

Water-Data Report 2012

06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS

Smoky Hill Basin
Lower North Fork Solomon Subbasin

LOCATION.--Lat 39°33'18", long 98°41'31" referenced to North American Datum of 1927, in SW ¼ SW ¼ SW ¼ sec.5, T.6 S., R.12 W., Osborne County, KS, Hydrologic Unit 10260012, on left bank at downstream side of bridge on U.S. Highway 281, 0.5 mi south of Portis, and at mile 27.0.

DRAINAGE AREA.--2,315 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1945 to current year. Prior to Oct. 1, 1964, published as "near Downs."

GAGE.--Water-stage recorder. Datum of gage is 1,490.71 ft above NGVD of 1929. Prior to Dec. 5, 1946, nonrecording gage and Dec. 5, 1946, to Sept. 30, 1964, water-stage recorder at site 9.0 mi downstream at datum 30.39 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partially regulated since 1955 by Kirwin Reservoir (station 06871700), 40.8 mi upstream. Natural flow also affected by ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1915, reached a stage about 1.0 ft higher than that of July 12, 1951, from information by Kansas Highway Commission.

06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	71	79	84	139	144	147	142	157	73	27	30	31
2	71	79	84	136	144	148	140	146	61	27	27	21
3	71	79	88	134	150	147	141	136	53	29	28	21
4	71	81	89	131	161	146	148	131	49	28	29	21
5	70	81	86	139	162	146	155	126	47	24	28	21
6	70	81	e81	139	160	146	159	121	45	24	30	20
7	70	82	e84	138	156	145	165	117	48	25	31	21
8	72	84	e85	140	158	143	157	113	49	25	28	21
9	78	84	e88	138	154	142	152	109	48	25	29	21
10	84	84	e90	137	154	142	146	108	45	25	28	20
11	93	84	91	136	140	144	143	106	44	22	27	20
12	109	85	87	127	131	146	142	104	47	26	29	20
13	95	86	90	130	156	145	142	102	47	28	29	22
14	85	86	96	e148	160	147	144	100	47	29	35	22
15	81	86	98	143	151	147	184	99	53	25	33	22
16	76	86	109	137	148	147	203	88	46	25	27	22
17	75	86	128	e124	145	148	251	70	46	29	28	22
18	75	86	132	e127	149	148	240	65	45	28	28	22
19	74	86	137	e122	152	148	183	61	43	26	27	22
20	74	85	140	e126	151	147	165	58	46	25	28	21
21	75	85	137	e137	155	150	155	56	45	26	31	21
22	76	86	133	e155	155	165	149	55	42	23	28	21
23	77	85	e129	151	155	166	145	53	43	23	28	21
24	78	87	e129	147	154	165	141	50	41	23	31	21
25	78	87	e132	e140	152	164	138	50	39	25	33	21
26	76	87	133	138	150	158	135	50	34	32	35	23
27	76	85	132	140	148	153	136	49	32	24	32	23
28	77	84	136	137	148	149	134	48	30	23	30	22
29	78	83	136	e132	148	146	138	47	31	25	28	22
30	78	83	139	142	---	143	166	113	27	28	29	23
31	78	---	140	144	---	142	---	110	---	30	30	---
Mean	77.8	84.1	111	137	151	149	158	90.3	44.9	25.9	29.5	21.7
Max	109	87	140	155	162	166	251	157	73	32	35	31
Min	70	79	81	122	131	142	134	47	27	22	27	20
Ac-ft	4,780	5,000	6,830	8,440	8,710	9,160	9,400	5,550	2,670	1,590	1,810	1,290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	77.8	50.6	43.2	48.8	80.6	101	88.2	190	306	230	137	92.0
Max	808	475	314	399	688	1,043	498	1,416	3,516	4,031	2,247	758
(WY)	(2009)	(1997)	(1994)	(1994)	(1949)	(1993)	(1987)	(1995)	(1951)	(1951)	(1950)	(1951)
Min	0.65	1.44	2.08	2.19	6.29	9.53	6.81	2.25	4.08	1.51	1.39	0.29
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(2006)	(2006)	(1956)	(1956)

06872500 NORTH FORK SOLOMON RIVER AT PORTIS, KS—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1946 - 2012	
Annual mean	243		89.9		121	
Highest annual mean					855	1951
Lowest annual mean					11.8	2006
Highest daily mean	7,090	Jun 2	251	Apr 17	32,300	Jul 12, 1951
Lowest daily mean	70	Oct 5	20	Sep 6	0.00	Aug 25, 1956
Annual seven-day minimum	71	Oct 1	20	Sep 6	0.07	Aug 23, 1956
Maximum peak flow			284	Apr 17	35,700	Jul 12, 1951
Maximum peak stage			6.03	Apr 17	30.41	Jul 12, 1951
Instantaneous low flow			19	Sep 6	0.00	at times
Annual runoff (ac-ft)	176,200		65,250		87,400	
10 percent exceeds	234		151		177	
50 percent exceeds	137		85		33	
90 percent exceeds	80		24		9.7	

