

Water-Data Report 2008

**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 mile 39.6.

DRAINAGE AREA.--421 mi<sup>2</sup>.

**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 Mississippi River Commission. Jan 1964 to date in reports of 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. Nonrecording 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 U.S. Army Corps of Engineers.

REMARKS.--Water-discharge records fair except estimated daily discharges and discharges below 10 ft<sup>3</sup>/s, which are poor. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,630 ft<sup>3</sup>/s, Apr 15-19, gage height, 18.41 ft; minimum discharge, 0.00 ft<sup>3</sup>/s, on several days, gage height, 12.53 ft.

## 07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	50	191	974	e762	432	205	e2,190	279	21	47	168	232
2	39	127	624	e515	471	165	e2,220	187	14	35	125	237
3	30	79	405	e356	441	294	e2,240	203	7.5	18	98	348
4	21	53	274	249	377	1,190	e2,290	494	3.2	9.5	76	631
5	16	33	190	e183	317	1,590	e2,360	512	0.15	18	63	885
6	12	24	130	e149	496	1,780	e2,410	348	0.00	85	55	981
7	6.1	15	91	126	643	1,830	e2,470	220	0.00	104	53	960
8	0.86	11	70	110	636	e1,840	e2,550	158	0.00	74	71	835
9	2.6	9.1	61	187	531	e1,850	e2,600	161	0.00	50	91	668
10	178	5.8	60	567	421	e1,850	e2,630	139	0.00	43	121	537
11	153	2.2	292	696	319	1,850	e2,630	299	0.00	41	236	440
12	79	0.95	585	616	519	1,850	e2,620	492	0.00	48	277	387
13	46	0.14	912	425	1,080	1,810	e2,610	340	0.00	151	242	352
14	26	0.00	1,100	286	1,310	1,800	e2,610	223	0.00	370	184	295
15	18	0.00	1,300	e211	1,420	1,810	2,610	321	0.00	272	133	253
16	17	2.4	1,570	e159	1,450	1,800	2,630	288	0.00	156	121	236
17	33	14	1,720	e123	1,510	1,720	2,630	190	1.2	91	142	236
18	774	16	1,770	111	1,550	1,610	2,630	120	2.8	58	143	216
19	1,140	14	1,780	98	1,510	1,830	2,620	82	4.2	42	122	184
20	1,330	12	1,840	84	1,410	1,960	2,610	67	7.6	40	127	150
21	1,390	12	1,920	77	1,230	e2,030	2,590	55	19	42	277	121
22	1,390	171	1,950	69	1,160	e2,130	2,430	46	25	44	567	104
23	1,350	e501	1,960	65	1,130	e2,180	1,980	38	25	45	795	115
24	1,250	e365	1,960	64	1,090	e2,190	1,490	33	22	41	805	121
25	1,170	e340	1,930	65	967	2,130	1,230	29	20	44	669	109
26	1,210	e760	1,840	63	782	2,100	1,030	27	17	51	525	97
27	1,220	e1,130	1,690	63	585	2,080	1,050	33	9.2	58	400	90
28	1,110	e1,250	1,480	65	404	2,060	1,020	45	12	324	281	86
29	781	1,290	1,330	79	276	2,050	729	43	45	535	238	80
30	485	1,230	1,190	316	---	2,060	448	32	56	458	231	76
31	304	---	990	377	---	2,110	---	27	---	287	244	---
<b>Total</b>	15,631.56	7,658.59	33,988	7,316	24,467	53,754	64,157	5,531	311.85	3,681.5	7,680	10,062
<b>Mean</b>	504	255	1,096	236	844	1,734	2,139	178	10.4	119	248	335
<b>Max</b>	1,390	1,290	1,960	762	1,550	2,190	2,630	512	56	535	805	981
<b>Min</b>	0.86	0.00	60	63	276	165	448	27	0.00	9.5	53	76
<b>Ac-ft</b>	31,010	15,190	67,420	14,510	48,530	106,600	127,300	10,970	619	7,300	15,230	19,960
<b>Cfs/m</b>	1.20	0.61	2.60	0.56	2.00	4.12	5.08	0.42	0.02	0.28	0.59	0.80
<b>In.</b>	1.38	0.68	3.00	0.65	2.16	4.75	5.67	0.49	0.03	0.33	0.68	0.89

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2008, BY WATER YEAR (WY)

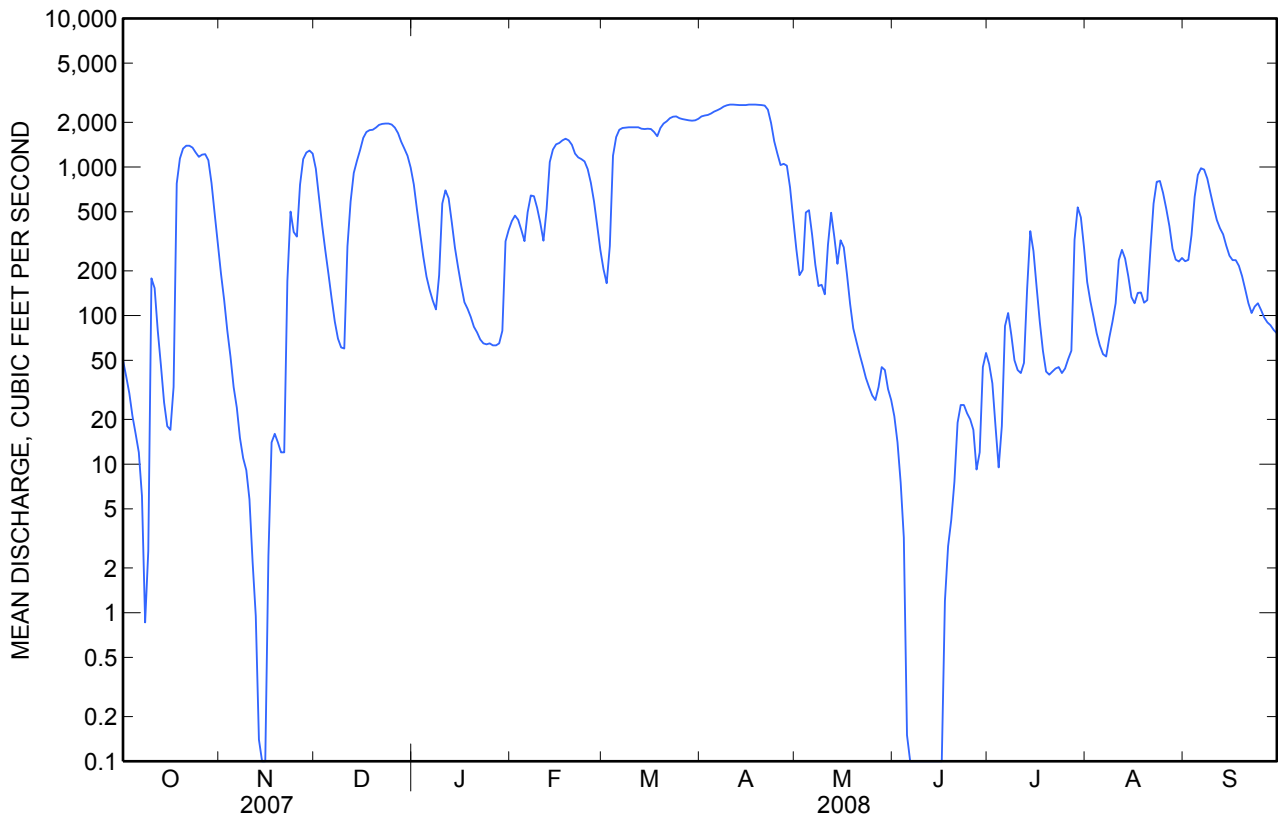
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	127	356	645	861	969	960	756	540	286	164	204	215
<b>Max</b>	1,798	2,811	2,515	3,917	3,837	2,658	2,139	2,389	2,173	682	1,020	1,073
<b>(WY)</b>	(1950)	(1958)	(2002)	(1950)	(1956)	(1945)	(2008)	(1958)	(1945)	(1967)	(1966)	(1965)
<b>Min</b>	0.00	0.00	0.00	12.8	2.96	44.2	24.2	5.55	4.47	0.00	0.06	0.00
<b>(WY)</b>	(1957)	(1954)	(1963)	(1964)	(1963)	(1941)	(1963)	(1948)	(1941)	(1954)	(1947)	(1943)

07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1939 - 2008	
Annual total	170,284.14		234,238.50			
Annual mean	467		640		494	
Highest annual mean					1,312	1950
Lowest annual mean					132	2006
Highest daily mean	2,280	Jan 27	2,630	Apr 10 <sup>a</sup>	6,640	Nov 23, 1957 <sup>a</sup>
Lowest daily mean	0.00	May 24	0.00	Nov 14 <sup>a</sup>	0.00	Aug 7, 1943 <sup>a</sup>
Annual seven-day minimum	0.00	May 24	0.00	Jun 6	0.00	Aug 7, 1943
Maximum peak flow			2,630	Apr 15 <sup>a</sup>	6,700	Nov 23, 1957 <sup>a</sup>
Maximum peak stage			18.41	Apr 15 <sup>a</sup>	18.79	Dec 25, 2001 <sup>a</sup>
Instantaneous low flow			0.00	Oct 8 <sup>a</sup>	0.00	Jan 1, 1966 <sup>a</sup>
Annual runoff (ac-ft)	337,800		464,600		358,100	
Annual runoff (cfsm)	1.11		1.52		1.17	
Annual runoff (inches)	15.05		20.70		15.95	
10 percent exceeds	1,460		1,960		1,700	
50 percent exceeds	112		246		111	
90 percent exceeds	0.11		13		0.00	

<sup>a</sup> Occurred on several 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 2007 TO SEPTEMBER 2008**

Part 1 of 4

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

Date	Time	Instantaneous discharge, ft <sup>3</sup> /s (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)
Oct 04...	0930	22	770	2.6	30	7.1	245	22.9	86	21.7	7.68	7.79	.5
Dec 19...	1545	1,790	769	10.8	84	7.6	98	5.1	29	7.41	2.64	4.41	.3
Jan 24...	1130	63	778	12.1	89	7.6	157	3.3	50	12.8	4.27	5.19	.4
Feb 27...	1045	596	776	8.8	69	7.2	107	5.8	32	8.10	2.86	3.62	.4

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 2 of 4

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

Date	Sodium fraction of cations percent (00932)	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Fluoride, 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 + nitrite, water, fltrd, mg/L as N (00631)	Nitrate, water, fltrd, mg/L as N (71851)	Nitrate, water, fltrd, mg/L as N (00618)	Nitrite, water, fltrd, mg/L (71856)
Oct 04...	18	9.79	13.2	.20	8.68	161	1.1	.07	.053	.18	.723	.16	.068
Dec 19...	20	3.90	5.28	.12	6.71	65	.83	--	<.020	.10	.420	.09	.010
Jan 24...	22	7.17	8.59	.16	7.72	114	.93	.06	.046	.23	.973	.22	.017
Feb 27...	23	4.88	5.08	.12	6.86	78	1.5	.12	.090	.15	.653	.15	.014

07077700 BAYOU DEVIEW NEAR MORTON, AR—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 3 of 4

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

Date	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 as P (00666)	Phos- phorus, water, unfltrd mg/L as P (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC col/ 100 mL (31625)	Suspnd. sedi- ment, sieve diametr percent <62.5um (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)	Sampler type, code (84164)
Oct 04...	.021	1.0	1.3	.363	.118	.13	.29	23	29	92	52	3.1	3070
Dec 19...	.003	--	.93	.239	.078	.10	.25	470	440	95	71	343	8010
Jan 24...	.005	.89	1.2	.324	.106	.12	.28	200	85	96	51	8.7	3070
Feb 27...	.004	1.4	1.6	.108	.035	.06	.31	E76	92	98	139	224	3070

**WATER-QUALITY  
DATA**  
**WATER YEAR  
OCTOBER 2007 TO  
SEPTEMBER 2008**

Part 4 of 4

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

Date	Sam- pling method, code (82398)
Oct 04...	70
Dec 19...	8010
Jan 24...	70
Feb 27...	30