465	1,940	1,050	1,550	1,260	2,410
Min	4.0	3.6	21	25	183	168	26	25	23	71	354	96
Ac-ft	7,890	674	1,560	18,150	32,910	80,800	7,210	45,260	14,120	29,410	46,070	33,650

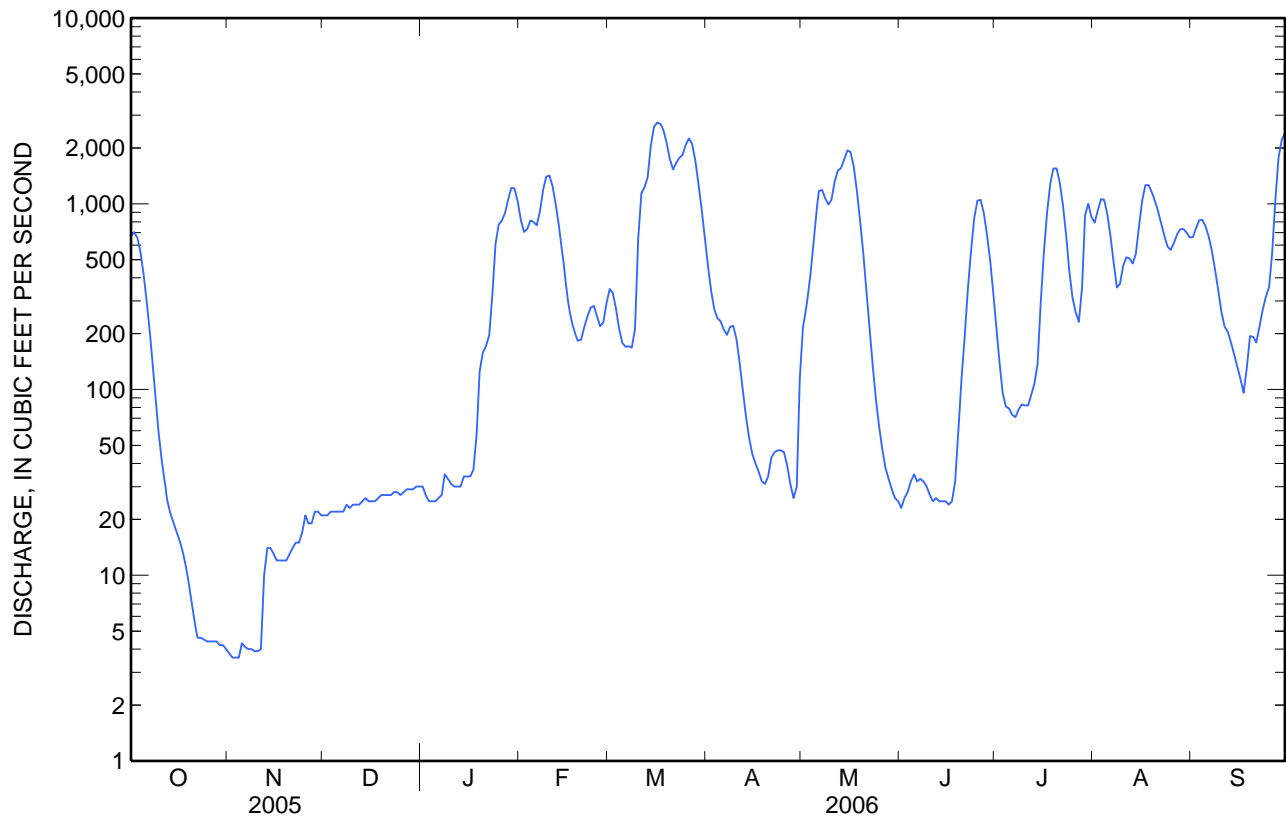
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	385	729	1,536	1,945	2,119	2,185	1,934	1,579	865	500	471	442
Max	3,100	5,297	6,168	8,809	8,817	5,770	7,586	6,075	5,890	2,093	3,009	2,210
(WY)	(1985)	(1958)	(1958)	(1950)	(1950)	(1945)	(1979)	(1973)	(1928)	(1945)	(1998)	(1965)
Min	8.32	11.3	25.5	37.8	68.6	168	121	150	67.7	57.6	47.1	45.5
(WY)	(1988)	(2006)	(2006)	(1964)	(1963)	(1941)	(2006)	(1941)	(1941)	(1954)	(1944)	(1943)

07077500 CACHE RIVER AT PATTERSON, AR—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1928 - 2006	
Annual total	261,724.1		160,185.1			
Annual mean	717		439		1,224	
Highest annual mean					2,984	
Lowest annual mean					308	
Highest daily mean	4,650	Jan 14	2,740	Mar 16	12,100	Jun 27, 1928
Lowest daily mean	3.6	Nov 2	3.6	Nov 2 ^a	0.00	Oct 27, 1956
Annual seven-day minimum	3.9	Oct 29	3.9	Oct 29	0.00	Oct 24, 1978
Maximum peak flow			2,740	Mar 16 ^a	13,200	Jan 24, 1937
Maximum peak stage			9.74	Sep 30	^b 13.21	Jan 24, 1937
Instantaneous low flow			3.6	Nov 2 ^a	0.00	Oct 27, 1956 ^a
Annual runoff (ac-ft)	519,100		317,700		886,900	
10 percent exceeds	1,930		1,230		3,580	
50 percent exceeds	304		192		445	
90 percent exceeds	15		15		65	

^a Occurred on multiple days^b At present datum

07077500 CACHE RIVER AT PATTERSON, AR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct 1952 to May 1955, Oct 1975 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 4

[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. conduc- tance, wat unf uS/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 30...	0830	80020	21	30	772	6.1	53	7.6	322	9.9	140	35.9	11.0
Jan 24...	1550	80020	647	10	778	10.1	82	7.1	191	7.0	60	15.2	5.42
Mar 29...	0845	80020	1,330	30	774	8.2	73	7.3	126	10.8	33	7.96	3.13
Apr 26...	1040	80020	39	30	770	4.2	47	7.6	163	21.0	53	13.8	4.39
Jun 07...	0930	80020	33	70	766	4.0	47	6.8	183	23.9	60	16.1	4.91
Aug 09...	1015	80020	362	30	772	6.0	79	7.6	437	30.1	160	41.2	13.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 4

[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 (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (71851)	Nitrate water, fltrd, mg/L as N (00618)
Nov 30...	4.51	.5	17	13.4	9.23	.2	8.8	203	.71	--	<.04	--	--
Jan 24...	6.74	.6	25	10.7	11.0	E.1	24.6	136	1.2	--	<.04	4.45	1.01
Mar 29...	3.42	.6	31	7.53	5.87	.1	11.9	95	1.1	--	<.04	--	--
Apr 26...	4.21	.5	24	8.35	6.42	.2	10.1	112	1.5	--	<.04	1.58	.36
Jun 07...	4.26	.5	24	9.31	9.18	.2	12.4	119	1.4	.03	.021	--	--
Aug 09...	3.32	.6	20	18.8	10.9	.2	27.2	265	.89	.01	.011	--	--

07077500 CACHE RIVER AT PATTERSON, AR—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 4

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

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro- gen, water, unfltrd mg/L (00605)	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, col/ 100 mL (31633)	Fecal coli- form, M-FC col/ 100 mL (31625)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
Nov 30...	<.06	--	<.008	--	--	.221	.07	.09	.22	130	140	99	53
Jan 24...	1.02	.033	.010	--	2.2	.331	.11	.12	.29	680	580	98	143
Mar 29...	.23	--	E.004	--	1.4	.138	.04	.07	.26	44	68	95	132
Apr 26...	.44	.260	.079	--	1.9	.248	.08	.08	.45	86	120	99	264
Jun 07...	.25	--	E.001	1.3	1.6	.186	.061	.06	.30	54	44	97	107
Aug 09...	<.06	--	<.002	.87	--	.185	.060	.08	.16	54	46	89	37

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005
TO SEPTEMBER 2006

Part 4 of 4

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

Date	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
Nov 30...	3.0	3070
Jan 24...	250	3052
Mar 29...	474	3070
Apr 26...	28	8010
Jun 07...	9.5	3070
Aug 09...	36	3070