02016500 JAMES RIVER AT LICK RUN, VA

LOCATION.--Lat 37°46'25", long 79°47'04", NAD83, Botetourt County, Hydrologic Unit 02080201, on right bank at community of Lick Run, 1,000 ft downstream from bridge on U.S. Highway 220, 0.9 mi downstream from confluence of Cowpasture and Jackson Rivers, 1.8 mi south of Iron Gate, and at mile 342.3.

DRAINAGE AREA.--1,373 mi^2.

PERIOD OF RECORD.--April 1925 to current year.

REVISED RECORDS.--WSP 852: 1936-37. WSP 972: 1927, 1930(M), 1932(M), 1935-36. WSP 1303: 1927-28(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 978.30 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 26, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good except for period with ice effect, Dec. 22 to Jan. 6, which is poor. Flow regulated since December 1979 by Lake Moomaw (station 02011795) 43.7 mi upstream from station; since October 1984 by Back Creek Lake 71.7 mi upstream; and since January 1985 by Little Back Creek Lake 74.8 mi upstream, amount unknown. Statistics of monthly mean data and summary statistics for water years 1925 - 1979 (unregulated flow) are available in previous data books, water years 1991 - 1998. National Weather Service gage-height telemeter at station. Maximum discharge, 87,500 ft^3/s, from rating curve extended above 66,000 ft^3/s. Minimum discharge, 133 ft^3/s, result of freezeup. 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 November 1877 reached a stage of about 33 ft, discharge, about 120,000 ft^3/s. Flood in March 1913 reached a stage of 30.4 ft, from floodmarks, discharge, about 98,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	775	395	472	e460	1270	1060	4700	624	1660	554	1270	672
2	667	393	464	e440	1100	976	4590	615	1570	559	1040	621
3	616	358	452	422	979	925	3880	609	1470	543	862	567
4	566	365	439	e420	880	878	3360	601	1240	551	887	539
5	539	364	428	e420	831	1160	2920	596	1170	545	1750	512
6	519	363	421	e440	806	957	2390	734	1280	533	1120	489
7	500	369	427	455	763	814	2010	656	1230	521	903	475
8	482	385	424	485	714	756	1890	604	1310	599	739	467
9	468	407	423	466	669	729	2000	588	1210	609	661	456
10	459	708	421	410	648	717	2050	565	1130	615	626	526
11	455	846	415	422	636	703	2100	556	940	559	756	534
12	447	647	419	455	615	685	2210	541	791	525	1070	519
13	446	559	452	421	589	702	2070	533	746	517	1740	496
14	442	522	516	421	583	731	1920	516	972	502	1590	471
15	437	486	564	434	596	750	1450	517	1160	494	1130	447
16	434	465	734	433	636	783	1240	661	1060	492	902	437
17	433	457	1880	439	716	1340	1170	1110	884	488	746	436
18	430	440	2670	443	932	1570	1100	1630	723	512	673	432
19	422	438	1760	1060	927	1560	1040	2070	661	529	651	432
20	416	430	1360	3070	866	1390	1020	4330	622	520	740	451
21	418	427	1070	3000	828	4770	996	2610	603	512	636	456
22	418	411	e900	1980	795	5070	986	9280	631	499	584	439
23	417	405	753	1510	762	5490	820	14800	786	487	566	434
24	409	400	e660	1310	917	4550	750	8350	736	481	686	461
25	413	422	e600	1160	891	3110	722	7190	700	483	596	547
26	411	475	569	991	1100	2430	696	12900	622	493	566	497
27	410	488	e560	865	1270	2000	670	7960	590	580	557	481
28	411	520	e540	815	1210	1760	651	5600	565	705	581	460
29	405	491	541	735	---	1750	636	4310	551	1810	545	441
30	401	484	e520	767	---	8470	613	2690	562	2960	543	432
31	399	---	485	1310	---	6540	---	1870	---	1790	607	---
TOTAL	14465	13920	22339	26459	23529	65126	52650	96216	28175	21567	26323	14627
MEAN	467	464	721	854	840	2101	1755	3104	939	696	849	488
MAX	775	846	2670	3070	1270	8470	4700	14800	1660	2960	1750	672
MIN	399	358	415	410	583	685	613	516	551	481	543	432
(†)	-2773	-2420	+1916	+4285	+3378	+1059	-1059	-252	-2269	-1109	-2823	-5546
MEAN‡	377	383	782	992	961	2135	1720	3096	864	660	758	303
CFSM‡	.27	.28	.57	.72	.70	1.55	1.25	2.25	.63	.48	.55	.22
IN.‡	.32	.31	.66	.83	.73	1.79	1.40	2.60	.70	.55	.64	.25

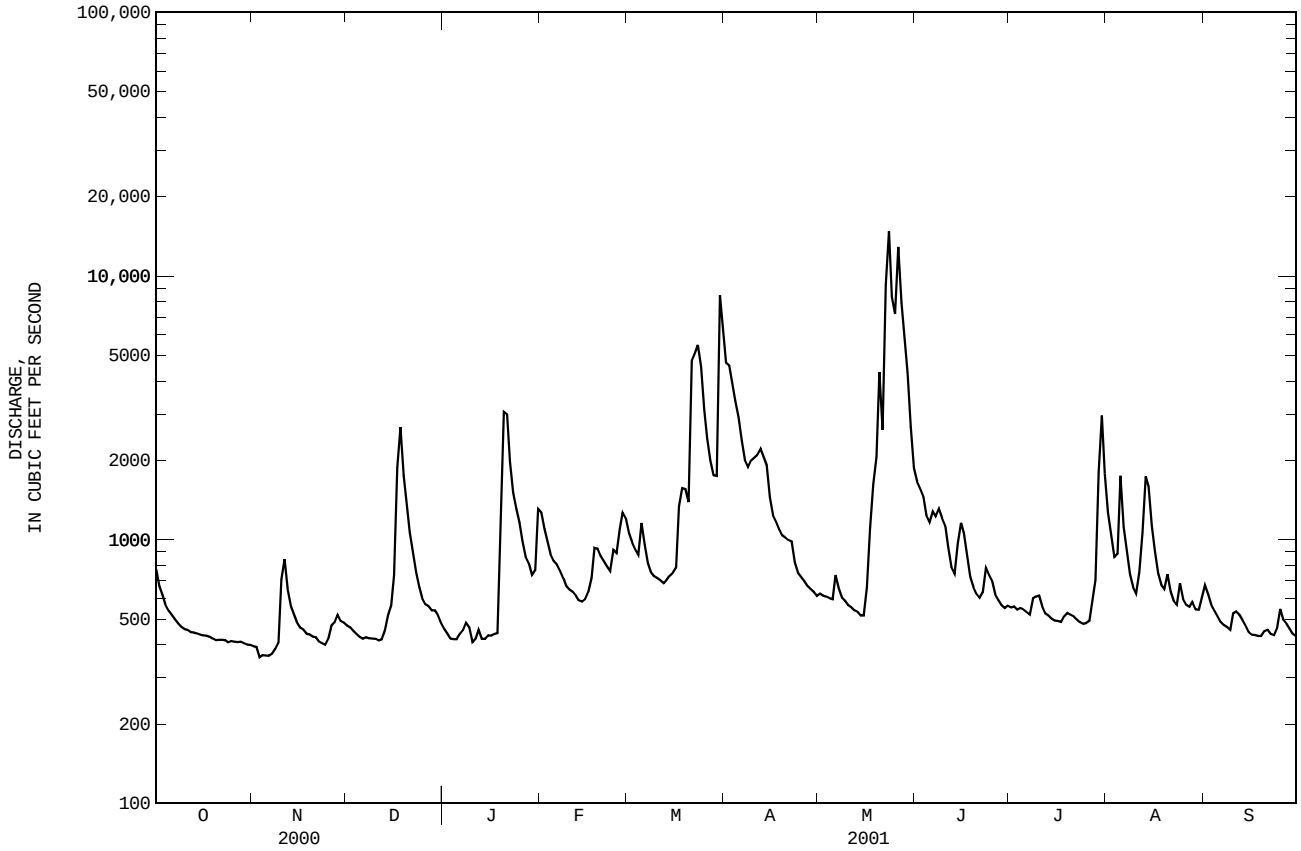
CAL YR 2000 MEAN‡ 1170 CFSM‡ .85 IN.‡ 11.60
WTR YR 2001 MEAN‡ 1090 CFSM‡ .79 IN.‡ 10.78

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

02016500 JAMES RIVER AT LICK RUN, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	785	1259	1431	2081	2550	3474	2803	2150	1357	695	710	742
MAX	3495	7206	4206	5302	6425	8083	9349	5639	3660	1186	2704	2839
(WY)	1990	1986	1997	1996	1998	1993	1987	1989	1982	1995	1984	1996
MIN	270	326	328	268	840	623	755	940	561	479	264	269
(WY)	1981	1982	1981	1981	2001	1981	1986	1991	1988	1981	1981	1981

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1980 - 2001	
ANNUAL TOTAL	416181		405396			
ANNUAL MEAN	1137		1111		1665	
HIGHEST ANNUAL MEAN					2256	1998
LOWEST ANNUAL MEAN					789	1981
HIGHEST DAILY MEAN	9900	Feb 19	14800	May 23	67500	Nov 5 1985
LOWEST DAILY MEAN	358	Nov 3	358	Nov 3	180	Jan 5 1981
ANNUAL SEVEN-DAY MINIMUM	371	Nov 2	371	Nov 2	202	Sep 28 1981
MAXIMUM PEAK FLOW			17100	May 22	87500	Nov 5 1985
MAXIMUM PEAK STAGE			11.88	May 22	30.22	Nov 5 1985
INSTANTANEOUS LOW FLOW			a295	Nov 3	b133	Jan 6 1981
ANNUAL RUNOFF (CFSM)	.83		.81		1.21	
ANNUAL RUNOFF (INCHES)	11.28		10.98		16.47	
10 PERCENT EXCEEDS	2070		2000		3560	
50 PERCENT EXCEEDS	736		621		823	
90 PERCENT EXCEEDS	419		422		400	

a Result of regulation.
b Result of freezeup.
e Estimated.