



Water-Data Report 2010

0208062765 ROANOKE RIVER AT HALIFAX, NC

Roanoke Basin
Lower Roanoke Subbasin

LOCATION.--Lat 36°19'52", long 77°34'49" referenced to North American Datum of 1983, Halifax County, NC, Hydrologic Unit 03010107, approximately 0.5 mi east of Halifax on private dirt road and 119 river mi from mouth.

DRAINAGE AREA.--8,450 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1996 to current year. Records from November 1996 to September 1997 are unpublished and available from the USGS Water Science Center, Raleigh, NC.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 47.24 ft, March 31, 1998; minimum elevation, 16.43 ft, December 8, 1997.

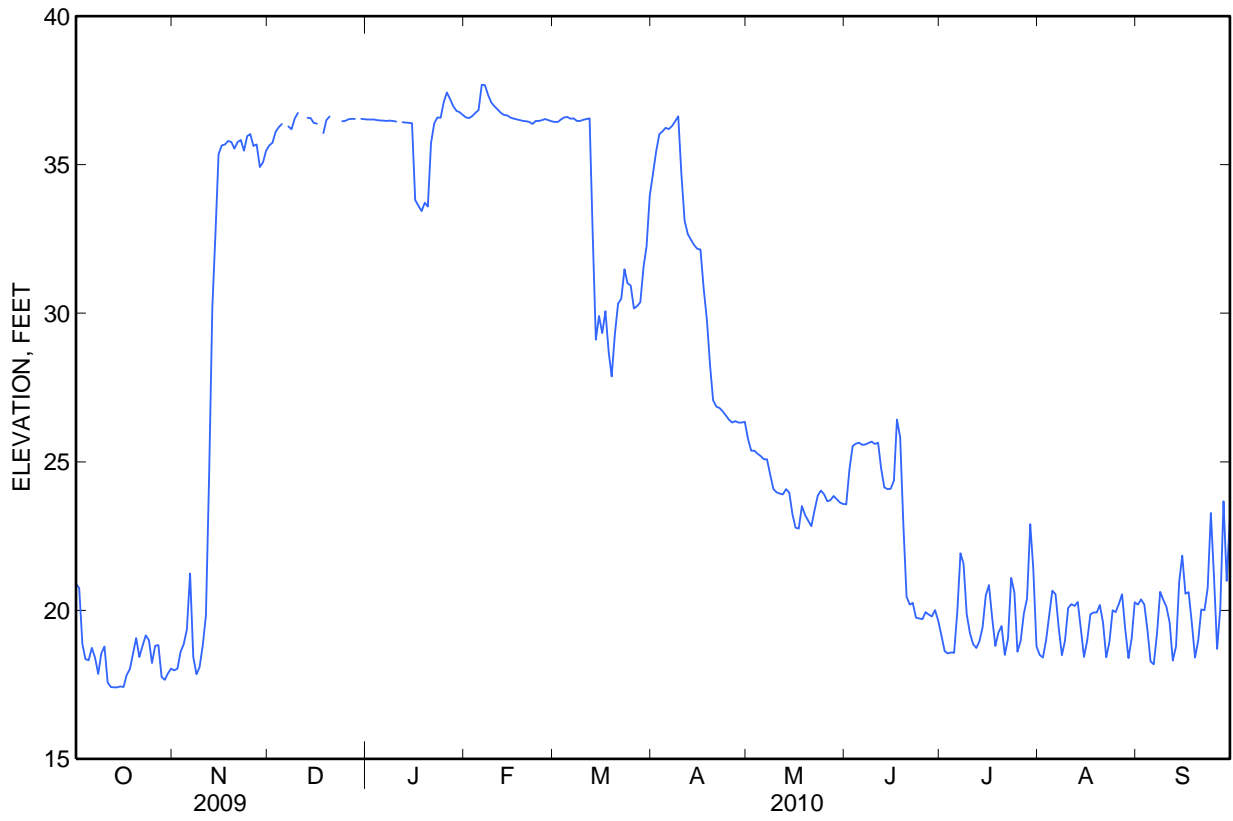
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 37.83 ft, February 7; minimum elevation, 17.40 ft, October 12-14, 16.

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

ELEVATION, FEET
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	20.90	17.98	35.65	36.52	36.59	36.44	34.69	25.77	23.57	19.15	18.50	20.19
2	20.75	18.04	35.74	36.52	36.57	36.44	35.45	25.37	24.74	18.63	18.41	20.37
3	18.87	18.61	36.11	36.52	36.64	36.52	36.03	25.37	25.53	18.55	18.99	20.19
4	18.36	18.86	36.27	36.50	36.75	36.59	36.12	25.27	25.61	18.58	19.81	19.32
5	18.32	19.36	36.37	36.49	36.84	36.61	36.24	25.19	25.64	18.57	20.66	18.28
6	18.74	21.24	---	36.48	37.69	36.55	36.20	25.09	25.57	19.94	20.54	18.18
7	18.41	18.43	36.29	36.47	37.68	36.56	36.30	25.08	25.58	21.92	19.41	19.20
8	17.86	17.85	36.19	36.48	37.34	36.47	36.46	24.56	25.63	21.57	18.49	20.62
9	18.55	18.08	36.55	36.47	37.09	36.47	36.63	24.08	25.68	19.87	18.97	20.35
10	18.78	18.81	36.74	36.45	36.97	36.51	34.66	23.97	25.60	19.23	20.08	20.12
11	17.57	19.83	---	---	36.86	36.54	33.11	23.93	25.64	18.86	20.21	19.60
12	17.42	24.53	---	36.43	36.75	36.56	32.66	23.90	24.78	18.73	20.15	18.31
13	17.41	30.17	36.58	36.42	36.67	32.56	32.47	24.08	24.14	18.95	20.28	18.78
14	17.41	32.73	36.57	36.41	36.66	29.11	32.30	23.96	24.08	19.42	19.34	20.96
15	17.44	35.35	36.41	36.40	36.59	29.91	32.17	23.23	24.09	20.50	18.43	21.84
16	17.42	35.65	36.38	33.81	36.55	29.33	32.14	22.78	24.37	20.85	18.98	20.56
17	17.83	35.68	---	33.62	36.53	30.07	30.83	22.75	26.42	19.75	19.87	20.61
18	18.03	35.80	36.06	33.44	36.50	28.71	29.79	23.51	25.83	18.80	19.93	19.57
19	18.56	35.76	36.50	33.72	36.47	27.87	28.24	23.21	22.89	19.25	19.93	18.41
20	19.07	35.54	36.62	33.59	36.46	29.30	27.07	23.01	20.46	19.47	20.18	18.99
21	18.43	35.76	---	35.73	36.44	30.32	26.86	22.83	20.19	18.50	19.58	20.03
22	18.81	35.83	---	36.39	36.37	30.49	26.81	23.37	20.25	19.05	18.42	20.00
23	19.16	35.47	---	36.59	36.47	31.48	26.70	23.86	19.75	21.09	18.94	20.75
24	18.99	35.96	36.46	36.58	36.47	31.01	26.56	24.03	19.73	20.60	20.00	23.28
25	18.23	36.03	36.48	37.10	36.50	30.93	26.42	23.90	19.70	18.61	19.94	21.07
26	18.81	35.63	36.53	37.43	36.54	30.16	26.32	23.67	19.94	18.97	20.22	18.70
27	18.83	35.68	36.54	37.21	36.50	30.24	26.37	23.71	19.86	19.89	20.54	20.09
28	17.76	34.92	36.54	36.97	36.46	30.37	26.32	23.85	19.79	20.39	19.35	23.67
29	17.66	35.08	---	36.81	---	31.55	26.32	23.74	20.01	22.90	18.39	20.99
30	17.87	35.47	36.54	36.77	---	32.25	26.35	23.63	19.65	21.41	19.06	23.11
31	18.04	---	36.53	36.68	---	33.96	---	23.58	---	18.79	20.27	---
Mean	18.40	28.80	---	---	36.71	32.83	31.15	24.01	23.16	19.70	19.54	20.20
Max	20.90	36.03	---	---	37.69	36.61	36.63	25.77	26.42	22.90	20.66	23.67
Min	17.41	17.85	---	---	36.37	27.87	26.32	22.75	19.65	18.50	18.39	18.18

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued



0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1998 to current year.

pH: March 1998 to current year.

WATER TEMPERATURE: March 1998 to current year.

DISSOLVED OXYGEN: March 1998 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: March 1998 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from March 1998 to current year.

REMARKS.--Station operated to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000.

COOPERATION.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (NCDENR), Division of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 213 microsiemens, November 2, 2000; minimum recorded, 53 microsiemens, September 19, 2003.

pH: Maximum recorded, 8.7 standard units, March 12, 2004; minimum recorded, 6.1 standard units, September 16, 1999.

WATER TEMPERATURE: Maximum recorded, 31.8°C, July 26, 2010; minimum recorded, 2.2°C, January 25, 28, 2003.

DISSOLVED OXYGEN: Maximum recorded, 16.1 mg/L, January 13, 1999; minimum recorded, 3.8, August 21, 22, 2003.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 132%, January 13, 14, 1999; minimum recorded, 47%, June 27, 2001, August 21, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 138 microsiemens, September 30; minimum recorded, 85 microsiemens, on several days during the year.

pH: Maximum recorded, 8.2 standard units, September 21, 22; minimum recorded, 6.7 standard units, on several days during the year.

WATER TEMPERATURE: Maximum recorded, 31.8°C, July 26; minimum recorded, 2.8°C, January 14.

DISSOLVED OXYGEN: Maximum recorded, 12.9 mg/L, January 10, 12, 13, 14; minimum recorded, 5.3 mg/L, July 16.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 127%, October 14; minimum recorded, 67%, July 16.

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	126	111	119	130	126	129	98	96	97	98	96	97
2	125	114	119	132	127	130	96	95	96	97	96	97
3	121	111	117	133	117	124	96	95	95	96	95	95
4	120	115	118	134	115	130	96	95	95	95	94	95
5	121	119	120	131	114	121	97	96	96	95	94	95
6	120	113	117	131	111	118	99	97	98	94	94	94
7	118	114	116	131	111	122	101	99	100	94	94	94
8	120	118	119	131	130	130	102	100	101	95	94	94
9	119	112	116	132	129	130	102	101	101	95	94	94
10	116	108	114	131	115	122	101	101	101	94	94	94
11	119	116	117	130	110	119	101	100	101	94	94	94
12	120	117	118	120	102	109	100	99	99	94	94	94
13	120	118	119	107	100	104	99	98	98	95	94	94
14	131	118	124	113	105	107	99	98	98	94	94	94
15	131	130	131	107	105	106	99	98	98	95	94	94
16	133	130	132	109	107	108	99	98	98	99	94	95
17	133	128	131	110	108	109	99	98	98	97	92	94
18	128	127	128	111	109	110	99	97	98	97	91	93
19	132	119	127	112	111	112	98	97	97	97	92	93
20	132	112	120	112	111	112	97	97	97	99	93	94
21	134	113	124	112	109	111	97	96	97	94	93	94
22	131	115	121	111	110	111	97	96	97	94	93	93
23	133	113	120	113	110	111	---	---	---	93	92	93
24	133	117	124	112	111	111	98	97	97	93	93	93
25	131	126	129	111	108	110	98	97	98	93	90	92
26	133	117	129	108	106	107	98	97	98	92	91	91
27	129	116	122	107	103	104	98	97	97	92	91	92
28	136	128	133	103	102	102	97	97	97	93	91	92
29	136	131	135	102	100	101	97	97	97	93	92	92
30	136	131	133	100	96	98	98	97	97	92	91	91
31	133	130	131	---	---	---	98	97	98	91	90	90
Month	136	108	123	134	96	114	---	---	---	99	90	94

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	91	90	90	87	86	87	93	91	92	100	99	99
2	91	90	90	88	87	87	94	93	93	100	98	99
3	90	90	90	88	85	86	94	91	94	100	99	99
4	90	89	90	86	85	85	100	90	95	101	98	99
5	90	89	90	86	85	85	100	95	96	100	98	99
6	90	87	88	86	85	86	96	95	95	100	99	100
7	90	88	89	87	86	86	96	95	95	101	99	100
8	92	90	90	88	87	87	96	94	96	101	99	100
9	93	91	92	88	87	87	96	95	96	102	100	101
10	94	92	93	87	87	87	98	95	97	101	99	101
11	94	92	93	87	87	87	99	97	98	102	95	100
12	95	93	93	87	87	87	100	99	99	102	95	101
13	95	94	94	91	87	89	101	99	100	101	95	97
14	94	93	93	91	90	91	102	100	100	101	94	97
15	93	91	92	91	89	90	102	100	101	102	96	100
16	92	91	91	93	89	90	101	99	100	102	100	101
17	91	90	91	94	88	90	102	100	101	102	98	101
18	90	89	90	92	88	90	101	99	100	99	95	96
19	89	88	88	91	90	91	101	99	100	101	96	100
20	88	87	87	91	90	90	102	100	101	102	96	101
21	87	86	87	91	90	90	102	100	101	102	100	101
22	86	85	86	91	91	91	102	100	101	103	96	100
23	86	85	86	94	90	91	101	100	100	100	96	99
24	86	85	85	96	89	91	102	100	101	99	98	99
25	86	85	86	93	90	91	101	100	100	100	98	99
26	86	85	86	96	90	91	102	100	101	101	99	100
27	86	86	86	94	91	92	102	100	101	102	98	100
28	87	86	86	93	92	92	102	100	101	102	96	99
29	---	---	---	93	86	89	100	95	98	101	97	99
30	---	---	---	92	90	90	100	97	99	101	97	99
31	---	---	---	92	90	91	---	---	---	101	97	99
Month	95	85	89	96	85	89	102	90	98	103	94	100

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	101	95	99	114	108	110	119	117	118	122	108	114
2	100	97	98	116	111	114	119	116	118	124	109	115
3	98	96	97	116	112	114	119	116	117	121	107	111
4	98	96	97	117	107	115	118	107	111	126	111	117
5	98	96	97	115	109	114	115	101	107	128	125	126
6	98	96	97	116	103	111	115	101	106	128	125	126
7	98	96	97	107	99	104	117	104	109	128	116	126
8	98	93	96	114	98	103	119	115	117	125	110	115
9	98	92	95	114	102	108	118	116	117	124	108	114
10	99	96	98	117	111	114	119	105	111	126	110	117
11	99	95	97	116	111	113	119	104	110	126	109	115
12	99	97	98	119	114	116	120	106	112	128	125	127
13	99	98	98	115	113	114	120	105	111	127	122	124
14	99	98	98	117	112	115	122	107	113	124	110	115
15	100	98	99	116	102	108	123	120	122	118	107	112
16	105	94	100	114	101	106	123	119	121	127	109	114
17	107	93	96	116	102	109	121	107	114	126	110	115
18	106	93	97	---	---	---	122	107	114	126	110	115
19	---	---	---	---	---	---	122	107	114	126	124	125
20	---	---	---	---	---	---	124	108	115	128	119	126
21	---	---	---	---	---	---	123	107	113	128	108	115
22	---	---	---	---	---	---	124	118	121	128	110	115
23	---	---	---	114	100	106	125	120	123	127	108	114
24	111	106	109	113	99	103	124	109	115	117	105	109
25	110	107	109	117	113	115	125	109	116	121	105	109
26	111	105	109	116	113	115	124	108	115	121	118	120
27	110	105	109	116	104	109	125	107	113	122	104	119
28	109	106	108	117	103	109	125	109	115	124	104	110
29	108	105	107	116	98	104	125	123	124	123	113	116
30	110	106	108	114	99	103	126	119	124	138	105	119
31	---	---	---	119	114	117	125	109	114	---	---	---
Month	---	---	---	---	---	---	126	101	115	138	104	117

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	7.5	7.0	7.1	7.4	7.2	7.3	7.3	7.2	7.3	6.7	6.7	6.7
2	7.6	7.1	7.2	7.4	7.2	7.2	7.3	7.3	7.3	6.8	6.7	6.7
3	7.4	7.1	7.2	7.4	7.1	7.2	7.3	7.2	7.3	6.8	6.8	6.8
4	7.7	7.1	7.3	7.6	7.2	7.4	7.2	7.2	7.2	6.8	6.7	6.8
5	7.8	7.1	7.3	7.7	7.4	7.4	7.2	7.2	7.2	6.7	6.7	6.7
6	7.7	7.2	7.2	7.6	7.4	7.4	7.3	7.2	7.3	6.8	6.7	6.7
7	7.7	7.2	7.3	7.7	7.4	7.5	7.3	7.3	7.3	6.8	6.7	6.8
8	7.9	7.3	7.4	7.8	7.4	7.6	7.3	7.2	7.2	---	---	---
9	8.1	7.3	7.4	7.8	7.4	7.6	7.3	7.2	7.2	---	---	---
10	7.9	7.2	7.3	7.8	7.3	7.4	7.3	7.2	7.3	---	---	---
11	7.6	7.3	7.4	7.5	7.3	7.4	7.3	7.3	7.3	---	---	---
12	7.8	7.3	7.4	7.4	7.2	7.3	7.3	7.2	7.3	---	---	---
13	7.4	7.3	7.4	7.5	7.2	7.4	7.2	7.2	7.2	7.4	7.1	7.3
14	7.9	7.3	7.5	7.6	7.4	7.5	7.2	7.1	7.2	7.5	7.4	7.4
15	7.4	7.3	7.3	7.6	7.4	7.5	7.2	7.1	7.2	7.5	7.4	7.4
16	7.5	7.3	7.3	7.6	7.5	7.5	7.2	7.1	7.1	7.4	7.3	7.4
17	7.6	7.3	7.3	7.6	7.5	7.5	7.1	7.0	7.0	7.4	7.3	7.4
18	7.5	7.3	7.3	7.6	7.5	7.5	7.0	7.0	7.0	7.4	7.2	7.3
19	7.5	7.3	7.3	7.6	7.5	7.5	7.0	7.0	7.0	7.4	7.3	7.4
20	7.6	7.2	7.3	7.5	7.4	7.5	7.0	7.0	7.0	7.4	7.3	7.4
21	7.6	7.2	7.3	7.4	7.4	7.4	7.0	7.0	7.0	7.4	7.4	7.4
22	7.6	7.2	7.3	7.4	7.3	7.4	7.0	6.9	6.9	7.4	7.4	7.4
23	7.5	7.2	7.3	7.4	7.3	7.3	---	---	---	7.4	7.3	7.4
24	7.5	7.2	7.3	7.3	7.3	7.3	6.9	6.9	6.9	7.4	7.3	7.4
25	7.4	7.2	7.3	7.3	7.2	7.3	6.9	6.9	6.9	7.4	7.3	7.3
26	7.4	7.2	7.3	7.2	7.2	7.2	6.9	6.8	6.9	7.4	7.3	7.4
27	7.4	7.2	7.3	7.2	7.2	7.2	6.8	6.8	6.8	7.4	7.4	7.4
28	7.4	7.2	7.3	7.3	7.2	7.3	6.8	6.8	6.8	7.4	7.4	7.4
29	7.5	7.3	7.3	7.3	7.2	7.3	6.9	6.8	6.8	7.4	7.4	7.4
30	7.5	7.3	7.3	7.2	7.2	7.2	6.8	6.8	6.8	7.4	7.4	7.4
31	7.5	7.3	7.4	---	---	---	6.8	6.7	6.7	7.4	7.4	7.4
Max	8.1	7.3	7.5	7.8	7.5	7.6	---	---	---	---	---	---
Min	7.4	7.0	7.1	7.2	7.1	7.2	---	---	---	---	---	---

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	7.4	7.4	7.4	7.4	7.4	7.4	7.7	7.6	7.6	7.6	7.2	7.3
2	7.4	7.3	7.4	7.4	7.4	7.4	7.7	7.6	7.6	7.6	7.2	7.3
3	7.4	7.3	7.4	7.5	7.3	7.4	7.7	7.6	7.6	7.6	7.2	7.3
4	7.4	7.3	7.4	7.5	7.5	7.5	7.7	7.6	7.6	7.5	7.2	7.3
5	7.4	7.3	7.4	7.5	7.5	7.5	7.7	7.6	7.6	7.7	7.2	7.3
6	7.4	7.3	7.3	7.5	7.5	7.5	7.6	7.6	7.6	7.7	7.2	7.2
7	7.4	7.3	7.4	7.5	7.5	7.5	7.7	7.5	7.6	7.7	7.2	7.2
8	7.4	7.4	7.4	7.5	7.4	7.5	7.5	7.4	7.4	7.7	7.1	7.2
9	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4	8.0	7.2	7.3
10	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.3	7.3	8.0	7.2	7.3
11	7.5	7.4	7.5	7.4	7.4	7.4	7.5	7.3	7.4	8.0	7.2	7.3
12	7.5	7.4	7.5	7.4	7.4	7.4	7.4	7.3	7.3	7.8	7.2	7.2
13	7.5	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.3	7.8	7.2	7.2
14	7.5	7.4	7.4	7.4	7.3	7.4	7.4	7.3	7.3	7.8	7.2	7.2
15	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.3	8.1	7.2	7.2
16	7.4	7.4	7.4	7.4	7.3	7.4	7.5	7.2	7.3	8.1	7.2	7.2
17	7.5	7.4	7.4	7.5	7.3	7.4	7.5	7.2	7.3	7.8	7.1	7.2
18	7.5	7.4	7.4	7.5	7.4	7.4	7.5	7.3	7.4	7.2	7.0	7.0
19	7.4	7.4	7.4	7.5	7.4	7.4	7.6	7.3	7.4	7.4	7.1	7.1
20	7.4	7.4	7.4	7.5	7.4	7.4	7.6	7.3	7.4	7.8	7.1	7.2
21	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.2	7.3	7.9	7.1	7.2
22	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.2	7.3	8.0	7.1	7.3
23	7.3	7.3	7.3	7.5	7.4	7.4	7.5	7.2	7.3	7.5	7.1	7.2
24	7.3	7.3	7.3	7.6	7.4	7.5	7.4	7.2	7.3	7.2	7.0	7.1
25	7.3	7.3	7.3	7.6	7.5	7.5	7.4	7.2	7.2	7.4	7.0	7.1
26	7.4	7.3	7.4	7.6	7.5	7.5	7.5	7.2	7.3	7.8	7.0	7.1
27	7.4	7.4	7.4	7.6	7.5	7.5	7.5	7.2	7.3	7.8	7.0	7.1
28	7.4	7.4	7.4	7.6	7.5	7.5	7.6	7.2	7.3	7.8	7.0	7.1
29	---	---	---	7.6	7.3	7.4	7.6	7.2	7.3	7.5	7.0	7.1
30	---	---	---	7.5	7.4	7.4	7.7	7.2	7.3	7.7	7.0	7.1
31	---	---	---	7.6	7.5	7.5	---	---	---	7.7	7.1	7.2
Max	7.5	7.4	7.5	7.6	7.5	7.5	7.7	7.6	7.6	8.1	7.2	7.3
Min	7.3	7.3	7.3	7.4	7.3	7.3	7.4	7.2	7.2	7.2	7.0	7.0

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	7.7	7.0	7.1	7.4	7.1	7.2	7.5	7.2	7.3	8.1	7.0	7.1
2	7.6	7.0	7.1	7.7	7.2	7.3	7.5	7.2	7.3	7.7	7.1	7.2
3	7.2	7.0	7.0	7.8	7.2	7.3	7.8	7.2	7.5	7.8	7.0	7.1
4	7.3	7.0	7.0	7.7	7.2	7.3	7.7	7.0	7.1	7.7	7.2	7.2
5	7.3	7.0	7.0	7.8	7.2	7.3	7.6	7.1	7.2	8.0	7.2	7.4
6	7.4	7.0	7.0	7.8	7.1	7.4	7.9	7.1	7.2	8.1	7.2	7.4
7	7.4	7.0	7.1	7.6	7.1	7.2	7.8	7.2	7.2	8.1	7.3	7.6
8	7.4	7.0	7.1	7.6	7.1	7.1	8.0	7.2	7.3	7.7	7.1	7.2
9	7.3	7.0	7.1	7.5	7.0	7.1	8.0	7.2	7.5	8.1	7.2	7.2
10	7.5	7.0	7.0	7.5	7.1	7.2	8.0	7.1	7.2	8.1	7.2	7.3
11	7.5	7.0	7.1	7.4	7.1	7.2	8.1	7.2	7.3	7.7	7.2	7.3
12	7.6	7.1	7.2	7.6	7.1	7.2	8.0	7.2	7.2	7.6	7.2	7.3
13	7.7	7.1	7.2	7.3	7.0	7.1	7.7	7.2	7.2	8.1	7.3	7.5
14	7.7	7.2	7.3	7.4	7.0	7.2	7.6	7.1	7.1	7.8	7.2	7.3
15	7.7	7.1	7.2	7.5	7.0	7.1	7.9	7.2	7.3	8.1	7.2	7.3
16	7.5	7.0	7.1	7.5	6.9	7.0	8.0	7.2	7.5	8.0	7.2	7.3
17	7.2	7.0	7.0	7.4	7.0	7.1	7.9	7.1	7.1	8.0	7.2	7.2
18	7.6	7.0	7.1	7.4	7.2	7.2	7.7	7.1	7.1	7.6	7.2	7.3
19	7.4	7.0	7.0	7.8	7.2	7.5	7.3	7.1	7.1	8.0	7.2	7.4
20	7.5	7.0	7.2	7.5	7.2	7.2	7.8	7.0	7.1	8.1	7.3	7.6
21	7.5	7.0	7.2	7.6	7.2	7.3	7.4	7.0	7.1	8.2	7.2	7.3
22	7.6	7.0	7.1	7.9	7.3	7.5	7.9	7.2	7.3	8.2	7.3	7.3
23	7.6	7.1	7.2	7.8	7.2	7.3	8.0	7.2	7.4	7.9	7.2	7.3
24	7.9	7.1	7.3	7.4	7.2	7.2	7.7	7.1	7.1	7.7	7.2	7.3
25	7.8	7.1	7.3	7.8	7.3	7.4	7.7	7.0	7.1	7.5	7.2	7.2
26	7.8	7.1	7.2	8.0	7.3	7.6	7.9	7.2	7.2	7.9	7.3	7.3
27	7.6	7.1	7.2	7.8	7.2	7.3	7.7	7.1	7.1	7.7	7.2	7.3
28	7.8	7.2	7.3	7.7	7.2	7.2	7.5	7.1	7.1	7.7	7.2	7.2
29	7.8	7.2	7.3	7.5	7.2	7.2	7.9	7.2	7.4	7.4	7.2	7.2
30	7.9	7.2	7.3	7.3	7.1	7.2	8.1	7.2	7.6	7.2	6.9	7.0
31	---	---	---	7.6	7.2	7.3	7.9	7.1	7.2	---	---	---
Max	7.9	7.2	7.3	8.0	7.3	7.6	8.1	7.2	7.6	8.2	7.3	7.6
Min	7.2	7.0	7.0	7.3	6.9	7.0	7.3	7.0	7.1	7.2	6.9	7.0

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	22.9	22.1	22.4	18.3	16.5	17.6	12.3	12.0	12.1	7.1	6.8	6.9
2	22.9	21.8	22.3	16.5	16.0	16.2	12.1	11.8	11.9	6.9	6.0	6.6
3	23.1	22.4	22.7	17.0	16.2	16.5	12.3	12.0	12.2	6.0	4.8	5.4
4	22.8	21.8	22.3	16.7	16.0	16.3	12.3	12.0	12.1	4.8	4.2	4.5
5	22.1	21.7	21.9	16.8	15.7	16.3	12.0	11.6	11.8	4.8	4.3	4.5
6	22.1	21.6	21.9	16.4	15.4	15.9	11.6	11.0	11.3	4.6	4.3	4.5
7	22.6	21.6	22.0	15.6	14.3	15.1	11.1	10.7	10.9	4.3	4.1	4.2
8	21.7	20.8	21.4	15.6	14.4	15.1	11.1	10.8	11.0	4.2	4.0	4.1
9	21.9	20.9	21.4	16.4	15.1	15.6	11.3	10.9	11.1	4.0	3.4	3.7
10	22.3	21.9	22.2	16.4	15.7	15.9	11.4	11.1	11.2	3.4	3.0	3.2
11	22.0	20.8	21.6	16.1	14.7	15.4	11.1	10.0	10.5	3.4	3.0	3.2
12	20.8	19.7	20.4	14.8	13.6	14.5	10.0	9.3	9.6	3.3	3.1	3.2
13	20.9	19.3	20.1	14.7	13.7	14.4	9.7	9.3	9.5	3.3	2.9	3.1
14	20.6	18.9	19.9	14.4	14.1	14.3	9.8	9.6	9.7	3.5	2.8	3.1
15	18.9	18.3	18.5	15.0	14.3	14.7	10.0	9.7	9.9	3.7	3.0	3.3
16	18.3	17.8	18.2	15.4	14.8	15.0	9.9	9.6	9.8	3.8	3.3	3.5
17	17.8	17.1	17.5	15.1	14.9	15.0	9.6	9.1	9.3	4.2	3.7	4.0
18	17.2	16.2	16.7	14.9	14.6	14.8	9.1	8.7	8.9	5.0	4.2	4.5
19	16.9	15.9	16.3	14.8	14.6	14.7	8.7	8.0	8.4	4.9	4.4	4.6
20	16.8	16.0	16.5	14.8	14.5	14.7	8.0	7.8	7.9	4.8	4.5	4.6
21	17.0	16.5	16.7	14.5	14.1	14.4	7.9	7.6	7.7	4.6	4.5	4.6
22	17.6	16.8	17.1	14.2	13.8	14.0	8.0	7.6	7.8	4.5	4.5	4.5
23	18.2	17.1	17.6	13.9	13.8	13.9	---	---	---	4.8	4.4	4.6
24	18.8	18.2	18.6	13.9	13.8	13.8	7.8	7.6	7.7	5.3	4.6	4.9
25	18.8	17.4	18.2	13.8	13.6	13.8	7.7	7.5	7.6	6.5	5.3	5.9
26	17.5	16.9	17.1	13.7	13.4	13.6	7.8	7.6	7.7	6.6	6.1	6.4
27	17.6	17.0	17.3	13.4	12.6	13.1	7.9	7.6	7.8	6.1	5.5	5.7
28	18.7	17.0	17.9	12.6	11.8	12.2	7.6	7.2	7.4	5.8	5.2	5.5
29	18.4	17.3	17.9	12.0	11.6	11.8	7.2	6.6	6.9	5.6	5.3	5.4
30	17.7	17.3	17.5	12.3	11.8	12.1	6.6	6.4	6.5	5.4	4.3	4.7
31	18.2	17.6	17.9	---	---	---	6.8	6.5	6.6	4.3	3.7	4.0
Month	23.1	15.9	19.4	18.3	11.6	14.7	---	---	---	7.1	2.8	4.5

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	4.4	3.7	4.0	5.5	4.7	5.0	12.5	11.6	11.9	19.7	17.9	18.6
2	4.7	4.2	4.4	5.3	4.9	5.0	12.8	11.6	12.1	20.9	19.2	19.9
3	4.6	4.4	4.5	5.1	4.8	4.9	13.3	12.0	12.6	20.9	20.4	20.6
4	4.7	4.2	4.4	5.3	4.6	4.9	13.5	12.7	13.0	20.9	20.4	20.6
5	4.5	4.1	4.2	5.5	4.8	5.1	13.9	12.7	13.2	21.4	20.0	20.6
6	4.1	3.5	3.9	5.7	5.0	5.3	14.5	13.8	14.0	22.1	19.6	20.6
7	3.7	3.3	3.5	6.0	5.1	5.5	15.5	14.2	14.7	22.1	21.3	21.6
8	3.8	3.2	3.5	6.2	5.2	5.7	16.2	14.9	15.5	22.0	19.9	20.9
9	3.8	3.6	3.7	6.6	5.6	6.1	16.0	15.6	15.8	22.0	20.8	21.3
10	3.9	3.5	3.8	6.6	5.8	6.1	16.2	15.2	15.6	21.4	19.8	20.4
11	3.6	3.3	3.4	6.9	6.3	6.6	16.5	15.5	15.9	20.8	19.3	19.6
12	3.8	3.2	3.4	7.1	6.6	6.9	16.5	15.5	16.0	21.1	19.0	19.9
13	3.7	3.4	3.6	8.5	7.1	7.7	16.4	15.4	15.8	21.1	19.7	20.1
14	3.6	3.2	3.4	8.4	7.6	7.9	16.1	15.5	15.7	21.5	19.4	20.2
15	3.7	3.2	3.4	8.1	7.5	7.8	15.8	14.9	15.4	23.3	20.8	21.8
16	3.9	3.4	3.6	8.3	7.9	8.1	16.4	14.9	15.6	23.4	21.6	22.2
17	3.8	3.2	3.5	8.7	7.6	8.1	17.0	16.0	16.4	22.4	20.0	20.6
18	3.9	3.2	3.5	9.3	7.6	8.2	17.0	15.9	16.5	20.0	19.5	19.7
19	4.2	3.5	3.8	10.0	8.0	8.8	17.2	16.1	16.6	20.8	19.8	20.2
20	4.6	3.8	4.1	10.0	9.0	9.5	17.5	16.3	16.8	21.6	19.9	20.7
21	4.8	4.0	4.3	10.1	8.8	9.5	17.3	16.2	16.4	21.9	19.8	20.7
22	4.8	4.4	4.6	10.2	9.5	9.8	17.7	15.8	16.6	22.0	19.9	20.9
23	4.9	4.6	4.8	10.3	9.9	10.1	17.5	16.8	17.2	22.1	20.6	21.4
24	4.9	4.7	4.8	10.5	9.5	9.9	17.4	16.9	17.1	21.8	21.0	21.4
25	5.0	4.6	4.9	11.0	9.8	10.4	18.0	16.3	17.0	22.1	20.9	21.5
26	4.9	4.4	4.6	11.1	10.7	10.9	18.6	17.6	18.1	22.9	20.6	21.7
27	4.8	4.2	4.6	11.3	10.4	10.8	18.6	17.6	18.0	23.8	21.1	22.3
28	5.3	4.6	4.9	11.2	10.0	10.5	18.1	17.0	17.5	23.8	21.4	22.3
29	---	---	---	11.3	10.7	11.0	18.1	16.7	17.4	23.6	21.6	22.4
30	---	---	---	12.0	11.0	11.4	18.6	17.1	17.7	24.6	22.4	23.4
31	---	---	---	12.0	11.1	11.6	---	---	---	25.1	24.6	24.7
Month	5.3	3.2	4.0	12.0	4.6	8.0	18.6	11.6	15.7	25.1	17.9	21.1

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	25.2	23.8	24.5	28.8	27.4	27.9	28.0	27.1	27.5	29.4	27.5	28.3
2	25.5	24.2	25.0	27.9	27.4	27.6	28.5	27.2	27.8	29.0	27.5	27.9
3	25.2	23.6	24.4	28.0	27.3	27.6	29.5	28.2	28.7	28.1	27.0	27.4
4	25.3	24.6	24.9	28.0	27.3	27.7	29.4	27.8	28.3	28.1	27.0	27.5
5	26.3	24.1	24.9	28.5	27.7	28.2	30.3	27.9	28.7	27.1	26.3	26.7
6	26.8	25.0	25.7	28.9	27.9	28.4	30.3	28.1	28.9	27.0	26.4	26.7
7	26.9	25.9	26.3	29.4	28.0	28.4	30.1	28.4	29.0	27.8	26.5	27.0
8	26.2	25.1	25.6	29.3	27.5	28.2	29.3	28.6	28.9	27.0	26.2	26.5
9	25.8	24.9	25.3	29.1	27.1	27.9	30.1	28.8	29.2	27.2	26.1	26.6
10	26.6	25.0	25.6	28.8	28.2	28.5	30.6	28.0	29.1	27.1	25.7	26.2
11	26.6	25.6	26.0	29.4	28.2	28.8	31.6	29.2	30.1	26.6	24.9	25.4
12	26.5	24.4	25.3	29.6	28.0	28.8	31.3	29.3	30.2	25.4	24.8	25.1
13	27.8	25.2	26.5	28.9	27.6	28.1	30.6	29.2	29.7	26.4	25.1	25.6
14	28.1	27.1	27.6	30.1	28.7	29.2	29.9	28.4	29.0	26.5	24.9	25.6
15	28.1	26.6	27.3	30.5	28.5	29.3	29.6	29.1	29.4	26.7	25.0	25.6
16	27.7	25.3	26.2	30.0	27.5	28.5	30.5	29.2	29.7	26.6	25.1	25.7
17	27.3	25.4	26.2	29.8	27.8	28.4	30.6	28.7	29.5	26.9	25.0	25.7
18	27.5	25.8	26.9	30.0	27.7	28.6	30.3	28.8	29.3	26.4	25.3	25.7
19	27.3	25.5	26.2	30.4	29.2	29.8	29.1	28.2	28.4	25.8	25.3	25.6
20	27.5	26.6	27.1	29.9	28.7	29.3	30.0	27.9	28.6	26.4	25.4	25.8
21	28.4	27.1	27.7	30.0	29.3	29.7	29.4	27.8	28.5	26.0	24.8	25.3
22	28.2	26.8	27.5	31.6	29.8	30.5	29.5	28.8	29.1	26.7	24.7	25.4
23	28.8	27.6	28.1	31.3	29.3	29.9	30.2	28.5	29.2	27.3	25.5	26.2
24	29.0	27.9	28.5	30.8	29.2	29.9	29.9	27.8	28.2	26.8	25.7	26.2
25	29.7	28.4	29.1	31.7	30.8	31.3	28.0	27.1	27.4	26.6	25.7	26.1
26	29.8	28.2	28.7	31.8	31.2	31.5	29.4	27.2	28.0	27.0	25.9	26.5
27	29.8	28.1	28.7	31.6	28.3	29.3	28.6	27.6	28.0	26.0	25.0	25.5
28	30.4	29.4	29.8	31.0	28.3	29.1	28.4	27.0	27.6	25.9	25.2	25.4
29	31.0	29.7	30.5	30.9	28.8	29.5	28.3	27.7	28.0	25.5	23.7	24.4
30	31.0	28.8	29.8	29.7	29.0	29.3	29.3	27.9	28.4	24.5	23.4	24.0
31	---	---	---	29.3	27.8	28.6	29.5	27.6	28.4	---	---	---
Month	31.0	23.6	26.9	31.8	27.1	29.0	31.6	27.0	28.7	29.4	23.4	26.1

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	8.7	7.3	7.6	---	---	---	9.0	8.8	8.9	11.1	10.9	11.0
2	8.9	7.5	8.1	---	---	---	9.0	8.9	9.0	11.4	10.9	11.1
3	8.6	7.4	7.9	---	---	---	9.1	8.9	9.0	12.0	11.4	11.7
4	8.8	7.6	8.1	---	---	---	9.2	9.1	9.2	12.3	12.0	12.2
5	9.0	7.7	8.3	10.0	8.9	9.2	9.2	9.1	9.2	12.2	12.1	12.2
6	9.4	7.8	8.6	9.7	8.9	9.0	9.5	9.2	9.4	12.3	12.1	12.2
7	9.8	8.1	8.8	9.9	9.2	9.6	9.6	9.4	9.5	12.5	12.2	12.4
8	10.3	8.9	9.4	10.2	9.3	9.7	9.5	9.4	9.5	12.5	12.3	12.4
9	10.8	8.9	9.6	10.3	9.3	9.7	9.7	9.5	9.6	12.7	12.4	12.6
10	10.8	8.5	9.2	10.2	9.0	9.3	9.9	9.6	9.7	12.9	12.6	12.8
11	10.1	9.1	9.6	9.6	9.1	9.3	10.1	9.8	10.0	12.8	12.7	12.8
12	10.8	9.4	10.0	9.4	9.0	9.1	10.3	10.1	10.2	12.9	12.7	12.8
13	10.3	9.6	10	9.6	9.2	9.3	10.2	9.9	10	12.9	12.8	12.9
14	11.4	9.6	10.4	9.6	9.3	9.5	10.0	9.9	9.9	12.9	12.8	12.9
15	10.7	9.8	10.2	9.6	9.3	9.4	10.0	9.9	9.9	12.8	12.7	12.8
16	11.0	10.1	10.5	9.7	9.3	9.5	10.0	9.9	9.9	12.8	12.5	12.6
17	11.4	10.5	10.8	9.7	9.4	9.5	10.2	10.0	10.1	12.8	12.4	12.5
18	11.6	10.6	11.0	9.6	9.5	9.5	10.2	10.0	10.1	12.6	12.2	12.4
19	---	---	---	9.7	9.4	9.5	10.4	10.1	10.2	12.5	12.3	12.4
20	---	---	---	9.4	9.3	9.4	10.6	10.4	10.5	12.5	12.3	12.4
21	---	---	---	9.4	9.2	9.3	10.6	10.5	10.5	12.4	12.4	12.4
22	---	---	---	9.3	9.2	9.2	10.6	10.4	10.5	12.4	12.3	12.3
23	---	---	---	9.2	9.0	9.1	---	---	---	12.4	12.3	12.3
24	---	---	---	9.1	8.9	9.0	10.6	10.4	10.4	12.3	12.2	12.3
25	---	---	---	8.9	8.8	8.8	10.6	10.5	10.6	12.2	11.9	12.0
26	---	---	---	8.8	8.6	8.7	10.8	10.6	10.7	12.0	11.9	11.9
27	---	---	---	9.0	8.5	8.7	10.8	10.7	10.8	12.3	12.0	12.1
28	---	---	---	9.4	8.9	9.1	10.8	10.6	10.7	12.2	12.1	12.2
29	---	---	---	9.4	9.2	9.3	11.2	10.8	11.0	12.2	12.1	12.2
30	---	---	---	9.2	8.8	8.9	11.3	11.2	11.2	12.3	12.2	12.2
31	---	---	---	---	---	---	11.2	11.1	11.1	12.5	12.3	12.4
Month	---	---	---	---	---	---	---	---	---	12.9	10.9	12.3

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	12.5	12.4	12.5	12.0	11.8	11.9	11.0	10.6	10.8	9.8	8.7	9.1
2	12.4	12.2	12.3	11.9	11.8	11.9	11.0	10.7	10.8	9.6	8.4	8.8
3	12.3	12.2	12.3	11.9	11.8	11.8	10.9	10.7	10.8	9.4	8.2	8.5
4	12.3	12.2	12.3	12.0	11.9	11.9	10.8	10.6	10.7	9.0	8.0	8.4
5	12.4	12.3	12.3	12.0	11.9	12.0	10.7	10.5	10.6	9.5	8.0	8.5
6	12.6	12.3	12.4	12.1	12.0	12.0	10.6	10.4	10.4	9.4	7.9	8.5
7	12.6	12.6	12.6	12.1	12.0	12.0	10.4	10.1	10.2	9.4	7.8	8.4
8	12.6	12.6	12.6	12.0	12.0	12.0	10.2	9.9	10.0	9.3	7.6	8.3
9	12.6	12.4	12.5	12.0	11.9	12.0	9.9	9.6	9.7	9.8	8.0	8.6
10	12.6	12.3	12.4	12.0	11.9	11.9	9.9	9.4	9.6	9.9	8.1	8.8
11	12.8	12.5	12.7	11.9	11.8	11.9	9.9	9.5	9.7	9.8	8.3	8.7
12	12.8	12.6	12.8	11.9	11.7	11.8	9.9	9.5	9.7	9.7	8.1	8.6
13	12.6	12.5	12.6	11.7	11.4	11.5	9.9	9.5	9.7	9.7	8.1	8.5
14	12.7	12.5	12.6	11.5	11.4	11.5	9.7	9.5	9.6	9.7	8.2	8.6
15	12.7	12.4	12.6	11.6	11.5	11.5	10.0	9.5	9.7	10.0	7.9	8.6
16	12.5	12.4	12.4	11.6	11.3	11.5	10.0	9.5	9.7	10.0	8.0	8.7
17	12.6	12.5	12.6	11.6	11.4	11.5	9.9	9.3	9.5	9.7	8.0	8.4
18	12.6	12.5	12.5	11.6	11.4	11.5	9.9	9.3	9.5	8.9	8.0	8.2
19	12.5	12.4	12.5	11.6	11.4	11.5	10.0	9.2	9.5	9.5	8.2	8.6
20	12.4	12.3	12.4	11.6	11.4	11.5	9.9	9.1	9.5	10.0	8.0	8.7
21	12.3	12.2	12.2	11.5	11.3	11.4	9.8	8.9	9.2	10.1	8.0	8.8
22	12.2	11.9	12.1	11.4	11.2	11.3	9.8	8.8	9.2	10.1	8.0	8.9
23	12.0	11.9	11.9	11.3	10.9	11.2	9.8	8.9	9.3	9.5	7.9	8.5
24	11.9	11.8	11.9	11.3	10.9	11.2	9.6	8.8	9.1	8.7	7.8	8.1
25	11.9	11.8	11.8	11.2	11.0	11.1	9.4	8.7	9.0	9.1	7.6	8.1
26	12.1	11.8	12.0	11.1	10.6	10.9	9.6	8.7	9.0	9.7	7.6	8.3
27	12.2	12.0	12.1	11.2	10.8	11.0	9.4	8.6	8.9	9.7	7.6	8.4
28	12.1	11.9	12.0	11.2	10.9	11.0	9.8	8.6	9.0	9.6	7.3	8.1
29	---	---	---	11.0	10.5	10.7	9.8	8.7	9.2	9.4	7.5	8.2
30	---	---	---	10.8	10.6	10.7	9.9	8.8	9.2	9.6	7.5	8.3
31	---	---	---	10.9	10.6	10.7	---	---	---	9.5	7.5	8.3
Month	12.8	11.8	12.4	12.1	10.5	11.5	11.0	8.6	9.7	10.1	7.3	8.5

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	9.4	7.3	8.0	7.6	6.4	6.9	7.8	6.5	7.0	8.9	6.1	6.8
2	9.1	7.3	8.0	8.3	6.7	7.4	7.8	6.7	7.2	8.5	6.3	6.9
3	8.2	6.7	7.3	8.5	6.7	7.5	8.4	6.8	7.5	8.4	5.6	6.3
4	8.2	6.8	7.5	8.5	6.9	7.5	8.4	6.2	6.8	8.2	6.4	6.8
5	8.4	6.5	7.2	8.6	7.0	7.6	8.4	6.6	7.0	8.6	7.0	7.6
6	8.4	6.7	7.4	8.6	6.4	7.6	8.6	6.5	6.9	8.8	7.1	7.8
7	8.3	6.9	7.5	8.5	6.3	7.3	8.2	6.6	7.0	9.0	7.0	7.9
8	8.6	6.7	7.5	8.2	6.2	6.6	8.4	6.7	7.4	8.5	6.3	6.8
9	8.1	6.9	7.3	7.8	6.1	6.5	8.8	6.8	7.7	8.9	6.8	7.2
10	8.6	6.6	7.2	7.9	6.4	7.0	8.8	6.5	7.1	9.1	7.0	7.5
11	8.5	6.5	7.2	8.0	6.7	7.3	8.6	6.6	7.2	8.1	6.9	7.2
12	8.5	6.4	7.1	8.0	6.4	7.1	8.5	6.4	7.0	8.3	7.0	7.5
13	8.6	6.6	7.4	7.7	6.4	6.9	8.2	6.3	6.7	9.2	7.2	8.0
14	8.6	6.8	7.5	7.9	6.2	7.1	7.6	6.0	6.4	8.9	7.0	7.5
15	8.5	6.6	7.3	8.0	6.0	6.7	8.3	6.5	7.3	9.2	7.0	7.5
16	8.2	6.0	6.7	8.1	5.3	6.1	8.8	6.6	7.6	9.1	7.0	7.5
17	7.5	6.0	6.4	7.7	6.1	6.4	8.5	6.1	6.7	9.1	6.9	7.3
18	8.6	6.3	6.8	7.8	6.6	7.0	7.9	6.1	6.6	8.2	7.0	7.3
19	8.3	6.3	6.6	8.1	6.7	7.4	7.3	5.9	6.3	8.9	7.0	7.8
20	8.5	6.5	7.3	7.8	6.6	6.9	8.5	5.7	6.5	9.2	7.2	8.1
21	8.5	6.6	7.4	7.8	6.7	7.1	7.6	5.6	6.2	9.4	7.0	7.5
22	8.4	6.5	7.3	8.2	6.8	7.4	8.3	6.4	7.2	9.4	7.0	7.5
23	8.6	6.6	7.5	7.9	6.4	6.8	8.6	6.6	7.4	8.9	7.0	7.5
24	8.9	6.5	7.5	7.3	6.4	6.5	8.1	5.8	6.5	8.7	6.9	7.2
25	8.7	6.4	7.4	7.8	6.6	7.1	8.4	5.6	6.4	8.1	6.8	7.0
26	8.6	6.4	7.3	7.9	6.7	7.3	8.8	6.4	6.9	8.7	7.1	7.6
27	8.3	6.4	7.1	7.7	6.3	6.7	8.3	5.9	6.5	8.3	6.5	7.4
28	8.4	6.4	7.2	8.2	6.2	6.7	7.8	6.2	6.6	8.8	6.5	7.0
29	8.4	6.5	7.2	7.7	5.8	6.2	8.5	6.8	7.5	7.7	6.8	7.1
30	8.3	6.4	7.1	7.0	6.0	6.3	9.0	6.5	7.7	7.7	6.8	7.1
31	---	---	---	7.8	6.4	7.0	8.8	6.5	7.0	---	---	---
Month	9.4	6.0	7.3	8.6	5.3	7.0	9.0	5.6	7.0	9.4	5.6	7.3

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	102	84	88	---	---	---	84	82	83	91	90	91
2	104	86	93	---	---	---	84	82	84	92	90	91
3	100	86	92	---	---	---	85	83	84	94	91	93
4	103	88	94	---	---	---	86	85	86	95	94	95
5	103	88	95	102	90	94	86	84	85	95	93	94
6	107	89	98	99	89	91	87	84	86	96	93	94
7	112	94	102	100	92	95	87	85	86	96	94	95
8	116	101	107	101	93	97	87	85	86	96	94	95
9	122	101	108	105	94	98	89	86	87	96	94	95
10	124	98	106	105	91	94	91	88	89	97	94	96
11	115	103	109	98	91	93	91	89	90	96	95	96
12	121	104	112	91	89	90	90	88	90	97	95	96
13	114	107	110	94	89	92	89	87	87	97	95	96
14	127	104	114	94	91	93	88	87	87	97	95	96
15	115	104	110	95	91	93	88	87	88	96	95	96
16	117	107	112	97	92	94	89	87	88	97	94	95
17	120	110	113	97	93	94	89	87	88	97	95	96
18	121	108	114	95	94	94	89	86	87	98	94	96
19	---	---	---	96	93	94	88	87	87	98	95	97
20	---	---	---	93	91	93	90	88	89	97	95	96
21	---	---	---	92	90	91	89	88	88	96	96	96
22	---	---	---	91	89	90	90	87	88	96	95	95
23	---	---	---	89	87	88	---	---	---	97	95	95
24	---	---	---	88	86	87	89	87	88	97	95	96
25	---	---	---	86	85	85	89	88	89	97	96	97
26	---	---	---	85	83	84	91	89	90	98	97	97
27	---	---	---	85	81	83	91	90	91	99	96	97
28	---	---	---	87	84	85	90	88	89	98	96	97
29	---	---	---	87	85	86	92	89	91	97	96	97
30	---	---	---	86	83	84	92	91	91	97	94	95
31	---	---	---	---	---	---	92	91	91	96	94	95
Month	---	---	---	---	---	---	---	---	---	99	90	95

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	97	94	95	95	92	94	103	98	100	107	92	97
2	96	95	95	94	93	93	104	99	101	106	91	97
3	96	94	95	93	92	93	104	100	102	106	91	95
4	96	94	95	95	92	93	104	100	101	101	89	94
5	95	94	95	95	93	94	104	99	101	108	88	95
6	95	94	94	97	94	95	104	101	102	108	86	95
7	96	95	95	97	94	95	104	99	101	107	89	96
8	96	94	95	97	95	96	103	98	100	107	84	93
9	95	94	95	98	95	97	101	97	98	111	90	98
10	95	94	94	98	95	96	101	94	97	111	89	98
11	97	94	96	98	96	97	102	95	98	110	90	95
12	97	95	96	98	96	97	102	95	98	109	88	95
13	96	94	95	99	96	97	101	95	98	109	89	94
14	96	94	95	98	96	97	99	95	97	110	89	95
15	95	94	95	98	96	97	101	94	97	118	89	99
16	95	93	94	99	96	97	102	94	97	118	91	100
17	96	94	95	100	96	98	103	94	97	112	88	94
18	96	94	95	101	96	98	103	94	98	98	87	90
19	96	94	95	103	96	100	104	94	98	106	90	95
20	96	94	95	103	99	101	104	93	98	114	88	97
21	96	93	94	102	98	100	102	91	94	116	88	99
22	95	93	94	101	99	100	103	89	95	116	88	100
23	94	92	93	101	97	99	103	92	96	108	88	96
24	93	92	93	102	96	99	100	91	94	99	88	92
25	93	92	92	102	98	100	100	89	93	104	85	92
26	94	91	93	101	97	99	103	91	96	113	85	95
27	95	93	94	103	97	99	101	91	94	115	86	97
28	95	93	94	102	97	99	104	89	95	114	83	93
29	---	---	---	100	96	97	104	90	96	111	85	95
30	---	---	---	100	96	98	106	91	97	116	87	97
31	---	---	---	101	97	99	---	---	---	115	90	100
Month	97	91	94	103	92	97	106	89	98	118	83	96

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	114	87	97	99	82	88	100	82	90	117	78	88
2	111	87	97	106	85	94	100	86	92	109	80	88
3	100	79	88	109	85	95	111	89	98	108	71	80
4	100	82	90	109	88	96	110	79	88	105	81	87
5	104	78	88	111	90	98	112	84	92	109	88	96
6	105	81	91	112	82	98	115	85	91	111	89	98
7	103	86	93	110	81	94	109	86	91	115	88	100
8	107	82	92	108	79	85	110	87	96	107	78	85
9	100	84	89	102	77	83	117	89	100	113	84	90
10	108	80	89	103	83	91	118	83	93	114	87	93
11	106	80	89	103	88	95	117	86	96	101	84	88
12	106	77	87	106	82	92	115	84	93	101	86	92
13	110	81	93	99	82	89	109	83	89	114	89	98
14	110	86	96	105	81	93	101	78	83	111	85	92
15	109	83	92	107	78	88	109	86	96	115	85	92
16	105	73	83	108	67	79	118	87	100	114	85	92
17	95	73	80	102	79	83	114	79	89	114	84	90
18	109	78	85	104	86	91	105	79	87	101	86	90
19	105	77	82	108	88	98	95	76	82	110	86	96
20	108	81	93	103	87	91	113	73	84	115	89	99
21	108	84	95	104	88	94	99	72	80	116	85	91
22	108	82	92	112	92	100	109	84	94	118	85	92
23	112	85	96	107	84	91	115	87	97	113	86	93
24	116	84	97	98	84	87	104	74	84	109	85	90
25	114	84	96	106	90	97	107	71	82	101	84	87
26	114	83	95	108	91	99	115	81	89	110	88	95
27	110	83	93	105	82	88	108	75	84	103	79	91
28	112	84	96	111	80	88	100	78	84	109	79	86
29	113	87	97	104	75	82	109	87	96	92	82	86
30	112	84	94	91	78	83	118	84	99	92	82	85
31	---	---	---	102	82	91	116	83	91	---	---	---
Month	116	73	92	112	67	91	118	71	91	118	71	91