

Water-Data Report 2007

07077700 BAYOU DEVIEW NEAR MORTON, AR

White Basin
Cache Subbasin

LOCATION.--Lat 35°15'07", long 91°06'43" referenced to North American Datum of 1983, in SW ¼ SE ¼ sec.5, T.7 N., R.1 W., Woodruff County, AR, Hydrologic Unit 08020302, at bridge on U.S. Hwy 64, 1.0 mi west of Morton, and at river mile 39.6.

DRAINAGE AREA.--421 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Apr 1939 to May 1973, Aug 1973 to Sep 1977, Oct 1997 to current year in reports of the U.S. Geological Survey. Feb 1939 to Dec 1963 in reports of the Mississippi River Commission. Jan 1964 to date in reports of the U.S. Army Corps of Engineers, Memphis District.

REVISED RECORDS.--WDR Arkansas 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 187.71 ft above NGVD of 1929. Non-recording gage prior to Nov 8, 1949. At datum 0.26 ft below NGVD of 1929 prior to Jan 1, 1952.

COOPERATION.—Gage-height records furnished by the U.S. Army Corps of Engineers.

REMARKS.--Water-discharge records good except estimated daily discharges and discharges below 10 ft³/s which are poor. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,280 ft³/s, Jan 26-28, gage height, 18.10 ft; minimum discharge, 0.00 ft³/s, on many days, gage height, 13.05 ft.

07077700 BAYOU DEVIEW NEAR MORTON, 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	28	950	118	1,330	1,590	916	100	57	0.00	380	e109	36
2	17	852	485	1,380	1,270	758	350	48	0.00	973	41	46
3	9.1	553	620	1,350	997	531	235	49	0.00	1,230	11	37
4	1.8	314	503	1,190	796	374	121	160	0.00	1,400	0.01	22
5	0.00	186	326	1,030	616	244	73	231	0.00	1,440	0.65	56
6	0.00	139	210	1,010	480	176	51	166	0.00	1,420	5.6	398
7	0.00	371	146	1,120	429	146	37	105	0.00	1,360	e26	663
8	0.00	715	102	1,270	391	126	25	82	0.00	1,200	e88	759
9	0.00	728	79	1,300	359	106	17	66	0.00	808	e2.5	1,010
10	0.00	529	65	1,260	294	84	17	51	19	500	e0.00	1,390
11	0.00	335	59	1,060	246	74	31	54	44	400	e0.00	1,610
12	0.00	282	103	803	223	65	175	452	50	275	e0.00	1,700
13	0.00	263	408	851	292	58	240	644	44	195	e0.00	1,760
14	0.00	178	655	1,440	382	56	254	638	29	156	e0.00	1,760
15	0.00	193	594	1,900	407	55	610	437	16	112	e0.06	1,620
16	0.00	833	404	2,080	e350	49	768	226	8.7	67	e2.0	1,220
17	0.28	1,160	261	2,140	e250	49	827	275	4.8	24	8.3	822
18	301	1,320	184	2,170	180	44	678	192	1.1	0.87	13	543
19	467	1,400	140	2,180	135	37	384	93	38	0.00	30	344
20	323	1,400	107	2,180	111	33	203	58	71	0.00	61	211
21	182	1,300	107	2,190	114	30	116	41	68	0.00	64	142
22	115	1,010	312	2,210	120	26	69	23	53	0.00	61	92
23	69	686	514	2,220	115	25	49	6.5	33	0.00	61	64
24	49	473	506	2,240	153	21	36	0.00	36	0.00	58	45
25	32	320	494	2,260	594	18	70	0.00	90	0.00	45	35
26	22	209	844	2,270	824	17	419	0.00	139	0.00	37	37
27	22	145	1,030	2,280	923	21	456	0.00	92	0.00	31	99
28	471	100	1,090	2,250	948	27	277	0.00	63	0.00	34	171
29	797	78	993	2,170	---	58	145	0.00	42	2.9	37	125
30	907	71	864	2,030	---	60	81	0.00	36	129	31	73
31	977	---	1,150	1,850	---	49	---	0.00	---	176	28	---
Total	4,790.18	17,093	13,473	53,014	13,589	4,333	6,914	4,154.50	977.60	12,248.77	885.12	16,890
Mean	155	570	435	1,710	485	140	230	134	32.6	395	28.6	563
Max	977	1,400	1,150	2,280	1,590	916	827	644	139	1,440	109	1,760
Min	0.00	71	59	803	111	17	17	0.00	0.00	0.00	0.00	22
Ac-ft	9,500	33,900	26,720	105,200	26,950	8,590	13,710	8,240	1,940	24,300	1,760	33,500
Cfs/m	0.37	1.35	1.03	4.06	1.15	0.33	0.55	0.32	0.08	0.94	0.07	1.34
In.	0.42	1.51	1.19	4.68	1.20	0.38	0.61	0.37	0.09	1.08	0.08	1.49

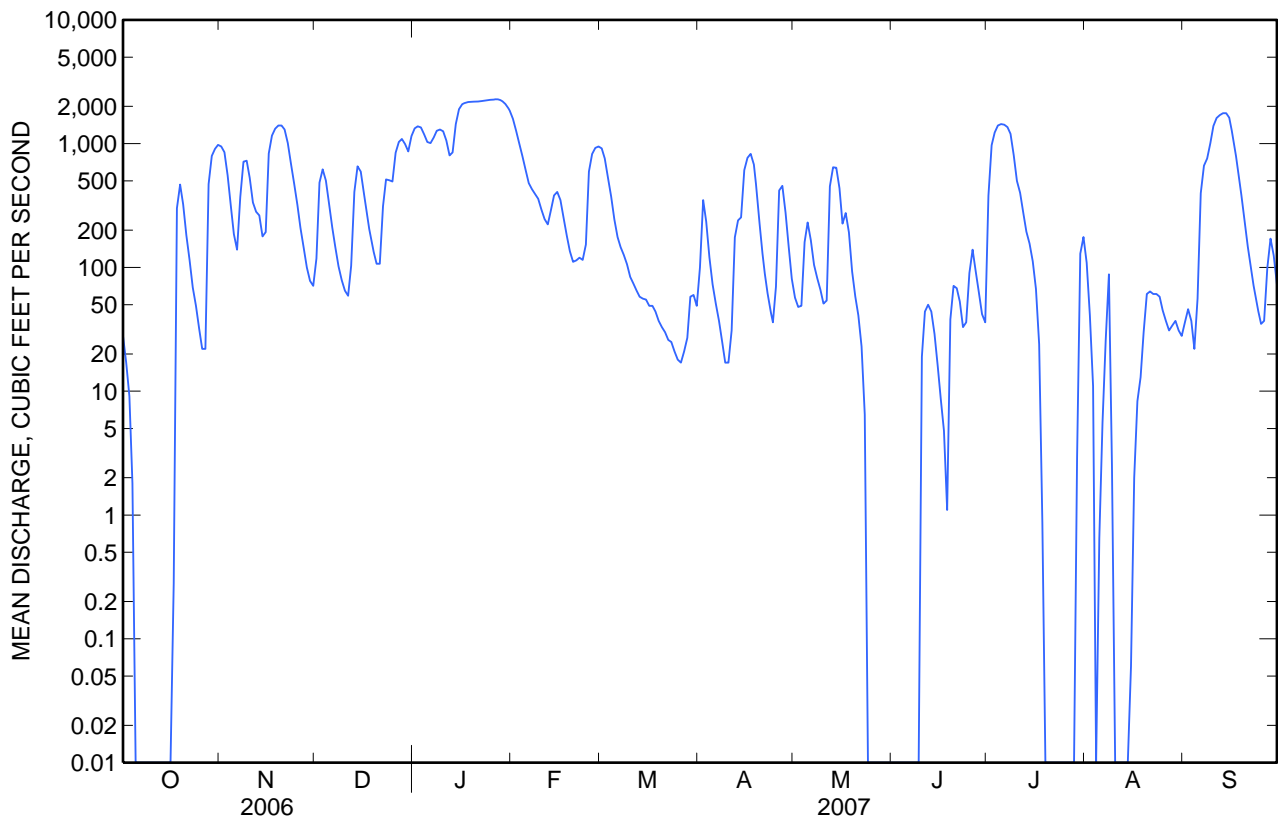
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	120	358	636	874	972	944	728	547	292	165	203	213
Max	1,798	2,811	2,515	3,917	3,837	2,658	1,981	2,389	2,173	682	1,020	1,073
(WY)	(1950)	(1958)	(2002)	(1950)	(1956)	(1945)	(1957)	(1958)	(1945)	(1967)	(1966)	(1965)
Min	0.00	0.00	0.00	12.8	2.96	44.2	24.2	5.55	4.47	0.00	0.06	0.00
(WY)	(1957)	(1954)	(1963)	(1964)	(1963)	(1941)	(1963)	(1948)	(1941)	(1954)	(1947)	(1943)

07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1939 - 2007	
Annual total	83,173.04		148,362.17			
Annual mean	228		406		491	
Highest annual mean					1,312	1950
Lowest annual mean					132	2006
Highest daily mean	1,400	Nov 19	2,280	Jan 27	6,640	Nov 23, 1957
Lowest daily mean	0.00	Jan 1	0.00	Oct 5 ^a	0.00	Aug 7, 1943
Annual seven-day minimum	0.00	Jan 1	0.00	Oct 5	0.00	Aug 7, 1943
Maximum peak flow			2,280	Jan 26 ^a	6,700	Nov 23, 1957
Maximum peak stage			18.10	Jan 26 ^a	18.79	Dec 25, 2001
Instantaneous low flow			0.00	Oct 4 ^a	0.00	Jan 1, 1966 ^a
Annual runoff (ac-ft)	165,000		294,300		355,900	
Annual runoff (cfs)	0.541		0.965		1.17	
Annual runoff (inches)	7.35		13.11		15.85	
10 percent exceeds	803		1,300		1,680	
50 percent exceeds	92		120		109	
90 percent exceeds	0.00		0.00		0.00	

^a Occurred on multiple days

07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct 1973 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

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- 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 02...	0945	80020	887	30	770	4.7	44	7.0	181	12.7	51	13.0	4.44
Dec 13...	1000	80020	391	70	777	8.7	73	7.0	169	8.9	51	13.2	4.41
Mar 21...	0915	--	31	10	770	4.1	41	7.0	154	15.2	51	13.2	4.43
Apr 24...	1045	--	35	10	775	7.2	80	7.1	130	21.2	42	10.9	3.61
Jun 20...	0915	--	71	10	770	4.8	59	7.5	462	26.8	180	47.6	15.9
Aug 23...	0935	--	61	10	767	3.3	44	7.8	522	30.7	240	63.8	19.9

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

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 02...	7.98	.4	19	6.46	9.96	.14	14.8	130	.99	--	<.020	--	--
Dec 13...	7.83	.4	19	6.75	10.1	.15	10.2	111	1.4	--	E.011	1.33	.30
Mar 21...	4.78	.4	20	6.61	6.22	.14	6.91	99	1.8	--	E.014	.709	.16
Apr 24...	4.71	.4	20	5.68	5.57	.14	10.5	104	1.7	--	E.019	.890	.20
Jun 20...	5.29	.6	18	19.3	18.4	.26	78.4	307	1.6	.07	.057	.338	.08
Aug 23...	3.74	.7	18	24.9	20.1	.30	49.5	373	.76	.03	.024	.257	.06

07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

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, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Suspd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
Nov 02...	E.05	--	E.002	--	--	.460	.150	.15	.27	92	E200	74	25
Dec 13...	.31	.030	.009	--	1.7	.606	.198	.24	.48	1,200	1,100	94	92
Mar 21...	.17	.016	.005	--	2.0	.158	.052	.06	.41	140	150	97	99
Apr 24...	.21	.042	.013	--	2.0	.216	.071	.09	.40	E11	28	98	94
Jun 20...	.10	.071	.022	1.5	1.7	.099	.032	.05	.19	80	E90	91	44
Aug 23...	.07	.023	.007	.74	.82	.373	.122	.12	.18	93	87	87	30

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006
TO SEPTEMBER 2007

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 02...	60	8010
Dec 13...	97	3070
Mar 21...	8.3	3070
Apr 24...	8.9	3070
Jun 20...	8.4	3070
Aug 23...	4.9	3070