Water-Data Report 2007

05471500 SOUTH SKUNK RIVER NEAR OSKALOOSA, IA

Upper Mississippi-Skunk-Wapsipinicon Basin
South Skunk Subbasin

LOCATION.--Lat 41°21'20.5", long 92°39'25.8" referenced to North American Datum of 1927, in NW ¼ SW ¼ sec.25, T.76 N., R.16 W., Mahaska County, IA, Hydrologic Unit 07080105, on left bank downstream from bridge on U.S. Highway 63, 0.3 mi downstream from Painter Creek, 4.0 mi north of Oskaloosa, 51.2 mi upstream from confluence with North Skunk River, and at mile 145.9 upstream from mouth of Skunk River.

DRAINAGE AREA.--1,635 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1966, published as "Skunk River near Oskaloosa"; Prior to October 1948, monthly discharge only, published in WSP 1308.

REVISED RECORDS.--WSP 1438: Drainage area. WDR IA-95-1: Location.

GAGE.--Water-stage recorder. Datum of gage is 685.50 ft above NGVD of 1929. Prior to November 21, 1947, nonrecording gage at site and datum; November 21, 1947 to May 3, 1995, gage located upstream 400 ft at same datum.

REMARKS.--Records are considered good, except for those estimated daily discharges, which are poor. U.S. Army Corps of Engineers rain gage and data collection platform with satellite telemetry at station. Precipitation records are available online at the U.S. Army Corps of Engineers website: www2.mvr.usace.army.mil/WaterControl/datamining2.cfm.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1944 reached a stage of 25.8 ft, from floodmarks, discharge 37,000 ft^3/s, from rating curve extended above 18,000 ft^3/s on basis of velocity-area study.

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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	1,010	887	1,660	2,070	e917	e2,580	3,230	10,700	6,000	998	224	1,350
2	947	814	e1,370	3,130	e854	e3,090	4,410	9,520	6,420	899	213	1,080
3	893	764	e993	3,180	e810	e2,570	4,000	7,440	5,860	819	204	906
4	850	737	e824	2,640	e758	e2,150	3,260	6,000	5,100	786	293	791
5	807	714	e909	2,400	e743	e1,970	3,540	4,960	4,120	719	297	705
6	764	697	e1,090	2,300	e743	e1,850	2,980	e5,180	3,380	658	240	630
7	732	673	e1,120	2,130	e743	e1,790	2,430	e7,990	3,010	606	295	1,970
8	713	651	e1,160	1,970	e740	e2,050	2,120	8,440	2,710	561	796	2,710
9	694	630	e1,100	1,850	e746	e3,080	1,910	7,660	2,410	530	1,880	1,270
10	675	618	e1,280	1,740	e725	e4,080	1,770	6,580	2,170	494	488	895
11	678	600	e1,410	1,660	e740	e4,920	1,870	5,490	2,030	495	341	756
12	672	584	e1,330	1,610	e772	6,780	2,530	4,500	1,900	462	286	668
13	667	582	e1,240	1,440	e751	8,440	2,980	3,770	1,770	429	261	598
14	637	591	e1,120	1,300	e725	9,400	3,050	3,360	1,640	388	260	544
15	616	613	e1,040	e1,210	e688	9,540	2,860	3,040	1,530	359	243	497
16	607	657	942	e1,150	e679	9,130	2,530	2,800	1,420	343	242	473
17	618	652	904	e1,120	e694	7,480	2,240	2,500	1,320	318	236	453
18	650	620	862	e1,190	e702	5,830	2,020	2,290	1,260	290	220	432
19	703	590	808	e1,180	e743	4,400	1,830	2,130	e1,250	293	217	510
20	736	554	800	e1,150	e832	3,450	1,660	1,990	e1,230	347	220	500
21	805	536	1,080	e1,170	e1,100	2,950	1,560	1,860	1,140	375	496	495
22	894	533	1,380	e1,120	e1,380	2,710	1,500	1,760	1,120	330	2,970	496
23	872	527	1,740	e1,080	e1,810	2,690	1,500	1,660	1,420	298	3,940	499
24	890	522	2,000	e1,100	e2,830	2,630	1,640	1,700	2,110	344	5,760	480
25	875	508	1,920	e1,080	e4,100	3,070	4,200	3,190	2,560	281	4,180	463
26	893	498	1,760	e1,090	e3,140	3,260	8,560	5,000	2,140	259	2,770	453
27	961	502	1,620	e1,070	e2,580	2,720	9,780	4,940	1,750	295	1,930	443
28	998	1,080	1,520	e1,030	e2,390	2,320	e10,500	4,300	1,460	335	1,560	421
29	1,060	1,610	1,410	e1,020	---	2,080	e10,800	3,350	1,250	316	1,280	402
30	1,030	1,750	1,320	e980	---	1,960	e10,900	2,830	1,110	272	1,310	373
31	952	---	1,530	e939	---	2,020	---	4,080	---	243	1,520	---
Total	24,899	21,294	39,242	48,099	34,435	122,990	114,160	141,010	72,590	14,142	35,172	22,263
Mean	803	710	1,266	1,552	1,230	3,967	3,805	4,549	2,420	456	1,135	742
Max	1,060	1,750	2,000	3,180	4,100	9,540	10,900	10,700	6,420	998	5,760	2,710
Min	607	498	800	939	679	1,790	1,500	1,660	1,110	243	204	373
Ac-ft	49,390	42,240	77,840	95,400	68,300	244,000	226,400	279,700	144,000	28,050	69,760	44,160
Cfsm	0.49	0.43	0.77	0.95	0.75	2.43	2.33	2.78	1.48	0.28	0.69	0.45
In.	0.57	0.48	0.89	1.09	0.78	2.80	2.60	3.21	1.65	0.32	0.80	0.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	477	529	446	456	806	1,598	1,634	1,827	2,123	1,375	646	473
Max	3,646	3,576	2,322	3,906	3,587	4,841	5,366	6,168	9,222	11,770	7,772	5,140
(WY)	(1987)	(1984)	(1983)	(1973)	(1973)	(1979)	(1983)	(1974)	(1947)	(1993)	(1993)	(1993)
Min	8.47	14.5	7.55	5.30	42.9	45.9	42.1	74.2	39.4	27.3	43.3	27.8
(WY)	(1957)	(1957)	(1956)	(1956)	(1954)	(1954)	(1956)	(1956)	(1977)	(1977)	(1988)	(1956)

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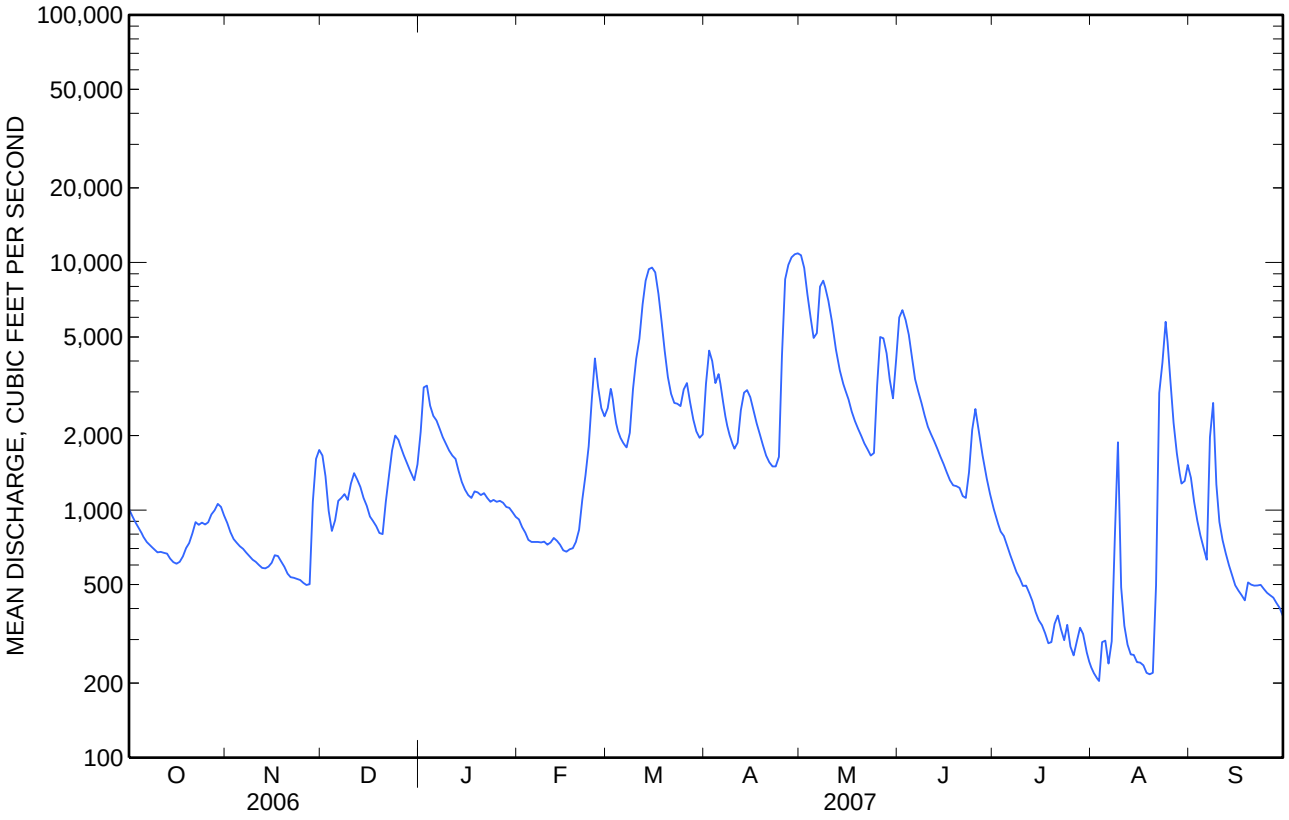
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1946 - 2007	
Annual total	278,505		690,296			
Annual mean	763		1,891		1,033	
Highest annual mean					3,884	1993
Lowest annual mean					40.1	1956
Highest daily mean	4,950	Sep 13	10,900	Apr 30	20,400	Jul 15, 1993
Lowest daily mean	128	Feb 20	204	Aug 3	1.8	Oct 11, 1956
Annual seven-day minimum	148	Feb 16	234	Aug 14	2.0	Oct 7, 1956
Maximum peak flow			11,000	Apr 30	20,700	Jul 15, 1993
Maximum peak stage			22.10	Apr 30[a]	24.78	Jul 15, 1993
Instantaneous low flow			196	Aug 4		
Annual runoff (ac-ft)	552,400		1,369,000		748,000	
Annual runoff (cfsm)	0.467		1.16		0.632	
Annual runoff (inches)	6.34		15.71		8.58	
10 percent exceeds	1,640		4,190		2,560	
50 percent exceeds	582		1,120		447	
90 percent exceeds	202		396		60	

[a] Observed.