

Water-Data Report 2013

02053200 POTECASTI 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 streamgage.

REMARKS.--No estimated daily discharges. Records fair. 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. Minimum discharge for the period of record also occurred July 28, 29, 2011. Minimum discharge for current water year also occurred September 20, 21.

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 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	26	316	33	629	252	858	175	123	15	462	15	3.7
2	24	198	32	551	243	811	160	146	13	564	16	7.9
3	23	155	31	563	216	731	138	177	12	821	16	7.6
4	23	130	31	513	196	617	123	193	12	1,210	13	5.9
5	25	106	31	447	171	486	175	183	12	1,540	11	4.6
6	25	86	32	391	150	389	300	151	13	1,570	9.4	3.9
7	24	71	31	335	136	398	263	138	28	1,420	9.1	3.7
8	37	60	32	284	286	390	255	131	134	1,180	8.8	3.3
9	274	50	33	238	764	327	254	114	225	909	8.2	3.2
10	351	44	34	198	822	287	234	105	304	711	7.4	3.3
11	227	39	36	165	807	249	203	97	389	646	8.1	2.9
12	172	35	36	142	796	221	172	85	483	548	9.8	2.5
13	153	34	40	126	733	219	160	96	508	693	9.5	4.6
14	130	37	45	116	622	209	144	64	432	720	8.2	3.7
15	119	37	46	102	494	181	120	49	292	581	7.0	3.0
16	183	41	55	93	377	166	106	39	166	427	6.2	2.6
17	154	40	78	110	309	157	96	32	94	337	6.0	2.4
18	90	40	104	387	272	139	86	26	73	318	6.1	2.2
19	62	42	100	694	234	124	77	24	74	292	6.8	2.1
20	49	44	95	694	209	111	114	36	80	226	7.1	2.0
21	39	45	105	686	193	99	196	60	82	149	6.7	2.2
22	34	44	111	646	172	91	154	50	96	99	5.9	6.1
23	30	42	107	564	188	83	122	37	117	70	5.1	5.4
24	28	40	104	451	428	85	109	34	163	51	4.4	4.1
25	27	37	102	335	507	227	95	34	230	45	3.9	3.4
26	26	36	124	246	477	313	79	34	464	40	3.6	3.1
27	26	35	508	205	729	266	65	33	539	41	3.5	2.9
28	125	35	756	171	902	274	56	30	482	33	3.3	2.5
29	480	34	730	158	---	265	59	25	448	25	4.2	2.5
30	566	33	769	160	---	240	87	21	467	21	4.1	2.8
31	493	---	732	178	---	203	---	18	---	17	3.6	---
Total	4,045	1,986	5,103	10,578	11,685	9,216	4,377	2,385	6,447	15,766	237.0	110.1
Mean	130	66.2	165	341	417	297	146	76.9	215	509	7.65	3.67
Max	566	316	769	694	902	858	300	193	539	1,570	16	7.9
Min	23	33	31	93	136	83	56	18	12	17	3.3	2.0
Cfsm	0.58	0.29	0.73	1.52	1.85	1.32	0.65	0.34	0.96	2.26	0.03	0.02
In.	0.67	0.33	0.84	1.75	1.93	1.52	0.72	0.39	1.07	2.61	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	134	120	212	367	448	425	288	141	128	108	157	149
Max	1,110	888	675	957	1,135	1,439	994	925	741	531	1,131	2,515
(WY)	(2011)	(2007)	(2004)	(1987)	(1960)	(1989)	(1983)	(1979)	(2006)	(1975)	(1992)	(1999)
Min	2.12	4.71	11.3	51.3	44.7	43.7	27.7	5.36	3.64	1.65	1.57	1.09
(WY)	(1995)	(2002)	(2002)	(1981)	(2009)	(2006)	(1995)	(1994)	(2011)	(2010)	(2008)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1959 - 2013	
Annual total	66,325.2		71,935.1			
Annual mean	181		197		222	
Highest annual mean					458	1979
Lowest annual mean					56.1	2002
Highest daily mean	1,340	Jun 5	1,570	Jul 6	15,200	Sep 17, 1999
Lowest daily mean	2.6	Jul 8	2.0	Sep 20	0.00	Jul 28, 2011
Annual seven-day minimum	3.9	Jul 3	2.4	Sep 15	0.01	Jul 25, 2011
Maximum peak flow			1,600	Jul 5	^a 17,000	Sep 17, 1999
Maximum peak stage			13.47	Jul 6	^a 28.90	Sep 17, 1999
Instantaneous low flow			^a 1.9	Sep 19	^a 0.00	Jul 27, 2011
Annual runoff (cfsm)	0.805		0.876		0.986	
Annual runoff (inches)	10.97		11.89		13.40	
10 percent exceeds	483		563		611	
50 percent exceeds	102		102		73	
90 percent exceeds	23		5.9		4.9	

^a See Remarks.

