

Water-Data Report 2007

07264000 BAYOU METO NEAR LONOKE, AR

Arkansas Basin
Bayou Meto Subbasin

LOCATION.--Lat 34°44'13", long 91°54'58" referenced to North American Datum of 1927, in NW ¼ SW ¼ sec.6, T.1 N., R.8 W., Lonoke County, AR, Hydrologic Unit 08020402, near left bank on downstream side of bridge on State Hwy 31, 3.0 mi upstream from Brushy Slough, and 3.5 mi south of Lonoke, and at river mile 106.4.

DRAINAGE AREA.--207 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct 1954 to current year. Gage height records and results of discharge measurements since Jun 1948 at site 4.8 mi upstream are contained in reports of the U.S. Army Corps of Engineers, Vicksburg District; published as "Big Bayou Meto near Lonoke".

REVISED RECORDS.--WRD Arkansas 1970: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 199.11 ft above NGVD of 1929. Prior to Feb 10, 1955, water-stage recorder at site 4.8 mi upstream at datum 6.97 ft higher. Feb 10 to Jun 29, 1955, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records poor including estimated record. Part of low flow is drainage from areas irrigated with ground water and from large minnow farm supplied with ground water. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,030 ft³/s, Jan 19, 20, gage height, 24.73 ft; minimum discharge, 0.00 ft³/s, on many days, gage height, 4.32 ft.

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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	95	95	104	1,080	443	369	102	323	7.4	3.4	0.94	0.04
2	104	84	134	1,160	349	261	92	183	0.60	29	1.4	0.11
3	104	77	242	1,310	291	199	104	117	0.00	18	9.4	0.88
4	85	73	288	1,430	247	169	104	93	0.00	9.1	4.9	1.6
5	85	80	250	1,490	217	142	96	84	8.8	34	0.27	34
6	86	92	193	1,450	203	119	83	75	15	38	0.09	91
7	97	100	154	1,420	225	114	74	70	11	54	0.00	101
8	114	124	133	1,420	217	116	68	88	10	73	0.05	89
9	108	133	121	1,350	194	111	63	105	12	72	0.03	81
10	86	125	113	1,250	176	99	59	262	5.2	78	0.01	100
11	71	111	109	1,160	158	92	63	252	1.3	114	0.07	164
12	68	100	133	1,050	143	91	86	159	0.01	194	0.00	200
13	84	96	196	972	139	92	164	103	0.03	249	0.00	178
14	95	100	322	1,250	146	98	215	77	3.3	234	0.00	113
15	88	228	371	1,830	208	97	207	63	2.9	198	0.01	70
16	99	439	320	2,250	243	96	289	56	0.21	138	0.01	47
17	115	522	242	2,580	211	101	340	48	0.00	96	0.00	34
18	e116	559	184	2,870	173	104	299	54	6.5	68	0.00	28
19	e121	582	156	3,010	145	95	211	39	13	51	0.01	24
20	e121	582	169	2,980	132	92	140	28	19	40	0.03	16
21	e118	522	242	2,840	126	87	110	22	32	35	0.02	13
22	e116	348	323	2,580	121	88	94	19	40	48	0.00	15
23	e114	195	348	2,320	117	92	82	26	36	55	0.00	17
24	112	137	352	2,060	114	91	75	20	35	48	0.10	18
25	110	117	357	1,810	114	88	86	14	37	35	0.36	17
26	132	e108	442	1,580	207	86	139	10	32	27	0.17	17
27	147	e98	530	1,340	383	84	318	15	30	18	0.02	16
28	147	e93	610	1,110	435	82	455	13	26	6.3	0.00	16
29	140	88	668	876	---	76	509	4.3	20	1.3	0.02	25
30	123	90	770	698	---	76	467	4.5	7.9	0.01	0.03	24
31	111	---	965	559	---	98	---	11	---	2.0	0.03	---
Total	3,312	6,098	9,541	51,085	5,877	3,605	5,194	2,437.8	412.15	2,066.11	17.97	1,550.63
Mean	107	203	308	1,648	210	116	173	78.6	13.7	66.6	0.58	51.7
Max	147	582	965	3,010	443	369	509	323	40	249	9.4	200
Min	68	73	104	559	114	76	59	4.3	0.00	0.01	0.00	0.04
Ac-ft	6,570	12,100	18,920	101,300	11,660	7,150	10,300	4,840	817	4,100	36	3,080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	61.8	239	462	434	499	539	477	404	141	55.3	44.8	63.6
Max	775	1,394	1,451	1,648	1,680	1,283	1,517	1,698	1,191	482	402	391
(WY)	(1985)	(1958)	(1974)	(2007)	(1956)	(1997)	(1973)	(1968)	(1974)	(1960)	(1966)	(1978)
Min	0.35	0.00	2.87	21.0	65.2	116	64.5	14.7	2.28	1.28	0.58	1.84
(WY)	(2000)	(2000)	(1955)	(2000)	(1972)	(2007)	(1960)	(2001)	(1988)	(1980)	(2007)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1955 - 2007	
Annual total	63,286.62		91,196.66			
Annual mean	173		250		284	
Highest annual mean					550	1973
Lowest annual mean					95.2	1963
Highest daily mean	1,550	May 11	3,010	Jan 19	5,570	Dec 29, 1987
Lowest daily mean	0.05	Jul 13	0.00	Jun 3 ^a	0.00	Oct 10, 1954
Annual seven-day minimum	4.0	Jun 12	0.00	Aug 12	0.00	Oct 18, 1954
Maximum peak flow			3,030	Jan 19 ^a	5,750	Dec 29, 1987
Maximum peak stage			24.74	Jan 19	27.11	Dec 29, 1987
Instantaneous low flow			0.00	Jun 2 ^a	0.00	Jan 1, 1987 ^a
Annual runoff (ac-ft)	125,500		180,900		205,800	
10 percent exceeds	409		568		853	
50 percent exceeds	95		97		82	
90 percent exceeds	14		0.50		5.5	

^a Occurred on multiple days