

Water-Data Report 2007

02111180 ELK CREEK AT ELKVILLE, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 36°04'17", long 81°24'11" referenced to North American Datum of 1983, Wilkes County, NC, Hydrologic Unit 03040101, on left bank 700 ft upstream from bridge on Secondary Highway 268 in Elkville, and 3,400 ft upstream from mouth.

DRAINAGE AREA.--48.1 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,082.40 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 3,200 ft³/s on basis of contracted-opening computation. Minimum discharge for period of record also occurred Sept. 14, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of August 13, 1940, reached a stage of about 22 ft; discharge, about 70,000 ft³/s, on basis of several contracted-opening and slope-area measurements. A discharge of 6.0 ft³/s was measured September 19, 1956.

02111180 ELK CREEK AT ELKVILLE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	28	37	168	953	58	91	79	57	47	28	27	22
2	27	42	157	348	59	665	77	55	35	25	24	18
3	26	36	111	209	57	233	72	55	39	24	21	16
4	25	34	91	159	54	152	70	65	38	23	20	14
5	25	33	78	169	e53	120	66	60	33	23	20	13
6	29	33	69	180	e52	104	64	56	36	34	19	12
7	26	61	62	181	e52	93	64	52	31	26	18	11
8	29	233	56	498	e51	87	62	50	30	23	18	11
9	31	115	52	302	51	81	61	50	29	21	17	10
10	26	79	51	205	50	78	60	50	28	25	16	9.7
11	24	67	49	158	e50	75	63	55	27	35	15	10
12	26	73	47	135	49	71	75	85	28	25	15	11
13	24	60	46	121	52	69	61	59	27	22	19	10
14	23	55	45	110	63	68	60	52	29	22	15	39
15	23	54	44	101	51	67	107	49	41	21	13	44
16	23	524	43	95	48	392	113	48	34	21	13	20
17	72	228	42	85	e48	268	86	48	28	28	12	16
18	54	132	41	81	e48	169	79	45	26	26	12	15
19	35	99	40	79	e48	135	77	44	25	21	11	15
20	40	79	39	74	e48	119	79	43	28	21	11	14
21	34	67	39	76	55	115	70	42	24	27	11	15
22	31	68	449	87	52	98	66	41	23	20	12	16
23	29	65	417	76	48	90	64	40	22	18	12	17
24	28	56	183	71	47	86	64	40	21	50	12	14
25	28	53	206	68	67	82	63	39	31	52	13	14
26	28	50	239	66	67	79	66	38	27	55	15	13
27	34	49	166	65	57	77	69	37	24	34	22	12
28	108	46	129	64	54	76	63	34	32	28	16	12
29	55	46	108	61	---	92	61	33	29	25	24	10
30	44	52	94	60	---	80	59	32	49	25	18	10
31	40	---	130	59	---	78	---	33	---	25	41	---
Total	1,075	2,626	3,491	4,996	1,489	4,090	2,120	1,487	921	853	532	463.7
Mean	34.7	87.5	113	161	53.2	132	70.7	48.0	30.7	27.5	17.2	15.5
Max	108	524	449	953	67	665	113	85	49	55	41	44
Min	23	33	39	59	47	67	59	32	21	18	11	9.7
Cfsm	0.72	1.82	2.34	3.35	1.11	2.74	1.47	1.00	0.64	0.57	0.36	0.32
In.	0.83	2.03	2.70	3.86	1.15	3.16	1.64	1.15	0.71	0.66	0.41	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2007, BY WATER YEAR (WY)

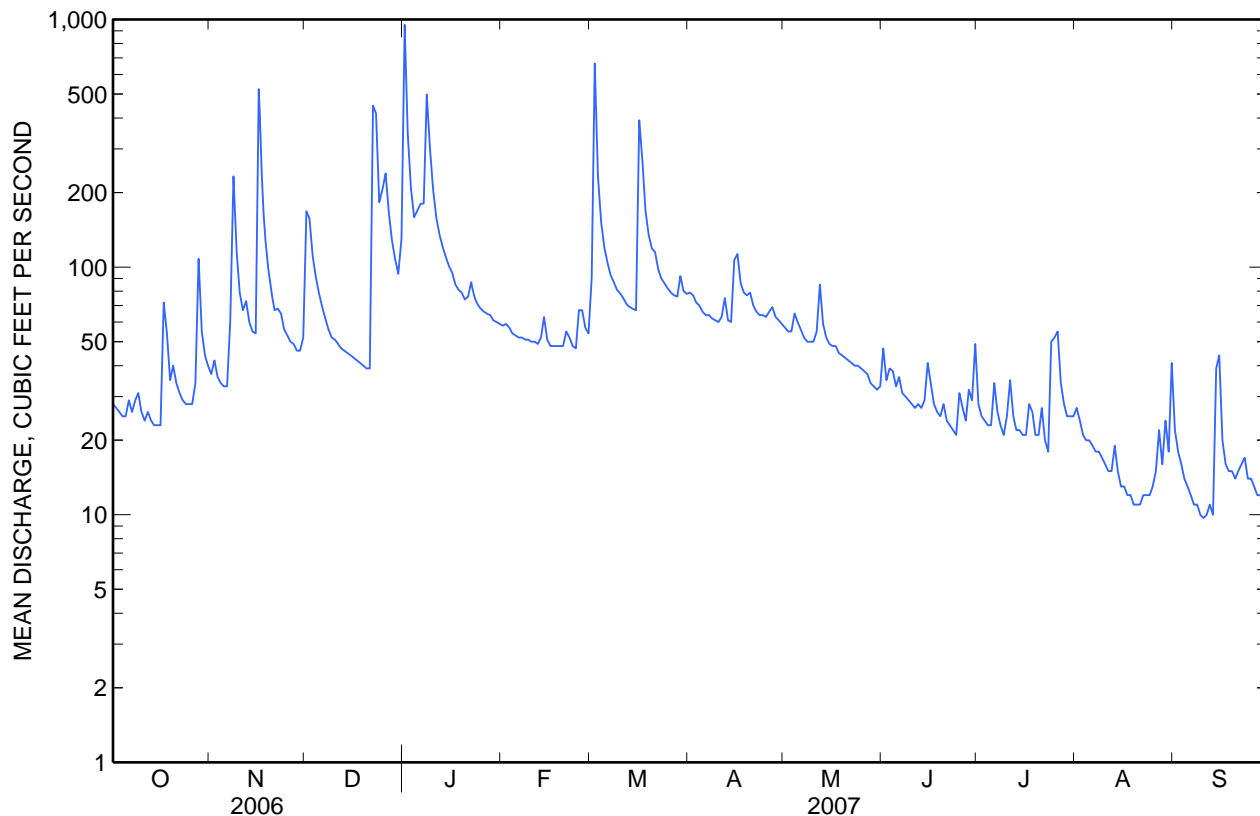
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	72.1	89.4	89.1	104	116	143	137	105	99.0	71.0	77.3	67.0
Max	298	365	193	323	250	317	379	291	300	211	384	293
(WY)	(1991)	(1978)	(1974)	(1995)	(1966)	(1993)	(1980)	(1973)	(2003)	(2003)	(1994)	(2004)
Min	13.7	19.8	19.1	22.5	25.0	47.9	49.9	31.0	21.7	17.6	15.3	15.5
(WY)	(2001)	(1982)	(2001)	(1981)	(2001)	(1988)	(2001)	(2002)	(1988)	(1988)	(2002)	(2007)

02111180 ELK CREEK AT ELKVILLE, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1966 - 2007	
Annual total	24,674		24,143.7			
Annual mean	67.6		66.1		97.4	
Highest annual mean					157	2003
Lowest annual mean					35.7	2001
Highest daily mean	524	Nov 16	953	Jan 1	5,890	Aug 17, 1994
Lowest daily mean	20	Aug 28	9.7	Sep 10	7.0	Sep 13, 2002
Annual seven-day minimum	21	Aug 24	10	Sep 7	8.0	Sep 8, 2002
Maximum peak flow			2,070	Jan 1	^a 18,700	Aug 17, 1994
Maximum peak stage			4.05	Jan 1	12.02	Aug 17, 1994
Instantaneous low flow			9.2	Sep 10	^a 6.8	Sep 13, 2002
Annual runoff (cfsm)	1.41		1.38		2.02	
Annual runoff (inches)	19.08		18.67		27.51	
10 percent exceeds	121		117		169	
50 percent exceeds	52		48		68	
90 percent exceeds	26		16		27	

^a See Remarks.



0211180 ELK CREEK AT ELKVILLE, NC—Continued

CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--October 2001 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with U.S. Army Corps of Engineers, Wilmington District. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.01	0.09	0.13	0.93	0.02	2.00	0.06	0.00	0.01	0.00	0.00	0.00
2	0.00	0.04	0.00	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.29	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00
5	0.20	0.00	0.00	0.70	0.00	0.00	0.00	0.06	0.02	0.17	0.00	0.00
6	0.15	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00
7	0.00	0.94	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.12	0.46	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00
11	0.25	0.56	0.00	0.00	0.00	0.00	0.41	0.02	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.03	0.00	0.52	0.00	0.00	0.00	0.01	0.01	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.61	0.00	0.00	1.49
15	0.00	1.03	0.00	0.00	0.00	0.05	1.70	0.00	0.03	0.06	0.00	0.00
16	0.06	0.62	0.00	0.00	0.00	2.47	0.00	0.02	0.00	0.11	0.00	0.00
17	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.19	0.00	0.00	0.02	0.00	0.00	0.16	0.00	0.07	0.07	0.00	0.00
20	0.12	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.09	0.00	0.00
21	0.00	0.01	0.06	0.59	0.19	0.22	0.00	0.00	0.00	0.00	0.00	0.02
22	0.00	0.47	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.80	0.00	0.00
25	0.00	0.00	1.01	0.00	0.69	0.00	0.00	0.00	0.15	1.11	0.00	0.00
26	0.00	0.00	0.02	0.00	0.01	0.00	0.11	0.00	0.00	0.00	0.08	0.00
27	0.95	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00
28	0.02	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.53	0.05	0.22	0.00
29	0.00	0.00	0.00	0.00	---	0.33	0.00	0.00	0.92	0.00	0.00	0.00
30	0.00	0.20	0.00	0.00	---	0.00	0.00	0.00	0.00	0.06	0.03	0.00
31	0.00	---	1.90	0.00	---	0.00	---	0.11	---	0.00	0.01	---
Total	3.51	4.43	5.41	3.61	1.44	5.39	2.62	0.45	2.67	3.61	0.34	1.51

02111180 ELK CREEK AT ELKVILLE, NC—Continued

