

Water-Data Report 2010

07264000 BAYOU METO NEAR LONOKE, AR

Arkansas Basin
Bayou Meto Subbasin

LOCATION.--Lat 34°44'12", long 91°54'57" referenced to North American Datum of 1983, 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 mi upstream from Brushy Slough, 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 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 1955, water-stage recorder at site 4.8 mi upstream at datum 6.97 ft higher. Feb to Jun 1955, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records fair except estimated daily discharges, which are poor. Part of low flow is drainage from areas irrigated with groundwater and from large minnow farm supplied with groundwater. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft³/s, Dec. 29, gage height, 26.46 ft; minimum discharge, undetermined.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	93	2,460	120	3,620	337	375	138	374	76	e0.00	6.8	4.6
2	84	3,010	217	3,110	374	279	116	831	58	e0.00	3.8	6.8
3	79	3,370	425	2,550	424	221	122	1,020	51	e0.00	e1.7	9.0
4	72	3,420	599	2,050	446	196	113	1,160	178	e0.00	e0.01	7.0
5	67	3,300	740	1,690	567	186	151	1,280	151	e0.00	e0.02	5.7
6	72	3,040	825	1,490	682	175	172	1,350	88	e0.00	e0.06	4.1
7	87	2,660	829	1,340	791	155	150	1,350	67	e0.00	e12	4.7
8	96	2,250	770	1,160	903	131	132	1,300	61	e0.01	140	6.9
9	370	1,920	751	912	1,060	127	202	1,200	45	e0.01	298	13
10	884	1,680	770	650	1,150	126	343	1,040	35	e0.00	306	20
11	1,050	1,520	859	467	1,170	159	332	833	32	e0.00	231	18
12	1,140	1,410	937	378	1,180	255	222	585	22	e13	149	21
13	1,260	1,300	953	317	1,170	431	137	372	21	29	96	13
14	1,400	1,140	885	269	1,140	497	103	243	16	76	82	32
15	1,460	933	736	235	1,100	425	91	277	6.1	148	63	19
16	1,490	707	560	250	1,050	302	79	445	e2.5	155	35	17
17	1,490	525	390	313	1,030	214	66	723	e0.03	94	21	13
18	1,480	381	274	397	1,010	169	52	874	e0.00	50	8.1	12
19	1,430	295	210	548	976	147	42	837	e0.00	13	25	11
20	1,370	246	178	666	853	127	34	713	e0.01	e2.9	16	12
21	1,280	210	159	787	694	135	35	545	e0.01	e3.3	6.1	12
22	1,190	189	142	850	707	238	33	481	e0.00	e0.00	4.2	11
23	1,200	166	327	891	770	481	41	492	e0.00	e0.00	e1.7	8.2
24	1,200	146	1,380	960	848	632	68	404	e0.04	e0.00	e1.7	6.7
25	1,190	140	2,320	977	889	656	109	286	e0.71	e0.00	4.7	4.0
26	1,200	137	3,200	980	840	555	171	196	e0.01	e0.01	2.7	5.6
27	1,250	137	4,010	962	695	454	173	271	e0.00	e0.00	e1.2	5.3
28	1,290	131	4,550	905	520	403	116	335	e0.00	e3.7	e0.00	4.1
29	1,290	117	4,700	763	---	322	80	246	e0.01	e1.6	e5.1	5.0
30	1,520	110	4,500	563	---	236	64	153	e0.27	6.1	4.8	4.3
31	1,930	---	4,120	396	---	177	---	104	---	6.9	2.7	---
Total	30,014	37,050	41,436	31,446	23,376	8,986	3,687	20,320	910.69	602.53	1,529.39	316.0
Mean	968	1,235	1,337	1,014	835	290	123	655	30.4	19.4	49.3	10.5
Max	1,930	3,420	4,700	3,620	1,180	656	343	1,350	178	155	306	32
Min	67	110	120	235	337	126	33	104	0.00	0.00	0.00	4.0
Ac-ft	59,530	73,490	82,190	62,370	46,370	17,820	7,310	40,300	1,810	1,200	3,030	627

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	79.2	252	476	437	505	540	489	437	140	57.7	50.6	83.7
Max	968	1,394	1,451	1,648	1,680	1,283	1,517	2,013	1,191	482	402	940
(WY)	(2010)	(1958)	(1974)	(2007)	(1956)	(1997)	(1973)	(2009)	(1974)	(1960)	(1966)	(2008)
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 2009		Water Year 2010		Water Years 1955 - 2010	
Annual total	256,343.9		199,673.61			
Annual mean	702		547		295	
Highest annual mean					550	1973
Lowest annual mean					95.2	1963
Highest daily mean	4,700	Dec 29	4,700	Dec 29	5,570	Dec 29, 1987
Lowest daily mean	6.1	Aug 31	^a 0.00	Jun 18 ^b	0.00	Oct 10, 1954 ^b
Annual seven-day minimum	14	Aug 30	0.00	Jul 1	0.00	Oct 18, 1954
Maximum peak flow			4,730	Dec 29	5,750	Dec 29, 1987
Maximum peak stage			26.46	Dec 29	27.11	Dec 29, 1987
Instantaneous low flow			^c		0.00	Jan 1, 1987 ^b
Annual runoff (ac-ft)	508,500		396,100		213,400	
10 percent exceeds	1,520		1,350		886	
50 percent exceeds	320		202		89	
90 percent exceeds	32		1.4		5.7	

^a Estimated^b Occurred on several days^c Undetermined