

03176500 NEW RIVER AT GLEN LYN, VA

LOCATION.--Lat 37°22'22", long 80°51'38", NAD83, Giles County, Hydrologic Unit 05050002, on right bank 90 ft upstream from bridge on U.S. Highway 460 at Glen Lyn, 0.3 mi upstream from East River, and 6.3 mi downstream from Wolf Creek.

DRAINAGE AREA.--3,768 mi².

PERIOD OF RECORD.--August 1927 to current year.

REVISED RECORDS.--WSP 758: Drainage area. WSP 1305: 1928(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 1,490.11 ft NGVD of 1929. Aug. 11, 1927, to Oct. 16, 1934, on left bank opposite present site at same datum, and Oct. 17, 1934, to June 16, 1939, on left bank at site 200 ft upstream at same datum.

REMARKS.--Records good except for period of no gage-height record, Jan. 9-12, which is fair. Flow regulated since 1939 by Claytor Reservoir (station 03169000) 55 mi upstream from station. Statistics of monthly mean data and summary statistics for water years 1928-1938 (unregulated flow) are available in previous data books, water years 1991-1998. Water withdrawn by American Electric Power at gage. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 226,000 ft³/s, from rating curve extended above 89,000 ft³/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

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	4,550	3,540	5,170	6,530	2,490	4,930	7,360	6,010	8,200	4,080	2,400	1,710
2	3,660	1,970	8,410	6,880	2,520	5,880	7,420	5,270	7,240	3,570	3,570	1,810
3	3,570	1,860	6,380	8,760	3,830	6,620	7,270	5,350	5,260	3,840	4,650	2,080
4	3,610	3,940	8,460	8,380	7,630	6,890	4,380	4,920	4,770	4,280	4,100	2,780
5	3,580	3,480	9,770	7,350	9,560	8,440	3,770	4,950	12,600	5,390	2,890	1,900
6	3,290	3,400	10,300	8,820	10,600	7,550	6,200	4,240	11,100	4,820	2,990	2,160
7	4,320	8,970	6,900	9,140	21,200	5,910	5,800	4,220	8,090	4,040	2,870	3,520
8	2,690	7,750	6,090	9,330	18,500	6,650	5,620	3,970	5,820	3,280	2,400	13,800
9	2,960	5,850	5,160	e10,000	14,400	7,860	5,570	3,970	6,580	3,210	2,220	40,500
10	2,860	4,460	5,900	e6,400	10,700	8,440	5,310	3,850	8,510	3,110	2,220	21,100
11	4,030	4,450	15,200	e5,400	10,300	7,250	2,540	3,980	7,440	2,940	1,850	11,400
12	3,280	4,290	19,300	e3,900	9,300	6,120	3,190	4,100	6,140	3,180	1,820	7,580
13	3,380	4,770	12,400	5,920	8,490	7,150	13,100	4,120	6,070	2,990	5,400	5,940
14	3,660	4,740	8,440	5,700	7,760	4,290	27,400	4,110	8,380	3,020	3,030	5,350
15	3,610	4,660	5,180	5,500	5,680	2,780	21,400	3,780	8,790	2,810	2,610	6,790
16	3,510	2,740	8,870	5,950	6,310	6,130	15,100	3,690	8,750	2,420	1,680	7,600
17	4,380	2,690	8,760	6,990	8,250	6,900	11,900	3,900	10,400	2,300	1,620	8,820
18	3,030	4,410	11,100	3,990	7,710	7,510	9,360	4,220	8,820	2,580	1,570	30,000
19	3,030	22,700	10,900	4,210	6,810	7,010	7,900	4,030	6,530	2,700	2,030	27,100
20	3,030	75,800	9,060	6,350	6,560	6,760	7,190	4,270	5,410	4,050	1,890	14,200
21	3,030	31,700	7,930	6,320	6,520	5,290	7,360	4,070	4,630	2,970	2,180	12,000
22	3,030	16,200	6,250	5,910	8,180	2,970	5,900	4,270	4,130	2,440	2,120	7,890
23	3,030	12,000	5,620	5,770	10,300	6,600	5,960	4,060	4,110	2,440	1,920	5,860
24	3,250	8,880	6,390	5,060	8,960	6,240	5,530	3,460	5,110	2,460	1,910	5,400
25	3,050	9,660	9,020	2,950	8,330	4,620	5,250	3,110	4,910	2,480	2,100	4,740
26	1,820	7,980	8,210	3,790	7,910	4,520	6,110	4,130	6,780	2,300	2,230	4,680
27	1,900	7,660	7,570	5,170	7,430	4,690	10,100	5,010	9,340	3,020	1,670	5,160
28	4,660	6,940	7,460	5,180	6,650	2,460	9,570	5,220	7,590	3,660	1,610	18,600
29	4,560	6,690	6,210	4,820	4,590	2,820	7,750	5,520	5,770	2,950	2,650	48,200
30	4,610	5,980	7,390	4,840	---	4,140	6,460	4,490	4,840	2,770	2,680	20,700
31	3,820	---	7,160	5,050	---	4,590	---	6,090	---	2,550	1,930	---
TOTAL	106,790	290,160	260,960	190,360	247,470	180,010	247,770	136,380	212,110	98,650	76,810	349,370
MEAN	3,445	9,672	8,418	6,141	8,533	5,807	8,259	4,399	7,070	3,182	2,478	11,650
MAX	4,660	75,800	19,300	10,000	21,200	8,440	27,400	6,090	12,600	5,390	5,400	48,200
MIN	1,820	1,860	5,160	2,950	2,490	2,460	2,540	3,110	4,110	2,300	1,570	1,710
(†)	-1,311	+1,260	-605	-1,260	+2,017	-1,462	+1,462	0	-252	+202	+302	+302
MEAN‡	3,408	9,714	8,399	6,100	8,603	5,760	8,308	4,399	7,062	3,189	2,487	11,656
CFSM‡	.90	2.58	2.23	1.62	2.28	1.53	2.20	1.17	1.87	.85	.66	3.09
IN.‡	1.04	2.88	2.57	1.87	2.46	1.76	2.46	1.35	2.09	.98	.76	3.45

CAL YR 2003 MEAN‡ 8049 CFSM‡ 2.14 IN.‡ 29.00

WTR YR 2004 MEAN‡ 6551 CFSM‡ 1.74 IN.‡ 23.67

† Total change in contents, equivalent in cubic feet per second, per month, in Claytor Reservoir; provided by American Electric Power.

‡ Adjusted for change in contents.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	3,115	3,762	4,646	5,821	7,405	8,240	7,400	5,944	4,517	3,319	3,181	2,960
MAX	9,882	12,450	10,910	13,290	15,810	18,650	20,890	11,270	12,860	9,784	16,410	11,650
(WY)	(1990)	(1978)	(1949)	(1996)	(1957)	(1993)	(1987)	(1984)	(1992)	(1949)	(1940)	(2004)
MIN	1,204	1,258	1,305	1,489	2,285	2,407	2,673	2,397	1,373	1,390	1,040	1,127
(WY)	(1989)	(1982)	(1998)	(1966)	(2002)	(1988)	(1986)	(1941)	(1999)	(1988)	(2002)	(1998)

03176500 NEW RIVER AT GLEN LYN, VA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	2,936,920		2,396,840		5,012	
ANNUAL MEAN	8,046		6,549		7,492	
HIGHEST ANNUAL MEAN					2,511	
LOWEST ANNUAL MEAN					126,000	
HIGHEST DAILY MEAN	75,800	Nov 20	75,800	Nov 20	a557	Aug 15, 1940
LOWEST DAILY MEAN	1,820	Oct 26	1,570	Aug 18	646	Aug 19, 1999
ANNUAL SEVEN-DAY MINIMUM	2,730	Oct 21	1,870	Aug 16	b226,000	Aug 13, 1999
MAXIMUM PEAK FLOW			99,600	Nov 20	b27.50	Aug 14, 1940
MAXIMUM PEAK STAGE			17.40	Nov 20	a,d449	Aug 13, 1999
INSTANTANEOUS LOW FLOW			1,490	cAug 27	1.33	
ANNUAL RUNOFF (CFSM)	2.14		1.74		18.07	
ANNUAL RUNOFF (INCHES)	29.00		23.66		9,640	
10 PERCENT EXCEEDS	13,700		10,300		5,260	
50 PERCENT EXCEEDS	6,380		5,260		3,660	
90 PERCENT EXCEEDS	3,270		2,470		1,520	

a Affected by withdrawals.

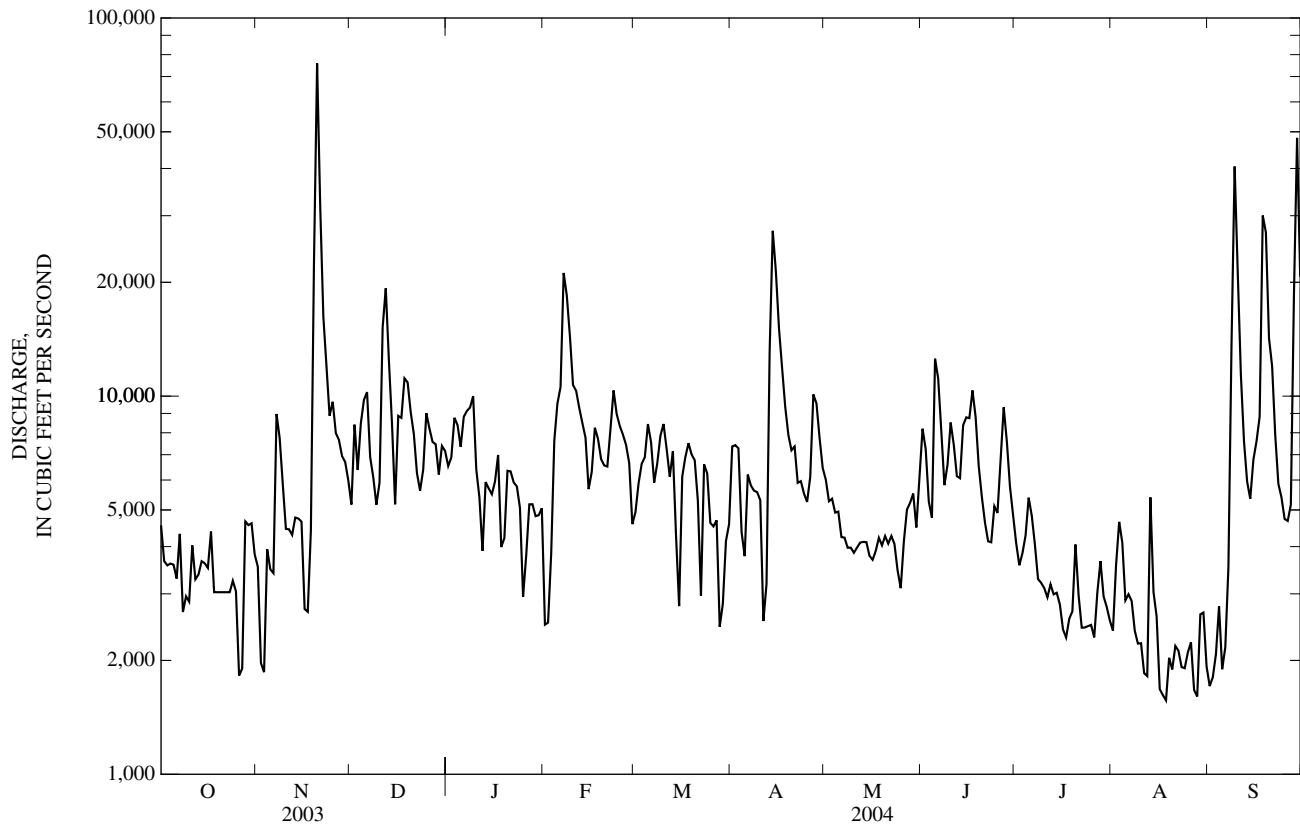
b Prior to regulation, 1928-38, maximum peak flow, 99,000 ft³/s, Oct. 3, 1929, gage height, 16.75 ft.

c Also Aug. 28, 2004.

d Prior to regulation, 1928-38, instantaneous low flow, 770 ft³/s, Sept. 8, 1930.

e Estimated.

f Also Aug. 19, 1999.



03178150 MIDDLE FORK BRUSH CREEK AT EDISON, WV
(Detention Reservoir)

LOCATION.--Lat 37°18'22", long 81°09'54", NAD 27, Mercer County, Hydrologic Unit 05050002.

DAM NAME.--Brush Creek No. 19-A.

SURFACE AREA.--68 acres.

DRAINAGE AREA.--2.05 mi².

PERIOD OF RECORD.--June 2002 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,461.0 ft above NGVD 29.

REMARKS.-- Normal Pool = 22.0 ft (Normal Storage = 968 acre-ft)

Top of Riser = 23.7 ft

Emergency Spillway = 28.0 ft

Top of Dam = 37.6 ft

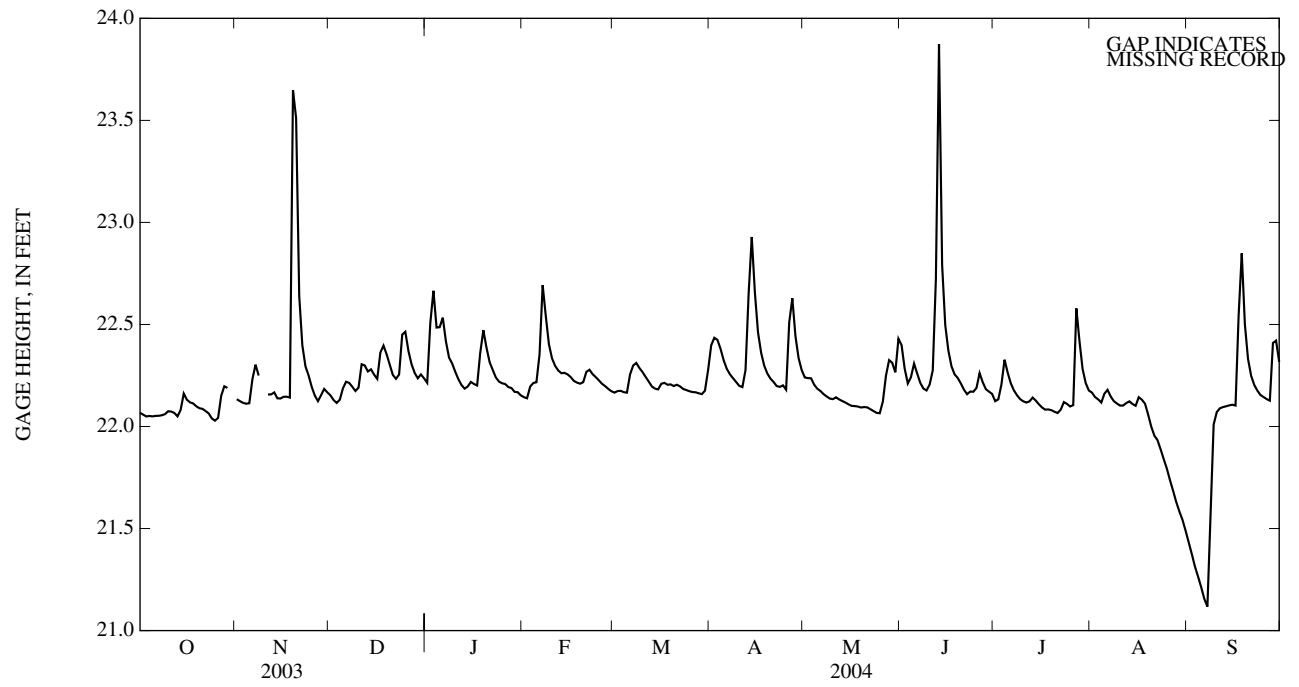
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 24.47 ft, Nov. 19, 2003; minimum gage height, 17.71 ft, Oct. 15, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.47 ft, Nov. 19; minimum gage height, 21.10 ft, Sept. 7.

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	22.07	22.13	22.15	22.21	22.14	22.17	22.40	22.24	22.40	22.12	22.17	21.43
2	22.06	22.12	22.13	22.51	22.14	22.17	22.43	22.24	22.28	22.13	22.14	21.38
3	22.05	22.12	22.12	22.67	22.20	22.17	22.42	22.24	22.24	22.21	22.13	21.31
4	22.05	22.11	22.13	22.48	22.21	22.17	22.38	22.20	22.24	22.33	22.12	21.26
5	22.05	22.11	22.19	22.49	22.22	22.17	22.32	22.19	22.31	22.26	22.16	21.21
6	22.05	22.23	22.22	22.53	22.35	22.26	22.28	22.17	22.26	22.21	22.18	21.16
7	22.05	22.30	22.21	22.42	22.69	22.30	22.26	22.16	22.21	22.18	22.15	21.12
8	22.06	22.25	22.19	22.34	22.54	22.31	22.24	22.15	22.19	22.15	22.12	21.56
9	22.06	---	22.17	22.31	22.40	22.29	22.22	22.14	22.18	22.13	22.11	22.01
10	22.07	---	22.19	22.27	22.33	22.27	22.20	22.13	22.21	22.12	22.10	22.07
11	22.07	22.16	22.31	22.23	22.30	22.24	22.19	22.14	22.28	22.12	22.10	22.09
12	22.07	22.16	22.30	22.20	22.27	22.22	22.28	22.13	22.72	22.12	22.11	22.10
13	22.05	22.17	22.27	22.19	22.26	22.20	22.65	22.12	23.87	22.14	22.12	22.10
14	22.08	22.14	22.28	22.20	22.26	22.19	22.93	22.12	22.79	22.13	22.11	22.10
15	22.16	22.14	22.25	22.22	22.26	22.18	22.66	22.11	22.50	22.11	22.10	22.11
16	22.13	22.15	22.23	22.21	22.24	22.21	22.46	22.10	22.37	22.09	22.14	22.10
17	22.12	22.15	22.36	22.20	22.22	22.21	22.36	22.10	22.30	22.08	22.13	22.54
18	22.11	22.14	22.40	22.36	22.22	22.20	22.30	22.10	22.26	22.08	22.11	22.85
19	22.10	23.65	22.35	22.47	22.21	22.21	22.26	22.09	22.24	22.08	22.06	22.50
20	22.09	23.51	22.30	22.39	22.22	22.20	22.23	22.10	22.21	22.07	22.00	22.33
21	22.09	22.64	22.25	22.32	22.27	22.20	22.22	22.09	22.18	22.07	21.96	22.25
22	22.08	22.40	22.23	22.28	22.28	22.20	22.20	22.08	22.16	22.08	21.93	22.20
23	22.06	22.29	22.25	22.24	22.26	22.18	22.19	22.08	22.17	22.12	21.89	22.18
24	22.04	22.25	22.45	22.22	22.24	22.18	22.20	22.07	22.17	22.11	21.84	22.15
25	22.03	22.19	22.46	22.21	22.23	22.17	22.18	22.07	22.19	22.10	21.79	22.14
26	22.04	22.15	22.37	22.21	22.21	22.17	22.51	22.12	22.26	22.10	21.74	22.13
27	22.15	22.12	22.30	22.19	22.20	22.17	22.63	22.25	22.22	22.58	21.69	22.13
28	22.20	22.15	22.26	22.19	22.18	22.16	22.44	22.33	22.18	22.42	21.63	22.41
29	22.19	22.18	22.24	22.17	22.17	22.16	22.34	22.31	22.17	22.28	21.58	22.42
30	---	22.17	22.26	22.17	---	22.18	22.28	22.27	22.16	22.21	21.54	22.32
31	---	---	22.24	22.15	---	22.28	---	22.43	---	22.18	21.49	---
MEAN	---	---	22.26	22.30	22.27	22.21	22.36	22.16	22.33	22.16	21.98	21.99
MAX	---	---	22.46	22.67	22.69	22.31	22.93	22.43	23.87	22.58	22.18	22.85
MIN	---	---	22.12	22.15	22.14	22.16	22.18	22.07	22.16	22.07	21.49	21.12

03178150 MIDDLE FORK BRUSH CREEK AT EDISON, WV—Continued



03179000 BLUESTONE RIVER NEAR PIPESTEM, WV

LOCATION.--Lat 37°32'38", long 81°00'38", NAD 27, Summers County, Hydrologic Unit 05050002, on left bank 1.2 mi downstream from Mountain Creek, 2.5 mi west of Pipestem, and at mile 10.6.

DRAINAGE AREA.--395 mi².

PERIOD OF RECORD.--July 1950 to current year.

REVISED RECORDS.--WSP 1705: 1959. WDR WV-82-1: Drainage area. WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,527.35 ft above mean sea level (U.S. Army Corps of Engineers bench mark).

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	1130	*18,700	*15.57	May 31	1000	5,850	9.97
Jan 3	0200	4,510	9.14	Sep 18	0430	5,440	9.73
Apr 14	0230	8,150	11.03				

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	130	212	650	616	244	316	1,100	632	3,600	266	350	81
2	125	192	588	2,090	272	338	1,660	574	1,420	232	383	74
3	115	176	518	3,950	322	383	1,750	646	827	347	444	69
4	107	163	490	2,090	528	349	1,460	545	842	1,160	376	66
5	104	194	778	1,960	521	329	1,100	477	1,550	698	669	62
6	101	1,150	949	3,080	1,240	812	844	426	1,030	386	1,080	60
7	94	1,420	832	1,910	3,660	1,430	714	372	722	279	550	61
8	91	896	699	1,260	2,420	1,230	624	330	550	229	348	1,600
9	87	590	622	1,020	1,330	993	547	296	578	193	255	2,000
10	85	440	651	830	992	808	471	269	490	170	205	825
11	85	364	1,350	657	866	657	428	564	432	158	176	453
12	86	351	1,270	610	774	567	594	542	634	157	174	304
13	76	739	948	580	734	489	3,680	390	3,200	159	206	229
14	101	580	821	556	744	428	7,310	331	1,820	184	220	189
15	550	464	714	555	694	395	3,900	280	1,690	143	173	164
16	376	428	636	515	609	548	1,970	276	1,150	132	259	167
17	235	392	896	462	537	878	1,300	258	900	118	281	1,170
18	186	360	1,320	906	495	750	982	257	632	113	188	4,650
19	160	10,600	1,040	1,980	472	816	794	261	574	109	154	2,000
20	140	9,470	815	1,310	510	766	675	221	569	101	133	942
21	127	3,050	644	900	782	721	601	206	445	94	126	583
22	119	1,540	584	734	747	624	523	179	367	104	133	404
23	113	1,020	667	593	618	535	463	163	330	233	139	316
24	104	810	1,610	530	551	481	478	159	372	161	114	259
25	98	689	2,020	460	515	437	408	168	379	126	114	223
26	95	561	1,270	427	462	392	1,530	457	1,070	146	101	199
27	222	484	915	396	414	361	2,880	1,660	776	2,380	91	182
28	437	490	744	353	368	342	1,560	2,150	523	1,270	84	793
29	370	675	638	322	333	316	985	2,120	396	548	80	1,160
30	297	681	679	e280	---	319	757	1,090	318	325	83	715
31	244	---	708	250	---	533	---	4,290	---	245	86	---
TOTAL	5,260	39,181	27,066	32,182	22,754	18,343	42,088	20,589	28,186	10,966	7,775	20,000
MEAN	170	1,306	873	1,038	785	592	1,403	664	940	354	251	667
MAX	550	10,600	2,020	3,950	3,660	1,430	7,310	4,290	3,600	2,380	1,080	4,650
MIN	76	163	490	250	244	316	408	159	318	94	80	60
CFSM	0.43	3.31	2.21	2.63	1.99	1.50	3.55	1.68	2.38	0.90	0.63	1.69
IN.	0.50	3.69	2.55	3.03	2.14	1.73	3.96	1.94	2.65	1.03	0.73	1.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

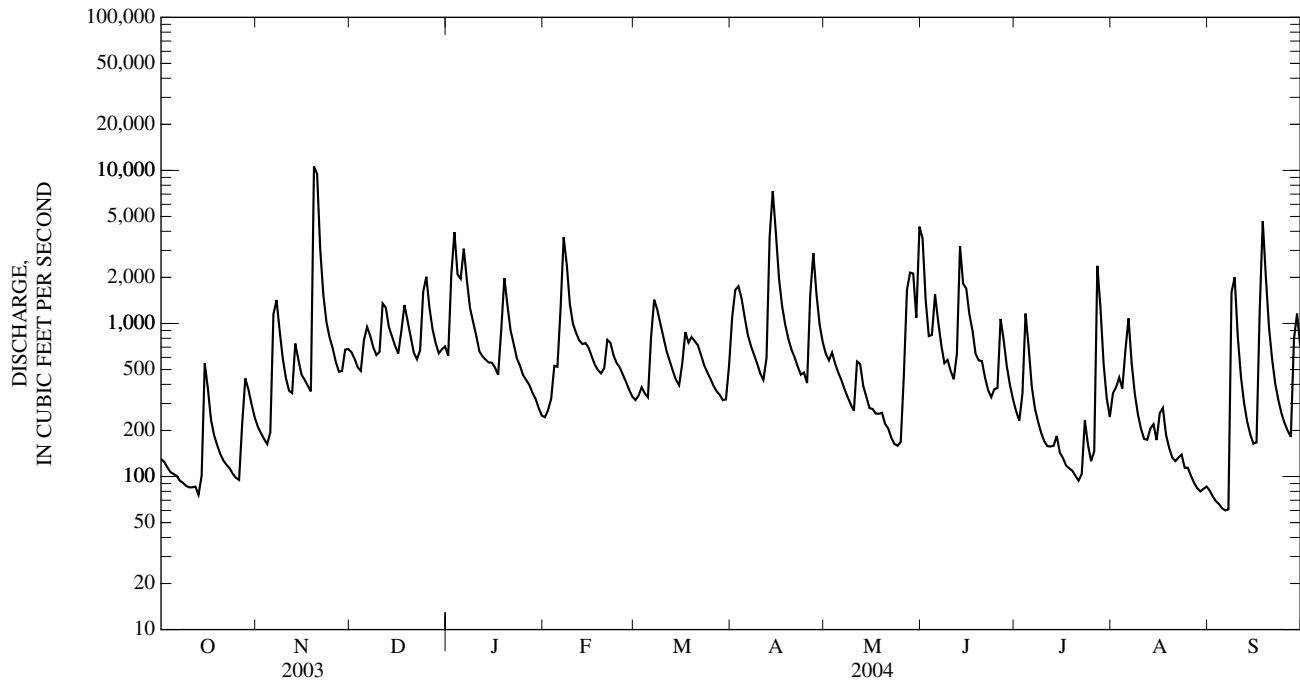
	141	257	473	673	927	1,061	816	652	320	176	130	105
MEAN	796	1,306	1,485	2,107	2,148	3,276	2,855	1,499	1,163	1,172	557	667
(WY)	(1977)	(2004)	(1973)	(1957)	(1957)	(1955)	(1987)	(2001)	(1979)	(2001)	(2003)	(2004)
MIN	16.7	20.0	33.8	53.7	187	188	174	154	54.2	40.5	23.8	13.9
(WY)	(1954)	(1954)	(1966)	(1966)	(2002)	(1988)	(1986)	(1964)	(1999)	(1999)	(1988)	(1955)

03179000 BLUESTONE RIVER NEAR PIPESTEM, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1950 - 2004	
ANNUAL TOTAL	289,373		274,390		475	
ANNUAL MEAN	793		750		773	
HIGHEST ANNUAL MEAN					178	
LOWEST ANNUAL MEAN					15,900	
HIGHEST DAILY MEAN	10,600	Nov 19	10,600	Nov 19	15,900	Apr 5, 1977
LOWEST DAILY MEAN	76	Oct 13	60	Sep 6	7.0	Sep 22, 1955
ANNUAL SEVEN-DAY MINIMUM	86	Oct 7	68	Sep 1	8.5	Sep 18, 1955
MAXIMUM PEAK FLOW			18,700	Nov 19	19,300	Apr 5, 1977
MAXIMUM PEAK STAGE			15.57	Nov 19	15.82	Apr 5, 1977
INSTANTANEOUS LOW FLOW			59	Sep 6	7.0	(a)
ANNUAL RUNOFF (CFSM)	2.01		1.90		1.20	
ANNUAL RUNOFF (INCHES)	27.25		25.84		16.34	
10 PERCENT EXCEEDS	1,570		1,540		1,120	
50 PERCENT EXCEEDS	478		492		206	
90 PERCENT EXCEEDS	137		117		37	

a Sept. 21-23, 30, 1955.

e Estimated.



03180500 GREENBRIER RIVER AT DURBIN, WV

LOCATION.--Lat 38°32'37", long 79°50'00", NAD 27, Pocahontas County, Hydrologic Unit 05050003, on left bank at Durbin, 500 ft downstream from confluence of East and West Forks, and at mile 153.4.

DRAINAGE AREA.--133 mi².

PERIOD OF RECORD.--March 1943 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area. WDR WV-97-1: 1944-46(M), 1951(M), 1953(M), 1955(P), 1956(M), 1958(M), WDR WV-02-1: 1999(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,699.71 ft above NGVD 29.

REMARKS.--Records fair except those for periods of estimated daily discharges (doubtful or no gage-height record, ice effect), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2330	3,600	5.38	Mar 6	0930	3,010	4.97
Nov 19	1530	5,810	6.62	Apr 13	2400	4,210	5.77
Feb 6	unknown	*7,390	(a)*7.33	May 28	0800	3,460	5.29

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	122	225	357	375	e43	367	335	304	468	45	209	e16
2	113	198	307	524	e40	962	373	398	383	42	132	e15
3	100	174	273	1,050	e50	1,550	396	857	302	39	263	e14
4	108	156	247	1,180	e60	1,910	434	639	258	58	171	e14
5	118	159	231	856	e52	2,010	404	467	293	42	146	e13
6	102	e230	215	e650	e400	2,550	389	347	254	39	120	e13
7	90	e380	179	e540	e2,600	1,830	439	284	219	38	87	e13
8	83	e350	e160	e460	e1,200	1,120	517	244	183	44	69	243
9	79	e300	e150	e400	e640	742	479	211	197	30	56	402
10	75	e250	193	e340	e450	544	391	183	195	139	47	208
11	71	e230	1,200	e280	379	452	357	245	192	200	41	138
12	68	e1,100	e750	e250	320	412	628	328	277	160	41	102
13	65	2,530	e620	e260	288	353	2,420	408	210	144	83	80
14	84	1,130	e500	e220	268	321	2,960	365	197	128	49	64
15	457	683	e420	e190	248	329	1,350	309	210	111	38	52
16	409	476	e340	e170	e220	471	792	375	179	83	56	44
17	328	363	e290	e140	e200	735	552	301	201	66	47	68
18	285	298	e340	e155	e180	691	414	283	167	102	33	391
19	240	2,820	e300	e165	e190	882	332	362	158	144	28	265
20	212	2,130	e250	e140	254	836	289	381	139	92	25	198
21	191	962	e220	e120	629	1,400	273	614	115	70	31	152
22	181	586	e200	e130	537	1,160	231	1,070	105	57	58	115
23	170	408	e240	e115	419	e880	215	660	98	57	33	91
24	143	339	e1,100	e100	374	e620	223	419	86	59	24	74
25	125	296	e1,300	e90	328	474	202	313	77	43	e23	64
26	118	253	e760	e82	303	406	1,550	342	125	36	e21	55
27	337	228	e560	e74	283	378	1,530	594	89	45	e20	49
28	567	293	e420	e66	262	355	823	2,470	69	74	e19	640
29	458	426	e370	e59	293	313	509	1,520	59	42	e18	746
30	325	395	362	e52	---	296	368	854	51	40	e18	444
31	262	---	394	e48	---	311	---	613	---	77	e17	---
TOTAL	6,086	18,368	13,248	9,281	11,510	25,660	20,175	16,760	5,556	2,346	2,023	4,783
MEAN	196	612	427	299	397	828	672	541	185	75.7	65.3	159
MAX	567	2,820	1,300	1,180	2,600	2,550	2,960	2,470	468	200	263	746
MIN	65	156	150	48	40	296	202	183	51	30	17	13
CFSM	1.48	4.60	3.21	2.25	2.98	6.22	5.06	4.07	1.39	0.57	0.49	1.20
IN.	1.70	5.14	3.71	2.60	3.22	7.18	5.64	4.69	1.55	0.66	0.57	1.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2004, BY WATER YEAR (WY)

MEAN	105	223	322	368	430	574	429	333	163	100	88.1	73.1
MAX	665	1,336	796	1,023	1,033	1,255	1,041	1,153	652	541	515	427
(WY)	(1977)	(1986)	(1973)	(1996)	(1994)	(1963)	(1958)	(1996)	(2003)	(1996)	(1996)	(1996)
MIN	2.06	10.1	46.6	51.7	120	234	142	77.9	21.9	10.9	6.01	1.82
(WY)	(1954)	(1954)	(1961)	(1981)	(1993)	(1957)	(1955)	(1976)	(1991)	(1988)	(1999)	(1953)

03180500 GREENBRIER RIVER AT DURBIN, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1943 - 2004	
ANNUAL TOTAL	165,191		135,796		267	
ANNUAL MEAN	453		371		472	
HIGHEST ANNUAL MEAN					164	
LOWEST ANNUAL MEAN					13,200	
HIGHEST DAILY MEAN	4,120	May 11	2,960	Apr 14	13,200	Nov 4, 1985
LOWEST DAILY MEAN	42	Aug 4	(e)13	(b)	0.50	(c)
ANNUAL SEVEN-DAY MINIMUM	56	Aug 1	14	Sep 1	0.51	Sep 28, 1953
MAXIMUM PEAK FLOW			7,390	Feb 6	(d)37,100	Nov 4, 1985
MAXIMUM PEAK STAGE			(a)7.33	Feb 6	(f)15.82	Nov 4, 1985
INSTANTANEOUS LOW FLOW			(g)	(g)	0.00	(h)
ANNUAL RUNOFF (CFSM)	3.40		2.79		2.01	
ANNUAL RUNOFF (INCHES)	46.20		37.98		27.25	
10 PERCENT EXCEEDS	1,130		827		620	
50 PERCENT EXCEEDS	260		248		140	
90 PERCENT EXCEEDS	78		44		16	

a From crest-stage gage.

b Sept. 5-7.

c Sept. 29 to Oct. 4, 1953, Oct. 2, 3, 1968, and Sept. 11, 1995.

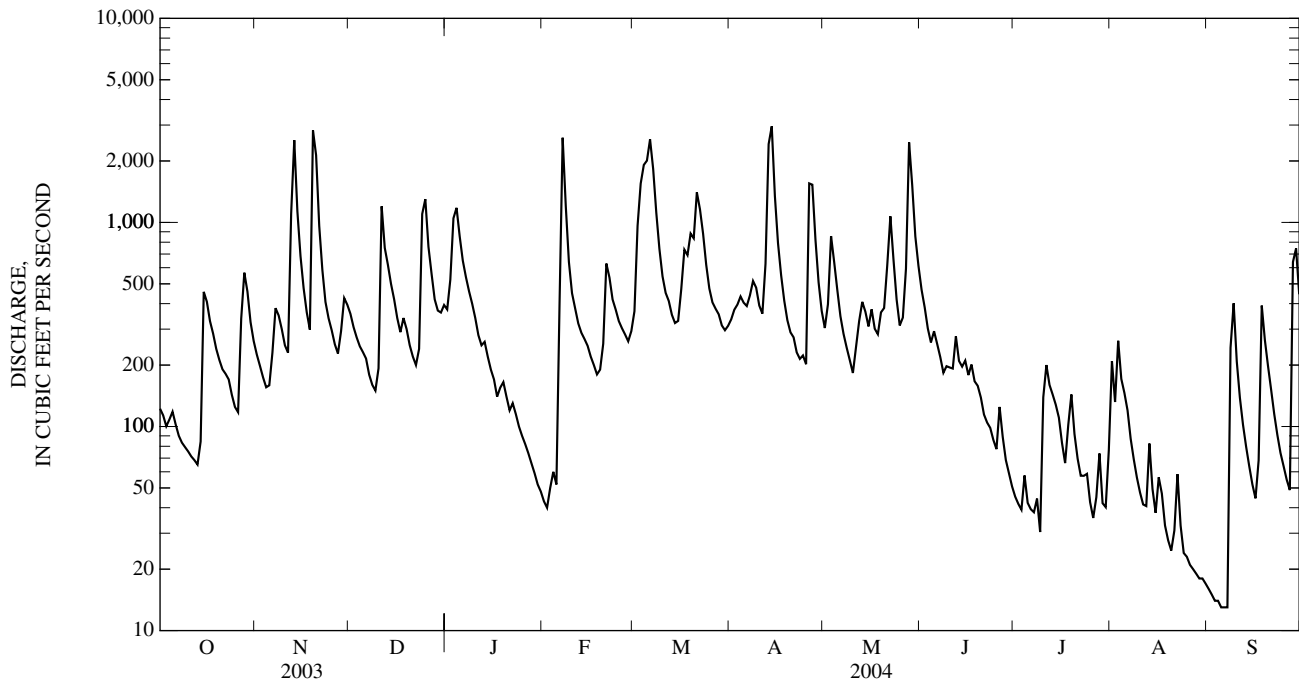
d From rating curve extended above 5,000 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.

f From floodmark.

g Not determined.

h Oct. 2, 3, 1968.



03182050 MARLIN RUN AT MARLINTON, WV
(Detention Reservoir)

LOCATION.---Lat 38°13' 12", long 80°04' 52", NAD 27, Pocahontas County, Hydrologic Unit 05050003.

DAM NAME.---Marlin Run 1.

SURFACE AREA.---2 acres.

DRAINAGE AREA.---1.25 mi².

PERIOD OF RECORD.---November 2002 to September 2003.

GAGE.---Water-stage recorder with satellite telemeter. Datum of gage is 2,190.0 ft above NGVD 29.

REMARKS.--- Normal Pool = 29.5 ft (Normal Storage = 15 acre-ft)

Top of Riser = 31.3 ft

Emergency Spillway = 65.0 ft

Top of Dam = 71.6 ft

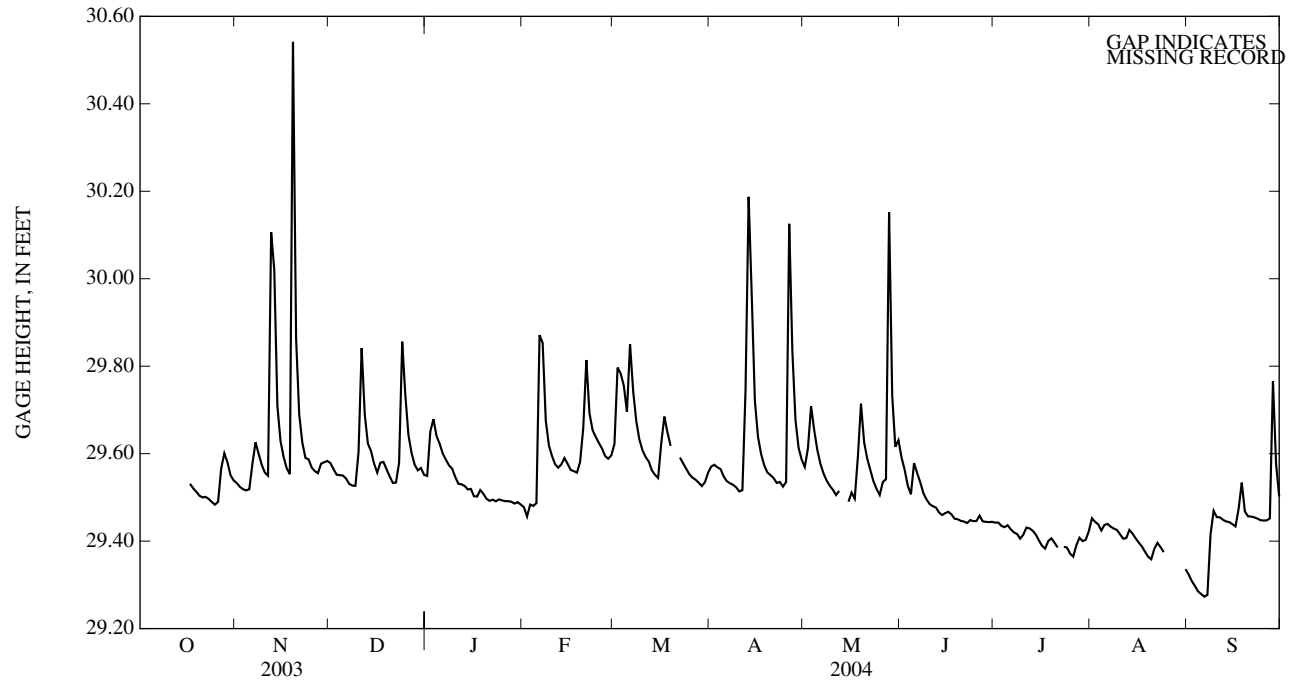
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 32.72 ft, Nov. 19, 2003; minimum gage height, 29.27 ft, Sept. 5-7, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 32.72 ft, Nov. 19; minimum gage height, 29.27 ft, Sept. 5-7.

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	---	29.53	29.58	29.55	29.48	29.62	29.57	29.57	29.59	29.44	29.45	29.32
2	---	29.52	29.56	29.65	29.46	29.80	29.57	29.61	29.56	29.44	29.44	29.31
3	---	29.52	29.55	29.68	29.48	29.78	29.57	29.71	29.53	29.43	29.44	29.30
4	---	29.52	29.55	29.64	29.48	29.76	29.56	29.65	29.51	29.43	29.42	29.29
5	---	29.52	29.55	29.62	29.49	29.70	29.55	29.61	29.58	29.44	29.44	29.28
6	---	29.58	29.54	29.60	29.87	29.85	29.54	29.58	29.56	29.43	29.44	29.27
7	---	29.63	29.53	29.59	29.85	29.74	29.53	29.55	29.53	29.42	29.43	29.28
8	---	29.60	29.53	29.57	29.68	29.67	29.53	29.54	29.51	29.42	29.43	29.42
9	---	29.57	29.53	29.57	29.62	29.63	29.52	29.53	29.50	29.41	29.43	29.47
10	---	29.56	29.60	29.55	29.59	29.61	29.51	29.52	29.48	29.41	29.42	29.45
11	---	29.55	29.84	29.53	29.58	29.59	29.52	29.51	29.48	29.43	29.41	29.45
12	---	30.11	29.69	29.53	29.57	29.58	29.74	29.51	29.48	29.43	29.41	29.45
13	---	30.02	29.62	29.53	29.58	29.56	30.19	---	29.47	29.42	29.43	29.45
14	---	29.71	29.61	29.52	29.59	29.55	29.96	---	29.46	29.42	29.42	29.44
15	---	29.63	29.58	29.52	29.58	29.54	29.72	29.49	29.46	29.40	29.41	29.44
16	---	29.59	29.56	29.50	29.56	29.62	29.64	29.51	29.47	29.39	29.40	29.43
17	29.53	29.57	29.58	29.50	29.56	29.68	29.60	29.50	29.46	29.38	29.39	29.47
18	29.52	29.55	29.58	29.52	29.56	29.65	29.57	29.59	29.45	29.40	29.38	29.53
19	29.51	30.54	29.56	29.51	29.58	29.62	29.56	29.71	29.45	29.41	29.36	29.47
20	29.50	29.86	29.55	29.50	29.66	---	29.55	29.63	29.45	29.40	29.36	29.46
21	29.50	29.69	29.53	29.49	29.81	---	29.54	29.59	29.44	29.39	29.38	29.46
22	29.50	29.62	29.53	29.49	29.69	29.59	29.53	29.56	29.44	---	29.40	29.45
23	29.50	29.59	29.58	29.49	29.65	29.58	29.54	29.54	29.45	29.39	29.39	29.45
24	29.49	29.59	29.86	29.50	29.64	29.57	29.52	29.52	29.45	29.39	29.37	29.45
25	29.48	29.57	29.73	29.49	29.62	29.55	29.54	29.51	29.45	29.37	---	29.45
26	29.49	29.56	29.64	29.49	29.61	29.55	30.13	29.54	29.46	29.36	---	29.45
27	29.57	29.56	29.60	29.49	29.59	29.54	29.84	29.54	29.45	29.39	---	29.45
28	29.60	29.58	29.57	29.49	29.59	29.53	29.68	30.15	29.44	29.41	---	29.77
29	29.58	29.58	29.56	29.49	29.60	29.53	29.61	29.73	29.44	29.40	---	29.58
30	29.55	29.58	29.57	29.49	---	29.53	29.59	29.62	29.44	29.40	---	29.50
31	29.54	---	29.55	29.48	---	29.56	---	29.63	---	29.42	29.34	---
MEAN	---	29.65	29.59	29.53	29.61	---	29.63	---	29.48	---	---	29.43
MAX	---	30.54	29.86	29.68	29.87	---	30.19	---	29.59	---	---	29.77
MIN	---	29.52	29.53	29.48	29.46	---	29.51	---	29.44	---	---	29.27

03182050 MARLIN RUN AT MARLINTON, WV—Continued



03182500 GREENBRIER RIVER AT BUCKEYE, WV

LOCATION.--Lat 38°11'09", long 80°07'51", NAD 27, Pocahontas County, Hydrologic Unit 05050003, on right bank at upstream side of highway bridge at Buckeye, 1,000 ft upstream from Swago Creek, 3.5 mi downstream from Knapp Creek, and at mile 105.1. Records include flow of Swago Creek.

DRAINAGE AREA.--540 mi², includes that of Swago Creek.

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 953: 1930-32, 1934-35(M), 1936, 1937(M), 1938-39, 1940(M). WSP 1275: 1936.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,085.89 ft above NGVD 29. Prior to Feb. 27, 1939, nonrecording gage at same site and datum.

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

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 13	0300	23,500	13.89	Apr 13	2200	19,400	12.71
Nov 19	2000	*31,800	*15.91	Apr 26	1800	11,900	10.21
Feb 7	0200	13,100	10.64	May 28	1400	12,500	10.42

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	488	821	1,390	1,140	e200	1,170	838	1,090	e1,300	141	201	70
2	422	702	1,230	1,570	e190	2,600	901	1,010	e1,100	137	296	67
3	367	611	1,060	2,840	e280	4,740	936	3,410	e940	134	275	65
4	328	539	942	3,270	399	4,300	955	2,480	747	130	339	71
5	319	494	897	2,550	371	4,620	940	1,740	1,090	139	264	67
6	316	687	841	2,120	2,850	6,150	855	1,300	1,270	135	327	67
7	279	1,200	727	1,670	8,990	5,430	839	1,000	976	118	235	66
8	252	1,120	604	1,390	3,710	3,460	884	809	750	114	173	217
9	232	957	584	1,250	2,090	2,320	908	673	673	109	143	1,860
10	221	821	638	1,010	1,580	1,770	785	567	631	113	125	971
11	209	724	5,900	765	1,230	1,460	679	492	549	144	111	532
12	197	2,850	3,560	768	1,030	1,320	1,400	682	556	280	103	348
13	187	13,800	2,180	786	957	1,120	10,200	739	559	276	119	260
14	206	4,400	1,710	623	927	948	11,900	734	513	210	123	208
15	1,280	2,470	1,380	573	846	886	4,780	645	1,030	199	129	172
16	1,550	1,700	1,070	443	749	1,060	2,660	662	812	169	118	149
17	1,140	1,300	1,000	439	651	2,140	1,840	655	792	149	215	191
18	943	1,040	1,180	495	617	1,990	1,390	2,010	648	144	158	1,360
19	769	13,500	1,040	508	636	2,290	1,110	1,910	501	148	122	1,370
20	645	11,400	898	392	960	2,340	945	1,520	416	208	104	744
21	555	4,070	753	362	2,830	2,760	862	1,170	341	163	100	482
22	509	2,410	690	409	2,480	2,810	756	2,980	292	138	109	349
23	470	1,700	820	376	1,730	1,990	671	2,120	270	126	128	272
24	425	1,360	3,320	350	1,460	1,510	638	1,340	255	117	128	221
25	362	1,340	3,950	e310	1,300	1,220	593	940	227	117	100	189
26	325	1,130	2,370	e280	1,200	1,020	6,720	789	221	113	86	166
27	559	1,010	1,670	e260	1,050	896	6,400	2,330	232	110	79	152
28	2,000	999	1,320	e240	943	836	3,100	7,850	204	121	80	3,660
29	1,670	1,520	1,130	e230	996	732	1,880	e4,900	171	126	78	4,300
30	1,260	1,460	1,120	e220	---	661	1,360	e2,300	152	128	74	1,730
31	980	---	1,210	e210	---	706	---	e1,700	---	147	70	---
TOTAL	19,465	78,135	47,184	27,849	43,252	67,255	68,725	52,547	18,218	4,603	4,712	20,376
MEAN	628	2,604	1,522	898	1,491	2,170	2,291	1,695	607	148	152	679
MAX	2,000	13,800	5,900	3,270	8,990	6,150	11,900	7,850	1,300	280	339	4,300
MIN	187	494	584	210	190	661	593	492	152	109	70	65
CFSM	1.16	4.82	2.82	1.66	2.76	4.02	4.24	3.14	1.12	0.27	0.28	1.26
IN.	1.34	5.38	3.25	1.92	2.98	4.63	4.73	3.62	1.26	0.32	0.32	1.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2004, BY WATER YEAR (WY)

MEAN	341	666	1,071	1,286	1,510	1,958	1,399	1,115	537	338	314	229
MAX	2,626	3,602	2,811	3,542	3,431	4,672	3,097	3,219	2,313	1,333	2,000	1,380
(WY)	(1977)	(1986)	(1973)	(1996)	(1994)	(1963)	(1958)	(1996)	(2003)	(1972)	(1942)	(2003)
MIN	11.8	20.7	115	101	273	764	508	224	67.9	27.8	21.5	13.5
(WY)	(1931)	(1931)	(1931)	(1981)	(1934)	(1988)	(1963)	(1930)	(1991)	(1930)	(1930)	(1930)

03182500 GREENBRIER RIVER AT BUCKEYE, WV—Continued

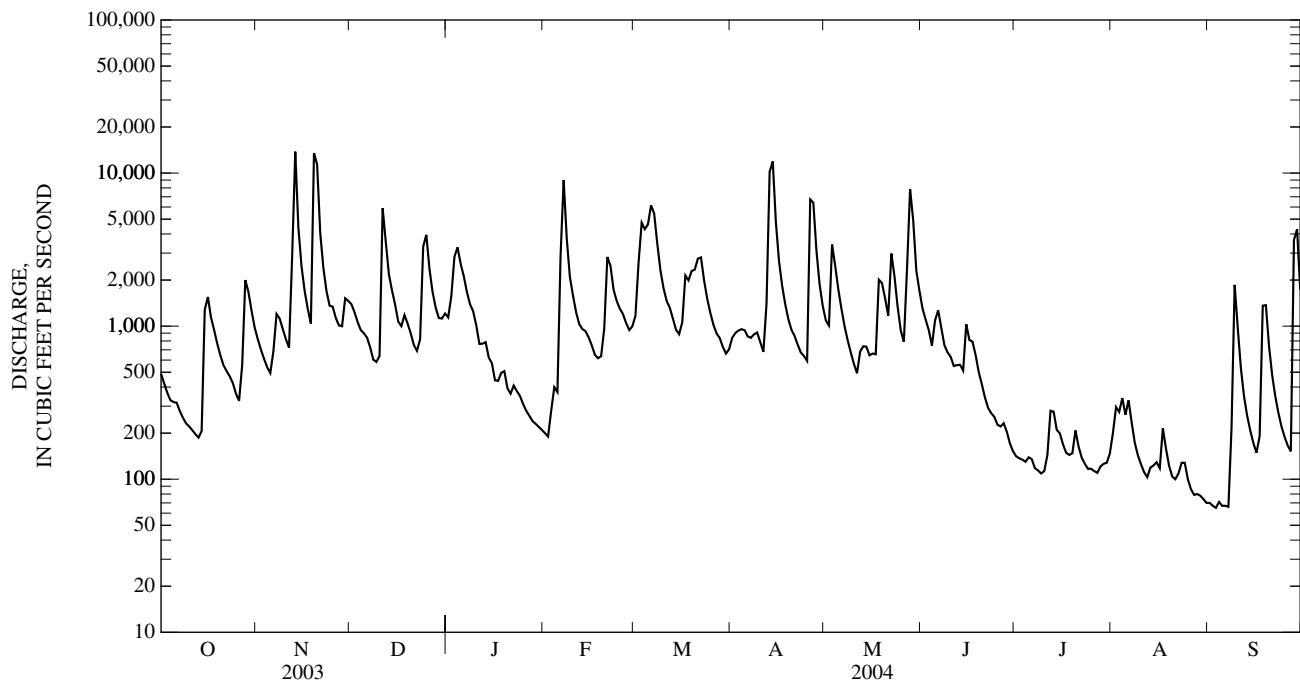
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1930 - 2004	
ANNUAL TOTAL	581,812		452,321		894	
ANNUAL MEAN	1,594		1,236		1,573	
HIGHEST ANNUAL MEAN					492	
LOWEST ANNUAL MEAN					44,400	
HIGHEST DAILY MEAN	13,900	Feb 23	13,800	Nov 13	Nov 5, 1985	
LOWEST DAILY MEAN	94	(a)	65	Sep 3	Aug 13, 1930	
ANNUAL SEVEN-DAY MINIMUM	102	Aug 1	68	Sep 1	Sep 28, 1930	
MAXIMUM PEAK FLOW			31,800	Nov 19	(b)82,000	Nov 5, 1985
MAXIMUM PEAK STAGE			15.91	Nov 19	(c)23.20	Nov 5, 1985
INSTANTANEOUS LOW FLOW			64	Sep 3	3.8	Aug 13, 1930
ANNUAL RUNOFF (CFSM)	2.95		2.29		1.66	
ANNUAL RUNOFF (INCHES)	40.08		31.16		22.50	
10 PERCENT EXCEEDS	3,650		2,690		2,100	
50 PERCENT EXCEEDS	943		754		422	
90 PERCENT EXCEEDS	231		128		55	

a July 28, Aug. 4.

b From rating curve extended above 33,000 ft³/s on basis of slope-area measurement of peak flow.

c From floodmarks.

e Estimated.



03182888 DRY CREEK AT TUCKAHOE, WV
(Detention Reservoir)

LOCATION.-- Lat 37°41'33", long 80°16'44", Greenbrier County, Hydrologic Unit 05050003.

DAM NAME- Howard Creek #12.

SURFACE AREA.--39 acres.

DRAINAGE AREA: 0.46 mi².

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

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,016.54 ft above NGVD 29.

REMARKS.-- Normal Pool = 46.46 ft (Normal Storage=459 acre-ft)

Top of Riser = 51.13 ft

Emergency Spillway = 77.46 ft

Top of Dam = 98.56 ft

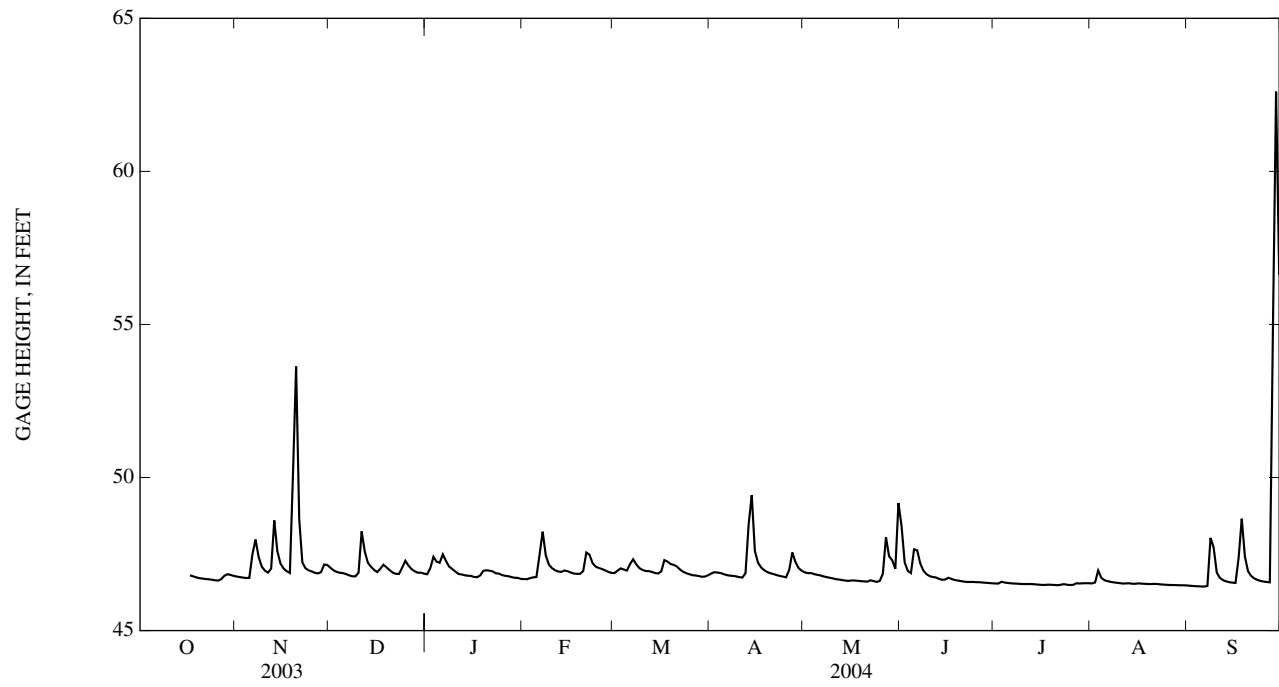
Gage orifice = 42.30 ft

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 64.23 ft, Sept. 28; minimum gage height, 46.43 ft, Sept. 5, 6.

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	---	46.77	47.05	46.84	46.68	46.88	46.86	46.90	48.41	46.54	46.54	46.47
2	---	46.75	46.97	47.04	46.68	46.96	46.91	46.88	47.23	46.54	46.57	46.46
3	---	46.73	46.92	47.41	46.72	47.03	46.90	46.88	46.95	46.59	46.96	46.45
4	---	46.72	46.89	47.25	46.74	46.99	46.88	46.84	46.88	46.57	46.73	46.45
5	---	46.72	46.88	47.22	46.75	46.96	46.85	46.82	47.65	46.56	46.65	46.44
6	---	47.49	46.85	47.49	47.47	47.17	46.81	46.80	47.62	46.55	46.62	46.44
7	---	47.97	46.80	47.28	48.23	47.33	46.79	46.77	47.19	46.54	46.59	46.46
8	---	47.40	46.77	47.10	47.45	47.16	46.79	46.75	46.96	46.53	46.58	48.03
9	---	47.09	46.77	47.01	47.15	47.04	46.77	46.72	46.84	46.52	46.56	47.71
10	---	46.96	46.89	46.93	47.04	46.98	46.74	46.71	46.78	46.52	46.55	46.90
11	---	46.89	48.24	46.85	46.97	46.95	46.73	46.68	46.75	46.52	46.54	46.72
12	---	47.03	47.58	46.83	46.93	46.94	46.88	46.67	46.74	46.52	46.54	46.65
13	---	48.60	47.21	46.81	46.92	46.92	48.47	46.65	46.69	46.52	46.55	46.61
14	---	47.59	47.09	46.79	46.96	46.88	49.43	46.63	46.66	46.51	46.53	46.58
15	---	47.19	46.98	46.79	46.94	46.87	47.60	46.62	46.67	46.50	46.53	46.57
16	---	47.03	46.91	46.75	46.90	46.93	47.22	46.64	46.73	46.49	46.54	46.56
17	46.80	46.94	47.02	46.74	46.86	47.30	47.06	46.63	46.69	46.49	46.53	47.38
18	46.77	46.88	47.15	46.80	46.85	47.26	46.97	46.63	46.65	46.50	46.53	48.65
19	46.74	50.12	47.06	46.95	46.85	47.17	46.91	46.61	46.64	46.50	46.52	47.42
20	46.71	53.62	46.97	46.97	46.95	47.15	46.87	46.61	46.62	46.49	46.52	46.94
21	46.70	48.64	46.89	46.96	47.55	47.09	46.85	46.60	46.60	46.48	46.53	46.79
22	46.68	47.23	46.85	46.93	47.48	47.00	46.81	46.64	46.59	46.50	46.52	46.70
23	46.67	47.04	46.85	46.87	47.20	46.92	46.78	46.62	46.59	46.52	46.51	46.66
24	46.66	46.97	47.06	46.86	47.09	46.88	46.76	46.59	46.59	46.50	46.50	46.62
25	46.64	46.93	47.28	46.81	47.05	46.84	46.74	46.62	46.58	46.49	46.49	46.60
26	46.63	46.89	47.13	46.79	47.01	46.81	46.99	46.85	46.58	46.50	46.49	46.59
27	46.68	46.87	47.01	46.78	46.97	46.80	47.55	48.05	46.57	46.55	46.49	46.58
28	46.79	46.91	46.94	46.75	46.92	46.78	47.24	47.43	46.56	46.54	46.49	54.95
29	46.84	47.16	46.89	46.73	46.88	46.76	47.04	47.30	46.55	46.54	46.48	62.61
30	46.82	47.14	46.89	46.72	---	46.76	46.95	47.02	46.55	46.55	46.48	56.63
31	46.79	---	46.86	46.69	---	46.81	---	49.17	---	46.55	46.48	---
MEAN	---	47.48	47.02	46.93	47.04	46.98	47.07	46.88	46.84	46.52	46.55	47.95
MAX	---	53.62	48.24	47.49	48.23	47.33	49.43	49.17	48.41	46.59	46.96	62.61
MIN	---	46.72	46.77	46.69	46.68	46.76	46.73	46.59	46.55	46.48	46.48	46.44

03182888 DRY CREEK AT TUCKAHOE, WV—Continued



03183500 GREENBRIER RIVER AT ALDERSON, WV

LOCATION.--Lat 37°43'27", long 80°38'30", NAD 27, Monroe County, Hydrologic Unit 05050003, on left bank 400 ft upstream from highway bridge at Alderson, 0.5 mi upstream from Muddy Creek, and at mile 29.2.

DRAINAGE AREA.--1,364 mi².

PERIOD OF RECORD.--July 1895 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 536: 1907-9. WSP 803: 1918(M). WSP 953: 1930-41. WSP 1275: 1897, 1905, 1910, 1914(M), 1915-16, 1917(M), 1919-20(M), 1924-25(M), 1927(M), 1929, 1949, WDR WV-82-1: Drainage area. WDR WV-97-1: 1930(M), 1932(M), 1935-37(M), 1939(P), 1943(P), 1946(M), 1955(P), 1963(M), 1967(M), 1974(M), 1977(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,529.42 ft above NGVD 29. Prior to Oct. 15, 1929, nonrecording gage at bridge 400 ft downstream at same datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	1400	36,400	14.77	Apr 14	1030	32,900	13.78
Nov 20	0930	*45,400	*16.88	Apr 27	0530	20,300	10.17
Feb 7	1230	22,400	10.77	Sep 28	2230	26,900	12.05

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	1,700	2,040	2,930	2,450	e490	2,400	1,750	2,840	6,770	359	255	185
2	1,370	1,740	2,720	2,770	e480	3,200	2,000	2,440	4,270	330	519	178
3	1,120	1,530	2,410	5,930	627	6,980	2,080	3,190	2,950	338	892	165
4	970	1,340	2,130	6,370	766	7,030	2,090	5,320	2,380	327	892	151
5	864	1,240	2,010	5,950	680	6,970	2,050	3,910	8,100	307	558	144
6	793	2,560	1,900	5,810	2,650	7,370	1,910	3,040	8,400	323	711	143
7	732	4,800	1,740	4,770	17,800	e11,000	1,760	2,430	5,010	303	888	146
8	671	4,290	1,540	3,680	10,700	e7,500	1,720	1,980	3,180	284	561	296
9	589	3,140	1,370	3,110	5,900	e5,300	1,750	1,660	2,620	263	409	2,820
10	538	2,470	1,370	2,710	4,130	4,130	1,680	1,440	2,110	244	323	3,580
11	498	2,060	6,580	2,050	3,360	3,320	1,500	1,240	1,810	244	269	1,870
12	473	2,100	9,300	1,730	2,810	2,870	1,560	1,260	1,610	230	238	1,110
13	451	26,100	5,630	1,720	2,560	2,570	10,200	1,220	1,460	237	244	725
14	439	13,700	4,170	1,690	2,640	2,200	28,000	1,350	1,360	361	249	513
15	928	6,690	3,420	1,460	2,540	1,940	13,500	1,350	1,150	359	232	403
16	3,270	4,510	2,740	1,270	2,260	2,070	7,150	1,390	1,950	293	227	336
17	2,900	3,400	2,590	1,000	2,020	4,840	4,880	1,370	2,310	265	225	344
18	2,230	2,680	3,140	1,060	1,840	5,400	3,640	1,440	1,950	252	229	5,960
19	1,830	10,700	2,970	1,490	1,780	4,680	2,860	3,340	1,490	251	238	5,080
20	1,550	35,700	2,490	1,450	2,350	5,080	2,380	3,740	1,150	247	261	2,960
21	1,310	13,100	2,040	1,290	4,960	4,750	2,160	2,700	936	231	239	1,780
22	1,160	7,050	1,700	1,030	7,190	5,060	1,940	2,170	794	263	222	1,210
23	1,050	4,630	1,680	992	5,150	4,380	1,700	4,000	692	357	201	875
24	966	3,520	3,730	973	4,090	3,400	1,510	2,760	665	342	187	667
25	876	3,070	9,510	854	3,640	2,780	1,420	1,990	601	258	185	525
26	781	2,770	6,450	667	3,270	2,350	3,650	1,590	555	227	190	446
27	842	2,400	4,470	e630	2,910	2,040	16,400	2,180	529	250	192	394
28	2,450	2,270	3,390	e590	2,520	1,830	8,220	5,210	474	352	178	7,990
29	4,130	2,550	2,780	e570	2,280	1,670	5,100	11,700	443	336	176	19,200
30	3,250	3,080	2,490	e540	---	1,540	3,640	5,990	408	261	163	7,430
31	2,530	---	2,530	e510	---	1,540	---	7,170	---	234	167	---
TOTAL	43,261	177,230	103,920	67,116	104,393	128,190	140,200	93,410	68,127	8,928	10,520	67,626
MEAN	1,396	5,908	3,352	2,165	3,600	4,135	4,673	3,013	2,271	288	339	2,254
MAX	4,130	35,700	9,510	6,370	17,800	11,000	28,000	11,700	8,400	361	892	19,200
MIN	439	1,240	1,370	510	480	1,540	1,420	1,220	408	227	163	143
CFSM	1.02	4.33	2.46	1.59	2.64	3.03	3.43	2.21	1.66	0.21	0.25	1.65
IN.	1.18	4.83	2.83	1.83	2.85	3.50	3.82	2.55	1.86	0.24	0.29	1.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2004, BY WATER YEAR (WY)

	MEAN	720	1,300	2,254	3,028	3,493	4,510	3,100	2,425	1,356	812	716	468
MAX	4,480	6,006	6,409	7,866	7,739	10,970	7,568	5,700	6,045	3,481	4,390	2,805	
(WY)	(1977)	(1986)	(1974)	(1996)	(1897)	(1963)	(1987)	(1996)	(1907)	(1919)	(1898)	(2003)	
MIN	35.6	68.9	172	242	411	1,332	802	489	203	68.9	43.2	33.8	
(WY)	(1931)	(1931)	(1931)	(1981)	(1934)	(1915)	(1915)	(1941)	(1991)	(1930)	(1930)	(1930)	

03183500 GREENBRIER RIVER AT ALDERSON, WV—Continued

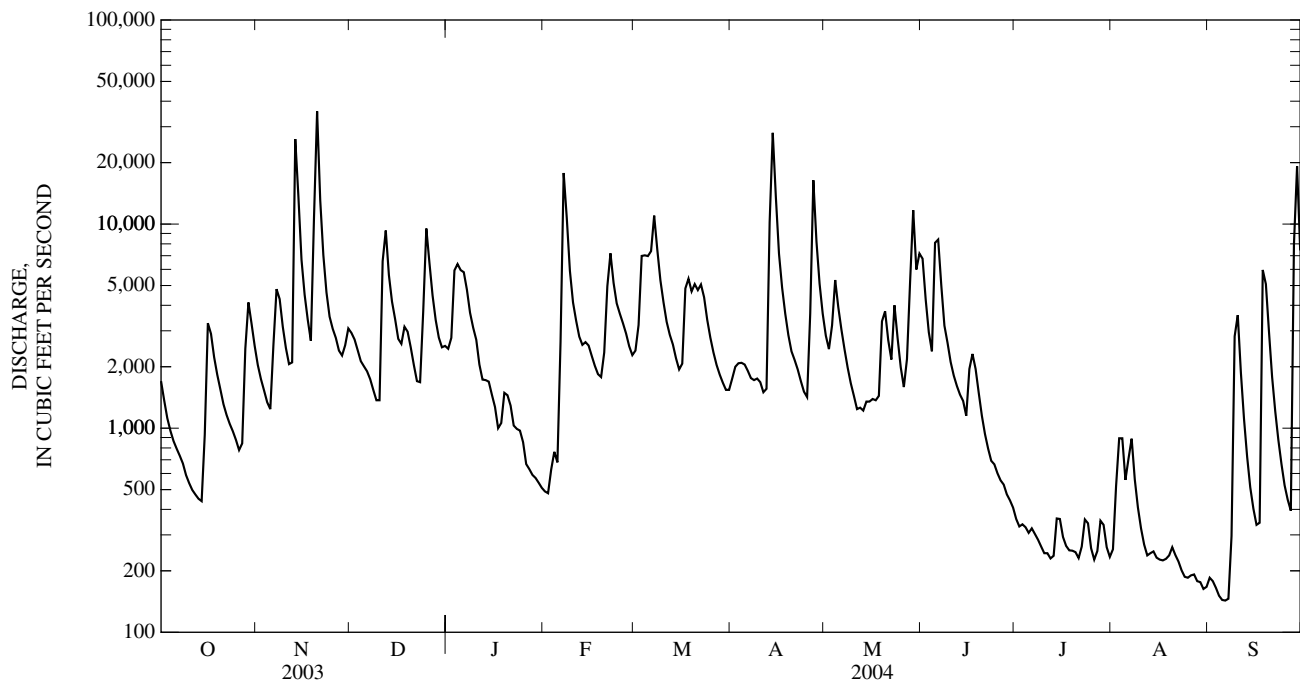
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1895 - 2004	
ANNUAL TOTAL	1,344,649		1,012,921		2,010	
ANNUAL MEAN	3,684		2,768		983	
HIGHEST ANNUAL MEAN					3,606	
LOWEST ANNUAL MEAN					2003	
HIGHEST DAILY MEAN	41,000	Feb 23	35,700	Nov 20	63,100	Jan 20, 1996
LOWEST DAILY MEAN	277	Aug 29	143	Sep 6	26	Aug 11, 1930
ANNUAL SEVEN-DAY MINIMUM	329	Jul 28	159	Sep 1	28	Sep 29, 1930
MAXIMUM PEAK FLOW			45,400	Nov 20	(a)94,000	Jan 20, 1996
MAXIMUM PEAK STAGE			16.88	Nov 20	24.33	Jan 20, 1996
INSTANTANEOUS LOW FLOW			141	(b)	24	(c)
ANNUAL RUNOFF (CFSM)	2.70		2.03		1.47	
ANNUAL RUNOFF (INCHES)	36.67		27.63		20.02	
10 PERCENT EXCEEDS	7,660		5,970		4,830	
50 PERCENT EXCEEDS	2,470		1,820		950	
90 PERCENT EXCEEDS	535		252		144	

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

b Sept. 4-7.

c Aug. 12, Oct. 1, 2, 1930.

e Estimated.



03184000 GREENBRIER RIVER AT HILLDALE, WV

LOCATION.--Lat 37°38'24", long 80°48'19", NAD 27, Summers County, Hydrologic Unit 05050003, on left bank 100 ft downstream from State Highway 3 bridge at Hilldale, 0.1 mi upstream from Howard Creek, 0.9 mi upstream from Powley Creek, 5.0 mi southeast of Hinton, and at mile 5.5. Records include flow of Howard Creek.

DRAINAGE AREA.--1,619 mi², includes that of Howard Creek.

PERIOD OF RECORD.--June 1936 to current year.

REVISED RECORDS.--WSP 1435: 1955. WDR WV-82-1: Drainage area. WDR WV-97-1: 1937(P), 1938(M), 1939(P), 1940-42(M), 1953(M), 1955(M), 1960(M), 1962-64(M), 1967(P), 1969-70(M), 1972(P), 1974(M), 1977-78(P), 1984(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,388.66 ft above mean sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.85 ft from data furnished by U.S. Army Corps of Engineers, discharge, 60,800 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	1900	39,200	17.21	Apr 14	1500	36,300	16.47
Nov 20	1400	*49,000	*19.57	Sep 29	0400	29,700	14.68
Feb 7	1700	25,300	13.40				

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	2,000	2,380	3,670	2,930	674	2,640	1,930	3,640	9,760	411	287	138
2	1,550	1,980	3,400	3,370	e650	3,110	2,430	3,290	5,740	371	322	139
3	1,240	1,690	3,000	6,990	738	6,720	2,580	4,070	3,890	343	643	137
4	1,050	1,470	2,660	7,790	858	8,150	2,580	6,190	3,290	381	907	128
5	931	1,320	2,500	7,540	932	7,670	2,500	4,940	12,500	356	792	119
6	844	2,780	2,450	7,600	3,640	8,080	2,330	3,780	12,200	332	614	109
7	777	5,520	2,230	6,250	19,900	12,100	2,090	2,960	7,050	330	729	107
8	727	5,490	1,900	4,800	14,900	9,130	1,960	2,370	4,420	318	781	282
9	664	4,000	1,680	3,940	8,030	6,700	1,950	1,930	3,370	295	599	2,300
10	606	3,070	1,600	3,430	5,500	5,090	1,910	1,610	2,800	270	444	3,930
11	565	2,520	5,420	2,660	4,470	4,070	1,730	1,380	2,340	270	348	2,560
12	536	2,250	11,800	2,180	3,780	3,450	1,820	1,260	2,020	265	290	1,490
13	512	23,700	7,260	1,950	3,460	3,060	9,850	1,210	1,810	252	259	957
14	494	19,200	5,270	2,030	3,540	2,640	31,100	1,370	1,600	265	255	676
15	608	8,800	4,290	1,780	3,430	2,290	18,300	1,360	1,400	365	257	522
16	2,540	5,880	3,480	1,560	3,020	2,440	9,410	1,480	1,620	361	308	427
17	3,340	4,420	3,330	1,260	2,670	5,580	6,380	1,490	2,590	319	297	386
18	2,520	3,500	4,060	1,190	2,420	6,840	4,720	1,560	2,410	303	282	4,510
19	2,000	12,200	3,820	1,770	2,230	5,850	3,700	2,720	1,850	287	279	6,320
20	1,680	42,400	3,190	1,890	2,640	6,010	3,060	4,320	1,390	282	270	3,870
21	1,390	17,800	2,640	1,490	5,080	5,820	2,800	3,220	1,080	280	293	2,330
22	1,200	9,500	2,150	1,320	8,740	5,800	2,590	2,440	899	286	278	1,610
23	1,060	6,250	1,980	1,260	6,590	5,390	2,250	3,760	772	543	248	1,150
24	977	4,710	3,970	1,150	5,120	4,200	1,950	3,270	720	498	220	845
25	902	4,020	11,400	1,220	4,460	3,410	1,740	2,320	670	407	207	632
26	823	3,620	8,540	912	4,000	2,840	3,690	1,770	621	326	186	517
27	852	3,130	5,850	874	3,580	2,450	18,600	2,080	564	461	180	444
28	1,800	2,900	4,380	e810	3,070	2,170	11,000	4,010	533	481	179	4,690
29	4,430	3,140	3,560	e770	2,690	1,920	6,690	13,000	485	476	168	24,100
30	3,810	3,700	3,120	e730	---	1,760	4,700	7,550	461	402	153	10,100
31	2,980	---	3,010	e700	---	1,720	---	9,240	---	324	148	---
TOTAL	45,408	213,340	127,610	84,146	130,812	149,100	168,340	105,590	90,855	10,860	11,223	75,525
MEAN	1,465	7,111	4,116	2,714	4,511	4,810	5,611	3,406	3,028	350	362	2,518
MAX	4,430	42,400	11,800	7,790	19,900	12,100	31,100	13,000	12,500	543	907	24,100
MIN	494	1,320	1,600	700	650	1,720	1,730	1,210	461	252	148	107
CFSM	0.90	4.39	2.54	1.68	2.79	2.97	3.47	2.10	1.87	0.22	0.22	1.55
IN.	1.04	4.90	2.93	1.93	3.01	3.43	3.87	2.43	2.09	0.25	0.26	1.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2004, BY WATER YEAR (WY)

	803	1,471	2,655	3,377	4,122	5,149	3,652	2,900	1,497	781	749	536
MAX	5,112	7,111	7,866	9,208	9,096	12,910	9,535	6,673	6,592	3,372	3,800	3,173
(WY)	(1977)	(2004)	(1974)	(1996)	(1994)	(1963)	(1987)	(1989)	(2003)	(1972)	(1942)	(2003)
MIN	46.4	76.8	260	302	731	1,436	901	586	219	84.4	72.1	59.6
(WY)	(1954)	(1954)	(1961)	(1981)	(2002)	(1988)	(1986)	(1941)	(1999)	(1999)	(1987)	(1946)

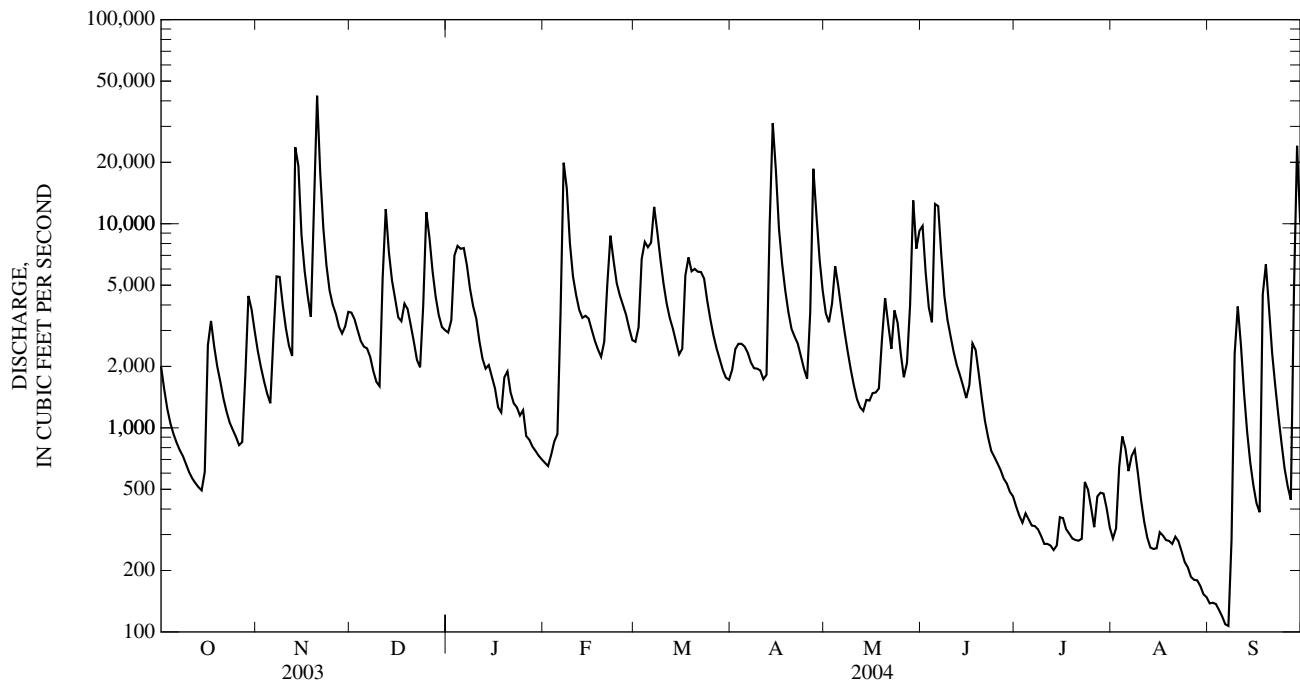
03184000 GREENBRIER RIVER AT HILLDALE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1936 - 2004	
ANNUAL TOTAL	1,608,676		1,212,809		2,301	
ANNUAL MEAN	4,407		3,314		1,189	
HIGHEST ANNUAL MEAN					4,360	
LOWEST ANNUAL MEAN					1,189	
HIGHEST DAILY MEAN	49,300	Feb 23	42,400	Nov 20	79,400	Jan 20, 1996
LOWEST DAILY MEAN	333	Jul 30	107	Sep 7	39	Sep 19, 1946
ANNUAL SEVEN-DAY MINIMUM	350	Jul 28	125	Sep 1	44	Oct 17, 1953
MAXIMUM PEAK FLOW			49,000	Nov 20	93,000	Jan 20, 1996
MAXIMUM PEAK STAGE			19.57	Nov 20	26.88	Jan 20, 1996
INSTANTANEOUS LOW FLOW			105	(a)	39	(b)
ANNUAL RUNOFF (CFSM)	2.72		2.05		1.42	
ANNUAL RUNOFF (INCHES)	36.96		27.87		19.31	
10 PERCENT EXCEEDS	9,540		7,340		5,590	
50 PERCENT EXCEEDS	3,010		2,200		1,070	
90 PERCENT EXCEEDS	617		294		151	

a Sept 7, 8.

b Sept. 18-20, 1946, Sept. 16, 1964.

c Estimated.



03185000 PINEY CREEK AT RALEIGH, WV

LOCATION (REVISED).--Lat 37°45'38", long 81°09'45", NAD 27, Raleigh County, Hydrologic Unit 05050004, on left bank at Raleigh, 0.6 mi downstream from Whitestick Creek, 0.4 mi upstream from Beaver Creek, 1.5 mi southeast of Beckley, and at mile 11.9.

DRAINAGE AREA.--52.7 mi², revised.

PERIOD OF RECORD.--August 1951 to September 1982, December 2002 to current year.

REVISED RECORDS.--WSP 1435: 1955(M). WDR WV-97-1: Drainage area, 1961(m), 1963(m), 1967(m), 1970(m) 1972(m), 1977(m), 1980(m).

GAGE.--Water-stage recorder. Datum of gage is unknown. Prior to Dec. 4, 2002, gage located 500 ft upstream.

REMARKS.--Records good except those for period of estimated daily discharges (ice effect), 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	1430	2,710	8.91	Apr 13	2400	2,480	8.27
Jan 3	0100	787	4.15	May 31	0900	*2,790	*9.12
Feb 6	2000	1,120	4.84	Jun 16	0200	1,690	6.17

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	40	35	123	115	e35	42	144	88	799	46	143	23
2	32	33	112	418	e33	43	268	90	332	41	97	21
3	25	32	99	675	60	51	322	109	186	40	121	19
4	24	30	96	343	65	49	270	85	157	51	89	18
5	23	34	115	425	75	46	185	78	206	42	109	17
6	22	148	119	575	599	334	143	70	172	34	136	16
7	21	247	108	321	840	303	127	60	126	28	95	17
8	20	141	97	199	392	201	106	53	98	27	71	239
9	19	98	93	153	191	139	87	48	82	27	55	262
10	19	76	100	118	137	103	71	43	73	104	44	137
11	18	62	181	100	112	83	63	50	66	83	37	84
12	18	155	174	91	97	69	88	63	63	58	48	59
13	17	556	128	85	88	56	938	55	85	42	49	47
14	98	255	118	76	88	50	1,300	52	70	33	38	39
15	188	166	105	76	79	46	585	37	196	28	38	34
16	75	127	97	64	68	127	307	32	747	25	54	31
17	53	113	148	60	61	170	202	30	176	49	37	149
18	44	99	160	165	56	136	147	28	114	63	29	401
19	37	1,690	138	262	54	123	113	36	100	38	27	209
20	32	1,490	117	171	56	107	95	60	119	29	27	117
21	29	495	99	118	84	115	88	40	91	24	36	81
22	27	247	91	100	93	98	75	32	76	114	52	60
23	24	165	106	81	72	88	67	28	124	142	34	48
24	23	141	314	66	66	76	63	26	91	77	41	40
25	23	120	313	62	63	65	53	27	146	53	45	35
26	24	101	191	59	57	57	184	94	221	69	25	32
27	44	87	143	52	53	53	264	186	120	525	12	31
28	47	146	122	47	48	51	178	241	83	323	16	201
29	44	168	108	46	44	46	125	237	66	153	21	123
30	41	136	138	41	---	47	100	140	53	100	19	73
31	37	---	131	37	---	85	---	1,960	---	78	20	---
TOTAL	1,188	7,393	4,184	5,201	3,766	3,059	6,758	4,178	5,038	2,546	1,665	2,663
MEAN	38.3	246	135	168	130	98.7	225	135	168	82.1	53.7	88.8
MAX	188	1,690	314	675	840	334	1,300	1,960	799	525	143	401
MIN	17	30	91	37	33	42	53	26	53	24	12	16
CFSM	0.73	4.68	2.56	3.18	2.46	1.87	4.27	2.56	3.19	1.56	1.02	1.68
IN.	0.84	5.22	2.95	3.67	2.66	2.16	4.77	2.95	3.56	1.80	1.18	1.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004, BY WATER YEAR (WY)

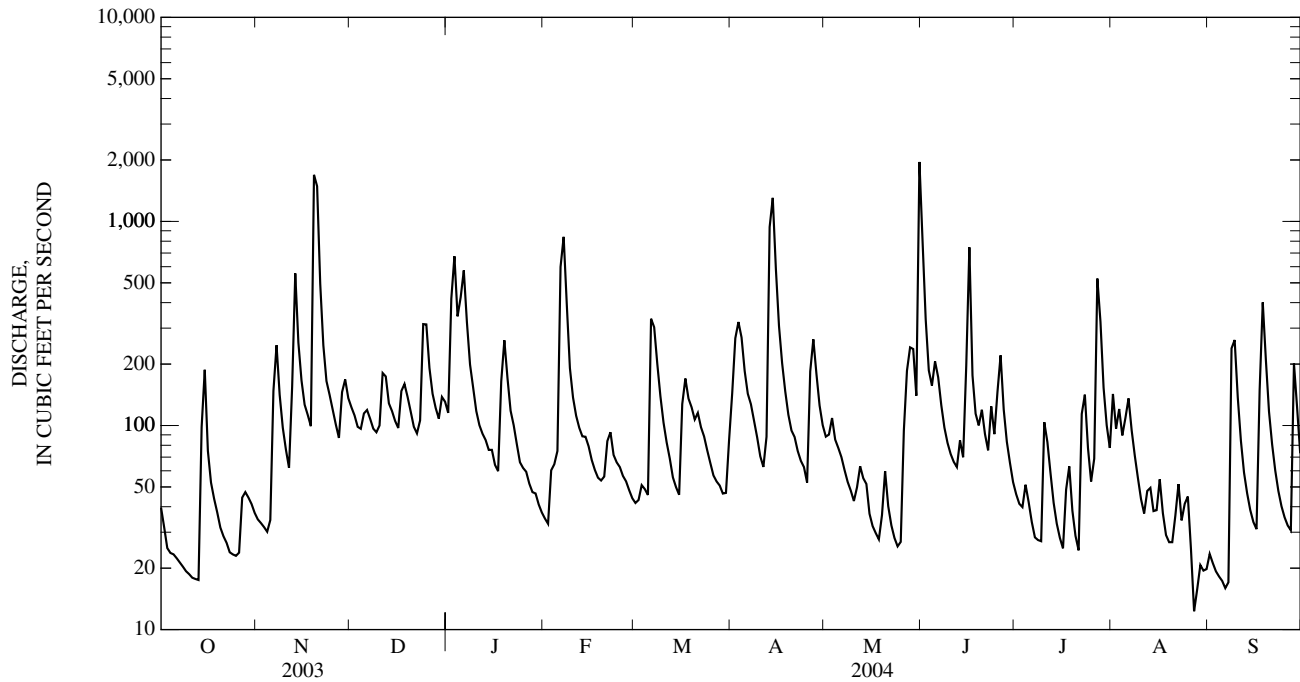
	18.8	39.1	72.8	99.6	122	139	108	84.7	48.9	29.5	25.5	18.6
MEAN	18.8	39.1	72.8	99.6	122	139	108	84.7	48.9	29.5	25.5	18.6
MAX	108	246	156	231	342	352	271	236	211	95.4	85.8	103
(WY)	(1977)	(2004)	(1958)	(1957)	(2003)	(1963)	(2003)	(2003)	(2003)	(1962)	(1980)	(2003)
MIN	1.20	1.12	0.87	3.48	31.7	47.6	26.6	15.7	5.94	2.82	2.29	1.39
(WY)	(1964)	(1966)	(1966)	(1966)	(1978)	(1969)	(1963)	(1964)	(1964)	(1966)	(1964)	(1965)

03185000 PINEY CREEK AT RALEIGH, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004	
ANNUAL TOTAL	57,894		47,639		64.7	
ANNUAL MEAN	159		130		130	
HIGHEST ANNUAL MEAN					30.1	
LOWEST ANNUAL MEAN					2,210	
HIGHEST DAILY MEAN	1,940	Feb 23	1,960	May 31	2,210	Mar 12, 1963
LOWEST DAILY MEAN	13	Aug 31	12	Aug 27	0.20	(a)
ANNUAL SEVEN-DAY MINIMUM	15	Aug 27	19	Sep 1	0.20	Sep 5, 1964
MAXIMUM PEAK FLOW			2,790	May 31	2,870	Mar 12, 1963
MAXIMUM PEAK STAGE			9.12	May 31	9.12	May 31, 2004
INSTANTANEOUS LOW FLOW			8.9	Aug 27	0.20	(a)
ANNUAL RUNOFF (CFSM)	3.01		2.47		1.23	
ANNUAL RUNOFF (INCHES)	40.87		33.63		16.68	
10 PERCENT EXCEEDS	343		247		146	
50 PERCENT EXCEEDS	98		81		32	
90 PERCENT EXCEEDS	28		27		4.2	

a Sept. 5-18, 21-23, 1964.

e Estimated.



03185400 NEW RIVER AT THURMOND, WV

LOCATION.--Lat 37°57'18", long 81°04'36", NAD 27, Fayette County, Hydrologic Unit 05050004, on right bank at Thurmond, at Chessie System pump house, 0.1 mi upstream from Dunloup Creek, 0.3 mi upstream from railroad/highway bridge, at New River mile 25.8 and Kanawha River mile 122.4.

DRAINAGE AREA.--6,687 mi², excluding that of Dunloup Creek.

PERIOD OF RECORD.--February 1981 to current year.

REVISED RECORDS.--WDR WV-97-1: 1981-92(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,030.71 ft above NGVD 29.

REMARKS.--Records good except those for periods of estimated discharges (doubtful or no gage-height record) which are fair. Flow regulated by Claytor Lake and Bluestone Lake.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 84,600 ft³/s, Nov. 20, gage height, 19.05 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	7,220	5,940	11,200	12,000	6,080	8,020	9,680	11,800	31,900	5,300	4,080	2,290
2	6,190	5,370	11,700	12,800	4,940	9,510	14,000	11,100	19,700	4,940	4,320	2,000
3	5,670	4,420	12,300	24,000	4,670	12,700	14,400	e12,200	12,800	4,910	6,010	1,970
4	4,900	4,350	10,900	24,600	6,690	17,000	13,100	e13,300	9,850	5,300	7,340	2,450
5	5,070	5,350	13,300	20,300	12,700	17,000	10,200	e12,000	30,600	6,390	5,490	2,460
6	4,910	7,860	15,100	24,500	19,800	20,100	10,100	e10,000	32,500	7,100	5,800	2,670
7	4,610	17,300	14,200	23,100	43,900	22,600	11,300	8,650	20,700	5,570	5,730	2,070
8	4,620	17,400	10,300	17,900	48,300	20,800	9,530	7,820	14,400	4,630	4,680	8,380
9	4,490	13,000	9,080	16,500	34,500	17,900	9,300	6,930	10,300	4,080	4,250	28,600
10	4,020	9,570	8,200	13,500	24,800	16,300	8,880	5,960	11,800	4,150	3,550	36,100
11	3,110	7,870	15,300	9,680	18,700	13,900	7,560	6,140	11,700	4,220	2,990	29,800
12	4,730	8,880	34,800	8,550	16,900	11,900	6,140	6,790	10,300	3,810	2,970	12,600
13	4,380	25,000	29,000	8,410	14,800	10,800	23,300	6,790	11,100	3,780	3,280	8,120
14	4,470	35,700	19,500	9,860	14,000	9,910	65,300	6,490	12,800	4,460	5,570	7,060
15	5,690	17,400	12,900	9,180	13,400	6,890	57,600	6,350	13,100	3,380	3,570	6,400
16	6,510	12,000	12,100	8,580	10,400	7,970	43,400	6,130	15,200	3,180	3,330	8,420
17	8,150	8,690	14,600	9,150	11,800	15,100	31,500	6,410	17,000	3,510	3,010	10,400
18	7,210	8,100	17,300	9,120	13,400	18,800	18,100	6,540	14,600	3,230	2,500	22,300
19	6,390	44,300	19,500	8,910	12,100	16,500	15,300	7,140	11,200	3,140	2,340	11,400
20	4,850	69,000	16,900	11,600	10,800	15,300	12,600	10,200	8,760	3,480	2,300	6,940
21	4,310	65,100	13,200	10,500	13,100	14,500	11,500	8,650	7,980	4,660	2,770	12,500
22	5,120	56,900	11,000	9,710	19,300	11,800	11,200	6,920	6,600	3,760	2,800	35,900
23	4,920	48,100	9,000	8,870	20,900	12,200	8,990	8,230	6,260	4,870	2,710	35,000
24	4,600	41,500	12,500	8,420	19,900	12,800	8,770	7,700	6,160	4,360	2,540	23,300
25	4,290	35,000	23,700	6,910	16,500	10,400	8,440	6,350	6,920	3,530	2,500	6,620
26	4,040	23,600	23,500	5,420	14,500	8,860	10,500	5,600	7,890	3,590	2,440	5,630
27	3,640	13,500	17,400	6,490	13,200	8,250	33,300	9,390	10,500	8,080	2,420	6,340
28	e7,500	12,700	14,400	7,260	11,400	7,320	29,700	14,000	10,400	8,770	2,240	9,920
29	e11,000	11,600	12,600	6,910	9,640	6,040	19,600	21,800	7,910	6,260	1,960	52,600
30	9,950	12,100	11,300	6,670	---	6,000	14,500	17,400	6,280	5,070	2,400	49,900
31	7,530	---	12,900	5,930	---	7,320	---	30,800	---	3,940	3,130	---
TOTAL	174,090	647,600	469,680	365,330	481,120	394,490	547,790	305,580	397,210	145,450	111,020	450,140
MEAN	5,616	21,590	15,150	11,780	16,590	12,730	18,260	9,857	13,240	4,692	3,581	15,000
MAX	11,000	69,000	34,800	24,600	48,300	22,600	65,300	30,800	32,500	8,770	7,340	52,600
MIN	3,110	4,350	8,200	5,420	4,670	6,000	6,140	5,600	6,160	3,140	1,960	1,970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2004, BY WATER YEAR (WY)

MEAN	3,746	6,412	8,609	11,190	14,960	16,030	13,940	11,800	7,640	4,557	4,026	3,885
MAX	16,510	21,590	18,020	27,470	28,590	34,950	40,500	19,650	20,840	11,990	10,160	15,000
(WY)	(1990)	(2004)	(1997)	(1996)	(1994)	(1993)	(1987)	(1989)	(2003)	(2003)	(2003)	(2004)
MIN	1,388	1,499	2,366	3,517	3,631	4,154	3,958	5,033	2,010	1,532	1,393	1,626
(WY)	(1992)	(2002)	(2002)	(2000)	(2002)	(1988)	(1986)	(2000)	(1988)	(1988)	(1988)	(1998)

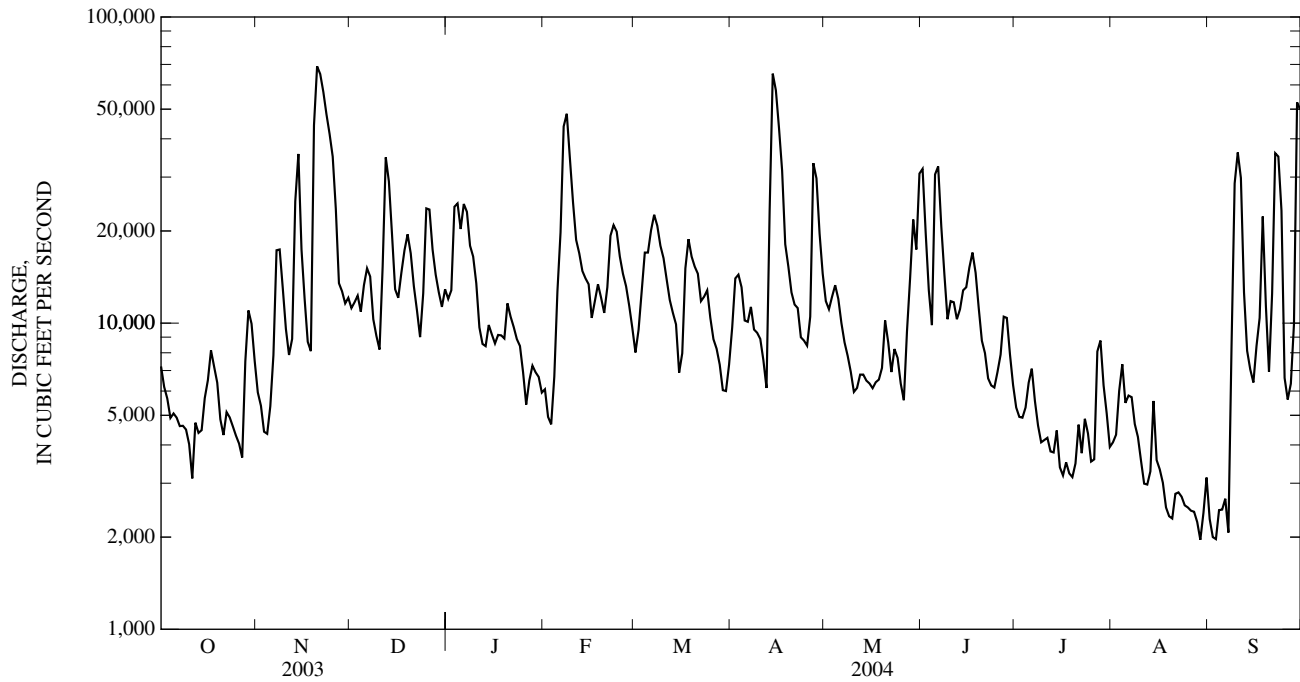
03185400 NEW RIVER AT THURMOND, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1981 - 2004	
ANNUAL TOTAL	5,584,930		4,489,500		8,909	
ANNUAL MEAN	15,300		12,270		14,600	
HIGHEST ANNUAL MEAN					4,336	
LOWEST ANNUAL MEAN					92,500	
HIGHEST DAILY MEAN	83,800	Feb 23	69,000	Nov 20	808	Jan 20, 1996
LOWEST DAILY MEAN	3,110	Oct 11	1,960	Aug 29	852	Jul 11, 1988
ANNUAL SEVEN-DAY MINIMUM	4,260	Oct 8	2,270	Sep 1	(a)100,000	Jan 20, 1996
MAXIMUM PEAK FLOW			84,600	Nov 20	20.35	Jan 20, 1996
MAXIMUM PEAK STAGE			19.05	Nov 20	589	Oct 20, 1994
INSTANTANEOUS LOW FLOW			1,860	(b)	19,300	
10 PERCENT EXCEEDS	32,200		23,600		5,460	
50 PERCENT EXCEEDS	11,700		9,240		1,810	
90 PERCENT EXCEEDS	4,810		3,580			

a From rating curve extended above 59,000 ft³/s.

b Aug 29, 30.

e Estimated.



03186500 WILLIAMS RIVER AT DYER, WV

LOCATION.--Lat 38°22'44", long 80°29'03", NAD 27, Webster County, Hydrologic Unit 05050005, on left bank at Dyer, 0.2 mi downstream from Craig Run, 7.0 mi southwest of Webster Springs, and at mile 2.3.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--September 1929 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1930.

GAGE.--Water-stage recorder. Datum of gage is 2,193.46 ft above mean sea level, adjustment of 1912. Prior to June 11, 1930, 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 4,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2230	13,300	13.32	May 28	0830	5,460	8.20
Nov 19	1400	*20,000	*16.99	Sep 18	0330	5,790	8.43
Apr 13	1730	6,230	8.72	Sep 28	1630	10,900	11.83

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	116	285	417	434	e80	251	392	285	628	32	17	13
2	112	241	349	1,420	e84	881	420	273	506	29	35	10
3	95	208	293	1,860	136	1,130	431	617	360	30	38	8.3
4	96	181	256	1,560	146	1,410	564	398	295	27	31	7.1
5	121	191	241	1,420	128	1,440	470	323	1,650	39	24	6.4
6	106	513	230	1,160	1,840	2,800	406	266	965	31	33	15
7	91	673	199	720	2,170	1,500	507	220	578	23	35	11
8	83	496	171	522	934	994	858	186	374	19	22	980
9	76	376	176	428	587	686	937	159	291	17	17	1,310
10	72	299	213	311	452	521	637	135	449	67	13	488
11	67	258	1,380	235	345	434	499	124	264	121	12	230
12	61	3,280	738	e210	285	401	948	153	408	65	12	146
13	58	3,930	512	e185	244	326	3,420	118	253	53	18	105
14	93	1,120	427	168	215	292	2,790	110	192	38	21	80
15	1,170	680	363	163	190	434	1,250	125	213	29	19	63
16	623	486	284	112	167	766	786	111	172	24	26	51
17	415	391	380	139	154	1,060	558	111	257	19	52	1,210
18	341	310	357	242	149	695	417	186	175	23	25	3,430
19	267	6,740	312	311	139	1,020	325	454	149	21	17	877
20	219	2,340	256	233	165	764	266	392	122	25	14	431
21	189	1,020	220	207	488	1,480	246	278	95	19	15	262
22	170	652	220	202	429	877	203	308	82	15	43	178
23	156	468	300	173	332	602	182	219	103	15	36	131
24	135	386	1,380	175	305	479	205	165	96	18	21	98
25	118	385	1,000	205	265	403	170	133	73	16	15	81
26	109	302	639	201	237	374	1,650	375	87	14	12	71
27	418	258	468	138	214	352	1,140	1,220	78	18	10	62
28	618	394	391	128	192	319	675	3,060	57	26	8.9	3,510
29	471	692	359	e110	215	263	467	1,330	45	31	8.1	1,740
30	435	491	568	e100	---	232	353	710	38	20	25	697
31	344	---	539	e92	---	273	---	686	---	16	19	---
TOTAL	7,445	28,046	13,638	13,564	11,287	23,459	22,172	13,230	9,055	940	694.0	16,301.8
MEAN	240	935	440	438	389	757	739	427	302	30.3	22.4	543
MAX	1,170	6,740	1,380	1,860	2,170	2,800	3,420	3,060	1,650	121	52	3,510
MIN	58	181	171	92	80	232	170	110	38	14	8.1	6.4
CFSM	1.88	7.30	3.44	3.42	3.04	5.91	5.77	3.33	2.36	0.24	0.17	4.25
IN.	2.16	8.15	3.96	3.94	3.28	6.82	6.44	3.84	2.63	0.27	0.20	4.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	164	305	413	455	515	659	494	369	213	187	166	103
MAX	852	1,085	934	985	1,005	1,518	1,421	845	769	803	710	580
(WY)	(1930)	(1986)	(1979)	(1996)	(1939)	(1963)	(1958)	(1996)	(1940)	(1954)	(1989)	(2003)
MIN	1.07	8.87	94.9	75.7	118	326	160	66.1	19.5	5.85	6.97	2.34
(WY)	(1954)	(1954)	(1940)	(1940)	(1978)	(1976)	(1995)	(1964)	(1965)	(1930)	(1944)	(1953)

03186500 WILLIAMS RIVER AT DYER, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	180,181		159,831.8		336	
ANNUAL MEAN	494		437		483	
HIGHEST ANNUAL MEAN					187	
LOWEST ANNUAL MEAN					10,000	
HIGHEST DAILY MEAN	6,740	Nov 19	6,740	Nov 19	187	2003
LOWEST DAILY MEAN	31	Aug 28	6.4	Sep 5	10,000	Jul 4, 1932
ANNUAL SEVEN-DAY MINIMUM	52	Jul 30	10	Sep 1	0.50	(a)
MAXIMUM PEAK FLOW			20,000	Nov 19	0.54	Oct 11, 1953
MAXIMUM PEAK STAGE			16.99	Nov 19	(b)22,000	Jul 4, 1932
INSTANTANEOUS LOW FLOW			5.9	Sep 5	(c)18.45	Jul 4, 1932
ANNUAL RUNOFF (CFSM)	3.86		3.41		0.49	(d)
ANNUAL RUNOFF (INCHES)	52.37		46.45		2.63	
10 PERCENT EXCEEDS	1,170		1,030		35.69	
50 PERCENT EXCEEDS	299		239		767	
90 PERCENT EXCEEDS	80		21		182	
					20	

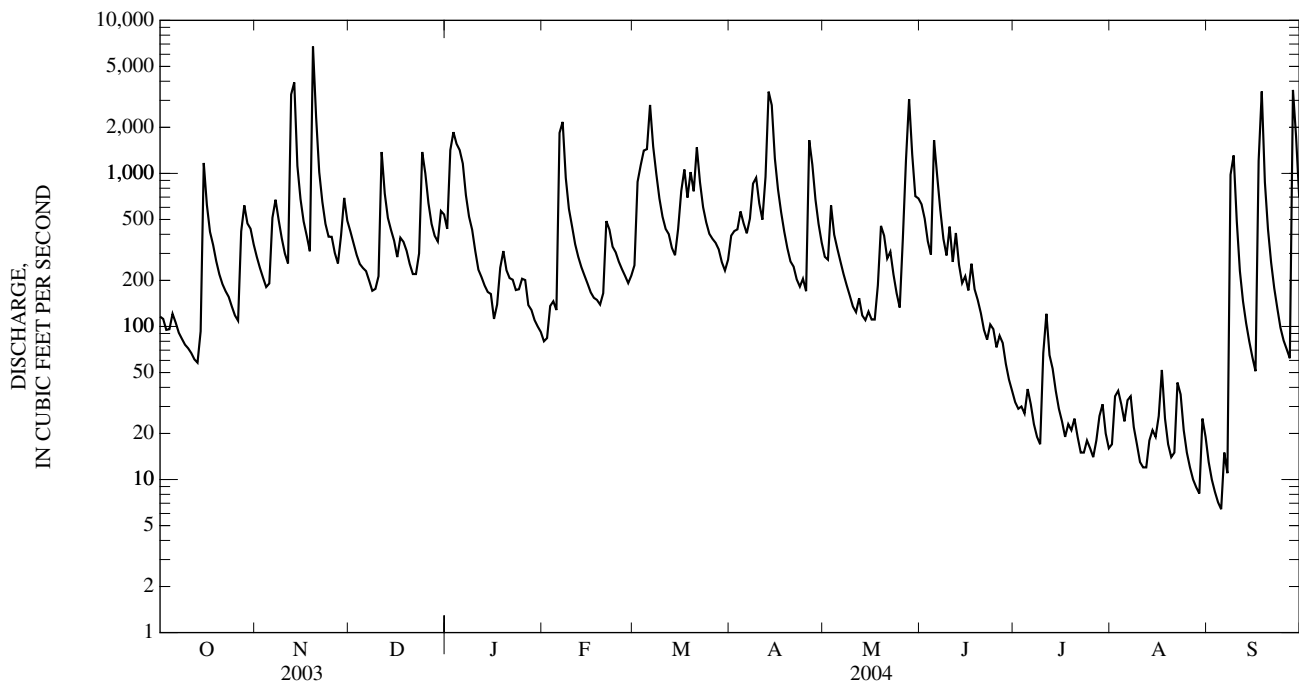
a Oct. 13-16, 21, 1953.

b From rating curve extended above 7,000 ft³/s on basis of slope-area measurements at gage heights 12.33 ft and 18.45 ft.

c From floodmarks.

d Sept. 12, 13, 1995.

e Estimated.



03187500 CRANBERRY RIVER NEAR RICHWOOD, WV

LOCATION.--Lat 38°17'43", long 80°31'36", NAD 27, Nicholas County, Hydrologic Unit 05050005, Monongahela National Forest, on left bank 30 ft downstream from U.S. Forest Service highway bridge, 0.6 mi upstream from Barrenshe Run, 5.0 mi north of Richwood, and at mile 5.6.

DRAINAGE AREA.--80.4 mi².

PERIOD OF RECORD.--October 1944 to December 1951, June 1964 to September 1982, March 1984 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area. WDR WV-97-1: 1946(M), 1948(M), 1954(M), 1967(P), 1970(M), 1972-79(M), 1980-81(P), 1986(P), 1989(P), 1991-92(M), 1994(P).

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is approximately 2,100 ft above NGVD 29, from topographic map.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect, equipment failure), which are poor. Gage-height data for water years 1972-79 provided by U.S. Forest Service.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 19, 1954, reached a stage of 12.22 ft, discharge, 12,200 ft³/s, from floodmarks, present site and datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2200	7,300	9.50	Sep 8	1700	3,010	6.86
Nov 19	1300	*12,200	*11.90	Sep 18	0300	3,510	7.23
Apr 13	1700	3,460	7.19	Sep 28	1500	4,900	8.11
May 28	0600	3,920	7.51				

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	97	212	269	274	e52	164	234	204	495	25	32	13
2	93	182	227	822	e50	442	235	199	386	27	57	12
3	78	158	194	1,140	131	682	236	428	286	28	149	9.5
4	80	137	170	997	128	834	322	284	245	24	80	8.3
5	104	145	158	965	109	889	282	234	1,600	38	69	7.3
6	90	356	151	754	1,040	1,760	250	195	749	33	139	12
7	79	468	135	e450	1,170	968	315	161	431	20	83	9.5
8	70	337	118	e350	e600	632	570	136	312	16	59	623
9	64	261	118	e285	e425	436	626	117	525	14	44	1,150
10	59	215	144	e220	318	341	433	99	581	116	34	445
11	54	188	859	e165	244	283	337	86	314	206	27	231
12	48	2,210	464	e185	200	257	517	80	533	86	25	155
13	46	2,450	e300	e150	171	214	2,070	76	309	59	39	114
14	74	774	e265	e125	151	193	1,790	75	230	44	38	88
15	830	470	231	e120	134	245	806	70	214	35	28	68
16	492	342	188	e80	119	402	516	73	187	28	46	55
17	321	310	e245	e95	112	642	376	119	244	22	56	803
18	261	269	e230	e230	107	430	288	101	173	28	30	2,210
19	208	4,250	e205	247	100	560	228	161	144	24	22	669
20	171	1,480	e185	199	114	449	187	169	121	21	16	335
21	145	646	e160	e170	266	744	178	133	93	16	28	219
22	128	420	e155	e160	270	e500	145	249	79	14	105	158
23	122	310	e175	e140	217	e360	130	164	95	25	54	119
24	107	260	687	e120	204	308	143	121	88	89	34	92
25	92	273	590	e100	181	263	117	96	65	46	24	76
26	84	207	e360	e110	162	242	1,300	170	66	27	18	63
27	281	175	e280	e100	149	230	862	686	61	34	15	54
28	425	253	e245	e84	134	209	472	2,350	45	83	13	1,810
29	333	424	e230	e76	144	177	331	1,020	36	52	12	1,220
30	310	312	343	e66	---	156	251	501	30	33	11	495
31	250	---	336	e54	---	177	---	567	---	30	11	---
TOTAL	5,596	18,494	8,417	9,033	7,202	14,189	14,547	9,124	8,737	1,343	1,398	11,323.6
MEAN	181	616	272	291	248	458	485	294	291	43.3	45.1	377
MAX	830	4,250	859	1,140	1,170	1,760	2,070	2,350	1,600	206	149	2,210
MIN	46	137	118	54	50	156	117	70	30	14	11	7.3
CFSM	2.25	7.67	3.38	3.62	3.09	5.69	6.03	3.66	3.62	0.54	0.56	4.69
IN.	2.59	8.56	3.89	4.18	3.33	6.57	6.73	4.22	4.04	0.62	0.65	5.24

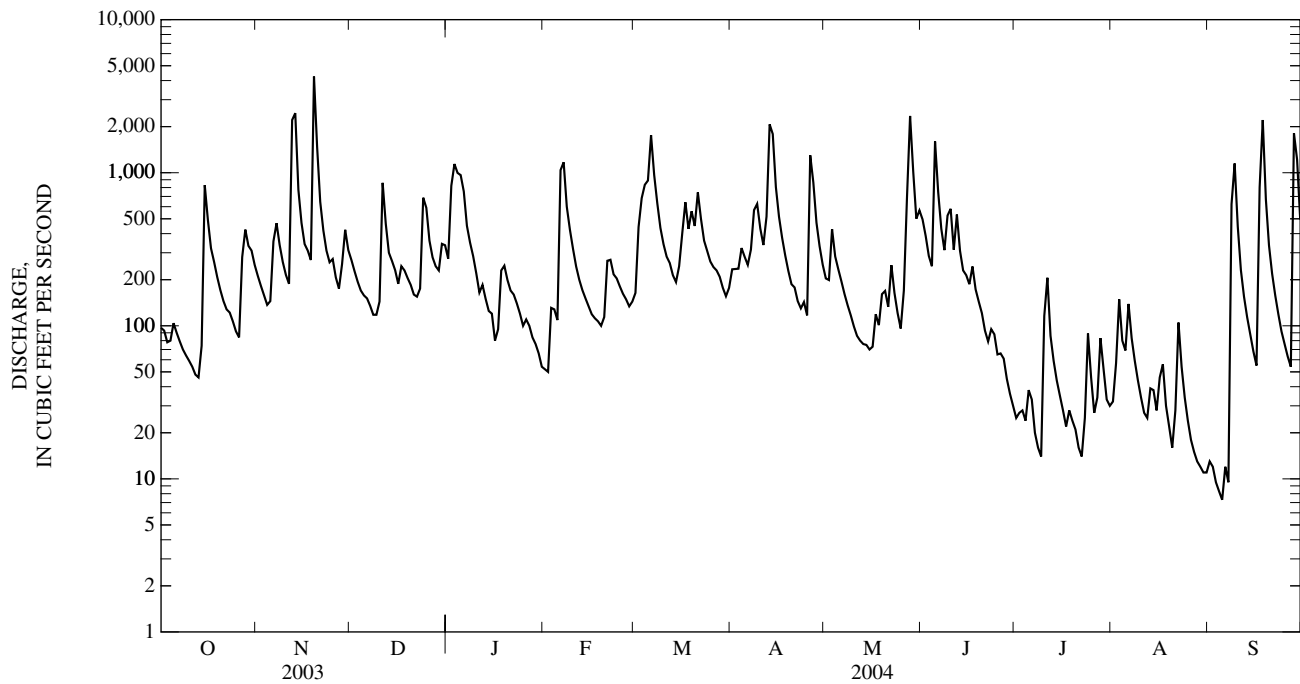
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	119	226	303	313	341	433	315	273	158	126	108	96.2
MAX	613	746	632	636	642	954	570	567	470	389	562	381
(WY)	(1977)	(1986)	(1979)	(1974)	(1982)	(1984)	(1987)	(1996)	(2003)	(2001)	(1989)	(2003)
MIN	6.65	12.7	63.0	40.3	68.2	232	114	86.1	12.7	7.64	8.56	2.50
(WY)	(1999)	(2002)	(1966)	(1977)	(1978)	(2001)	(1995)	(1991)	(1966)	(1993)	(1946)	(1946)

03187500 CRANBERRY RIVER NEAR RICHWOOD, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	117,464		109,403.6		233	
ANNUAL MEAN	322		299		318	
HIGHEST ANNUAL MEAN					126	
LOWEST ANNUAL MEAN					6,770	
HIGHEST DAILY MEAN	4,250	Nov 19	4,250	Nov 19		Mar 21, 1984
LOWEST DAILY MEAN	18	Aug 28	7.3	Sep 5	0.16	Aug 21, 1987
ANNUAL SEVEN-DAY MINIMUM	37	Aug 22	10	Sep 1	0.28	Aug 15, 1987
MAXIMUM PEAK FLOW			12,200	Nov 19	(a)12,200	Nov 19, 2003
MAXIMUM PEAK STAGE			11.90	Nov 19	(b)11.93	Aug 21, 1989
INSTANTANEOUS LOW FLOW			6.9	Sep 5	0.14	Aug 22, 1987
ANNUAL RUNOFF (CFSM)	4.00		3.72		2.90	
ANNUAL RUNOFF (INCHES)	54.35		50.62		39.44	
10 PERCENT EXCEEDS	695		673		527	
50 PERCENT EXCEEDS	211		172		135	
90 PERCENT EXCEEDS	67		29		17	

- a From rating curve extended above 9,000 ft³/s on basis of slope-area measurement at gage height 11.00 ft.
b From floodmarks.
c Estimated.



03189100 GAULEY RIVER NEAR CRAIGSVILLE, WV

LOCATION.--Lat 38°17'27", long 80°38'28", NAD 27, Nicholas County, Hydrologic Unit 05050005, on right bank at downstream side of highway bridge on State Highway 20, 200 ft downstream from Cherry River, 1.8 mi downstream from Cranberry River, 2.7 mi south of Craigsville, and at mile 61.5.

DRAINAGE AREA.--529 mi².

PERIOD OF RECORD.--October 1964 to September 1982, October 1982 to September 1983 (gage heights, discharge measurements, and annual maximum discharge only), October 1985 to current year.

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

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,870.00 ft above NGVD 29.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1932 and 1954 were about 105,000 ft³/s and 67,500 ft³/s, respectively.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2300	48,400	23.90	May 28	1400	22,500	18.66
Nov 19	1400	*63,500	*25.94	Jun 5	0530	13,300	16.36
Feb 6	2200	15,300	16.89	Sep 18	0700	16,000	17.09
Mar 6	1230	12,900	16.26	Sep 28	1930	22,600	18.68
Apr 13	2230	20,000	18.08				

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	485	1,300	2,080	2,030	495	1,100	1,740	1,390	3,220	165	194	88
2	489	1,120	1,820	4,630	582	2,150	2,120	1,300	2,690	184	340	72
3	416	956	1,590	7,070	694	3,540	2,130	2,170	2,030	162	955	56
4	398	815	1,420	5,880	1,050	3,880	2,680	1,730	1,710	141	459	46
5	485	794	1,330	5,500	926	4,150	2,350	1,490	10,200	203	399	38
6	464	2,080	1,310	5,210	7,510	9,010	2,050	1,290	4,980	186	656	48
7	402	2,930	1,170	3,250	9,850	5,960	2,260	1,090	2,820	144	421	43
8	357	2,310	1,030	2,420	4,190	3,900	3,310	934	1,930	110	304	1,680
9	325	1,810	1,020	2,040	2,650	2,800	3,550	809	1,690	89	219	4,880
10	302	1,470	1,080	1,620	2,090	2,250	2,570	687	1,930	120	164	2,210
11	282	1,250	4,530	1,220	1,700	1,930	2,060	594	1,330	653	132	1,240
12	259	11,200	3,150	e1,050	1,440	1,770	2,190	652	2,010	338	129	818
13	239	18,500	2,350	e920	1,270	1,530	11,400	636	1,430	244	230	588
14	298	4,550	2,100	963	1,140	1,360	12,600	596	1,090	191	210	447
15	3,540	2,780	1,980	930	1,030	1,510	5,680	522	946	144	165	343
16	2,680	2,090	1,650	672	906	2,160	3,430	564	888	116	147	270
17	1,880	1,780	1,910	703	839	4,030	2,480	680	1,100	98	196	1,750
18	1,510	1,460	2,060	1,260	814	2,800	1,950	658	866	109	163	12,100
19	1,230	27,000	1,810	1,890	750	3,380	1,590	1,240	777	106	114	3,690
20	999	11,400	1,550	1,540	825	2,940	1,340	1,570	640	89	91	1,960
21	831	4,490	1,320	1,280	1,680	4,420	1,280	1,280	507	79	152	1,310
22	729	2,890	1,280	1,250	1,900	3,360	1,090	1,500	423	74	449	925
23	657	2,190	1,480	1,110	1,570	2,450	976	1,180	501	141	320	685
24	574	1,850	4,970	980	1,450	2,070	1,040	882	512	462	197	520
25	496	1,830	4,430	831	1,330	1,780	898	729	407	224	134	415
26	450	1,550	2,860	899	1,190	1,610	5,430	1,070	404	142	100	345
27	872	1,360	2,210	868	1,090	1,490	5,040	4,900	430	702	79	293
28	2,160	1,580	1,890	717	987	1,390	2,890	14,500	312	558	68	7,710
29	1,820	2,880	1,730	650	1,000	1,210	2,110	7,050	243	324	68	7,140
30	1,800	2,340	2,240	650	---	1,080	1,670	3,280	199	213	79	2,810
31	1,520	---	2,390	485	---	1,180	---	3,520	---	167	99	---
TOTAL	28,949	120,555	63,740	60,518	52,948	84,190	91,904	60,493	48,215	6,678	7,433	54,520
MEAN	934	4,018	2,056	1,952	1,826	2,716	3,063	1,951	1,607	215	240	1,817
MAX	3,540	27,000	4,970	7,070	9,850	9,010	12,600	14,500	10,200	702	955	12,100
MIN	239	794	1,020	485	495	1,080	898	522	199	74	68	38
CFSM	1.77	7.60	3.89	3.69	3.45	5.13	5.79	3.69	3.04	0.41	0.45	3.44
IN.	2.04	8.48	4.48	4.26	3.72	5.92	6.46	4.25	3.39	0.47	0.52	3.83

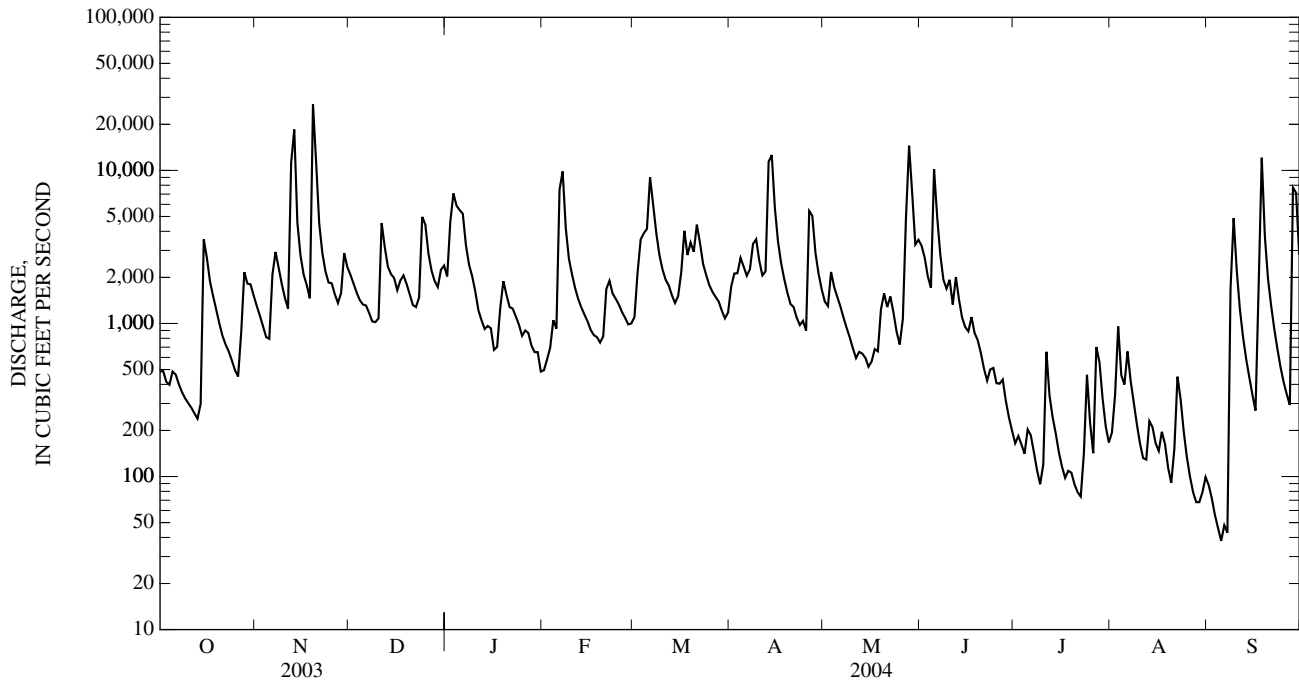
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2004, BY WATER YEAR (WY)

MEAN	734	1,388	1,856	1,892	2,098	2,626	2,016	1,695	973	759	666	548
MAX	3,531	4,464	3,561	3,722	3,928	4,968	3,525	3,575	2,730	2,270	2,819	2,056
(WY)	(1977)	(1986)	(1979)	(1996)	(1994)	(1967)	(1987)	(1996)	(1974)	(2001)	(1989)	(2003)
MIN	49.1	78.7	341	464	551	1,433	676	463	100	58.3	67.9	54.3
(WY)	(1993)	(2002)	(1966)	(1977)	(1978)	(1976)	(1995)	(1991)	(1991)	(1999)	(1988)	(1995)

03189100 GAULEY RIVER NEAR CRAIGSVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	696,063		680,143		1,435	
ANNUAL MEAN	1,907		1,858		854	
HIGHEST ANNUAL MEAN					1,944	
LOWEST ANNUAL MEAN					854	
HIGHEST DAILY MEAN	27,000	Nov 19	27,000	Nov 19	29,800	Oct 9, 1976
LOWEST DAILY MEAN	130	Aug 28	38	Sep 5	8.2	Sep 12, 1995
ANNUAL SEVEN-DAY MINIMUM	205	Aug 24	56	Sep 1	9.0	Sep 10, 1995
MAXIMUM PEAK FLOW			(a)63,500	Nov 19	(a)63,500	Nov 19, 2003
MAXIMUM PEAK STAGE			25.94	Nov 19	25.94	Nov 19, 2003
INSTANTANEOUS LOW FLOW			35	Sep 5	7.6	Aug 22, 1987
ANNUAL RUNOFF (CFSM)	3.60		3.51		2.71	
ANNUAL RUNOFF (INCHES)	48.95		47.83		36.86	
10 PERCENT EXCEEDS	3,520		3,940		3,260	
50 PERCENT EXCEEDS	1,350		1,220		834	
90 PERCENT EXCEEDS	359		163		112	

a From rating curve extended above 35,000 ft³/s.
e Estimated.



03190400 MEADOW RIVER NEAR MOUNT LOOKOUT, WV

LOCATION.--Lat 38°11'23", long 80°56'49", NAD 27, Nicholas County, Hydrologic Unit 05050005, on right bank 1,000 ft upstream from mouth, and 2.5 mi northwest of Mount Lookout.

DRAINAGE AREA.--365 mi².

PERIOD OF RECORD.--September 1966 to September 1983, October 1985 to current year.

REVISED RECORDS.--WDR WV-99-1: 1998 (m).

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is approximately 1,200 ft above NGVD 29, from topographic map.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect, doubtful or no gage-height record), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0200	11,100	11.19	Apr 14	0330	8,060	9.81
Nov 19	1800	(a)*27,200	(b)*16.31	May 28	0830	6,870	9.27
Feb 6	2330	6,830	9.25				

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	260	619	1,240	1,230	e250	665	1,320	896	2,880	99	200	47
2	246	524	1,080	2,120	e240	911	1,910	695	2,130	91	219	38
3	218	452	908	3,520	274	1,430	1,970	955	1,630	84	596	34
4	198	392	777	2,970	e380	1,400	2,360	920	1,170	77	667	33
5	201	374	719	2,820	343	1,380	1,900	791	3,540	72	544	30
6	194	1,040	683	2,960	2,520	2,660	1,560	665	3,990	81	832	27
7	174	2,670	611	2,150	4,730	2,820	1,530	555	2,810	78	564	26
8	156	1,870	547	1,540	3,020	2,180	1,590	464	1,710	69	345	46
9	145	1,340	502	1,270	2,120	1,740	1,390	396	1,100	59	237	999
10	134	1,030	512	953	1,660	1,380	1,080	340	749	57	173	1,380
11	126	794	1,470	616	1,330	1,110	864	303	518	74	134	912
12	118	2,290	1,790	663	1,080	924	788	307	509	74	131	613
13	111	7,340	1,420	655	924	753	4,140	278	430	69	190	420
14	234	3,990	1,230	553	848	625	7,250	295	326	58	165	251
15	1,280	2,450	1,010	542	775	561	4,910	248	273	50	129	171
16	1,230	1,650	799	461	681	730	2,920	278	303	44	165	132
17	870	1,270	940	397	610	2,030	1,880	338	483	41	239	132
18	680	980	1,160	660	562	1,810	1,330	307	533	51	186	1,860
19	526	e10,000	1,030	1,210	527	1,990	985	555	472	51	143	2,130
20	420	e11,000	885	1,060	599	1,880	767	602	337	44	108	1,290
21	354	6,750	690	771	1,200	1,900	711	451	255	41	97	832
22	321	3,290	640	719	1,580	1,740	645	323	210	127	100	556
23	283	1,760	831	589	1,410	1,380	564	242	207	e700	93	332
24	251	1,290	2,300	526	1,220	1,100	531	196	209	e440	82	246
25	223	1,090	2,770	438	1,080	895	462	600	190	e300	70	193
26	201	867	2,060	388	942	749	1,310	782	215	e240	59	159
27	259	733	1,570	405	825	643	3,150	1,690	225	567	53	137
28	565	786	1,230	346	711	571	2,400	4,540	176	498	46	540
29	695	1,480	996	314	638	505	1,700	2,950	139	385	42	2,070
30	789	1,380	1,120	e290	---	455	1,210	1,710	115	285	39	1,680
31	730	---	1,420	274	---	512	---	2,840	---	219	41	---
TOTAL	12,192	71,501	34,940	33,410	33,079	39,429	55,127	26,512	27,834	5,125	6,689	17,316
MEAN	393	2,383	1,127	1,078	1,141	1,272	1,838	855	928	165	216	577
MAX	1,280	11,000	2,770	3,520	4,730	2,820	7,250	4,540	3,990	700	832	2,130
MIN	111	374	502	274	240	455	462	196	115	41	39	26
CFM	1.08	6.53	3.09	2.95	3.13	3.48	5.03	2.34	2.54	0.45	0.59	1.58
IN.	1.24	7.29	3.56	3.41	3.37	4.02	5.62	2.70	2.84	0.52	0.68	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	291	630	912	1,042	1,235	1,425	1,111	945	513	331	294	192
MEAN	291	630	912	1,042	1,235	1,425	1,111	945	513	331	294	192
MAX	1,574	2,383	1,710	2,246	2,366	2,583	2,687	1,944	1,642	1,241	1,074	793
(WY)	(1977)	(2004)	(1973)	(1996)	(1998)	(1993)	(1987)	(1996)	(2003)	(2001)	(1969)	(2003)
MIN	8.18	25.4	158	140	355	599	368	271	53.7	32.2	12.9	13.1
(WY)	(1992)	(2002)	(2002)	(1977)	(2002)	(1988)	(1995)	(1976)	(1999)	(1991)	(1987)	(1983)

03190400 MEADOW RIVER NEAR MOUNT LOOKOUT, WV—Continued

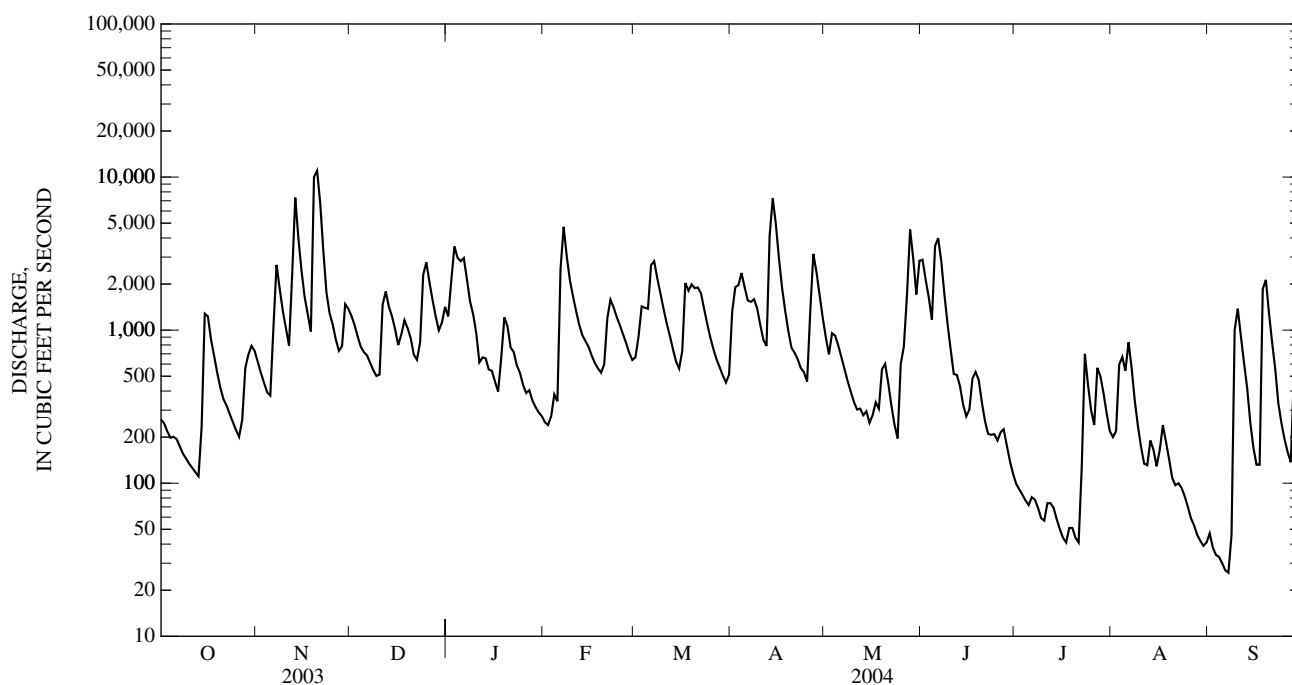
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	410,729		363,154		739	
ANNUAL MEAN	1,125		992		1,055	
HIGHEST ANNUAL MEAN					410	
LOWEST ANNUAL MEAN					14,200	
HIGHEST DAILY MEAN	(e)11,000	Nov 20	(e)11,000	Nov 20	2003	1988
LOWEST DAILY MEAN	109	Aug 28	26	Sep 7	4.1	(c)
ANNUAL SEVEN-DAY MINIMUM	128	Jul 29	33	Sep 2	5.7	Oct 8, 1991
MAXIMUM PEAK FLOW			(a)27,200	Nov 19	(a)27,200	Nov 19, 2003
MAXIMUM PEAK STAGE			(b)16.31	Nov 19	(b)16.31	Nov 19, 2003
INSTANTANEOUS LOW FLOW			25	Sep 7	3.0	Aug 22, 1987
ANNUAL RUNOFF (CFSM)	3.08		2.72		2.02	
ANNUAL RUNOFF (INCHES)	41.86		37.01		27.50	
10 PERCENT EXCEEDS	2,320		2,140		1,840	
50 PERCENT EXCEEDS	786		622		405	
90 PERCENT EXCEEDS	192		92		43	

a From rating curve extended above 15,000 ft³/s on basis of slope-conveyance study.

b From floodmarks.

c Aug. 21, 22, 1987.

e Estimated.



REVISIONS.--The revised peak discharge for the 2001 water year is given below. This revised discharge supercedes the discharge published in WDR WV-01-1:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 29, 2001	2100	18,800	13.92

03191500 PETERS CREEK NEAR LOCKWOOD, WV

LOCATION.--Lat 38°15'45", long 81°01'24", NAD 27, Nicholas County, Hydrologic Unit 05050005, on left bank, at private bridge off of State Route 39, 0.9 mi downstream from Tate Run, 1.5 mi upstream from Line Creek and Lockwood, and at mile 5.2.

DRAINAGE AREA.--40.2 mi².

PERIOD OF RECORD.--October 1945 to September 1971, October 1979 to September 1982, October 1996 to September 1998. February 2003 to current year.

REVISED RECORDS.--WDR WV-80-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 1,064.70 ft above NGVD 29. Prior to February 2003 at site 0.1 mi downstream at datum 0.07 ft higher. Prior to September 30, 1971, at site 0.6 mi downstream at datum 1,059.52 ft above NGVD 29. Prior to November 2, 1945, nonrecording gage and November 2, 1945, to Aug. 2, 1955, water-stage recorder near present site at datum 1,072.19 ft above NGVD 29.

REMARKS.--Records fair 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 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2030	*5,030	*14.79	Apr 13	0930	1,940	10.63
Nov 19	1200	3,370	12.77	May 28	0500	1,770	10.33
Feb 6	1200	1,370	9.57	Jul 26	2300	1,530	9.89

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	29	47	131	88	e27	24	542	54	287	15	39	10
2	26	41	105	329	e25	25	558	53	260	14	26	8.7
3	23	37	89	301	135	23	408	52	154	27	21	8.5
4	26	34	78	205	158	25	311	41	144	21	17	8.4
5	27	41	80	301	178	24	192	39	440	15	40	7.9
6	23	84	119	302	1,010	299	137	34	262	13	29	7.8
7	22	118	114	191	528	217	110	30	142	11	20	7.8
8	21	95	99	136	254	142	91	27	87	11	17	58
9	20	70	84	113	168	103	72	24	59	10	14	83
10	20	56	88	85	133	78	57	22	49	9.8	12	44
11	20	51	209	74	107	64	53	21	52	15	12	26
12	20	1,540	178	66	91	55	88	21	50	11	23	20
13	19	864	131	64	79	48	846	20	37	11	27	17
14	97	236	166	58	70	44	550	31	32	9.1	19	19
15	166	139	169	62	62	42	330	22	29	8.4	15	14
16	78	101	149	53	53	71	196	27	30	7.3	15	13
17	51	79	212	52	48	81	136	22	26	7.5	12	119
18	40	63	212	110	44	77	101	33	27	9.3	11	476
19	34	1,360	161	146	42	106	83	92	30	7.1	11	135
20	29	468	121	118	41	102	72	91	23	6.5	9.4	66
21	27	226	95	94	41	140	64	50	20	6.3	28	42
22	26	148	91	87	36	122	54	42	30	48	23	30
23	24	110	148	63	33	97	58	32	42	105	15	26
24	22	116	309	57	34	79	52	26	27	99	12	22
25	21	107	240	e55	31	65	45	23	41	29	11	20
26	22	95	162	53	29	56	133	264	47	151	9.4	19
27	71	85	122	53	27	53	153	421	28	410	9.1	18
28	80	132	100	47	26	48	106	923	22	120	9.1	91
29	77	188	88	47	25	43	76	399	20	52	13	80
30	63	158	108	44	---	43	60	194	17	35	14	48
31	54	---	95	36	---	100	---	350	---	40	13	---
TOTAL	1,278	6,889	4,253	3,490	3,535	2,496	5,734	3,480	2,514	1,334.3	546.0	1,545.1
MEAN	41.2	230	137	113	122	80.5	191	112	83.8	43.0	17.6	51.5
MAX	166	1,540	309	329	1,010	299	846	923	440	410	40	476
MIN	19	34	78	36	25	23	45	20	17	6.3	9.1	7.8
CFSM	1.03	5.71	3.41	2.80	3.03	2.00	4.75	2.79	2.08	1.07	0.44	1.28
IN.	1.18	6.37	3.94	3.23	3.27	2.31	5.31	3.22	2.33	1.23	0.51	1.43

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

MEAN	17.9	48.1	78.9	96.1	115	133	97.0	73.4	46.7	33.5	30.9	17.3
MAX	105	230	168	191	204	297	191	171	219	134	172	115
(WY)	(1980)	(2004)	(1951)	(1950)	(1955)	(1963)	(2004)	(1967)	(2003)	(1958)	(1958)	(2003)
MIN	0.12	0.52	4.60	22.0	30.8	52.6	23.5	13.3	2.32	1.85	0.24	0.29
(WY)	(1954)	(1954)	(1966)	(1966)	(1954)	(1966)	(1963)	(1964)	(1966)	(1957)	(1957)	(1946)

03191500 PETERS CREEK NEAR LOCKWOOD, WV—Continued

SUMMARY STATISTICS

FOR 2004 WATER YEAR

WATER YEARS 1946 - 2004

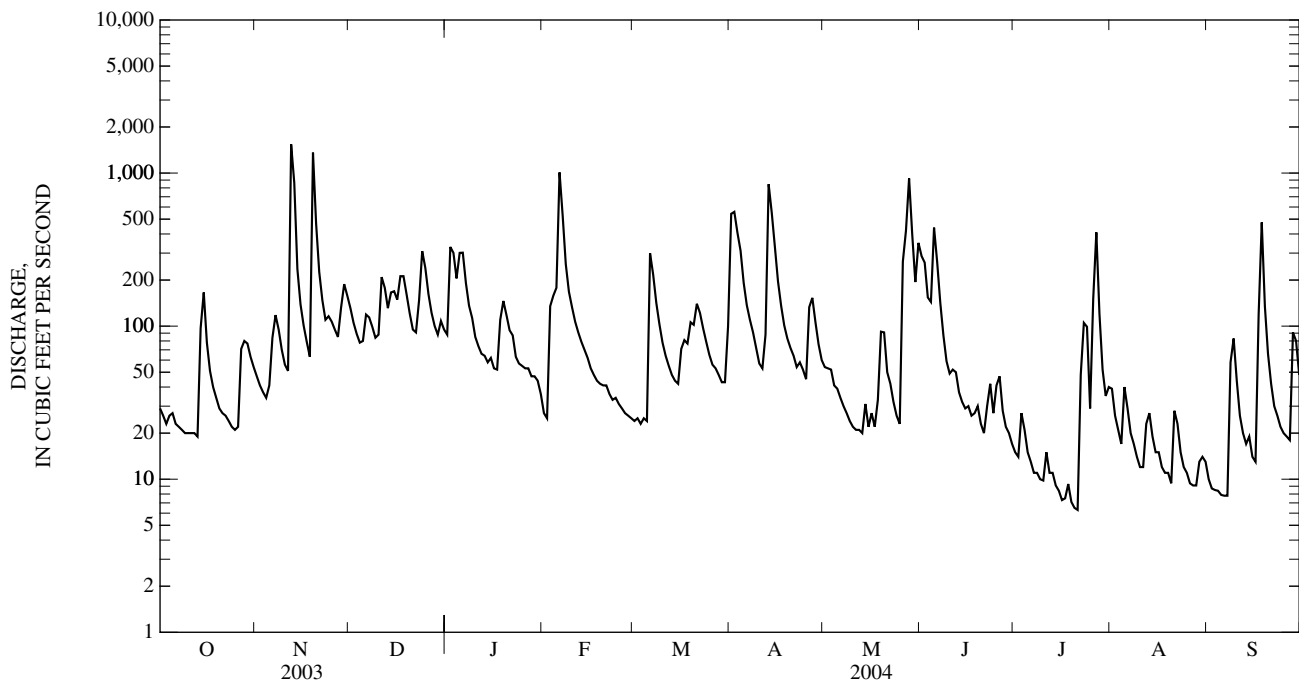
ANNUAL TOTAL	37,094.4			
ANNUAL MEAN	101		64.7	
HIGHEST ANNUAL MEAN			108	1950
LOWEST ANNUAL MEAN			29.3	1966
HIGHEST DAILY MEAN	1,540	Nov 12	3,000	Aug 2, 1958
LOWEST DAILY MEAN	6.3	Jul 21	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	7.5	Jul 15	0.00	Sep 3, 1957
MAXIMUM PEAK FLOW	5,030	Nov 12	(b)8,340	Jun 16, 2003
MAXIMUM PEAK STAGE	14.79	Nov 12	18.35	Jun 16, 2003
INSTANTANEOUS LOW FLOW	5.7	(c)	0.00	(a)
ANNUAL RUNOFF (CFSM)	2.52		1.61	
ANNUAL RUNOFF (INCHES)	34.33		21.88	
10 PERCENT EXCEEDS	212		152	
50 PERCENT EXCEEDS	52		27	
90 PERCENT EXCEEDS	14		3.2	

a Sept. 6-9, 1957.

b From rating curve extended above 7,800 ft³/s on basis of step-backwater analysis.

c July 21, 22.

e Estimated.



03192000 GAULEY RIVER ABOVE BELVA, WV

LOCATION.--Lat 38°14'00", long 81°10'52", NAD 27, Nicholas County, Hydrologic Unit 05050005, on right bank 0.5 mi upstream from Belva, 1.0 mi upstream from Twentymile Creek, and at mile 6.3.

DRAINAGE AREA.--1,317 mi².

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 873: 1938. WSP 1275: 1929-30. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 669.00 ft above mean sea level, adjustment of 1912.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since May 1965 by Summersville Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1918 reached a stage of about 30 ft, discharge of about 112,000 ft³/s.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 47,800 ft³/s, Nov. 19, gage height, 19.23 ft.

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

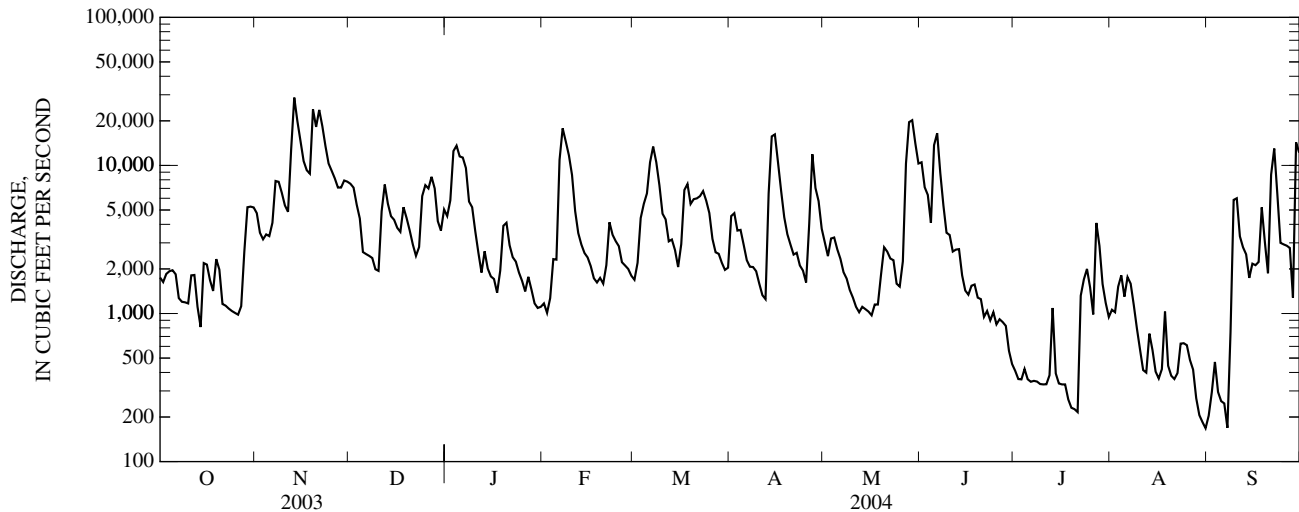
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,750	4,760	7,520	4,550	1,170	1,690	4,550	3,020	10,500	410	1,060	204
2	1,630	3,510	7,080	5,810	1,010	2,200	4,760	2,440	7,120	361	1,020	294
3	1,850	3,170	5,440	12,500	1,270	4,410	3,630	3,210	6,320	359	1,520	471
4	1,930	3,420	4,380	13,600	2,330	5,500	3,670	3,260	4,090	422	1,810	295
5	1,960	3,330	2,600	11,500	2,310	6,470	2,910	2,710	13,700	360	1,300	256
6	1,840	4,100	2,520	11,300	10,900	10,500	2,290	2,340	16,500	346	1,760	247
7	1,270	7,850	2,450	9,600	17,800	13,400	2,070	1,900	8,890	351	1,590	169
8	1,200	7,750	2,370	5,700	14,500	10,500	2,060	1,720	5,370	347	1,140	749
9	1,190	6,540	1,990	5,220	11,700	7,350	1,930	1,440	3,510	334	793	5,850
10	1,170	5,370	1,940	3,590	8,620	4,720	1,590	1,280	3,390	332	571	6,000
11	1,810	4,860	4,910	2,570	4,920	4,320	1,330	1,110	2,620	333	415	3,320
12	1,820	12,800	7,430	1,890	3,490	3,070	1,250	1,020	2,700	383	399	2,800
13	1,110	28,700	5,510	2,630	2,920	3,160	6,460	1,110	2,720	1,090	731	2,510
14	810	19,900	4,540	2,010	2,560	2,680	15,700	1,070	1,810	394	566	1,740
15	2,190	14,600	4,290	1,780	2,390	2,060	16,200	1,030	1,430	337	405	2,170
16	2,140	10,700	3,790	1,710	2,090	2,940	10,500	972	1,340	332	364	2,120
17	1,680	9,280	3,560	1,380	1,730	6,820	6,740	1,150	1,540	332	421	2,230
18	1,420	8,800	5,220	1,950	1,620	7,490	4,470	1,150	1,570	263	1,030	5,210
19	2,330	23,900	4,410	3,910	1,740	5,490	3,430	1,820	1,280	231	444	3,030
20	1,980	18,200	3,630	4,100	1,590	5,920	2,920	2,800	1,250	226	380	1,870
21	1,160	23,700	2,920	2,890	2,120	5,990	2,500	2,620	948	216	361	8,660
22	1,130	18,400	2,450	2,400	4,130	6,200	2,570	2,350	1,040	1,320	396	13,000
23	1,080	13,500	2,810	2,240	3,400	6,710	2,110	2,290	899	1,700	626	6,370
24	1,040	10,300	6,210	1,890	3,080	5,780	1,950	1,590	1,020	2,000	630	3,000
25	1,010	9,190	7,360	1,660	2,850	4,770	1,620	1,520	845	1,500	611	2,930
26	982	8,170	6,990	1,410	2,220	3,190	4,040	2,250	915	986	485	2,870
27	1,120	7,090	8,380	1,770	2,110	2,590	11,900	10,300	875	4,090	418	2,770
28	2,610	7,090	6,990	1,450	2,000	2,530	7,040	19,600	825	2,860	268	1,280
29	5,220	7,910	4,200	1,170	1,800	2,200	5,740	20,200	560	1,580	206	14,300
30	5,270	7,770	3,630	1,090	---	1,970	3,740	14,100	456	1,180	185	12,200
31	5,200	---	5,040	1,110	---	2,040	---	10,300	---	947	168	---
TOTAL	58,902	314,660	142,560	126,380	120,370	154,660	141,670	123,672	106,033	25,922	22,073	108,915
MEAN	1,900	10,490	4,599	4,077	4,151	4,989	4,722	3,989	3,534	836	712	3,630
MAX	5,270	28,700	8,380	13,600	17,800	13,400	16,200	20,200	16,500	4,090	1,810	14,300
MIN	810	3,170	1,940	1,090	1,010	1,690	1,250	972	456	216	168	169

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

MEAN	1,948	3,371	3,658	3,878	4,398	4,961	2,802	3,362	2,005	1,472	1,435	1,495
MAX	7,547	10,490	7,270	8,493	9,534	9,591	7,050	7,802	6,640	4,779	5,053	5,078
(WY)	(1977)	(2004)	(1973)	(1974)	(1994)	(1993)	(1987)	(1996)	(2003)	(2001)	(1989)	(2003)
MIN	124	70.8	85.6	276	1,471	2,187	611	538	236	187	36.8	72.5
(WY)	(1966)	(1966)	(1966)	(1966)	(2002)	(2000)	(1986)	(1991)	(1991)	(1999)	(1965)	(1965)

03192000 GAULEY RIVER ABOVE BELVA, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1965 - 2004	
ANNUAL TOTAL	1,595,559		1,445,817		2,893	
ANNUAL MEAN	4,371		3,950		4,048	
HIGHEST ANNUAL MEAN					1,452	
LOWEST ANNUAL MEAN					32,000	
HIGHEST DAILY MEAN	28,700	Nov 13	28,700	Nov 13	32,000	Jul 29, 2001
LOWEST DAILY MEAN	371	Aug 29	168	Aug 31	11	Sep 10, 1965
ANNUAL SEVEN-DAY MINIMUM	447	Aug 24	249	Aug 27	17	Sep 4, 1965
MAXIMUM PEAK FLOW			47,800	Nov 19	47,800	Nov 19, 2003
MAXIMUM PEAK STAGE			19.23	Nov 19	19.23	Nov 19, 2003
INSTANTANEOUS LOW FLOW			147	Sep 7	9.6	Sep 11, 1965
10 PERCENT EXCEEDS	8,780		10,300		6,910	
50 PERCENT EXCEEDS	3,030		2,340		1,690	
90 PERCENT EXCEEDS	1,040		417		379	



STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1964, BY WATER YEAR (WY) [UNREGULATED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	819	1,785	3,027	4,022	4,542	5,790	3,963	2,903	1,552	1,524	1,264	532
MAX	4,859	5,609	6,421	7,870	8,926	11,660	8,691	5,737	6,164	6,141	4,871	2,824
(WY)	(1938)	(1930)	(1943)	(1937)	(1939)	(1963)	(1958)	(1929)	(1940)	(1932)	(1958)	(1950)
MIN	5.90	23.1	410	437	1,084	3,000	1,166	547	156	22.4	26.7	13.3
(WY)	(1954)	(1931)	(1940)	(1940)	(1934)	(1937)	(1942)	(1964)	(1936)	(1930)	(1930)	(1930)

SUMMARY STATISTICS

	WATER YEARS 1929 - 1964	
ANNUAL MEAN	2,631	
HIGHEST ANNUAL MEAN	3,803	1950
LOWEST ANNUAL MEAN	1,606	1941
HIGHEST DAILY MEAN	60,900	Jul 5, 1932
LOWEST DAILY MEAN	3.2	Oct 21, 1953
ANNUAL SEVEN-DAY MINIMUM	3.6	Oct 20, 1953
INSTANTANEOUS PEAK FLOW	(*)105,000	Jul 5, 1932
INSTANTANEOUS PEAK STAGE	28.60	Jul 5, 1932
INSTANTANEOUS LOW FLOW	3.2	Oct 21, 1953
10 PERCENT EXCEEDS	6,280	
50 PERCENT EXCEEDS	1,390	
90 PERCENT EXCEEDS	129	

* From rating curve extended above 65,000 ft³/s on basis of velocity-area studies and inflow and storage adjustment to record for Kanawha River at Kanawha Falls.

03193000 KANAWHA RIVER AT KANAWHA FALLS, WV

LOCATION.--Lat 38°08'17", long 81°12'52", NAD 27, Fayette County, Hydrologic Unit 05050006, on right bank 150 ft downstream from bridge, 0.8 mi downstream from village of Kanawha Falls, 2.0 mi downstream from Gauley Bridge, 2.0 mi downstream from confluence of New River and Gauley River, and at mile 94.3.

DRAINAGE AREA.--8,371 mi².

PERIOD OF RECORD.--March 1877 to current year. October 1916 to September 1918 and October 1927 to October 1928, published as "at Lock 2, Montgomery".

REVISED RECORDS.--WSP 923: 1878, 1886, 1897, 1899, 1901-3. WSP 1305: 1902(M), 1940. WSP 1335: 1931. WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 621.20 ft above NGVD 29. Prior to Oct. 27, 1928, nonrecording gages at several sites within 9.0 mi of present site at various datums. Oct. 27, 1928, to Sept. 30, 1964, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1939 by Claytor Lake, since 1949 by Bluestone Lake, and since 1965 by Summersville Lake.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 147,000 ft³/s, Nov. 19, gage height, 22.06 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	10,700	12,700	21,800	19,700	7,390	10,700	14,700	17,900	49,600	6,580	5,420	2,660
2	9,330	10,800	19,700	19,300	6,550	11,200	23,500	15,900	34,300	5,740	5,480	2,380
3	8,480	9,290	20,800	35,300	6,450	14,800	23,400	15,500	24,700	5,510	6,770	2,400
4	7,610	8,840	16,900	43,200	8,360	20,400	23,100	17,100	18,500	5,760	8,870	2,650
5	7,700	9,450	16,700	36,500	14,800	23,000	17,800	17,200	37,300	6,210	7,700	2,690
6	7,560	11,600	18,800	38,500	29,300	29,700	15,400	14,700	55,700	7,300	7,500	2,880
7	7,010	26,200	19,200	38,200	61,600	37,100	16,000	12,600	36,500	6,680	8,220	2,380
8	6,540	27,700	14,700	28,000	69,700	35,600	14,600	11,200	25,300	5,460	6,130	5,080
9	6,410	21,800	13,200	25,500	52,800	29,600	13,700	9,870	16,800	4,780	5,460	32,400
10	6,080	16,800	10,800	21,600	39,500	25,000	12,900	8,830	15,400	4,500	4,370	44,200
11	5,360	13,700	17,300	15,700	27,600	21,600	11,300	7,900	16,300	4,800	3,590	36,200
12	6,350	23,500	41,600	12,800	23,500	18,200	9,690	8,240	14,200	4,380	3,500	18,200
13	6,480	57,400	39,800	12,300	20,700	16,000	21,600	8,510	14,000	4,770	4,060	11,600
14	5,810	63,300	28,400	13,700	18,300	15,400	84,900	8,100	15,100	4,890	5,940	9,160
15	8,290	36,800	21,500	13,000	18,500	11,100	84,000	7,960	14,600	4,210	4,400	8,650
16	9,150	26,100	17,400	11,900	14,600	10,900	63,200	7,630	16,900	3,610	3,910	10,300
17	10,100	20,300	20,700	11,900	13,600	18,200	47,700	7,680	17,300	3,790	3,570	12,900
18	9,950	18,300	23,900	13,000	15,900	27,400	30,000	7,940	17,700	3,690	3,690	25,600
19	9,550	72,300	27,000	13,100	15,700	25,400	23,800	8,330	14,200	3,450	2,970	20,300
20	8,270	93,000	23,800	17,700	13,400	24,200	20,200	11,300	11,200	3,470	2,730	9,830
21	6,460	93,700	19,300	16,400	14,700	24,300	17,500	12,600	9,730	4,490	3,070	14,800
22	6,660	80,700	16,500	14,100	19,800	21,500	17,300	10,200	8,340	5,170	3,270	51,000
23	6,760	66,900	14,500	12,500	24,000	21,200	14,700	10,400	7,600	9,040	3,370	42,700
24	6,460	57,300	18,800	11,700	23,600	22,000	13,300	10,200	7,570	7,160	3,290	31,700
25	6,090	49,100	30,600	10,000	21,000	18,400	12,400	9,010	7,880	6,120	3,150	10,500
26	5,810	37,900	35,100	7,200	17,700	14,800	13,100	8,320	8,710	5,070	3,010	8,550
27	5,650	23,800	30,200	8,450	17,000	12,700	38,300	16,700	10,100	10,700	2,870	8,880
28	6,270	22,400	25,800	9,400	15,200	11,500	42,900	35,300	12,100	13,800	2,640	8,770
29	11,800	22,600	20,500	8,540	13,300	10,100	31,200	43,700	9,850	9,800	2,320	62,300
30	16,200	22,200	17,400	8,350	---	9,010	23,100	39,000	7,630	7,410	2,370	67,200
31	15,000	---	19,600	7,220	---	10,200	---	41,100	---	5,870	3,240	---
TOTAL	249,890	1,056,480	682,300	554,760	644,550	601,210	795,290	460,920	555,110	184,210	136,880	568,860
MEAN	8,061	35,220	22,010	17,900	22,230	19,390	26,510	14,870	18,500	5,942	4,415	18,960
MAX	16,200	93,700	41,600	43,200	69,700	37,100	84,900	43,700	55,700	13,800	8,870	67,200
MIN	5,360	8,840	10,800	7,200	6,450	9,010	9,690	7,630	7,570	3,450	2,320	2,380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

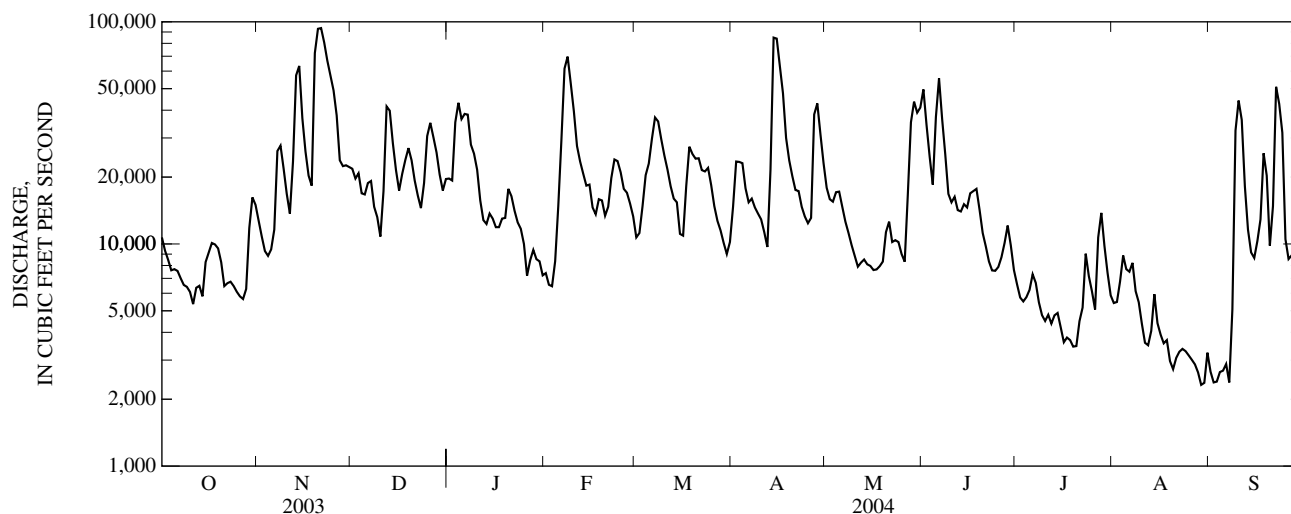
MEAN	5,792	9,028	12,830	15,980	20,160	23,470	18,010	14,660	9,366	6,396	5,894	5,001
MAX	24,980	35,220	29,690	38,490	42,410	50,300	50,240	29,510	30,120	16,040	23,350	18,960
(WY)	(1977)	(2004)	(1973)	(1996)	(1957)	(1955)	(1987)	(1996)	(2003)	(2001)	(1940)	(2004)
MIN	1,452	1,669	2,174	2,412	5,457	7,583	5,065	4,051	2,450	2,167	1,945	1,510
(WY)	(1954)	(1954)	(1966)	(1940)	(2002)	(1988)	(1986)	(1941)	(1999)	(1966)	(1944)	(1953)

03193000 KANAWHA RIVER AT KANAWHA FALLS, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	7,766,390		6,490,460		12,180	
ANNUAL MEAN	21,280		17,730		19,960	
HIGHEST ANNUAL MEAN					6,792	
LOWEST ANNUAL MEAN					163,000	
HIGHEST DAILY MEAN	106,000	Feb 23	93,700	Nov 21	163,000	Aug 15, 1940
LOWEST DAILY MEAN	3,980	Jan 28	2,320	Aug 29	970	Sep 30, 1953
ANNUAL SEVEN-DAY MINIMUM	5,340	Jan 22	2,570	Aug 28	1,230	Sep 23, 1963
MAXIMUM PEAK FLOW			147,000	Nov 19	248,000	Aug 15, 1940
MAXIMUM PEAK STAGE			22.06	Nov 19	(a)29.60	Aug 15, 1940
INSTANTANEOUS LOW FLOW			2,060	Aug 30	(b)	(b)
10 PERCENT EXCEEDS	42,000		37,200		27,000	
50 PERCENT EXCEEDS	16,800		13,400		7,610	
90 PERCENT EXCEEDS	6,640		4,500		2,590	

a 31.60 ft gage height at current datum.

b Not determined.



STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1877 - 1938, BY WATER YEAR (WY) [UNREGULATED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6,529	8,513	12,670	19,170	21,700	24,400	19,440	14,670	10,260	7,556	6,486	5,279
MAX	23,470	23,460	34,030	38,890	52,880	52,620	46,930	38,140	35,870	20,210	22,440	21,070
(WY)	(1938)	(1878)	(1902)	(1882)	(1884)	(1899)	(1901)	(1901)	(1901)	(1916)	(1901)	(1888)
MIN	1,133	1,514	2,691	5,600	3,181	10,160	8,151	4,797	2,546	1,290	1,394	1,308
(WY)	(1931)	(1923)	(1931)	(1931)	(1934)	(1925)	(1915)	(1930)	(1930)	(1930)	(1925)	(1930)

SUMMARY STATISTICS

WATER YEARS 1877 - 1938

ANNUAL MEAN	13,020	
HIGHEST ANNUAL MEAN	21,210	1901
LOWEST ANNUAL MEAN	7,591	1904
HIGHEST DAILY MEAN	266,000	May 23, 1901
LOWEST DAILY MEAN	690	Oct 29, 1921
ANNUAL SEVEN-DAY MINIMUM	984	Oct 7, 1930
INSTANTANEOUS PEAK FLOW	(*)320,000	Sep 14, 1878
INSTANTANEOUS PEAK STAGE	(#)37.80	Sep 14, 1878
INSTANTANEOUS LOW FLOW	640	Aug 15, 1930
10 PERCENT EXCEEDS	27,900	
50 PERCENT EXCEEDS	8,330	
90 PERCENT EXCEEDS	2,550	

* From gage-height relationship and rating curve extended above 150,000 ft³/s.

Site then in use, 39.80 ft gage height at current datum.

03194700 ELK RIVER BELOW WEBSTER SPRINGS, WV

LOCATION.--Lat 38°35'50", long 80°29'26", NAD 27, Webster County, Hydrologic Unit 05050007, on right bank 200 ft upstream from bridge on County Highway 7, 6.5 mi upstream from town of Centralia, 8.9 mi southwest of Salisbury Station, 8.9 mi northwest of Webster Springs, and at mile 125.2.

DRAINAGE AREA.--266 mi².

PERIOD OF RECORD.--October 1929 to September 1959 (estimated annual maximum discharge only), October 1959 to September 1983, October 1985 to current year.

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

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is approximately 1,020.1 ft above NGVD 29, from barometric leveling.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1861, probably in September, reached a stage of 26.34 ft and flood of July 26, 1896, reached a stage of 25.87 ft, present datum, at site 0.2 mi upstream, from levels to floodmarks pointed out by a local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0100	17,700	12.29	Apr 13	2130	9,730	9.81
Nov 19	1730	*23,000	*13.76	May 28	0830	12,500	10.76
Feb 6	2030	10,100	9.96	Sep 28	2000	9,160	9.60

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	230	482	1,080	964	276	472	1,030	572	1,070	91	124	87
2	250	404	910	1,800	314	939	1,490	492	953	80	106	63
3	217	347	746	3,290	369	1,900	1,470	871	741	73	108	48
4	208	301	626	2,610	652	1,950	1,750	754	576	75	94	40
5	320	288	562	2,440	505	2,080	1,400	595	1,580	67	121	34
6	320	815	579	2,490	5,220	4,110	1,160	503	1,310	64	126	29
7	275	1,080	511	1,620	6,050	3,290	1,250	420	867	72	102	37
8	235	919	457	1,140	2,620	2,410	1,860	356	593	65	88	49
9	202	689	430	886	1,580	1,690	1,750	310	440	56	66	607
10	177	531	450	662	1,130	1,280	1,240	268	394	55	53	607
11	158	439	2,340	466	846	1,060	940	237	385	81	46	334
12	143	3,780	1,830	498	677	958	820	245	998	109	47	215
13	129	8,570	1,230	434	582	815	4,970	245	700	164	67	148
14	136	2,570	1,080	370	517	676	5,840	238	494	202	97	112
15	1,610	1,500	1,080	358	476	773	2,980	227	417	132	80	87
16	1,500	1,010	800	292	413	1,000	1,840	226	363	96	69	72
17	913	748	984	263	380	1,930	1,260	199	372	78	64	75
18	632	582	1,150	465	361	1,440	898	258	349	70	98	2,840
19	479	7,600	917	963	333	2,070	687	892	324	62	69	1,390
20	377	5,230	742	728	355	1,830	558	1,070	270	57	57	676
21	314	2,300	586	541	963	2,890	492	833	225	53	62	396
22	275	1,430	525	505	1,170	2,190	437	1,570	196	48	192	269
23	249	990	786	430	847	1,450	386	1,090	223	44	151	200
24	215	775	3,230	385	699	1,110	395	700	220	43	102	158
25	186	740	2,740	345	615	895	358	513	182	44	70	128
26	169	606	1,620	354	532	756	1,770	515	183	47	53	107
27	212	517	1,110	371	486	671	2,510	1,660	179	358	43	93
28	921	591	855	352	435	659	1,510	7,160	151	291	37	1,920
29	713	1,640	738	344	421	560	1,010	3,060	124	176	34	2,750
30	709	1,280	1,010	316	---	499	725	1,600	105	135	79	1,180
31	586	---	1,210	273	---	550	---	1,190	---	116	109	---
TOTAL	13,060	48,754	32,914	26,955	29,824	44,903	44,786	28,869	14,984	3,104	2,614	14,751
MEAN	421	1,625	1,062	870	1,028	1,448	1,493	931	499	100	84.3	492
MAX	1,610	8,570	3,230	3,290	6,050	4,110	5,840	7,160	1,580	358	192	2,840
MIN	129	288	430	263	276	472	358	199	105	43	34	29
CFSM	1.58	6.11	3.99	3.27	3.87	5.45	5.61	3.50	1.88	0.38	0.32	1.85
IN.	1.83	6.82	4.60	3.77	4.17	6.28	6.26	4.04	2.10	0.43	0.37	2.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	330	684	883	893	1,039	1,336	1,049	800	479	359	305	238
MAX	1,376	2,293	1,940	1,866	2,124	2,820	1,784	2,077	1,435	958	1,171	1,090
(WY)	(1977)	(1986)	(1973)	(1996)	(1994)	(1963)	(2002)	(1996)	(1974)	(1996)	(1989)	(2003)
MIN	15.1	45.1	199	202	227	731	312	137	48.9	31.6	23.3	16.4
(WY)	(1964)	(2002)	(1966)	(1977)	(1978)	(2000)	(1963)	(1964)	(1965)	(1999)	(1993)	(1999)

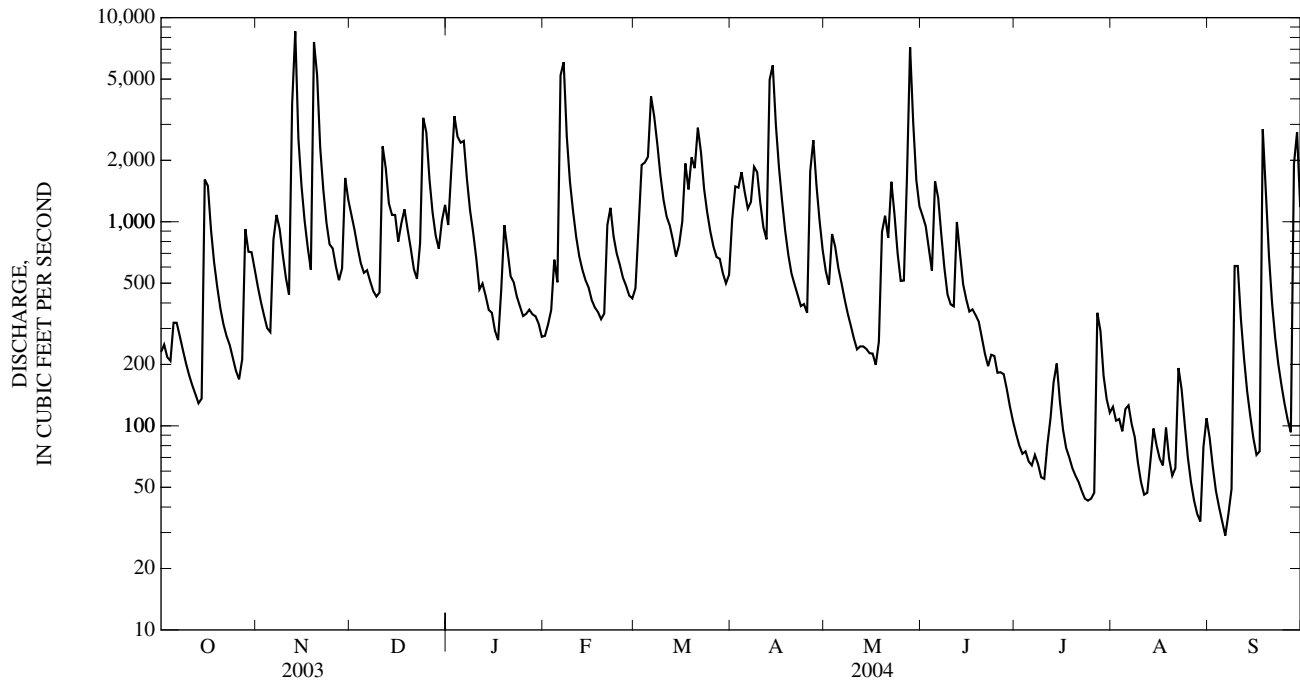
03194700 ELK RIVER BELOW WEBSTER SPRINGS, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	347,928		305,518		697	
ANNUAL MEAN	953		835		415	
HIGHEST ANNUAL MEAN					997	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	8,570	Nov 13	8,570	Nov 13	15,200	Apr 26, 1989
LOWEST DAILY MEAN	82	Jul 28	29	Sep 6	4.9	Sep 12, 1995
ANNUAL SEVEN-DAY MINIMUM	112	Aug 1	43	Sep 2	5.2	Sep 9, 1995
MAXIMUM PEAK FLOW			23,000	Nov 19	(a)38,000	Nov 4, 1985
MAXIMUM PEAK STAGE			13.76	Nov 19	(b)17.20	Nov 4, 1985
INSTANTANEOUS LOW FLOW			27	Sep 6	4.8	(c)
ANNUAL RUNOFF (CFSM)	3.58		3.14		2.62	
ANNUAL RUNOFF (INCHES)	48.66		42.73		35.58	
10 PERCENT EXCEEDS	2,120		1,850		1,630	
50 PERCENT EXCEEDS	591		496		387	
90 PERCENT EXCEEDS	170		71		59	

a From rating curve extended above 24,000 ft³/s.

b From floodmarks.

c Sept. 11-13, 1995.



03197000 ELK RIVER AT QUEEN SHOALS, WV

LOCATION.--Lat 38°28'15", long 81°17'03", NAD 27, Kanawha County, Hydrologic Unit 05050007, on right bank 50 ft upstream from Queen Shoals Creek, 100 ft downstream from highway bridge at Queen Shoals, 4.0 mi upstream from Big Sandy Creek, and at mile 26.2. Records include flow of Queen Shoals Creek.

DRAINAGE AREA.--1,145 mi², includes that of Queen Shoals Creek.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October, November 1928, published in WSP 1305.

REVISED RECORDS.--WSP 783: Drainage area. WSP 1335: 1929-32, 1935(M), 1936, 1939, 1943(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 604.09 ft above NGVD 29. Prior to June 19, 1932, nonrecording gage. June 19, 1932, to Sept. 30, 1946, water-stage recorder, at bridge 100 ft upstream at same datum.

REMARKS.--Records good except those above 10,000 ft³/s, which are fair. Flow regulated since April 1959 by Sutton Lake.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 39,200 ft³/s, Nov. 19, gage height, 23.34 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	1,110	2,380	5,970	3,200	1,700	1,010	5,990	1,900	7,370	458	859	182
2	817	1,930	4,190	4,790	1,510	923	10,500	1,740	6,740	355	876	169
3	793	1,540	3,100	6,600	2,310	909	6,460	1,700	4,150	262	759	168
4	948	1,360	2,550	6,610	4,480	1,290	6,780	1,690	2,840	244	676	153
5	1,160	1,730	2,190	8,080	4,390	2,360	6,690	1,770	3,970	222	580	146
6	1,250	4,520	2,230	8,900	12,100	8,360	3,670	1,520	7,610	221	547	140
7	1,400	4,330	2,740	7,190	13,600	10,400	2,060	1,330	5,160	208	516	136
8	1,350	4,390	2,550	5,990	10,700	8,270	1,560	1,120	2,910	203	474	253
9	1,250	3,910	2,220	4,460	8,650	7,370	1,370	910	2,010	205	444	2,120
10	1,140	3,160	2,030	3,430	7,130	5,250	1,810	842	1,490	214	367	1,670
11	915	2,240	2,550	2,430	5,910	3,570	2,360	703	1,490	314	299	740
12	647	7,190	4,420	1,820	4,900	2,890	2,150	762	2,520	679	249	518
13	592	23,100	4,520	1,540	4,290	2,420	10,400	773	2,100	387	264	526
14	438	9,510	4,500	1,570	3,040	2,210	14,900	955	1,870	302	272	507
15	889	8,870	6,270	1,530	2,570	1,810	10,600	1,410	1,340	396	255	436
16	2,330	7,110	5,710	1,460	1,960	1,900	9,670	1,370	1,380	557	227	373
17	3,360	5,470	4,680	1,370	1,440	2,460	7,880	1,170	2,150	369	214	554
18	3,380	5,290	4,210	1,600	1,380	3,420	6,600	619	1,570	262	204	11,500
19	2,730	18,200	4,160	2,820	1,280	3,770	4,860	798	998	248	371	5,780
20	1,930	19,900	3,920	2,780	1,170	4,290	3,190	1,910	831	221	234	1,860
21	1,540	8,310	2,950	3,070	1,130	5,420	2,460	2,540	710	208	270	950
22	1,350	9,020	2,380	2,910	1,150	7,160	2,030	2,320	652	283	388	1,420
23	1,000	7,990	2,630	2,430	1,620	5,410	1,650	3,120	708	694	344	2,880
24	1,020	6,780	4,070	1,970	1,700	3,370	1,480	2,380	814	322	290	2,550
25	952	6,110	6,320	1,570	1,690	2,560	1,350	1,550	1,170	669	245	1,850
26	744	5,310	5,410	1,390	1,430	2,680	1,650	1,440	1,090	380	269	826
27	829	4,160	4,730	1,720	1,020	2,300	4,300	3,680	633	604	252	629
28	2,260	4,330	4,250	2,670	1,060	1,920	5,300	13,300	549	2,670	241	622
29	2,680	6,310	3,760	2,660	1,040	1,890	3,320	11,400	510	2,130	234	1,210
30	2,730	6,540	3,730	2,470	---	1,840	2,180	9,320	482	1,580	208	3,690
31	2,510	---	3,480	2,040	---	1,950	---	8,110	---	1,030	238	---
TOTAL	46,044	200,990	118,420	103,070	106,350	111,382	145,220	84,152	67,817	16,897	11,666	44,558
MEAN	1,485	6,700	3,820	3,325	3,667	3,593	4,841	2,715	2,261	545	376	1,485
MAX	3,380	23,100	6,320	8,900	13,600	10,400	14,900	13,300	7,610	2,670	876	11,500
MIN	438	1,360	2,030	1,370	1,020	909	1,350	619	482	203	204	136

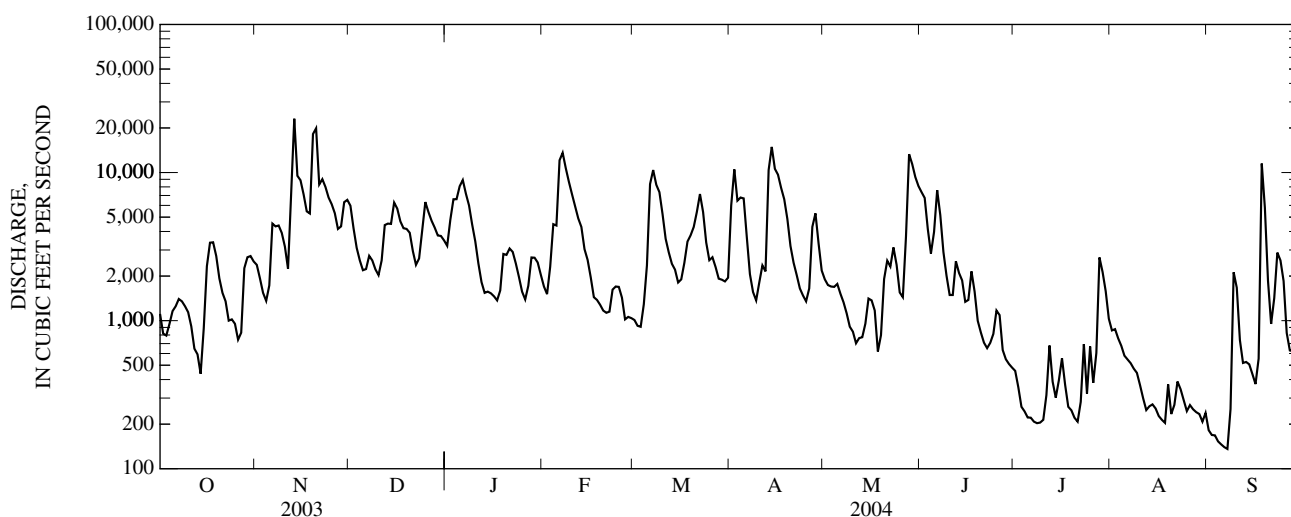
03197000 ELK RIVER AT QUEEN SHOALS, WV—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	1,004	2,068	2,826	2,998	3,546	4,148	2,850	2,626	1,399	886	921	694
MAX	5,017	6,700	7,402	6,743	7,296	9,051	5,649	6,601	4,745	2,735	3,487	3,072
(WY)	(1977)	(2004)	(1973)	(1994)	(1994)	(1967)	(1987)	(1989)	(1981)	(1992)	(1972)	(1971)
MIN	142	352	244	594	955	1,633	562	409	132	120	83.7	111
(WY)	(1959)	(2002)	(1966)	(1977)	(2002)	(1987)	(1963)	(1964)	(1965)	(1964)	(1965)	(1959)
SUMMARY STATISTICS			FOR 2003 CALENDAR YEAR				FOR 2004 WATER YEAR			WATER YEARS 1959 - 2004		
ANNUAL TOTAL			1,185,244				1,056,566					
ANNUAL MEAN			3,247				2,887			2,158		
HIGHEST ANNUAL MEAN										3,249		
LOWEST ANNUAL MEAN										1,063		
HIGHEST DAILY MEAN			27,000				Feb 17		23,100		Nov 13	
LOWEST DAILY MEAN			265				Aug 28		136		Sep 7	
ANNUAL SEVEN-DAY MINIMUM			362				Aug 25		156		Sep 1	
MAXIMUM PEAK FLOW									39,200		Nov 19	
MAXIMUM PEAK STAGE									23.34		Nov 19	
INSTANTANEOUS LOW FLOW									135		Sep 7	
10 PERCENT EXCEEDS			6,510						6,880		5,620	
50 PERCENT EXCEEDS			2,460						1,860		1,140	
90 PERCENT EXCEEDS			587						280		225	

a From rating curve extended above 40,000 ft³/s.

b Not determined



STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1958, BY WATER YEAR (WY) [UNREGULATED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	557	1,093	2,233	3,130	3,578	4,210	2,995	2,149	1,061	1,279	980	408
MAX	3,510	3,488	5,245	6,482	7,715	7,339	5,307	4,352	3,111	6,268	4,453	2,398
(WY)	(1938)	(1930)	(1943)	(1937)	(1939)	(1936)	(1958)	(1958)	(1940)	(1932)	(1958)	(1950)
MIN	3.46	7.50	204	402	759	2,154	799	384	113	17.1	13.1	7.21
(WY)	(1931)	(1931)	(1931)	(1940)	(1934)	(1937)	(1942)	(1930)	(1936)	(1930)	(1930)	(1930)

SUMMARY STATISTICS

WATER YEARS 1929 - 1958

ANNUAL MEAN	1,967	
HIGHEST ANNUAL MEAN	2,821	1950
LOWEST ANNUAL MEAN	1,214	1941
HIGHEST DAILY MEAN	58,100	Jul 5, 1932
LOWEST DAILY MEAN	.30	(*)
ANNUAL SEVEN-DAY MINIMUM	.86	Oct 30, 1953
INSTANTANEOUS PEAK FLOW	(#)72,000	Jul 5, 1932
INSTANTANEOUS PEAK STAGE	29.20	Jul 5, 1932
INSTANTANEOUS LOW FLOW	.30	(&)
10 PERCENT EXCEEDS	4,650	
50 PERCENT EXCEEDS	955	
90 PERCENT EXCEEDS	90	

* Nov. 3, 4, 1953.

From rating curve extended above 40,000 ft³/s.

& Nov. 4, 5, 1953.

03197000 ELK RIVER AT QUEEN SHOALS, WV—Continued

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supercede figures published in the reports from 1981-2003.

Date	Discharge (ft ³ /s)	Gage height (ft)	Date	Discharge (ft ³ /s)	Gage height (ft)
05-29-81	12,400	11.69	03-05-93	13,900	12.53
01-23-82	9,340	10.18	05-08-94	29,800	19.85
04-25-83	16,000	13.61	05-19-95	17,100	14.21
03-29-84	17,700	14.50	07-31-96	29,300	19.64
05-24-85	15,500	13.35	03-02-97	45,100	25.36
11-29-85	21,700	16.40	06-29-98	15,400	13.30
01-20-87	14,100	12.63	01-24-99	9,650	10.34
05-07-88	8,360	9.71	02-19-00	21,900	16.47
03-07-89	20,100	15.67	05-19-01	20,600	15.90
06-10-90	20,800	15.99	04-28-02	22,300	16.68
12-31-90	17,800	14.55	02-17-03	33,000	21.09
12-03-91	33,400	21.22			

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03197910 UNNAMED TRIBUTARY TO ELK TWOMILE CREEK NEAR CHARLESTON, WV
(Detention Reservoir)

LOCATION.-- Lat 38°21'39.2", long 81°30'46.3", NAD 83, Kanawha County, Hydrologic Unit 05050007.

DAM NAME.-- Elk Twomile #14.

SURFACE AREA.--3.4 acres.

DRAINAGE AREA.-- 0.65 mi².

PERIOD OF RECORD.--May 2004 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 831.67 ft above NGVD 29.

REMARKS.-- Normal Pool = 40.13 ft (Normal Storage=39.8 acre-ft)

Top of Riser = 50.00 ft

Emergency Spillway = 57.73 ft

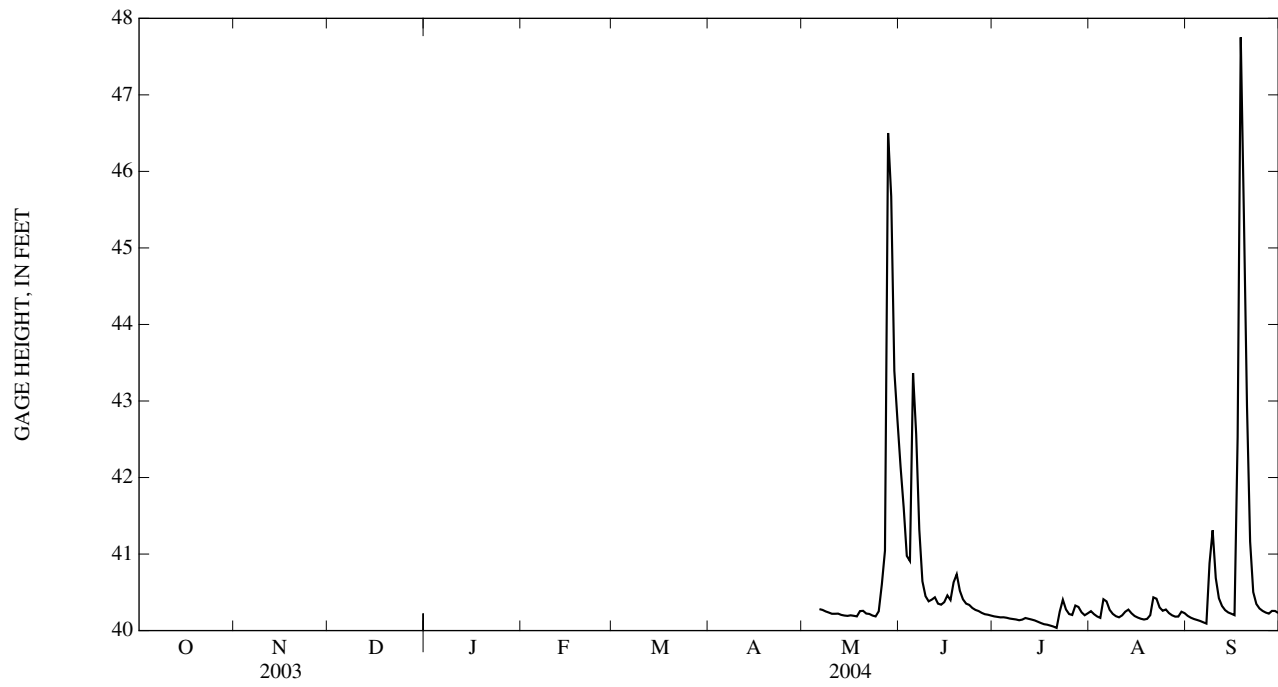
Top of Dam = 66.03 ft

EXTREMES FOR MAY 2004 TO SEPTEMBER 2004.--Maximum gage height, 48.26 ft, Sept. 18; minimum gage height, 40.02 ft, July 22.

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	---	---	---	---	---	---	---	---	42.14	40.19	40.25	40.19
2	---	---	---	---	---	---	---	---	41.61	40.18	40.21	40.17
3	---	---	---	---	---	---	---	---	40.98	40.17	40.18	40.15
4	---	---	---	---	---	---	---	---	40.91	40.17	40.17	40.14
5	---	---	---	---	---	---	---	---	43.37	40.17	40.41	40.13
6	---	---	---	---	---	---	---	40.28	42.57	40.16	40.38	40.11
7	---	---	---	---	---	---	---	40.27	41.32	40.15	40.27	40.09
8	---	---	---	---	---	---	---	40.25	40.64	40.15	40.22	40.88
9	---	---	---	---	---	---	---	40.24	40.45	40.14	40.19	41.31
10	---	---	---	---	---	---	---	40.22	40.38	40.14	40.17	40.69
11	---	---	---	---	---	---	---	40.22	40.40	40.16	40.20	40.42
12	---	---	---	---	---	---	---	40.22	40.43	40.15	40.25	40.32
13	---	---	---	---	---	---	---	40.21	40.35	40.14	40.27	40.27
14	---	---	---	---	---	---	---	40.20	40.34	40.13	40.23	40.24
15	---	---	---	---	---	---	---	40.19	40.37	40.12	40.19	40.22
16	---	---	---	---	---	---	---	40.20	40.46	40.10	40.17	40.20
17	---	---	---	---	---	---	---	40.19	40.40	40.08	40.15	42.53
18	---	---	---	---	---	---	---	40.19	40.63	40.08	40.14	47.75
19	---	---	---	---	---	---	---	40.25	40.74	40.07	40.15	45.44
20	---	---	---	---	---	---	---	40.26	40.52	40.05	40.20	42.93
21	---	---	---	---	---	---	---	40.22	40.41	40.04	40.43	41.16
22	---	---	---	---	---	---	---	40.22	40.35	40.25	40.42	40.50
23	---	---	---	---	---	---	---	40.20	40.34	40.40	40.30	40.35
24	---	---	---	---	---	---	---	40.19	40.30	40.28	40.26	40.29
25	---	---	---	---	---	---	---	40.25	40.27	40.22	40.28	40.26
26	---	---	---	---	---	---	---	40.61	40.26	40.20	40.23	40.24
27	---	---	---	---	---	---	---	41.04	40.23	40.33	40.20	40.22
28	---	---	---	---	---	---	---	46.50	40.21	40.31	40.18	40.26
29	---	---	---	---	---	---	---	45.67	40.21	40.24	40.18	40.26
30	---	---	---	---	---	---	---	43.39	40.20	40.20	40.25	40.23
31	---	---	---	---	---	---	---	42.75	---	40.23	40.23	---
MEAN	---	---	---	---	---	---	---	---	40.73	40.17	40.24	40.93
MAX	---	---	---	---	---	---	---	---	43.37	40.40	40.43	47.75
MIN	---	---	---	---	---	---	---	---	40.20	40.04	40.14	40.09

03197910 UNNAMED TRIBUTARY TO ELK TWOMILE CREEK NEAR CHARLESTON, WV—Continued



03198000 KANAWHA RIVER AT CHARLESTON, WV

LOCATION.--Lat 38°22'17", long 81°42'08", NAD 27, Kanawha County, Hydrologic Unit 05050008, on left bank at old lock 6, 1.0 mi upstream from Davis Creek, 1.5 mi downstream from Twomile Creek, 2.0 mi downstream from Patrick Street Bridge at Charleston, 3.5 mi downstream from Elk River, and at mile 54.5.

DRAINAGE AREA.--10,448 mi².

PERIOD OF RECORD.--June 1939 to current year. Monthly discharge only September 1939 to February 1940, published in WSP 1305.

REVISED RECORDS.--WSP 1335: 1943.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 548.00 ft above mean sea level (levels by U.S. Army Corps of Engineers). Auxiliary water-stage recorder 2.3 mi upstream from base gage at datum 547.00 ft, U.S. Army Corps of Engineers datum. Prior to Oct. 1, 1955, auxiliary gages at different sites and datum.

REMARKS.--Records good above 30,000 ft³/s, fair 10,000 to 30,000 ft³/s, and poor less than 10,000 ft³/s. The rating lacks sensitivity at flows less than 10,000 ft³/s, and records for flows less than 10,000 ft³/s are estimated based on stations 03193000 Kanawha River at Kanawha Falls, 03197000 Elk River at Queen Shoals, and 03200500 Coal River at Tornado. Flow regulated since 1939 by increasing number of reservoirs upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1861, reached a stage of about 54.3 ft.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 156,000 ft³/s, Nov. 20, gage height, 37.65 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	11,300	14,300	33,300	25,800	10,100	12,700	33,000	18,600	62,400	e7,700	e7,110	e3,210
2	13,000	11,300	28,000	32,400	10,300	14,900	54,900	18,200	45,400	e6,640	e7,100	e2,840
3	e9,920	e11,600	28,000	49,600	14,500	17,500	39,700	17,500	29,000	e6,170	e8,190	e2,840
4	e9,340	10,300	21,300	54,200	18,200	22,500	35,400	18,100	21,600	e6,380	10,600	e3,010
5	e9,660	15,400	20,500	51,600	23,400	26,700	28,700	19,400	40,600	e6,620	e8,910	e3,050
6	e9,570	19,100	23,400	53,800	53,200	49,100	22,700	16,800	64,300	e7,430	e8,640	e3,190
7	e9,110	31,000	25,800	50,900	89,100	55,900	21,000	14,100	45,400	e6,930	e9,150	e2,760
8	e8,520	34,000	20,000	37,100	88,300	49,700	17,000	12,800	27,600	e5,920	e7,200	e6,070
9	e8,270	28,000	18,100	32,900	66,400	39,800	16,800	e11,700	18,400	e5,270	e6,350	30,400
10	e7,820	22,400	14,800	27,800	51,500	32,400	16,000	e10,600	19,000	e5,050	e5,220	45,900
11	e6,880	17,200	22,500	19,300	37,200	27,200	15,100	e9,440	18,300	e5,630	e4,310	37,500
12	e7,390	38,000	47,100	17,000	31,000	21,900	15,400	e9,630	18,800	e5,780	e4,100	18,700
13	e7,500	101,000	48,100	15,800	28,500	19,900	40,600	10,700	16,400	e5,640	e4,780	e12,200
14	e6,670	82,800	37,300	18,100	23,300	19,300	109,000	e9,870	17,700	e5,530	e6,380	e9,950
15	12,700	53,500	32,400	17,500	23,800	12,600	104,000	10,300	16,600	e5,120	e5,090	e9,250
16	13,100	38,800	27,100	13,300	18,900	15,600	78,400	e9,850	20,200	e4,730	e4,440	11,300
17	14,500	30,300	30,100	15,000	17,700	24,300	59,300	e9,700	19,700	e4,580	e4,090	22,000
18	15,000	25,900	31,800	18,500	20,100	32,800	38,400	e9,020	19,200	e4,330	e4,170	44,900
19	14,800	66,400	34,900	20,000	18,800	31,000	29,400	10,300	15,100	e4,100	e3,830	35,500
20	e10,800	137,000	31,300	24,800	16,000	30,600	23,800	16,200	12,300	e4,030	e3,330	17,000
21	e8,660	107,000	25,200	21,100	19,200	34,000	19,400	16,600	e11,300	e4,830	e3,760	14,100
22	10,400	95,900	21,900	19,100	23,500	31,300	20,000	14,900	e9,810	e5,850	e4,240	47,100
23	e8,350	78,200	19,900	17,100	26,800	29,200	16,000	15,900	e9,340	13,900	e4,170	45,400
24	e8,080	65,300	27,400	18,000	26,600	27,800	15,100	13,200	10,100	e8,090	e3,980	36,400
25	e7,610	57,000	42,600	15,300	24,000	21,400	15,100	11,600	e10,300	e7,490	e3,750	12,100
26	e7,130	47,200	46,100	10,600	21,000	19,700	17,200	10,600	11,700	e6,210	e3,670	e9,770
27	e7,330	30,300	37,900	12,600	20,400	17,700	42,700	23,500	12,200	15,600	e3,460	e9,740
28	11,700	30,100	32,300	16,000	16,900	15,700	51,100	64,200	13,700	16,200	e3,220	10,700
29	16,600	35,000	26,700	16,100	14,500	12,700	34,500	62,800	e11,100	e13,400	e2,930	47,300
30	20,600	33,100	24,100	14,900	---	12,700	24,200	53,300	e8,820	e9,840	e2,990	70,300
31	16,900	---	26,200	13,300	---	15,900	---	49,600	---	e7,650	e3,860	---
TOTAL	329,210	1,367,400	906,100	769,500	853,200	794,500	1,053,900	599,010	656,370	222,640	163,020	624,480
MEAN	10,620	45,580	29,230	24,820	29,420	25,630	35,130	19,320	21,880	7,182	5,259	20,820
MAX	20,600	137,000	48,100	54,200	89,100	55,900	109,000	64,200	64,300	16,200	10,600	70,300
MIN	6,670	10,300	14,800	10,600	10,100	12,600	15,100	9,020	8,820	4,030	2,930	2,760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

MEAN	6.887	11,450	16,750	20,770	25,470	29,960	22,550	18,280	11,040	7,690	6,884	5,758
MAX	30,780	45,580	40,920	46,440	52,020	62,900	59,000	38,550	33,350	19,030	19,030	20,820
(WY)	(1977)	(2004)	(1973)	(1996)	(1994)	(1963)	(1987)	(1989)	(2003)	(2001)	(1958)	(2004)
MIN	1,465	1,703	2,461	4,226	7,122	10,680	6,553	4,894	2,745	2,394	2,080	1,553
(WY)	(1954)	(1954)	(1966)	(1966)	(2002)	(1988)	(1986)	(1941)	(1999)	(1966)	(1944)	(1953)

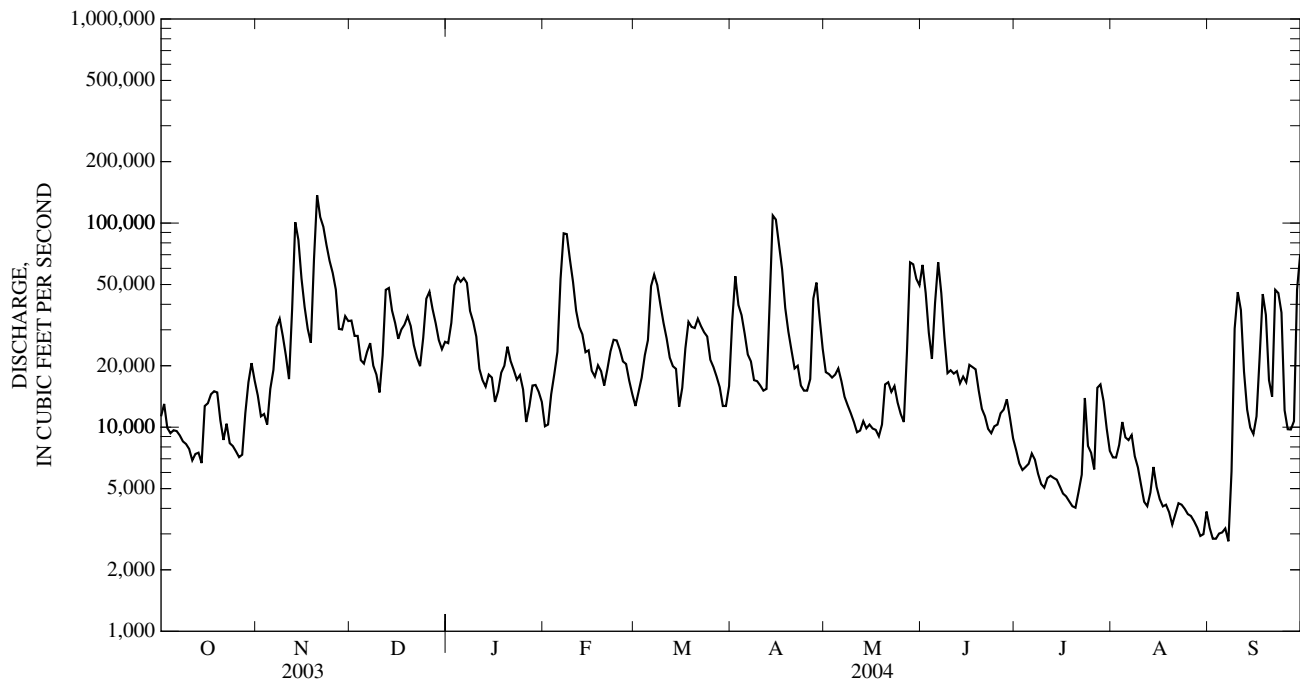
03198000 KANAWHA RIVER AT CHARLESTON, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	9,058,470		8,339,330		15,240	
ANNUAL MEAN	24,820		22,790		22,790	
HIGHEST ANNUAL MEAN					8,649	
LOWEST ANNUAL MEAN					160,000	
HIGHEST DAILY MEAN	137,000	Nov 20	137,000	Nov 20	1,100	Mar 7, 1967
LOWEST DAILY MEAN	(e)5,220	Jan 28	(e)2,760	Sep 7	1,250	Jul 30, 1966
ANNUAL SEVEN-DAY MINIMUM	6,540	Jan 22	2,990	Sep 1	216,000	Sep 26, 1953
MAXIMUM PEAK FLOW			156,000	Nov 20	39.72	Aug 15, 1940
MAXIMUM PEAK STAGE			37.65	Nov 20	1,030	Mar 7, 1955
INSTANTANEOUS LOW FLOW			(a)	(a)	(b)	
10 PERCENT EXCEEDS	48,100		48,400		33,800	
50 PERCENT EXCEEDS	19,200		17,000		9,540	
90 PERCENT EXCEEDS	8,280		5,260		3,100	

a Not determined.

b Minimum discharge less than 1,030 ft³/s during Oct. 1-5, 1953.

e Estimated.



03198350 CLEAR FORK AT WHITESVILLE, WV

LOCATION.--Lat 37°57'58", long 81°31'28", NAD 27, Raleigh County, Hydrologic Unit 05050004, at Leevale, on left bank, at Secondary Route 1-21 highway bridge, 0.7 mi southeast of Whitesville, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--62.8 mi².

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 818.98 ft above NGVD 29. Prior to July 24, 2002, gage 250 ft upstream at same datum.

REMARKS.--Records good except those for May to July, which are fair, and for periods of estimated discharges (ice effect, no gage-height record), which are poor.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	2230	2,700	18.35	Apr 13	1600	1,760	(a)16.45
Nov 19	1230	*5,370	*21.96	May 31	0900	2,440	17.89
Feb 6	1630	1,960	16.92	Sep 17	2100	1,370	15.56
Apr 2	0400	1,270	15.33				

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	36	45	162	132	e46	52	611	87	481	23	e32	8.9
2	32	41	141	395	e43	52	1,000	91	244	21	e29	8.6
3	28	37	125	449	152	50	580	89	162	26	e45	8.5
4	30	34	117	273	200	50	401	76	179	26	42	8.3
5	29	38	120	301	198	49	299	70	204	25	37	8.0
6	26	121	142	346	1,310	317	239	62	166	20	35	7.6
7	24	224	145	251	924	279	211	55	125	18	27	7.6
8	23	141	134	195	388	212	186	50	93	19	22	142
9	22	98	121	171	256	173	165	44	93	15	19	165
10	19	77	119	142	212	143	151	40	76	15	17	92
11	17	68	170	121	183	124	139	39	72	31	15	49
12	17	763	174	114	161	112	e165	58	74	27	24	32
13	16	1,050	156	109	148	98	e1,020	52	105	20	35	29
14	51	297	157	102	136	90	941	48	69	14	25	36
15	185	184	144	102	125	85	516	41	67	13	20	32
16	94	135	138	90	112	132	324	46	302	12	23	24
17	63	106	196	86	101	182	244	42	143	12	18	413
18	49	90	224	153	94	166	204	41	96	13	16	686
19	40	2,460	190	245	88	191	176	82	79	10	14	207
20	35	981	157	192	86	185	159	130	65	10	13	115
21	31	368	131	154	85	187	145	102	54	14	14	76
22	28	238	125	132	78	167	129	71	48	50	15	56
23	26	183	157	110	72	146	121	42	53	91	12	43
24	24	166	276	100	71	131	110	44	48	62	11	36
25	22	153	302	89	67	117	100	78	44	35	11	31
26	22	138	222	84	63	107	150	158	70	38	10	28
27	44	124	181	84	60	99	167	382	55	85	9.8	25
28	58	144	155	76	56	92	134	737	47	79	9.6	86
29	59	188	142	68	53	86	105	474	41	45	13	111
30	54	179	159	65	---	84	90	321	31	31	10	71
31	50	---	140	49	---	157	---	1,430	---	e26	9.8	---
TOTAL	1,254	8,871	5,022	4,980	5,568	4,115	8,982	5,082	3,386	926	633.2	2,642.5
MEAN	40.5	296	162	161	192	133	299	164	113	29.9	20.4	88.1
MAX	185	2,460	302	449	1,310	317	1,020	1,430	481	91	45	686
MIN	16	34	117	49	43	49	90	39	31	10	9.6	7.6
CFSM	0.64	4.71	2.58	2.56	3.06	2.11	4.77	2.61	1.80	0.48	0.33	1.40
IN.	0.74	5.25	2.97	2.95	3.30	2.44	5.32	3.01	2.01	0.55	0.38	1.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

	20.9	71.7	70.6	92.8	152	142	156	120	97.0	68.6	34.3	35.6
MAX	40.5	296	162	161	334	221	299	200	242	288	79.0	91.5
(WY)	(2004)	(2004)	(2004)	(2004)	(2003)	(1997)	(2004)	(2001)	(2003)	(2001)	(2001)	(2003)
MIN	7.30	8.10	18.1	27.2	36.1	76.2	55.0	30.1	8.53	6.88	7.76	4.42
(WY)	(1999)	(2002)	(2002)	(2000)	(2002)	(2000)	(1999)	(1999)	(1999)	(1999)	(1999)	(1999)

03198350 CLEAR FORK AT WHITESVILLE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	54,615		51,461.7		87.9	
ANNUAL MEAN	150		141		141	
HIGHEST ANNUAL MEAN					47.9	
LOWEST ANNUAL MEAN					2,760	
HIGHEST DAILY MEAN	2,460	Nov 19	2,460	Nov 19	2,760	Jul 8, 2001
LOWEST DAILY MEAN	16	Oct 13	7.6	(b)	2.5	(c)
ANNUAL SEVEN-DAY MINIMUM	20	Oct 7	8.2	Sep 1	2.8	Sep 21, 1999
MAXIMUM PEAK FLOW			5,370	Nov 19	(d)12,000	Jul 8, 2001
MAXIMUM PEAK STAGE			21.96	Nov 19	(f)28.47	Jul 8, 2001
INSTANTANEOUS LOW FLOW			7.2	(b)	2.1	Sep 27, 1999
ANNUAL RUNOFF (CFSM)	2.38		2.24		1.40	
ANNUAL RUNOFF (INCHES)	32.35		30.48		19.03	
10 PERCENT EXCEEDS	277		261		190	
50 PERCENT EXCEEDS	89		86		48	
90 PERCENT EXCEEDS	31		18		8.4	

a Estimated from (-0.91 ft) correction applied to crest-stage gage located 250 ft upstream.

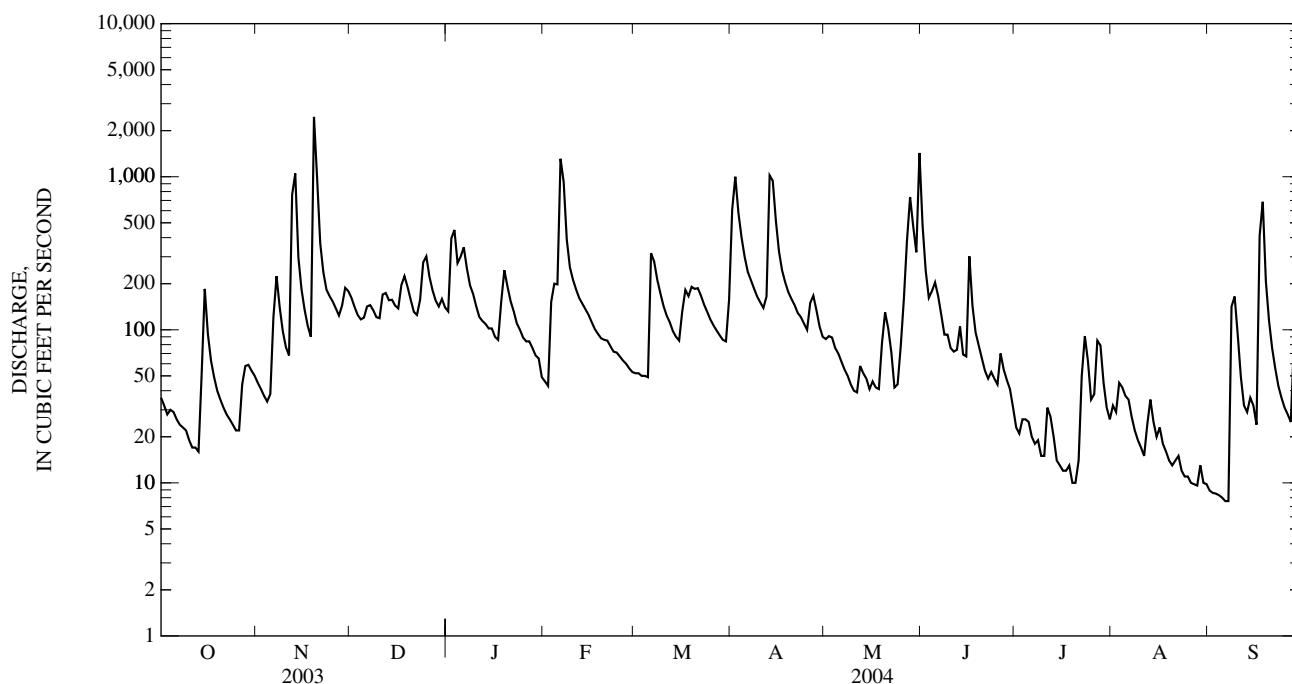
b Sept. 6, 7.

c Sept. 26, 27, 1999.

d From rating curve extended above 3,300 ft³/s based on slope-area measurement of flow made July 10, 2001.

e Estimated.

f From floodmarks.



03198500 BIG COAL RIVER AT ASHFORD, WV

LOCATION.--Lat 38°10'47", long 81°42'42", NAD 27, Boone County, Hydrologic Unit 05050009, on left bank at downstream side of highway bridge at Ashford, 300 ft upstream from Lick Creek, 1.0 mi downstream from Brush Creek, 1.8 mi upstream from Bull Creek, and at mile 30.2 upstream from Kanawha River.

DRAINAGE AREA.--391 mi².

PERIOD OF RECORD.--June 1908 to September 1916, May 1930 to current year. Published as Coal River at Brushton, June 1908 to September 1916 and as Coal River at Ashford, May 1930 to September 1960.

REVISED RECORDS.--WSP 1305: 1913-14(M). WSP 1335: 1912, 1916(M). WDR WV-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 622.46 ft above NGVD 29. Prior to Aug. 9, 1916, nonrecording gage at site 1.0 mi upstream at different datum. May 7, 1930, to Feb. 10, 1939, nonrecording gage at present site and datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	0400	13,300	17.97	Apr 13	2400	9,160	14.30
Nov 19	2400	*24,900	*25.95	May 31	1730	13,400	18.09
Feb 6	2400	9,780	14.98	Sep 18	0300	5,570	10.13
Apr 2	0700	6,590	11.35				

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	231	267	1,110	753	388	293	2,500	506	4,870	293	270	111
2	225	254	934	1,700	417	290	5,660	514	1,920	256	226	97
3	204	243	812	3,060	573	280	3,650	523	1,280	286	345	88
4	200	224	736	1,970	1,110	283	2,500	456	1,290	270	262	81
5	201	272	738	1,910	1,040	275	1,750	400	1,820	258	223	80
6	187	486	871	2,590	5,390	1,830	1,280	366	1,340	222	238	80
7	170	1,830	944	1,900	6,840	2,240	1,060	338	992	219	241	78
8	159	1,130	899	1,380	2,830	1,510	912	313	748	196	188	695
9	150	741	802	1,130	1,780	1,100	788	293	937	180	165	1,510
10	145	571	742	920	1,350	879	682	267	791	173	140	822
11	139	466	926	764	1,100	731	613	243	631	203	129	454
12	137	2,880	1,020	702	948	643	616	237	576	193	138	310
13	133	8,690	937	667	839	569	3,360	228	526	182	197	245
14	136	2,410	1,010	625	762	515	7,180	267	522	159	213	229
15	707	1,410	1,100	613	704	486	3,430	261	434	144	164	223
16	640	1,030	1,020	564	640	516	2,040	277	1,620	133	135	192
17	413	835	1,100	519	579	972	1,470	258	1,190	132	137	1,830
18	322	702	1,370	673	525	899	1,130	215	722	151	131	4,280
19	273	9,680	1,260	1,390	489	914	925	341	585	152	115	1,880
20	243	12,600	1,030	1,250	469	886	802	555	490	136	107	1,000
21	216	2,840	859	968	461	955	729	354	412	122	151	611
22	200	1,780	784	812	444	924	647	278	359	189	155	429
23	186	1,290	863	693	409	827	594	237	472	536	139	321
24	174	1,080	1,410	616	388	730	569	227	833	369	122	257
25	164	993	1,850	562	379	652	515	246	585	278	144	219
26	164	859	1,420	537	352	585	580	422	1,300	305	102	196
27	210	772	1,100	535	331	548	818	1,480	943	589	91	178
28	320	869	924	529	314	521	758	3,060	614	627	88	180
29	326	1,330	811	474	302	478	638	1,950	443	420	129	1,350
30	316	1,280	831	469	---	449	558	1,080	350	292	156	697
31	288	---	810	395	---	561	---	7,130	---	259	144	---
TOTAL	7,579	59,814	31,023	31,670	32,153	23,341	48,754	23,322	29,595	7,924	5,185	18,723
MEAN	244	1,994	1,001	1,022	1,109	753	1,625	752	986	256	167	624
MAX	707	12,600	1,850	3,060	6,840	2,240	7,180	7,130	4,870	627	345	4,280
MIN	133	224	736	395	302	275	515	215	350	122	88	78
CFSM	0.63	5.10	2.56	2.61	2.84	1.93	4.16	1.92	2.52	0.65	0.43	1.60
IN.	0.72	5.69	2.95	3.01	3.06	2.22	4.64	2.22	2.82	0.75	0.49	1.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2004, BY WATER YEAR (WY)

MEAN	123	263	558	822	1,011	1,187	911	621	325	238	175	112
MAX	1,086	1,994	2,043	2,241	2,294	2,866	2,448	2,169	1,208	1,457	1,570	651
(WY)	(1990)	(2004)	(1943)	(1974)	(2003)	(1955)	(1987)	(1996)	(1981)	(2001)	(1916)	(2003)
MIN	1.11	5.94	16.7	29.4	142	366	173	89.2	19.6	6.41	11.9	1.13
(WY)	(1931)	(1931)	(1931)	(1940)	(1941)	(1988)	(1942)	(1941)	(1936)	(1930)	(1957)	(1930)

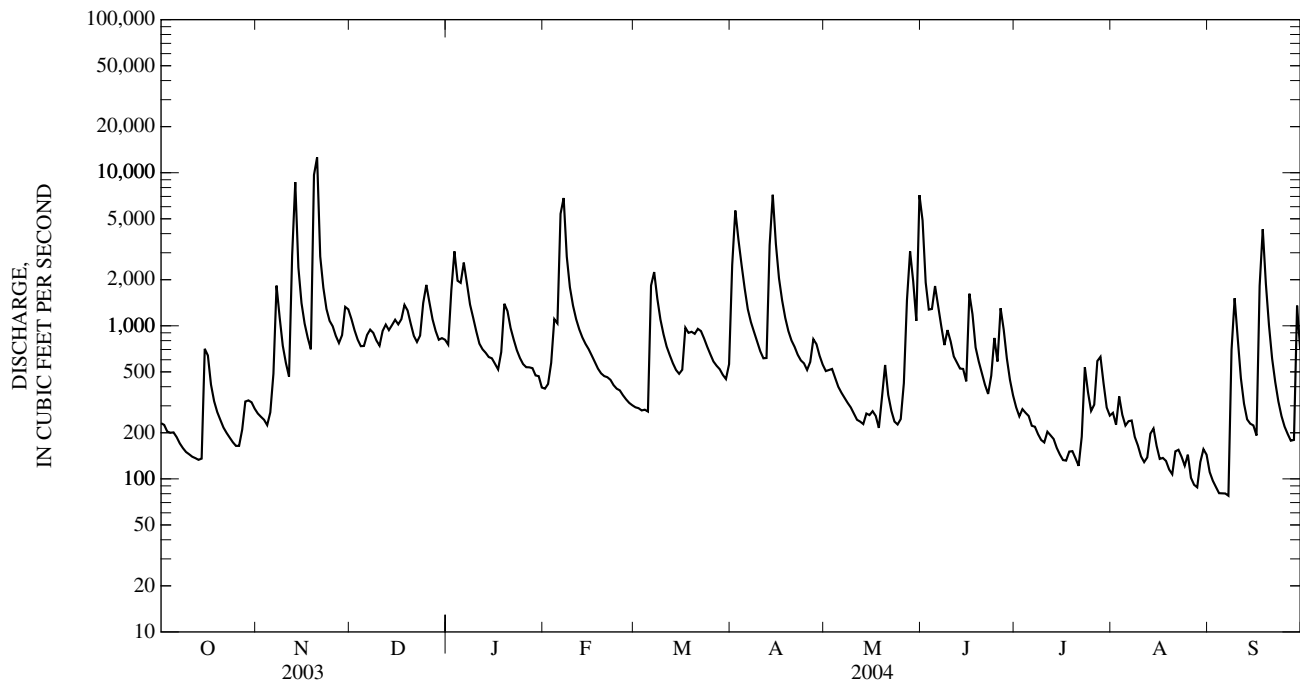
03198500 BIG COAL RIVER AT ASHFORD, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1908 - 2004	
ANNUAL TOTAL	337,362		319,083		528	
ANNUAL MEAN	924		872		872	
HIGHEST ANNUAL MEAN					206	
LOWEST ANNUAL MEAN					20,400	
HIGHEST DAILY MEAN	12,600	Nov 20	12,600	Nov 20	20,400	Mar 7, 1967
LOWEST DAILY MEAN	133	Oct 13	78	Sep 7	0.00	(a)
ANNUAL SEVEN-DAY MINIMUM	143	Oct 8	88	Sep 1	0.00	Oct 6, 1930
MAXIMUM PEAK FLOW			24,900	Nov 19	(b)35,800	Aug 9, 1916
MAXIMUM PEAK STAGE			25.95	Nov 19	(c)36.30	Aug 9, 1916
INSTANTANEOUS LOW FLOW			75	Sep 7	0.00	(a)
ANNUAL RUNOFF (CFSM)	2.36		2.23		1.35	
ANNUAL RUNOFF (INCHES)	32.10		30.36		18.34	
10 PERCENT EXCEEDS	1,750		1,780		1,250	
50 PERCENT EXCEEDS	583		542		231	
90 PERCENT EXCEEDS	196		152		30	

a Sept. 18-21, 24, Oct. 6-12, 1930.

b From rating curve extended above 25,000 ft³/s.

c Observed. From floodmark, site and datum then in use. This peak stage is 35.66 ft at present site and datum.



03200500 COAL RIVER AT TORNADO, WV

LOCATION.--Lat 38°20'20", long 81°50'30", NAD 27, Kanawha County, Hydrologic Unit 05050009, on downstream side of highway bridge at Tornado, 0.2 mi upstream from Falls Creek, and at mile 11.5.

DRAINAGE AREA.--862 mi², includes that of Falls Creek.

PERIOD OF RECORD.--June 1908 to September 1911, October 1911 to June 1912 (gage heights only), November 1928 to September 1931, August 1961 to current year.

REVISED RECORDS.--WDR WV-82-1: Drainage area. WDR WV-97-1: 1962-63(M), 1967(M), 1970(M).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 570.46 ft above NGVD 29. Aug. 1, 1961, to Jan. 9, 1973, nonrecording gage at same site and datum. Prior to Aug. 1, 1961, nonrecording gage at same site at different datum.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 13	1200	27,500	26.26	Apr 14	1000	18,000	20.68
Nov 20	0800	*32,500	*28.98	May 31	2400	20,400	22.20
Feb 7	0600	18,000	20.67				

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	585	572	2,460	1,670	990	651	3,720	1,080	12,900	629	607	275
2	607	526	2,070	3,780	1,120	649	12,300	1,070	4,220	557	528	225
3	517	489	1,790	6,540	1,580	635	8,910	1,130	2,710	564	520	210
4	484	460	1,610	4,310	2,130	644	5,370	976	2,720	635	573	192
5	502	1,380	1,590	4,240	2,190	655	3,790	884	6,740	554	499	188
6	464	1,900	1,820	5,340	8,690	5,140	2,790	831	3,940	485	541	193
7	428	3,140	1,970	4,050	15,600	5,290	2,290	793	2,600	435	520	182
8	394	2,590	1,890	2,990	6,790	3,320	1,990	752	1,880	441	417	1,250
9	382	1,770	1,710	2,470	3,930	2,420	1,750	722	1,710	405	345	3,210
10	360	1,370	1,620	2,070	3,010	1,930	1,510	692	1,620	409	316	1,930
11	344	1,150	2,010	1,710	2,470	1,610	1,350	679	1,300	467	293	1,040
12	333	7,860	2,120	1,540	2,120	1,410	1,370	542	1,210	414	292	701
13	316	24,000	2,000	1,470	1,890	1,240	4,730	502	1,260	392	427	525
14	323	7,740	2,330	1,380	1,690	1,120	16,600	510	1,170	360	422	459
15	771	3,350	2,690	1,340	1,550	1,050	9,240	519	984	318	339	436
16	1,190	2,430	2,440	1,240	1,390	1,060	4,570	517	2,040	307	296	371
17	797	1,930	2,490	1,140	1,270	1,490	3,250	565	2,030	289	273	2,490
18	646	1,610	2,650	1,480	1,160	1,550	2,520	479	1,260	312	281	8,740
19	541	11,000	2,610	2,560	1,090	1,680	2,080	621	1,060	319	260	3,290
20	481	27,200	2,260	2,560	1,050	1,660	1,790	942	974	298	244	1,690
21	438	8,420	1,900	2,070	1,010	1,940	1,620	684	851	282	326	1,100
22	402	4,020	1,740	1,780	969	1,840	1,440	557	735	399	400	833
23	376	2,900	1,840	1,550	901	1,670	1,300	480	857	916	312	655
24	358	2,370	2,600	1,380	853	1,500	1,250	454	1,200	720	281	556
25	328	2,190	3,660	1,270	846	1,360	1,130	454	1,030	498	262	490
26	341	1,880	3,030	1,270	786	1,230	1,210	754	1,630	644	260	438
27	538	1,690	2,420	1,290	735	1,140	1,490	2,030	1,680	1,710	219	415
28	702	1,840	2,040	1,270	689	1,090	1,420	7,670	1,150	1,320	203	426
29	705	3,020	1,790	1,140	674	1,020	1,240	3,900	901	894	227	1,130
30	674	2,900	1,810	1,120	---	962	1,130	2,180	718	625	328	947
31	605	---	1,800	998	---	1,170	---	8,600	---	501	363	---
TOTAL	15,932	133,697	66,760	69,018	69,173	50,126	105,150	42,569	65,080	17,099	11,174	34,587
MEAN	514	4,457	2,154	2,226	2,385	1,617	3,505	1,373	2,169	552	360	1,153
MAX	1,190	27,200	3,660	6,540	15,600	5,290	16,600	8,600	12,900	1,710	607	8,740
MIN	316	460	1,590	998	674	635	1,130	454	718	282	203	182
CFSM	0.60	5.17	2.50	2.58	2.77	1.88	4.07	1.59	2.52	0.64	0.42	1.34
IN.	0.69	5.77	2.88	2.98	2.99	2.16	4.54	1.84	2.81	0.74	0.48	1.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2004, BY WATER YEAR (WY)

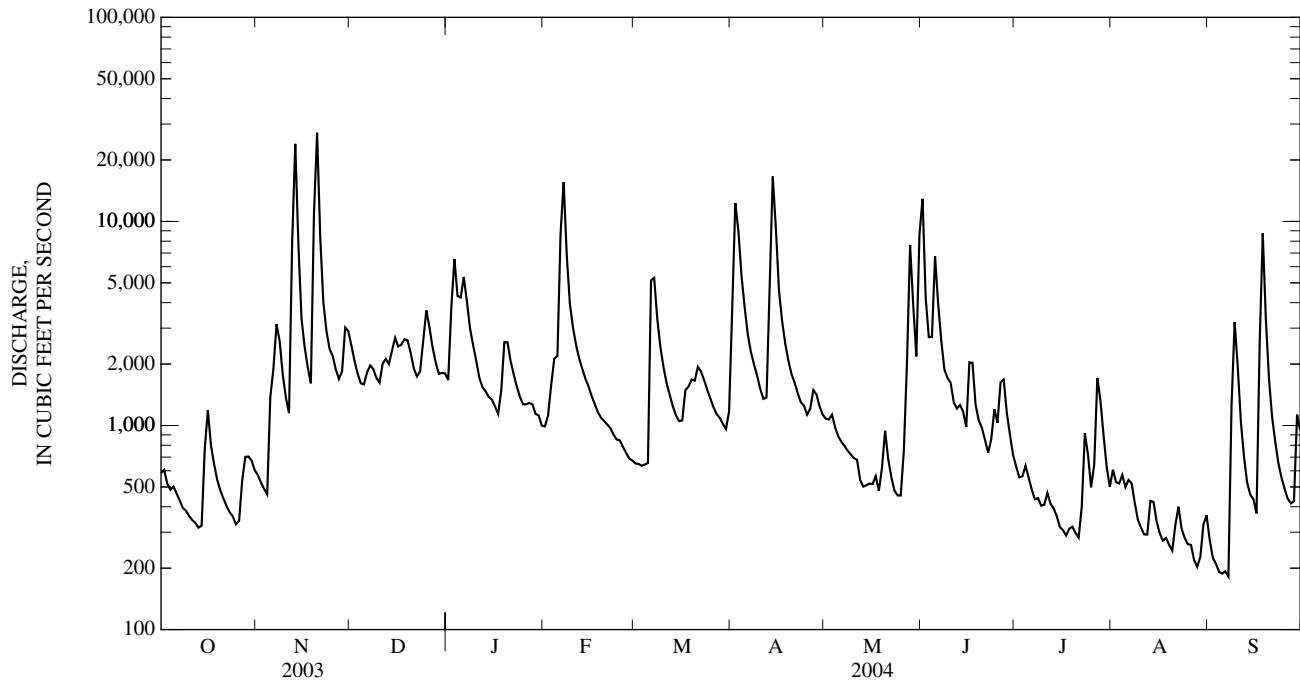
MEAN	357	821	1,313	1,706	2,194	2,451	2,022	1,594	880	577	438	328
MAX	1,832	4,457	3,723	4,433	5,296	5,634	4,812	5,122	2,840	2,248	1,394	1,484
(WY)	(1990)	(2004)	(1973)	(1979)	(2003)	(1963)	(1987)	(1996)	(2003)	(2001)	(1968)	(2003)
MIN	3.05	10.5	46.7	209	479	757	509	234	47.2	8.67	26.1	7.00
(WY)	(1931)	(1931)	(1931)	(1931)	(2002)	(1910)	(1986)	(1930)	(1930)	(1930)	(1930)	(1930)

03200500 COAL RIVER AT TORNADO, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1908 - 2004	
ANNUAL TOTAL	765,362		680,365		1,220	
ANNUAL MEAN	2,097		1,859		1,859	
HIGHEST ANNUAL MEAN					585	
LOWEST ANNUAL MEAN					32,000	
HIGHEST DAILY MEAN	27,200	Nov 20	27,200	Nov 20	32,000	Dec 31, 1969
LOWEST DAILY MEAN	316	Oct 13	182	Sep 7	(e)2.0	(a)
ANNUAL SEVEN-DAY MINIMUM	350	Oct 8	209	Sep 1	2.0	Oct 1, 1930
MAXIMUM PEAK FLOW			32,500	Nov 20	35,500	Mar 7, 1967
MAXIMUM PEAK STAGE			28.98	Nov 20	31.98	Mar 7, 1967
INSTANTANEOUS LOW FLOW			176	Sep 7	2.0	Oct 1, 1930
ANNUAL RUNOFF (CFSM)	2.43		2.16		1.42	
ANNUAL RUNOFF (INCHES)	33.03		29.36		19.23	
10 PERCENT EXCEEDS	3,610		3,680		2,730	
50 PERCENT EXCEEDS	1,340		1,140		650	
90 PERCENT EXCEEDS	462		340		114	

a Oct. 1-10, 1930.

e Estimated.



03201405 HURRICANE CREEK AT HURRICANE, WV

LOCATION.--Lat 38°26'43", long 82°00'25", NAD 27, Putnam County, Hydrologic Unit 05050008, on right bank at Interstate 64 bridge over Hurricane Creek and just upstream from the Hurricane Waste Water Treatment Plant chain-linked fence.

DRAINAGE AREA.--26.8 mi².

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft above NGVD 29.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 12	1900	2,290	15.43	Apr 13	1630	1,460	13.46
Nov 19	1130	*3,690	*18.01	May 28	0400	3,200	17.19
Jan 2	1100	973	11.78	Aug 21	0800	1,260	12.88
Jan 5	1130	975	11.79	Sep 8	1530	1,720	14.12
Feb 6	0800	1,080	12.24	Sep 17	1630	2,000	14.80
Mar 6	0630	1,630	13.90				

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	32	8.7	33	22	17	7.0	200	25	54	2.3	5.4	1.8
2	16	7.4	22	490	33	9.5	329	27	103	2.1	3.6	1.6
3	8.7	6.7	17	136	342	7.9	132	23	27	3.3	3.1	e1.4
4	8.4	5.7	16	73	122	13	67	14	102	4.8	2.3	e1.3
5	6.3	353	20	480	193	47	38	12	187	6.6	40	e1.1
6	5.0	155	30	140	729	838	27	9.9	50	2.6	11	e1.0
7	4.2	58	23	59	290	129	23	8.0	21	2.2	4.5	e0.90
8	3.4	28	19	39	97	57	19	6.9	12	2.0	2.9	e1,000
9	2.8	17	16	34	61	34	16	5.8	8.0	1.7	2.2	479
10	2.5	13	56	25	47	23	13	5.0	47	4.9	9.5	52
11	2.6	12	112	21	36	18	12	4.5	39	6.5	14	20
12	2.2	1,180	47	22	29	16	83	4.8	19	2.9	15	12
13	e2.0	404	31	23	25	13	678	4.1	13	1.9	12	8.8
14	e5.0	60	104	19	22	12	236	3.7	8.3	1.4	4.4	7.5
15	e24	34	107	19	19	12	101	15	7.2	1.3	2.6	6.7
16	e13	23	59	14	16	24	51	8.9	11	1.3	1.9	8.1
17	e8.0	18	188	14	15	20	e33	5.5	20	1.1	1.6	1,070
18	e6.0	17	96	117	14	19	e26	6.3	24	1.2	1.3	272
19	e4.5	1,660	72	89	13	37	19	13	11	1.1	1.3	44
20	3.0	246	51	40	13	32	19	16	7.0	1.0	1.3	18
21	3.3	86	39	28	13	119	17	6.0	4.8	0.97	403	11
22	3.8	43	42	23	11	43	31	18	7.3	89	32	7.4
23	3.5	27	59	21	9.6	28	33	6.1	11	138	9.4	5.9
24	3.4	31	120	17	11	21	52	4.2	5.3	54	5.7	5.1
25	3.4	25	77	29	9.3	18	27	6.3	3.9	11	4.4	4.6
26	5.3	19	43	95	7.9	e19	146	70	3.5	44	2.8	3.9
27	138	16	32	110	7.6	e20	60	85	3.1	120	2.3	3.6
28	37	101	26	57	7.0	16	30	1,270	2.7	25	2.2	3.9
29	29	115	22	37	6.9	e13	21	63	2.7	9.1	7.7	4.5
30	17	53	40	31	---	17	17	27	2.4	5.0	5.7	3.9
31	11	---	27	40	---	29	---	213	---	6.6	2.7	---
TOTAL	414.3	4,822.5	1,646	2,364	2,216.3	1,711.4	2,556	1,987.0	817.2	554.87	617.8	3,061.00
MEAN	13.4	161	53.1	76.3	76.4	55.2	85.2	64.1	27.2	17.9	19.9	102
MAX	138	1,660	188	490	729	838	678	1,270	187	138	403	1,070
MIN	2.0	5.7	16	14	6.9	7.0	12	3.7	2.4	0.97	1.3	0.90
CFSM	0.50	6.00	1.98	2.85	2.85	2.06	3.18	2.39	1.02	0.67	0.74	3.81
IN.	0.58	6.69	2.28	3.28	3.08	2.38	3.55	2.76	1.13	0.77	0.86	4.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	8.40	38.9	25.3	36.6	64.6	59.1	49.2	52.5	24.8	30.7	17.0	23.7
MAX	22.8	161	53.1	76.3	157	104	85.2	116	66.3	80.6	25.3	102
(WY)	(2003)	(2004)	(2004)	(2004)	(2003)	(2002)	(2004)	(2001)	(2003)	(2000)	(2000)	(2004)
MIN	1.50	1.96	6.79	9.18	10.3	24.9	11.5	2.25	0.79	0.42	6.08	0.69
(WY)	(2002)	(2002)	(2002)	(2000)	(2002)	(2003)	(1999)	(1999)	(1999)	(1999)	(2002)	(1999)

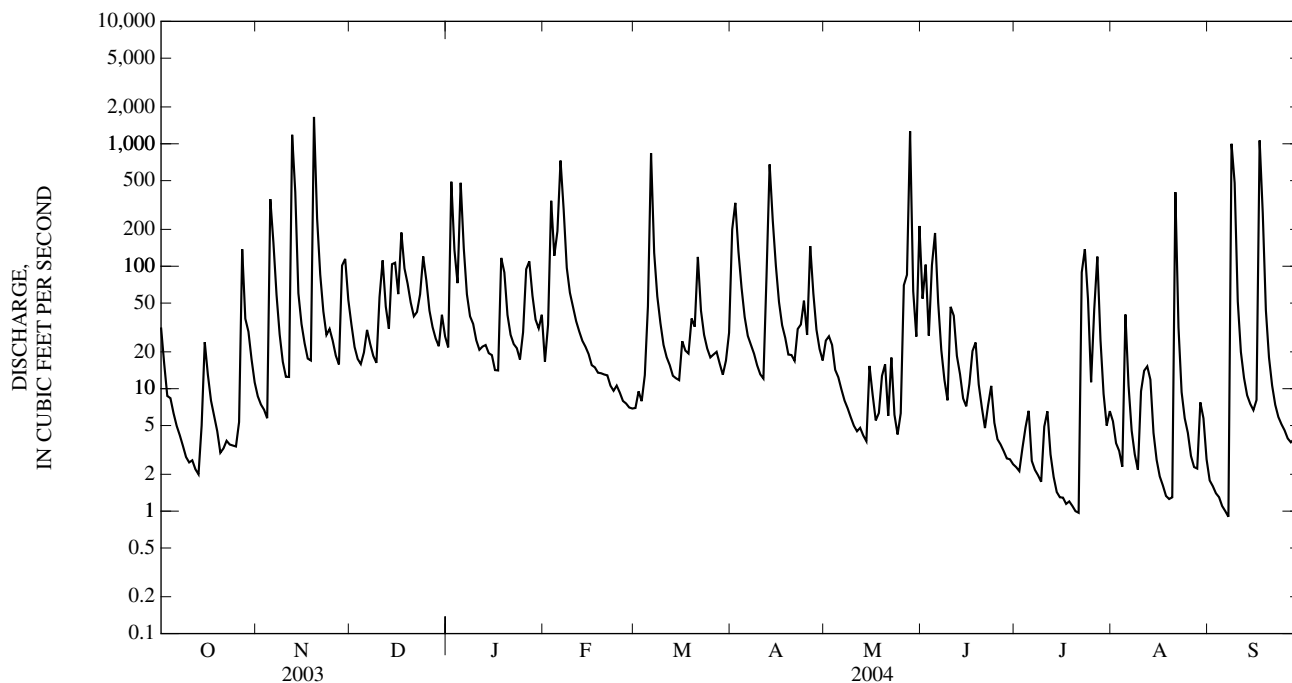
03201405 HURRICANE CREEK AT HURRICANE, WV—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	19,464.8		22,768.37		35.7	
ANNUAL MEAN	53.3		62.2		62.2	
HIGHEST ANNUAL MEAN					17.8	
LOWEST ANNUAL MEAN					1,660	
HIGHEST DAILY MEAN	1,660	Nov 19	1,660	Nov 19	1,660	Nov 19, 2003
LOWEST DAILY MEAN	1.4	Sep 14	(e)0.90	Sep 7	0.08	(a)
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 8	1.1	Jul 15	0.09	Jul 13, 1999
MAXIMUM PEAK FLOW			3,690	Nov 19	3,690	Nov 19, 2003
MAXIMUM PEAK STAGE			18.01	Nov 19	18.01	Nov 19, 2003
INSTANTANEOUS LOW FLOW			(b)	(b)	0.06	(a)
ANNUAL RUNOFF (CFSM)	1.99		2.32		1.33	
ANNUAL RUNOFF (INCHES)	27.02		31.60		18.10	
10 PERCENT EXCEEDS	112		119		78	
50 PERCENT EXCEEDS	18		17		7.4	
90 PERCENT EXCEEDS	2.6		2.6		1.0	

a July 18, 19, 1999.

b Not determined.

c Estimated.



REVISIONS.--The peak discharges for the 1999-2003 water years have been revised, as shown in the following table.

Date	Discharge (ft ³ /s)	Gage height (ft)	Date	Discharge (ft ³ /s)	Gage height (ft)
01-09-99	952	11.68	07-28-01	1,270	12.93
03-03-99	683	10.23	08-13-01	1,910	14.58
03-14-99	887	11.36	03-20-02	1,880	14.52
08-25-99	661	10.10	03-26-02	776	10.78
12-14-99	653	10.05	03-31-02	700	10.33
02-14-00	1,260	12.91	04-22-02	716	10.43
02-18-00	3,090	16.99	04-28-02	701	10.34
07-11-00	1,190	12.64	05-07-02	982	11.82
07-14-00	593	9.68	05-18-02	625	9.88
07-19-00	901	11.43	10-16-02	665	10.12
07-30-00	1,190	12.64	02-15-03	775	10.77
08-10-00	975	11.79	02-16-03	1,680	14.02
09-02-00	602	9.24	02-22-03	768	10.73
03-13-01	973	11.78	02-23-03	846	11.16
05-18-01	1,460	13.47	05-11-03	1,620	13.88
05-19-01	1,920	14.61	05-18-03	661	10.10
05-22-01	723	10.47	06-14-03	2,750	16.37
07-26-01	2,560	16.00	09-19-03	642	9.98