

Water-Data Report 2006

07077700 BAYOU DEVIEW NEAR MORTON, AR

White Basin
Cache Subbasin

LOCATION.--Lat 35°15'07", long 91°06'37" referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.5, T.7 N., R.1 W., Woodruff County, AR, Hydrologic Unit 08020302, at bridge on U.S. Highway 64, 1.0 mi west of Morton, at 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 from the Mississippi River Commission. Jan 1964 to date in reports from the U.S. Army Corps of Engineers, Memphis District.

REVISED RECORDS.--WDR Ark. 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, 1,390 ft³/s, May 12 and 13, gage height, 17.30 ft; minimum discharge, 0.00 ft³/s, on many days, gage height, 12.56 ft.

07077700 BAYOU DEVIEW NEAR MORTON, 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	117	0.00	0.00	0.00	134	92	83	115	0.00	0.00	980	61
2	67	0.00	0.00	0.00	158	91	164	150	0.00	0.00	567	54
3	46	0.00	0.00	0.00	391	91	142	102	0.00	0.00	288	42
4	34	0.00	0.00	0.00	482	88	98	188	0.00	0.00	e159	34
5	24	0.00	0.00	0.00	374	85	82	511	0.16	0.00	100	24
6	15	0.00	0.00	0.00	230	80	77	548	3.1	0.00	71	14
7	7.1	0.00	0.00	0.00	154	76	71	458	1.8	0.00	51	6.6
8	0.77	0.00	0.00	0.00	129	85	63	263	1.2	0.00	30	8.6
9	0.00	0.00	0.00	0.00	132	237	57	176	0.00	0.00	15	11
10	0.00	0.00	0.00	0.00	136	946	54	655	0.00	0.00	4.4	7.2
11	0.00	0.00	0.00	0.00	124	1,160	49	1,150	0.00	0.00	6.7	2.0
12	0.00	e0.00	0.00	0.00	111	1,250	42	1,350	0.00	0.00	67	2.9
13	0.00	e0.00	0.00	0.00	102	1,210	37	1,380	0.00	0.00	278	5.3
14	0.00	e0.00	0.00	0.00	94	947	32	1,210	0.00	7.2	288	3.0
15	0.00	e0.00	0.00	0.00	109	569	25	741	0.00	34	267	0.06
16	0.00	e0.00	0.00	0.00	130	352	27	418	0.00	33	268	0.00
17	0.00	e0.00	0.00	e0.00	131	214	27	230	0.00	25	247	0.07
18	0.00	0.00	0.00	e59	136	136	24	137	35	12	218	31
19	0.00	0.00	0.00	83	135	105	19	93	318	0.43	192	306
20	0.00	0.00	0.00	75	110	151	17	58	322	0.00	152	437
21	0.00	0.00	0.00	66	91	737	26	31	191	0.00	111	356
22	0.00	0.00	0.00	68	90	996	45	14	90	0.00	102	200
23	0.00	0.00	0.00	547	127	1,090	63	4.5	59	0.00	128	120
24	0.00	0.00	0.00	835	133	1,090	63	13	54	0.00	145	199
25	0.00	0.00	0.00	811	118	908	54	19	56	0.00	151	452
26	0.00	0.00	0.00	532	114	551	45	19	58	0.00	139	403
27	0.00	0.00	0.00	304	101	329	55	21	43	0.33	114	218
28	0.00	0.00	0.00	184	91	196	72	8.0	20	309	92	124
29	0.00	0.00	0.00	166	---	130	63	0.11	3.2	842	111	71
30	0.00	0.00	0.00	178	---	101	54	0.00	0.00	1,020	100	46
31	0.00	---	0.00	157	---	86	---	0.00	---	1,120	74	---
Total	310.87	0.00	0.00	4,065.00	4,367	14,179	1,730	10,062.61	1,255.46	3,402.96	5,516.1	3,238.73
Mean	10.0	0.00	0.00	131	156	457	57.7	325	41.8	110	178	108
Max	117	0.00	0.00	835	482	1,250	164	1,380	322	1,120	980	452
Min	0.00	0.00	0.00	0.00	90	76	17	0.00	0.00	0.00	4.4	0.00
Ac-ft	617	0.00	0.00	8,060	8,660	28,120	3,430	19,960	2,490	6,750	10,940	6,420
Cfsm	0.02	0.00	0.00	0.31	0.37	1.09	0.14	0.77	0.10	0.26	0.42	0.26
In.	0.03	0.00	0.00	0.36	0.39	1.25	0.15	0.89	0.11	0.30	0.49	0.29

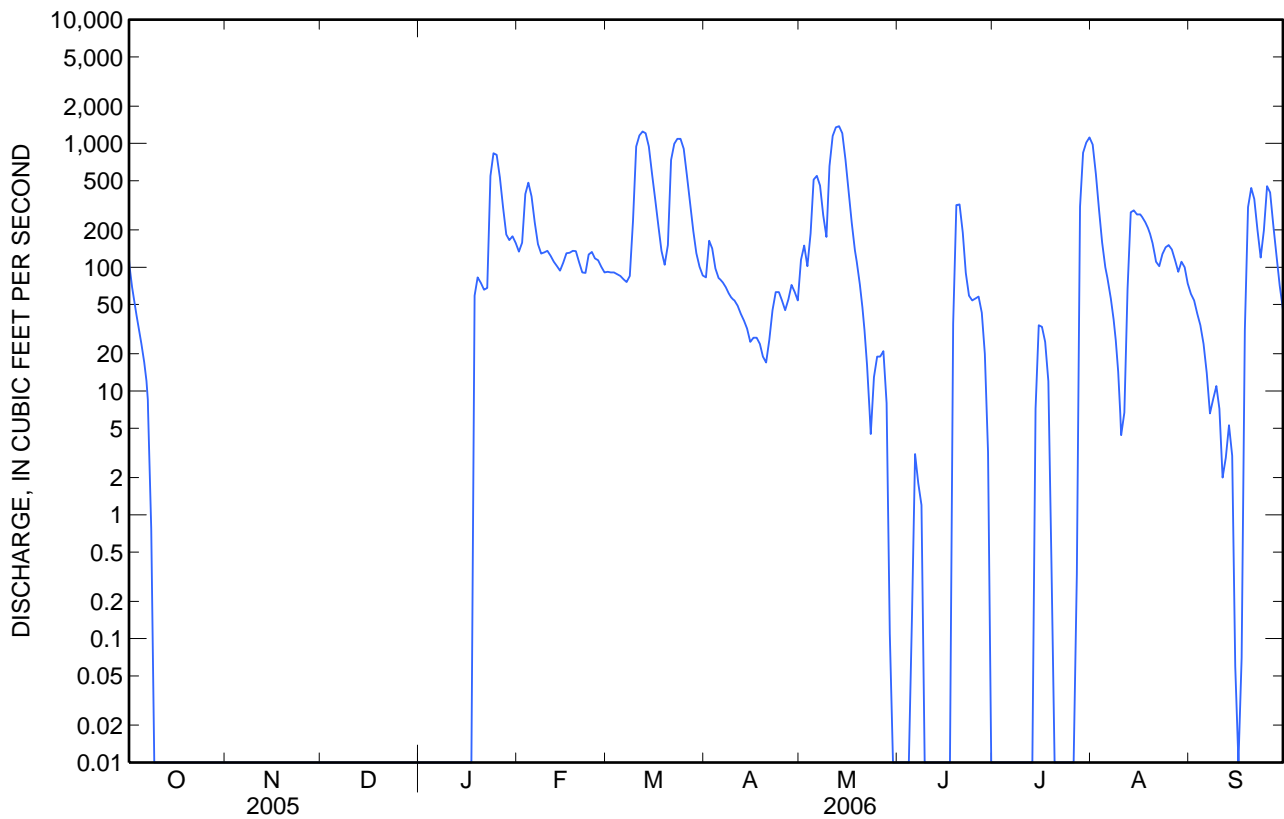
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	119	354	640	856	982	961	738	556	297	160	206	205
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 2005		Water Year 2006		Water Years 1939 - 2006	
Annual total	116,132.35		48,127.73			
Annual mean	318		132		493	
Highest annual mean					1,312	1950
Lowest annual mean					132	2006
Highest daily mean	2,010	Jan 14	1,380	May 13	6,640	Nov 23, 1957
Lowest daily mean	0.00	May 22	0.00	Oct 9 ^a	0.00	Aug 7, 1943
Annual seven-day minimum	0.00	May 22	0.00	Oct 9	0.00	Aug 7, 1943
Maximum peak flow			1,390	May 12 ^a	6,700	Nov 23, 1957
Maximum peak stage			17.30	May 12 ^a	18.79	Dec 25, 2001
Instantaneous low flow			0.00	Oct 8 ^a	0.00	Jan 1, 1966 ^a
Annual runoff (ac-ft)	230,300		95,460		357,200	
Annual runoff (cfs)	0.756		0.313		1.17	
Annual runoff (inches)	10.26		4.25		15.91	
10 percent exceeds	1,230		381		1,690	
50 percent exceeds	35		27		109	
90 percent exceeds	0.00		0.00		0.00	

^a Occurred on multiple days

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct 1973 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)
Jan 24...	1630	80020	851	30	779	10.2	82	7.1	210	6.8	64	16.4	5.65
Mar 29...	0945	80020	132	30	774	7.1	65	7.3	151	12.3	44	11.4	3.84
Apr 26...	1130	80020	45	30	769	4.3	48	7.6	303	20.9	110	29.3	8.40
Jun 07...	1015	80020	1.8	30	766	3.6	43	6.9	184	24.6	60	15.9	4.83
Aug 09...	1110	80020	16	30	774	3.3	43	7.1	383	30.5	140	37.0	12.3

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 (71851)	Nitrate water, fltrd, mg/L as N (00618)
Jan 24...	8.12	.7	27	12.7	13.3	.1	26.2	150	1.6	.07	.06	4.21	.95
Mar 29...	4.27	.5	25	7.66	7.60	.1	13.4	107	1.2	.05	.04	--	--
Apr 26...	6.21	.5	18	12.0	12.3	.3	31.2	202	1.2	.12	.09	--	--
Jun 07...	4.96	.5	23	8.90	9.98	.2	17.1	134	1.4	.12	.090	--	--
Aug 09...	3.96	.5	17	14.2	12.2	.2	21.6	239	1.4	.17	.132	--	--

07077700 BAYOU DEVIEW NEAR MORTON, 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, 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)
Jan 24...	.97	.046	.014	1.5	2.5	.825	.27	.28	.54	780	1,000	98	219
Mar 29...	.12	--	E.005	1.2	1.3	.156	.05	.07	.26	62	82	96	64
Apr 26...	E.04	--	E.007	1.1	--	.196	.06	.08	.24	E20	E23	98	87
Jun 07...	<.06	.012	.004	1.3	--	.123	.040	.05	.29	140	130	95	80
Aug 09...	E.05	.038	.012	1.3	--	.243	.079	.10	.32	56	44	94	60

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)
Jan 24...	503	8010
Mar 29...	23	8010
Apr 26...	11	8010
Jun 07...	.39	8010
Aug 09...	2.6	8010