

## 0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

LOCATION.--Lat 36°07'55", long 78°49'59", Durham County, Hydrologic Unit 03020201, on left bank at culvert on Secondary Road 1680, 1.5 mi southeast of Willardville.

DRAINAGE AREA.--1.14 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1988 to September 1990, October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No flow at times during most years. Maximum discharge for period of record, from rating curve extended above 70 ft<sup>3</sup>/s, on basis of computation of flow through culvert with road overflow. Maximum gage height for period of record from floodmarks.

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	0.00	0.70	0.33	2.2	1.6	4.4	2.6	0.52	0.60	0.17	0.05	0.01
2	0.00	0.53	0.28	1.7	1.1	6.1	2.0	0.44	0.50	2.4	0.08	0.01
3	0.00	0.42	0.28	1.7	0.84	2.9	1.6	0.39	0.50	3.2	0.08	0.01
4	0.00	0.45	0.30	1.3	0.84	2.0	1.5	0.39	0.69	0.33	0.06	0.08
5	0.00	0.49	7.7	1.0	0.72	2.0	1.5	0.42	0.69	0.22	0.10	0.06
6	0.00	3.2	4.8	0.89	0.69	5.8	1.4	0.48	0.44	0.17	0.10	0.03
7	0.00	1.3	3.2	0.74	8.0	3.0	20	0.38	1.0	0.16	0.21	0.02
8	0.00	0.77	2.3	0.72	2.6	2.0	9.6	0.32	1.6	0.13	0.30	0.08
9	0.00	0.59	2.1	0.66	1.5	1.7	50	0.27	4.1	0.13	4.0	0.04
10	0.00	0.52	1.6	0.59	1.6	1.4	24	0.23	0.95	0.18	3.5	0.04
11	91	0.53	3.1	0.52	1.4	1.2	10	0.20	0.56	0.23	0.59	0.03
12	14	3.6	2.3	0.48	1.1	1.1	4.7	0.19	0.45	0.18	0.32	0.04
13	0.89	3.5	16	0.48	0.93	1.1	3.0	0.18	0.40	0.14	0.23	0.09
14	0.57	1.4	5.7	0.48	0.78	1.1	2.3	0.14	0.34	0.31	0.18	0.10
15	0.52	0.93	2.1	0.44	0.77	0.97	2.0	0.36	0.31	0.13	0.14	0.10
16	3.0	0.87	1.5	0.42	0.84	3.3	1.7	0.40	0.35	0.10	0.18	0.08
17	1.1	5.5	0.94	0.45	0.84	2.5	1.5	0.21	0.39	0.12	0.14	0.02
18	0.51	2.8	0.69	0.42	1.3	1.7	1.3	0.80	0.38	0.07	0.10	0.22
19	0.38	1.4	0.73	0.40	2.5	1.3	1.3	3.5	0.47	0.07	0.09	0.07
20	0.34	0.99	1.7	0.39	2.5	49	1.2	0.84	0.34	0.06	0.09	0.01
21	0.38	0.80	1.2	0.39	1.8	15	1.1	0.51	0.26	0.05	0.07	0.01
22	0.48	0.66	0.89	0.36	11	3.3	1.0	11	0.24	0.10	0.07	0.01
23	0.37	0.56	0.71	0.39	6.2	2.3	0.85	11	0.20	0.18	0.07	1.2
24	0.32	0.49	2.6	0.39	2.5	1.8	0.77	3.1	0.18	0.11	0.07	0.07
25	0.33	0.44	8.7	0.39	1.9	1.5	0.81	3.1	0.15	0.05	0.07	0.02
26	0.38	0.41	2.4	0.39	1.7	1.3	0.86	2.9	0.13	0.04	0.07	0.01
27	0.35	0.39	1.4	0.39	12	1.2	0.76	1.5	0.11	0.04	0.05	0.01
28	2.8	0.36	1.1	0.39	11	1.1	0.64	1.0	0.12	0.04	0.04	0.01
29	3.3	0.36	0.91	0.43	---	1.4	0.56	0.81	0.12	0.04	0.04	0.01
30	2.3	0.37	0.77	4.5	---	17	0.51	0.77	0.11	0.06	0.06	0.01
31	1.1	---	0.69	4.3	---	5.2	---	0.72	---	0.05	0.02	---
TOTAL	124.42	35.33	79.02	28.30	80.55	145.67	151.06	47.07	16.68	9.26	11.17	2.50
MEAN	4.01	1.18	2.55	0.91	2.88	4.70	5.04	1.52	0.56	0.30	0.36	0.083
MAX	91	5.5	16	4.5	12	49	50	11	4.1	3.2	4.0	1.2
MIN	0.00	0.36	0.28	0.36	0.69	0.97	0.51	0.14	0.11	0.04	0.02	0.01
CFSM	3.52	1.03	2.24	0.80	2.52	4.12	4.42	1.33	0.49	0.26	0.32	0.07
IN.	4.06	1.15	2.58	0.92	2.63	4.75	4.93	1.54	0.54	0.30	0.36	0.08

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003,@ BY WATER YEAR (WY)

MEAN	0.66	0.46	0.87	1.71	2.18	2.55	1.62	0.69	0.53	0.27	0.13	1.34
MAX	4.01	1.27	3.26	3.17	5.41	8.30	5.04	2.20	4.07	1.26	0.50	8.60
(WY)	(2003)	(1996)	(1990)	(1998)	(1998)	(1998)	(2003)	(1989)	(1995)	(1989)	(1989)	(1996)
MIN	0.005	0.056	0.014	0.16	0.27	0.36	0.064	0.012	0.052	0.003	0.001	0.000
(WY)	(2002)	(2001)	(1989)	(2001)	(2002)	(2002)	(1995)	(2002)	(1988)	(1988)	(1988)	(1990)

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003@	
ANNUAL TOTAL	292.51		731.03		1.11	
ANNUAL MEAN	0.80		2.00		2.00 2003	
HIGHEST ANNUAL MEAN					0.16 2002	
LOWEST ANNUAL MEAN					225 Sep 6, 1996	
HIGHEST DAILY MEAN	91	Oct 11	91	Oct 11	0.00	Jun 22, 1988
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Jul 2, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	May 23	0.00	Oct 1	0.00	Jul 2, 1988
MAXIMUM PEAK FLOW			315	Oct 11	1,410*	Sep 6, 1996
MAXIMUM PEAK STAGE			6.38	Oct 11	7.77*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	0.00*	Jun 15, 1988
ANNUAL RUNOFF (CFSM)	0.70		1.76		0.98	
ANNUAL RUNOFF (INCHES)	9.55		23.85		13.28	
10 PERCENT EXCEEDS	1.4		3.4		2.0	
50 PERCENT EXCEEDS	0.06		0.53		0.21	
90 PERCENT EXCEEDS	0.00		0.05		0.00	

@ See PERIOD OF RECORD.

\* See REMARKS.

