

Water-Data Report 2008

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 from Cutawhiskie Swamp, and 3.5 mi upstream from Bells Branch.

DRAINAGE AREA.--225 mi².

SURFACE-WATER RECORDS

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

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.—No estimated daily discharges. Records 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; maximum 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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.64	8.4	3.4	153	45	309	40	514	7.8	6.9	15	1.1
2	0.59	8.0	3.2	204	70	257	43	403	6.6	6.1	5.8	0.94
3	0.55	8.1	3.4	205	99	211	44	345	5.7	5.8	2.9	0.60
4	0.49	8.7	3.1	176	84	177	58	302	5.4	5.7	1.6	0.40
5	0.44	9.6	3.0	147	79	195	112	261	5.3	13	1.2	0.32
6	0.45	11	3.1	130	78	251	251	217	5.0	42	1.3	2.6
7	0.56	11	3.1	120	78	235	373	176	4.6	84	1.4	3.6
8	0.62	11	3.3	108	80	442	358	136	4.0	58	1.4	3.3
9	0.69	10	3.1	93	81	623	351	108	3.2	58	1.4	2.5
10	0.76	11	3.1	78	75	639	345	122	2.5	194	1.5	2.0
11	0.84	9.7	3.2	69	63	718	325	89	1.9	305	1.7	2.1
12	0.83	9.2	3.3	59	53	786	289	80	1.5	356	1.4	2.0
13	0.88	9.6	3.4	47	86	716	258	87	1.3	389	1.3	1.8
14	0.96	9.7	3.7	40	276	576	230	65	1.0	347	1.2	1.8
15	0.94	10	4.0	36	337	442	184	48	0.97	263	1.1	1.6
16	0.93	10	28	31	269	341	145	41	2.4	190	0.92	1.4
17	0.93	9.0	63	29	233	291	111	37	3.0	119	0.73	1.8
18	0.95	8.3	28	32	253	247	87	34	2.1	45	0.64	2.5
19	1.1	7.6	16	34	349	208	70	34	1.5	18	0.56	1.7
20	1.1	7.1	13	46	346	186	69	32	1.4	9.7	0.68	1.3
21	1.0	6.5	11	57	291	163	261	35	1.4	5.6	0.48	1.1
22	0.97	6.1	10	52	266	141	477	33	2.6	3.3	0.30	0.83
23	0.92	5.9	8.8	55	372	119	708	25	7.4	2.5	0.20	0.60
24	1.6	5.2	8.4	63	582	98	1,100	21	9.8	3.7	0.15	0.45
25	19	4.6	8.0	66	591	81	1,140	18	5.5	2.3	0.13	0.36
26	47	4.3	30	64	491	66	979	15	3.8	2.3	0.09	2.7
27	62	4.1	202	60	434	55	768	12	3.7	2.5	0.06	4.2
28	52	3.7	256	55	405	47	576	12	3.8	6.7	0.22	3.4
29	22	3.6	160	51	361	41	552	11	5.3	48	0.93	3.0
30	13	3.6	116	48	---	37	645	9.9	7.8	82	1.3	3.1
31	9.7	---	109	43	---	40	---	8.7	---	47	1.2	---
Total	244.44	234.6	1,116.6	2,451	6,827	8,738	10,949	3,331.6	118.27	2,721.1	48.79	55.10
Mean	7.89	7.82	36.0	79.1	235	282	365	107	3.94	87.8	1.57	1.84
Max	62	11	256	205	591	786	1,140	514	9.8	389	15	4.2
Min	0.44	3.6	3.0	29	45	37	40	8.7	0.97	2.3	0.06	0.32
Cfsm	0.04	0.03	0.16	0.35	1.05	1.25	1.62	0.48	0.02	0.39	0.01	0.01
In.	0.04	0.04	0.18	0.41	1.13	1.44	1.81	0.55	0.02	0.45	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	121	117	212	380	463	436	297	143	128	103	158	149
Max	1,108	888	675	957	1,135	1,439	994	925	741	531	1,131	2,515
(WY)	(1960)	(2007)	(2004)	(1987)	(1960)	(1989)	(1983)	(1979)	(2006)	(1975)	(1992)	(1999)
Min	2.12	4.71	11.3	51.3	54.9	43.7	27.7	5.36	3.94	2.32	1.57	1.09
(WY)	(1995)	(2002)	(2002)	(1981)	(1991)	(2006)	(1995)	(1994)	(2008)	(1983)	(2008)	(2007)

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-SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1959 - 2008	
Annual total	29,893.21		36,835.50			
Annual mean	81.9		101		225	
Highest annual mean					458	1979
Lowest annual mean					56.1	2002
Highest daily mean	738	Jan 1	1,140	Apr 25	15,200	Sep 17, 1999
Lowest daily mean	0.44	Oct 5	0.06	Aug 27	0.06	Aug 27, 2008
Annual seven-day minimum	0.53	Oct 2	0.16	Aug 22	0.16	Aug 22, 2008
Maximum peak flow			1,180	Apr 25	^a 17,000	Sep 17, 1999
Maximum peak stage			11.63	Apr 25	^a 28.90	Sep 17, 1999
Instantaneous low flow			NOT DETERMINED		NOT DETERMINED	
Annual runoff (cfsm)	0.364					
Annual runoff (inches)	4.94		6.09		13.56	
10 percent exceeds	262		342		620	
50 percent exceeds	12		12		75	
90 percent exceeds	1.1		0.93		5.0	

^aSee Remarks.

