

Water-Data Report 2011

**06864050 SMOKY HILL RIVER NEAR BUNKER HILL, KS**

Smoky Hill Basin  
Middle Smoky Hill Subbasin

LOCATION.--Lat 38°47'38", long 98°46'51" referenced to North American Datum of 1927, in NW ¼ SW ¼ NW ¼ sec.33, T.14 S., R.13 W., Russell County, KS, Hydrologic Unit 10260006, on left bank at downstream side of county highway bridge, 0.5 mi upstream from Sellens Creek, 6.5 mi southwest of Bunker Hill, and at mile 261.6.

DRAINAGE AREA.--7,075 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1939 to June 2011 (discontinued). Prior to October 1974, published as "near Russell."

REVISED RECORDS.--WSP 1340: 1941-42(M), 1944-45(M), 1950(P).

GAGE.--Water-stage recorder. Datum of gage is 1,669.34 ft above NGVD of 1929. Prior to Sept. 11, 1940, nonrecording gage and Sept. 11, 1940, to Sept. 30, 1974, water-stage recorder at site 4.7 mi upstream at datum 1,689.05 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1950 by Cedar Bluff Reservoir (station 06861500), 72.1 mi upstream. Natural flow affected by groundwater withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1938, reached a stage of about 29.0 ft, from floodmarks, discharge, about 70,000 ft<sup>3</sup>/s, from rating curve extended above 37,500 ft<sup>3</sup>/s, site and datum of 1939-74.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**  
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	34	14	17	e12	e14	25	25	21	123	---	---	---
2	31	14	17	e15	e13	26	25	21	107	---	---	---
3	29	14	19	e16	e13	25	24	20	93	---	---	---
4	28	14	19	e16	e15	23	22	19	84	---	---	---
5	27	14	19	e17	e17	23	22	18	76	---	---	---
6	25	14	18	e18	e20	23	22	17	71	---	---	---
7	24	14	18	e17	e20	22	23	16	66	---	---	---
8	23	15	18	e15	e16	23	23	15	60	---	---	---
9	22	15	20	e15	e14	23	23	15	e57	---	---	---
10	21	14	20	e13	e12	23	22	14	---	---	---	---
11	22	16	19	e11	e12	23	22	14	---	---	---	---
12	21	30	e15	e10	e16	23	21	13	---	---	---	---
13	21	30	e15	e12	e25	23	20	13	---	---	---	---
14	20	23	e19	e17	e34	25	20	12	---	---	---	---
15	19	25	e22	e17	e38	25	22	12	---	---	---	---
16	18	22	22	e18	e40	24	22	12	---	---	---	---
17	18	21	20	e20	40	23	21	11	---	---	---	---
18	17	21	19	e19	36	22	19	11	---	---	---	---
19	17	21	20	e17	34	22	21	17	---	---	---	---
20	16	20	19	e16	33	23	19	54	---	---	---	---
21	17	21	19	e17	30	22	21	210	---	---	---	---
22	16	20	19	e18	28	23	22	212	---	---	---	---
23	16	20	17	e17	26	22	20	99	---	---	---	---
24	16	20	19	e17	26	22	20	73	---	---	---	---
25	15	20	18	e15	25	22	24	3,380	---	---	---	---
26	15	19	e12	e16	25	22	29	1,850	---	---	---	---
27	14	19	e13	e16	e26	23	25	495	---	---	---	---
28	14	18	e15	e17	26	24	28	280	---	---	---	---
29	14	18	e16	e19	---	26	28	203	---	---	---	---
30	14	18	e17	e19	---	26	23	162	---	---	---	---
31	14	---	e10	e17	---	26	---	152	---	---	---	---
<b>Mean</b>	19.9	18.8	17.7	16.1	24.1	23.5	22.6	241	---	---	---	---
<b>Max</b>	34	30	22	20	40	26	29	3,380	---	---	---	---
<b>Min</b>	14	14	10	10	12	22	19	11	---	---	---	---
<b>Ac-ft</b>	1,230	1,120	1,090	990	1,340	1,440	1,340	14,800	---	---	---	---

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2011, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	97.0	50.4	35.9	36.6	67.8	126	153	208	352	332	229	164
<b>Max</b>	1,774	455	276	349	716	1,094	1,970	1,624	4,415	3,716	3,157	1,519
<b>(WY)</b>	(1947)	(1997)	(1974)	(1974)	(1949)	(1979)	(1987)	(1951)	(1951)	(1993)	(1950)	(1951)
<b>Min</b>	0.78	2.27	2.00	1.65	4.83	8.83	5.50	5.29	10.3	1.85	0.57	0.34
<b>(WY)</b>	(1984)	(1940)	(1940)	(1940)	(1940)	(1992)	(1940)	(1989)	(1983)	(1983)	(1983)	(1983)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Years 1940 - 2011	
<b>Annual mean</b>	77.5		155	
<b>Highest annual mean</b>			1,004	1951
<b>Lowest annual mean</b>			11.4	1983
<b>Highest daily mean</b>	1,620	Sep 16	28,400	Jul 22, 1993
<b>Lowest daily mean</b>	10	Dec 31	0.00	Jan 29, 1940
<b>Annual seven-day minimum</b>	14	Oct 27	0.00	Sep 11, 1955
<b>Maximum peak flow</b>			39,500	May 23, 1951
<b>Maximum peak stage</b>			27.14	Jul 22, 1993
<b>Annual runoff (ac-ft)</b>	56,110		112,300	
<b>10 percent exceeds</b>	100		249	
<b>50 percent exceeds</b>	38		35	
<b>90 percent exceeds</b>	16		7.1	

