

Water-Data Report 2007

06873460 SOUTH FORK SOLOMON RIVER AT WOODSTON, KS

Smoky Hill Basin
Lower South Fork Solomon Subbasin

LOCATION.--Lat 39°26'23", long 99°06'05" referenced to North American Datum of 1927, in NE ¼ SE ¼ SE ¼ sec.16, T.7 S., R.16 W., Rooks County, KS, Hydrologic Unit 10260014, on left bank near upstream side of county highway bridge, 0.8 mi south of Woodston, and at mile 64.1.

DRAINAGE AREA.--1,502 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1978 to current year.

REVISED RECORDS.--WDR KS-82-1: 1979(M) (monthly runoff), 1980 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,660.78 ft above NGVD of 1929.

REMARKS.--Records poor. Flow moderately regulated since 1956 by Webster Reservoir (station 06873100), 28.3 mi upstream, and Woodston diversion dam, 1.9 mi upstream. Natural flow also affected by ground-water withdrawals and return flow from irrigated areas. Satellite telemeter at station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.01	0.01	e0.20	e0.30	e0.00	e0.20	e1.6	e13	e0.00
2	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.10	e1.3	e8.8	e0.00
3	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.05	e0.97	e6.7	e0.00
4	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.83	e6.1	e0.00
5	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.69	e5.1	e0.00
6	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.05	e0.00	e0.54	e4.3	e0.00
7	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.38	e3.5	e0.00
8	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.26	e3.6	e0.00
9	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.23	e3.1	e0.00
10	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.19	e2.1	e0.01
11	0.00	0.00	0.00	0.01	0.01	e0.20	e0.20	e0.00	e0.00	e0.21	e1.4	e0.01
12	0.00	0.00	0.00	e0.00	0.01	e0.20	e0.20	e0.00	e0.00	e0.18	e0.70	e0.01
13	0.00	0.00	0.00	e0.00	0.01	e0.20	e0.30	e0.00	e0.00	e0.16	e0.31	e0.00
14	0.00	0.00	0.00	e0.00	e0.01	e0.20	e0.25	e0.05	e0.00	e0.15	e0.16	e0.00
15	0.00	0.00	0.00	e0.00	e0.01	e0.20	e0.20	e0.20	e0.00	e0.13	e0.11	e0.00
16	0.00	0.00	0.00	e0.00	e0.01	e0.20	e0.20	e0.10	e0.00	e0.13	e0.10	e0.01
17	0.00	0.00	0.00	e0.01	0.01	e0.20	e0.15	e0.00	e0.00	e0.12	e0.08	e0.01
18	0.00	0.00	0.00	e0.01	0.01	e0.20	e0.10	e0.00	e0.00	e0.11	e0.08	e0.03
19	0.00	0.00	0.00	e0.01	0.01	e0.20	e0.05	e0.00	e0.00	e0.10	e0.06	e0.01
20	0.00	0.00	0.01	0.01	0.04	e0.20	e0.02	e0.00	e0.00	e0.19	e0.08	e0.00
21	0.00	0.00	0.00	0.01	0.01	e0.20	e0.01	e0.00	e0.00	e0.13	e2.0	e0.00
22	0.00	0.00	0.00	0.01	e0.01	e0.20	e0.05	e0.00	e0.00	e0.14	e3.8	e0.00
23	0.00	0.00	0.00	0.01	e0.06	e0.20	e0.03	e0.00	e37	e0.14	e0.40	e0.00
24	0.00	0.00	0.00	0.01	e0.15	e0.51	e0.01	e0.05	e107	e0.13	e0.31	e0.00
25	0.00	0.00	0.00	0.01	e0.20	e0.22	e0.01	e0.00	e16	e0.11	e0.08	e0.00
26	0.00	0.00	0.01	0.01	e0.20	e0.22	e0.00	e0.00	e7.5	e0.12	e0.05	e0.00
27	0.00	0.00	0.01	0.01	e0.20	e0.22	e0.00	e0.00	e4.5	e0.10	e0.02	e0.00
28	0.00	0.00	0.01	0.01	e0.20	e0.22	e0.00	e0.00	e3.2	e3.5	e0.01	e0.00
29	0.00	0.00	0.01	0.01	---	e0.22	e0.00	e0.01	e2.2	e446	e0.01	e0.07
30	0.00	0.00	0.01	0.01	---	e0.22	e0.00	e0.30	e1.8	e118	e0.02	e0.01
31	0.00	---	0.00	0.01	---	e0.40	---	e0.20	---	e28	e0.01	---
Mean	0.00	0.00	0.00	0.01	0.04	0.22	0.13	0.03	5.99	19.5	2.13	0.01
Max	0.00	0.00	0.01	0.01	0.20	0.51	0.30	0.30	107	446	13	0.07
Min	0.00	0.00	0.00	0.00	0.01	0.20	0.00	0.00	0.00	0.10	0.01	0.00
Ac-ft	0.00	0.00	0.1	0.5	2.5	14	7.7	1.9	356	1,200	131	0.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	13.8	18.3	26.7	19.1	25.4	39.4	58.3	67.4	52.9	109	37.6	16.1
Max	186	240	541	228	271	282	663	723	862	1,742	346	161
(WY)	(1994)	(1994)	(1994)	(1994)	(1994)	(1994)	(1987)	(1995)	(1995)	(1993)	(1993)	(1993)
Min	0.00	0.00	0.00	0.01	0.05	0.18	0.11	0.03	0.00	0.00	0.00	0.00
(WY)	(2007)	(2007)	(2007)	(2007)	(2007)	(2006)	(2006)	(2007)	(2006)	(2006)	(2006)	(2006)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1979 - 2007	
Annual mean	0.06		2.37		40.5	
Highest annual mean					248	1993
Lowest annual mean					0.10	2006
Highest daily mean	0.39	Mar 20	446	Jul 29	7,260	Jul 21, 1993
Lowest daily mean	0.00	May 24	0.00	Oct 1	0.00	Oct 1, 1978
Annual seven-day minimum	0.00	May 24	0.00	Oct 1	0.00	Oct 6, 1978
Maximum peak flow			^a 652	Jul 29	8,710	Jul 21, 1993
Maximum peak stage			10.65	Jul 29	22.89	Jul 21, 1993
Instantaneous low flow			0.00	Oct 1	0.00	Oct 1, 1979
Annual runoff (ac-ft)	41		1,710		29,330	
10 percent exceeds	0.18		0.34		79	
50 percent exceeds	0.00		0.01		4.3	
90 percent exceeds	0.00		0.00		0.17	

^a Estimated.

