

Water-Data Report 2008

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 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 Records from November 1996 to September 1997 are unpublished and available from the USGS Water Science Center, Raleigh, NC.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 station.

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

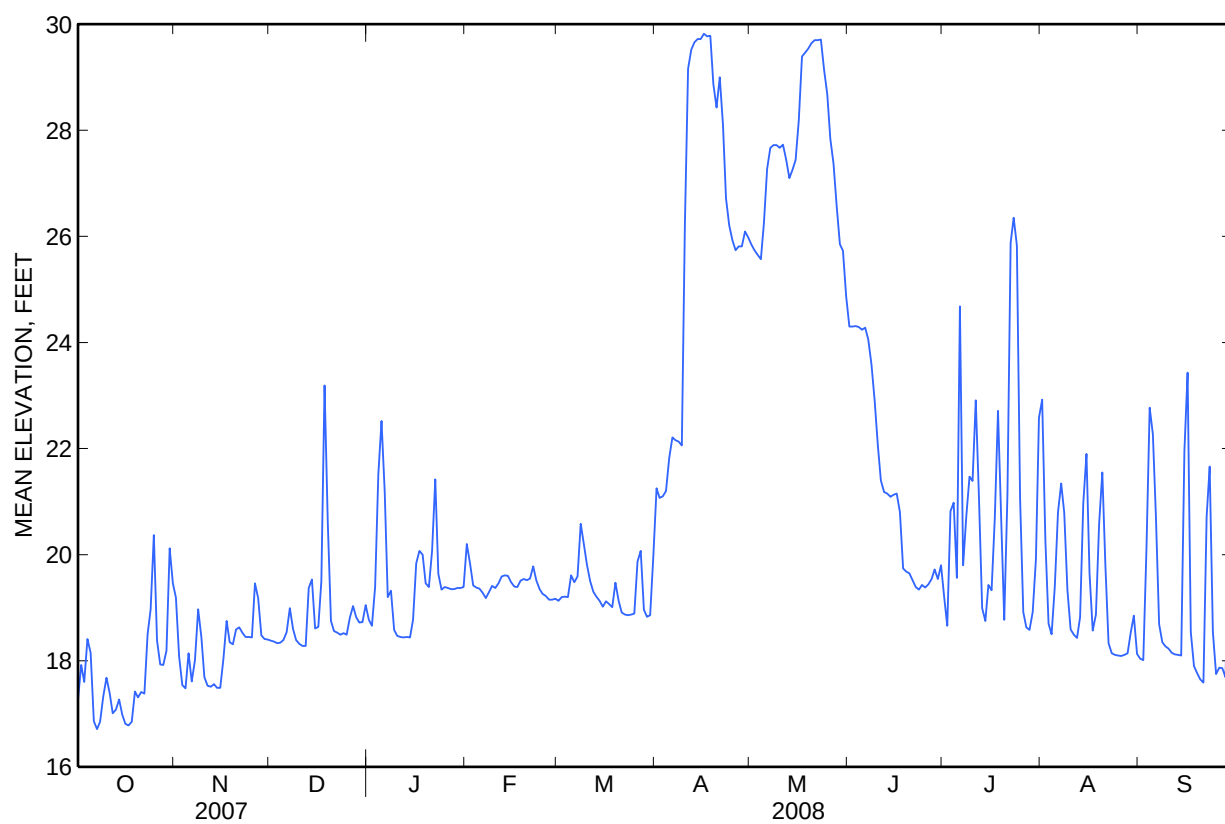
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 32.16 ft, July 23; minimum elevation, 16.67 ft, October 8.

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

ELEVATION, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17.27	19.19	18.38	18.77	20.20	19.13	21.25	25.85	24.30	19.19	22.92	18.04
2	17.92	18.08	18.36	18.66	19.84	19.20	21.07	25.74	24.30	18.66	20.28	18.01
3	17.60	17.54	18.33	19.39	19.42	19.21	21.10	25.65	24.31	20.82	18.70	20.12
4	18.41	17.48	18.34	21.51	19.38	19.20	21.20	25.57	24.29	20.98	18.50	22.77
5	18.15	18.14	18.39	22.52	19.36	19.61	21.82	26.25	24.24	19.56	19.40	22.27
6	16.86	17.61	18.54	21.18	19.28	19.48	22.21	27.27	24.28	24.68	20.80	20.72
7	16.71	18.01	18.99	19.20	19.18	19.59	22.16	27.67	24.06	19.80	21.34	18.69
8	16.85	18.97	18.60	19.32	19.29	20.58	22.13	27.72	23.59	20.73	20.79	18.35
9	17.33	18.45	18.39	18.58	19.41	20.21	22.06	27.72	22.91	21.47	19.33	18.27
10	17.68	17.69	18.32	18.47	19.37	19.81	26.21	27.67	22.06	21.39	18.59	18.23
11	17.39	17.53	18.28	18.45	19.46	19.50	29.16	27.73	21.40	22.91	18.49	18.15
12	17.01	17.51	18.28	18.44	19.59	19.30	29.52	27.45	21.18	21.08	18.43	18.12
13	17.08	17.56	19.37	18.45	19.61	19.21	29.66	27.10	21.15	18.99	18.82	18.11
14	17.27	17.49	19.53	18.44	19.60	19.13	29.72	27.25	21.09	18.75	20.97	18.10
15	16.98	17.49	18.61	18.77	19.48	19.02	29.72	27.44	21.13	19.43	21.90	21.95
16	16.81	18.04	18.64	19.84	19.40	19.12	29.82	28.19	21.15	19.33	19.65	23.43
17	16.78	18.75	19.50	20.07	19.39	19.07	29.77	29.39	20.80	20.69	18.57	18.54
18	16.85	18.35	23.19	20.00	19.51	19.01	29.78	29.46	19.74	22.71	18.87	17.90
19	17.42	18.31	20.62	19.46	19.54	19.47	28.87	29.54	19.68	20.77	20.58	17.77
20	17.31	18.59	18.75	19.39	19.52	19.13	28.43	29.64	19.65	18.77	21.55	17.65
21	17.41	18.63	18.56	20.07	19.55	18.91	29.00	29.70	19.52	21.13	19.81	17.59
22	17.38	18.53	18.53	21.42	19.78	18.87	28.11	29.70	19.39	25.88	18.33	20.72
23	18.50	18.45	18.49	19.64	19.51	18.86	26.72	29.71	19.34	26.35	18.14	21.66
24	18.97	18.45	18.52	19.34	19.35	18.87	26.21	29.14	19.43	25.83	18.11	18.54
25	20.37	18.44	18.49	19.39	19.26	18.89	25.93	28.68	19.38	21.06	18.10	17.75
26	18.38	19.46	18.81	19.37	19.22	19.87	25.74	27.84	19.44	18.92	18.09	17.87
27	17.93	19.18	19.03	19.35	19.15	20.07	25.81	27.37	19.54	18.63	18.11	17.86
28	17.92	18.48	18.82	19.35	19.15	18.96	25.81	26.56	19.72	18.58	18.14	17.69
29	18.19	18.41	18.72	19.37	19.17	18.83	26.09	25.85	19.54	18.92	18.52	20.33
30	20.12	18.40	18.73	19.37	---	18.86	25.98	25.73	19.80	19.91	18.85	22.65
31	19.46	---	19.05	19.39	---	19.98	---	24.87	---	22.58	18.13	---
Mean	17.75	18.24	18.88	19.52	19.45	19.32	26.04	27.60	21.35	20.92	19.38	19.26
Max	20.37	19.46	23.19	22.52	20.20	20.58	29.82	29.71	24.31	26.35	22.92	23.43
Min	16.71	17.48	18.28	18.44	19.15	18.83	21.07	24.87	19.34	18.58	18.09	17.59

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 (DENR), 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, 30.9°C, July 22, 1998, August 8, 9, 2006; 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, 152 microsiemens, October 8; minimum recorded, 106 microsiemens, March 8.

pH: Maximum recorded, 8.5 standard units, March 3; minimum recorded, 6.8 standard units, August 2, 6.

WATER TEMPERATURE: Maximum recorded, 30.0°C, August 5; minimum recorded, 5.0°C, January 25, 26.

DISSOLVED OXYGEN: Maximum recorded, 13.4 mg/L, January 21; minimum recorded, 5.2 mg/L, September 6.

DISSOLVED OXYGEN, PERCENT SATURATION: Maximum recorded, 115%, March 18, 26; minimum recorded, 65%, July 18, August 21, September 6.

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	142	136	138	133	113	121	127	126	126	126	122	124
2	142	126	134	130	113	124	127	125	126	129	125	127
3	140	134	137	133	129	131	127	126	126	130	128	129
4	139	124	133	133	131	132	126	125	126	128	115	120
5	138	117	123	132	123	131	126	125	125	131	115	120
6	151	130	145	132	116	125	126	125	126	128	115	119
7	151	148	150	132	124	131	126	122	123	131	128	130
8	152	148	150	131	111	122	125	124	125	132	120	126
9	150	132	143	132	111	123	126	124	125	132	131	132
10	147	125	138	132	114	124	126	125	126	133	131	132
11	147	123	135	132	126	130	127	125	126	134	133	133
12	148	142	146	132	126	131	127	126	127	134	132	133
13	149	144	146	132	130	131	127	118	124	134	132	133
14	146	140	141	130	127	129	123	117	119	134	133	133
15	144	139	141	130	128	129	126	123	124	134	133	134
16	149	144	147	131	125	130	125	124	124	133	121	128
17	149	146	148	126	117	122	126	121	124	131	120	128
18	149	146	147	125	124	125	123	113	116	129	121	127
19	146	127	139	126	125	125	126	114	118	128	122	127
20	145	135	141	126	124	125	128	126	127	129	127	128
21	141	136	137	126	120	124	128	127	127	129	126	128
22	144	136	138	126	124	125	128	127	127	129	119	123
23	144	118	124	127	124	125	128	126	127	129	121	127
24	142	117	130	127	126	127	128	126	127	130	129	129
25	128	109	114	127	126	126	128	127	127	130	128	129
26	132	117	125	127	117	124	128	119	124	132	129	130
27	136	128	133	124	119	121	124	118	120	132	130	131
28	131	129	130	127	124	125	128	123	127	131	130	131
29	134	127	131	127	126	127	128	126	127	131	130	130
30	134	112	121	127	126	127	127	123	126	132	129	130
31	133	112	120	---	---	---	123	119	121	131	130	130
Month	152	109	136	133	111	126	128	113	125	134	115	128

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	131	121	127	132	130	132	133	130	132	125	124	125
2	127	120	124	133	131	132	137	133	134	126	124	125
3	130	126	129	133	131	132	136	130	135	127	125	126
4	131	129	130	133	129	132	134	131	133	127	126	127
5	131	130	130	129	124	125	132	129	131	127	125	126
6	132	130	131	131	124	128	131	129	130	127	125	126
7	135	131	133	133	117	128	133	129	132	127	125	126
8	134	133	133	117	106	110	135	129	133	127	126	126
9	134	132	133	125	112	119	140	133	136	127	126	126
10	135	133	134	129	125	126	140	127	133	127	126	126
11	135	133	134	130	127	129	131	125	129	127	125	126
12	134	132	133	132	130	131	130	126	129	127	125	126
13	134	132	133	132	130	131	129	109	124	126	125	125
14	132	129	130	133	130	131	127	121	126	126	124	125
15	131	129	130	133	129	131	129	126	128	126	125	125
16	131	129	130	131	128	130	128	125	127	126	124	125
17	130	129	130	132	128	130	126	123	125	125	124	124
18	131	129	130	133	130	132	124	122	123	125	123	124
19	130	129	129	133	127	132	125	119	124	124	123	124
20	130	129	129	135	126	132	125	116	122	124	123	124
21	130	128	129	136	132	134	118	109	114	124	123	124
22	130	129	129	137	134	136	118	111	115	124	123	124
23	130	129	129	137	135	136	121	118	119	124	122	123
24	130	128	129	138	135	136	122	121	122	123	122	122
25	130	128	129	137	135	136	123	121	122	123	122	122
26	130	128	129	137	130	135	124	122	123	124	122	123
27	130	129	130	134	129	131	124	120	123	124	123	123
28	132	130	131	141	134	138	124	121	123	124	123	123
29	132	130	131	142	138	140	122	120	121	124	123	124
30	---	---	---	140	138	139	124	122	123	124	123	124
31	---	---	---	140	131	138	---	---	---	125	123	124
Month	135	120	130	142	106	131	140	109	126	127	122	125

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	125	122	124	137	127	131	118	111	113	140	133	137
2	124	120	123	136	134	135	123	114	117	139	133	137
3	123	120	122	136	118	132	124	120	123	148	116	139
4	123	122	123	135	118	123	126	122	124	143	115	120
5	124	122	123	133	125	131	129	122	126	143	115	122
6	124	122	124	125	114	116	126	115	119	140	114	122
7	125	122	123	133	117	126	127	115	119	141	137	139
8	126	124	125	136	116	131	126	114	118	142	138	139
9	127	124	125	132	116	121	128	118	123	141	138	140
10	129	125	127	133	118	125	128	126	127	141	131	134
11	131	126	129	133	115	119	128	126	127	134	132	133
12	131	127	129	130	114	119	129	124	127	135	131	133
13	131	127	129	133	129	131	129	126	127	134	129	131
14	131	127	129	134	129	132	129	114	122	132	129	130
15	132	127	130	133	127	131	126	113	118	131	112	125
16	134	128	131	132	119	125	132	117	123	119	112	114
17	136	123	130	136	117	130	133	129	131	134	119	131
18	137	133	135	126	111	118	133	130	132	134	132	133
19	138	134	135	117	108	111	135	116	126	134	132	133
20	136	132	134	119	114	117	133	113	119	135	133	134
21	136	132	135	120	109	116	135	116	122	135	132	134
22	136	133	134	125	112	116	140	135	138	135	112	129
23	134	130	133	129	114	117	140	137	138	125	112	114
24	135	130	132	127	114	116	140	137	139	134	123	130
25	135	132	134	128	114	119	141	138	139	136	130	134
26	136	132	134	131	126	129	142	138	139	136	129	133
27	136	131	134	131	128	130	141	131	139	130	127	128
28	132	130	132	128	122	125	141	134	139	133	129	131
29	134	129	132	125	116	121	140	137	139	133	110	128
30	130	126	128	127	119	122	138	121	129	129	111	113
31	---	---	---	126	110	119	141	135	138	---	---	---
Month	138	120	129	137	108	124	142	111	128	148	110	130

	Max	Min	Mean
Year	152	106	128

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	7.5	7.2	7.3	8.4	7.8	7.9	7.5	7.3	7.3	7.8	7.3	7.4
2	7.2	7.1	7.1	8.4	7.8	7.9	7.8	7.3	7.5	8.0	7.3	7.4
3	7.3	7.2	7.3	8.5	7.8	7.9	7.9	7.4	7.5	8.0	7.4	7.5
4	7.4	7.2	7.3	8.4	7.8	7.8	7.7	7.4	7.5	7.9	7.3	7.4
5	7.4	7.2	7.3	8.1	7.4	7.5	7.7	7.4	7.4	7.9	7.4	7.5
6	7.5	7.1	7.3	8.1	7.6	7.7	7.5	7.4	7.4	7.7	7.3	7.4
7	7.6	7.2	7.3	8.3	7.4	7.6	7.6	7.4	7.4	7.7	7.2	7.4
8	7.6	7.2	7.3	7.4	7.2	7.2	7.7	7.4	7.5	7.7	7.3	7.4
9	7.6	7.2	7.3	7.5	7.3	7.3	7.7	7.4	7.5	7.6	7.3	7.3
10	7.6	7.2	7.3	7.8	7.4	7.5	7.7	7.4	7.5	7.6	7.3	7.4
11	7.6	7.2	7.3	8.0	7.4	7.6	7.6	7.4	7.5	7.6	7.3	7.4
12	7.6	7.2	7.3	8.0	7.5	7.6	7.5	7.4	7.5	7.6	7.3	7.3
13	7.4	7.2	7.2	8.2	7.5	7.7	7.6	7.4	7.4	7.9	7.4	7.4
14	7.4	7.2	7.2	8.2	7.5	7.6	7.5	7.4	7.5	7.9	7.3	7.4
15	7.7	7.3	7.3	8.1	7.5	7.6	7.6	7.4	7.5	7.8	7.4	7.5
16	7.7	7.3	7.3	8.1	7.4	7.5	7.6	7.4	7.5	7.7	7.4	7.4
17	7.8	7.3	7.3	7.9	7.5	7.6	7.6	7.4	7.5	7.7	7.4	7.4
18	7.5	7.2	7.3	8.3	7.5	7.7	7.6	7.4	7.5	7.6	7.4	7.4
19	7.6	7.3	7.3	7.9	7.5	7.6	7.6	7.4	7.4	7.7	7.3	7.4
20	7.7	7.3	7.3	7.8	7.5	7.5	7.6	7.3	7.4	7.6	7.3	7.4
21	7.7	7.2	7.3	8.0	7.4	7.6	7.3	7.2	7.2	7.5	7.3	7.3
22	7.6	7.2	7.2	8.0	7.4	7.6	7.4	7.3	7.3	7.6	7.3	7.4
23	7.3	7.2	7.2	8.0	7.5	7.6	7.5	7.3	7.3	7.6	7.3	7.3
24	7.4	7.2	7.2	8.2	7.4	7.6	7.6	7.3	7.3	7.7	7.3	7.3
25	7.5	7.2	7.3	7.9	7.5	7.6	7.6	7.3	7.4	7.8	7.3	7.4
26	7.9	7.2	7.5	8.2	7.4	7.6	7.7	7.3	7.3	7.8	7.3	7.4
27	8.2	7.7	7.8	7.7	7.4	7.5	7.7	7.3	7.3	7.8	7.3	7.4
28	8.3	7.8	7.9	8.0	7.4	7.6	7.4	7.2	7.3	7.7	7.3	7.3
29	8.4	7.8	7.9	7.9	7.4	7.4	7.6	7.3	7.3	7.8	7.2	7.3
30	---	---	---	7.6	7.4	7.4	7.7	7.3	7.4	7.7	7.2	7.3
31	---	---	---	7.5	7.3	7.4	---	---	---	7.8	7.2	7.3
Max	8.4	7.8	7.9	8.5	7.8	7.9	7.9	7.4	7.5	8.0	7.4	7.5
Min	7.2	7.1	7.1	7.4	7.2	7.2	7.3	7.2	7.2	7.5	7.2	7.3

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	7.9	7.2	7.3	---	---	---	7.4	6.9	7.0	7.8	7.1	7.3
2	8.0	7.2	7.3	---	---	---	7.2	6.8	6.9	7.9	7.1	7.3
3	8.0	7.2	7.3	8.2	7.2	7.4	7.4	7.0	7.1	8.0	7.1	7.3
4	8.0	7.2	7.3	7.4	7.1	7.2	7.6	7.0	7.2	7.6	7.0	7.1
5	8.0	7.3	7.4	7.7	7.1	7.3	7.5	7.0	7.2	7.4	7.0	7.0
6	7.9	7.2	7.3	7.2	7.0	7.1	7.4	6.8	6.9	7.1	6.9	7.0
7	7.7	7.1	7.2	7.3	7.1	7.2	7.6	6.9	7.1	7.3	7.1	7.1
8	7.7	7.1	7.2	7.6	7.1	7.3	7.9	7.0	7.0	7.7	7.1	7.2
9	7.6	7.1	7.2	7.5	7.1	7.1	7.9	7.1	7.1	7.6	7.1	7.2
10	7.7	7.1	7.2	7.6	7.1	7.2	7.7	7.1	7.2	7.7	7.1	7.2
11	7.7	7.1	7.2	7.6	7.1	7.1	7.4	7.1	7.2	7.3	7.1	7.2
12	7.7	7.1	7.2	7.3	7.0	7.1	7.7	7.2	7.3	7.5	7.1	7.3
13	7.8	7.1	7.2	7.6	7.1	7.3	7.8	7.1	7.3	7.6	7.1	7.2
14	7.9	7.1	7.2	7.7	7.1	7.2	7.7	7.1	7.1	7.6	7.1	7.3
15	7.6	7.1	7.2	7.5	7.1	7.2	7.9	7.1	7.1	7.6	7.1	7.2
16	7.8	7.1	7.3	7.4	7.1	7.2	7.7	7.1	7.1	7.2	7.0	7.1
17	7.5	7.1	7.1	7.6	7.0	7.3	7.8	7.1	7.3	7.2	7.0	7.1
18	7.7	7.2	7.3	7.6	7.0	7.0	7.8	7.1	7.4	7.5	7.1	7.2
19	8.0	7.2	7.3	7.2	7.0	7.0	7.8	7.0	7.1	7.6	7.2	7.3
20	8.0	7.1	7.3	7.4	7.0	7.1	7.8	7.0	7.0	7.5	7.1	7.3
21	7.8	7.1	7.2	7.3	7.0	7.1	7.4	6.9	7.0	7.7	7.2	7.4
22	7.5	7.1	7.2	7.1	7.0	7.0	7.7	7.1	7.2	7.7	7.2	7.4
23	7.6	7.1	7.2	7.2	6.9	6.9	7.7	7.1	7.3	7.2	7.2	7.2
24	7.7	7.1	7.3	7.3	6.9	6.9	7.6	7.1	7.3	7.7	7.2	7.3
25	7.8	7.2	7.3	7.1	6.9	6.9	7.7	7.1	7.2	7.8	7.3	7.4
26	7.8	7.1	7.3	7.4	7.0	7.1	7.7	7.1	7.2	7.4	7.1	7.3
27	7.8	7.1	7.3	7.5	7.0	7.2	7.4	7.1	7.2	7.3	7.1	7.2
28	7.8	7.2	7.3	7.5	7.0	7.2	7.2	7.0	7.1	7.4	7.1	7.3
29	7.8	7.1	7.3	7.6	7.0	7.2	7.7	7.0	7.2	7.5	7.2	7.3
30	7.9	7.1	7.3	7.5	7.0	7.0	7.7	7.0	7.1	7.3	7.1	7.2
31	---	---	---	7.4	6.9	7.0	7.5	7.1	7.2	---	---	---
Max	8.0	7.3	7.4	---	---	---	7.9	7.2	7.4	8.0	7.3	7.4
Min	7.5	7.1	7.1	---	---	---	7.2	6.8	6.9	7.1	6.9	7.0

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	24.4	23.1	23.6	19.6	18.8	19.2	11.5	11.0	11.2	9.0	8.4	8.7
2	23.9	23.4	23.7	19.3	17.5	18.6	11.5	11.0	11.2	8.6	6.6	7.6
3	24.4	23.4	24.0	17.9	16.9	17.5	12.5	11.5	12.0	6.8	6.1	6.5
4	25.0	24.1	24.5	17.4	16.7	17.0	11.6	9.7	10.3	6.8	6.1	6.6
5	25.0	23.7	24.0	17.2	16.8	17.0	9.8	9.5	9.6	7.1	5.9	6.6
6	24.8	23.7	24.2	17.3	15.8	16.8	9.6	8.7	9.1	7.4	6.7	7.0
7	25.6	24.1	24.8	15.8	15.3	15.5	9.1	8.4	8.7	8.1	7.2	7.6
8	26.1	24.7	25.3	15.5	14.6	15.2	10.2	9.1	9.6	8.3	7.3	7.8
9	25.7	25.0	25.3	15.1	14.4	14.8	10.6	10.2	10.4	9.4	8.3	9.0
10	25.5	24.9	25.2	15.0	13.8	14.6	11.1	10.5	10.7	9.5	8.8	9.0
11	25.1	22.3	23.9	13.9	13.3	13.6	11.3	10.8	11.1	10.1	8.9	9.6
12	22.3	21.2	21.8	14.1	13.4	13.9	11.8	11.0	11.4	10.2	8.9	9.4
13	22.4	21.4	21.8	14.8	13.8	14.4	11.9	11.3	11.7	9.1	8.4	8.7
14	22.2	21.2	21.7	15.7	14.8	15.2	11.8	11.2	11.4	8.8	8.2	8.5
15	22.2	21.0	21.5	15.6	13.8	15.0	11.6	10.5	10.9	8.3	7.3	7.7
16	22.3	21.1	21.6	13.8	12.5	13.0	10.6	9.9	10.3	7.5	7.2	7.3
17	22.6	21.3	21.9	13.0	12.4	12.7	9.9	8.7	9.3	7.7	7.0	7.3
18	22.6	21.6	22.1	13.0	12.5	12.8	9.5	8.5	9.2	7.7	6.9	7.2
19	22.8	22.0	22.5	13.5	13.0	13.2	9.3	8.3	8.7	7.9	7.1	7.5
20	22.8	21.6	22.5	13.7	13.2	13.5	8.6	8.1	8.4	7.1	6.0	6.6
21	21.8	21.1	21.5	14.1	13.2	13.7	8.9	8.5	8.7	6.1	5.1	5.6
22	22.1	21.2	21.6	14.8	13.9	14.4	9.2	8.6	8.9	6.0	5.2	5.5
23	22.3	21.4	21.9	14.9	12.7	13.8	10.0	9.1	9.5	6.7	6.0	6.3
24	22.7	21.9	22.4	12.7	11.8	12.1	10.0	8.7	9.5	6.9	5.8	6.2
25	22.4	20.9	21.6	12.4	12.0	12.2	8.9	8.4	8.6	5.8	5.0	5.3
26	21.3	20.6	21.0	13.4	12.3	12.7	8.9	7.8	8.3	5.8	5.0	5.4
27	22.1	21.2	21.7	13.9	13.3	13.6	8.5	7.7	8.1	5.9	5.3	5.7
28	21.5	19.6	20.6	13.3	11.9	12.5	9.0	8.4	8.6	6.1	5.2	5.7
29	19.6	18.7	19.0	12.1	11.7	11.9	10.3	9.0	9.8	6.6	5.6	6.1
30	19.9	18.4	19.1	12.0	11.4	11.7	10.3	9.5	9.8	7.2	6.6	6.9
31	19.5	18.1	19.0	---	---	---	9.5	8.8	9.1	6.8	5.5	6.0
Month	26.1	18.1	22.4	19.6	11.4	14.4	12.5	7.7	9.8	10.2	5.0	7.1

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	6.6	6.0	6.4	8.9	8.0	8.5	14.2	13.0	13.5	18.0	16.4	17.1
2	6.8	6.3	6.6	9.1	8.2	8.7	14.4	13.5	13.9	19.1	17.0	17.9
3	7.6	6.5	7.0	9.9	8.4	9.0	14.2	12.6	13.0	19.6	18.1	18.8
4	8.2	7.2	7.7	11.3	9.6	10.2	14.1	12.5	13.0	20.2	18.7	19.3
5	8.9	7.9	8.4	11.7	11.1	11.4	14.3	13.9	14.1	20.2	19.3	19.7
6	11.0	8.9	10	11.7	10.6	11.1	14.1	13.2	13.6	20.2	18.9	19.5
7	11.3	9.8	10.5	11.9	10.4	11.0	13.2	12.9	13.0	20.4	19.3	19.8
8	10.0	9.1	9.6	12.5	11.0	11.9	13.8	12.7	13.1	20.4	19.5	19.7
9	10.5	9.1	9.8	12.2	10.3	10.9	14.2	13.0	13.5	20.2	19.2	19.6
10	10.6	9.6	10.0	11.2	10.2	10.8	14.4	13.1	13.8	20.4	19.4	19.9
11	10.1	8.5	9.0	11.7	10.8	11.3	15.1	13.3	14.1	20.2	19.4	19.6
12	9.1	8.2	8.6	11.8	10.9	11.4	15.8	15.0	15.5	19.4	18.6	19.1
13	9.6	9.1	9.4	12.4	11.3	11.9	15.9	15.0	15.3	19.1	17.8	18.4
14	9.6	8.7	9.1	12.8	11.7	12.2	15.3	14.5	14.8	19.2	17.6	18.3
15	9.2	8.2	8.7	13.0	12.0	12.5	15.2	14.2	14.6	19.7	18.6	19.0
16	9.5	8.7	9.2	13.4	12.0	12.8	15.2	13.9	14.5	20.2	19.4	19.7
17	9.5	8.1	8.7	12.3	11.5	12.0	15.7	13.8	14.7	20.4	19.4	19.9
18	10.7	9.2	10.1	12.6	11.3	11.7	16.5	14.8	15.5	20.2	19.4	19.8
19	10.4	9.2	9.6	13.3	11.6	12.3	17.0	15.6	16.1	20.2	19.4	19.8
20	9.8	8.4	9.0	14.0	13.1	13.6	16.7	15.7	16.2	20.4	19.5	19.9
21	9.8	8.6	9.0	13.3	12.0	12.7	16.5	16.0	16.3	20.4	19.5	19.9
22	9.0	8.0	8.4	13.9	12.6	13.3	16.4	15.7	16.0	20.6	19.5	20.0
23	8.8	8.3	8.5	14.2	12.9	13.4	17.1	15.8	16.4	20.5	19.5	19.9
24	9.0	8.4	8.7	13.6	12.2	12.7	17.6	15.9	16.7	20.9	19.9	20.3
25	9.2	8.6	8.9	12.6	11.6	12.2	18.0	16.4	17.1	21.4	19.7	20.4
26	9.4	8.6	9.0	13.8	12.0	12.8	19.5	16.6	17.7	21.7	20.5	21.0
27	9.4	8.4	8.9	13.9	12.8	13.4	19.5	17.8	18.3	22.4	20.8	21.5
28	8.4	7.2	7.7	15.1	13.7	14.4	18.0	17.0	17.4	22.2	21.1	21.8
29	8.4	7.3	7.8	15.3	12.8	13.9	18.4	17.6	17.9	22.2	20.4	21.2
30	---	---	---	12.8	11.9	12.2	18.1	16.9	17.4	22.1	20.4	21.3
31	---	---	---	13.2	11.9	12.3	---	---	---	23.3	21.1	21.9
Month	11.3	6.0	8.8	15.3	8.0	11.9	19.5	12.5	15.2	23.3	16.4	19.8

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	24.0	22.8	23.2	28.8	27.5	28.1	29.9	28.4	29.1	27.1	26.3	26.7
2	24.0	23.0	23.4	28.2	27.5	27.9	29.5	28.0	28.6	27.0	26.1	26.5
3	23.8	22.3	22.9	29.0	27.0	28.0	29.8	28.4	29.2	28.0	26.4	27.0
4	25.1	22.3	23.5	28.1	26.7	27.4	29.9	29.2	29.5	28.3	26.5	27.0
5	25.8	24.4	25.1	28.8	26.8	27.8	30.0	28.9	29.4	27.1	26.2	26.5
6	25.8	23.6	24.5	27.1	26.4	26.6	29.9	28.2	29.0	26.5	25.8	26.0
7	26.1	23.6	24.5	27.4	26.5	27.1	29.9	28.4	28.9	27.3	25.8	26.5
8	26.1	24.4	25.2	28.0	26.9	27.6	29.8	28.0	28.7	27.5	26.9	27.3
9	26.8	24.4	25.4	27.6	26.5	26.8	29.8	27.7	28.3	27.4	26.8	27.0
10	27.4	25.3	26.3	28.6	26.5	27.2	28.4	26.6	27.5	27.0	25.9	26.4
11	27.4	25.6	26.3	28.4	26.4	26.9	27.8	26.6	27.3	26.0	25.5	25.8
12	26.8	25.4	26.2	27.4	25.9	26.6	27.8	26.8	27.4	26.9	25.9	26.4
13	27.1	25.2	26.1	28.1	27.2	27.6	28.0	26.4	27.0	27.5	26.6	27.0
14	27.3	25.5	26.3	28.0	26.1	26.9	28.0	26.0	26.7	28.2	27.3	27.7
15	27.4	26.1	26.7	28.2	25.7	26.7	28.1	26.4	26.9	28.1	26.9	27.5
16	27.9	26.8	27.2	27.8	26.4	27.0	27.9	26.1	26.8	26.9	25.3	26.3
17	27.4	25.8	26.5	28.3	26.4	27.3	27.3	26.5	26.9	25.3	24.6	24.9
18	27.5	25.2	26.5	28.9	25.8	26.7	27.7	26.2	26.8	25.3	24.4	24.8
19	27.3	25.7	26.8	27.9	26.2	27.0	28.1	26.0	26.9	25.1	24.0	24.7
20	27.4	26.0	26.8	28.4	27.5	27.8	28.0	26.4	27.0	24.0	23.4	23.7
21	27.2	25.9	26.3	28.5	27.8	28.1	27.5	25.8	26.4	24.4	23.4	23.9
22	27.0	25.7	26.2	28.7	27.8	28.2	26.9	26.2	26.6	24.4	23.6	24.2
23	27.3	26.4	26.9	28.2	27.4	27.6	27.2	26.4	26.8	23.6	22.7	23.3
24	27.8	26.9	27.4	28.9	27.4	27.7	27.4	26.6	27.0	23.0	21.6	22.5
25	28.3	26.5	27.6	27.6	27.0	27.2	27.3	26.7	27.0	21.7	20.8	21.2
26	28.4	27.1	27.7	27.6	27.1	27.4	27.3	26.4	26.9	22.7	20.8	21.8
27	28.4	27.5	28.0	28.1	27.3	27.7	26.5	25.2	25.8	23.8	22.7	23.3
28	28.7	27.5	28.2	28.6	27.9	28.2	26.6	25.2	25.9	23.4	22.7	23.1
29	28.8	27.9	28.3	29.0	27.8	28.3	27.7	26.6	27.1	24.0	22.4	23.1
30	28.8	27.3	28.1	29.5	27.4	28.4	27.7	26.4	27.1	22.8	22.4	22.5
31	---	---	---	29.6	27.8	28.5	27.5	26.7	27.1	---	---	---
Month	28.8	22.3	26.1	29.6	25.7	27.5	30.0	25.2	27.5	28.3	20.8	25.2

	Max	Min	Mean
Year	30.0	5.0	18.0

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	9.0	7.7	8.3	8.8	7.7	8.1	10.9	10.2	10.5	11.8	11.2	11.4
2	9.1	7.5	8.0	8.8	7.9	8.4	11.0	10.2	10.5	12.2	11.5	11.7
3	9.0	7.6	8.2	9.2	8.3	8.8	10.8	9.8	10.2	12.7	11.9	12.2
4	9.2	7.3	8.0	9.3	8.5	8.8	11.1	10.3	10.6	12.2	11.7	11.9
5	8.7	6.8	7.1	9.3	8.3	8.7	11.2	10.5	10.8	12.5	12.0	12.2
6	7.8	6.9	7.4	9.0	8.3	8.7	11.8	10.7	11.0	12.3	11.8	12.0
7	8.2	7.1	7.7	9.3	8.7	9.0	11.8	10.9	11.2	12.5	12.0	12.2
8	8.5	7.3	7.8	9.6	8.7	9.1	11.6	10.7	11.1	12.5	11.9	12.0
9	8.7	7.0	7.7	9.6	8.9	9.2	11.5	10.6	10.9	12.3	11.4	11.7
10	8.7	6.9	7.5	9.8	9.1	9.4	11.5	10.6	10.9	11.9	11.4	11.6
11	8.3	7.0	7.3	10.0	9.5	9.7	11.4	10.4	10.7	11.9	11.3	11.5
12	8.4	7.4	8.0	10.3	9.3	9.7	11.2	10.4	10.6	11.8	11.4	11.5
13	8.9	7.9	8.3	10.2	9.2	9.7	11.2	10.3	10.7	11.9	11.4	11.6
14	9.1	7.9	8.3	9.9	9.2	9.5	11.2	10.5	10.7	12.0	11.5	11.6
15	9.0	8.1	8.4	10.0	9.0	9.4	11.3	10.4	10.7	12.4	11.7	11.9
16	9.1	8.1	8.6	10.4	9.2	9.6	10.9	10.4	10.5	12.5	11.7	12.0
17	9.2	8.2	8.6	10.5	9.6	9.9	11.6	10.6	10.8	12.5	11.8	12.0
18	9.1	7.8	8.3	10.5	9.8	10.0	11.3	10.4	10.7	12.3	11.8	11.9
19	8.7	7.4	7.8	10.5	9.7	10.0	11.3	10.7	11.0	12.4	11.8	12.0
20	8.1	7.5	7.8	10.5	9.5	9.9	11.6	11.2	11.3	12.9	11.9	12.2
21	8.7	7.8	8.2	10.4	9.5	9.8	11.7	11.1	11.3	13.4	12.6	12.9
22	9.1	8.1	8.4	10.3	9.4	9.7	11.6	11.1	11.3	12.9	12.4	12.6
23	9.1	7.2	7.6	10.4	9.5	9.8	11.6	11.0	11.3	13.0	12.4	12.6
24	8.6	7.3	7.7	10.8	9.9	10.2	11.6	10.8	11.1	12.9	12.3	12.5
25	7.6	6.7	7.2	10.8	9.7	10.1	11.7	11.2	11.4	13.3	12.6	12.8
26	7.6	7.2	7.3	10.2	9.5	9.8	11.8	11.2	11.4	13.3	12.8	13.0
27	7.9	7.2	7.5	10.0	9.3	9.6	11.7	11.2	11.3	13.2	12.7	12.8
28	8.4	7.8	8.0	10.7	9.8	10	11.8	11.3	11.5	13.2	12.6	12.9
29	8.8	7.8	8.3	10.7	9.9	10.2	11.8	10.9	11.3	13.2	12.6	12.8
30	8.7	7.6	8.1	10.8	10.0	10.3	11.3	10.9	11.0	13.1	12.4	12.6
31	8.5	7.7	8.1	---	---	---	11.6	10.8	11.1	13.2	12.6	12.9
Month	9.2	6.7	7.9	10.8	7.7	9.5	11.8	9.8	10.9	13.4	11.2	12.2

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	13.3	12.4	12.7	12.8	11.8	12.2	10.6	10.0	10.3	10.1	8.9	9.3
2	12.9	12.0	12.3	12.8	11.8	12.1	10.9	9.8	10.2	10.2	8.8	9.4
3	12.9	12.3	12.6	12.8	11.8	12.2	10.9	9.9	10.2	10.1	8.7	9.3
4	12.9	12.1	12.4	12.7	11.5	11.8	10.6	9.9	10.1	10.0	8.6	9.2
5	12.7	12.0	12.2	11.9	10.4	11.0	10.7	9.6	10	9.9	8.5	9.1
6	12.5	11.3	11.7	12.0	11.0	11.3	10.1	9.6	9.8	9.5	8.5	8.9
7	11.9	11.0	11.3	12.0	10.7	11.1	10.3	9.8	10	9.5	8.3	8.7
8	12.0	11.2	11.5	10.8	9.9	10.2	10.5	9.8	10.0	9.3	8.3	8.5
9	12.0	11.2	11.5	11.7	10.3	10.8	10.5	9.8	10.1	9.0	8.1	8.4
10	12.0	11.1	11.4	11.9	10.9	11.3	10.5	9.6	10	9.2	8.1	8.5
11	12.3	11.2	11.6	11.8	10.8	11.2	10.2	9.8	9.9	9.0	8.2	8.3
12	12.3	11.4	11.7	11.9	10.8	11.2	10.0	9.6	9.7	8.8	7.9	8.2
13	12.0	11.0	11.3	11.8	10.8	11.2	9.9	9.4	9.6	9.5	8.2	8.7
14	12.2	10.9	11.3	11.7	10.6	11.0	9.8	9.5	9.6	9.6	8.3	8.8
15	12.2	11.1	11.5	11.6	10.4	10.9	10.2	9.5	9.7	9.4	8.5	8.9
16	---	---	---	11.3	10.0	10.5	10.3	9.6	9.9	9.2	8.3	8.6
17	---	---	---	12.0	10.8	11.1	10.3	9.7	9.9	9.2	8.3	8.6
18	---	---	---	12.2	10.9	11.3	10.1	9.6	9.8	8.9	8.2	8.5
19	---	---	---	11.8	10.4	11.0	10.0	9.3	9.6	9.1	8.1	8.4
20	---	---	---	11.2	10.3	10.6	9.9	9.1	9.3	8.8	8.0	8.3
21	---	---	---	11.3	10.2	10.7	9.5	9.0	9.1	8.6	7.9	8.2
22	---	---	---	11.4	10.0	10.5	9.5	9.0	9.1	8.9	8.0	8.3
23	---	---	---	11.3	10.1	10.5	9.8	9.0	9.2	8.8	7.9	8.3
24	---	---	---	11.5	10.3	10.8	10.0	9.0	9.4	9.1	8.0	8.4
25	---	---	---	12.0	10.8	11.1	10.0	9.0	9.4	9.3	8.1	8.5
26	---	---	---	12.1	10.6	11.2	10.0	8.8	9.3	9.2	8.0	8.5
27	12.0	11.0	11.3	11.2	10.2	10.6	10.0	8.8	9.1	9.2	8.0	8.5
28	12.9	11.6	12.0	11.3	10.0	10.5	9.4	8.7	8.9	9.0	7.8	8.1
29	12.9	11.9	12.4	11.1	9.7	10.2	9.8	8.8	9.1	9.2	7.8	8.2
30	---	---	---	11.0	10.2	10.6	10.0	8.8	9.3	9.1	7.7	8.2
31	---	---	---	10.8	10.1	10.4	---	---	---	9.0	7.7	8.1
Month	---	---	---	12.8	9.7	11.0	10.9	8.7	9.7	10.2	7.7	8.6

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June			July			August			September			
1	9.1	7.5	8.1	---	---	---	7.8	5.8	6.3	8.3	6.4	7.3
2	9.2	7.5	8.1	---	---	---	7.1	5.6	6.0	8.5	6.4	7.4
3	9.2	7.5	8.1	8.3	6.4	7.3	7.7	6.3	6.9	8.6	6.4	7.4
4	9.1	7.4	8.1	7.4	6.1	6.4	7.9	6.2	7.0	8.1	6.0	6.4
5	9.0	7.4	8.0	7.9	6.2	7.0	8.1	6.2	7.0	7.8	5.7	6.1
6	8.8	7.2	7.8	7.1	6.1	6.2	7.9	5.5	6.1	6.3	5.2	5.8
7	8.9	7.0	7.7	7.8	6.6	7.1	7.9	5.8	6.2	7.6	6.3	6.7
8	8.8	7.0	7.7	8.2	6.4	7.3	8.1	5.6	6.2	8.2	6.3	7.1
9	8.6	6.9	7.6	7.8	6.2	6.5	8.0	6.2	6.6	8.0	6.4	7.1
10	8.7	6.7	7.4	8.2	6.3	6.9	8.1	6.3	6.9	8.2	6.5	7.1
11	8.7	6.5	7.3	8.1	6.0	6.4	7.7	6.5	6.9	7.4	6.6	6.9
12	8.7	6.6	7.4	7.3	5.8	6.2	8.2	6.7	7.3	8.0	6.6	7.3
13	8.6	6.6	7.4	8.0	6.4	7.1	8.3	6.4	7.3	8.1	6.4	7.2
14	8.7	6.5	7.3	8.0	6.3	7.0	8.3	6.2	6.7	8.2	6.6	7.3
15	8.3	6.3	7.1	8.0	6.4	7.0	8.6	6.1	6.6	8.2	6.4	7.1
16	8.7	6.2	7.1	7.5	6.2	6.6	8.2	6.3	6.7	6.7	6.2	6.4
17	8.0	6.1	6.5	8.0	5.6	7.0	8.2	6.3	7.2	7.3	6.2	6.8
18	8.3	6.5	7.3	8.2	5.3	5.9	8.5	6.4	7.3	8.2	6.8	7.5
19	8.4	6.5	7.3	7.1	5.3	5.8	8.4	6.1	6.7	8.4	7.0	7.6
20	8.4	6.4	7.3	7.8	6.2	6.8	8.4	5.8	6.4	8.3	7.1	7.7
21	8.3	6.4	7.1	7.8	6.1	6.8	7.2	5.3	5.9	8.5	7.2	7.8
22	7.9	6.3	7.0	6.8	5.7	6.1	8.2	6.3	7.1	8.6	6.9	7.7
23	8.1	6.1	7.0	7.1	5.4	5.7	8.2	6.4	7.2	7.3	6.8	7.0
24	---	---	---	7.6	5.3	5.8	8.2	6.4	7.2	8.6	7.3	7.8
25	---	---	---	6.9	5.5	5.8	8.2	6.4	7.1	8.9	7.6	8.1
26	---	---	---	7.6	6.1	6.8	8.2	6.4	7.1	8.2	7.3	7.8
27	8.0	6.1	6.9	7.8	6.2	6.9	7.6	6.3	6.8	8.1	6.9	7.5
28	7.8	6.2	6.8	7.8	6.1	6.9	7.1	6.2	6.7	8.4	7.2	7.8
29	7.8	6.0	6.8	7.9	6.1	7.0	8.3	6.1	7.0	8.6	7.4	8.0
30	7.9	6.1	6.9	8.1	5.9	6.6	8.3	6.0	6.5	8.1	7.1	7.5
31	---	---	---	7.6	5.5	6.0	8.0	6.4	7.0	---	---	---
Month	---	---	---	---	---	---	8.6	5.3	6.8	8.9	5.2	7.2

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	107	91	98	96	84	88	100	93	96	102	97	98
2	108	89	94	96	86	90	101	93	96	102	96	98
3	107	91	98	97	87	92	100	92	95	104	97	99
4	111	88	96	96	88	91	99	91	94	99	95	97
5	106	81	85	96	86	90	99	92	95	102	98	100
6	93	82	88	94	86	90	102	93	96	102	97	99
7	98	85	93	94	88	91	102	93	96	106	100	102
8	103	89	96	96	87	91	103	95	97	106	99	101
9	106	85	94	95	88	91	103	95	98	106	99	102
10	106	84	91	97	89	93	104	96	98	104	98	101
11	101	82	88	96	92	94	104	95	97	104	100	101
12	96	85	92	100	90	95	102	95	98	104	99	101
13	101	91	95	99	91	95	104	95	98	103	97	100
14	104	90	95	98	92	95	103	96	98	102	98	100
15	102	92	96	101	88	94	104	93	97	104	98	100
16	103	93	98	99	88	91	97	92	94	105	97	100
17	104	94	98	100	90	94	101	92	95	105	97	100
18	104	90	96	100	92	95	99	91	93	103	97	99
19	101	86	90	101	93	96	99	92	94	105	98	100
20	94	87	90	101	92	96	99	95	97	104	97	100
21	99	88	93	101	92	94	101	95	97	108	99	103
22	104	92	96	101	92	95	100	96	98	104	98	100
23	104	82	87	101	91	95	101	97	99	105	101	103
24	99	84	89	101	92	95	101	95	97	106	99	102
25	88	76	81	101	90	94	101	96	98	105	99	102
26	85	81	83	96	90	93	102	94	98	106	100	103
27	90	82	86	96	90	92	100	94	95	106	100	103
28	95	86	90	100	92	94	101	97	99	107	99	103
29	96	84	90	100	92	95	103	97	100	107	100	104
30	94	83	87	99	92	95	101	96	98	107	102	104
31	92	84	87	---	---	---	100	94	96	107	100	104
Month	111	76	92	101	84	93	104	91	97	108	95	101

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	109	100	103	110	101	105	104	95	99	107	91	97
2	106	97	100	111	100	105	107	94	99	111	91	99
3	108	101	104	112	101	106	107	93	97	111	92	100
4	109	101	104	113	102	106	103	93	96	111	92	100
5	109	101	104	109	96	101	105	93	97	110	93	100
6	109	101	104	111	99	103	98	92	95	105	92	98
7	108	99	102	111	97	101	98	93	95	106	90	96
8	107	97	101	98	92	94	102	93	96	103	91	93
9	107	98	102	105	95	98	103	93	97	100	88	92
10	108	98	101	108	99	103	103	92	97	102	88	94
11	106	96	100	109	99	103	102	94	97	100	89	91
12	107	97	101	110	98	103	100	96	97	95	86	89
13	105	96	99	110	100	104	100	93	96	103	87	93
14	106	94	99	111	98	103	98	93	95	104	87	94
15	106	95	99	109	98	102	102	93	96	103	91	96
16	---	---	---	108	94	99	103	93	97	101	90	95
17	---	---	---	112	99	103	104	94	98	102	90	95
18	---	---	---	115	100	105	104	95	98	99	89	93
19	---	---	---	109	98	103	104	94	98	101	88	92
20	---	---	---	107	100	102	102	93	95	97	87	91
21	---	---	---	108	97	101	98	91	93	96	86	90
22	---	---	---	109	96	101	97	91	93	99	87	92
23	---	---	---	109	96	101	102	91	95	98	86	91
24	---	---	---	111	97	102	105	91	97	102	88	93
25	---	---	---	113	100	104	106	93	98	105	89	95
26	---	---	---	115	100	106	109	91	98	105	89	95
27	103	95	98	108	97	101	109	93	97	106	90	96
28	109	96	101	111	98	103	100	90	93	104	89	92
29	109	100	104	111	93	99	105	92	97	106	87	93
30	---	---	---	104	95	99	106	91	97	105	86	93
31	---	---	---	101	95	98	---	---	---	106	87	93
Month	---	---	---	115	92	102	109	90	96	111	86	94

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	108	88	96	---	---	---	103	75	82	104	80	91
2	110	88	95	---	---	---	93	72	78	106	80	92
3	109	87	95	107	81	94	101	83	90	108	81	93
4	111	85	95	95	78	82	105	81	92	104	75	80
5	110	89	97	103	79	89	108	81	92	98	71	76
6	108	85	94	90	76	78	105	71	79	78	65	71
7	110	83	92	98	82	89	105	75	81	96	78	84
8	109	84	93	105	80	92	107	72	80	104	80	90
9	108	84	93	99	77	81	106	79	86	102	80	89
10	110	82	92	106	79	87	105	79	89	103	80	89
11	110	80	92	105	75	80	98	83	88	91	82	85
12	109	81	92	93	72	77	105	85	93	99	83	90
13	109	81	92	103	81	90	106	80	92	102	81	91
14	110	80	91	103	78	88	106	78	83	104	84	93
15	105	78	89	103	81	87	110	76	83	105	81	91
16	111	78	90	95	78	83	105	78	84	84	76	80
17	100	77	81	103	70	89	104	79	90	88	76	83
18	103	82	91	107	65	74	108	80	92	99	83	90
19	106	82	92	91	66	73	108	76	84	102	84	92
20	107	80	91	101	79	87	108	72	80	99	84	91
21	105	79	89	101	78	88	92	65	74	101	86	93
22	100	79	87	88	73	78	103	78	89	103	82	92
23	102	77	88	91	69	72	103	80	90	85	80	82
24	---	---	---	99	67	74	103	80	90	101	85	91
25	---	---	---	87	69	74	104	80	90	102	85	92
26	---	---	---	97	77	86	104	80	89	92	85	89
27	103	79	89	100	79	88	95	77	84	95	82	88
28	101	80	88	101	78	89	87	77	82	99	84	91
29	101	77	88	103	78	90	106	77	89	101	88	93
30	102	78	88	106	75	85	106	76	81	94	82	87
31	---	---	---	100	70	77	102	81	89	---	---	---
Month	---	---	---	---	---	---	110	65	86	108	65	88