03214500 TUG FORK AT KERMIT, WV

Big Sandy Basin
Tug Subbasin

LOCATION.--Lat 37°50′14″, long 82°24′32″ referenced to North American Datum of 1927, Mingo County, WV, Hydrologic Unit 05070201, behind fire station, at Kermit, 0.8 mi downstream from Wolf Creek, and at mile 34.9.

DRAINAGE AREA.--1,280 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1915 to September 1917 (daily discharge and peaks), October 1917 to September 1918 (annual maxima), October 1918 to December 1920 (annual maximum gage-height), January 1929 to September 1934 (daily discharge and peaks), October 1934 to September 1985 (estimated annual maximum discharge), February 1985 to current year (daily discharge and peaks).

REVISED RECORDS.--WDR WV-78-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 574.07 ft above NAVD 88 (574.77 ft above NGVD 29, corrected). Estimated annual discharge water years 1934-85 based on records for station Tug Fork near Kermit (03214000), drainage area 1,188 mi².

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of unknown date prior to 1915 reached a stage of about 46.7 ft; rise of Jan. 30, 1957, was about 45 ft; rise of Mar. 13, 1963, was about 46 ft; rise of Apr. 6, 1977, was about 53.7 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr 7	0300	*11,800	*20.84
No other peak greater than base discharge			

Minimum discharge, 108 ft³/s, Sept. 26, 27, gage height, 1.75 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	145	158	210	602	1,480	1,660	1,010	1,900	546	583	419	203
2	133	152	197	527	2,140	2,590	961	1,710	611	513	446	174
3	129	147	263	455	1,940	2,250	952	1,530	583	410	402	165
4	128	148	260	379	1,840	1,930	1,590	1,370	639	342	691	161
5	126	144	251	347	1,900	3,740	3,650	1,210	612	366	507	149
6	128	174	274	343	2,150	5,530	6,220	1,080	533	486	393	142
7	130	169	253	367	3,220	3,600	9,740	982	471	507	345	137
8	133	163	284	378	2,630	4,000	4,850	991	435	529	352	137
9	132	169	366	413	1,960	3,360	3,280	1,030	419	818	553	137
10	127	165	530	423	1,530	2,770	2,590	1,190	407	1,230	440	256
11	120	159	566	1,910	1,200	2,510	2,200	1,260	425	1,120	339	255
12	118	157	560	4,910	1,000	2,320	2,310	2,880	397	737	283	239
13	120	162	896	2,540	939	2,080	2,000	3,160	426	520	254	194
14	127	194	1,340	1,580	900	1,830	1,800	2,440	399	608	228	171
15	125	1,140	915	1,170	854	1,780	1,600	1,870	467	821	217	157
16	124	630	742	909	773	2,240	1,430	1,650	456	595	219	150
17	127	512	640	787	735	2,600	1,310	1,450	505	424	231	143
18	127	382	550	761	726	2,390	1,220	1,310	455	346	213	137
19	140	296	489	719	706	2,140	1,150	1,300	390	299	196	133
20	163	253	434	693	673	2,690	1,280	1,190	340	278	183	128
21	141	224	429	612	635	3,420	2,890	1,090	325	265	174	126
22	136	210	423	561	668	3,030	2,510	987	322	274	167	122
23	139	209	462	589	705	2,480	1,990	873	312	393	158	121
24	250	198	494	625	704	2,000	1,680	795	302	860	156	119
25	383	191	464	566	696	1,690	1,470	736	330	815	153	115
26	443	225	444	532	761	1,480	1,330	683	283	498	149	109
27	442	351	421	514	953	1,330	1,220	705	287	367	209	110
28	322	293	398	500	1,010	1,260	1,380	684	526	311	288	134
29	241	255	489	509	997	1,210	1,720	652	724	288	274	155
30	196	232	498	1,600	---	1,120	2,070	613	462	278	247	183
31	171	---	574	1,250	---	1,030	---	573	---	320	255	---
Total	5,466	7,862	15,116	28,071	36,425	74,060	69,403	39,894	13,389	16,201	9,141	4,662
Mean	176	262	488	906	1,256	2,389	2,313	1,287	446	523	295	155
Max	443	1,140	1,340	4,910	3,220	5,530	9,740	3,160	724	1,230	691	256
Min	118	144	197	343	635	1,030	952	573	283	265	149	109
Cfsm	0.14	0.20	0.38	0.71	0.98	1.87	1.81	1.01	0.35	0.41	0.23	0.12
In.	0.16	0.23	0.44	0.82	1.06	2.15	2.02	1.16	0.39	0.47	0.27	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	410	721	1,304	1,951	2,725	3,278	2,572	1,855	1,009	667	519	339
Max	3,004	3,062	3,465	4,151	7,049	10,220	7,827	5,056	3,602	1,926	1,504	1,466
(WY)	(1990)	(1930)	(1992)	(1994)	(2003)	(1917)	(1987)	(1996)	(2004)	(2000)	(2000)	(2004)
Min	21.1	44.1	119	296	512	617	629	431	114	44.5	78.7	29.4
(WY)	(1931)	(1932)	(1931)	(1931)	(2002)	(1988)	(1986)	(1930)	(1930)	(1930)	(1930)	(1930)

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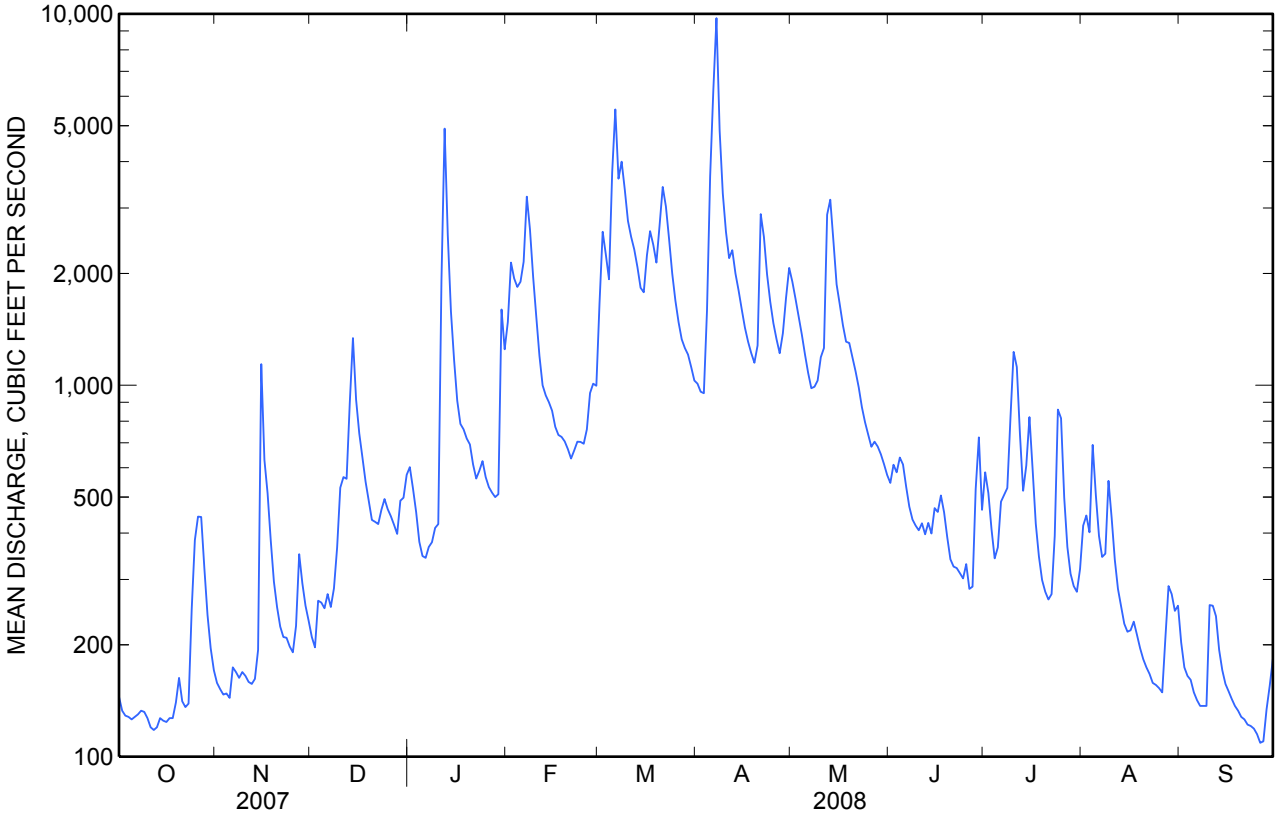
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1916 - 2008	
Annual total	388,121		319,690			
Annual mean	1,063		873		1,441	
Highest annual mean					2,277	1994
Lowest annual mean					476	1988
Highest daily mean	27,300	Apr 16	9,740	Apr 7	[a]34,300	Mar 5, 1917
Lowest daily mean	118	Oct 12	109	Sep 26	14	Oct 23, 1930
Annual seven-day minimum	123	Oct 10	117	Sep 21	18	Oct 5, 1930
Maximum peak flow			11,800	Apr 7	[b]35,300	Feb 17, 2003
Maximum peak stage			20.84	Apr 7	[c]46.29	Feb 17, 2003
Instantaneous low flow			108	Sep 26[d]	[f]69	Aug 19, 1988
Annual runoff (cfsm)	0.831		0.682		1.13	
Annual runoff (inches)	11.28		9.29		15.30	
10 percent exceeds	2,310		2,140		3,300	
50 percent exceeds	520		499		712	
90 percent exceeds	152		143		149	

[a] 78,000 ft³/s, Apr. 5, 1977, at Tug Fork near Kermit (03214000).
[b] 104,000 ft³/s, Apr. 6, 1977, at Tug Fork near Kermit (03214000).
[c] 52.91 ft, Apr. 6, 1977, at Tug Fork near Kermit (03214000), at different datum.
[d] Also Sept. 27.
[f] Instantaneous low flow prior to 1985, undetermined.



WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1946 to September 1977, January to June 1978, January 1979 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum daily, 32.0°C, July 29, 1949; minimum daily, -0.5°C, Dec. 31, 1976, Jan. 1, 2, 8-13, 24, 1977.