

CHOWAN RIVER BASIN

02053200 POTE CASI CREEK NEAR UNION, NC

LOCATION.--Lat 36°22'14", long 77°01'36", 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.--No estimated daily discharges. Records fair. 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; gage height from outside floodmarks. Maximum gage height for current water year also occurred Apr. 4. Minimum discharge for current water year also occurred Sept. 25.

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 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.6	9.2	7.8	187	31	445	7.7	2.1	4.4	5.7	2.8
2	5.3	3.6	9.1	7.8	152	32	656	8.0	2.0	3.3	4.5	2.4
3	4.9	3.7	8.8	9.1	121	52	618	13	1.8	2.8	3.6	2.1
4	3.9	3.7	8.3	10	99	67	656	14	1.7	2.4	3.0	1.9
5	3.3	3.7	8.3	11	82	62	621	17	1.7	2.3	2.4	1.8
6	3.6	3.6	8.9	14	69	66	524	18	1.9	2.4	2.1	1.7
7	3.7	3.2	9.1	27	135	79	391	17	5.2	2.3	1.9	1.7
8	3.2	3.2	9.1	38	332	78	268	18	7.1	2.4	1.8	1.6
9	3.3	3.2	9.2	34	293	71	184	18	4.9	2.5	1.7	1.4
10	3.3	3.3	9.3	46	275	61	133	17	4.2	2.3	1.5	1.4
11	3.4	3.3	13	71	322	49	96	14	3.4	1.9	1.4	1.6
12	3.4	3.3	15	81	325	44	71	11	2.7	2.0	1.3	1.5
13	3.4	3.3	16	80	291	50	56	9.2	2.4	2.2	1.4	1.3
14	3.6	3.4	14	71	241	58	45	8.2	2.8	3.0	1.7	1.8
15	3.6	3.7	16	57	193	57	40	7.0	5.4	4.7	1.8	4.7
16	3.6	3.5	17	42	157	58	36	6.3	9.4	3.5	2.3	5.4
17	4.1	3.4	18	34	127	71	28	5.6	6.6	3.1	2.6	8.7
18	4.2	3.6	18	27	99	132	22	5.2	4.9	3.1	2.8	7.6
19	4.1	3.7	16	39	80	232	19	5.6	3.7	5.0	3.0	4.1
20	4.0	3.8	14	305	68	216	18	5.5	3.2	8.4	2.9	2.5
21	4.0	4.0	12	429	61	241	16	5.3	2.9	27	2.9	1.6
22	4.0	4.0	11	389	55	306	16	4.9	2.8	27	2.8	1.1
23	4.4	4.3	9.7	491	50	307	15	4.5	2.8	28	2.7	0.7
24	4.6	9.1	9.9	566	45	270	15	4.0	2.7	25	2.7	0.5
25	4.7	9.1	9.6	624	41	234	15	3.5	2.6	69	2.6	0.5
26	4.7	8.0	9.3	561	39	196	15	3.2	2.5	40	2.5	0.7
27	4.5	7.6	9.0	468	35	193	13	3.0	2.7	21	3.6	1.5
28	4.1	7.8	8.6	384	33	210	11	2.7	7.7	16	11	1.0
29	3.8	8.8	8.3	325	---	197	11	2.6	9.4	14	6.2	0.9
30	3.7	8.9	8.0	274	---	206	9.2	2.3	6.1	10	3.3	1.1
31	3.6	---	8.0	228	---	230	---	2.2	---	7.6	3.2	---
TOTAL	122.8	141.4	349.7	5750.7	4007	4156	5063.2	263.5	119.3	348.6	92.9	67.6
MEAN	3.961	4.713	11.28	185.5	143.1	134.1	168.8	8.500	3.977	11.25	2.997	2.253
MAX	5.3	9.1	18	624	332	307	656	18	9.4	69	11	8.7
MIN	3.2	3.2	8.0	7.8	33	31	9.2	2.2	1.7	1.9	1.3	0.5
CFSM	0.02	0.02	0.05	0.82	0.64	0.60	0.75	0.04	0.02	0.05	0.01	0.01
IN.	0.02	0.02	0.06	0.95	0.66	0.69	0.84	0.04	0.02	0.06	0.02	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	127.8	95.81	193.9	400.9	483.5	453.9	299.0	143.5	114.7	102.5	150.4	137.9
MAX	1108	619	619	957	1135	1439	994	925	700	531	1131	2515
(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	4.06	2.32	2.50	1.65
(WY)	1995	2002	2002	1981	1991	1988	1995	1994	2002	1983	1987	1995

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1959 - 2002

ANNUAL TOTAL	47220.5	20482.7										
ANNUAL MEAN	129.4	56.12	224.1									
HIGHEST ANNUAL MEAN			458								1979	
LOWEST ANNUAL MEAN			56.4								2002	
HIGHEST DAILY MEAN	2300	Jun 19	656	Apr 2	15200	Sep 17	1999					
LOWEST DAILY MEAN	3.2	Oct 8	0.5	Sep 24	0.3	Jun 30	1959					
ANNUAL SEVEN-DAY MINIMUM	3.3	Nov 7	0.83	Sep 23	0.51	Jun 25	1959					
MAXIMUM PEAK FLOW			687	Apr 4	17000*	Sep 17	1999					
MAXIMUM PEAK STAGE			9.33*	Jan 24	28.90*	Sep 17	1999					
INSTANTANEOUS LOW FLOW			0.44*	Sep 24	0.20	Jul 1	1959					
ANNUAL RUNOFF (CFSM)	0.57		0.25		1.00							
ANNUAL RUNOFF (INCHES)	7.81		3.39		13.53							
10 PERCENT EXCEEDS	368		208		630							
50 PERCENT EXCEEDS	18		7.8		72							
90 PERCENT EXCEEDS	4.0		2.0		5.1							

\* See REMARKS.

02053200 POTECASI CREEK NEAR UNION, NC--Continued

