

JAMES RIVER BASIN

02025500 JAMES RIVER AT HOLCOMB ROCK, VA

LOCATION.--Lat 37°30'04", long 79°15'46", Bedford County, Hydrologic Unit 02080203, on right bank at Holcomb Rock, 0.9 mi downstream from Pedlar River, and at mile 268.6.

DRAINAGE AREA.--3,259 mi².

PERIOD OF RECORD.--January 1900 to September 1915 (gage heights only), October 1926 to current year. Monthly discharge only for some periods, published in WSP 1303. Published as "at Salt Creek" December 1926 to June 1931 and as "at Holcombs Rock" June 1931 to September 1990.

REVISED RECORDS.--WSP 972: 1913(M), 1932-33, 1935(M), 1936. WSP 1303: 1928(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 548.53 ft above sea level. January 1900 to September 1915, nonrecording gage in powerhouse of Owens Illinois Glass Company 1,000 ft upstream at different datum. December 1926 to June 1931, water-stage recorder at site 2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation caused by powerplants upstream from station. Flow regulated since December 1979 by Lake Moomaw (station 02011795) 117.4 mi upstream; since October 1984 by Back Creek Lake 145.4 mi upstream; and since January 1985 by Little Back Creek Lake 148.5 mi upstream, amount unknown. Statistics of monthly mean data and summary statistics for water years 1927 - 1979 (unregulated flow) are available in previous data books, water years 1991 - 1998. National Weather Service gage-height telemeter at station. Maximum discharge, 207,000 ft³/s, from rating curve extended above 73,000 ft³/s on basis of records for other stations in James River Basin. Minimum gage height, 2.80 ft, Oct. 29, 1987. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 31.3 ft, from floodmarks, discharge, 118,000 ft³/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0715	*16,200	*11.70	No peak greater than base discharge.			

Minimum daily discharge, 506 ft³/s, Jun 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	757	754	768	804	1920	1730	2640	1920	1040	719	771	698
2	747	760	757	801	2840	1710	2690	1850	1030	771	768	662
3	742	794	754	1200	3720	1710	2640	1790	1170	781	712	643
4	722	837	752	1480	4330	1970	2490	1720	1080	832	690	626
5	711	857	755	1550	3610	3140	2390	1650	1160	780	645	2100
6	720	797	759	1210	3060	3260	2250	1620	946	768	631	5570
7	741	741	767	1170	2780	3080	2080	1550	853	580	619	6270
8	939	798	803	1130	2400	3160	2000	1830	990	795	619	3910
9	1140	774	858	1100	2470	3070	1940	4620	924	616	619	2610
10	1180	764	924	1180	2370	2920	1850	3860	921	684	619	2110
11	1030	767	936	1220	2220	2820	1890	3060	882	663	619	1610
12	976	783	890	1380	2060	2620	2030	2680	872	693	598	1310
13	860	827	989	1290	1870	2460	2250	2330	891	816	592	1060
14	659	789	1030	1400	1780	2510	2280	3030	856	746	596	885
15	786	777	1030	1930	1660	3450	2150	6830	609	788	595	1040
16	776	742	1090	5630	1540	6390	2190	6370	989	829	595	1440
17	773	796	1040	4340	1470	7550	2160	4660	948	688	600	1310
18	773	755	950	3150	1690	11500	2040	3760	927	740	606	1090
19	773	756	868	2730	3150	12400	1910	3190	905	809	601	949
20	774	758	621	2760	3780	8890	1880	2930	852	781	721	750
21	765	757	826	2620	3270	6890	1820	2780	506	775	716	1050
22	753	753	788	2140	2870	7680	1800	2460	796	781	750	1580
23	738	757	821	1950	2500	7810	1770	2200	781	748	656	1080
24	737	756	828	4980	2210	7010	1770	1920	857	733	729	1110
25	676	753	821	14400	2020	6000	1750	1930	819	772	809	903
26	782	772	818	7750	1880	5110	1780	1810	803	810	841	858
27	770	745	809	4800	1770	4140	1730	1600	786	763	977	887
28	758	802	751	3520	1730	3820	1710	1510	776	915	974	1640
29	731	767	833	2960	---	3250	1760	1370	577	730	943	4480
30	767	764	813	2550	---	3110	1920	1180	795	587	760	7020
31	752	---	804	2190	---	2710	---	1180	---	771	731	---
TOTAL	24808	23252	26253	87315	68970	143870	61560	81190	26341	23264	21702	57251
MEAN	800	775	847	2817	2463	4641	2052	2619	878	750	700	1908
MAX	1180	857	1090	14400	4330	12400	2690	6830	1170	915	977	7020
MIN	659	741	621	801	1470	1710	1710	1180	506	580	592	626
(+)	-4134	-3176	-2823	+10680	+5848	+10587	0	-1008	-6756	-7915	-7008	-4689
MEAN†	667	669	756	3161	2672	4982	2052	2587	653	495	474	1752
CFSM‡	.20	.21	.23	.97	.82	1.53	.63	.79	.20	.15	.15	.54
IN.‡	.24	.23	.27	1.19	.85	1.76	.70	.92	.22	.18	.17	.60
CAL YR 1998	TOTAL 1813476	MEAN 4968	MAX 48500	MIN 555	MEAN‡ 4948	CFSM‡ 1.52	IN.‡ 20.61					
WTR YR 1999	TOTAL 645776	MEAN 1769	MAX 14400	MIN 506	MEAN‡ 1740	CFSM‡ .53	IN.‡ 7.25					

† Total change in contents, equivalent in cubic feet per second, per month, in Lake Moomaw; provided by U.S. Army Corps of Engineers.

‡ Adjusted for monthly change in contents.

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1999, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1921	2974	3297	5025	5762	7384	6517	4430	3139	1549	1485	1680
MAX	7966	17270	9246	13540	16260	16910	21670	12380	9990	4562	5640	7233
(WY)	1980	1986	1997	1996	1998	1993	1987	1989	1995	1995	1984	1996
MIN	690	775	847	730	2139	1472	1616	2205	878	750	595	674
(WY)	1992	1999	1999	1981	1981	1981	1995	1991	1999	1999	1981	1983

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1980 - 1999
ANNUAL TOTAL	1813476	645776	
ANNUAL MEAN	4968	1769	3751
HIGHEST ANNUAL MEAN			5064
LOWEST ANNUAL MEAN			1613
HIGHEST DAILY MEAN	e48500	Jan 9	180000
LOWEST DAILY MEAN	555	Sep 3	244
ANNUAL SEVEN-DAY MINIMUM	734	Dec 1	401
INSTANTANEOUS PEAK FLOW			207000
INSTANTANEOUS PEAK STAGE			a42.15
INSTANTANEOUS LOW FLOW			20
ANNUAL RUNOFF (CFSM)	1.52	.54	1.15
ANNUAL RUNOFF (INCHES)	20.70	7.37	15.64
10 PERCENT EXCEEDS	13000	3340	8100
50 PERCENT EXCEEDS	1510	989	1930
90 PERCENT EXCEEDS	760	714	809

- a From high-water mark in gage house.
- b Result of regulation.
- e Estimated.

