

CHOWAN RIVER BASIN

02053200 POTECASTI CREEK NEAR UNION, NC

LOCATION.--Lat 36°22'15", long 77°01'35", Hertford County, Hydrologic Unit 03010204, on right bank at downstream side of bridge on State 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 mi².

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 Dec. 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 ft³/s on basis of discharge-conveyance ratios of peak flow; gage height from outside floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1929 reached a stage of 19.1 ft; discharge, 4,050 ft³/s; and flood of August 1940 reached a stage of 24.1 ft; discharge, 7,000 ft³/s, from rating curve extended above 4,000 ft³/s, from information furnished by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	113	92	396	676	1,050	463	51	691	31	26	49
2	2.0	81	74	403	685	1,140	551	45	507	43	48	34
3	2.0	85	62	419	739	1,360	597	40	353	48	122	44
4	2.0	84	52	429	744	1,300	552	36	254	54	134	75
5	2.0	74	120	417	697	1,160	467	32	243	50	145	94
6	2.0	108	430	372	607	1,140	389	31	192	45	181	81
7	2.1	213	476	325	590	e1,200	362	30	154	46	220	60
8	2.3	186	402	285	780	1,240	697	28	632	51	297	46
9	2.2	129	421	255	765	1,170	1,040	30	1,340	46	471	37
10	2.5	117	425	229	753	1,050	1,740	62	1,670	e41	703	31
11	6.7	119	401	204	821	897	2,330	77	1,610	28	879	26
12	110	118	365	182	800	732	2,570	63	1,300	24	860	32
13	227	222	334	162	703	580	2,380	46	1,020	21	726	91
14	121	381	433	146	599	452	1,960	34	823	97	558	90
15	71	338	524	131	516	355	1,500	e27	655	241	372	63
16	83	270	479	113	526	291	1,100	e25	560	137	218	47
17	87	450	468	108	816	251	780	e24	551	166	139	41
18	88	714	461	100	1,150	223	549	e28	429	286	215	233
19	72	740	428	85	1,150	200	390	48	369	243	230	1,420
20	47	656	391	90	1,090	189	295	82	434	333	146	1,810
21	44	598	516	82	960	256	236	70	486	363	262	2,490
22	77	551	586	77	810	305	197	115	458	290	457	2,850
23	58	484	528	69	806	289	170	397	396	184	412	2,650
24	35	405	476	75	861	302	144	909	316	110	282	2,260
25	25	329	628	66	806	313	120	1,300	232	73	163	1,820
26	20	265	795	62	780	315	105	1,500	155	71	92	1,400
27	16	215	745	61	744	287	99	1,470	95	38	57	1,050
28	15	175	678	53	876	241	86	1,360	60	26	38	807
29	17	144	616	63	---	204	71	1,290	46	21	28	607
30	41	116	543	93	---	234	59	1,130	36	21	21	447
31	130	---	463	399	---	416	---	902	---	22	21	---
TOTAL	1,411.5	8,480	13,412	5,951	21,850	19,142	21,999	11,282	16,067	3,250	8,523	20,785
MEAN	45.5	283	433	192	780	617	733	364	536	105	275	693
MAX	227	740	795	429	1,150	1,360	2,570	1,500	1,670	363	879	2,850
MIN	1.7	74	52	53	516	189	59	24	36	21	21	26
CFSM	0.20	1.26	1.92	0.85	3.47	2.74	3.26	1.62	2.38	0.47	1.22	3.08
IN.	0.23	1.40	2.22	0.98	3.61	3.16	3.64	1.87	2.66	0.54	1.41	3.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2003, BY WATER YEAR (WY)

	126	100	199	396	490	457	309	148	124	103	153	150
MEAN	126	100	199	396	490	457	309	148	124	103	153	150
MAX	1,108	619	619	957	1,135	1,439	994	925	700	531	1,131	2,515
(WY)	(1960)	(1986)	(1990)	(1987)	(1960)	(1989)	(1983)	(1979)	(1979)	(1975)	(1992)	(1999)
MIN	2.12	4.71	11.3	51.3	54.9	46.7	27.7	5.36	3.98	2.32	2.50	1.65
(WY)	(1995)	(2002)	(2002)	(1981)	(1991)	(1988)	(1995)	(1994)	(2002)	(1983)	(1987)	(1995)

02053200 POTECASTI CREEK NEAR UNION, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1959 - 2003	
ANNUAL TOTAL	43,172.31		152,152.5		228	
ANNUAL MEAN	118		417		458	
HIGHEST ANNUAL MEAN					56.1	1979
LOWEST ANNUAL MEAN					15,200	2002
HIGHEST DAILY MEAN	795	Dec 26	2,850	Sep 22	15,200	Sep 17, 1999
LOWEST DAILY MEAN	0.49	Sep 25	1.7	Oct 1	0.30	Jun 30, 1959
ANNUAL SEVEN-DAY MINIMUM	0.83	Sep 23	2.0	Oct 1	0.51	Jun 25, 1959
MAXIMUM PEAK FLOW			2,890	Sep 22	1,7000*	Sep 17, 1999
MAXIMUM PEAK STAGE			18.50	Sep 22	28.90*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			1.4	Oct 1	0.20	Jul 1, 1959
ANNUAL RUNOFF (CFSM)	0.53		1.85		1.01	
ANNUAL RUNOFF (INCHES)	7.14		25.16		13.79	
10 PERCENT EXCEEDS	429		1,070		645	
50 PERCENT EXCEEDS	25		241		75	
90 PERCENT EXCEEDS	2.0		31		5.2	

e Estimated.
 * See REMARKS.

