07144300 ARKANSAS RIVER AT WICHITA, KS

Middle Arkansas Basin
Middle Arkansas-Slate Subbasin

LOCATION.--Lat 37°38′36″, long 97°20′06″ referenced to North American Datum of 1927, in NE ¼ SE ¼ SE ¼ sec.5, T.28 S., R.1 E., Sedgwick County, KS, Hydrologic Unit 11030013, on right bank at downstream side of bridge on Broadway Street in Wichita, 3.7 mi downstream from mouth of Little Arkansas River and at mile 759.7. Big Slough-Cowskin Floodway gage is in sec.11, T.27 S., R.1 W., Sedgwick County, on right bank at downstream side of bridge on Zoo Boulevard in Wichita, 1.0 mi downstream from control structure, and 6.5 mi northwest of Broadway Street gage.

DRAINAGE AREA.--40,490 mi^2 of which 7,263 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1934 to current year. Gage-height records collected at site 3.2 mi upstream since 1897 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1241: 1940, 1944. WSP 1341: Drainage area.

GAGE.--River gage is water-stage recorder. Datum of river gage is 1,262.42 ft above NGVD of 1929. Prior to Oct. 1, 1985, at datum 5.00 ft higher than present datum. See WSP 1921 for history of changes prior to Oct. 1, 1968. Floodway gage is water-stage recorder. Datum of floodway gage is 1,300.00 ft above NGVD of 1929 (levels by Wichita-Valley Center Flood Control Project).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated since 1948 by John Martin Reservoir (station 07130000). Natural flow affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, city of Wichita weir 2.2 mi upstream, and return flow from irrigated areas. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing floodway discharge and combined discharge are given herein. Satellite telemeter at station. No flow through the floodway occurred this year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 18, 1877, and July 8, 1904, reached stages of 21 ft and 20.3 ft, respectively, river gage site and datum then in use (from reports of U.S. Weather Bureau).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 4	----	*5,180	--

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 07144300, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/07144300.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	19	33	73	181	113	440	293	341	199	88	31	45
2	17	39	70	171	112	1,100	271	228	396	82	30	40
3	17	42	163	167	e3,000	429	249	224	422	77	30	36
4	17	37	106	166	e4,850	283	411	222	264	73	31	34
5	17	38	98	160	e2,800	228	586	238	192	69	31	98
6	17	39	88	157	e1,210	196	877	212	157	66	28	41
7	17	196	69	152	e746	193	638	204	133	65	39	54
8	57	208	89	150	e490	243	438	205	119	68	34	49
9	88	119	117	146	e372	193	352	213	108	63	29	38
10	132	93	103	143	e305	186	299	189	142	60	27	35
11	45	71	96	144	e233	186	265	172	180	57	25	34
12	48	135	86	114	e198	e212	359	168	164	56	24	30
13	42	236	89	97	e185	e193	445	162	112	54	24	61
14	35	167	182	128	e220	e187	393	157	105	51	26	51
15	31	128	108	164	e225	e178	963	151	353	49	27	37
16	31	100	110	151	e198	177	701	143	413	47	27	36
17	29	85	100	137	e193	198	381	136	425	45	25	34
18	26	75	98	113	e185	220	319	129	332	44	24	32
19	28	76	e1,060	112	e180	456	576	127	279	58	24	30
20	27	68	e1,140	141	e187	469	702	137	230	45	24	28
21	29	80	e1,050	100	e203	585	541	122	333	40	24	27
22	29	85	e957	126	e179	862	392	116	412	38	24	26
23	30	67	e843	153	e180	1,190	326	84	290	37	29	24
24	30	64	e636	139	e179	e1,500	286	33	202	35	41	25
25	31	65	e476	132	182	e1,070	268	56	155	34	577	28
26	30	172	e361	126	179	e638	252	78	142	35	148	425
27	30	86	e290	121	175	e482	235	77	124	34	65	61
28	30	84	e250	117	184	406	225	76	112	32	70	44
29	29	88	219	119	183	341	274	74	103	32	51	38
30	31	76	204	119	---	681	272	298	95	32	57	34
31	31	---	194	116	---	336	---	410	---	31	53	---
Mean	34.5	95.1	307	137	608	453	420	167	223	51.5	54.8	52.5
Max	132	236	1,140	181	4,850	1,500	963	410	425	88	577	425
Min	17	33	69	97	112	177	225	33	95	31	24	24
Ac-ft	2,120	5,660	18,890	8,450	35,000	27,880	24,970	10,280	13,280	3,170	3,370	3,120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	897	644	447	414	657	1,126	1,212	1,697	1,969	1,554	901	839
Max	12,900	5,957	2,963	2,153	5,278	9,361	8,498	9,215	8,851	14,620	9,202	3,932
(WY)	(1974)	(1999)	(1974)	(1974)	(1949)	(1973)	(1973)	(1951)	(1951)	(1993)	(1950)	(1973)
Min	10.2	30.7	23.4	18.8	53.7	63.2	58.1	119	119	46.8	14.2	7.90
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1935)	(1935)	(1992)	(1956)	(1991)	(1956)	(1956)

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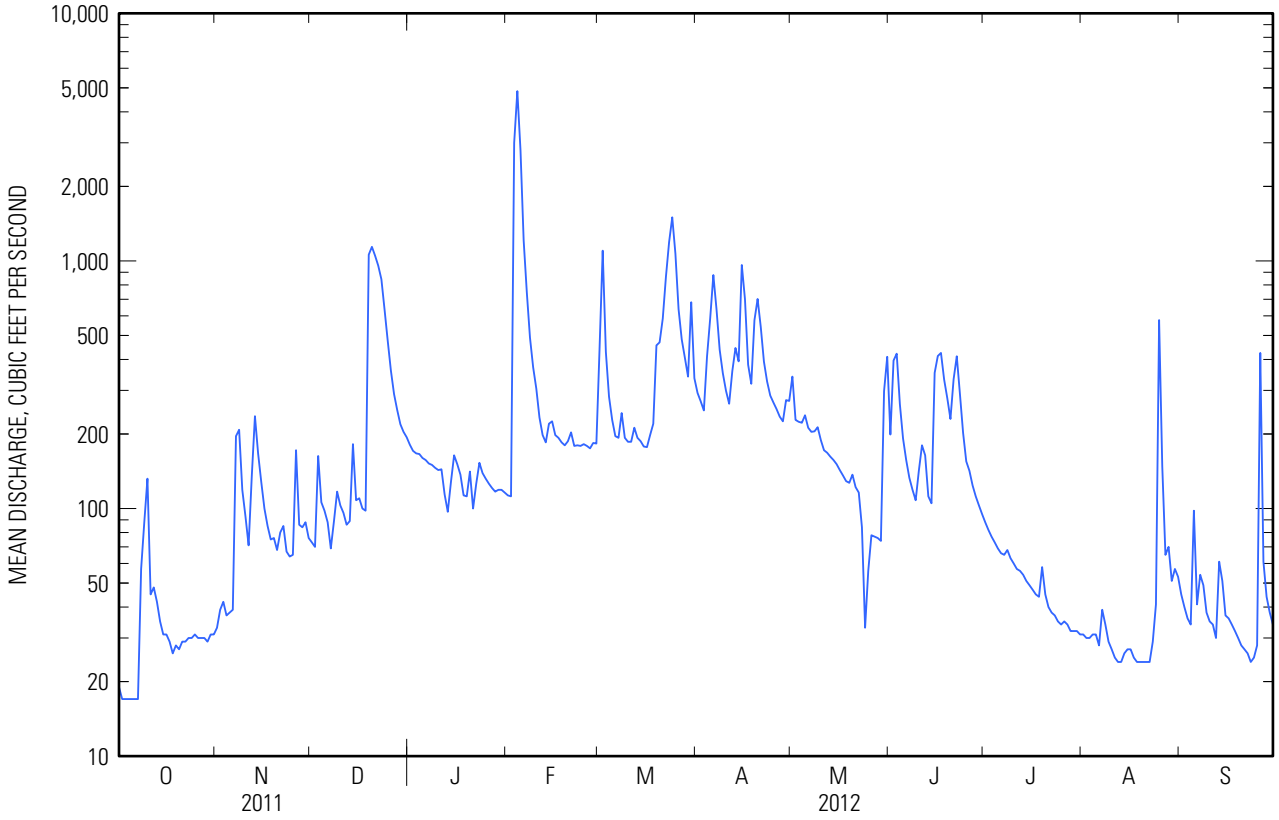
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1935 - 2012	
Annual mean	184		215		1,031	
Highest annual mean					3,850	1993
Lowest annual mean					151	1991
Highest daily mean	1,140	Dec 20	4,850	Feb 4	41,100	Jul 15, 1993
Lowest daily mean	12	Sep 7	17	Oct 2	5.0	Oct 5, 1956
Annual seven-day minimum	17	Oct 1	17	Oct 1	5.4	Oct 2, 1956
Maximum peak flow			5,180	Feb 4	48,400	Oct 31, 1979
Instantaneous low flow			13	Oct 18	3.0	Sep 3, 1934
Annual runoff (ac-ft)	133,500		156,200		747,000	
10 percent exceeds	330		432		2,180	
50 percent exceeds	182		119		420	
90 percent exceeds	29		30		106