

KANAWHA RIVER BASIN

03165000 CHESTNUT CREEK AT GALAX, VA

**LOCATION.**--Lat 36°38'45", long 80°55'09", NAD83, Galax City, Hydrologic Unit 05050001, on right bank 200 ft upstream from bridge on State Highway 89 and 1.7 mi downstream from Wards Mill Branch.

**DRAINAGE AREA.**--39.4 mi<sup>2</sup>.

**PERIOD OF RECORD.**--September 1944 to current year.

**REVISED RECORDS.**--WSP 1385: 1953.

**GAGE.**--Water-stage recorder. Concrete control since Aug. 30, 1979. Datum of gage is 2,344.17 ft above sea level. Prior to June 25, 1948, nonrecording gage, and June 25, 1948, to May 28, 1953, water-stage recorder, at site 200 ft upstream at datum 0.86 ft higher.

**REMARKS.**--Records good except those for periods with ice effect, Dec. 20 to Jan. 13 and Jan. 22-26, which are poor. Maximum discharge, 6,980 ft<sup>3</sup>/s, from rating curve extended above 2,200 ft<sup>3</sup>/s on basis of two slope-area and one contracted-opening measurements at gage heights 9.5 ft, 14.4 ft, and 17.4 ft, respectively, site and datum then in use. 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 Aug. 14, 1940, reached a stage of 17.4 ft, at site and datum used 1944-53, discharge, 11,000 ft<sup>3</sup>/s, by contracted-opening measurement.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 850 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)
May 22	1800	*1,000	*3.53	No other peak greater than base discharge.			

**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	23	20	22	e23	30	33	62	25	43	34	60	26
2	23	20	22	e22	28	31	54	26	45	31	50	26
3	23	20	22	e22	27	31	52	25	39	30	45	27
4	22	20	23	e22	27	37	48	27	38	31	43	29
5	22	20	28	e22	27	37	43	39	38	29	38	26
6	22	19	29	e23	27	32	41	27	45	26	35	24
7	21	20	21	25	26	30	39	26	62	25	33	24
8	21	21	21	28	26	30	36	24	49	111	31	23
9	21	37	21	e27	26	30	35	25	42	58	30	22
10	21	71	21	e25	27	28	39	23	36	37	29	26
11	21	28	22	e26	25	28	43	22	34	31	57	27
12	20	24	21	26	26	29	36	21	32	28	51	23
13	20	23	21	e25	27	36	43	21	31	27	54	22
14	20	23	25	25	29	30	37	21	33	25	42	22
15	20	22	26	26	35	42	34	21	42	24	34	22
16	20	22	27	25	37	49	33	60	36	23	33	21
17	20	22	124	25	70	39	31	79	30	23	30	20
18	20	21	48	27	42	35	31	41	27	23	30	20
19	20	21	39	101	37	32	30	35	26	24	30	20
20	20	21	e37	90	33	33	29	276	26	41	31	26
21	20	20	e35	52	32	94	29	176	28	31	28	23
22	20	21	e34	e44	32	64	28	356	130	26	27	22
23	20	22	e33	e40	33	47	28	176	120	24	27	21
24	20	21	e31	e35	36	41	28	80	51	25	28	34
25	20	34	e30	32	47	38	28	98	44	32	26	32
26	21	52	e29	e31	45	36	27	79	77	45	28	24
27	20	30	28	30	38	34	26	60	76	92	31	23
28	20	26	27	29	35	33	26	53	49	131	27	22
29	20	24	e26	28	---	101	25	50	40	290	25	22
30	20	24	e25	34	---	216	25	45	35	164	25	22
31	19	---	e24	32	---	75	---	41	---	80	25	---
TOTAL	640	769	942	1022	930	1451	1066	2078	1404	1621	1083	721
MEAN	20.6	25.6	30.4	33.0	33.2	46.8	35.5	67.0	46.8	52.3	34.9	24.0
MAX	23	71	124	101	70	216	62	356	130	290	60	34
MIN	19	19	21	22	25	28	25	21	26	23	25	20
CFSM	.52	.65	.77	.84	.84	1.19	.90	1.70	1.19	1.33	.89	.61
IN.	.60	.73	.89	.96	.88	1.37	1.01	1.96	1.33	1.53	1.02	.68

03165000 CHESTNUT CREEK AT GALAX, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	57.9	62.1	64.0	70.7	81.2	93.4	89.4	75.2	66.1	51.5	48.8	52.9
MAX	197	157	112	161	166	301	233	160	172	150	156	254
(WY)	1948	1980	1958	1995	1998	1993	1983	1973	1992	1989	1949	1989
MIN	19.8	25.6	25.8	23.9	33.2	38.1	35.5	34.2	25.5	20.7	15.6	18.6
(WY)	1964	2001	1964	1956	2001	1988	2001	1956	1988	1986	1981	1954

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1945 - 2001

ANNUAL TOTAL	14487	13727	
ANNUAL MEAN	39.6	37.6	67.7
HIGHEST ANNUAL MEAN			107 1993
LOWEST ANNUAL MEAN			37.3 1981
HIGHEST DAILY MEAN	346 Mar 20	356 May 22	2050 Apr 21 1992
LOWEST DAILY MEAN	19 aJul 22	19 bOct 31	12 Aug 26 1981
ANNUAL SEVEN-DAY MINIMUM	20 Oct 31	20 Oct 31	13 Aug 23 1981
MAXIMUM PEAK FLOW		1000 May 22	6980 Oct 17 1947
MAXIMUM PEAK STAGE		3.53 May 22	c14.40 Oct 17 1947
INSTANTANEOUS LOW FLOW		12 Nov 22	12 dAug 25 1981
ANNUAL RUNOFF (CFSM)	1.00	.95	1.72
ANNUAL RUNOFF (INCHES)	13.68	12.96	23.33
10 PERCENT EXCEEDS	67	54	108
50 PERCENT EXCEEDS	32	28	51
90 PERCENT EXCEEDS	21	21	28

- a Also Oct. 31 and Nov. 6, 2000.
- b Also Nov. 6, 2000.
- c From floodmark, site and datum then in use.
- d Also part or all of each day Aug. 26-30, 1981 and Nov. 22, 2000.
- e Estimated.

