

Water-Data Report 2010

06892350 KANSAS RIVER AT DESOTO, KS

Kansas Basin
Lower Kansas Subbasin

LOCATION.--Lat 38°59'00", long 94°57'52" referenced to North American Datum of 1927, in NE ¼ SE ¼ SE ¼ sec.28, T.12 S., R.22 E., Leavenworth County, KS, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county highway, north edge of DeSoto, 0.4 mi upstream from Kill Creek, and at mile 31.0.

DRAINAGE AREA.--59,756 mi², of which a large area is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1917 to current year. Monthly discharge only for some periods published in WSP 1310. Prior to October 1973, published as "at Bonner Springs."

REVISED RECORDS.--WSP 806: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.87 ft above NGVD of 1929. July 9, 1917, to Apr. 23, 1934, nonrecording gage; Apr. 24, 1934, to Nov. 25, 1960, water-stage recorder at site 9.7 mi downstream at datum 11.81 ft lower; Nov. 26, 1960, to Feb. 9, 1961, nonrecording gage; Feb. 10, 1961, to Sept. 30, 1971, water-stage recorder at site 10.2 mi downstream at datum 17.81 ft lower; and Oct. 1, 1971, to Sept. 30, 1973, at site 10.2 mi downstream at datum 22.81 ft lower. Lowered gage datum 5.0 ft Sept. 30, 1996, to 753.87 ft.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Natural flow affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Diurnal fluctuations caused by hydroelectric plant 20.8 mi upstream; since storage capacity is small, daily flows are not affected appreciably. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1844, that of July 13, 1951.

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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	2,180	4,630	8,360	8,050	11,700	6,190	12,400	10,800	e15,100	5,080	24,300	6,490
2	1,980	5,270	8,330	7,180	10,800	6,010	19,300	10,900	e15,400	4,820	16,600	7,840
3	1,840	5,690	8,450	6,780	10,600	6,060	21,600	12,000	14,600	4,840	10,900	7,620
4	1,770	5,080	8,030	6,610	8,830	6,010	20,700	12,000	10,500	9,600	9,380	5,830
5	2,000	4,450	7,820	7,590	8,350	6,240	21,200	11,900	9,050	19,200	9,710	5,210
6	2,840	3,670	7,730	7,010	8,500	6,800	20,900	13,000	8,650	43,200	11,500	4,950
7	3,010	3,870	7,840	6,310	8,130	7,110	24,700	e12,800	9,050	28,000	16,100	5,160
8	3,320	3,910	8,140	e7,290	7,720	8,340	21,900	12,500	9,880	21,500	20,100	6,070
9	4,590	3,760	7,800	e7,300	7,570	10,100	20,400	12,100	12,400	20,600	22,300	e6,110
10	3,500	4,050	5,710	e7,490	7,110	17,300	18,200	10,600	11,100	17,300	22,400	e6,080
11	3,170	5,750	4,410	e7,500	6,690	16,800	18,100	13,200	8,840	20,000	22,600	5,690
12	2,670	4,550	4,690	e7,450	6,530	16,900	19,000	16,500	6,490	24,400	26,500	5,470
13	2,230	3,440	5,320	e7,370	6,250	13,600	18,400	32,500	7,990	21,400	29,100	5,230
14	2,160	3,190	4,790	e7,490	5,930	8,320	16,000	27,000	20,900	18,000	30,800	5,110
15	2,180	3,090	4,900	e7,500	5,460	6,520	15,400	e19,500	25,700	19,800	30,600	6,920
16	2,130	3,310	4,230	e7,500	4,970	5,610	13,600	13,000	27,400	19,400	29,700	10,800
17	2,100	4,830	5,580	e7,660	4,690	5,180	11,400	8,520	45,700	21,500	28,300	10,300
18	2,030	11,600	5,860	e7,930	5,260	5,250	9,010	10,500	39,000	21,800	21,800	10,700
19	1,980	9,880	5,460	e8,760	6,090	8,980	8,790	11,500	20,000	21,300	19,600	13,800
20	1,960	7,020	6,560	e10,300	8,220	10,900	8,670	29,300	14,700	24,400	19,200	14,500
21	1,990	6,900	6,560	16,500	8,240	9,760	8,780	32,000	20,900	29,600	17,700	12,700
22	2,230	7,230	6,380	16,700	7,730	7,670	9,380	24,000	18,200	28,000	14,200	e11,100
23	3,460	7,550	6,440	e17,100	6,630	7,800	16,000	17,200	15,900	27,500	12,400	8,100
24	4,720	7,530	6,500	e25,700	6,100	6,550	28,100	16,500	9,760	24,600	12,000	8,710
25	3,820	7,590	6,140	e21,500	6,130	6,780	22,300	18,300	8,000	24,300	10,200	9,910
26	2,870	8,750	4,820	e20,700	6,300	11,500	15,100	17,900	7,090	21,400	8,520	8,260
27	2,360	8,740	6,170	e22,500	6,340	9,120	12,000	17,500	7,020	21,800	7,520	7,210
28	2,160	8,650	9,110	20,800	6,300	6,900	11,500	16,400	6,740	22,300	6,520	9,200
29	2,250	8,910	9,590	e20,100	---	7,650	e12,600	14,800	6,200	24,400	6,520	9,360
30	3,750	8,770	10,600	19,200	---	7,080	e11,700	14,700	5,540	25,600	6,480	8,970
31	3,900	---	9,470	15,200	---	7,270	---	14,800	---	28,600	6,330	---
Mean	2,682	6,055	6,832	11,840	7,256	8,590	16,240	16,270	14,590	21,430	17,090	8,113
Max	4,720	11,600	10,600	25,700	11,700	17,300	28,100	32,500	45,700	43,200	30,800	14,500
Min	1,770	3,090	4,230	6,310	4,690	5,180	8,670	8,520	5,540	4,820	6,330	4,950
Ac-ft	164,900	360,300	420,100	728,100	403,000	528,200	966,200	1,000,000	868,400	1,318,000	1,051,000	482,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5,653	4,505	3,616	2,980	4,503	6,978	9,411	11,110	14,880	11,400	6,881	6,414
Max	51,630	42,320	21,940	15,990	20,800	36,560	43,570	43,270	78,870	133,200	66,680	44,660
(WY)	(1974)	(1974)	(1974)	(1973)	(1949)	(1973)	(1973)	(1993)	(1951)	(1951)	(1993)	(1951)
Min	365	504	465	364	635	632	845	953	1,188	1,106	455	525
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1967)	(1956)	(1989)	(1989)	(1936)	(1934)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1918 - 2010	
Annual mean	7,288		11,450		7,367	
Highest annual mean					30,570	1993
Lowest annual mean					1,326	1956
Highest daily mean	69,800	Apr 28	45,700	Jun 17	486,000	Jul 14, 1951
Lowest daily mean	1,770	Oct 4	1,770	Oct 4	160	Oct 11, 1956
Annual seven-day minimum	2,050	Oct 15	2,050	Oct 15	195	Oct 9, 1956
Maximum peak flow			46,800	Jun 17	510,000	Jul 13, 1951
Maximum peak stage			16.14	Jun 17	37.30	Jul 13, 1951
Instantaneous low flow			1,740	Oct 4	160	Oct 11, 1956
Annual runoff (ac-ft)	5,276,000		8,291,000		5,337,000	
10 percent exceeds	13,500		22,300		17,500	
50 percent exceeds	5,600		8,670		3,400	
90 percent exceeds	2,860		3,910		1,110	

