

03202400 GUYANDOTTE RIVER AT BAILEYSVILLE, WV

LOCATION.--Lat 37°36'14", long 81°38'43", NAD 27, Wyoming County, Hydrologic Unit 05070101, on right bank 75 ft upstream from Doublecamp Branch, 3.1 mi east of Baileysville, and at mile 130.8.

DRAINAGE AREA.-- 306 mi².

PERIOD OF RECORD.--June 1968 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of the gage is 1,140.00 above NGVD 29. Prior to Sept. 10, 1969, at site 25 ft upstream at same datum.

REMARKS.--Records good except for period of estimated daily discharge (ice effect), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1730	*28,000	*23.82	Apr 14	0530	7,290	11.31
Jan 2	2100	4,580	8.67	May 31	1300	9,870	13.78
Feb 6	2300	5,750	9.81				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	178	735	559	308	285	652	590	2,470	240	234	127
2	156	172	640	2,030	313	288	1,210	558	1,110	225	214	113
3	143	166	570	2,990	435	308	1,450	675	738	248	418	109
4	137	160	552	1,650	563	297	1,300	594	611	343	292	108
5	134	165	654	1,720	582	289	1,020	543	849	275	551	105
6	130	413	838	2,640	2,740	1,310	802	490	699	227	959	103
7	123	1,160	876	1,690	4,040	1,640	694	435	555	207	468	102
8	120	755	780	1,230	2,040	1,160	617	392	443	193	318	349
9	114	500	679	1,030	1,310	888	545	358	383	184	250	822
10	113	383	641	841	1,030	723	476	331	340	171	210	459
11	111	326	899	696	861	598	434	322	332	174	197	288
12	108	330	924	644	745	528	456	308	422	191	223	214
13	106	1,640	789	588	671	462	3,590	288	872	173	252	178
14	127	1,030	761	557	619	411	5,640	303	554	156	210	153
15	843	686	698	547	583	391	2,490	266	468	147	182	139
16	420	543	621	500	527	548	1,570	242	625	138	177	130
17	279	467	788	462	476	1,020	1,170	232	500	139	180	222
18	228	419	1,070	810	446	885	921	217	393	171	164	1,200
19	196	11,400	956	1,680	420	789	771	215	417	152	157	672
20	175	4,560	777	1,210	413	684	682	224	616	134	147	382
21	163	1,860	635	893	439	738	635	208	459	126	146	269
22	158	1,220	578	742	467	682	550	193	371	128	194	216
23	146	918	592	630	408	617	499	185	374	293	168	186
24	138	788	1,030	558	389	561	502	180	378	210	145	168
25	130	690	1,420	512	373	509	442	187	351	165	184	155
26	127	579	1,060	477	351	456	790	469	549	146	174	143
27	162	522	841	453	339	422	1,590	982	452	805	147	135
28	229	580	718	414	318	398	1,090	913	353	710	132	593
29	216	860	635	356	298	368	809	1,070	299	376	127	673
30	205	814	641	e330	---	352	666	631	269	264	125	354
31	186	---	615	311	---	435	---	5,770	---	225	126	---
TOTAL	5,780	34,284	24,013	29,750	22,504	19,042	34,063	18,371	17,252	7,336	7,471	8,867
MEAN	186	1,143	775	960	776	614	1,135	593	575	237	241	296
MAX	843	11,400	1,420	2,990	4,040	1,640	5,640	5,770	2,470	805	959	1,200
MIN	106	160	552	311	298	285	434	180	269	126	125	102
CFSM	0.61	3.73	2.53	3.14	2.54	2.01	3.71	1.94	1.88	0.77	0.79	0.97
IN.	0.70	4.17	2.92	3.62	2.74	2.31	4.14	2.23	2.10	0.89	0.91	1.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	139	245	398	592	764	787	736	630	335	227	170	114
MAX	680	1,143	1,294	1,894	1,824	1,969	2,003	1,395	1,262	1,452	649	367
(WY)	(1990)	(2004)	(1973)	(1974)	(2003)	(1975)	(1987)	(2001)	(1981)	(2001)	(1972)	(2003)
MIN	35.6	33.8	62.4	127	173	193	211	198	88.6	65.2	49.8	47.1
(WY)	(1979)	(1979)	(1998)	(2000)	(2002)	(1988)	(1986)	(1976)	(1999)	(1999)	(1970)	(1998)

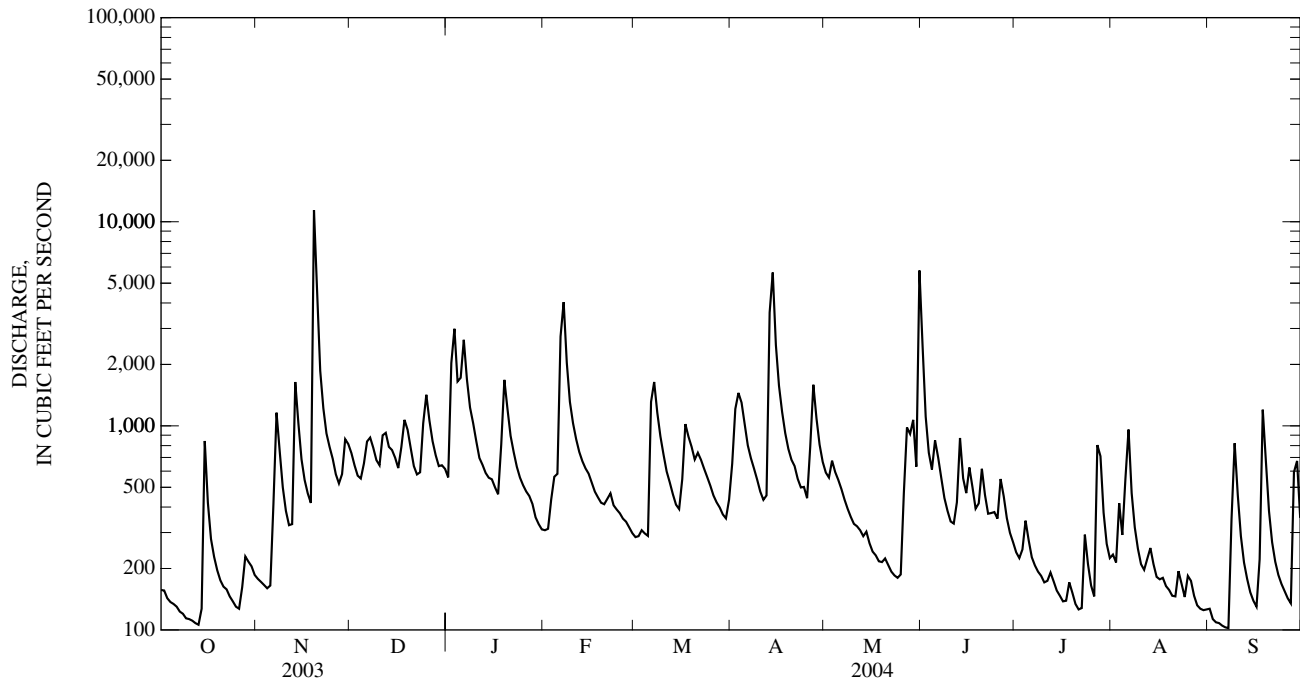
03202400 GUYANDOTTE RIVER NEAR BAILEYSVILLE, WV--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	273,076		228,733		427	
ANNUAL MEAN	748		625		174	
HIGHEST ANNUAL MEAN					692	
LOWEST ANNUAL MEAN					174	
HIGHEST DAILY MEAN	11,400	Nov 19	11,400	Nov 19	17,900	Apr 5, 1977
LOWEST DAILY MEAN	106	Oct 13	102	Sep 7	23	Nov 11, 1978
ANNUAL SEVEN-DAY MINIMUM	114	Oct 7	110	Sep 1	27	Oct 17, 1978
MAXIMUM PEAK FLOW			28,000	Nov 19	(a)46,400	Jul 8, 2001
MAXIMUM PEAK STAGE			23.82	Nov 19	(b)31.25	Jul 8, 2001
INSTANTANEOUS LOW FLOW			100	(c)	21	Oct 14, 1970
ANNUAL RUNOFF (CFSM)	2.44		2.04		1.40	
ANNUAL RUNOFF (INCHES)	33.20		27.81		18.96	
10 PERCENT EXCEEDS	1,350		1,100		924	
50 PERCENT EXCEEDS	494		440		234	
90 PERCENT EXCEEDS	165		146		58	

a From rating curve extended above 37,000 ft³/s on basis of slope-conveyance measurement.

b From floodmarks.

c Sept. 6, 7.



03202750 CLEAR FORK AT CLEAR FORK, WV

LOCATION.--Lat 37°37'23", long 81°42'27", NAD 27, Wyoming County, Hydrologic Unit 05070101, on left bank 0.2 mi downstream from Walls Branch, 0.7 mi upstream from Spratt Branch, 1.4 mi southwest of Clear Fork, and at mile 2.6.

DRAINAGE AREA.--126 mi².

REVISED RECORDS.--WDR WV-81-1: Drainage area. WDR WV-94-1: 1993.

PERIOD OF RECORD.--June 1974 to current year. Prior to October 22, 1974, partial record station.

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is approximately 1,150 ft above NGVD 29, from topographic map. June 28, 1974, to Oct. 22, 1974, nonrecording gage; Oct. 23, 1974, to Oct. 26, 1977, digital recorder at site 0.9 mi upstream at different datum; Oct. 27, 1977, to Dec. 31, 1980, digital recorder at site 0.2 mi upstream at different datum.

REMARKS.--Records good except those for March 9-29, which are fair, and periods of estimated daily discharges (ice effect), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0500	2,370	7.32	Feb 6	2100	4,540	10.23
Nov 19	1800	*8,250	*14.18	Apr 13	2200	3,680	9.14
Jan 2	2000	3,290	8.62	May 31	1400	7,990	13.99

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	70	338	217	e105	107	558	153	1,220	100	36	31
2	47	67	270	1,580	e100	114	1,310	214	523	87	33	26
3	41	62	225	1,550	207	114	949	192	310	80	62	23
4	39	57	216	710	348	112	658	151	319	99	38	22
5	40	62	254	680	402	116	453	129	541	88	241	20
6	36	414	464	980	2,620	921	332	112	365	69	202	19
7	34	847	484	661	2,390	991	272	95	238	56	92	18
8	32	398	369	464	928	708	233	83	170	50	63	163
9	29	236	284	375	563	549	200	74	138	44	49	407
10	27	170	254	284	436	415	171	67	114	42	40	220
11	26	137	391	212	359	341	154	61	103	46	36	114
12	25	212	388	194	307	302	181	54	120	44	38	76
13	24	1,640	327	190	273	266	1,630	51	121	39	69	58
14	36	605	341	183	244	231	2,310	54	93	36	53	49
15	302	346	325	191	227	222	877	49	94	33	41	43
16	167	252	295	173	204	366	513	44	101	32	35	38
17	108	215	434	161	182	731	339	43	93	31	35	153
18	83	192	592	452	169	577	251	40	81	34	30	866
19	68	4,790	468	914	161	478	202	40	138	33	30	318
20	58	2,180	345	556	159	393	177	46	268	29	28	154
21	52	689	260	367	171	424	162	40	150	25	36	101
22	48	426	230	280	154	389	139	34	105	27	83	76
23	45	309	262	223	137	312	133	32	272	93	50	62
24	42	281	653	189	138	243	126	32	288	53	43	53
25	38	268	759	167	137	211	108	31	304	38	37	47
26	35	238	496	159	125	193	250	59	894	34	35	43
27	56	222	359	160	122	170	443	289	420	80	30	40
28	104	261	287	143	116	154	311	212	230	102	27	372
29	91	406	246	122	107	131	221	218	161	60	26	419
30	85	396	261	e115	---	129	177	174	123	46	84	197
31	75	---	239	111	---	222	---	5,130	---	40	41	---
TOTAL	1,941	16,448	11,116	12,763	11,591	10,632	13,840	8,003	8,097	1,670	1,743	4,228
MEAN	62.6	548	359	412	400	343	461	258	270	53.9	56.2	141
MAX	302	4,790	759	1,580	2,620	991	2,310	5,130	1,220	102	241	866
MIN	24	57	216	111	100	107	108	31	81	25	26	18
CFSM	0.50	4.35	2.85	3.27	3.17	2.72	3.66	2.05	2.14	0.43	0.45	1.12
IN.	0.57	4.86	3.28	3.77	3.42	3.14	4.09	2.36	2.39	0.49	0.51	1.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	59.2	131	204	291	366	371	317	262	138	91.0	65.8	48.1
MAX	365	548	491	833	790	981	766	664	551	475	308	153
(WY)	(1990)	(2004)	(1979)	(1979)	(2003)	(1975)	(1987)	(1996)	(1981)	(2001)	(1977)	(1996)
MIN	5.27	10.7	37.6	47.5	89.7	96.0	74.8	38.9	16.9	12.2	6.32	5.21
(WY)	(1992)	(1999)	(1998)	(1977)	(2002)	(1988)	(1986)	(1976)	(1999)	(1988)	(1987)	(1999)

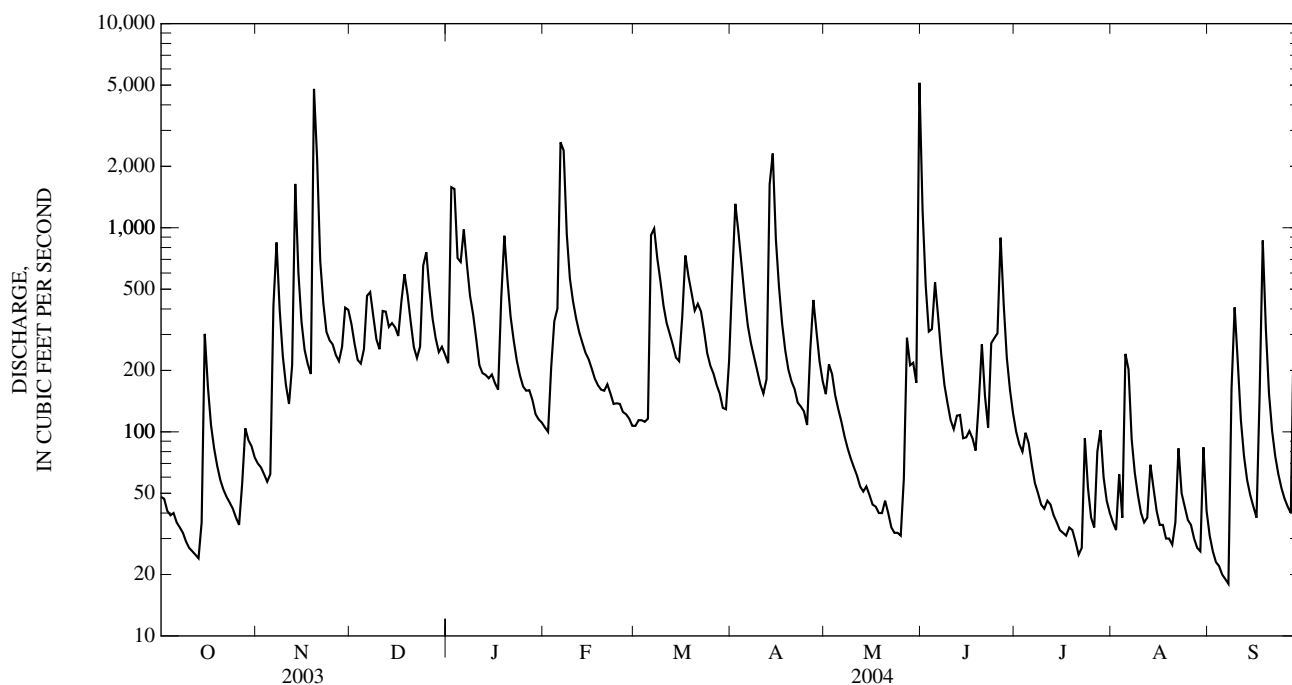
03202750 CLEAR FORK AT CLEAR FORK, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004	
ANNUAL TOTAL	112,780		102,072		195	
ANNUAL MEAN	309		279		318	
HIGHEST ANNUAL MEAN					76.5	
LOWEST ANNUAL MEAN					6,380	
HIGHEST DAILY MEAN	4,790	Nov 19	5,130	May 31	2.2	Apr 5, 1977
LOWEST DAILY MEAN	24	Oct 13	18	Sep 7	2.8	Sep 26, 1999
ANNUAL SEVEN-DAY MINIMUM	28	Oct 7	23	Sep 1	2.8	Sep 22, 1999
MAXIMUM PEAK FLOW			8,250	Nov 19	(a)10,700	Jul 8, 2001
MAXIMUM PEAK STAGE			14.18	Nov 19	(b)18.64	Apr 5, 1977
INSTANTANEOUS LOW FLOW			17	Sep 7	1.7	Sep 27, 1999
ANNUAL RUNOFF (CFSM)	2.45		2.21		1.55	
ANNUAL RUNOFF (INCHES)	33.30		30.14		21.01	
10 PERCENT EXCEEDS	606		557		447	
50 PERCENT EXCEEDS	165		159		88	
90 PERCENT EXCEEDS	40		35		12	

a From slope-conveyance measurement of peak flow.

b Site and datum then in use.

c Estimated.



03203600 GUYANDOTTE RIVER AT LOGAN, WV

LOCATION.--Lat 37°50'32", long 81°58'34", NAD 27, Logan County, Hydrologic Unit 05070101, on right bank 200 ft downstream from Midelburg Bridge at Logan, 0.8 mi downstream from Dingess Run, 1.1 mi upstream from Island Creek, and at mile 81.0.

DRAINAGE AREA.--833 mi².

PERIOD OF RECORD.--October 1960 to September 1962 (annual maximum only), October 1962 to current year. Gage-height records collected in this vicinity since November 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WDR WV-82-1: Drainage area. WDR WV-94-1: 1993.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 640.49 ft above NGVD 29. Datum published as 640.00 ft, 1963 to 1993. Prior to Oct. 1, 1962, at datum 1.32 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since February 1980 by R. D. Bailey Lake at mile 112.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 26,000 ft³/s, May 31, gage height, 26.21 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	511	470	4,580	1,290	879	694	1,590	1,540	5,430	630	535	314
2	469	445	4,320	3,910	772	663	3,280	1,410	4,600	644	467	243
3	445	524	3,370	5,250	1,160	660	5,100	1,460	4,250	500	703	199
4	452	529	1,510	5,190	1,610	711	4,500	1,350	7,620	752	751	187
5	438	556	1,500	5,170	2,220	714	4,130	1,190	8,250	832	1,330	181
6	324	1,320	2,060	5,470	7,510	2,930	2,890	1,100	5,160	620	1,770	178
7	371	2,660	2,240	4,920	7,100	4,070	1,400	944	4,180	597	1,360	183
8	532	2,770	2,200	3,940	5,350	4,480	1,310	842	3,740	465	823	828
9	377	2,340	1,980	2,700	4,890	3,210	662	602	2,100	449	599	1,850
10	324	1,000	1,650	2,410	4,660	2,030	510	744	1,100	473	426	1,490
11	337	1,060	1,980	1,910	4,530	1,660	467	728	892	428	398	1,130
12	344	1,450	2,200	1,600	3,780	1,460	487	717	1,230	413	441	630
13	343	3,700	2,050	1,580	1,800	1,260	3,880	609	2,160	391	543	406
14	387	4,120	1,940	1,440	1,650	1,160	8,720	585	1,830	379	502	496
15	885	3,210	2,020	1,440	1,540	1,000	6,040	587	1,140	368	312	391
16	1,580	1,570	1,880	1,310	1,360	1,130	5,300	597	1,140	356	297	359
17	867	1,460	1,930	1,180	1,300	1,970	4,880	552	1,470	353	316	1,590
18	691	1,240	2,510	1,710	1,080	2,370	4,180	479	946	295	314	3,500
19	623	8,490	2,760	2,910	1,090	2,040	3,990	477	1,060	282	303	2,720
20	410	4,580	2,100	2,540	1,030	1,810	4,190	479	1,210	271	246	1,590
21	440	5,030	1,680	2,640	1,020	1,780	2,600	446	1,340	345	280	869
22	518	4,540	1,600	2,490	1,000	1,830	1,490	440	946	292	344	635
23	521	4,300	1,590	2,340	1,000	1,720	1,290	432	1,300	335	382	568
24	307	4,220	2,450	1,810	881	1,540	1,420	330	1,540	570	372	488
25	357	4,090	3,140	1,400	864	1,440	1,070	323	1,700	455	323	422
26	369	3,560	3,090	1,370	834	1,260	1,410	626	3,160	368	269	402
27	463	2,590	2,700	1,260	779	1,130	2,200	1,830	2,170	643	264	348
28	588	2,860	1,930	1,260	762	1,000	2,640	2,110	1,470	1,410	275	481
29	705	3,780	1,580	1,100	738	1,090	2,380	2,000	1,230	1,060	351	2,120
30	754	4,170	1,170	990	---	917	1,630	1,690	962	481	380	1,250
31	623	---	1,980	914	---	1,050	---	13,900	---	519	377	---
TOTAL	16,355	82,634	69,690	75,444	63,189	50,779	85,636	41,119	75,326	15,976	16,053	26,048
MEAN	528	2,754	2,248	2,434	2,179	1,638	2,855	1,326	2,511	515	518	868
MAX	1,580	8,490	4,580	5,470	7,510	4,480	8,720	13,900	8,250	1,410	1,770	3,500
MIN	307	445	1,170	914	738	660	467	323	892	271	246	178

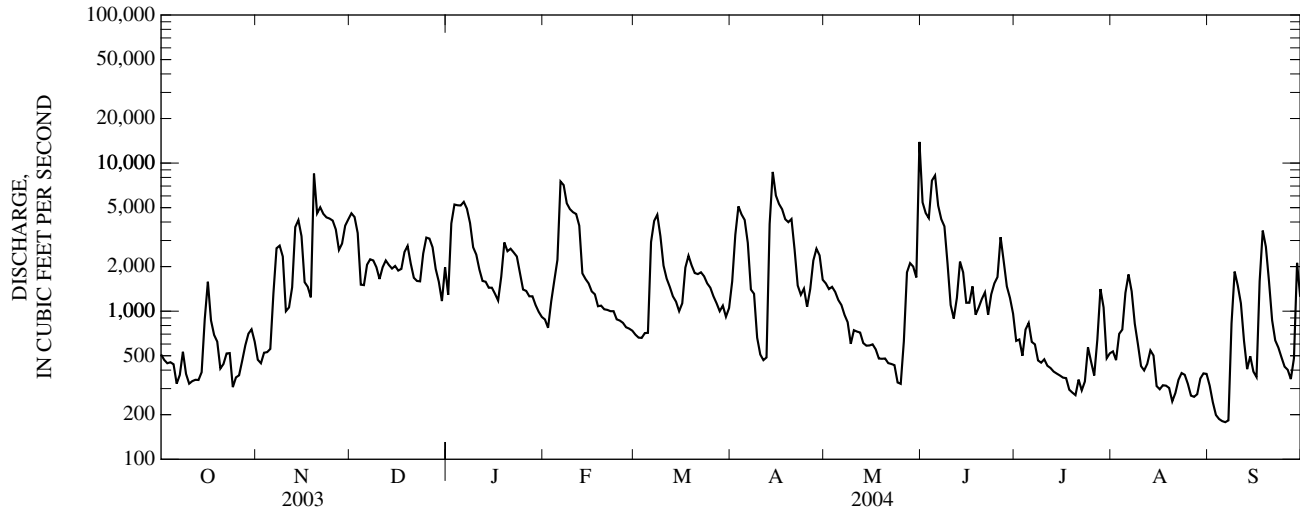
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

MEAN	369	722	1,036	1,498	2,142	2,125	1,842	1,697	942	559	399	312
MAX	2,211	2,754	2,255	3,267	4,250	4,370	5,213	3,889	3,430	1,852	1,108	891
(WY)	(1990)	(2004)	(1992)	(1994)	(1994)	(1993)	(1987)	(1996)	(1981)	(2001)	(2000)	(2003)
MIN	162	98.9	235	375	543	449	354	577	150	120	89.1	70.2
(WY)	(1999)	(1988)	(1998)	(2000)	(2002)	(1988)	(1986)	(2000)	(1999)	(1988)	(1987)	(1999)

03203600 GUYANDOTTE RIVER AT LOGAN, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	682,136		618,249		1,131	
ANNUAL MEAN	1,869		1,689		1,712	
HIGHEST ANNUAL MEAN					432	
LOWEST ANNUAL MEAN					14,800	
HIGHEST DAILY MEAN	13,100	Feb 16	13,900	May 31	27,200	May 7, 1984
LOWEST DAILY MEAN	256	Sep 1	178	Sep 6	48	(a)
ANNUAL SEVEN-DAY MINIMUM	340	Aug 26	212	Sep 1	51	Sep 14, 1999
MAXIMUM PEAK FLOW			26,000	May 31	26.21	May 31, 2004
MAXIMUM PEAK STAGE			26.21	May 31	45	Oct 26, 1991
INSTANTANEOUS LOW FLOW			174	Sep 7	2,950	
10 PERCENT EXCEEDS	4,500		4,170		595	
50 PERCENT EXCEEDS	1,310		1,180		152	
90 PERCENT EXCEEDS	421		355			

a July 10, Aug. 18, 1988.



STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1979, BY WATER YEAR (WY) [UNREGULATED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	427	739	1,491	1,995	1,984	2,606	1,921	1,398	796	462	493	319
MAX	1,462	2,111	3,582	5,381	5,021	5,732	3,891	2,471	3,578	1,592	2,107	1,142
(WY)	(1977)	(1978)	(1973)	(1974)	(1972)	(1975)	(1977)	(1975)	(1979)	(1979)	(1972)	(1966)
MIN	48.8	69.0	67.5	125	857	813	526	362	171	122	90.1	83.2
(WY)	(1964)	(1966)	(1966)	(1966)	(1968)	(1969)	(1963)	(1964)	(1970)	(1964)	(1964)	(1965)

SUMMARY STATISTICS

WATER YEARS 1963 - 1979

ANNUAL MEAN	1,217	
HIGHEST ANNUAL MEAN	1,936	1979
LOWEST ANNUAL MEAN	570	1969
HIGHEST DAILY MEAN	40,800	Mar 12, 1963
LOWEST DAILY MEAN	34	Sep 17, 1964
ANNUAL SEVEN-DAY MINIMUM	41	Sep 13, 1964
INSTANTANEOUS PEAK FLOW	(*)55,000	Mar 12, 1963
INSTANTANEOUS PEAK STAGE	34.98	Mar 12, 1963
INSTANTANEOUS LOW FLOW	33	Sep 17, 1964
10 PERCENT EXCEEDS	2,560	
50 PERCENT EXCEEDS	602	
90 PERCENT EXCEEDS	110	

* From rating curve extended above 26,000 ft³/s on basis of slope-area measurements at gage heights 25.60 ft and 34.98 ft.

GUYANDOTTE RIVER BASIN

03204250 MUD RIVER AT PALERMO, WV
(Detention Reservoir)

LOCATION.-- Lat 38°09'54", long 81°03'31", Lincoln County, Hydrologic Unit 05070102.

DAM NAME.--Upper Mud #2-A.

SURFACE AREA.--306 acres.

DRAINAGE AREA.--51.3 mi².

PERIOD OF RECORD.-- October 2003 to September 2004.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 721.5 ft above NGVD 29.

REMARKS.-- Normal Pool = 21.5 ft (Normal Storage=4490 acre-ft)

Top of Riser = 29.0 ft

Emergency Spillway = 42.5 ft

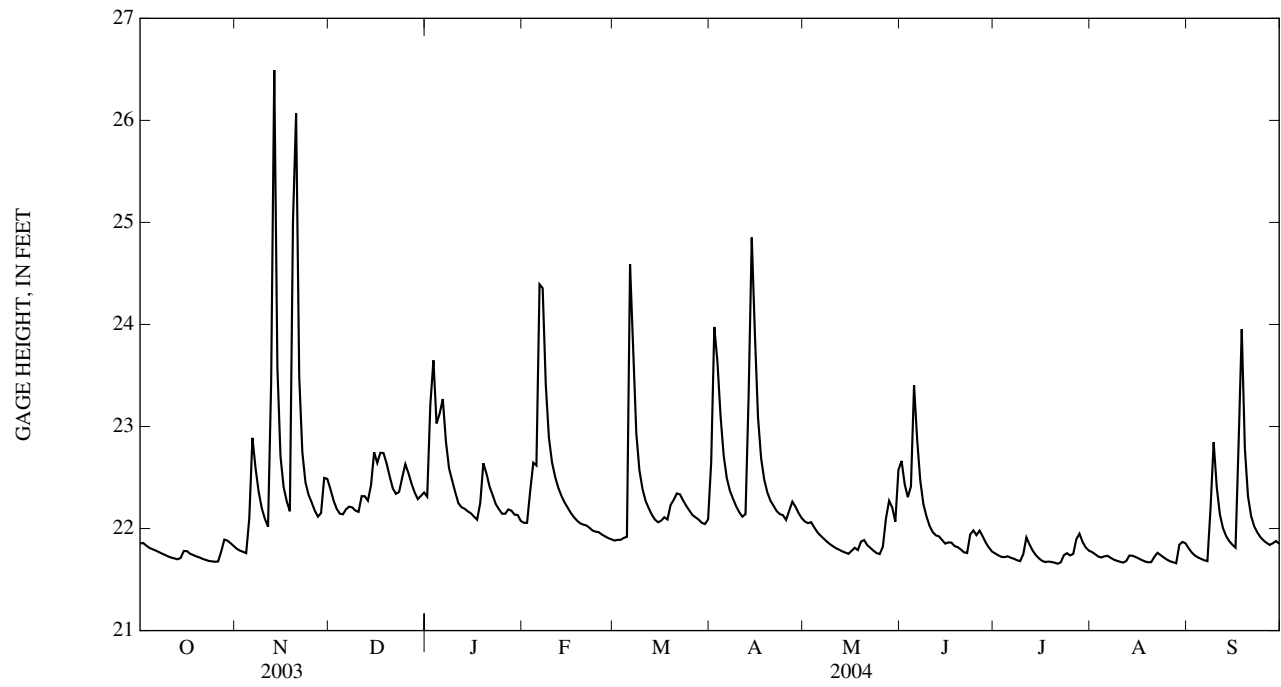
Top of Dam = 59.5 ft

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 27.98 ft, Nov. 19; minimum gage height, 21.65 ft, July 21, 22, and Aug. 28, 29.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.85	21.80	22.39	22.31	22.06	21.88	22.65	22.07	22.66	21.76	21.77	21.81
2	21.86	21.78	22.27	23.21	22.06	21.89	23.98	22.05	22.44	21.74	21.75	21.76
3	21.83	21.77	22.19	23.65	22.37	21.89	23.63	22.06	22.31	21.72	21.73	21.74
4	21.81	21.76	22.15	23.03	22.65	21.91	23.10	22.01	22.41	21.72	21.72	21.72
5	21.80	22.10	22.14	23.13	22.62	21.92	22.72	21.96	23.40	21.73	21.73	21.70
6	21.78	22.89	22.19	23.27	24.39	24.59	22.49	21.93	22.87	21.71	21.73	21.69
7	21.77	22.59	22.21	22.85	24.36	23.76	22.37	21.90	22.47	21.70	21.71	21.68
8	21.75	22.36	22.21	22.59	23.41	22.94	22.29	21.87	22.24	21.69	21.70	22.20
9	21.74	22.20	22.18	22.47	22.89	22.57	22.22	21.85	22.12	21.68	21.68	22.85
10	21.73	22.09	22.16	22.36	22.65	22.39	22.16	21.83	22.02	21.75	21.67	22.40
11	21.72	22.02	22.32	22.25	22.51	22.27	22.12	21.81	21.96	21.91	21.67	22.14
12	21.71	23.43	22.32	22.21	22.40	22.20	22.14	21.79	21.93	21.84	21.68	22.00
13	21.70	26.49	22.27	22.19	22.32	22.13	23.31	21.78	21.92	21.78	21.74	21.93
14	21.71	23.58	22.43	22.17	22.26	22.09	24.85	21.76	21.89	21.74	21.73	21.88
15	21.78	22.71	22.75	22.15	22.21	22.06	23.91	21.75	21.85	21.71	21.72	21.84
16	21.78	22.41	22.64	22.12	22.15	22.08	23.09	21.78	21.86	21.68	21.71	21.81
17	21.75	22.27	22.74	22.09	22.11	22.11	22.69	21.81	21.86	21.67	21.69	22.84
18	21.74	22.17	22.74	22.25	22.08	22.09	22.48	21.79	21.83	21.68	21.68	23.95
19	21.73	25.01	22.64	22.64	22.05	22.23	22.35	21.87	21.82	21.67	21.67	22.78
20	21.72	26.07	22.51	22.54	22.04	22.28	22.27	21.89	21.79	21.67	21.67	22.32
21	21.70	23.49	22.39	22.41	22.03	22.34	22.22	21.84	21.77	21.66	21.72	22.12
22	21.69	22.75	22.34	22.33	22.01	22.34	22.17	21.81	21.76	21.67	21.76	22.02
23	21.68	22.45	22.36	22.24	21.98	22.28	22.14	21.78	21.94	21.74	21.74	21.96
24	21.68	22.33	22.50	22.19	21.97	22.22	22.13	21.76	21.98	21.76	21.72	21.92
25	21.67	22.26	22.63	22.15	21.96	22.18	22.08	21.75	21.94	21.74	21.70	21.88
26	21.68	22.17	22.54	22.14	21.94	22.13	22.18	21.82	21.98	21.75	21.68	21.86
27	21.77	22.12	22.44	22.19	21.92	22.11	22.26	22.10	21.92	21.90	21.67	21.84
28	21.89	22.15	22.35	22.17	21.91	22.09	22.21	22.27	21.86	21.95	21.66	21.86
29	21.88	22.50	22.29	22.14	21.90	22.06	22.15	22.21	21.81	21.87	21.84	21.88
30	21.86	22.49	22.32	22.13	---	22.04	22.10	22.07	21.77	21.81	21.87	21.85
31	21.83	---	22.35	22.07	---	22.09	---	22.58	---	21.78	21.85	---
MEAN	21.76	22.74	22.39	22.44	22.39	22.30	22.62	21.92	22.08	21.75	21.72	22.07
MAX	21.89	26.49	22.75	23.65	24.39	24.59	24.85	22.58	23.40	21.95	21.87	23.95
MIN	21.67	21.76	22.14	22.07	21.90	21.88	22.08	21.75	21.76	21.66	21.66	21.68

03204250 MUD RIVER AT PALERMO, WV—Continued



03206600 EAST FORK TWELVEPOLE CREEK NEAR DUNLOW, WV

LOCATION.--Lat 38°01'02", long 82°17'46", NAD 27, Wayne County, Hydrologic Unit 05090102, on left bank 0.2 mi upstream from Maynard Branch, 0.9 mi downstream from McComas Branch, 1.5 mi upstream from Devilstrace Branch, and 7.5 mi east of Dunlow, and at mile 60.2.

DRAINAGE AREA.--38.5 mi².

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 710.00 ft above NGVD 29. Prior to Dec. 22, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good, except those for periods of estimated daily discharges (ice effect), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 840 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2100	*2,780	*13.71	Mar 6	0800	1,050	10.08
Nov 19	2100	1,930	12.27	Jun 25	2200	1,280	10.73
Feb 6	1300	1,080	10.18	Sep 17	unknown	(a)2,400	(b)13.18

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	14	62	50	e33	18	36	22	144	27	16	9.9
2	7.9	13	52	331	e32	18	114	23	80	23	12	7.7
3	5.8	12	45	273	144	17	166	25	52	19	9.8	5.9
4	5.7	11	47	162	139	18	131	20	69	17	16	5.3
5	6.1	69	61	294	160	20	95	19	108	18	43	4.5
6	5.5	121	81	238	849	619	73	17	75	14	28	3.8
7	4.5	90	78	146	433	227	61	16	50	13	16	3.6
8	4.1	57	70	105	196	129	53	14	38	11	11	202
9	3.8	40	61	86	132	90	45	13	60	9.2	9.2	266
10	3.8	32	64	65	103	67	39	13	36	9.3	7.9	90
11	3.7	28	88	55	81	55	36	12	30	20	7.0	47
12	3.7	795	77	50	67	47	46	12	124	10	11	31
13	3.9	948	70	47	57	40	291	11	198	9.1	19	22
14	10	167	91	43	51	36	431	11	84	7.7	10	17
15	25	104	112	41	46	34	253	9.8	55	6.7	8.0	13
16	14	77	104	36	39	42	144	12	60	5.8	6.6	11
17	9.5	61	148	34	35	40	99	12	48	5.4	5.7	925
18	8.4	53	129	93	32	38	75	8.2	36	5.5	5.2	824
19	7.5	1,250	116	120	31	43	61	27	38	5.2	4.8	145
20	6.8	621	92	93	30	40	52	21	34	4.8	4.4	75
21	6.4	183	74	75	30	49	47	11	26	4.3	19	49
22	6.6	113	71	65	26	45	42	9.0	24	11	17	37
23	6.4	80	77	52	24	42	38	7.3	46	28	8.1	29
24	6.3	68	103	49	24	41	34	6.3	40	20	6.1	24
25	6.2	56	105	42	23	38	30	6.8	375	9.8	5.5	20
26	6.7	48	88	44	21	35	36	12	482	48	4.7	17
27	22	43	73	47	20	33	32	66	135	69	4.4	15
28	27	60	62	42	18	32	27	85	74	38	4.2	17
29	19	82	54	e39	17	30	25	41	49	23	65	18
30	17	72	61	e37	---	30	23	40	36	20	29	14
31	16	---	53	36	---	32	---	400	---	16	17	---
TOTAL	287.4	5,368	2,469	2,890	2,893	2,045	2,635	1,002.4	2,706	527.8	430.6	2,948.7
MEAN	9.27	179	79.6	93.2	99.8	66.0	87.8	32.3	90.2	17.0	13.9	98.3
MAX	27	1,250	148	331	849	619	431	400	482	69	65	925
MIN	3.7	11	45	34	17	17	23	6.3	24	4.3	4.2	3.6
CFSM	0.24	4.65	2.07	2.42	2.59	1.71	2.28	0.84	2.34	0.44	0.36	2.55
IN.	0.28	5.19	2.39	2.79	2.80	1.98	2.55	0.97	2.61	0.51	0.42	2.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

	11.2	32.7	64.9	76.4	100	107	90.4	67.4	39.6	15.9	11.9	11.4
MEAN	11.2	32.7	64.9	76.4	100	107	90.4	67.4	39.6	15.9	11.9	11.4
MAX	92.6	179	279	247	334	282	212	240	216	92.4	79.4	98.3
(WY)	(1990)	(2004)	(1979)	(1994)	(2003)	(1994)	(1987)	(1996)	(2003)	(1971)	(1977)	(2004)
MIN	0.65	1.28	1.52	8.75	11.2	23.3	13.3	9.11	0.70	1.86	0.71	0.20
(WY)	(1992)	(2002)	(1966)	(2000)	(2002)	(1969)	(1986)	(1991)	(1966)	(1988)	(1967)	(1967)

03206600 EAST FORK TWELVEPOLE CREEK NEAR DUNLOW, WV—Continued

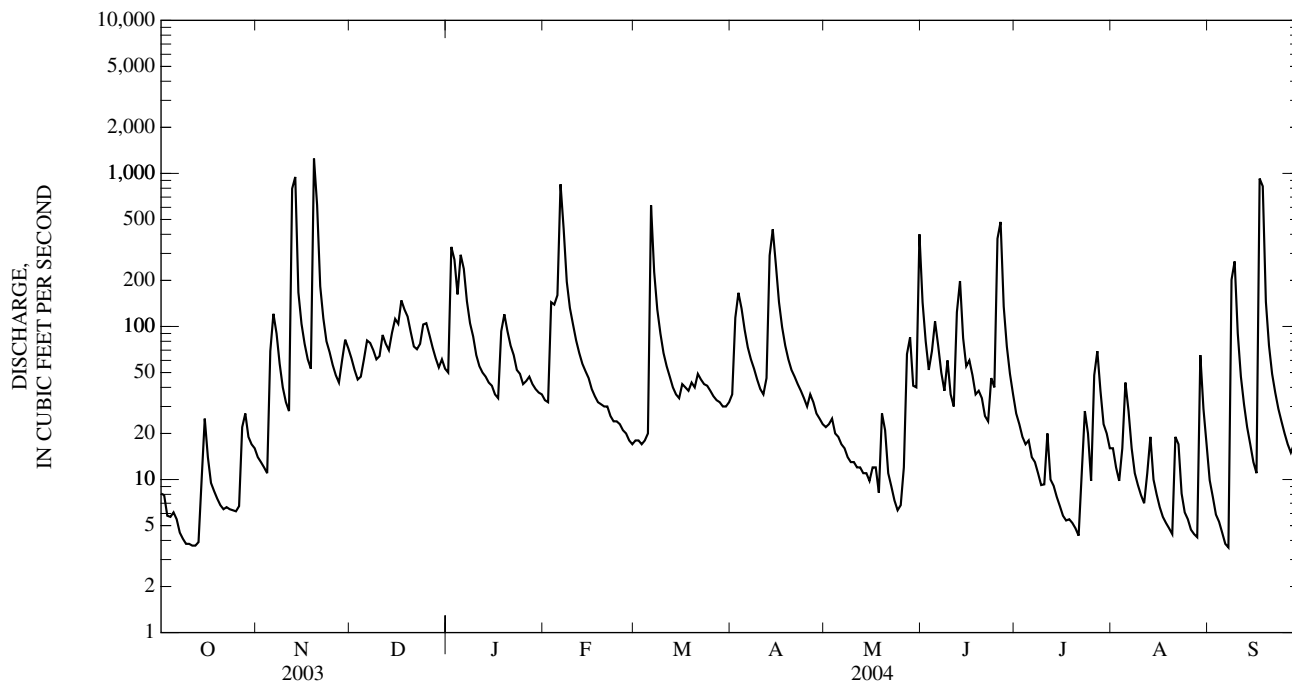
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	32,859.3		26,202.9		52.1	
ANNUAL MEAN	90.0		71.6		18.9	
HIGHEST ANNUAL MEAN					98.3	
LOWEST ANNUAL MEAN					18.9	
HIGHEST DAILY MEAN	2,580	Feb 16	1,250	Nov 19	3,110	Dec 9, 1978
LOWEST DAILY MEAN	3.1	(c)	3.6	Sep 7	0.00	(d)
ANNUAL SEVEN-DAY MINIMUM	3.9	Oct 7	3.9	Oct 7	0.01	Sep 18, 1967
MAXIMUM PEAK FLOW			2,780	Nov 12	(f)5,040	Dec 9, 1978
MAXIMUM PEAK STAGE			13.71	Nov 12	15.84	Dec 9, 1978
INSTANTANEOUS LOW FLOW			3.3	Sep 7	0.00	(d)
ANNUAL RUNOFF (CFSM)	2.34		1.86		1.35	
ANNUAL RUNOFF (INCHES)	31.75		25.32		18.40	
10 PERCENT EXCEEDS	144		136		120	
50 PERCENT EXCEEDS	41		36		18	
90 PERCENT EXCEEDS	6.4		6.5		1.3	

a From rating curve extended above 840 ft³/s on basis of slope-area measurements at gage heights 15.84 ft and 13.18 ft.

b From floodmarks.

c Aug. 27, 28.

d Sept. 15-17, 1998.



REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1991-2003 have been revised as shown in the following table. They supercede values published in the reports for 1991-2003.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 18, 1990	2030	1,280	10.74	May 16, 1996	0800	*1,820	*12.05
Dec 30, 1990	2300	*2,000	*12.39	Mar 01, 1997	1830	887	9.62
Dec 03, 1991	0030	*1,940	*12.28	Mar 03, 1997	1830	*2,140	*12.67
Jun 14, 1992	1100	1,080	10.19	May 26, 1997	1100	846	9.50
Feb 21, 1993	1800	1,130	10.32	Apr 19, 1998	1800	1,470	11.22
Mar 04, 1993	2300	*1,560	*11.45	Jun 12, 1998	1700	*1,580	*11.49
Mar 24, 1993	0930	870	9.57	Jan 09, 1999	1030	*1,290	*10.76
Jan 07, 1994	1930	*2,390	*13.16	Jun 22, 2000	1000	*1,290	*10.75
Feb 09, 1994	1630	1,260	10.69	Feb 17, 2001	0300	*744	*9.18
Feb 11, 1994	1830	1,020	9.99	Mar 19, 2002	2300	995	9.93
Feb 23, 1994	1200	1,330	10.87	Mar 20, 2002	1600	*1,340	*10.88
Mar 02, 1994	2100	890	9.63	Mar 31, 2002	2300	1,210	10.55
Mar 10, 1994	0430	1,190	10.48	04/28, 2002	2300	963	9.84
Mar 28, 1994	0900	1,780	11.95	Feb 16, 2003	1500	2,840	13.79
May 08, 1994	0500	2,010	12.41	Feb 23, 2003	0700	1,600	11.53
May 19, 1995	0900	*1,400	*11.05	Jun 17, 2003	0100	*4,520	*15.45
Jan 19, 1996	0900	1,290	10.75	Jun 18, 2003	0700	2,340	13.05
May 06, 1996	0200	1,160	10.40	Sept 04, 2003	1000	963	9.84
May 08, 1996	2100	1,340	10.89				

03212750 TUG FORK AT WELCH, WV

LOCATION.--Lat 37°26'28", long 81°36'00", NAD 27, McDowell County, Hydrologic Unit 05070201, on left bank at bridge in the Hemphill section of Welch, 20 ft downstream from Mod Branch, and at mile 131.5.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--January 1985 to September 1993, October 1996 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,268.00 ft above NGVD 29.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1400	*8,080	*15.17	May 31	1200	2,510	8.79
Apr 14	0300	3,620	10.15				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	93	334	337	287	215	549	478	783	252	129	78
2	109	92	308	1,030	286	222	811	495	509	252	145	76
3	106	90	291	1,070	349	215	831	513	417	339	144	76
4	105	88	313	741	344	208	674	465	437	410	125	75
5	103	97	378	1,280	359	204	564	432	440	290	229	75
6	100	305	437	1,320	863	579	490	400	385	251	202	74
7	98	319	415	929	1,150	524	446	373	345	232	146	75
8	96	206	378	762	763	444	411	351	314	218	128	150
9	96	161	346	674	621	390	379	331	290	207	118	146
10	97	141	352	591	551	350	353	316	272	198	107	102
11	95	136	416	535	499	323	337	324	266	195	106	87
12	93	134	387	504	457	303	367	295	483	201	126	81
13	92	152	363	478	426	285	2,010	285	670	195	132	78
14	161	133	374	454	401	273	2,470	286	435	182	112	75
15	216	137	356	441	378	263	1,330	263	419	176	107	75
16	127	142	346	407	353	297	961	259	410	169	112	75
17	111	137	440	391	333	290	762	254	371	165	102	175
18	105	135	477	628	321	280	640	238	343	161	99	293
19	101	3,690	443	749	309	297	562	233	335	157	96	138
20	97	1,510	396	602	301	290	516	228	315	151	94	107
21	94	792	357	534	294	305	474	215	289	145	97	94
22	93	562	347	501	281	289	440	211	273	149	95	87
23	91	449	362	462	267	278	424	201	286	150	92	85
24	89	404	510	435	261	270	433	197	258	143	95	82
25	88	352	537	412	252	263	389	202	397	133	98	80
26	89	320	468	393	243	254	965	222	606	152	89	79
27	108	300	425	376	239	248	974	510	387	240	87	77
28	110	347	395	349	230	241	696	705	326	173	85	251
29	105	389	371	328	222	232	584	472	294	141	84	167
30	99	359	389	322	---	237	522	403	269	132	82	117
31	96	---	355	296	---	316	---	1,450	---	132	80	---
TOTAL	3,283	12,172	12,066	18,331	11,640	9,185	21,364	11,607	11,624	6,091	3,543	3,230
MEAN	106	406	389	591	401	296	712	374	387	196	114	108
MAX	216	3,690	537	1,320	1,150	579	2,470	1,450	783	410	229	293
MIN	88	88	291	296	222	204	337	197	258	132	80	74
CFSM	0.61	2.33	2.24	3.40	2.31	1.70	4.09	2.15	2.23	1.13	0.66	0.62
IN.	0.70	2.60	2.58	3.92	2.49	1.96	4.57	2.48	2.49	1.30	0.76	0.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

	MEAN	66.5	104	152	199	320	363	393	319	204	149	109	72.9
MAX	189	406	389	591	813	741	1,206	648	387	505	322	165	
(WY)	(1990)	(2004)	(2004)	(2004)	(2003)	(1993)	(1987)	(1989)	(2004)	(2001)	(2003)	(2003)	
MIN	34.3	35.6	35.5	42.6	69.1	83.3	155	128	74.1	56.6	39.3	39.1	
(WY)	(2000)	(1999)	(2000)	(2000)	(2002)	(1988)	(1986)	(1988)	(1988)	(1988)	(1988)	(1987)	

03212750 TUG FORK AT WELCH, WV—Continued

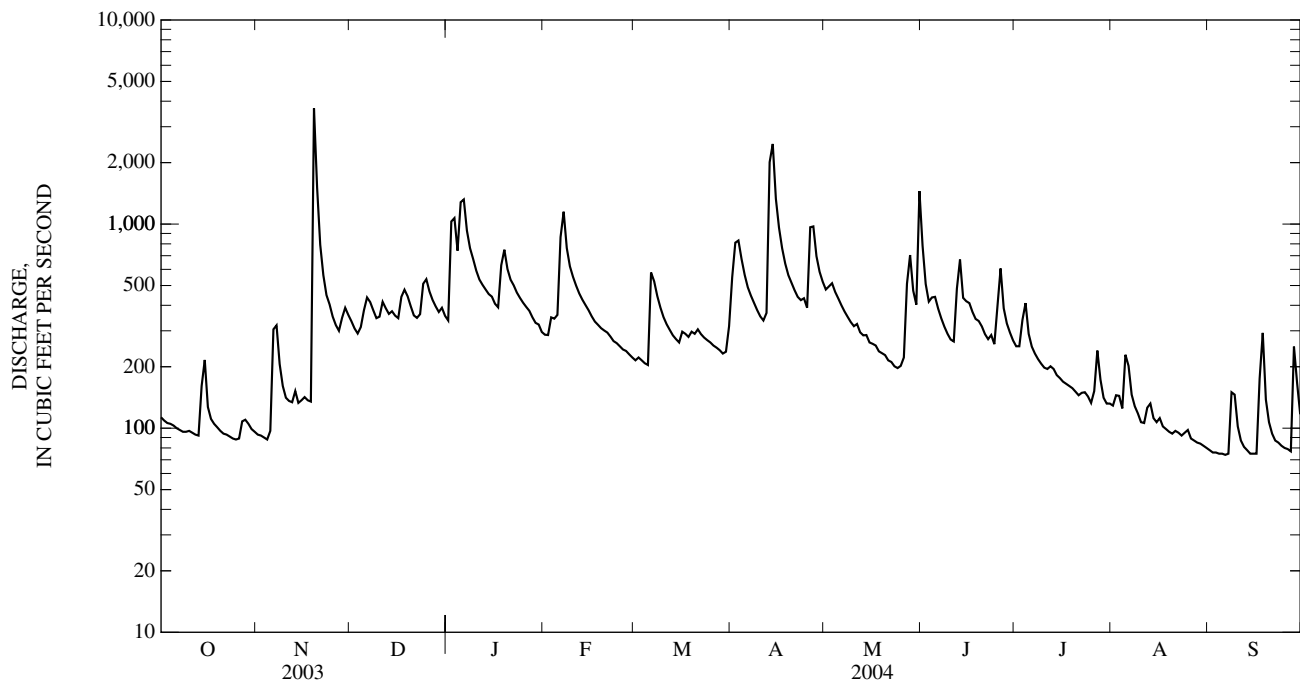
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	126,091		124,136		206	
ANNUAL MEAN	345		339		339	
HIGHEST ANNUAL MEAN					75.9	
LOWEST ANNUAL MEAN					206	
HIGHEST DAILY MEAN	3,690	Nov 19	3,690	Nov 19	4,300	Apr 25, 1987
LOWEST DAILY MEAN	88	(a)	74	Sep 6	25	Oct 19, 1999
ANNUAL SEVEN-DAY MINIMUM	92	Oct 20	76	Sep 1	27	Oct 22, 1999
MAXIMUM PEAK FLOW			8,080	Nov 19	(b)13,100	May 2, 2002
MAXIMUM PEAK STAGE			15.17	Nov 19	(c)22.09	May 2, 2002
INSTANTANEOUS LOW FLOW			73	(d)	17	Jan 10, 2001
ANNUAL RUNOFF (CFSM)	1.99		1.95		1.18	
ANNUAL RUNOFF (INCHES)	26.96		26.54		16.08	
10 PERCENT EXCEEDS	563		586		422	
50 PERCENT EXCEEDS	265		289		130	
90 PERCENT EXCEEDS	122		93		40	

a Oct. 25, Nov. 4.

b From rating curve extended above 11,500 ft³/s.

c From floodmarks.

d Sept. 6, 7.



03212980 DRY FORK AT BEARTOWN, WV

LOCATION.--Lat 37°23'43", long 81°48'10", NAD 27, McDowell County, Hydrologic Unit 05070201, on left bank 20 ft upstream from bridge on State Highway 80/3, 0.4 mi upstream from Grapevine Branch, and at mile 7.1.

DRAINAGE AREA.--209 mi².

PERIOD OF RECORD.--February 1985 to September 1993, October 1996 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,056.00 ft above NGVD 29.

REMARKS.--Records good except for period of estimated daily discharge (doubtful gage-height record), which is fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1600	*9,990	*11.98	Apr 13	1800	6,640	9.91
Jan 2	2100	5,030	8.96	May 28	1400	3,430	7.91
Jan 5	2000	4,230	8.46	May 31	1400	5,130	9.02

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	62	294	269	210	135	851	377	1,370	227	100	58
2	66	59	239	1,880	209	140	1,390	364	639	204	94	59
3	61	59	214	2,080	308	137	1,330	462	419	215	104	59
4	61	58	229	936	368	130	890	391	555	504	94	58
5	59	61	354	2,010	374	129	628	346	1,030	318	135	56
6	59	121	466	2,160	1,020	776	479	314	629	242	133	55
7	57	208	450	1,010	1,970	858	403	280	434	205	103	55
8	54	149	383	687	1,010	642	354	252	335	184	89	111
9	54	118	329	548	679	507	309	231	286	166	83	139
10	53	101	308	438	538	405	270	220	257	158	80	98
11	52	92	459	e370	444	340	250	236	249	152	78	75
12	55	92	449	334	378	305	271	249	494	148	133	66
13	53	108	375	310	337	262	3,180	213	703	156	125	62
14	87	103	366	294	306	236	3,940	211	549	149	106	62
15	144	99	365	291	286	226	1,600	183	796	136	93	57
16	94	100	355	266	256	255	950	170	1,030	130	85	58
17	76	96	459	251	236	270	676	190	648	124	84	174
18	70	95	567	483	222	259	520	191	451	126	80	462
19	65	4,770	501	918	208	242	433	176	411	121	76	199
20	61	1,710	403	648	203	223	387	183	435	115	70	130
21	59	632	324	492	200	246	356	160	348	110	66	103
22	59	393	303	416	183	227	318	188	284	116	69	85
23	56	291	338	353	172	215	303	171	293	121	69	74
24	55	252	527	321	170	206	339	154	284	109	66	69
25	52	225	628	296	163	198	302	245	501	118	64	72
26	53	195	497	278	155	190	1,130	230	1,310	113	66	71
27	73	182	403	272	152	181	1,430	963	622	202	57	72
28	83	222	348	254	144	176	756	1,970	408	194	58	741
29	81	357	310	234	137	171	535	1,040	319	136	61	488
30	73	342	316	240	---	174	434	583	263	118	64	237
31	66	---	284	217	---	283	---	2,490	---	108	60	---
TOTAL	2,065	11,352	11,843	19,556	11,038	8,744	25,014	13,433	16,352	5,225	2,645	4,105
MEAN	66.6	378	382	631	381	282	834	433	545	169	85.3	137
MAX	144	4,770	628	2,160	1,970	858	3,940	2,490	1,370	504	135	741
MIN	52	58	214	217	137	129	250	154	249	108	57	55
CFSM	0.32	1.81	1.83	3.02	1.82	1.35	3.99	2.07	2.61	0.81	0.41	0.65
IN.	0.37	2.02	2.11	3.48	1.96	1.56	4.45	2.39	2.91	0.93	0.47	0.73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	60.2	108	190	248	412	449	458	319	204	129	90.8	60.9
MAX	347	378	572	631	1,098	1,033	1,455	799	545	564	345	221
(WY)	(1990)	(2004)	(1992)	(2004)	(2003)	(1993)	(1987)	(1989)	(2004)	(2001)	(2003)	(1989)
MIN	22.4	23.6	28.8	62.0	72.0	93.7	110	104	39.3	28.2	22.4	26.9
(WY)	(1998)	(1999)	(1998)	(2001)	(2002)	(1988)	(1986)	(1988)	(1988)	(1988)	(1988)	(1985)

03212980 DRY FORK AT BEARTOWN, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	126,186		131,372		231	
ANNUAL MEAN	346		359		359	
HIGHEST ANNUAL MEAN					75.0	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	6,580	Feb 16	4,770	Nov 19	6,580	Feb 16, 2003
LOWEST DAILY MEAN	52	(a)	52	(a)	15	(b)
ANNUAL SEVEN-DAY MINIMUM	54	Oct 7	54	Oct 7	17	Oct 26, 1999
MAXIMUM PEAK FLOW			9,990	Nov 19	(c)15,900	May 2, 2002
MAXIMUM PEAK STAGE			11.98	Nov 19	(d)15.21	May 2, 2002
INSTANTANEOUS LOW FLOW			46	Oct 26	13	(f)
ANNUAL RUNOFF (CFSM)	1.65		1.72		1.10	
ANNUAL RUNOFF (INCHES)	22.46		23.38		15.01	
10 PERCENT EXCEEDS	604		692		503	
50 PERCENT EXCEEDS	214		228		116	
90 PERCENT EXCEEDS	80		62		28	

a Oct. 11, 25.

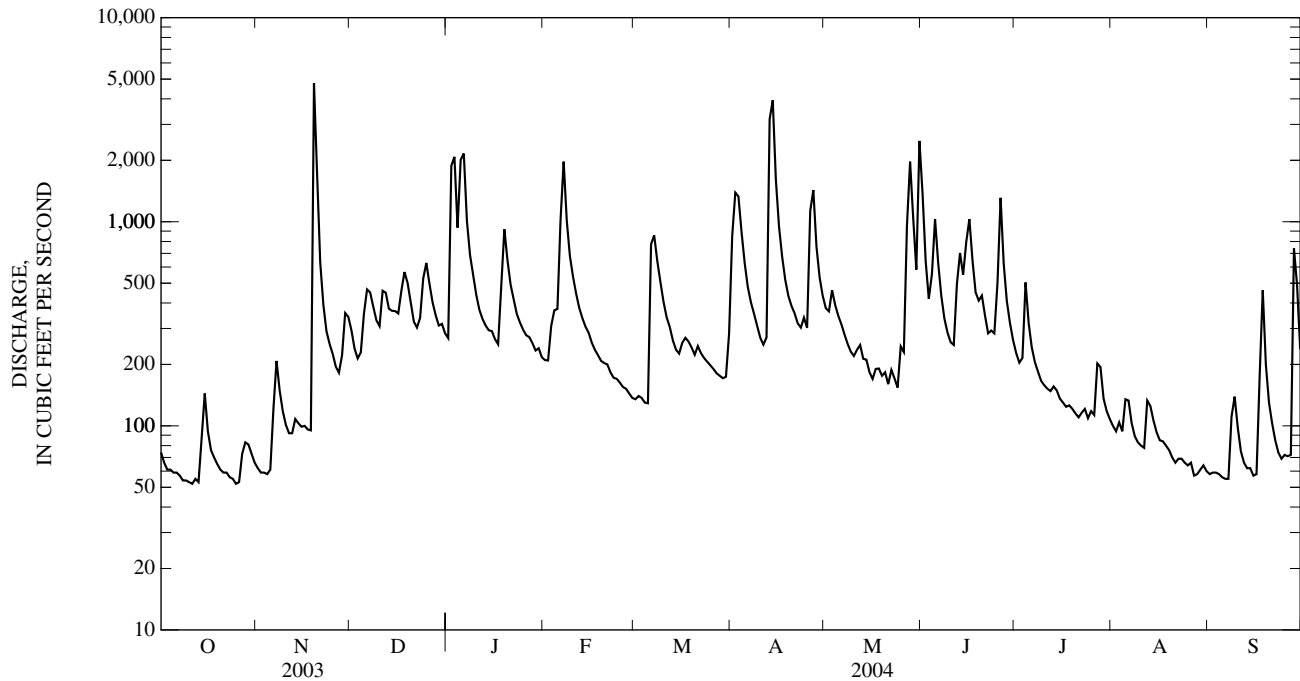
b Oct. 29, 1987, and Sept. 3, 1988.

c From rating curve extended above 11,700 ft³/s.

d From floodmarks.

e Estimated.

f Oct. 29, 30, 1987.



03213500 PANTHER CREEK NEAR PANTHER, WV

LOCATION.--Lat 37°26'42", long 81°52'15", NAD 27, McDowell County, Hydrologic Unit 05070201, on left bank 200 ft downstream from Cub Branch, 2.1 mi upstream from Trace Fork, 3.0 mi southwest of Panther, and at mile 4.2.

DRAINAGE AREA.--31.0 mi².

PERIOD OF RECORD.--July 1946 to September 1986, October 2002 to current year.

REVISED RECORDS.--WSP 1505: 1955(P). WSP 1908: 1955(M), 1957(M). WDR WV-97-1: 1948(P), 1950(M), 1955(P), 1964-81(P).

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is 1,050 ft, from topographic map.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect, faulty gage-height record), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1030	*2,640	*9.04	Apr 13	2230	1,870	8.08
Jan 2	1600	975	6.63	May 31	0830	1,300	7.21
Jan 5	1630	807	6.29	Jun 4	2000	1,060	6.78
Feb 6	1630	864	6.41				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	6.9	55	33	e32	12	126	40	229	24	4.1	2.0
2	5.1	6.6	39	396	e28	14	311	38	88	21	4.3	1.9
3	4.4	6.4	31	317	42	13	232	35	48	26	4.3	1.8
4	4.3	6.1	33	151	47	12	143	28	233	36	3.5	1.8
5	4.1	7.0	53	401	63	13	90	25	407	36	10	1.7
6	3.8	16	101	324	454	398	63	22	169	16	9.8	1.6
7	3.7	29	95	149	411	213	52	18	86	10	5.5	1.8
8	3.4	22	67	90	193	116	44	16	50	8.6	4.1	12
9	3.3	16	50	67	115	78	37	14	36	7.2	3.5	17
10	3.2	14	47	47	81	56	30	12	28	8.9	3.2	7.4
11	3.2	12	63	38	60	45	28	11	25	9.6	3.1	4.6
12	3.1	13	63	34	47	38	34	11	42	7.7	4.1	3.6
13	3.1	40	53	33	39	31	682	14	40	e5.2	4.4	3.3
14	5.1	32	51	33	35	27	772	11	31	e3.7	3.3	4.5
15	20	27	46	36	31	25	260	9.2	47	e3.4	2.9	3.3
16	9.3	23	45	31	26	46	142	8.3	36	e3.0	2.7	2.9
17	7.1	21	89	31	23	80	92	9.5	30	e2.7	2.5	57
18	6.4	20	115	151	21	75	65	29	24	e2.5	2.4	66
19	5.6	1,070	85	230	20	61	50	17	33	e2.6	2.3	18
20	5.2	283	58	124	20	50	44	16	42	e2.5	2.2	9.7
21	4.9	97	43	78	21	55	39	12	39	e2.1	3.1	6.8
22	4.7	52	42	58	17	49	33	10	29	e2.7	3.2	5.5
23	4.5	35	67	44	15	43	30	9.4	36	e5.8	2.5	4.7
24	4.4	36	128	38	15	39	41	9.9	32	e4.2	2.3	4.1
25	4.3	39	124	33	15	34	36	8.5	49	e3.0	2.7	3.7
26	4.3	38	82	33	14	30	134	12	125	e4.2	2.4	3.4
27	9.0	33	58	38	14	28	196	86	80	e5.2	2.2	3.2
28	13	49	45	40	13	26	109	265	53	e6.2	2.0	68
29	11	105	38	42	12	24	68	131	39	4.7	2.0	39
30	9.0	82	40	42	---	24	49	244	30	5.5	2.3	18
31	7.7	---	34	36	---	40	---	718	---	4.8	2.2	---
TOTAL	185.8	2,237.0	1,940	3,198	1,924	1,795	4,032	1,889.8	2,236	285.0	109.1	378.3
MEAN	5.99	74.6	62.6	103	66.3	57.9	134	61.0	74.5	9.19	3.52	12.6
MAX	20	1,070	128	401	454	398	772	718	407	36	10	68
MIN	3.1	6.1	31	31	12	12	28	8.3	24	2.1	2.0	1.6
CFSM	0.19	2.41	2.02	3.33	2.14	1.87	4.34	1.97	2.40	0.30	0.11	0.41
IN.	0.22	2.68	2.33	3.84	2.31	2.15	4.84	2.27	2.68	0.34	0.13	0.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	7.33	19.2	36.8	56.4	74.0	82.2	68.0	39.3	19.5	10.5	10.9	5.93
MAX	65.7	83.1	115	179	241	280	146	136	127	58.9	72.5	59.6
(WY)	(1977)	(1978)	(1973)	(1957)	(2003)	(1955)	(1948)	(1958)	(1979)	(1956)	(1958)	(1966)
MIN	0.14	0.24	0.65	1.90	9.66	18.3	9.76	6.98	1.31	1.05	0.61	0.18
(WY)	(1954)	(1954)	(1966)	(1966)	(1968)	(1984)	(1986)	(1957)	(1966)	(1959)	(1955)	(1946)

03213500 PANTHER CREEK NEAR PANTHER, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	22,393.3		20,210.0		35.1	
ANNUAL MEAN	61.4		55.2		55.8	
HIGHEST ANNUAL MEAN					15.1	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	2,100	Feb 16	1,070	Nov 19	2,300	Apr 4, 1977
LOWEST DAILY MEAN	3.1	(a)	1.6	Sep 6	0.00	(b)
ANNUAL SEVEN-DAY MINIMUM	3.3	Oct 7	1.8	Sep 1	0.01	Sep 16, 1946
MAXIMUM PEAK FLOW			2,640	Nov 19	(c)14,700	May 2, 2002
MAXIMUM PEAK STAGE			9.04	Nov 19	(d)16.57	May 2, 2002
INSTANTANEOUS LOW FLOW			1.5	Sep 6	0.00	(b)
ANNUAL RUNOFF (CFSM)	1.98		1.78		1.13	
ANNUAL RUNOFF (INCHES)	26.87		24.25		15.40	
10 PERCENT EXCEEDS	109		124		80	
50 PERCENT EXCEEDS	25		28		12	
90 PERCENT EXCEEDS	6.0		3.2		1.2	

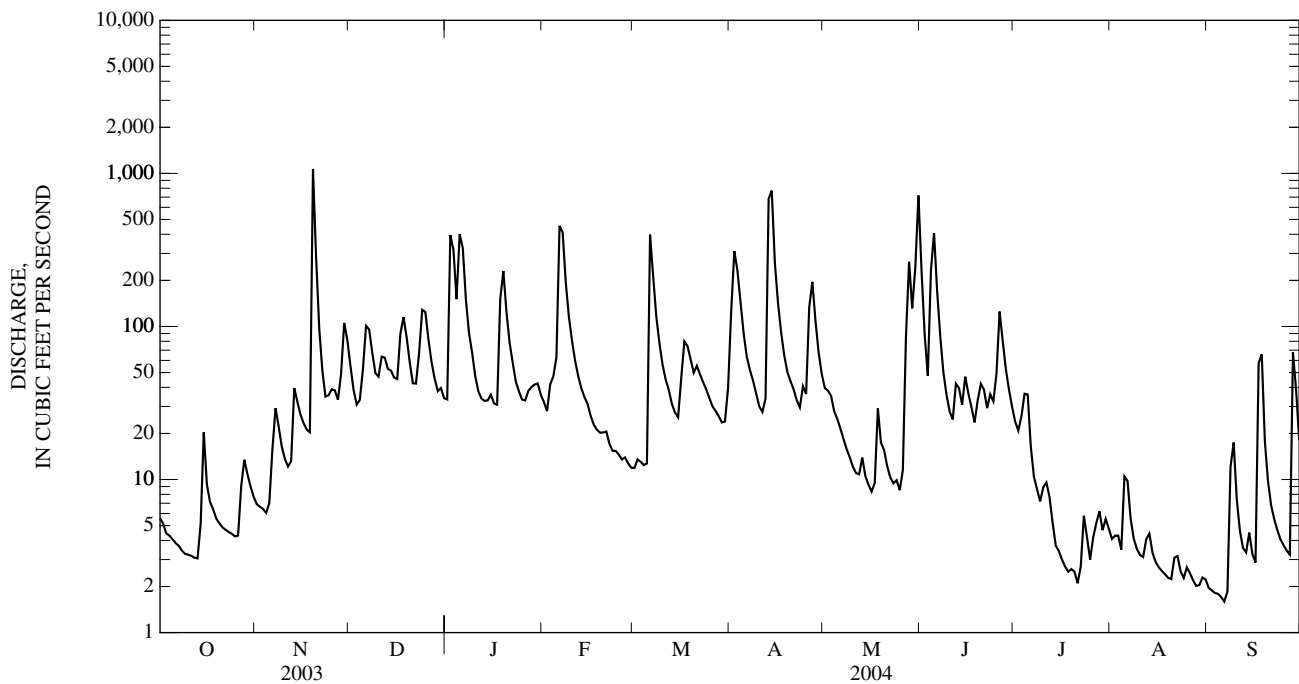
a Oct. 12, 13.

b Several days in September 1946, August and September, 1955.

c From rating curve extended above 2,800 ft³/s on basis of slope-area measurement.

d From floodmarks.

e Estimated.



03213700 TUG FORK AT WILLIAMSON, WV

LOCATION.--Lat 37°40'23", long 82°16'49", NAD 27, Pike County, Ky., Hydrologic Unit 05070201, on left bank at Williamson, 100 ft upstream from bridge on County Route 52/31, 0.8 mi downstream from Pond Creek, and at mile 56.5.

DRAINAGE AREA.--936 mi².

PERIOD OF RECORD.--October 1967 to current year. Gage-height records collected in this vicinity since 1926 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 620.52 ft above NGVD 29. Ohio River Datum is 620.96 ft. Formerly published as 620.90 ft Ohio River Datum 1969 to 1993. Prior to Jan. 21, 1969, at datum 619.66 ft above NGVD 29.

REMARKS.--Records good except those for period of estimated daily discharges (no gage-height record), which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Jan. 30, 1957, Mar. 12, 1963, and Mar. 7, 1967, reached stages of 43.6 ft, 44.5 ft, and 40.7 ft respectively, from readings by National Weather Service.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	0300	*23,800	*29.05	Apr 14	0900	20,400	26.34
Jan 3	0600	11,600	18.57	May 31	1400	16,700	23.21
Jan 6	0700	10,000	16.91	Jun 5	0500	9,010	15.85
Feb 7	0300	11,000	17.88				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	353	357	1,720	1,360	1,130	755	1,790	1,810	8,720	921	814	298
2	349	339	1,420	3,560	1,120	757	4,650	1,670	3,540	842	616	259
3	329	326	1,220	9,480	1,350	773	5,770	1,770	2,320	904	596	241
4	314	317	1,140	4,850	1,660	753	4,310	1,650	3,650	1,150	556	234
5	307	353	1,350	4,060	2,020	745	3,150	1,470	7,350	1,350	1,370	224
6	294	823	2,010	8,520	6,420	4,900	2,410	1,350	3,900	977	1,510	212
7	282	1,410	2,310	5,050	9,740	5,640	2,040	1,230	2,520	824	916	213
8	270	1,150	1,980	3,480	5,600	3,890	1,810	1,120	1,820	775	647	694
9	260	819	1,640	2,790	3,700	2,930	1,600	1,040	1,450	689	522	1,570
10	256	654	1,440	2,290	2,890	2,320	1,400	980	1,250	675	456	971
11	255	565	1,680	1,880	2,400	1,890	1,290	937	1,190	721	413	614
12	251	557	1,860	1,690	2,030	1,650	1,300	938	1,890	631	468	447
13	242	751	1,690	1,590	1,790	1,450	4,070	903	3,690	649	594	369
14	289	816	1,660	1,510	1,600	1,300	17,600	865	2,510	631	519	328
15	559	725	1,700	1,480	1,470	1,230	8,790	839	2,210	580	446	307
16	721	701	1,640	1,400	1,360	1,300	5,120	791	2,410	538	391	279
17	492	675	1,850	1,300	1,230	1,810	3,720	745	2,180	522	366	2,100
18	407	650	2,400	1,900	1,170	1,760	2,920	763	1,680	503	352	4,690
19	371	7,650	2,400	4,720	1,100	1,690	2,430	788	1,510	484	333	1,930
20	344	15,100	2,010	3,580	1,060	1,580	2,110	781	1,500	465	320	1,020
21	325	4,280	1,650	2,560	1,050	1,690	1,930	732	1,310	446	363	725
22	310	2,560	1,480	2,090	996	1,650	1,720	671	1,130	466	373	586
23	300	1,830	1,620	1,790	928	1,490	1,580	680	1,200	626	331	504
24	292	1,500	2,280	1,580	901	e1,400	1,660	659	1,180	549	302	448
25	286	1,490	2,960	1,470	882	e1,320	1,570	621	1,190	477	292	414
26	282	1,320	2,550	1,460	841	e1,250	1,910	767	2,530	583	319	390
27	341	1,190	2,040	1,430	837	e1,200	5,100	1,500	2,430	1,200	288	375
28	459	1,230	1,730	1,470	823	e1,120	3,590	3,240	1,600	994	268	416
29	473	2,100	1,520	1,390	779	e1,080	2,570	3,980	1,250	735	314	1,860
30	423	2,110	1,530	1,350	---	e1,040	2,090	2,670	1,050	730	467	993
31	387	---	1,480	1,240	---	1,070	---	13,900	---	715	400	---
TOTAL	10,823	54,348	55,960	84,320	58,877	53,433	102,000	51,860	72,160	22,352	15,922	23,711
MEAN	349	1,812	1,805	2,720	2,030	1,724	3,400	1,673	2,405	721	514	790
MAX	721	15,100	2,960	9,480	9,740	5,640	17,600	13,900	8,720	1,350	1,510	4,690
MIN	242	317	1,140	1,240	779	745	1,290	621	1,050	446	268	212
CFSM	0.37	1.94	1.93	2.91	2.17	1.84	3.63	1.79	2.57	0.77	0.55	0.84
IN.	0.43	2.16	2.22	3.35	2.34	2.12	4.05	2.06	2.87	0.89	0.63	0.94

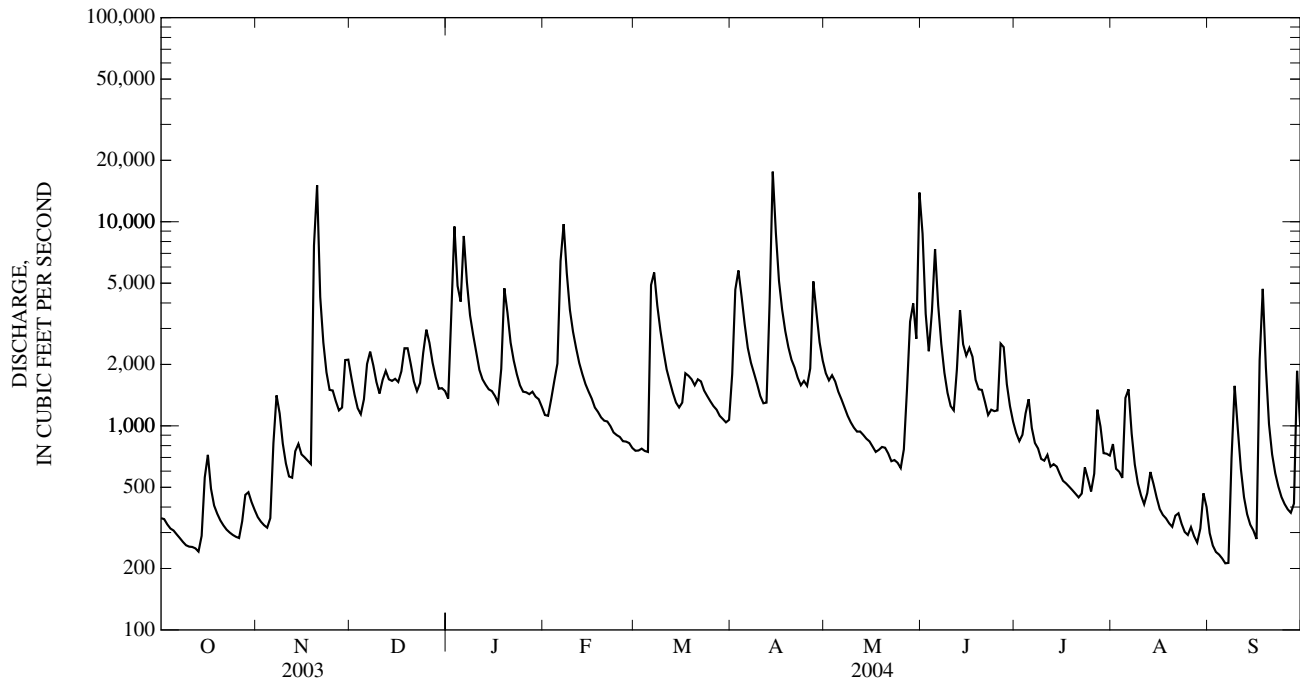
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	349	627	1,023	1,582	2,029	2,156	2,058	1,648	940	538	429	283
MAX	2,059	2,363	3,631	4,515	5,198	5,328	5,745	4,318	3,263	1,503	1,419	839
(WY)	(1990)	(1978)	(1973)	(1974)	(2003)	(1975)	(1987)	(1984)	(1979)	(2001)	(1972)	(1989)
MIN	71.7	113	197	279	396	448	506	429	156	119	105	85.7
(WY)	(1970)	(1970)	(2002)	(1981)	(2002)	(1988)	(1986)	(1976)	(1988)	(1988)	(1988)	(1999)

03213700 TUG FORK AT WILLIAMSON, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	634,522		605,766		1,134	
ANNUAL MEAN	1,738		1,655		1,729	
HIGHEST ANNUAL MEAN					353	
LOWEST ANNUAL MEAN					74,000	
HIGHEST DAILY MEAN	28,800	Feb 16	17,600	Apr 14	1979	1988
LOWEST DAILY MEAN	242	Oct 13	212	Sep 6	1988	1988
ANNUAL SEVEN-DAY MINIMUM	259	Oct 7	240	Sep 1	1977	1977
MAXIMUM PEAK FLOW			23,800	Nov 20	1977	1977
MAXIMUM PEAK STAGE			29.05	Nov 20	1977	1977
INSTANTANEOUS LOW FLOW			202	Sep 7	1977	1977
ANNUAL RUNOFF (CFSM)	1.86		1.77		1.21	
ANNUAL RUNOFF (INCHES)	25.22		24.08		16.46	
10 PERCENT EXCEEDS	3,170		3,550		2,500	
50 PERCENT EXCEEDS	1,150		1,210		608	
90 PERCENT EXCEEDS	392		329		141	

- a From rating curve extended above 18,000 ft³/s.
b From floodmarks.
c Estimated.



BIG SANDY RIVER BASIN

03214500 TUG FORK AT KERMIT, WV

LOCATION.--Lat 37°50'14", long 82°24'32", NAD 27, Mingo County, 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.

PERIOD OF RECORD.--October 1915 to September 1917, October 1917 to December 1920 (gage heights only), January 1929 to September 1934, October 1934 to September 1985 (estimated annual maximum discharge only), February 1985 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 574.74 ft above NGVD 29.

REMARKS.--Records good except those for period of estimated daily discharges (no gage-height record), which are poor. Records published as "near Kermit" at different site and datum July 1934 to September 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of unknown date prior to 1915, was about 46.7 ft; Jan. 29, 1918, was about 38.8 ft; Jan. 30, 1957, was about 45 ft; Mar. 13, 1963, was about 46 ft; Apr. 6, 1977, was 53.7 ft.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	1130	21,500	32.04	Apr 14	1930	20,300	30.66
Jan 3	1230	13,300	22.70	May 31	1430	*28,800	*39.73
Jan 6	1530	11,000	19.95	Jun 5	0930	12,400	21.56
Feb 7	0730	14,900	24.57	Sep 18	0130	14,800	24.43

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	440	408	2,250	1,780	1,420	903	1,720	2,080	18,700	1,170	1,290	458
2	434	382	1,880	4,490	1,380	899	4,370	1,910	6,340	1,040	970	393
3	406	366	1,590	12,000	1,970	892	7,390	1,920	3,790	978	756	360
4	394	349	1,450	7,560	2,430	887	5,910	1,890	4,220	1,280	785	348
5	384	411	1,650	5,430	2,820	864	4,250	1,670	11,200	1,600	1,780	350
6	368	1,040	2,460	9,480	9,550	6,410	3,220	1,540	6,460	1,260	2,640	326
7	358	1,920	2,940	7,240	14,100	8,440	2,670	1,420	3,840	1,040	1,590	323
8	345	1,580	2,650	4,650	8,830	5,000	2,340	1,320	2,720	1,060	1,090	1,160
9	331	1,140	2,220	3,640	5,330	3,570	2,080	1,230	2,150	863	e840	2,600
10	320	871	1,960	3,020	3,990	2,840	1,840	1,170	1,790	761	e700	1,770
11	321	714	2,120	2,490	3,280	2,350	1,650	1,140	1,660	956	e610	1,100
12	317	802	2,290	2,210	2,780	2,050	1,670	1,090	2,420	884	e670	780
13	310	1,830	2,170	2,070	2,430	1,820	3,500	1,070	5,810	795	e850	617
14	323	1,300	2,230	1,940	2,190	1,620	17,100	1,030	3,840	780	e780	561
15	574	1,050	2,440	1,880	2,000	1,500	14,700	997	2,730	695	e640	483
16	836	944	2,340	1,780	1,830	1,500	7,220	962	2,980	624	e560	446
17	626	877	2,540	1,640	1,650	1,880	4,860	901	2,800	604	e490	4,960
18	484	819	2,980	2,100	1,530	2,000	3,720	878	2,260	605	e470	11,000
19	423	6,130	3,160	5,130	1,430	1,940	3,060	946	1,940	572	e450	3,980
20	389	19,300	2,750	4,810	1,370	1,820	2,640	958	1,880	534	446	2,060
21	365	7,890	2,280	3,430	1,340	1,900	2,400	889	1,690	507	459	1,400
22	344	3,570	2,010	2,770	1,270	1,920	2,170	815	1,450	545	543	1,090
23	325	2,500	2,090	2,370	1,180	1,790	1,970	776	1,460	956	470	909
24	319	2,010	2,870	2,080	1,130	1,670	1,930	782	1,470	796	427	793
25	314	1,890	3,680	1,900	1,090	1,580	1,930	764	1,550	601	398	713
26	309	1,690	3,400	1,880	1,030	1,480	1,910	929	2,540	729	404	654
27	382	1,520	2,730	1,830	1,010	1,400	4,490	2,120	3,220	2,250	405	610
28	493	1,480	2,300	1,830	993	1,340	4,190	3,040	2,150	1,660	395	651
29	552	2,260	2,010	1,740	941	1,280	2,940	4,370	1,640	1,140	510	1,590
30	510	2,620	2,000	1,690	---	1,250	2,380	3,490	1,360	967	499	1,510
31	450	---	1,950	1,570	---	1,380	---	23,400	---	947	665	---
TOTAL	12,746	69,663	73,390	108,430	82,294	66,175	122,220	67,497	108,060	29,199	23,582	43,995
MEAN	411	2,322	2,367	3,498	2,838	2,135	4,074	2,177	3,602	942	761	1,466
MAX	836	19,300	3,680	12,000	14,100	8,440	17,100	23,400	18,700	2,250	2,640	11,000
MIN	309	349	1,450	1,570	941	864	1,650	764	1,360	507	395	323
CFSM	0.32	1.81	1.85	2.73	2.22	1.67	3.18	1.70	2.81	0.74	0.59	1.15
IN.	0.37	2.02	2.13	3.15	2.39	1.92	3.55	1.96	3.14	0.85	0.69	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2004, BY WATER YEAR (WY)

MEAN	362	701	1,321	1,986	2,917	3,425	2,513	1,922	1,069	666	534	336
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)

03214500 TUG FORK AT KERMIT, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1916 - 2004	
ANNUAL TOTAL	827,582		807,251		1,477	
ANNUAL MEAN	2,267		2,206		2,277	
HIGHEST ANNUAL MEAN					476	
LOWEST ANNUAL MEAN					34,300	
HIGHEST DAILY MEAN	31,800	Feb 17	23,400	May 31	34,300	Mar 5, 1917
LOWEST DAILY MEAN	309	Oct 26	309	Oct 26	14	Oct 23, 1930
ANNUAL SEVEN-DAY MINIMUM	324	Oct 8	324	Oct 8	18	Oct 5, 1930
MAXIMUM PEAK FLOW			28,800	May 31	(a)35,300	Feb 17, 2003
MAXIMUM PEAK STAGE			39.73	May 31	46.29	Feb 17, 2003
INSTANTANEOUS LOW FLOW			293	Sep 7	(b)69	Aug 19, 1988
ANNUAL RUNOFF (CFSM)	1.77		1.72		1.15	
ANNUAL RUNOFF (INCHES)	24.05		23.46		15.67	
10 PERCENT EXCEEDS	3,990		4,290		3,420	
50 PERCENT EXCEEDS	1,480		1,580		710	
90 PERCENT EXCEEDS	463		426		143	

a From rating curve extended above 34,000 ft³/s.

b Instantaneous low flow prior to 1985, undetermined.

c Estimated.

