

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

LOCATION.--Lat 36°07'55", long 78°50'00", Durham County, Hydrologic Unit 03020201, on left bank at culvert on Secondary Road 1680, 1.5 mi southeast of Willardville.

DRAINAGE AREA.--1.14 mi².

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 except those for April 29 to June 2, which are poor, due to effects of beaver dams on the gage height-discharge relationship. No flow at times during most years. Maximum discharge for period of record, from rating curve extended above 70 ft³/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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	0.24	0.47	0.19	0.90	2.9	1.2	0.59	0.08	0.01	0.02	0.00
2	0.09	0.27	0.40	0.19	0.71	1.5	4.9	0.58	0.17	0.04	0.00	0.00
3	0.07	0.32	0.34	0.19	1.3	1.1	2.6	0.64	0.25	0.02	0.00	0.00
4	0.06	0.35	0.30	0.19	1.8	0.92	1.6	0.62	0.14	0.01	0.00	0.00
5	0.10	0.23	0.28	0.19	1.1	0.90	1.2	0.55	0.08	0.01	0.00	0.00
6	0.13	0.16	0.26	0.19	0.81	0.82	1.1	0.43	0.05	0.00	0.00	0.00
7	0.13	0.14	0.33	0.19	0.70	0.77	1.9	0.39	0.06	0.03	0.00	0.00
8	0.14	0.16	0.30	0.19	0.65	3.1	3.4	0.44	0.08	0.07	0.00	0.00
9	0.15	0.17	0.33	0.19	0.62	2.0	2.7	0.44	0.33	0.01	0.00	0.00
10	0.16	0.16	6.7	0.19	0.61	1.3	1.5	0.38	0.33	0.00	0.00	0.00
11	0.14	0.15	1.5	0.16	0.56	1.1	1.2	0.30	0.15	0.00	0.00	0.00
12	0.16	1.7	0.64	0.18	0.52	1.1	1.0	0.35	0.08	0.01	0.00	0.00
13	0.91	2.0	0.46	0.38	0.52	0.91	1.1	0.32	0.06	0.00	0.00	0.00
14	1.1	0.57	0.35	18	0.56	0.90	0.96	0.37	0.06	0.02	0.00	0.00
15	0.37	0.36	0.29	2.8	0.55	0.79	0.81	0.33	0.04	0.02	0.00	0.00
16	0.24	0.29	0.26	1.4	0.53	1.5	0.72	0.28	0.02	0.00	0.00	0.00
17	0.18	0.24	0.25	0.96	0.49	7.3	0.70	0.27	0.02	0.00	0.00	0.00
18	0.15	0.22	0.25	0.74	0.46	2.9	0.67	0.33	0.02	0.00	0.00	0.00
19	0.16	0.20	0.25	0.67	0.43	1.7	0.65	0.34	0.02	0.00	0.00	0.00
20	0.20	0.19	0.22	0.65	0.44	1.3	0.60	0.32	0.03	0.00	0.00	0.00
21	0.19	0.19	0.22	0.65	0.48	1.1	0.57	0.21	0.02	0.00	0.00	0.00
22	0.17	0.18	0.21	0.62	0.47	0.93	0.55	0.17	0.03	0.01	0.00	0.00
23	0.15	0.45	0.32	0.57	0.43	1.6	0.59	0.16	0.03	0.02	0.00	0.00
24	0.16	1.3	0.30	0.53	0.82	2.7	0.55	0.31	0.02	0.00	0.00	0.00
25	0.15	0.69	0.25	0.56	0.88	1.6	0.50	0.19	0.02	0.00	0.00	0.00
26	0.13	0.39	0.22	0.56	0.67	1.2	0.50	0.34	0.02	0.00	0.00	0.00
27	0.13	0.31	0.20	0.47	0.60	1.1	0.50	0.26	0.03	0.00	0.00	0.00
28	0.13	3.7	0.19	0.39	6.7	12	0.46	0.22	0.06	0.00	0.00	0.00
29	0.13	0.95	0.19	0.42	---	3.6	0.56	0.30	0.05	0.01	0.00	0.00
30	0.16	0.56	0.19	1.5	---	1.8	0.60	0.17	0.03	0.02	0.00	0.00
31	0.19	---	0.19	1.4	---	1.4	---	0.09	---	0.02	0.00	---
TOTAL	6.39	16.84	16.66	35.51	25.31	63.84	35.89	10.69	2.38	0.33	0.02	0.00
MEAN	0.21	0.56	0.54	1.15	0.90	2.06	1.20	0.34	0.08	0.01	0.00	0.00
MAX	1.1	3.7	6.7	18	6.7	12	4.9	0.64	0.33	0.07	0.02	0.00
MIN	0.06	0.14	0.19	0.16	0.43	0.77	0.46	0.09	0.02	0.00	0.00	0.00
CFSM	0.18	0.49	0.47	1.00	0.79	1.81	1.05	0.30	0.07	0.01	0.00	0.00
IN.	0.21	0.55	0.54	1.16	0.83	2.08	1.17	0.35	0.08	0.01	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, @ BY WATER YEAR (WY)

MEAN	0.59	0.45	0.85	1.58	2.01	2.37	1.52	0.66	0.47	0.23	0.14	1.18
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	0.01	0.06	0.01	0.16	0.27	0.36	0.06	0.01	0.05	0.00	0.00	0.00
(WY)	(2002)	(2001)	(1989)	(2001)	(2002)	(2002)	(1995)	(2002)	(1988)	(1988)	(2005)	(1990)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005 [@]	
ANNUAL TOTAL	171.35		213.86		1.02	
ANNUAL MEAN	0.47		0.59		0.16	
HIGHEST ANNUAL MEAN					2.00	2003
LOWEST ANNUAL MEAN					0.16	2002
HIGHEST DAILY MEAN	6.7	Dec 10	18	Jan 14	225	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jul 7	0.00	Jul 6	0.00	Jun 22, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 7	0.00	Aug 2	0.00	Jul 2, 1988
MAXIMUM PEAK FLOW			71	Jan 14	1,410*	Sep 6, 1996
MAXIMUM PEAK STAGE			4.38	Jan 14	7.77*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.00*	Jul 1	0.00*	Jun 15, 1988
ANNUAL RUNOFF (CFSM)	0.411		0.514		0.898	
ANNUAL RUNOFF (INCHES)	5.59		6.98		12.20	
10 PERCENT EXCEEDS	0.91		1.3		1.8	
50 PERCENT EXCEEDS	0.26		0.22		0.21	
90 PERCENT EXCEEDS	0.04		0.00		0.00	

[@] See PERIOD OF RECORD.

* See REMARKS.

