Water-Data Report 2012

02087580 SWIFT CREEK NEAR APEX, NC

Neuse Basin
Upper Neuse Subbasin

LOCATION.--Lat 35°43′08″, long 78°45′08″ referenced to North American Datum of 1983, Wake County, NC, Hydrologic Unit 03020201, on right bank at downstream side of bridge on Secondary Road 1152, 2.8 mi downstream from Williams Creek, and 6 mi east of Apex.

DRAINAGE AREA.--21 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 2002 to current year. Occasional discharge measurements, water years 1953-1969.

REVISED RECORDS.--
WDR NC-03-1A: 2002 (daily discharges, annual maximum discharge)

GAGE.--Water-stage recorder. Datum of gage is 292.22 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry at streamgage.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, 5,260 ft^3/s, June 14, 2006, from rating curve extended above 3,000 ft^3/s by logarithmic plotting; maximum gage height for period of record, 13.86 ft, from crest-stage gage reading. No flow occurs at times most years. Minimum discharge for current water year also occurred August 19.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.5	13	6.8	4.0	3.5	6.8	29	1.9	17	0.37	2.1	0.46
2	2.3	3.5	3.4	9.4	3.8	5.3	13	1.7	91	0.36	1.1	0.46
3	1.1	1.6	2.4	6.1	3.8	88	6.5	1.5	13	0.34	0.81	39
4	0.72	175	1.7	3.2	2.7	58	5.2	1.5	5.2	0.32	0.69	7.7
5	0.53	34	1.5	2.3	38	21	27	226	3.0	0.51	0.80	2.0
6	0.45	8.2	1.5	2.1	15	9.2	18	334	2.0	4.6	0.83	56
7	e0.41	3.7	6.4	1.8	7.9	6.8	7.8	21	1.7	2.7	1.9	32
8	e0.39	3.5	19	2.0	5.4	6.1	4.6	8.6	1.5	0.76	1.3	134
9	e0.37	3.7	5.6	2.5	4.4	10	3.5	42	1.3	2.1	1.3	218
10	e0.34	2.4	3.3	3.3	3.5	7.8	2.9	47	1.2	13	1.1	13
11	e1.4	2.1	2.0	15	3.9	4.8	2.9	11	25	60	1.1	3.5
12	e0.72	1.7	1.5	35	5.4	4.0	2.4	4.4	49	32	1.1	1.5
13	e0.48	1.6	1.3	12	2.4	4.1	1.9	2.8	57	6.7	0.83	0.99
14	e0.39	1.6	1.1	5.9	2.1	4.1	2.0	12	13	2.7	0.50	0.77
15	e0.37	1.8	1.1	4.3	2.1	3.9	2.2	128	4.7	1.6	0.41	0.65
16	e0.33	1.9	1.2	3.0	10	3.5	3.0	22	2.2	1.2	0.36	1.3
17	e0.31	2.7	13	2.6	21	10	4.0	9.8	1.3	0.97	0.32	1.4
18	e3.2	3.2	6.2	14	8.8	15	5.2	9.7	0.85	0.85	0.32	89
19	e57	1.6	2.8	8.4	22	49	6.2	4.3	0.64	0.77	0.94	49
20	e8.9	1.3	1.9	5.0	59	127	6.6	2.6	0.50	26	2.0	7.8
21	e3.2	1.2	2.0	44	18	110	8.8	2.0	0.55	30	6.4	2.7
22	1.8	2.2	3.2	35	10	27	29	1.6	6.7	31	29	1.5
23	1.0	17	3.1	12	20	14	26	1.6	8.3	82	20	1.2
24	0.73	6.8	2.2	8.2	16	150	9.4	2.7	1.7	195	3.4	0.79
25	0.63	2.1	1.5	6.1	20	64	4.7	2.1	0.81	53	15	0.59
26	1.0	1.3	1.3	4.6	7.6	24	5.4	1.7	0.68	8.4	5.2	0.55
27	2.0	1.2	58	32	7.0	12	6.5	9.7	0.50	6.5	1.9	0.58
28	2.6	1.2	36	18	10	8.0	3.7	31	0.38	28	2.2	0.68
29	35	97	11	8.5	7.0	7.2	2.5	9.8	0.36	97	1.2	117
30	12	22	6.5	5.1	---	5.5	2.1	32	0.37	10	0.69	75
31	5.7	---	4.7	3.9	---	8.4	---	15	---	3.7	0.50	---
Total	150.87	420.1	213.2	319.3	340.3	874.5	252.0	1,001.0	311.44	702.45	105.30	859.12
Mean	4.87	14.0	6.88	10.3	11.7	28.2	8.40	32.3	10.4	22.7	3.40	28.6
Max	57	175	58	44	59	150	29	334	91	195	29	218
Min	0.31	1.2	1.1	1.8	2.1	3.5	1.9	1.5	0.36	0.32	0.32	0.46
Cfsm	0.23	0.67	0.33	0.49	0.56	1.34	0.40	1.54	0.49	1.08	0.16	1.36
In.	0.27	0.74	0.38	0.57	0.60	1.55	0.45	1.77	0.55	1.24	0.19	1.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	14.3	26.1	29.4	16.7	25.0	33.5	25.0	17.0	21.3	12.4	24.4	24.9
Max	56.8	101	64.1	33.6	67.6	73.8	64.0	32.3	98.9	24.4	80.0	53.5
(WY)	(2003)	(2007)	(2010)	(2010)	(2003)	(2009)	(2003)	(2012)	(2006)	(2003)	(2004)	(2008)
Min	1.07	0.94	5.66	5.48	8.24	6.08	6.47	1.73	1.70	3.98	0.42	2.71
(WY)	(2010)	(2008)	(2011)	(2011)	(2009)	(2006)	(2010)	(2002)	(2002)	(2009)	(2007)	(2007)

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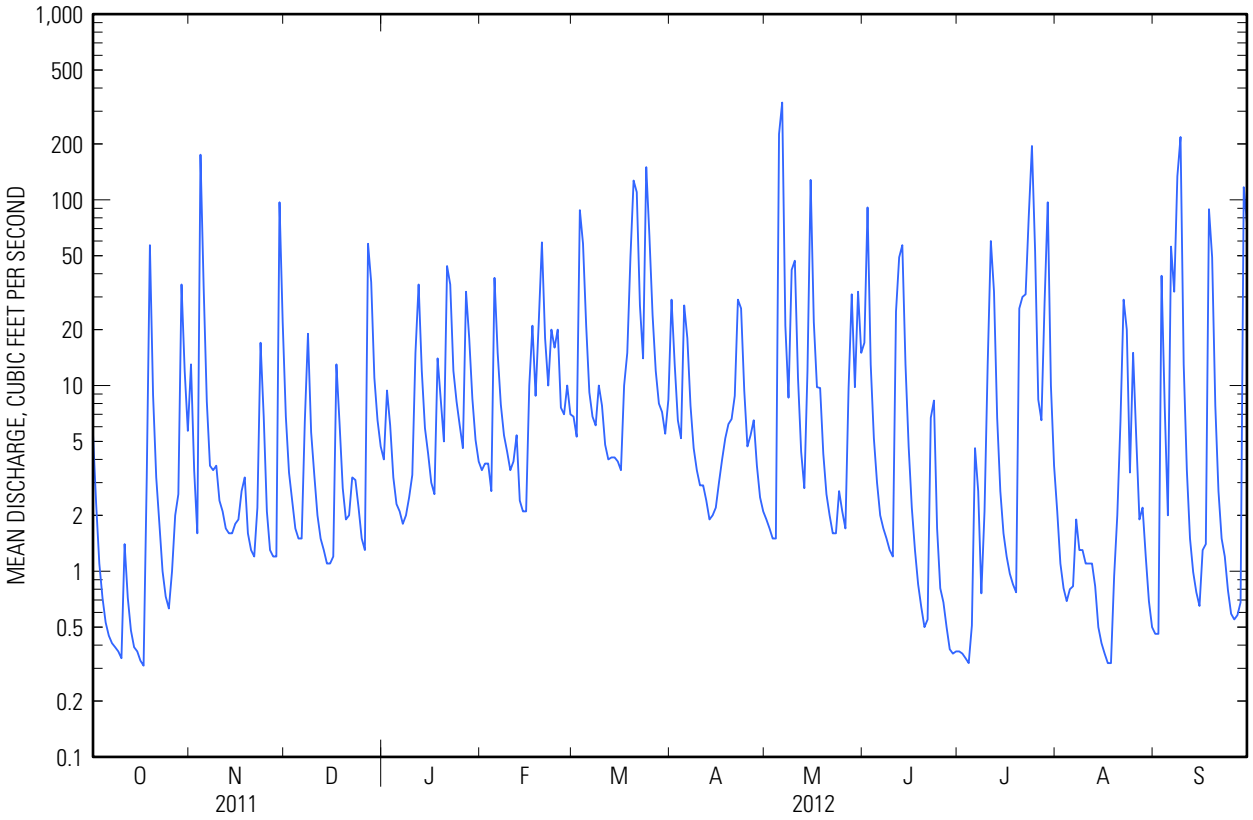
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 2002 - 2012	
Annual total	4,752.47		5,549.58			
Annual mean	13.0		15.2		23.0	
Highest annual mean					43.3	2003
Lowest annual mean					12.2	2011
Highest daily mean	453	Aug 6	334	May 6	1,180	Nov 22, 2006
Lowest daily mean	0.29	Jul 20	0.31	Oct 17	0.00	Aug 3, 2002
Annual seven-day minimum	0.37	Jul 14	0.36	Jun 28	0.00	Aug 3, 2002
Maximum peak flow			1,290	May 5	[a]5,260	Jun 14, 2006
Maximum peak stage			9.77	May 5	[a]13.86	Jun 14, 2006
Instantaneous low flow			[a]0.29	Jul 4	[a]0.00	Aug 3, 2002
Annual runoff (cfsm)	0.620		0.722		1.10	
Annual runoff (inches)	8.42		9.83		14.89	
10 percent exceeds	30		35		48	
50 percent exceeds	2.8		3.7		5.9	
90 percent exceeds	0.72		0.67		0.76	

[a] See Remarks.



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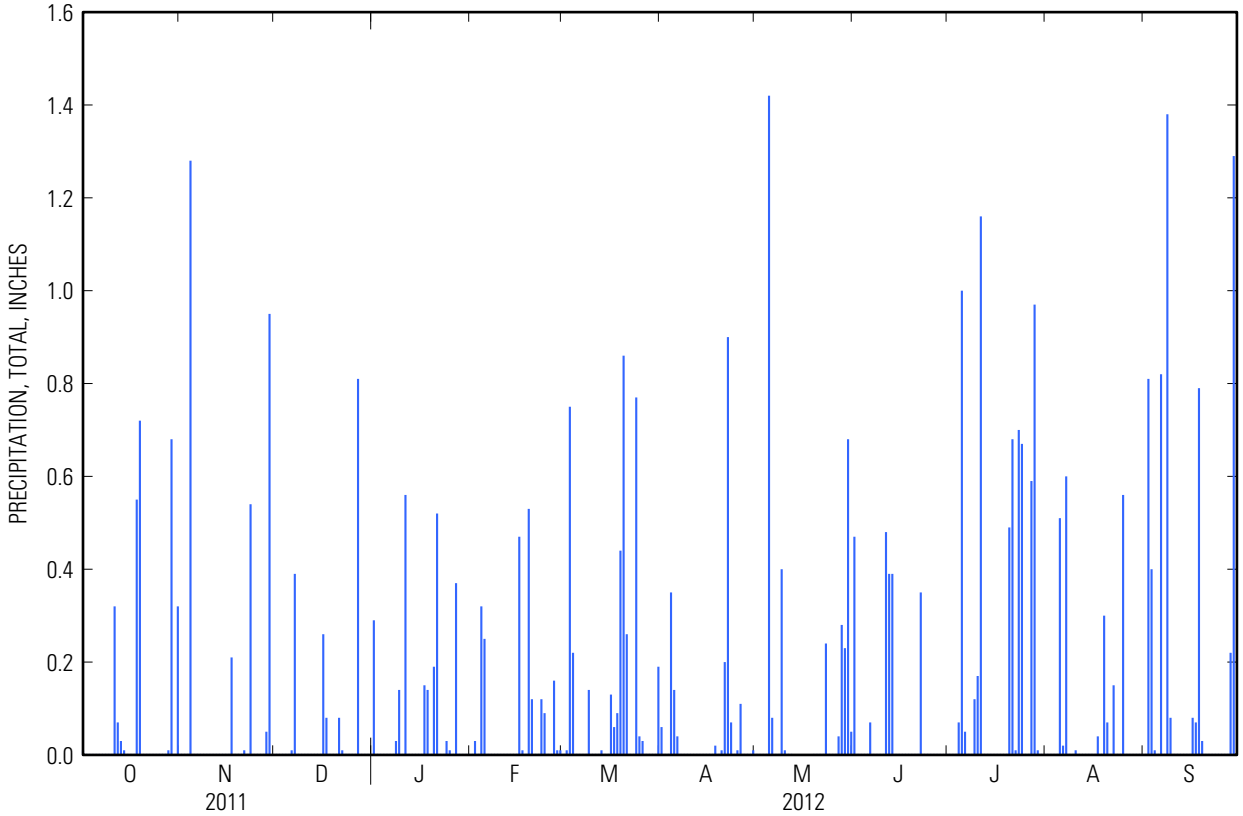
CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--December 2007 to current year.

INSTRUMENTATION.--Tipping bucket raingage. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.01	0.00	0.00	0.29	0.00	0.00	0.06	0.00	0.47	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.81
3	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.40
4	0.00	1.28	0.00	0.00	0.32	0.22	0.35	0.00	0.00	0.07	0.00	0.01
5	0.00	0.00	0.00	0.00	0.25	0.00	0.14	1.42	0.00	1.00	0.51	0.00
6	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.08	0.07	0.05	0.02	0.82
7	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00
8	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38
9	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.40	0.00	0.12	0.00	0.08
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.17	0.01	0.00
11	0.32	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.48	1.16	0.00	0.00
12	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00
13	0.03	0.00	0.00	0.00	0.00	0.01	0.00	---	0.39	0.00	0.00	0.00
14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00
16	0.00	0.00	0.26	0.00	0.47	0.13	0.00	---	0.00	0.00	0.00	0.08
17	0.00	0.21	0.08	0.15	0.01	0.06	0.00	---	0.00	0.00	0.04	0.07
18	0.55	0.00	0.00	0.14	0.00	0.09	0.02	---	0.00	0.00	0.00	0.79
19	0.72	0.00	0.00	0.00	0.53	0.44	0.00	0.00	0.00	0.00	0.30	0.03
20	0.00	0.00	0.00	0.19	0.12	0.86	0.01	0.00	0.00	0.49	0.07	0.00
21	0.00	0.01	0.08	0.52	0.00	0.26	0.20	0.00	0.00	0.68	0.00	0.00
22	0.00	0.00	0.01	0.00	0.00	0.00	0.90	0.00	0.35	0.01	0.15	0.00
23	0.00	0.54	0.00	0.00	0.12	0.00	0.07	0.24	0.00	0.70	0.00	0.00
24	0.00	0.00	0.00	0.03	0.09	0.77	0.00	0.00	0.00	0.67	0.00	0.00
25	0.00	0.00	0.00	0.01	0.00	0.04	0.01	0.00	0.00	0.00	0.56	0.00
26	0.00	0.00	0.00	0.00	0.00	0.03	0.11	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.81	0.37	0.16	0.00	0.00	0.04	0.00	0.59	0.00	0.00
28	0.01	0.05	0.00	0.00	0.01	0.00	0.00	0.28	0.00	0.97	0.00	0.22
29	0.68	0.95	0.00	0.00	0.01	0.00	0.00	0.23	0.00	0.01	0.00	1.29
30	0.00	0.00	0.00	0.00	---	0.00	0.01	0.68	0.00	0.00	0.00	0.00
31	0.32	---	0.00	0.00	---	0.19	---	0.05	---	0.00	0.00	---
Total	2.72	3.04	1.64	2.43	2.12	4.00	1.92	---	2.15	6.69	2.26	5.98

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