Water-Data Report 2011

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC

French Broad-Holston Basin
Pigeon Subbasin

LOCATION.--Lat 35°40′03″, long 83°04′25″ referenced to North American Datum of 1983, Haywood County, NC, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft downstream of bridge on North Carolina Highway 284, 500 ft upstream from Little Cataloochee Creek, 2 mi north of Cataloochee, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1933 to September 1952, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,456.88 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Satellite telemetry at streamgage.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record also occurred Dec. 17, 24, 1943, result of freezeup. Minimum discharge for current water year also occurred October 11, 12.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 03460000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/03460000.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	54	49	555	318	101	243	e121	118	53	118	70	32
2	45	47	243	378	296	195	e117	111	52	106	64	31
3	41	45	174	247	187	165	e114	120	50	98	60	30
4	39	71	159	197	170	146	e111	155	48	96	66	42
5	37	66	140	169	167	141	e400	117	47	118	64	154
6	36	59	117	149	149	569	272	113	49	106	73	231
7	34	54	e105	137	e137	426	219	108	44	101	63	73
8	33	55	e97	e126	e127	301	189	103	45	103	56	62
9	32	56	e90	e113	e117	466	169	98	51	107	54	55
10	31	55	e83	e104	e110	557	152	93	60	101	51	49
11	31	53	81	e97	e104	458	140	89	83	127	49	47
12	35	51	88	e91	e100	349	186	87	195	96	49	46
13	65	50	e82	e86	96	281	150	86	164	89	50	43
14	42	49	e81	e83	93	236	138	85	88	90	67	41
15	37	55	e81	e80	89	231	139	80	137	470	49	40
16	35	79	e80	e78	85	194	529	77	198	191	46	41
17	34	74	e80	e77	84	174	381	76	120	152	44	40
18	34	62	e79	e76	84	161	290	74	122	131	51	39
19	33	60	e79	e75	83	149	241	71	567	116	49	39
20	38	58	e79	e74	79	138	224	68	445	105	44	39
21	34	56	80	e73	79	129	191	65	255	103	43	65
22	33	54	97	e73	85	122	177	64	218	113	45	46
23	32	57	88	e73	79	119	158	63	404	97	40	50
24	32	56	e85	75	80	136	145	59	338	92	38	42
25	49	52	87	75	159	111	135	56	248	117	38	38
26	41	78	82	102	112	110	128	79	209	108	37	36
27	124	62	e77	82	105	128	120	137	178	88	37	38
28	96	58	e75	80	188	124	195	73	174	80	35	35
29	64	57	e74	77	---	113	136	63	151	77	34	34
30	56	232	e74	79	---	e138	125	58	132	77	33	33
31	52	---	81	82	---	e126	---	55	---	76	33	---
Total	1,379	1,910	3,473	3,626	3,345	6,936	5,792	2,701	4,925	3,649	1,532	1,591
Mean	44.5	63.7	112	117	119	224	193	87.1	164	118	49.4	53.0
Max	124	232	555	378	296	569	529	155	567	470	73	231
Min	31	45	74	73	79	110	111	55	44	76	33	30
Cfsm	0.90	1.29	2.28	2.38	2.43	4.55	3.92	1.77	3.34	2.39	1.00	1.08
In.	1.04	1.44	2.63	2.74	2.53	5.24	4.38	2.04	3.72	2.76	1.16	1.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2011[a], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	53.4	72.7	114	161	174	196	153	114	84.1	73.5	69.7	58.2
Max	146	201	302	392	394	496	305	289	252	182	223	361
(WY)	(1990)	(2010)	(1973)	(1937)	(1990)	(1963)	(1936)	(2003)	(1967)	(1949)	(1940)	(2004)
Min	19.0	22.3	26.0	35.5	49.5	63.2	58.8	46.2	34.7	29.6	26.9	21.1
(WY)	(2009)	(1940)	(1940)	(1940)	(1941)	(1988)	(1986)	(1986)	(1986)	(1986)	(1987)	(2008)

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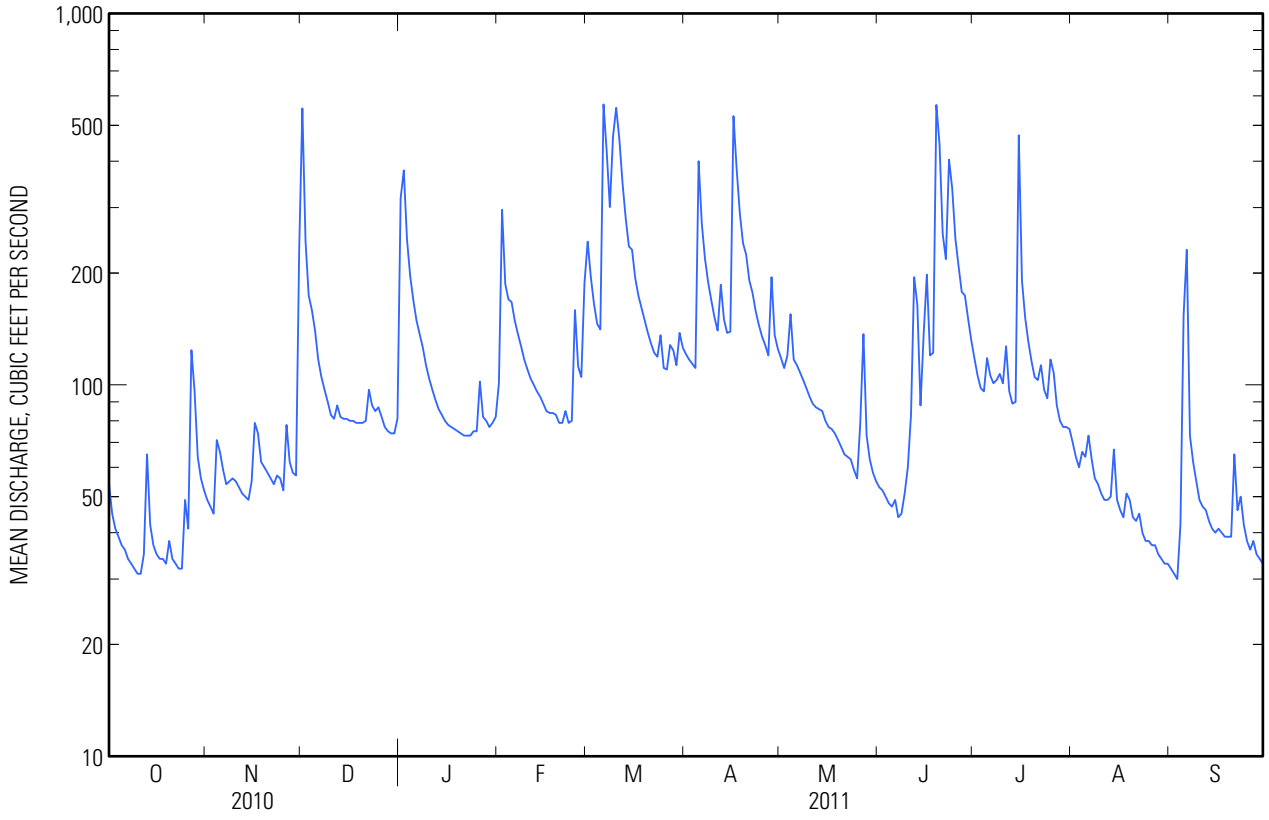
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1934 - 2011[a]	
Annual total	35,684		40,859			
Annual mean	97.8		112		110	
Highest annual mean					171	1994
Lowest annual mean					51.5	1986
Highest daily mean	823	Jan 25	569	Mar 6	2,690	Mar 16, 1973
Lowest daily mean	27	Sep 24	30	Sep 3	12	Jan 2, 1940
Annual seven-day minimum	29	Sep 18	33	Aug 28	15	Aug 18, 2008
Maximum peak flow			1,740	Jul 15	5,080	Mar 6, 1963
Maximum peak stage			5.48	Jul 15	8.08	Mar 6, 1963
Instantaneous low flow			[b]28	Sep 3	[b]9.0	Jan 2, 1940
Annual runoff (cfsm)	1.99		2.28		2.24	
Annual runoff (inches)	26.98		30.89		30.39	
10 percent exceeds	175		202		201	
50 percent exceeds	78		82		82	
90 percent exceeds	35		39		34	

[a] See Period of Record.
[b] See Remarks.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to 1996, 1999, 2003, 2011.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to September 1986.
WATER TEMPERATURE: October 1962 to September 1986.

INSTRUMENTATION.--Temperature recorder from October 1962 to September 1986. Water-quality monitor from May 1974 to September 1986.

REMARKS.--Station operated as part of the Hydrologic Benchmark network from October 1962 to current year. Miscellaneous chemical data published for 1945 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 43 microsiemens, June 13, 1974; minimum, 7 microsiemens, Feb. 28, 1983.
WATER TEMPERATURE: Maximum, 23.5°C, Aug. 5, 1977; minimum, 0.0°C, on several days during winter months of most years.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 1 of 3
[%, percent; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; g/m2, grams per square meter; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)
09-14-2011	**1000**	Plant tissue	Regular	--	--	--	9.5	--
09-14-2011	**1300**	Surface water	Replicate	704	25.0	41	9.5	101
09-14-2011	***1301***	*QC sample - Surface water*	*Replicate*	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 2 of 3
[%, percent; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; g/m2, grams per square meter; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Chloride, water, filtered, mg/L (00940)	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophosphate, water, filtered, mg/L as P (00671)
09-14-2011	**1000**	6.0	14	13.3	--	--	--	--	--	--
09-14-2011	**1300**	6.3	14	14.4	.44	.96	.014	.14	< .001	.010
09-14-2011	***1301***	--	--	--	--	--	*.012*	*.13*	*< .001*	*.010*

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 3

[%, percent; N, nitrogen; P, phosphorus; ft^3/s, cubic feet per second; g/m2, grams per square meter; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Biomass, periphyton, ash free dry mass, g/m2 (49954)
09-14-2011	**1000**	--	--	1.3
09-14-2011	**1300**	.015	.20	--
09-14-2011	***1301***	*.014*	*.19*	--