

Water-Data Report 2009

**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 mi<sup>2</sup>.

**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 ft<sup>3</sup>/s.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,390	4,240	3,080	e2,000	1,210	787	1,420	2,800	660	1,400	700	948
2	1,370	3,980	3,070	e1,800	1,150	738	1,250	2,150	630	1,320	654	740
3	1,340	3,450	3,070	e1,630	1,090	714	1,020	1,770	581	1,260	586	575
4	1,270	3,640	3,090	e1,570	1,040	709	899	1,500	585	1,250	538	1,610
5	1,220	3,940	2,590	e1,530	961	719	819	1,370	582	1,990	521	5,520
6	1,190	3,980	2,250	e1,480	1,010	717	758	1,280	639	2,420	500	3,400
7	1,110	3,990	1,910	1,440	1,030	705	685	1,190	751	1,540	475	1,470
8	983	3,960	1,720	1,330	1,010	693	631	1,110	652	1,130	432	1,140
9	891	3,940	1,660	1,280	986	665	595	1,100	579	989	313	1,200
10	834	4,010	1,610	1,250	969	658	681	1,380	550	935	893	2,540
11	816	4,120	1,590	1,140	982	638	1,140	1,250	544	909	1,110	1,480
12	826	4,390	1,570	1,140	977	609	1,370	1,060	538	840	894	958
13	890	4,450	1,540	1,130	977	585	1,120	995	543	825	674	1,190
14	937	4,650	1,530	1,100	954	573	1,130	958	624	775	508	1,580
15	2,170	4,910	1,510	1,050	945	562	1,310	914	611	737	514	1,310
16	5,630	4,720	1,490	797	932	567	1,150	896	744	781	414	953
17	7,410	4,170	1,240	921	931	576	950	867	1,580	990	714	774
18	6,950	3,920	1,170	1,030	931	573	840	830	1,910	1,030	602	634
19	7,160	3,850	1,280	1,150	925	563	749	797	1,930	937	654	550
20	6,290	3,730	1,750	1,240	931	557	697	765	1,550	919	560	514
21	4,730	3,690	e2,200	1,270	931	551	698	733	2,140	1,860	488	1,410
22	3,970	3,630	e2,250	1,190	888	542	677	705	3,680	1,440	463	3,330
23	3,690	3,580	e2,270	1,130	850	563	627	682	4,430	1,600	407	2,410
24	4,200	3,550	e2,300	1,090	839	851	592	658	3,030	1,660	327	1,480
25	5,690	3,400	e2,350	1,070	840	745	572	652	2,400	1,310	258	1,000
26	6,870	3,220	e2,360	942	842	555	856	648	1,990	1,040	1,020	811
27	6,750	3,170	2,360	520	842	524	8,450	690	1,870	929	2,090	662
28	5,660	3,120	e2,350	e413	833	556	11,100	664	1,790	928	3,300	570
29	4,560	3,100	e2,310	e698	---	575	11,000	681	1,740	840	2,160	513
30	3,530	3,110	e2,250	e917	---	668	5,420	671	1,620	774	2,040	478
31	3,600	---	e2,150	e1,070	---	1,120	---	647	---	718	1,340	---
<b>Mean</b>	3,352	3,854	2,060	1,172	957	650	1,974	1,046	1,382	1,164	844	1,392
<b>Max</b>	7,410	4,910	3,090	2,000	1,210	1,120	11,100	2,800	4,430	2,420	3,300	5,520
<b>Min</b>	816	3,100	1,170	413	833	524	572	647	538	718	258	478
<b>Ac-ft</b>	206,100	229,300	126,700	72,040	53,170	39,980	117,400	64,290	82,260	71,560	51,870	82,810

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2009, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	1,259	836	645	580	864	1,254	1,683	2,325	3,055	2,827	1,538	1,592
<b>Max</b>	15,720	6,269	5,723	4,925	5,776	8,584	9,597	11,620	22,500	45,080	11,460	12,130
<b>(WY)</b>	(1974)	(1974)	(1974)	(1994)	(1949)	(1973)	(1973)	(1995)	(1951)	(1951)	(1993)	(1951)
<b>Min</b>	65.9	79.9	74.2	55.0	89.0	98.1	96.0	102	310	125	115	58.6
<b>(WY)</b>	(1992)	(2007)	(1957)	(1940)	(1957)	(1935)	(1935)	(1956)	(1988)	(2006)	(2003)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1935 - 2009	
Annual mean	1,897		1,654		1,540	
Highest annual mean					8,855	1951
Lowest annual mean					191	2006
Highest daily mean	7,410	Oct 17	11,100	Apr 28	207,000	Jul 14, 1951
Lowest daily mean	330	Jan 19	258	Aug 25	38	Sep 23, 1956
Annual seven-day minimum	431	Mar 27	451	Aug 19	44	Sep 20, 1956
Maximum peak flow			11,900	Apr 29	233,000	Jul 14, 1951
Maximum peak stage			21.63	Apr 29	33.96	Jul 14, 1951
Instantaneous low flow			201	Aug 10	10	Apr 23, 1935
Annual runoff (ac-ft)	1,377,000		1,198,000		1,116,000	
10 percent exceeds	4,130		3,780		3,720	
50 percent exceeds	1,360		1,060		540	
90 percent exceeds	492		571		152	

