

Water-Data Report 2012

06876900 SOLOMON RIVER AT NILES, KS

Smoky Hill Basin
Solomon Subbasin

LOCATION.--Lat 38°58'09", long 97°28'37" referenced to North American Datum of 1927, in NW ¼ SE ¼ NW ¼ sec.31, T.12 S., R.1 W., Ottawa County, KS, Hydrologic Unit 10260015, on right bank at downstream side of county highway bridge, 0.8 mi west of Niles, and at mile 21.6.

DRAINAGE AREA.--6,770 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1897 to November 1903, October 1917 to current year. Published as "near Bennington" October 1917 to May 1919. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 806: Drainage area. WSP 926: 1935. WSP 1310: 1897-1903. WSP 1440: 1903, 1919, 1927.

GAGE.--Water-stage recorders. Datum of gage is 1,160.97 ft above NGVD of 1929. Prior to Nov. 30, 1903, nonrecording gage at present site and at different datum. Oct. 1, 1917, to May 31, 1919, nonrecording gage near Bennington, 27 mi upstream at different datum. June 1, 1919, to Sept. 30, 1922, nonrecording gage at present site at datum 2.00 ft higher. Oct. 1, 1922, to Apr. 25, 1934, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow moderately regulated since 1967 by Waconda Lake (station 06874200), 150.8 mi upstream. Slight regulation since 1955 by Kirwin Reservoir (station 06871700) and since 1956 by Webster Reservoir (station 06873100). Many small diversions upstream from station for irrigation. Satellite telemeter at station.

06876900 SOLOMON RIVER AT NILES, 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	259	161	e169	272	244	342	e192	1,220	e137	76	66	76
2	255	163	171	257	242	366	e187	712	e156	75	61	75
3	253	169	181	251	326	359	e182	446	e140	70	67	71
4	253	169	191	246	555	361	193	380	e130	67	69	66
5	251	166	196	247	610	342	504	400	e126	67	75	62
6	248	162	193	250	554	331	854	412	121	71	91	59
7	239	166	e220	252	447	326	564	404	120	72	85	58
8	211	178	223	266	380	323	378	393	118	69	76	57
9	197	193	193	285	346	323	328	382	114	70	72	56
10	200	193	211	287	e328	321	229	377	108	66	69	59
11	201	185	216	290	e321	318	161	373	105	62	65	62
12	204	184	210	297	e319	326	e126	369	102	69	72	63
13	202	176	204	e324	e316	310	e107	366	103	84	73	63
14	196	169	221	e316	e322	294	e103	363	105	97	76	65
15	190	165	232	297	340	284	e792	360	144	89	76	64
16	186	161	229	288	408	279	e2,480	356	137	82	76	61
17	183	160	223	309	398	274	e2,550	353	153	77	77	60
18	185	158	219	279	365	272	2,060	322	147	70	77	61
19	181	155	227	302	351	273	1,030	272	143	76	75	58
20	177	152	268	277	348	275	687	256	133	67	74	56
21	174	155	273	275	348	279	570	247	141	e62	67	55
22	173	153	264	281	350	296	496	227	138	e61	61	54
23	173	152	256	271	346	322	444	193	120	e61	59	54
24	172	152	e309	297	345	299	405	174	107	e62	76	53
25	172	e153	e285	327	337	269	e382	166	97	71	171	54
26	167	152	e288	308	333	263	e345	167	88	73	381	60
27	161	159	e320	271	329	263	e327	160	80	71	139	118
28	164	e158	288	268	332	241	328	149	75	71	e144	51
29	163	165	276	261	332	218	322	e142	76	e65	100	48
30	162	e166	271	257	---	e205	584	e142	75	e64	85	48
31	160	---	275	250	---	e198	---	e141	---	67	79	---
Mean	197	165	236	279	365	295	597	336	118	71.1	91.4	61.6
Max	259	193	320	327	610	366	2,550	1,220	156	97	381	118
Min	160	152	169	246	242	198	103	141	75	61	59	48
Ac-ft	12,120	9,820	14,480	17,170	20,970	18,150	35,520	20,680	7,020	4,370	5,620	3,660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	382	268	219	208	292	404	507	805	1,282	1,068	600	618
Max	6,545	3,336	2,844	2,595	2,129	2,693	3,393	5,549	12,150	23,080	4,699	5,066
(WY)	(1974)	(1994)	(1994)	(1994)	(1993)	(1993)	(1987)	(1903)	(1951)	(1951)	(1950)	(1946)
Min	16.2	22.5	19.0	17.5	26.3	35.9	41.7	32.1	69.7	27.1	17.9	5.60
(WY)	(1923)	(1957)	(1957)	(1940)	(1957)	(1957)	(1940)	(1956)	(1933)	(1901)	(1901)	(1956)

06876900 SOLOMON RIVER AT NILES, KS—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1898 - 2012	
Annual mean	947		234		555	
Highest annual mean					4,113	1951
Lowest annual mean					72.0	2006
Highest daily mean	9,970	Jun 6	2,550	Apr 17	157,000	Jul 14, 1951
Lowest daily mean	138	May 15	48	Sep 29	1.0	Sep 4, 1926
Annual seven-day minimum	139	May 12	55	Sep 19	4.2	Sep 22, 1956
Maximum peak flow			^a 3,330	Apr 16	178,000	Jul 14, 1951
Maximum peak stage			^a 17.17	Apr 16	31.76	Jul 14, 1951
Instantaneous low flow			47	Sep 29	1.0	Sep 4, 1926
Annual runoff (ac-ft)	685,600		169,600		402,100	
10 percent exceeds	2,210		367		1,210	
50 percent exceeds	402		190		158	
90 percent exceeds	166		66		50	

^a Estimated.

