

## CHOWAN RIVER BASIN

02053200 POTECASTI CREEK NEAR UNION, NC

LOCATION.--Lat 36°22'15", long 77°01'32", 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 mi<sup>2</sup>.

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 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	89	168	317	369	475	487	47	32	14	17	0.90
2	49	76	156	314	354	580	509	45	40	11	12	0.78
3	46	68	145	313	370	590	628	42	51	9.0	8.9	0.73
4	44	68	135	304	427	596	604	37	57	7.7	6.7	0.78
5	44	82	125	282	489	556	508	33	57	6.9	5.3	0.92
6	48	105	119	253	462	481	425	60	53	6.8	4.5	1.1
7	43	106	116	222	424	392	349	230	50	6.9	3.9	1.1
8	37	100	114	193	391	325	304	365	53	12	3.7	1.2
9	35	105	113	170	355	375	349	322	55	11	3.7	1.2
10	37	114	159	147	317	398	391	367	59	7.8	12	1.2
11	46	116	370	125	275	344	340	390	55	6.7	14	1.1
12	49	119	447	115	234	354	283	337	51	6.4	8.0	0.98
13	48	160	426	108	198	405	263	247	45	6.2	6.4	1.1
14	52	268	444	152	172	407	319	158	34	6.0	7.0	1.3
15	63	277	441	531	159	362	368	104	26	6.5	5.2	1.4
16	67	279	395	786	e168	308	341	94	20	6.4	4.4	1.5
17	72	339	335	861	e157	379	323	78	16	6.4	24	1.4
18	90	368	279	919	e145	653	291	62	13	7.6	23	1.8
19	115	359	233	877	120	745	250	54	11	12	11	1.6
20	146	327	197	751	114	750	210	57	10	25	9.7	1.5
21	183	282	163	610	109	760	173	59	8.7	13	7.7	1.9
22	208	235	140	479	104	705	139	59	8.2	9.2	39	1.8
23	232	201	125	386	100	637	115	56	7.8	9.4	45	1.7
24	383	195	122	326	100	782	105	53	7.4	7.2	19	1.7
25	474	216	121	289	135	869	89	55	7.3	6.5	12	1.7
26	453	202	123	265	175	823	75	55	7.3	5.8	6.9	1.7
27	375	179	135	245	157	763	66	50	7.6	5.1	4.6	1.9
28	282	175	139	221	210	677	58	47	11	4.6	2.2	1.7
29	201	174	141	184	---	604	52	45	20	6.7	1.5	1.5
30	139	176	169	207	---	538	50	44	18	10	1.7	1.6
31	106	---	264	325	---	492	---	39	---	11	1.1	---
TOTAL	4,221	5,560	6,559	11,277	6,790	17,125	8,464	3,691	891.3	270.8	331.1	40.79
MEAN	136	185	212	364	242	552	282	119	29.7	8.74	10.7	1.36
MAX	474	368	447	919	489	869	628	390	59	25	45	1.9
MIN	35	68	113	108	100	308	50	33	7.3	4.6	1.1	0.73
CFSM	0.61	0.82	0.94	1.62	1.08	2.46	1.25	0.53	0.13	0.04	0.05	0.01
IN.	0.70	0.92	1.08	1.86	1.12	2.83	1.40	0.61	0.15	0.04	0.05	0.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2005, BY WATER YEAR (WY)

MEAN	126	104	210	391	482	453	305	146	120	103	167	149
MAX	1,108	619	675	957	1,135	1,439	994	925	700	531	1,131	2,515
(WY)	(1960)	(1986)	(2004)	(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	1.36
(WY)	(1995)	(2002)	(2002)	(1981)	(1991)	(1988)	(1995)	(1994)	(2002)	(1983)	(1987)	(2005)

02053200 POTECASI CREEK NEAR UNION, NC—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1959 - 2005	
ANNUAL TOTAL	87,009.1		65,220.99		228	
ANNUAL MEAN	238		179		458	
HIGHEST ANNUAL MEAN					56.1	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	3,600	Aug 18	919	Jan 18	15,200	Sep 17, 1999
LOWEST DAILY MEAN	6.8	Jun 23	0.73	Sep 3	0.30	Jun 30, 1959
ANNUAL SEVEN-DAY MINIMUM	8.8	Jun 18	0.90	Aug 31	0.51	Jun 25, 1959
MAXIMUM PEAK FLOW			927	Jan 18	17,000*	Sep 17, 1999
MAXIMUM PEAK STAGE			10.86	Jan 18	28.90*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			0.66	Sep 3	0.20	Jul 1, 1959
ANNUAL RUNOFF (CFSM)	1.06		0.794		1.01	
ANNUAL RUNOFF (INCHES)	14.39		10.78		13.79	
10 PERCENT EXCEEDS	417		457		634	
50 PERCENT EXCEEDS	152		106		77	
90 PERCENT EXCEEDS	22		3.8		5.3	

\* See REMARKS.  
e Estimated.

