

BIG SANDY RIVER BASIN

03207800 LEVISA FORK AT BIG ROCK, VA

LOCATION.--Lat 37°21'13", long 82°11'45", Buchanan County, Hydrologic Unit 05070202, on left bank at Big Rock, 2,000 ft downstream from Rocklick Creek, and 2,500 ft downstream from bridge on State Highway 645.

DRAINAGE AREA.--297 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 866.37 ft above sea level.

REMARKS.--Records good except those for periods of doubtful gage-height record Oct. 8-16, Sep. 6-7, and period of no gage-height record, May 19-20, which are fair. U.S. Army Corps of Engineers satellite precipitation and gage-height telemeter at station. Maximum discharge, 56,000 ft<sup>3</sup>/s, from rating curve extended above 7,000 ft<sup>3</sup>/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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 29, 1957, reached a stage of about 23.0 ft, information from local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 24	1300	*3,330	*7.35	No peak greater than base discharge.			
Minimum discharge, 12 ft <sup>3</sup> /s, Sep 26, gage height, 2.27 ft.							

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	81	33	31	128	319	1430	278	572	92	73	172	19
2	56	32	28	115	302	970	278	472	105	61	134	19
3	49	38	27	429	291	1170	250	404	101	54	105	19
4	48	39	27	483	268	1770	235	358	85	46	67	19
5	46	36	38	279	241	1180	222	326	79	41	52	26
6	41	32	52	195	221	1280	207	333	74	36	44	e45
7	36	29	53	184	232	1210	198	294	69	33	37	e60
8	e95	30	353	188	246	901	187	293	65	32	35	38
9	e110	30	479	807	224	806	201	263	63	29	38	29
10	e85	32	233	893	224	1050	194	232	60	33	36	26
11	e60	58	133	481	204	1080	641	208	59	48	32	22
12	e47	58	107	333	228	860	1160	189	56	47	28	20
13	e41	45	475	263	285	691	734	190	53	46	27	20
14	e37	38	493	285	255	689	559	254	53	42	52	19
15	e35	36	247	1370	256	1200	516	214	55	35	48	18
16	e34	35	157	967	270	1390	492	181	52	32	35	17
17	33	33	130	620	301	1740	422	165	53	29	29	17
18	34	31	105	998	366	1480	385	183	52	43	24	17
19	35	30	84	1300	414	1100	358	e250	47	41	23	17
20	34	31	77	769	418	826	377	e184	45	36	41	17
21	32	35	70	525	363	704	353	155	43	36	45	17
22	30	33	94	399	317	612	333	152	40	48	32	16
23	30	31	136	405	282	512	317	151	38	74	27	16
24	30	30	168	2260	268	468	319	226	39	144	27	15
25	31	30	141	1430	274	426	282	210	44	115	48	14
26	31	49	118	806	282	386	288	163	44	69	65	14
27	31	48	105	576	267	354	324	138	45	62	37	18
28	33	41	103	454	1030	328	1070	121	97	51	29	29
29	37	35	109	369	---	306	1170	110	99	53	25	53
30	37	34	142	312	---	283	757	103	93	203	23	104
31	36	---	139	276	---	264	---	95	---	250	20	---
TOTAL	1395	1092	4654	18899	8648	27466	13107	7189	1900	1942	1437	780
MEAN	45.0	36.4	150	610	309	886	437	232	63.3	62.6	46.4	26.0
MAX	110	58	493	2260	1030	1770	1170	572	105	250	172	104
MIN	30	29	27	115	204	264	187	95	38	29	20	14
CFSM	.15	.12	.51	2.05	1.04	2.98	1.47	.78	.21	.21	.16	.09
IN.	.17	.14	.58	2.37	1.08	3.44	1.64	.90	.24	.24	.18	.10

03207800 LEVISA FORK AT BIG ROCK, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	131	208	366	574	685	766	697	526	275	150	117	81.9
MAX	692	911	1201	1596	1451	2107	2355	1323	1135	630	325	273
(WY)	1990	1978	1973	1974	1994	1975	1987	1984	1979	1979	1971	1989
MIN	6.85	19.3	72.0	82.7	168	139	154	113	40.2	29.1	33.3	12.6
(WY)	1970	1970	1998	1981	1968	1988	1986	1976	1970	1970	1969	1969

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1968 - 1999
ANNUAL TOTAL	180075	88509	
ANNUAL MEAN	493	242	380
HIGHEST ANNUAL MEAN			606 1979
LOWEST ANNUAL MEAN			121 1988
HIGHEST DAILY MEAN	6990	Jun 10	24800 Apr 4 1977
LOWEST DAILY MEAN	27	aDec 3	5.1 Oct 19 1969
ANNUAL SEVEN-DAY MINIMUM	31	Oct 21	16 Sep 20 1969
INSTANTANEOUS PEAK FLOW			3330 Jan 24 1977
INSTANTANEOUS PEAK STAGE			7.35 Jan 24 1977
INSTANTANEOUS LOW FLOW			12 Sep 26 1969
ANNUAL RUNOFF (CFSM)	1.66	.82	5.0 cOct 1 1969
ANNUAL RUNOFF (INCHES)	22.55	11.09	1.28 17.37
10 PERCENT EXCEEDS	1060	690	837
50 PERCENT EXCEEDS	233	97	183
90 PERCENT EXCEEDS	35	29	36

- a Also Dec 4, 1998.
- b Also Sep 26, 1999.
- c Also Oct. 13, 14, 17-20, 1969.
- e Estimated.

