Water-Data Report 2007

07123000 ARKANSAS RIVER AT LA JUNTA, CO

Upper Arkansas Basin
Upper Arkansas-Lake Meredith Subbasin

LOCATION.--Lat 37°59′26″, long 103°31′55″ referenced to North American Datum of 1983 (revised), in SW ¼ SE ¼ NE ¼ (revised) sec.2, T.24 S., R.55 W., Otero County, CO, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, and 450 ft upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi^2, of which 115 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May to August 1889 and September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903 and June to November 1908 (gage heights and discharge measurements only), April 1912 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903. Statistical summary computed for 1975 to current year subsequent to completion of Pueblo Dam.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1922.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,040.98 ft (revised) above NAVD of 1988. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940 to June 6, 1967, water-stage recorder at site 300 ft upstream (at former bridge location), at present datum.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions, diversions for irrigation and municipal use, ground-water withdrawals, return flows from irrigated areas, and flows from sewage-treatment plants. Flow partly regulated by Pueblo Reservoir (station 07099350) about 82 mi upstream since Jan. 9, 1974.

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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	157	58	e70	e40	e80	111	47	77	726	367	490	435
2	154	54	e75	e40	e80	102	41	69	366	377	571	439
3	152	51	e75	e40	e80	100	35	116	635	379	655	435
4	171	49	e70	e42	e70	99	35	119	729	417	748	371
5	164	48	80	e45	e70	94	36	55	734	412	403	343
6	159	46	79	e50	e80	91	41	55	1,000	422	415	292
7	156	46	77	e55	e70	287	50	57	947	423	474	244
8	165	45	79	e60	e50	382	54	168	812	412	672	267
9	198	40	78	e65	e40	350	59	78	705	412	338	334
10	289	38	76	e70	e40	367	40	64	603	410	410	300
11	411	42	77	e75	e70	370	48	135	666	441	440	268
12	494	42	77	e80	e100	374	46	439	523	374	496	264
13	516	41	75	e85	e110	370	58	402	667	348	608	239
14	558	268	77	e90	e120	319	54	179	1,100	304	584	212
15	609	582	74	e90	e130	122	42	466	763	306	521	175
16	573	757	69	e90	e140	57	42	814	728	303	466	124
17	469	585	e60	e90	e150	96	47	323	728	273	402	94
18	428	452	e55	e85	e160	131	265	716	667	258	459	77
19	380	215	e50	e75	e160	64	88	852	630	198	549	76
20	357	167	e45	e70	e140	101	67	1,120	687	167	581	155
21	365	130	e40	e65	e140	251	57	641	762	498	463	131
22	416	107	e40	e50	e140	122	57	722	540	494	446	128
23	419	98	e40	e40	193	60	59	602	900	472	436	100
24	423	93	e40	e40	189	57	60	1,130	610	298	426	92
25	425	84	e40	e40	159	52	85	1,760	571	391	430	70
26	464	79	e40	e40	145	53	251	1,710	641	522	399	93
27	458	80	e40	e40	135	41	85	1,030	1,880	492	421	74
28	298	82	e40	e40	122	43	68	737	633	513	485	48
29	160	e70	e40	e40	---	53	63	978	716	596	469	52
30	68	e60	e40	e40	---	49	71	1,020	360	518	431	66
31	59	---	e40	e40	---	46	---	1,120	---	412	605	---
Total	10,115	4,509	1,858	1,812	3,163	4,814	2,051	17,754	22,029	12,209	15,293	5,998
Mean	326	150	59.9	58.5	113	155	68.4	573	734	394	493	200
Max	609	757	80	90	193	382	265	1,760	1,880	596	748	439
Min	59	38	40	40	40	41	35	55	360	167	338	48
Ac-ft	20,060	8,940	3,690	3,590	6,270	9,550	4,070	35,220	43,690	24,220	30,330	11,900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	159	120	113	148	141	106	123	539	831	486	314	122
Max	1,189	545	335	569	620	517	821	3,375	4,307	3,634	1,345	464
(WY)	(1985)	(1987)	(1987)	(1998)	(1985)	(1998)	(1998)	(1999)	(1995)	(1995)	(1984)	(1982)
Min	8.82	4.21	13.5	9.50	6.37	19.6	6.67	15.1	20.0	21.0	19.1	9.59
(WY)	(1978)	(1979)	(1976)	(1976)	(1976)	(1978)	(1978)	(2002)	(2002)	(2002)	(2002)	(1977)

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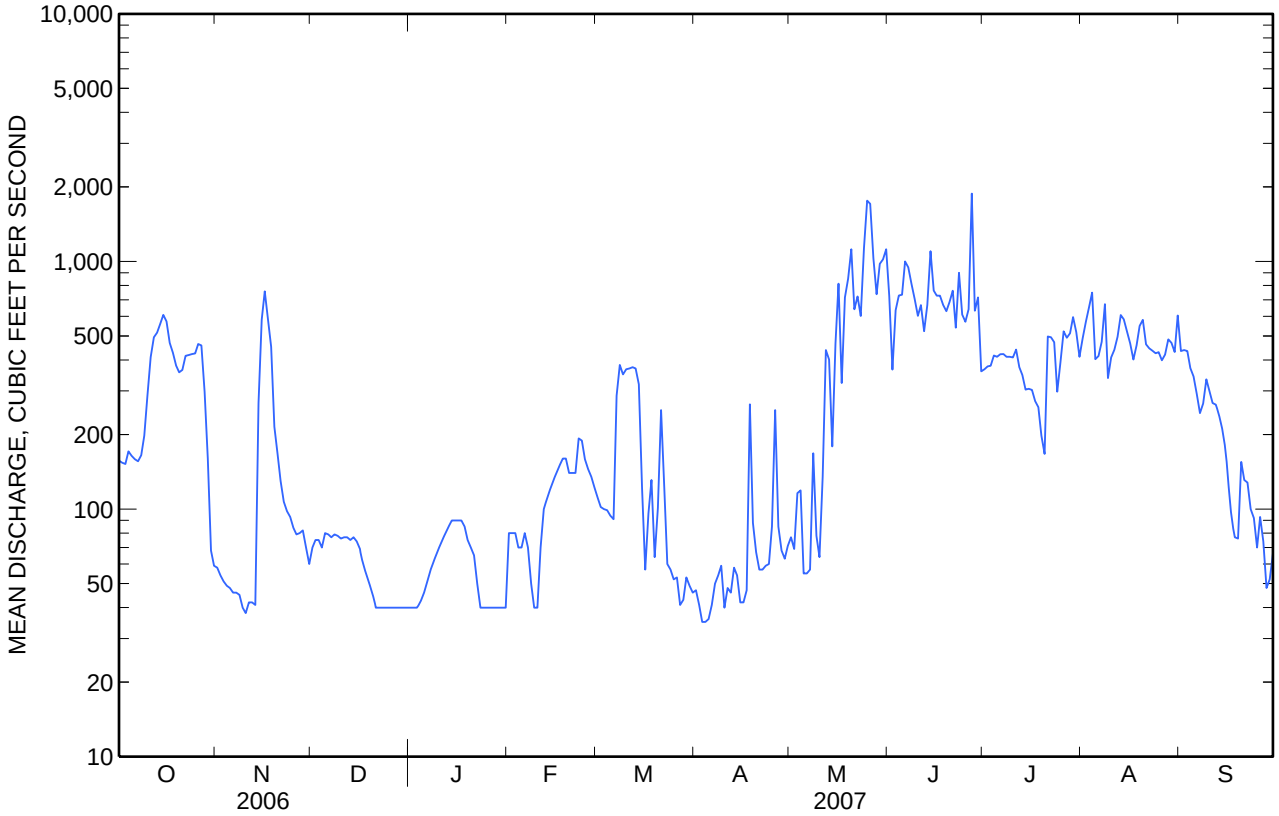
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1975 - 2007	
Annual total	85,103		101,605			
Annual mean	233		278		[a]267	
Highest annual mean					832	1995
Lowest annual mean					47.7	2002
Highest daily mean	2,100	Jul 11	1,880	Jun 27	[b]19,000	May 2, 1999
Lowest daily mean	15	Apr 23	35	Apr 3	[c]2.5	Dec 8, 1978
Annual seven-day minimum	16	Apr 18	40	Dec 21	3.0	Dec 4, 1978
Maximum peak flow			3,100	Jun 27	[d]30,000	May 2, 1999
Maximum peak stage			11.42	Jun 27	[f]15.55	May 2, 1999
Annual runoff (ac-ft)	168,800		201,500		193,700	
10 percent exceeds	640		647		594	
50 percent exceeds	84		145		94	
90 percent exceeds	23		42		21	

[a] Average discharge for 61 years (water years 1913-73), 244 ft³/s; 176,800 acre-ft/yr, prior to completion of Pueblo Dam.
[b] Estimated. Maximum daily discharge for period of record, 61,100 ft³/s, Jun 4, 1921.
[c] Also occurred Dec 9, 1978; minimum daily discharge for period of record, no flow, Jan 20-23 and Mar 20-23, 1915.
[d] Estimated. Peak discharge includes 7,600 ft³/s (estimated) that bypassed the main channel; maximum discharge for period of record, 200,000 ft³/s, Jun 4, 1921, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow.
[f] Gage height reflects the discharge flowing in the main channel; maximum gage height for period of record, 18.4 ft, Jun 4, 1921, site and datum then in use.