

Water-Data Report 2012

**02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC**

Neuse Basin  
Upper Neuse Subbasin

LOCATION.--Lat 36°08'55", long 78°49'44" referenced to North American Datum of 1983, Durham County, NC, Hydrologic Unit 03020201, on right bank 900 ft downstream from Durham municipal dam, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River.

DRAINAGE AREA.--168 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--September 1927 to September 1959, August 1961 to September 1966, October 1982 to September 1990, October 1992 to September 1993, October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 256.6 ft above National Geodetic Vertical Datum of 1929. U.S. Army Corps of Engineers satellite telemetry at streamgage.

REMARKS.--Records good except those below 0.5 ft<sup>3</sup>/s, which are poor. Flow regulated by Lake Michie (station 02086490). No flow occurs at times most years. Minimum discharge for current water year occurred many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 6, 1996, reached a stage of 23.48 ft, present datum, from floodmarks; discharge, 20,900 ft<sup>3</sup>/s.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	0.01	0.02	0.36	9.4	1.3	42	66	47	9.0	0.08	0.01	0.01
<b>2</b>	0.01	0.01	0.28	19	4.4	37	60	41	102	0.04	0.01	0.04
<b>3</b>	0.01	0.01	0.23	14	14	94	50	31	93	0.06	0.01	0.33
<b>4</b>	0.01	1.0	0.22	19	0.94	180	47	12	26	0.12	0.01	0.29
<b>5</b>	0.01	0.20	0.22	5.2	3.7	109	50	70	9.8	0.12	0.01	0.02
<b>6</b>	0.01	0.06	0.22	0.35	3.8	55	62	1,130	1.5	0.11	0.01	0.03
<b>7</b>	0.01	0.05	0.18	0.01	15	38	48	239	0.41	0.05	0.01	0.02
<b>8</b>	0.01	0.04	0.10	0.11	21	29	39	108	0.72	0.01	0.01	0.01
<b>9</b>	0.01	0.05	0.04	0.14	26	25	30	80	0.47	0.04	0.01	0.01
<b>10</b>	0.01	0.06	0.06	0.41	29	19	9.0	175	0.09	0.08	0.01	0.01
<b>11</b>	0.01	0.05	0.06	1.1	31	26	3.8	133	0.14	0.47	0.43	0.01
<b>12</b>	0.01	0.06	0.06	4.0	25	19	0.41	69	0.43	0.16	0.10	0.01
<b>13</b>	0.01	0.06	0.06	29	23	13	0.13	48	88	0.01	0.01	0.01
<b>14</b>	0.01	0.06	0.06	37	23	14	0.06	50	109	0.01	0.01	0.01
<b>15</b>	0.01	0.06	0.03	12	22	8.9	0.01	74	48	0.01	0.01	0.01
<b>16</b>	0.01	0.16	0.08	8.3	20	11	0.01	100	18	0.01	0.01	0.03
<b>17</b>	0.01	0.90	0.35	18	9.5	2.3	0.01	71	0.52	0.01	0.01	0.01
<b>18</b>	0.03	0.52	0.20	5.8	3.1	4.8	0.01	49	0.14	0.01	0.01	1.6
<b>19</b>	0.54	0.34	0.13	0.23	7.7	12	0.01	36	0.02	0.01	0.61	719
<b>20</b>	0.05	0.32	0.20	0.07	40	51	0.01	29	0.01	0.01	0.09	196
<b>21</b>	0.01	0.28	0.51	2.7	97	125	0.04	25	0.01	0.01	0.01	61
<b>22</b>	0.01	0.25	132	1.7	96	113	0.35	24	0.01	0.01	0.01	20
<b>23</b>	0.01	0.36	247	11	87	84	12	149	0.01	0.02	0.01	19
<b>24</b>	0.01	0.25	137	8.3	76	103	71	163	0.01	0.01	0.01	7.4
<b>25</b>	0.01	0.22	71	5.7	125	2,250	62	79	0.01	0.01	0.03	12
<b>26</b>	0.01	0.22	53	4.1	112	596	164	28	0.01	0.01	0.01	14
<b>27</b>	0.01	0.22	48	20	68	243	282	14	0.01	0.12	0.01	13
<b>28</b>	0.01	0.22	55	32	44	143	130	4.0	0.01	0.06	0.02	12
<b>29</b>	0.22	1.0	69	10	45	110	74	12	0.01	0.01	0.02	20
<b>30</b>	0.05	0.53	45	14	---	84	54	3.2	0.02	0.01	0.01	17
<b>31</b>	0.02	---	35	4.5	---	74	---	0.52	---	0.01	0.01	---
<b>Total</b>	1.16	7.58	895.65	297.12	1,073.44	4,715.0	1,314.85	3,093.72	507.36	1.70	1.54	1,112.86
<b>Mean</b>	0.04	0.25	28.9	9.58	37.0	152	43.8	99.8	16.9	0.05	0.05	37.1
<b>Max</b>	0.54	1.0	247	37	125	2,250	282	1,130	109	0.47	0.61	719
<b>Min</b>	0.01	0.01	0.03	0.01	0.94	2.3	0.01	0.52	0.01	0.01	0.01	0.01
<b>Cfsm</b>	0.00	0.00	0.17	0.06	0.22	0.91	0.26	0.59	0.10	0.00	0.00	0.22
<b>In.</b>	0.00	0.00	0.20	0.07	0.24	1.04	0.29	0.69	0.11	0.00	0.00	0.25

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2012<sup>a</sup>, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	57.2	103	148	201	265	301	253	115	76.1	79.8	77.5	74.7
<b>Max</b>	530	496	723	759	614	1,041	856	476	491	795	481	714
(WY)	(1930)	(1986)	(2010)	(1937)	(1948)	(1993)	(2003)	(2003)	(1938)	(1938)	(1939)	(1945)
<b>Min</b>	0.03	0.03	0.05	0.07	0.06	9.90	8.91	0.06	0.05	0.01	0.02	0.01
(WY)	(2006)	(2002)	(2002)	(2002)	(2002)	(2006)	(2002)	(2002)	(2008)	(2004)	(2005)	(2007)

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## SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1927 - 2012 <sup>a</sup>	
<b>Annual total</b>	10,708.04		13,021.98			
<b>Annual mean</b>	29.3		35.6		145	
<b>Highest annual mean</b>					406	
<b>Lowest annual mean</b>					2.63	
<b>Highest daily mean</b>	1,030	Mar 31	2,250	Mar 25	10,500	Oct 2, 1929
<b>Lowest daily mean</b>	0.01	Jul 4	0.01	Oct 1	0.00	Sep 4, 1938
<b>Annual seven-day minimum</b>	0.01	Jul 12	0.01	Oct 1	0.00	Sep 4, 1938
<b>Maximum peak flow</b>			3,850	Mar 25	19,700	Jul 26, 1938
<b>Maximum peak stage</b>			9.57	Mar 25	19.50	Jul 26, 1938
<b>Instantaneous low flow</b>			b0.01	Oct 1	b0.00	Sep 4, 1938
<b>Annual runoff (cfsm)</b>	0.175		0.212		0.864	
<b>Annual runoff (inches)</b>	2.37		2.88		11.74	
<b>10 percent exceeds</b>	91		85		302	
<b>50 percent exceeds</b>	0.27		0.41		52	
<b>90 percent exceeds</b>	0.01		0.01		0.17	

<sup>a</sup> Period of Record.

b See Remarks.

