

Water-Data Report 2007

03456991 PIGEON RIVER NEAR CANTON, NC

French Broad-Holston Basin
Pigeon Subbasin

LOCATION.--Lat 35°31'23", long 82°50'48" referenced to North American Datum of 1983, Haywood County, NC, Hydrologic Unit 06010106, on right bank 600 ft upstream from North Carolina Highway 215 bridge, 1.3 mi upstream from U.S. Highways 19/23 at Canton, and at river mile 64.9.

DRAINAGE AREA.--130 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1907 to June 1909, October 1928 to current year. Monthly discharge only for some periods published in WSP 1306. Published as "Pigeon River at Canton, NC" (03457000) May 1907 to June 1909, October 1928 to September 1983.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1929-37(M). WSP 1306: 1903(M). WDR NC-91-1: 1984-89(M).

GAGE.--Water-stage recorder. Datum of gage is 2,581.66 ft above NGVD of 1929 (Tennessee Valley Authority bench mark). Prior to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum. December 6, 1928, to January 3, 1929, nonrecording gage at site 0.8 mi downstream at different datum. Prior to October 1, 1983, water-stage recorder at site 0.8 mi downstream at different datum. Satellite and telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation and considerable regulation at low flow, since 1932, caused by Lake Logan (station 03455773) on West Fork Pigeon River 11.2 mi upstream. Prior to regulation, maximum discharge: 21,500 ft³/s, August 16, 1928; gage height: 16.40 ft; minimum discharge: 39 ft³/s, September 3, 1930. Maximum discharge for period of record from rating curve extended above 20,000 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record, at former site, result of freezeup. Minimum discharge for current water year also occurred August 20-24.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about 1810 is believed to have been approximately equal to that of August 30, 1940, and flood of June 15, 1876, reached a stage of 18.3 ft; discharge, 25,700 ft³/s, at former site, from studies by Tennessee Valley Authority.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	145	177	892	e2,200	237	347	214	154	101	88	79	107
2	138	185	512	e925	245	1,230	234	147	115	82	68	71
3	133	167	396	e640	225	516	202	152	104	82	72	58
4	129	159	345	495	210	403	243	236	101	76	67	53
5	124	154	312	e480	199	347	206	195	94	73	71	50
6	126	150	291	e610	211	317	194	221	88	70	87	49
7	120	173	271	e540	212	294	192	179	85	101	73	49
8	118	376	245	e1,000	201	273	187	166	84	111	63	50
9	124	239	238	e660	193	258	183	161	84	80	57	49
10	116	213	232	606	187	248	179	158	79	108	53	50
11	113	207	223	535	181	238	179	154	75	90	52	50
12	127	217	214	491	186	226	221	158	76	132	50	50
13	113	194	213	455	192	219	185	202	83	88	49	50
14	104	185	204	422	254	215	181	158	81	80	47	191
15	101	280	193	398	191	210	342	151	107	74	47	313
16	102	1,510	185	379	173	645	269	146	104	74	47	102
17	e800	595	180	349	173	408	236	145	86	85	50	76
18	e440	450	174	335	173	328	223	140	78	89	47	66
19	e260	381	169	329	165	305	217	134	210	75	46	61
20	297	336	166	306	172	289	204	131	121	68	46	57
21	231	302	164	311	268	279	196	125	93	63	45	58
22	206	284	663	421	232	263	189	122	79	59	48	61
23	188	266	470	329	192	272	182	119	74	64	46	58
24	176	247	320	306	183	217	177	122	98	63	64	55
25	168	234	397	293	268	231	175	118	97	65	67	54
26	162	221	435	275	274	224	171	113	99	74	63	53
27	167	212	345	274	227	217	185	108	124	79	63	52
28	329	204	310	265	215	212	169	106	103	79	53	52
29	217	e197	286	238	---	210	161	103	110	84	66	55
30	195	401	270	247	---	210	157	98	102	82	67	55
31	185	---	e800	229	---	202	---	96	---	119	158	---
Total	5,954	8,916	10,115	15,343	5,839	9,853	6,053	4,518	2,935	2,557	1,911	2,155
Mean	192	297	326	495	209	318	202	146	97.8	82.5	61.6	71.8
Max	800	1,510	892	2,200	274	1,230	342	236	210	132	158	313
Min	101	150	164	229	165	202	157	96	74	59	45	49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	221	268	326	419	467	521	457	334	263	195	198	219
Max	787	964	872	1,017	1,150	1,058	1,005	981	781	600	1,476	2,504
(WY)	(1965)	(1980)	(1933)	(1937)	(1939)	(1975)	(1983)	(1976)	(1967)	(2005)	(1940)	(2004)
Min	48.2	59.2	64.5	85.3	150	155	167	132	96.5	82.5	61.6	47.8
(WY)	(1955)	(1955)	(1940)	(1956)	(1941)	(1988)	(1986)	(1941)	(1941)	(2007)	(2007)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1932 - 2007	
Annual total	90,230		76,149			
Annual mean	247		209		323	
Highest annual mean					503	1949
Lowest annual mean					170	1988
Highest daily mean	1,540	Jan 18	2,200	Jan 1	19,800	Sep 8, 2004
Lowest daily mean	89	Aug 2	45	Aug 21	27	Sep 7, 1954
Annual seven-day minimum	97	Jul 29	47	Aug 15	40	Sep 13, 1998
Maximum peak flow			3,640	Nov 16	^a 48,000	Sep 17, 2004
Maximum peak stage			5.82	Nov 16	22.80	Sep 17, 2004
Instantaneous low flow			^a 45	Aug 19	^a 15	Jan 8, 1956
10 percent exceeds	405		380		600	
50 percent exceeds	203		175		230	
90 percent exceeds	114		58		86	

^a Regulated period only (1932-2007). See Remarks.

