

Water-Data Report 2010

06877600 SMOKY HILL RIVER AT ENTERPRISE, KS

Smoky Hill Basin
Lower Smoky Hill Subbasin

LOCATION.--Lat 38°54'23", long 97°07'03" referenced to North American Datum of 1927, in NW ¼ NW ¼ SE ¼ sec.20, T.13 S., R.3 E., Dickinson County, KS, Hydrologic Unit 10260008, on right bank at downstream side of bridge on Kansas Highway 43 in Enterprise, 18.6 mi upstream from Chapman Creek, and at mile 43.3.

DRAINAGE AREA.--19,260 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1390: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 1,098.25 ft above NGVD of 1929. Nov. 1, 1934, to Jan. 28, 1935, nonrecording gage and Jan. 29, 1935, to May 3, 1959, water-stage recorder at site 0.2 mi downstream at datum 0.40 ft lower. May 4, 1959, to Sept. 30, 1991, datum of gage 5.00 ft higher at same site. July 16, 1998, moved gage to new State Highway 43 bridge about 0.1 mi downstream from previous site at previous datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Natural flow affected by six lakes or reservoirs, and by numerous diversions upstream from station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1903 reached stage of about 27 ft, present site and datum, from information by U.S. Army Corps of Engineers, discharge, 90,000 ft³/s.

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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	449	2,010	938	e1,050	1,100	892	1,950	e2,470	1,810	1,900	2,180	1,490
2	423	1,260	910	e1,060	1,110	783	1,630	e2,990	1,780	1,860	2,210	1,380
3	404	997	884	e1,060	1,030	732	1,430	e3,190	1,690	1,870	2,150	1,310
4	391	819	875	e1,060	1,060	714	1,320	2,970	1,630	1,960	2,060	1,210
5	383	726	852	e1,060	1,070	707	1,180	2,610	1,590	3,380	2,070	1,120
6	413	638	829	e1,060	1,110	699	1,090	2,380	1,550	7,360	2,070	1,040
7	478	570	839	e1,070	1,130	696	1,050	2,430	1,530	8,650	2,000	962
8	513	537	786	e1,060	1,080	703	1,010	2,300	1,710	7,010	1,960	872
9	513	531	439	e1,090	1,030	737	1,370	2,040	1,940	4,410	1,940	811
10	516	533	776	e1,100	945	822	2,270	2,000	1,820	e3,510	1,930	778
11	517	529	997	e1,060	972	1,010	1,530	2,110	1,740	e2,910	1,910	753
12	517	534	1,030	e1,130	1,030	1,090	1,060	2,230	1,610	2,680	1,900	701
13	519	524	1,030	e1,140	966	1,340	947	2,110	1,890	2,450	1,880	652
14	526	526	1,020	e1,170	964	1,530	884	2,110	7,020	2,350	1,860	744
15	529	605	1,070	e1,240	e934	1,530	846	2,090	8,860	2,730	1,850	1,170
16	534	653	1,100	e1,290	901	1,400	853	1,890	8,220	2,790	1,850	4,660
17	537	667	1,090	e1,370	915	1,250	878	1,650	4,980	2,610	1,840	6,460
18	526	683	1,110	e1,480	923	1,150	996	1,510	e3,370	2,350	1,850	5,100
19	516	709	1,110	e1,540	951	1,110	1,000	1,500	2,450	2,300	1,870	2,520
20	504	708	1,110	e1,640	956	1,090	990	1,920	2,030	2,290	1,880	1,550
21	505	667	1,120	e1,700	973	1,070	937	2,850	1,870	2,560	1,880	1,320
22	546	623	1,100	e1,680	959	1,050	2,420	2,500	1,910	3,870	1,860	1,250
23	613	611	1,090	2,220	930	1,030	7,960	2,520	2,820	e5,440	1,850	1,190
24	634	774	e1,120	2,440	910	1,070	7,010	2,510	3,650	e5,660	1,880	1,150
25	586	1,250	1,000	2,100	888	1,790	4,940	2,160	3,460	e5,180	2,330	1,150
26	552	1,590	1,020	2,130	900	2,310	4,030	1,990	2,520	e3,740	2,850	1,200
27	534	1,390	e1,090	1,980	919	1,860	3,270	2,200	1,860	e2,850	2,270	1,150
28	527	1,110	e1,070	1,680	932	1,600	e2,740	2,020	1,650	2,570	1,990	1,120
29	742	1,020	e1,070	1,440	---	2,300	2,360	1,850	1,770	2,400	1,880	1,080
30	2,260	979	998	1,240	---	2,550	2,270	1,930	1,910	2,310	1,810	1,040
31	3,020	---	e1,050	1,180	---	2,260	---	1,880	---	2,230	1,670	---
Mean	652	826	985	1,404	985	1,254	2,074	2,223	2,755	3,425	1,985	1,564
Max	3,020	2,010	1,120	2,440	1,130	2,550	7,960	3,190	8,860	8,650	2,850	6,460
Min	383	524	439	1,050	888	696	846	1,500	1,530	1,860	1,670	652
Ac-ft	40,120	49,140	60,540	86,320	54,720	77,110	123,400	136,700	163,900	210,600	122,000	93,090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,251	836	650	590	865	1,254	1,688	2,323	3,051	2,835	1,544	1,592
Max	15,720	6,269	5,723	4,925	5,776	8,584	9,597	11,620	22,500	45,080	11,460	12,130
(WY)	(1974)	(1974)	(1974)	(1994)	(1949)	(1973)	(1973)	(1995)	(1951)	(1951)	(1993)	(1951)
Min	65.9	79.9	74.2	55.0	89.0	98.1	96.0	102	310	125	115	58.6
(WY)	(1992)	(2007)	(1957)	(1940)	(1957)	(1935)	(1935)	(1956)	(1988)	(2006)	(2003)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1935 - 2010	
Annual mean	1,085		1,682		1,542	
Highest annual mean					8,855	1951
Lowest annual mean					191	2006
Highest daily mean	11,100	Apr 28	8,860	Jun 15	207,000	Jul 14, 1951
Lowest daily mean	258	Aug 25	383	Oct 5	38	Sep 23, 1956
Annual seven-day minimum	420	Sep 30	420	Oct 1	44	Sep 20, 1956
Maximum peak flow			9,650	Jun 16	233,000	Jul 14, 1951
Maximum peak stage			19.18	Jun 16	33.96	Jul 14, 1951
Instantaneous low flow			351	Dec 9	10	Apr 23, 1935
Annual runoff (ac-ft)	785,200		1,218,000		1,117,000	
10 percent exceeds	1,640		2,760		3,710	
50 percent exceeds	867		1,240		548	
90 percent exceeds	524		609		153	

