

KANAWHA RIVER BASIN

03165000 CHESTNUT CREEK AT GALAX, VA

LOCATION.--Lat 36°38'45", long 80°55'10", 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 mi².

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 for period with ice effect, Jan. 1-6, which is fair. Maximum discharge, 6,980 ft³/s, from rating curve extended above 2,200 ft³/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 ft³/s, by contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 8	0545	*891	*3.31	No other peak greater than base discharge.			

Minimum discharge, 13 ft³/s, Aug 18-20, gage height, 1.18 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	63	36	29	e33	73	50	74	60	32	47	19	19
2	48	36	29	e31	112	46	57	50	32	35	21	18
3	46	37	29	e35	78	65	50	45	32	33	19	17
4	47	40	29	e58	67	71	48	42	30	37	18	17
5	49	37	30	e52	62	63	45	41	30	27	18	98
6	49	35	31	e50	59	74	44	41	29	25	17	69
7	67	35	29	46	58	72	43	46	28	24	16	32
8	336	35	34	42	55	57	42	78	27	26	16	26
9	71	35	52	68	55	56	42	45	26	23	18	47
10	54	36	34	60	55	54	42	41	26	22	16	42
11	48	52	31	53	53	53	54	38	32	26	16	27
12	44	36	33	46	57	51	45	36	29	46	15	24
13	42	33	297	49	58	49	41	36	27	54	15	23
14	41	33	77	52	52	61	39	167	26	48	16	22
15	41	32	51	116	51	93	53	68	25	42	16	22
16	41	31	44	67	50	78	50	52	28	32	15	23
17	41	31	39	55	54	68	42	47	33	28	15	20
18	41	31	36	67	116	60	41	46	27	28	14	20
19	41	31	36	56	71	54	40	142	25	29	14	20
20	42	31	36	50	63	52	39	66	26	25	50	20
21	41	31	34	47	56	78	38	54	28	25	27	22
22	38	30	34	45	51	63	38	50	29	24	22	22
23	38	30	33	139	48	56	37	47	26	23	20	20
24	39	30	57	232	50	53	37	43	25	27	21	20
25	39	30	48	105	49	51	36	40	31	30	48	19
26	39	31	42	81	48	49	39	40	58	23	31	19
27	37	29	40	71	49	47	41	38	33	21	25	36
28	38	29	39	65	56	45	51	36	33	20	22	87
29	39	29	39	61	---	44	70	35	28	25	21	134
30	38	29	36	58	---	43	102	34	26	22	20	148
31	38	---	34	55	---	43	---	33	---	21	19	---
TOTAL	1676	1001	1442	2045	1706	1799	1420	1637	887	918	640	1133
MEAN	54.1	33.4	46.5	66.0	60.9	58.0	47.3	52.8	29.6	29.6	20.6	37.8
MAX	336	52	297	232	116	93	102	167	58	54	50	148
MIN	37	29	29	31	48	43	36	33	25	20	14	17
CFSM	1.37	.85	1.18	1.67	1.55	1.47	1.20	1.34	.75	.75	.52	.96
IN.	1.58	.95	1.36	1.93	1.61	1.70	1.34	1.55	.84	.87	.60	1.07

03165000 CHESTNUT CREEK AT GALAX, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.1	62.9	64.9	72.0	82.6	94.8	90.8	75.9	67.0	52.0	49.3	53.7
MAX (WY)	197	157	112	161	166	301	233	160	172	150	156	254
MIN (WY)	1948	1980	1958	1995	1998	1993	1983	1973	1992	1989	1949	1989
MIN (WY)	19.8	27.3	25.8	23.9	35.9	38.1	37.4	34.2	25.5	20.7	15.6	18.6
MIN (WY)	1964	1982	1964	1956	1989	1988	1989	1956	1988	1986	1981	1954

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1945 - 1999

ANNUAL TOTAL	29237	16304	
ANNUAL MEAN	80.1	44.7	68.6
HIGHEST ANNUAL MEAN			107 1993
LOWEST ANNUAL MEAN			37.3 1981
HIGHEST DAILY MEAN	1290	Jan 8	2050 Apr 21 1992
LOWEST DAILY MEAN	29	aAug 7	12 Aug 26 1981
ANNUAL SEVEN-DAY MINIMUM	29	Nov 27	13 Aug 23 1981
INSTANTANEOUS PEAK FLOW			6980 Oct 17 1947
INSTANTANEOUS PEAK STAGE			c14.40 Oct 17 1947
INSTANTANEOUS LOW FLOW			12 dAug 25 1981
ANNUAL RUNOFF (CFSM)	2.03	1.13	1.74
ANNUAL RUNOFF (INCHES)	27.60	15.39	23.67
10 PERCENT EXCEEDS	129	67	109
50 PERCENT EXCEEDS	55	39	52
90 PERCENT EXCEEDS	33	21	28

- a Also Nov 27 to Dec 4, and Dec 7, 1998.
- b Also Aug 19, 1999.
- c From floodmark, site and datum then in use.
- d Also Aug 19-20, 1999.
- e Estimated.
- f Also part or all of each day Aug 26-30, 1981.

