

Water-Data Report 2007

**02053200 POTECASI CREEK NEAR UNION, NC**

Albemarle-Chowan Basin  
Meherrin Subbasin

LOCATION.--Lat 36°22'15", long 77°01'32" referenced to North American Datum of 1983, Hertford County, NC, Hydrologic Unit 03010204, on right bank at downstream side of bridge on North Carolina Highway 11, 2.8 mi north of Union, 3 mi downstream of Cutawhiskie Swamp, and 3.5 mi upstream from Bells Branch.

DRAINAGE AREA.--225 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1953-57. March 1958 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.53 ft above NGVD of 1929. Prior to December 1, 1958, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 5,800 ft<sup>3</sup>/s on basis of discharge-conveyance ratios of peak flow; maximum gage height from outside floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1929 reached a stage of 19.1 ft; discharge, 4,050 ft<sup>3</sup>/s; and flood of August 1940 reached a stage of 24.1 ft; discharge, 7,000 ft<sup>3</sup>/s, from rating curve extended above 4,000 ft<sup>3</sup>/s, from information furnished by North Carolina State Highway Commission.

## 02053200 POTECASI CREEK NEAR UNION, NC—Continued

**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	9.4	374	547	738	211	199	52	18	4.3	9.5	5.8	1.3
2	7.7	384	452	563	197	200	49	16	3.8	7.7	4.6	1.2
3	5.8	347	381	428	194	299	45	14	7.5	6.6	3.7	1.2
4	4.1	293	337	336	184	315	42	15	40	6.2	3.1	1.3
5	3.0	237	312	280	163	321	38	15	54	6.0	2.8	1.3
6	3.9	192	294	359	142	318	34	19	95	5.6	2.7	1.2
7	74	157	272	613	129	283	32	21	84	4.9	3.2	1.2
8	246	219	257	547	122	243	30	20	72	4.8	3.0	1.2
9	238	380	247	e525	112	210	27	20	103	4.7	2.4	1.2
10	e280	340	235	e435	102	183	26	20	115	4.6	2.1	1.2
11	e410	248	221	e344	92	159	25	21	96	6.2	3.5	1.2
12	399	265	206	e280	85	134	25	22	74	16	7.0	1.2
13	317	888	192	248	80	110	25	86	50	13	4.8	1.2
14	227	1,270	179	230	180	90	24	162	34	8.9	4.2	0.86
15	159	1,310	168	216	348	77	42	152	25	6.7	3.7	1.1
16	99	1,390	159	202	297	106	188	161	20	5.5	3.7	1.1
17	57	1,460	148	186	254	472	266	128	17	4.9	20	0.94
18	45	1,430	138	171	257	599	256	107	14	5.7	22	0.86
19	46	1,340	128	166	249	402	302	78	12	5.3	8.2	0.89
20	45	1,420	116	164	228	269	309	58	10	4.5	6.3	0.92
21	36	1,390	103	156	200	220	287	48	9.8	4.5	5.4	1.1
22	35	1,330	93	260	180	195	240	41	8.9	4.1	5.3	1.4
23	39	1,640	120	514	163	176	188	32	8.0	3.9	4.6	1.3
24	36	1,710	157	483	146	154	140	24	7.3	3.6	3.7	1.1
25	31	1,560	193	456	130	129	94	18	7.4	3.2	3.0	0.93
26	26	1,390	645	462	212	102	62	14	6.5	3.2	2.4	0.82
27	23	1,200	1,120	439	304	81	44	11	6.2	3.3	2.0	0.89
28	104	1,000	1,270	393	246	68	36	8.9	6.3	4.6	1.6	0.92
29	314	e800	1,310	338	---	68	28	7.1	6.8	8.0	1.4	0.82
30	304	672	1,170	284	---	67	22	5.6	6.7	9.2	1.3	0.72
31	293	---	947	243	---	59	---	4.7	---	7.5	1.3	---
<b>Total</b>	3,916.9	26,636	12,117	11,059	5,207	6,308	2,978	1,367.3	1,004.5	192.4	148.8	32.57
<b>Mean</b>	126	888	391	357	186	203	99.3	44.1	33.5	6.21	4.80	1.09
<b>Max</b>	410	1,710	1,310	738	348	599	309	162	115	16	22	1.4
<b>Min</b>	3.0	157	93	156	80	59	22	4.7	3.8	3.2	1.3	0.72
<b>Cfsm</b>	0.56	3.95	1.74	1.59	0.83	0.90	0.44	0.20	0.15	0.03	0.02	0.00
<b>In.</b>	0.65	4.40	2.00	1.83	0.86	1.04	0.49	0.23	0.17	0.03	0.02	0.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	124	120	216	386	468	439	295	144	131	104	161	152
<b>Max</b>	1,108	888	675	957	1,135	1,439	994	925	741	531	1,131	2,515
<b>(WY)</b>	(1960)	(2007)	(2004)	(1987)	(1960)	(1989)	(1983)	(1979)	(2006)	(1975)	(1992)	(1999)
<b>Min</b>	2.12	4.71	11.3	51.3	54.9	43.7	27.7	5.36	3.98	2.32	2.50	1.09
<b>(WY)</b>	(1995)	(2002)	(2002)	(1981)	(1991)	(2006)	(1995)	(1994)	(2002)	(1983)	(1987)	(2007)

02053200 POTECASTI CREEK NEAR UNION, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1959 - 2007	
<b>Annual total</b>	102,885.1		70,967.47			
<b>Annual mean</b>	282		194		227	
<b>Highest annual mean</b>					458	1979
<b>Lowest annual mean</b>					56.1	2002
<b>Highest daily mean</b>	3,610	Jun 17	1,710	Nov 24	15,200	Sep 17, 1999
<b>Lowest daily mean</b>	3.0	Oct 5	0.72	Sep 30	0.30	Jun 30, 1959
<b>Annual seven-day minimum</b>	4.0	Aug 24	0.89	Sep 24	0.51	Jun 25, 1959
<b>Maximum peak flow</b>			1,750	Nov 24	<sup>a</sup> 17,000	Sep 17, 1999
<b>Maximum peak stage</b>			13.59	Nov 24	<sup>a</sup> 28.90	Sep 17, 1999
<b>Instantaneous low flow</b>			0.66	Sep 30	0.20	Jul 1, 1959
<b>Annual runoff (cfsm)</b>	1.25		0.864		1.01	
<b>Annual runoff (inches)</b>	17.01		11.73		13.71	
<b>10 percent exceeds</b>	871		454		626	
<b>50 percent exceeds</b>	118		74		77	
<b>90 percent exceeds</b>	11		2.3		5.2	

<sup>a</sup> See Remarks.

