

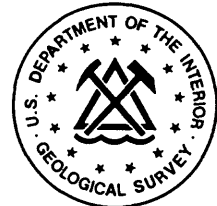
WATER-QUALITY DATA FROM CONTINUOUSLY MONITORED SITES IN THE PAMLICO AND NEUSE RIVER ESTUARIES, NORTH CAROLINA, 1991-92

By Ronald G. Garrett

U.S. GEOLOGICAL SURVEY

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**ALBEMARLE-PAMLICO ESTUARINE STUDY of the
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES**

Raleigh, North Carolina

1994

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CONVERSION FACTORS, VERTICAL DATUM, TEMPERATURE AND ABBREVIATIONS

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
<i>Area</i>		
square mile (mi ²)	2.590	square kilometer
<i>Volume</i>		
gallon (gal)	3.785	liter
<i>Flow</i>		
cubic foot per second (ft ³ /s)	0.3048	cubic meter per second
<i>Mass</i>		
ounce, avoirdupois (oz)	28.35	gram
<i>Mass per unit volume</i>		
grain per gallon (gr/gal)	0.05841	milligram per liter
<i>Specific conductance</i>		
micromho per centimeter at 25 degrees Celsius (μmho/cm at 25 °C)	1.000	microsiemen per centimeter at 25 degrees Celsius

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

Temperature: In this report atmospheric temperature is given in degrees Fahrenheit (°F), which can be converted to degrees Celsius (°C) by the following equation:

$$^{\circ}\text{C} = 5/9 \times (^{\circ}\text{F} - 32)$$

Water temperature is given in degrees Celsius (°C), which can be converted to degrees Fahrenheit (°F) by the following equation:

$$^{\circ}\text{F} = 1.8 (^{\circ}\text{C}) + 32$$

Abbreviations used in this report:

in/yr	inch per year	°C	degrees Celsius
mi/hr	mile per hour	<	less than
mg/L	milligram per liter	>	greater than
ppt	parts per thousand	≤	less than or equal to
μS/cm	microsiemens per centimeter	---	no data
±	plus or minus		

Definition used in this report:

Water year - The period October 1 through September 30, determined by the calendar year in which it ends.

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WATER-QUALITY DATA FROM CONTINUOUSLY MONITORED SITES IN THE PAMLICO AND NEUSE RIVER ESTUARIES, NORTH CAROLINA, 1991-92

By Ronald G. Garrett

ABSTRACT

Water-quality measurements were made at six sites in or near North Carolina's Pamlico River estuary and at five sites in or near the Neuse River estuary. Measurements taken at 15-minute intervals included near-surface and near-bottom specific conductance; near-surface water temperature; and near-surface, mid-depth, and near-bottom dissolved-oxygen concentrations.

In the Pamlico River estuary, salinities generally ranged from less than 0.1 to 20 parts per thousand during the period October 1991 through September 1992. Recorded water temperatures in the Pamlico River were between 3.5 and 33 degrees Celsius during the measurement period. Dissolved-oxygen concentrations ranged from less than 1 to 23 milligrams per liter.

In the Neuse River estuary, salinities ranged from 0.3 to 27 parts per thousand between October 1991 and September 1992. During the same period, recorded water temperatures in this estuary were between 4 and 34 degrees Celsius. Dissolved-oxygen concentrations ranged from less than 1 to greater than 22 milligrams per liter.

Daily mean values of salinity; water temperature; dissolved-oxygen concentrations; and dissolved oxygen, percent saturation, are presented in tables and graphs. Five-day mean values of water temperature and dissolved-oxygen concentrations for day and night conditions also are presented in tables. Data are presented illustrating the vertical distribution of selected constituents at each site for selected dates.

INTRODUCTION

Estuarine environmental monitoring has been defined as "a continuing program of modeling, measurement, analysis, and synthesis that predicts and quantifies environmental conditions or contaminants and incorporates that information effectively into decision making in environmental management" (National Research Council, 1990). Monitoring data can provide information to (1) evaluate pollution abatement activities and control waste discharges, (2) measure trends in water quality, (3) detect new environmental problems during the early stages, potentially leading to lower-cost solutions, (4) evaluate human health hazards, and (5) determine the response of organisms to changes in habitat quality (National Academy of Sciences, 1977; Pearce and Despres-Patanjo, 1988; National Research Council, 1990).

The estuarine environment is extremely complex and highly variable, and it is often difficult to detect changes or to separate trends from natural variations. For example, salinity may be affected by tides, variable freshwater inputs, meteorological conditions, bathymetry, sea-level rise, and other factors, all of which are temporally and spatially variable. Moreover, there is a physical coupling between salinity and flow. Flows are influenced by spatial salinity (density) gradients. Flow, in turn, advects and mixes salt, and thereby affects the spatial salinity gradients. Salinity is also an important biological factor affecting species productivity and diversity, as well as perhaps the incidence of certain finfish diseases (Noga and Stanley, 1989).

Likewise, dissolved oxygen fluctuates in response to flows, to the salinity-controlled density gradients, to diurnal and vertical variations in biological community metabolism, and to variable water-quality conditions. Because vertical density gradients control the transport of oxygen through the water column, salinity distributions and dissolved-oxygen concentrations are closely related. Adequate dissolved-oxygen levels are critical to the biological health of the estuary.

Because of the complex and variable nature of estuaries, continuously recording water-quality instruments can play a key role in monitoring. For example, after evaluating data collected at bimonthly intervals, the Chesapeake Bay Program staff recognized the need for continuously monitored salinity, dissolved oxygen, and temperature data (Martin Marietta Environmental Systems, 1987a, 1987b). The recently initiated Environmental Monitoring and Assessment Program continuously monitored near-bottom dissolved oxygen during the summer of 1990 at 30 estuarine sites from Massachusetts to Virginia (Holland, 1990).

The Albemarle-Pamlico (A-P) Estuarine Study implemented an estuarine monitoring program in 1988 (Holman, 1988). The monitoring program includes an expanded ambient water-quality monitoring network (North Carolina Department of Environment, Health, and Natural Resources, 1990), fish tissue analyses, sediment-oxygen demand studies, a citizens' monitoring program, and a network of continuous water-quality monitors. The expanded ambient monitoring network and the continuous-monitoring network were designed to provide compatible data, and in many locations, the ambient- and continuous-monitoring network sites coincide. Information from these and other biological and water-quality monitoring activities in the sounds provides a comprehensive overview of the health of the estuarine system.

In 1988, the U.S. Geological Survey (USGS), in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, initiated an investigation of water quality in the Pamlico and Neuse River estuaries. The investigation involves the continuous measurement of selected water-quality constituents and analyses of those data to (1) provide information to be used in conjunction with other A-P Study monitoring data to characterize baseline conditions in the two estuaries; (2) evaluate temporal trends after sufficient data are available; (3) characterize the extent, frequency, and duration of density stratification; (4) describe the dissolved-oxygen regime, including the relation of hypoxia to density stratification; and (5) provide data for hydrodynamic and water-quality modeling.

This report is the third in a series of reports summarizing data collected from the Pamlico and Neuse River estuaries. The first report summarized data collected during 1989-90 (Garrett and Bales, 1991), and the second report summarized data collected during 1990-91 (Garrett, 1992).

Purpose and Scope

The purpose of this report is to provide a summary of the continuously monitored water-quality data collected from the Pamlico River and the Neuse River estuaries. This report covers the period from October 1991 through September 1992, which is the third full water year of data collection. Water-quality data were measured at 15-minute intervals at six sites in the Pamlico River estuary and at five sites in the Neuse River estuary. Measurements included near-surface and near-bottom specific conductance; near-surface water temperature; and near-surface, mid-depth, and near-bottom dissolved-oxygen concentrations and percent saturation. Specific-conductance data were converted to and reported as salinity values. Instantaneous data are summarized as daily mean values in tables and graphs.

Acknowledgments

This investigation was conducted in cooperation with the North Carolina Department of Environment, Health, and Natural Resources (DEHNR), Albemarle-Pamlico Estuarine Study. The contents of this report do not necessarily reflect the views and policies of the Albemarle-Pamlico Estuarine Study.

Douglas N. Rader (formerly of DEHNR) saw the urgent need for continuously monitored water-quality data and was helpful in initiating this study; Robert E. Holman (formerly of DEHNR) and Randall G. Waite (DEHNR) have helped ensure the continued operation of the monitoring network. Steve Tedder, Jimmie Overton, Dianne Reid, and Jay Sauber of the North Carolina Division of Environmental Management, and Mike Street and Jess Hawkins of the North Carolina Division of Marine Fisheries cooperated in the design of the water-quality monitoring network and have provided continuing support for the study. The U.S. Coast Guard, Fifth District, granted permission for use of existing channel markers to support data-collection instrumentation. The Coast Guard also assisted in instrument installation at some of the sites and participated in the recovery of instrumentation at downed channel markers.

ESTUARIES AND MONITORED SITES

The Pamlico River estuary and the Neuse River estuary lie within the Coastal Plain physiographic province of North Carolina (fig. 1). Much of the shoreline surrounding these two estuaries is composed of marshes, particularly near the mouths of the estuaries (Bellis and others, 1975; Copeland and others, 1984). Land-surface elevations in the area are generally less than 25 ft above sea level. Streams that drain to the estuaries have small drainage basins with little topographic relief, low sediment loads, and fairly acidic waters (Copeland and others, 1984).

The climate of the region is moderately mild and humid. The annual mean temperature is about 60 °F, and mean annual precipitation ranges from about 50 in. on the north side of the Pamlico River estuary to about 56 in. on the south side of the Neuse River estuary (Hardy and Hardy, 1971). Variability of annual precipitation is large, ranging from 35 to 80 in., but precipitation is relatively uniform throughout the year, with highest rainfall amounts typically occurring in July, August, and September. Evapotranspiration rates average about 34 in./yr and exhibit much less variability from year to year than precipitation

(Wilder and others, 1978). Average wind speeds are about 10 mi/hr. Winds typically blow from south to southwest between April and August, and from north to northwest between September and February; there is no predominant prevailing wind direction during March.

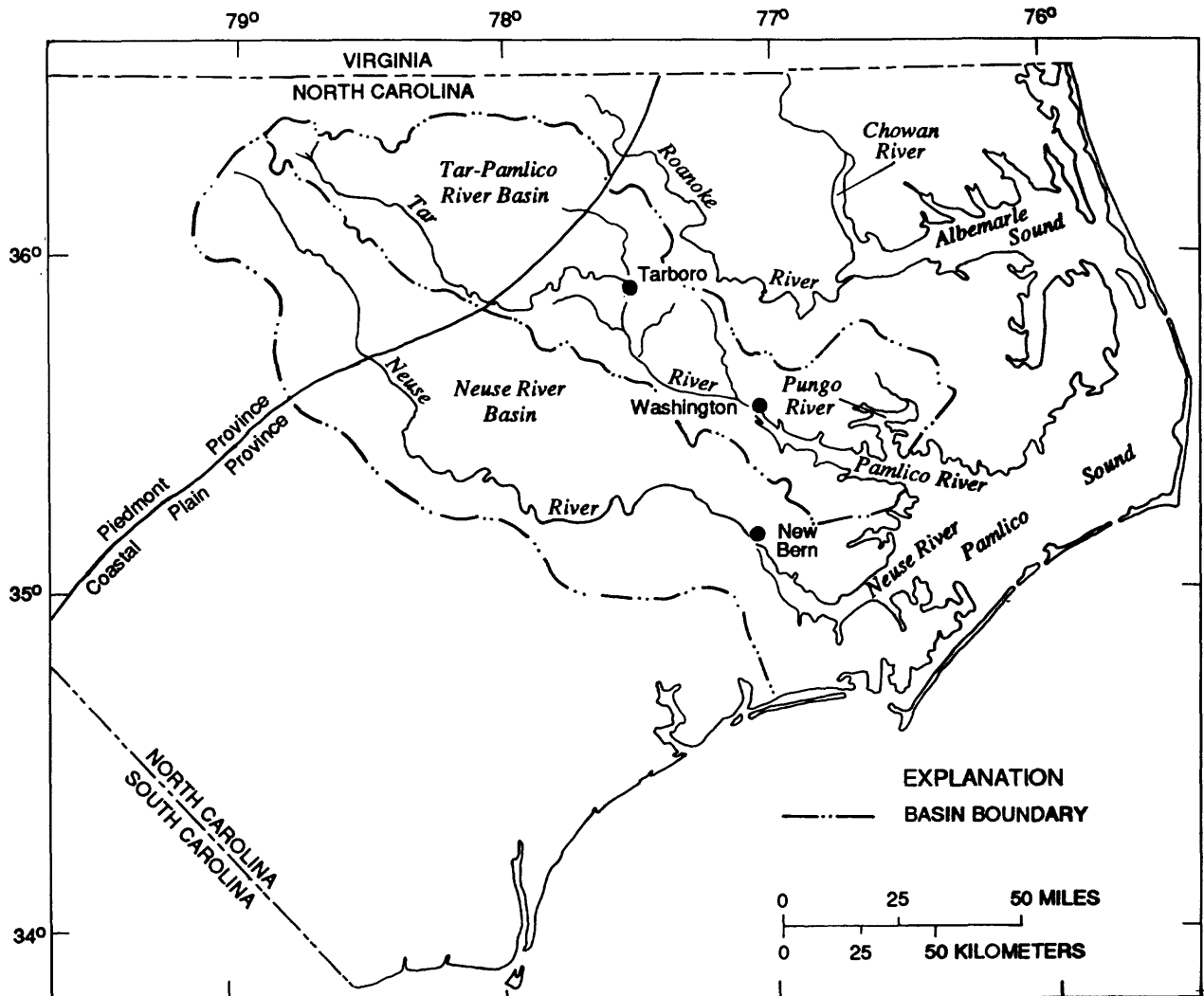


Figure 1.--Location of Tar-Pamlico and Neuse River drainage basins.

Pamlico River Estuary

Upstream of Washington, the Pamlico River is known as the Tar River and drains a 3,080 mi² rural area in the Piedmont and Coastal Plain Provinces (fig. 1). Downstream from Washington, the Pamlico River estuary drains an additional area of 1,220 mi² near the confluence of the Pamlico and Pungo Rivers for a total drainage area of 4,300 mi². The distance from Washington to the confluence of the Pamlico and Pungo Rivers is about 30 mi.

The Pamlico River estuary width increases from about 1,000 ft at Washington to more than 4 mi at the Pamlico-Pungo confluence. Maximum depths range from about 10 ft at Washington to about 18 ft at the mouth. Bottom material near Washington is primarily

organic-rich mud; in the lower reaches of the estuary, fine-grained materials occur mostly along the channel axis, and sand predominates near the shoreline (Wells, 1989).

Annual average inflow to the Pamlico River estuary at Washington has been estimated to be 3,140 ft³/s (Harned and Davenport, 1990). Average annual inflow for the 1,220-mi² drainage area downstream from Washington is estimated to be 2,260 ft³/s. Water-level fluctuations in the Pamlico River are primarily a result of wind and astronomical tides. Average daily water-level fluctuation is 1.0 ft at Washington and 0.6 ft near the mouth of the Pamlico River (Bales, 1990).

Four water-quality monitoring stations (sites 1-4) were established in the Pamlico River estuary on U.S. Coast Guard channel markers; two additional stations (sites 5 and 6) were placed at the mouths of Goose Creek and the Pungo River, respectively, which flow into the Pamlico River (fig. 2). Site numbers used in this report correspond to those in an earlier report (Garrett, 1992). Water depth at the monitoring stations ranges from 11 ft at sites 1 and 4, to 15 ft at site 2 (table 1). Salinities in the Pamlico River estuary generally ranged from less than 0.1 to 20 ppt during the period October 1991 through September 1992. Recorded water temperatures in the Pamlico River ranged from 3.5 °C to 33 °C during the measurement period. Dissolved-oxygen concentrations ranged from less than 1 to 23 mg/L. Extremes for the period of record of salinity, water temperature, and dissolved-oxygen concentrations at each site are presented in table 2.

Neuse River Estuary

Like the Tar River, the Neuse River originates in the Piedmont Province of North Carolina (fig. 1) and drains a 4,470-mi² area upstream of New Bern that is characterized by several large urban areas and widespread agriculture. Downstream from New Bern, an additional 1,130 mi² drain to the Neuse River estuary for a total drainage area of 5,600 mi² near site 11, Neuse River at junction light (fig. 2).

The Neuse River estuary varies in width from 0.9 mi at New Bern to about 6.3 mi at the mouth. Average depths range from 8 ft at New Bern to 17 ft at the mouth (Giese and others, 1985). The bottom-material composition of the Neuse River estuary is similar to that of the Pamlico River estuary, where fine-grained materials predominate along the channel axis and sand generally occurs near the shoreline (Wells, 1989).

Annual average inflow to the Neuse River estuary at New Bern is about 4,910 ft³/s (Harned and Davenport, 1990). Giese and others (1985) estimated that the average freshwater outflow from the entire Neuse River Basin is about 6,500 ft³/s; thus, the annual average freshwater inflow from lands below New Bern and adjacent to the estuary is about 1,600 ft³/s. As in the Pamlico River, water levels in the Neuse River estuary are affected by wind and astronomical tides. The daily mean water-level range is 1.0 ft at New Bern and 0.6 ft near site 10 (fig. 2).

Five active water-quality monitoring stations are located along an approximately 35-mi reach in the Neuse River estuary (sites 8-12, fig. 2). Site 7 was in operation from May 1989 until December 1989 when the channel marker platform was destroyed by ice. The destroyed multiple channel marker was replaced by a single-pile marker, so it was not possible to reinstall the data-collection instrumentation. Therefore, there are no data

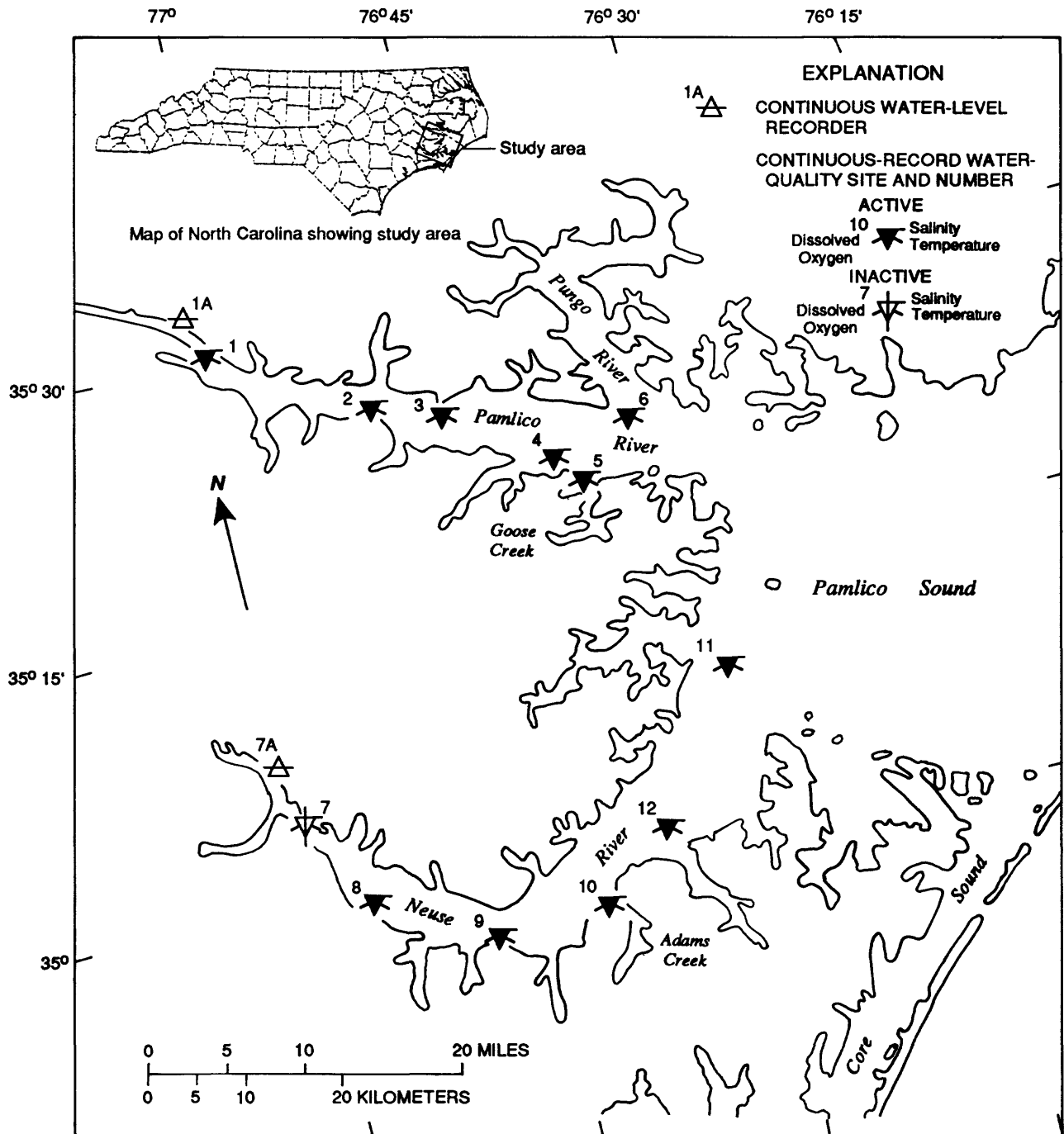


Figure 2.--Location of continuous water-level and water-quality monitoring sites in the Pamlico and Neuse River estuaries.

Table 1.--Summary of data-collection sites in the Pamlico and Neuse River estuaries, 1988-92

Site number (fig. 2)	Location	Latitude	Longitude	Mean water depth (feet)	Period of record
1	Pamlico River at channel light 16	35°30'30"	77°01'12"	11	April 1989-September 1992
1A	Pamlico River at Washington	35°32'33"	77°03'43"	---	¹ March 1988-September 1992
2	Pamlico River at light 5	35°25'48"	76°50'30"	15	April 1989-September 1992
3	Pamlico River at light 4	35°24'47"	76°45'52"	14	April 1989-September 1992
4	Pamlico River at light 3	35°21'24"	76°38'48"	11	May 1989-September 1992
5	Goose Creek at light 6	35°19'54"	76°37'06"	12	May 1989-September 1992
6	Pungo River at junction light PR	35°22'42"	76°33'24"	12	May 1989-September 1992
7	Neuse River at channel light 22	35°04'48"	77°00'24"	15	May 1989-December 1989
7A	Neuse River at New Bern	35°06'42"	77°01'37"	---	¹ March 1988-September 1992
8	Neuse River at channel light 11	34°59'56"	76°56'36"	13	² May-December 1989; January 1991-September 1992
9	Neuse River at channel light 9	34°56'54"	76°48'36"	11	May 1989-September 1992
10	Adams Creek at light 4	34°57'24"	76°40'54"	8	June 1989-September 1992
11	Neuse River at junction light	35°08'42"	76°30'06"	17	³ May 1990-October 1991; May-September 1992
12 /	Neuse River at light 7	35°00'30"	76°39'42"	12	⁴ February-May 1991; April-September 1992

¹Water-level data only.

²Channel marker platform was destroyed December 1989 and rebuilt January 1991.

³Station was destroyed November 1991 and rebuilt May 1992.

⁴Station was destroyed June 1991 and rebuilt April 1992.

Table 2.--Maximum and minimum values recorded for salinity, water temperature, and dissolved oxygen in water at the water-quality monitoring sites, April 1989-September 1992

[ppt, parts per thousand; °C, degrees Celsius; <, less than; >, greater than; mg/L, milligram per liter]

Site number (fig. 2)	Station name and number ¹ (Period of record)	Salinity, near surface (ppt)		Salinity, near bottom (ppt)		Water temperature, near surface (°C)	
		Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)
1	Pamlico River at channel light 16, 0208450705 (4/89-9/92)	13.2 (2/11/91)	<0.1 (7/20-26/89; 8/21,23/89; 12/6,15,17-22/89; 4/27-30/90; many days in May and June 1990; 7/10/90; 8/16/90)	>13.9 (11/6-11/91; 12/25,26/91; 1/6-8/92)	<0.1 (many days in June, July, November, and December 1989; January April, May, and June 1990; 8/16-26,29/92)	33.3 (8/14/90)	1.0 (12/4,21,22/89; 1/13/90)
2	Pamlico River at light 5, 0208453300 (4/89-9/92)	13.6 (12/6/91)	0.1 (3/18,21/90)	16.9 (11/5/91)	<0.1 (4/12/90)	33.0 (7/23/90)	0.0 (12/3/89)
3	Pamlico River at light 4, 0208454253 (4/89-9/92)	18.1 (11/10/90)	<0.1 (5/6/89)	20.1 (11/9/90)	0.4 (4/21/90)	32.1 (7/12/91)	3.5 (1/7/90)
4	Pamlico River at light 3, 0208455155 (5/89-9/92)	16.2 (9/4/89; 9/1/90; 11/10,18/90)	0.9 (5/17/89)	20.4 (11/5/90)	1.7 (5/14,16/89; 8/27/92)	33.3 (8/20/90; 7/9/92)	3.5 (1/27/91; 2/12,13/92)
5	Goose Creek at light 6, 0208455615 (5/89-9/92)	17.9 (12/16/91)	2.1 (3/13/90)	50.7 (7/11/90)	2.9 (6/14/89)	31.7 (7/12/89)	4.5 (1/20/92)
6	Pungo River at junction light PR, 0208457700 (5/89-9/92)	19.4 (1/11/91)	1.3 (12/24/89)	19.4 (12/30/90)	4.1 (5/6/90)	31.8 (8/2/90)	1.7 (12/20/89)

¹U.S. Geological Survey downstream order number.

Table 2.--Maximum and minimum values recorded for salinity, water temperature, and dissolved oxygen in water at the water-quality monitoring sites, April 1989-September 1992--Continued

[ppt, parts per thousand; °C, degrees Celsius; <, less than; >, greater than; mg/L, milligram per liter]

Site number (fig. 2)	Station name and number ¹ (Period of record)	Salinity, near surface (ppt)		Salinity, near bottom (ppt)		Water temperature, near surface (°C)	
		Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)
7	Neuse River at channel light 22, 0209258400 (5/89-12/89)	9.2 (8/7/89)	<0.1 (5/12-17/89; 7/23,27, 28/89; 12/3,6,11,12/89)	12.0 (8/8,9/89)	<0.1 (5/12-17,24/89)	31.3 (7/26/89)	4.4 (12/4/89)
8	Neuse River at channel light 11, 0209262905 (5/89-12/89; 1/91-9/92)	14.4 (12/10/91)	<0.1 (5/14,15/89)	20.8 (8/1/92)	0.1 (5/15/89)	32.9 (9/10/92)	4.0 (1/20/92)
9	Neuse River at channel light 9, 0209265810 (5/89-9/92)	16.5 (12/3/91)	0.3 (12/30,31/89)	18.3 (7/26/91)	0.5 (12/24/89)	32.3 (8/6/89)	2.7 (1/27/91)
10	Adams Creek at light 4, 0209266925 (6/89-9/92)	32.8 (3/18/90)	0.3 (4/8/91; 4/17/92)	31.5 (6/9/89)	4.5 (12/17/89; 3/10,11/90)	34.1 (7/12/92)	0.1 (12/24/89)
11	Neuse River at junction light, 0209269000 (5/90-10/91; 5/92-9/92)	31.6 (11/22/90)	10.6 (7/28/90)	30.8 (11/22/90)	10.6 (4/27/91)	30.9 (8/31/92)	9.2 (3/13,14/91)
12	Neuse River at light 7, 0209267575 (2/91-5/91; 4/92-9/92)	17.1 (8/12/92)	5.7 (4/30/91)	19.0 (8/20/92)	6.7 (8/27/92)	31.4 (7/30/92)	9.2 (3/1/91)

¹U.S. Geological Survey downstream order number.

Table 2.--Maximum and minimum values recorded for salinity, water temperature, and dissolved oxygen in water at the water-quality monitoring sites, April 1989-September 1992--Continued

[ppt, parts per thousand; °C, degrees Celsius; <, less than; >, greater than; mg/L, milligram per liter]

Site number (fig. 2)	Station name and number ¹ (Period of record)	Dissolved oxygen, near surface (mg/L)		Dissolved oxygen, mid-depth (mg/L)		Dissolved oxygen, near bottom (mg/L)	
		Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)
1	Pamlico River at channel light 16, 0208450705 (4/89-9/92)	22.9 (12/25/91)	<1.0 (5/30/91; 6/1.2, 4/91; 7/4/91)	18.2 (1/2/92)	<1.0 (1989--5 days; 1990--16 days; 1991--48 days)	16.4 (7/19/90)	<1.0 (1989--30 days; 1990--34 days; 1991--22 days; 1992--70 days)
2	Pamlico River at light 5, 0208453300 (4/89-9/92)	18.5 (2/5/91)	2.5 (8/16/91)	20.2 (3/25/91)	<1.0 (1989--3 days; 1990--1 day; 1991--4 days; 1992--24 days)	18.6 (1/5/92)	<1.0 (1989--30 days; 1990--31 days; 1991--33 days; 1992--78 days)
3	Pamlico River at light 4, 0208454253 (4/89-9/92)	17.4 (1/15/91)	<1.0 (10/17/89; 8/12/91)	15.3 (1/15/91)	<1.0 (8/24/89; 8/28,29/90; 6/22,23/91; 7/11,12/92)	18.3 (3/21/91)	<1.0 (1989--49 days; 1990--3 days; 1991--22 days; 1992--63 days)
4	Pamlico River at light 3, 0208455155 (5/89-9/92)	21.2 (1/30/92)	<1.0 (8/5-11,23-25, 27-31/92; 9/2-5/92)	>20.0 (4/10/92)	<1.0 (9/16/89; 10/16,18,19/89; 7/9,10,25-31/91; 8/1/91; 8/16/92; 9/20/92)	18.0 (5/3/91)	<1.0 (1989--5 days; 1991--12 days; 1992--37 days)

¹U.S. Geological Survey downstream order number.

Table 2.--Maximum and minimum values recorded for salinity, water temperature, and dissolved oxygen in water at the water-quality monitoring sites, April 1989-September 1992--Continued

[ppt, parts per thousand; °C, degrees Celsius; <, less than; >, greater than; mg/L, milligram per liter]

Site number (fig. 2)	Station name and number ¹ (Period of record)	Dissolved oxygen, near surface (mg/L)		Dissolved oxygen, mid-depth (mg/L)		Dissolved oxygen, near bottom (mg/L)	
		Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)
5	Goose Creek at light 6, 0208455615 (5/89-9/92)	15.9 (1/28/90; 2/3/92)	<1.0 (6/17-20/89; 7/25, 26,28,30/91; 8/1,3, 5/91)	16.0 (1/29/90)	<1.0 (6/9,11,12,14, 15,18,19/89; 7/31/91)	15.2 (2/13/90)	<1.0 (1989--20 days; 1990--8 days; 1991--23 days; 1992--8 days)
6	Pungo River at junction light PR, 0208457700 (5/89-9/92)	19.5 (1/13/92)	<1.0 (8/15,17,18,19,26, 27,29/91; 9/10/91)	² 16.1 (2/3/91)	² 1.4 (8/28/92)	18.4 (1/6/90)	<1.0 (9/1/89; 6/5,6/90; 8/5, 7-16,21/90; 4/30/91; 8/15/91; 9/7/91; 7/27/92; 8/9,11,28,30,31/92; 9/1-11/92)
7	Neuse River at channel light 22, 0209258400 (5/89-12/89)	13.3 (9/12/89)	<1.0 (8/5,6,9,10,13, 14,24/89)	11.2 (6/11/89)	<1.0 (7/21/89; 8/28-30/89; 9/1,2,4-10/89)	6.2 (5/12/89)	<1.0 (7/21-31/89; 8/1-11, 13-31/89; 9/1-4/89; 10/21-25/89)
8	Neuse River at channel light 11, 0209262905 (5/89-12/89; 1/91-9/92)	20.0 (2/18/92)	<1.0 (6/23,24/91; 7/11, 13,15,24,27,28/92)	17.5 (2/14/92)	<1.0 (1989--8 days; 1991--17 days; 1992--9 days)	21.2 (2/20/91)	<1.0 (1989--14 days; 1991--32 days; 1992--82 days)

¹U.S. Geological Survey downstream order number.

²Period of record October 1989-September 1992.

Table 2.--Maximum and minimum values recorded for salinity, water temperature, and dissolved oxygen in water at the water-quality monitoring sites, April 1989-September 1992--Continued

[ppt, parts per thousand; °C, degrees Celsius; <, less than; >, greater than; mg/L, milligram per liter]

Site number (fig. 2)	Station name and number ¹ (Period of record)	Dissolved oxygen, near surface (mg/L)		Dissolved oxygen, mid-depth (mg/L)		Dissolved oxygen, near bottom (mg/L)	
		Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)	Maximum (Date)	Minimum (Date)
9	Neuse River at channel light 9, 0209265810 (5/89-9/92)	20.7 (4/10/91)	<1.0 (6/15/90; 7/3,4/91; 7/6,11,12,15-17, 19,20/92)	17.9 (4/10/91)	<1.0 (6/12,13,15,16,20, 21/89; 5/31/91; 6/3,4/91; 7/9,10, 11,17,18/91; 9/17-20/91; 7/10-12,31/92)	16.8 (4/26/91; 2/24/92)	<1.0 (1989--14 days; 1990--15 days; 1991--57 days; 1992--23 days)
10	Adams Creek at light 4, 0209266925 (6/89-9/92)	19.9 (1/28/90)	2.5 (8/18/91)	19.4 (1/28/90)	<1.0 (6/25/89; 7/2-5/89; 5/2/90; 7/19-31/91; 8/1,2,3,5-9,12/91; 9/23/91)	18.6 (1/28/90)	<1.0 (6/26/89; 7/3-5/89)
11	Neuse River at junction light 0209269000 (5/90-10/91; 5/92-9/92)	13.7 (11/22/90)	<1.0 (9/15/91)	16.2 (11/22/90)	2.8 (8/19/91)	>22.0 (5/22/92)	<1.0 (5/20/90; 7/21,27/90; 10/1/90; 6/22,23/91; 7/19,20/91; 8/9/91; 9/16,17,18/91)
12	Neuse River at light 7, 0209267575 (2/91-5/91; 4/92-9/92)	18.2 (5/2/92)	4.1 (9/5/92)	13.6 (3/1/91)	2.0 (7/30/92)	13.4 (7/29/92)	<1.0 (8/20/92; 9/3-11/92)

¹U.S. Geological Survey downstream order number.

published in this report for site 7, and site 7 is shown as an inactive site in figure 2. Site 8 was in operation from May 1989 until December 1989 when the channel marker platform was destroyed. Site 8 was rebuilt in January 1991. Site 11 was in operation from May 1990 through October 1991 when the platform was destroyed and was reinstalled in May 1992. Site 12 was in operation from February 1991 through May 1991 prior to destruction of the channel marker and was reinstalled in April 1992. Site numbers correspond to those used in an earlier report (Garrett, 1992).

Between October 1991 and September 1992, salinities ranged from 0.3 ppt to 27 ppt. During the same period, recorded water temperatures in the Neuse River estuary were between 4 °C and 34 °C. Dissolved-oxygen concentrations of less than 1 mg/L to greater than 22 mg/L were recorded. Extremes for the period of record of salinity, water temperature, and dissolved-oxygen concentrations at each site are presented in table 2.

DATA COLLECTION AND PROCESSING

Standard USGS procedures for the collection and analysis of water-quality data were followed. Procedures for servicing data-collection instrumentation and for processing the data also were developed for the specific instrumentation and conditions of this study. Descriptions and functions of the instruments used to collect data, as well as field and data-processing procedures, are outlined in this section.

Instrumentation

The central component of the data-collection system is the USGS minimonitor (Gordon and Katzenbach, 1983; Ficken and Scott, 1989). The minimonitor consists of (1) a water-tight can (about 14.5 in. high by 10.5 in. in diameter) containing signal conditioners, (2) cables with waterproof connectors, (3) water-quality sensors, (4) a 12-volt (V) battery, and (5) solar panels for maintaining a full charge on the battery. Up to eight water-quality sensors can be attached to the minimonitor. Sensors are available to measure specific conductance, temperature, dissolved oxygen, and pH, but pH was not measured in this investigation.

The specific-conductance sensor has four electrodes to reduce the effects of fouling. Compensation for ambient water temperature is made by a signal conditioner so that all specific-conductance values are referenced to a temperature of 25 °C. Measurement ranges from 0 to 100, 0 to 1,000, 0 to 10,000, or 0 to 100,000 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) can be selected. Following calibration, specific-conductance measurements are accurate to ± 3 percent of selected full scale in a temperature range from 0 to 40 °C. The standard range for the temperature sensor is from 0 to 50 °C, and for a calibrated system, temperature measurements are accurate to within ± 1 percent of full scale.

The dissolved-oxygen sensor has a polarographic membrane and stirrer manufactured by Yellow Springs Instrument Company and a signal conditioner that was designed by the USGS. The dissolved-oxygen measurement system is subject to more types of errors than the temperature and specific-conductance measurement systems. Potential errors include sensor background error, temperature-compensation uncertainty, and sensor-calibration uncertainty. Measurements are estimated to be accurate within about 0.3 mg/L for a calibrated system.

The minimonitor is controlled by a CR10 measurement and control module (Campbell Scientific, Inc., 1988). The CR10 is a fully programmable datalogger and controller which will accept voltage inputs from multiple sensors. The CR10 is programmed to turn on the minimonitor at 15-minute intervals, allow the sensors to stabilize for 1 minute, collect data from each of the sensors, record the time, and turn off the minimonitor. An external 12-V battery provides power to the CR10; solar panels maintain a full charge on the battery. The CR10 has sufficient internal memory to store about 30 days of minimonitor data collected at 15-minute intervals using six sensors. Data are lost, however, if the CR10 loses power.

To avoid potential problems associated with loss of power to the CR10 and to provide more operational flexibility, an SM192 storage module with nonvolatile memory (Campbell Scientific, Inc., 1987) is connected in series with the CR10. Data are automatically transferred from the CR10 to the SM192, which is not programmable and is only accessible through the CR10. The SM192 has an internal 3.5-V battery to protect the memory when the module is disconnected from the external power supply. Memory capacity is sufficient to store about 3 months of minimonitor data.

All instruments are housed in water-tight shelters attached to U.S. Coast Guard channel markers. The datalogger and storage module are further protected in a moisture-proof container within the shelter. Weights were added to the ends of the sensor cables to minimize current-induced vertical motion of the sensors. A reference mark with a known elevation above the seabed was established at each station to ensure that sensors are returned to the same point in the water column after servicing.

Field Procedures

Instruments are serviced at approximately 3-week intervals. During the colder months (October through April), servicing at 4- to 5-week intervals is sufficient, although the 3-week schedule is generally maintained. More frequent servicing was often necessary during the warmer months because of biofouling problems.

Field meters are calibrated in the laboratory prior to visiting the field installations. Field meters used are the Yellow Springs Instrument Company Model 33 S-C-T meter for specific conductance, the Yellow Springs Instrument Company Model 54 dissolved-oxygen meter, and the Hydrolab, Surveyor II. The Hydrolab is capable of measuring specific conductance, dissolved oxygen, and temperature using one data sonde. Both Yellow Springs Instrument meters are also capable of measuring temperature. Temperature thermistors are calibrated against an American Society for Testing Materials (ASTM) thermometer at two temperatures. All values are within 0.5 °C after calibration. Specific-conductance standards are used to develop a calibration curve for each conductance meter. Field meter specific-conductance values are within 5 percent of the standards after calibration. The dissolved-oxygen meter is calibrated in water-saturated air adjusted for barometric pressure. After calibration, meter values are within 0.1 mg/L of the saturation value at the measured temperature and barometric pressure. The dissolved-oxygen calibration is for freshwater. Complete calibration records are maintained.

Upon reaching a site, simultaneous field-meter and minimonitor readings are made at coincident locations. Vertical positions of sensors are referenced to the seabed and the permanent datum at the site. If the difference between top and bottom readings for any of

the constituents exceeds 5 percent, then field-meter readings are obtained throughout the full depth of the water column. The sensors are then removed from the water and cleaned. Dissolved-oxygen sensors are typically replaced during each visit.

After cleaning, sensors are returned to their original location in the water column, and a new set of field-meter and minimonitor readings is made. If necessary, the minimonitor span control for each measurement channel is adjusted until field and monitor readings agree. The SM192 storage modules containing recorded data are removed and replaced with modules prepared to begin recording a new set of data.

All minimonitors are calibrated with a full set of sensors in the laboratory prior to field installation. Subsequently, if a sensor or sensor cable is replaced, a field calibration must be performed for that particular measurement channel. Standard solutions are used for specific conductance field calibrations. Dissolved-oxygen field calibrations are performed using a sodium sulfite solution to achieve an oxygen-depleted sample.

Data Processing

The SM192 storage modules are returned to the office and data are transferred to the data base. Corrections for the difference between minimonitor and field-meter readings are applied to the data. Salinity is computed from specific-conductance records using the formulation given by Miller and others (1988). Dissolved oxygen, percent saturation, was computed using a barometric pressure of 760 millimeters and the water temperature, near surface, at each respective station. Finally, plots of the data are made.

Data are reviewed to ensure validity. Outliers are examined and deleted if values are physically unrealistic. Data are examined to ensure that water density at the surface is less than that at the bottom at a given time. Data are rejected if the field-meter and minimonitor readings at the time of servicing are not in reasonable agreement with each constituent. Simple daily statistics are then computed and time-series plots are prepared.

During the early phases of the investigation, various problems resulted in the loss of record. Problems included corrosion of connectors, loss of battery power, improperly calibrated instruments, human errors, and poor agreement between field-meter and minimonitor readings. As the study progressed, the amount of lost record has substantially decreased. Corrosion problems have been essentially eliminated. Solar panels have been installed to maintain battery voltage at an acceptable level, and SM192 storage modules have been placed at all sites to ensure that the entire data recorded between site visits will not be lost. Intensive training has resulted in significantly fewer human errors, and more frequent servicing has resulted in less biofouling and measurement drift.

WATER-QUALITY DATA

Water-quality data collected at continuously monitored sites in the Pamlico and Neuse River estuaries from October 1991 through September 1992 are presented in tables 3-35 at the back of the report. Daily mean values of salinity; water temperature; dissolved-oxygen concentrations; and dissolved oxygen, percent saturation, for the period are given in tables and graphs. Five-day mean values of near-surface water temperature and near-surface, mid-depth, and near-bottom dissolved-oxygen concentrations for day (9:15 a.m.-9:00 p.m.) and

night (9:15 p.m.-9:00 a.m.) conditions are presented in tables. Data for vertical distribution of instantaneous specific conductance; salinity; temperature; dissolved oxygen; dissolved oxygen, percent saturation; sampling depth; and gage height also are presented in tables.

Daily Mean Values

Daily mean values of salinity; water temperature; dissolved-oxygen concentrations; and dissolved oxygen, percent saturation, are presented for each of the 11 active sites (tables 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, and 33). Any significant changes that occur in these values at time scales of minutes and hours are not represented by the daily mean values. Mean values do, however, give a good indication of general conditions at a site so that a reasonable summary of the large amount of data collected can be presented. The instantaneous maximum and minimum values recorded for the period are listed in each table, and days during which instantaneous dissolved-oxygen concentrations were less than 5.0 mg/L and 2.0 mg/L also are noted.

Each numbered table contains all of the daily mean values for one site. Within each table, the data, if available, are presented in the form of one constituent per page in the following order:

- Salinity, near surface
- Salinity, near bottom
- Water temperature, near surface
- Dissolved oxygen, near surface
- Dissolved oxygen, percent saturation, near surface
- Dissolved oxygen, mid-depth
- Dissolved oxygen, percent saturation, mid-depth
- Dissolved oxygen, near bottom
- Dissolved oxygen, percent saturation, near bottom

Each page within a given table contains the following information, some of which is repeated from page to page:

- Site location information, including USGS downstream order number
- Distance above the streambed at which the sensor is located
- Observed extreme recorded values
- Tabulated daily mean values for constituent indicated

At the bottom of each page, a graph is presented to illustrate the variation of each of the constituents during the 1992 water year. Discontinued graph lines represent missing data.

Salinity concentrations are given as parts per thousand; water temperature is expressed as degrees Celsius; dissolved-oxygen concentrations are presented as milligrams per liter; and dissolved oxygen, percent saturation, is given as percent. No correction for the effects of salinity on dissolved oxygen has been made in the data presented in this report.

Mean Day-Night Values

Five-day mean values of near-surface water temperature and near-surface, mid-depth, and near-bottom dissolved-oxygen concentrations for day and night conditions are presented for each of the 11 sites (tables 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, and 34). The means were calculated using values from 9:15 a.m. through 9:00 p.m. as daytime values and 9:15 p.m. through 9:00 a.m. as nighttime values. If the 5-day period had missing data, the mean was calculated using the data that were available during that time period. These data are presented to illustrate the differences in water temperature and dissolved-oxygen concentrations for day and night conditions.

Vertical Distribution of Selected Constituents

Values for instantaneous specific conductance; salinity; water temperature; dissolved oxygen; dissolved oxygen, percent saturation; and sampling depth at the time of monitor servicing are presented for each of the 11 sites (tables 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, and 35). All sampling depths are referenced to feet above bottom. The instantaneous water-level values are from selected water-level gages near the monitoring sites. These data are presented to define the vertical distribution of selected constituents at approximately 1-ft intervals during times when the water-quality monitor was serviced. Although not published in this report, data are also available for the period October 1990 through September 1991.

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TABLES 3-35

Abbreviations used in tables 3-35:

$\mu\text{S}/\text{cm}$ and $\mu\text{S}/\text{cm}$ at 25 °C	microsiemens per centimeter at 25 degrees Celsius
ppt	parts per thousand
°C	degrees Celsius
mg/L	milligram per liter
<	less than
>	greater than
\leq	less than or equal to
---	no data

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992

PAMLICO RIVER AT CHANNEL LIGHT 16

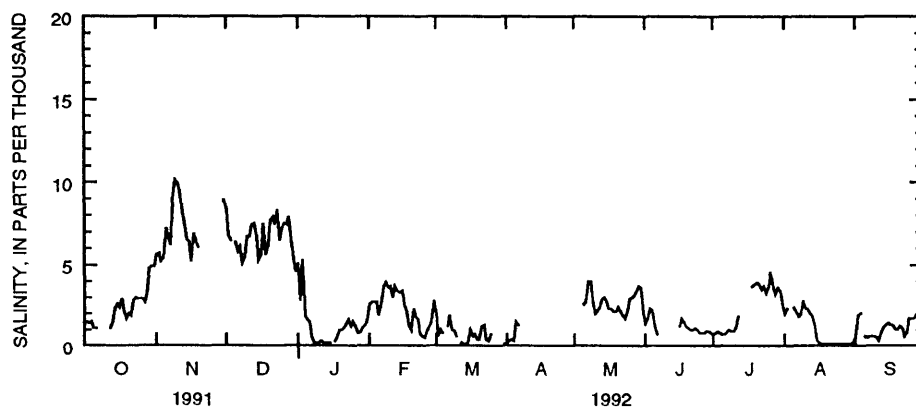
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 12.1 ppt November 30, 1991; minimum value recorded, 0.1 ppt December 17, 18, 1991, January 7-10, March 12-15, 19, 23, 24, 31, April 1, 2, August 15-31, September 1, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	5.6	8.3	5.1	2.6	2.0	0.1	---	1.4	0.7	2.0	0.5
2	1.5	5.7	6.8	2.8	2.7	.6	.3	---	1.7	.8	2.3	1.9
3	1.4	5.2	6.5	5.3	2.7	1.0	.4	---	2.3	.9	---	2.0
4	1.5	5.4	---	1.8	2.7	.8	.3	---	2.2	.8	---	---
5	1.1	7.2	6.4	1.6	1.9	---	1.5	2.6	1.2	.7	2.4	.6
6	1.1	6.7	5.8	1.5	2.6	1.2	1.3	2.7	.7	.7	2.1	.5
7	---	6.2	6.1	.6	3.7	1.9	---	4.0	---	.8	1.8	.6
8	---	8.9	5.1	.2	3.9	1.0	---	4.0	---	1.0	1.9	.6
9	---	10.1	5.5	.2	3.6	.9	---	2.8	---	.9	2.8	.6
10	---	9.9	6.7	.2	3.7	.6	---	2.0	---	.9	2.3	.5
11	---	9.5	6.7	.3	3.0	---	---	2.1	---	1.1	2.3	.3
12	1.1	8.2	7.4	.2	3.7	.2	---	2.4	---	1.8	2.0	.8
13	1.5	7.6	7.5	.2	3.4	.1	---	2.9	---	---	1.9	1.1
14	2.3	6.6	6.7	.2	3.3	.1	---	3.0	---	---	1.4	1.3
15	2.6	6.4	5.3	.2	3.4	.2	---	2.7	---	---	.4	1.4
16	2.4	5.2	5.6	---	2.6	1.0	---	2.3	1.2	---	.2	1.3
17	2.9	6.9	7.5	.3	2.1	.6	---	2.3	1.7	---	.1	1.3
18	2.2	6.4	5.6	.5	1.3	.7	---	2.1	1.5	3.7	.1	1.0
19	1.7	6.1	6.2	1.0	1.0	.4	---	2.1	1.2	3.8	.1	1.0
20	2.0	---	7.7	1.0	2.3	.4	---	2.4	1.1	3.9	.1	1.2
21	1.9	---	7.9	1.1	1.8	1.2	---	2.1	1.0	3.8	.1	1.1
22	2.8	---	7.4	1.4	1.6	1.3	---	1.9	1.0	3.5	.1	.6
23	3.0	---	8.3	1.6	.7	.4	---	1.7	1.1	3.7	.1	.8
24	2.9	---	6.5	1.2	.6	.3	---	2.2	1.0	3.3	.1	1.7
25	2.9	---	7.2	1.5	.5	.7	---	2.9	.8	3.7	.1	1.7
26	2.9	---	7.5	1.2	.9	---	---	3.0	.8	4.6	.1	1.7
27	2.7	---	7.4	.8	1.2	---	---	3.1	.8	3.6	.1	1.9
28	3.2	---	7.9	.8	1.5	---	---	3.4	.9	3.2	.1	1.7
29	4.8	---	6.5	1.1	2.8	---	---	3.7	.9	3.6	.1	1.7
30	4.9	8.9	5.7	1.3	---	---	---	3.6	.8	3.4	.1	2.2
31	4.9	---	4.6	1.5	---	.1	---	2.0	---	2.7	.2	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

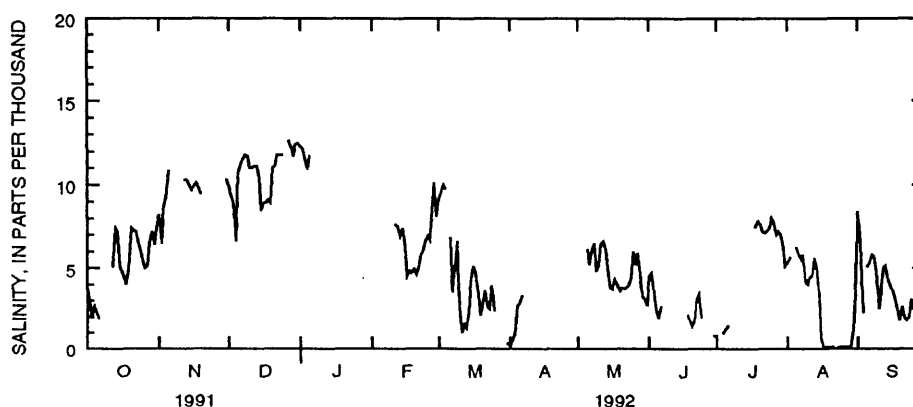
[Site is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--1 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, >13.9 ppt November 6-11, December 25, 26, 1991, January 6-8, 1992; minimum value recorded, <0.1 August 16-26, 29, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (In ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	8.2	9.9	12.3	---	9.2	0.2	---	4.5	0.8	5.3	8.4
2	2.9	6.5	9.4	12.2	---	9.5	.5	---	4.7	---	5.6	6.5
3	1.9	8.6	8.9	11.5	---	10.0	.9	---	3.8	---	---	2.3
4	2.6	9.3	6.6	10.9	---	9.8	2.7	---	2.4	1.0	---	---
5	2.3	10.8	10.7	11.7	---	---	2.8	6.1	1.9	1.2	6.2	5.1
6	1.9	---	11.2	---	---	6.8	3.3	5.2	2.6	1.4	5.8	5.3
7	---	---	11.5	---	---	3.5	---	6.1	---	---	5.5	5.8
8	---	---	11.8	---	---	5.0	---	6.5	---	---	5.8	5.7
9	---	---	11.7	---	---	6.6	---	4.8	---	---	4.1	4.8
10	---	---	11.0	---	---	2.6	---	5.2	---	---	4.0	2.5
11	---	---	11.0	---	7.6	1.0	---	6.5	---	---	4.4	3.5
12	5.1	10.3	11.1	---	7.5	1.5	---	6.6	---	---	4.5	5.0
13	7.4	10.3	11.1	---	6.9	1.3	---	6.1	---	---	5.6	5.1
14	7.2	10.0	10.4	---	7.4	2.3	---	5.0	---	---	5.1	4.3
15	5.1	9.7	8.5	---	6.3	4.1	---	3.8	---	---	3.3	3.9
16	4.8	9.9	8.9	---	4.5	5.1	---	3.7	---	---	.6	3.6
17	4.4	10.1	8.9	---	4.8	4.7	---	4.3	---	---	.1	3.1
18	4.0	9.8	9.1	---	4.7	3.7	---	4.0	2.1	7.5	.1	2.3
19	4.9	9.5	8.9	---	4.9	2.1	---	3.6	1.8	7.8	.1	1.8
20	7.4	---	11.0	---	4.6	2.6	---	3.8	1.4	7.6	<.1	2.6
21	7.3	---	11.1	---	5.0	3.6	---	3.7	1.7	7.2	.1	1.9
22	7.2	---	11.8	---	5.8	2.6	---	3.8	3.1	7.1	<.1	1.8
23	6.5	---	11.8	---	6.0	2.5	---	3.9	3.4	7.2	<.1	2.0
24	6.1	---	11.8	---	6.6	3.9	---	4.4	2.0	7.4	.1	3.1
25	5.4	---	---	---	6.9	2.4	---	6.0	---	8.0	.1	2.4
26	5.0	---	---	---	6.7	---	---	5.2	---	7.7	.1	3.9
27	5.1	---	12.6	---	8.5	---	---	5.9	---	7.0	.1	3.5
28	6.5	---	12.3	---	10.1	---	---	4.7	---	7.2	.1	3.0
29	7.2	---	11.7	---	8.1	---	---	3.3	---	7.0	.1	3.6
30	6.4	10.3	12.4	---	---	---	---	3.1	.8	6.3	1.2	3.4
31	7.7	---	12.5	---	---	.3	---	2.7	---	5.1	3.4	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

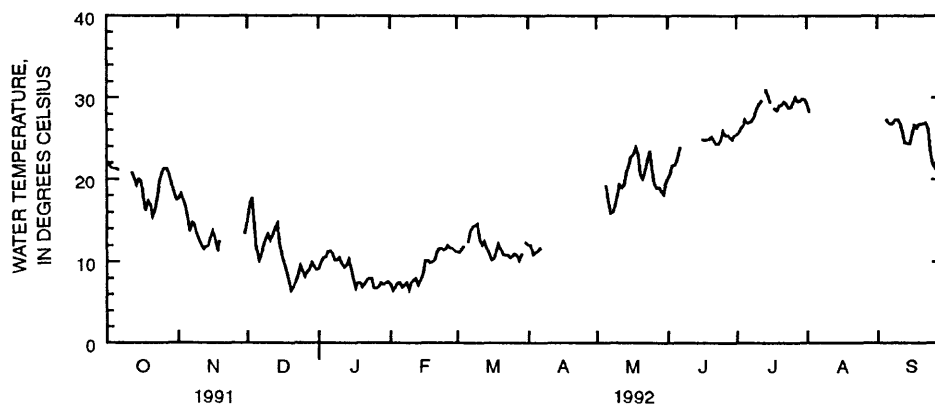
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.7 °C July 14, 1992; minimum value recorded, 5.4 °C December 20, 1991.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21.9	17.6	14.9	9.2	7.3	11.2	12.1	---	20.1	25.4	29.3	---
2	21.9	18.2	16.7	9.9	6.5	11.1	12.1	---	20.7	25.8	28.3	---
3	21.4	17.6	17.7	10.5	6.8	11.5	10.9	---	21.7	26.3	---	---
4	21.3	16.7	14.3	10.6	7.4	11.8	11.1	---	21.7	26.6	---	---
5	21.3	15.1	11.5	11.2	7.5	---	11.3	19.1	22.4	27.3	---	27.2
6	21.2	13.7	10.2	11.3	6.9	12.5	11.6	17.5	23.8	26.9	---	26.8
7	---	14.7	10.7	11.0	7.2	13.7	---	15.9	---	27.0	---	26.7
8	---	14.6	11.8	10.2	7.4	14.3	---	16.1	---	27.1	---	26.9
9	---	13.4	12.8	10.2	6.6	14.4	---	16.8	---	27.7	---	27.3
10	---	12.6	13.3	10.5	7.4	14.6	---	18.2	---	28.7	---	27.3
11	---	12.2	12.6	9.8	7.8	12.7	---	19.3	---	29.2	---	26.8
12	20.8	11.5	13.1	9.3	8.0	12.1	---	19.0	---	29.6	---	25.6
13	20.1	11.8	14.0	9.5	7.2	12.5	---	19.3	---	---	---	24.5
14	19.3	11.9	14.6	10.3	7.8	11.6	---	20.7	---	31.0	---	24.4
15	20.0	13.0	12.5	9.4	8.6	11.0	---	21.7	---	30.2	---	24.3
16	19.8	13.7	10.6	8.0	10.2	10.3	---	22.7	24.9	29.5	---	25.3
17	17.4	12.9	9.9	6.8	10.2	10.4	---	23.0	24.8	---	---	26.6
18	16.2	11.3	8.8	7.4	9.9	11.2	---	23.8	24.9	28.7	---	26.3
19	17.3	12.5	7.5	7.4	10.0	12.2	---	22.9	24.9	28.5	---	26.7
20	16.8	---	6.5	6.9	10.3	11.6	---	20.6	25.2	29.1	---	26.7
21	15.5	---	6.9	7.3	11.1	10.9	---	20.1	24.7	29.1	---	26.8
22	16.3	---	7.4	7.8	11.6	10.8	---	20.8	24.3	29.5	---	26.9
23	18.1	---	8.2	8.0	11.7	10.8	---	22.3	24.3	29.3	---	26.0
24	19.7	---	9.5	8.0	11.4	10.5	---	23.4	24.9	28.8	---	23.5
25	20.8	---	8.7	6.8	11.6	10.7	---	21.4	25.9	28.9	---	21.8
26	21.3	---	8.2	6.7	12.0	11.0	---	19.4	25.3	29.3	---	21.3
27	21.3	---	8.8	7.0	11.7	10.7	---	18.9	25.4	30.0	---	23.0
28	20.8	---	9.0	7.4	11.7	10.2	---	19.0	25.1	29.6	---	23.8
29	19.7	---	9.9	7.2	11.3	10.9	---	18.6	24.9	29.5	---	23.5
30	18.4	13.5	9.5	7.4	---	---	---	18.2	25.3	29.9	---	21.8
31	17.5	---	9.0	7.6	---	12.3	---	19.5	---	29.8	---	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

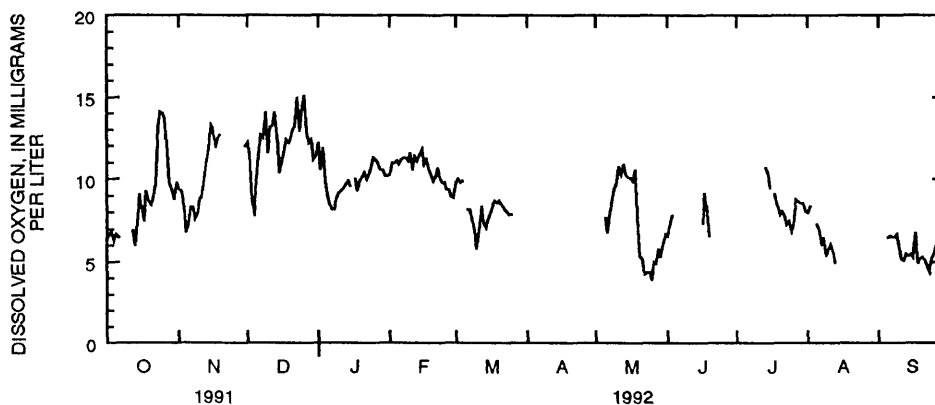
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 22.9 mg/L December 25, 1991; minimum value recorded, 2.3 mg/L August 13, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4b	9.4	12.2	12.2	10.3	9.8	---	---	6.6	---	8.0	---
2	6.7	9.3	11.5	10.6	11.0	10.0	---	---	7.4	---	8.4	---
3	6.8	8.8	8.8	11.9	11.0	9.8	---	---	7.8b	---	---	---
4	6.3b	6.8	7.8	9.9	11.1	9.9	---	---	---	---	---	---
5	6.7	7.3b	10.0	9.1	10.9	---	---	7.7	---	---	7.3b	6.5
6	6.5	8.3	11.8	8.5	11.2	8.2	---	6.8	---	---	7.0	6.6
7	---	8.3	12.7	8.2	11.3	8.2	---	8.0	---	---	6.0b	6.5
8	---	7.6	12.5	8.2	11.3	7.6	---	8.7	---	---	6.5b	6.5b
9	---	7.9	14.1	8.8	11.1	6.9	---	9.4	---	---	5.4b	6.7
10	---	8.8	11.6	9.2	11.6	5.8	---	9.8	---	---	5.8b	5.8b
11	---	8.9	13.2	9.3	10.6	6.9b	---	10.8	---	---	6.1	5.2b
12	6.9	10.0	13.2	9.5	11.4	8.4	---	10.3	---	---	5.6b	5.1b
13	6.0	10.9	14.1	9.7	11.1	7.4	---	10.9	---	---	5.0b	5.5b
14	7.4	11.9	12.6	9.9	11.5	7.1	---	10.3	---	10.7	---	5.4b
15	9.1	13.3	10.4	9.6	11.8	7.6	---	10.1	---	10.3	---	5.5b
16	8.3	13.1	11.0	---	10.9	8.0	---	10.1	7.4	9.5	---	5.3b
17	7.5	11.9	11.6	10.0	11.2	8.5	---	9.9	9.2	---	---	6.8
18	9.3	12.5	12.4	9.3	10.7	8.7	---	10.6	8.0	9.1	---	4.9b
19	8.7	12.7	12.2	9.9	10.3	8.6	---	7.0	6.6	8.5	---	5.2b
20	8.5	---	12.4	10.1	9.9	8.7	---	5.4b	---	7.9	---	5.3b
21	8.8	---	13.0	10.4	10.1	8.5	---	5.2b	---	8.1	---	5.1b
22	9.7	---	13.2	10.0	10.7	8.2	---	4.3b	---	7.8	---	4.8b
23	13.2	---	15.0	10.3	10.1	8.1	---	4.4b	---	7.3	---	4.4b
24	14.1	---	12.9	10.8	9.8	7.9	---	4.4b	---	7.5	---	5.2b
25	14.0	---	14.4	11.3	9.8	7.9	---	3.9b	---	6.9b	---	5.5b
26	13.7	---	15.1	11.2	9.4	---	---	5.0b	---	7.3	---	6.1
27	11.6	---	12.9	10.9	9.4	---	---	4.9b	---	8.8	---	6.9
28	9.8	---	12.2	10.6	9.0	---	---	5.8b	---	8.7	---	7.1
29	9.4	---	12.4	10.6	8.9	---	---	5.3b	---	8.6	---	5.7b
30	8.8	12.0	11.2	10.2	---	---	---	6.1	---	8.6	---	5.4b
31	9.8	---	11.4	10.2	---	---	---	6.7	---	8.1	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

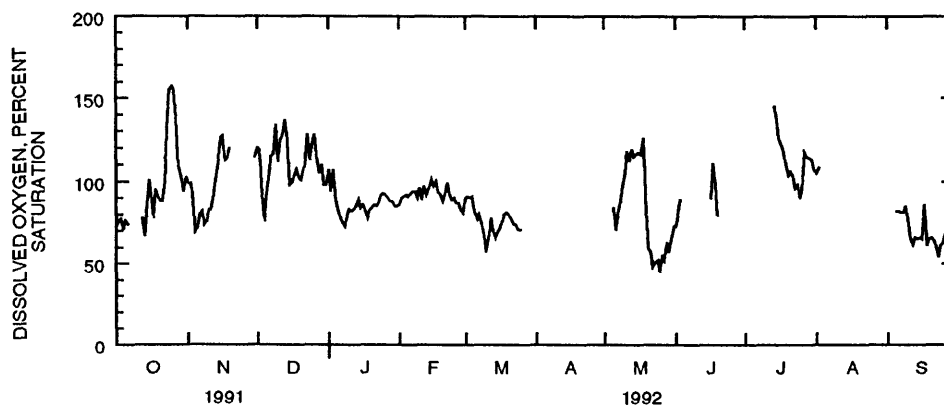
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 199 percent of saturation December 25, 1991; minimum value recorded, 31 percent of saturation May 25, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	73	99	120	107	86	90	---	---	73	---	105	---
2	76	99	119	94	90	91	---	---	82	---	108	---
3	77	93	92	107	91	90	---	---	89	---	---	---
4	71	70	76	89	92	91	---	---	---	---	---	---
5	76	73	92	84	91	---	---	84	---	---	---	82
6	74	80	105	78	93	77	---	71	---	---	---	82
7	---	82	115	75	94	80	---	81	---	---	---	81
8	---	74	116	73	94	74	---	88	---	---	---	81
9	---	76	134	78	90	67	---	97	---	---	---	85
10	---	83	112	83	96	57	---	105	---	---	---	74
11	---	83	125	82	89	65	---	118	---	---	---	65
12	78	92	127	83	97	78	---	112	---	---	---	62
13	67	101	137	85	92	70	---	119	---	---	---	66
14	81	111	125	89	96	66	---	115	---	145	---	65
15	101	126	98	84	101	69	---	116	---	137	---	66
16	92	127	99	---	97	72	---	117	90	126	---	65
17	78	113	103	82	100	76	---	116	111	122	---	86
18	95	114	107	78	94	80	---	126	98	119	---	61
19	91	120	102	83	92	81	---	82	80	110	---	65
20	88	---	101	84	88	80	---	60	---	104	---	66
21	88	---	107	86	92	77	---	57	---	106	---	64
22	100	---	110	85	99	74	---	48	---	103	---	61
23	140	---	128	87	93	74	---	51	---	96	---	54
24	155	---	113	92	89	71	---	52	---	98	---	61
25	157	---	124	93	90	71	---	45	---	90	---	63
26	155	---	128	92	87	---	---	54	---	96	---	69
27	131	---	112	90	87	---	---	52	---	117	---	81
28	109	---	105	88	83	---	---	63	---	115	---	84
29	103	---	110	88	81	---	---	57	---	114	---	67
30	94	115	98	85	---	---	---	65	---	113	---	61
31	103	---	98	85	---	---	---	73	---	107	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 1,
PAMLICO RIVER AT CHANNEL LIGHT 16**

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

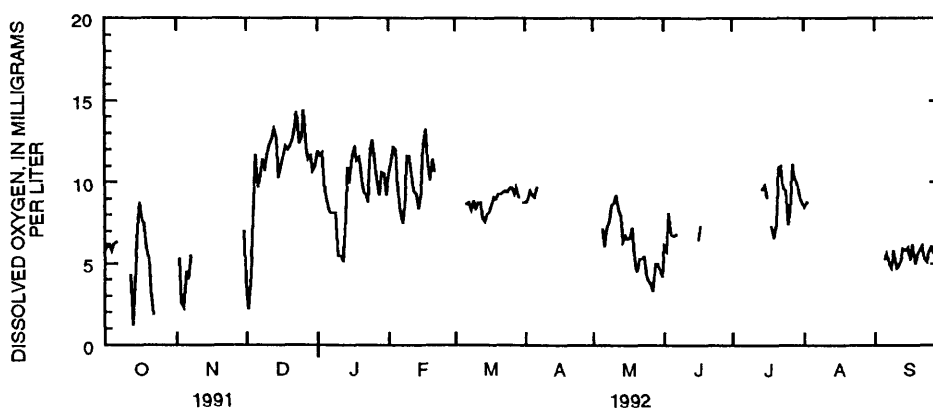
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--5 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 21.4 mg/L July 27, 1992; minimum value recorded, <1.0 mg/L October 13, 14, 21, 22, November 3, 4, 1991.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	5.7b	---	3.1a	11.9	10.5	---	8.8	---	6.1b	---	8.5	---
2	6.2	5.3b	2.2b	11.6	11.3	---	8.9	---	5.8b	---	8.8	---
3	6.2	2.6a	4.3b	11.8	12.1	---	9.5	---	8.1b	---	---	---
4	5.8b	2.3a	8.9b	9.5	12.0	---	9.2	---	6.8	---	---	---
5	6.2	4.5b	11.7	8.9	9.6	---	9.1	7.1	6.7	---	---	5.3b
6	6.3b	4.0b	9.7	8.2	8.2	8.7	9.7	6.1b	6.8	---	---	5.6b
7	---	5.5a	10.1	8.1	7.5	8.8	---	7.2	---	---	---	4.9a
8	---	---	11.4	8.1	8.5	8.3	---	7.7	---	---	---	4.7a
9	---	---	10.7	8.1	11.6	8.9	---	8.6	---	---	---	5.8b
10	---	---	11.7	5.5b	11.6	8.3	---	8.8	---	---	---	4.7b
11	---	---	12.3	5.5b	10.5	8.8	---	9.2b	---	---	---	4.8b
12	4.3a	---	12.6	5.1b	9.5	8.8	---	8.3	---	---	---	5.2b
13	1.2a	---	13.2	7.0b	9.3	7.8	---	7.9b	---	---	---	5.9b
14	3.8a	---	12.7	10.9	8.4	7.6	---	6.4b	---	9.6	---	5.8b
15	7.2b	---	10.3	9.9	9.4	8.0	---	6.7b	---	9.8	---	6.0b
16	8.8	---	11.0	11.5	12.3	8.2	---	6.5b	6.5b	9.1b	---	5.2b
17	7.7b	---	11.5	12.2	13.2	8.7	---	6.6b	7.3b	---	---	6.2b
18	7.5	---	12.2	11.3	11.4	9.1	---	7.2b	---	7.3	---	5.0b
19	6.0b	---	12.0	11.5	10.1	9.0	---	4.9b	---	6.6b	---	5.5b
20	5.3a	---	12.2	10.8	11.4	9.3	---	4.5b	---	7.4b	---	5.8b
21	3.3a	---	12.6	9.4	10.7	9.3	---	5.3b	---	10.9	---	6.1
22	1.9a	---	13.1	9.2	---	9.4	---	5.3b	---	11.0b	---	5.3b
23	---	---	14.3	8.8	---	9.5	---	5.4b	---	9.7b	---	5.1b
24	---	---	12.4	12.0	---	9.4	---	4.2a	---	9.5	---	5.7b
25	---	---	12.8	12.6	---	9.7	---	3.9a	---	7.4a	---	6.0
26	---	---	14.4	11.3	---	9.7	---	3.7b	---	8.3b	---	5.6b
27	---	---	12.1	9.9	---	9.3	---	3.3b	---	11.1	---	7.0b
28	---	---	11.4	9.2	---	9.7	---	5.0a	---	10.3	---	7.3
29	---	---	11.6	10.6	---	9.1	---	5.0b	---	9.9a	---	7.0b
30	---	7.0b	10.7	10.5	---	---	---	4.6b	---	9.1b	---	6.4
31	---	---	11.0	9.2	---	8.8	---	4.2b	---	8.8	---	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

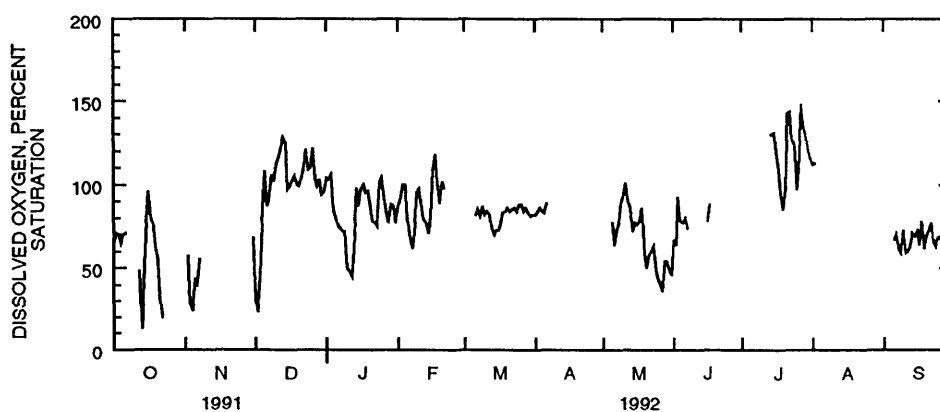
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--5 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 290 percent of saturation July 27, 1992; minimum value recorded, ≤10 percent of saturation October 13, 14, 21, 22, November 3, 4, 1991.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	---	31	104	87	---	82	---	67	---	112	---
2	71	57	23	103	92	---	83	---	64	---	113	---
3	70	28	45	106	100	---	86	---	93	---	---	---
4	65	24	86	85	100	---	84	---	78	---	---	---
5	70	44	108	81	80	---	83	77	77	---	---	67
6	71	39	87	75	68	82	89	64	80	---	---	70
7	---	55	91	74	62	85	---	73	---	---	---	61
8	---	---	106	72	71	81	---	78	---	---	---	59
9	---	---	102	72	95	87	---	89	---	---	---	73
10	---	---	112	50	97	82	---	94	---	---	---	59
11	---	---	116	48	88	84	---	101	---	---	---	60
12	48	---	121	45	80	82	---	90	---	---	---	63
13	13	---	128	61	77	74	---	86	---	---	---	71
14	42	---	125	98	71	70	---	72	---	130	---	69
15	79	---	97	87	81	73	---	77	---	131	---	72
16	96	---	99	97	109	73	---	76	79	120	---	64
17	80	---	102	100	118	78	---	78	85	---	---	78
18	77	---	105	95	101	83	---	86	---	95	---	62
19	63	---	100	96	89	84	---	58	---	85	---	69
20	55	---	99	89	102	86	---	50	---	97	---	73
21	33	---	104	78	98	84	---	58	---	143	---	77
22	20	---	109	77	---	85	---	60	---	144	---	66
23	---	---	121	75	---	86	---	63	---	127	---	63
24	---	---	109	101	---	84	---	49	---	124	---	68
25	---	---	110	104	---	88	---	44	---	97	---	69
26	---	---	122	92	---	88	---	40	---	109	---	63
27	---	---	104	82	---	84	---	36	---	148	---	82
28	---	---	99	77	---	86	---	54	---	136	---	87
29	---	---	103	88	---	83	---	54	---	130	---	82
30	---	68	94	87	---	---	---	49	---	120	---	73
31	---	---	95	77	---	82	---	46	---	116	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH,
SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16**

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

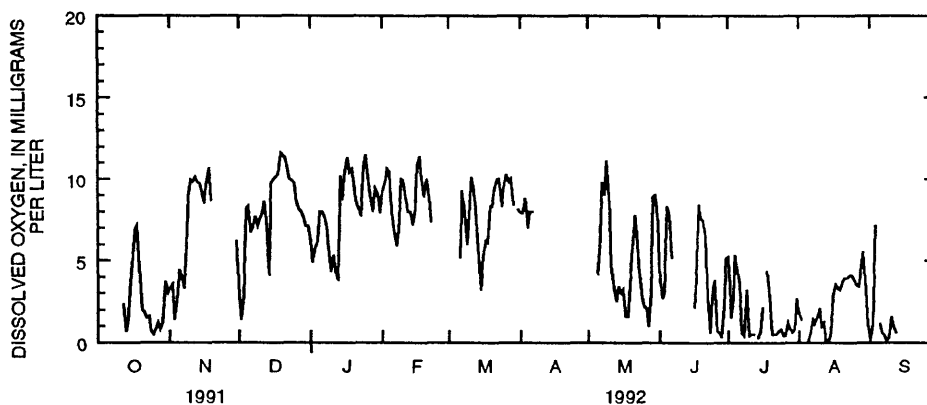
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--1 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 13.0 mg/L May 9, 1992; minimum value recorded, <1.0 mg/L October 13, 14, 20-30, December 1-3, 1991; March 16, May 5, 6, 16-18, 25-28, June 3, 17, 22, 23, 25-29, July 2, 3, 6-12, 14, 15, 16, 18-31, August 1, 2, 5-16, 31, September 1, 2, 5-12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	3.3a	2.8a	6.2	9.2	---	7.9	---	3.7a	5.2b	1.8a	<1.0a
2	---	3.5a	1.4a	4.9b	9.7	---	7.9	---	2.7a	1.5a	1.4a	1.1a
3	---	1.4a	2.8a	5.7b	10.6	---	8.8	---	3.1a	2.2a	---	7.1b
4	---	2.6a	8.2b	6.2	10.4	---	7.0	---	8.3	5.3b	---	---
5	---	4.4b	8.3	8.0	8.0	---	8.0	4.2a	7.8	4.5a	<1.0a	1.1a
6	---	4.1b	6.7b	8.0	6.7	5.2b	8.0	5.6a	5.2b	3.6a	<1.0a	<1.0a
7	---	3.3a	7.0b	7.7	5.9	9.3b	---	9.8	---	<1.0a	1.4a	<1.0a
8	---	4.9b	7.7	7.1	6.8b	7.9	---	9.0	---	<1.0a	1.1a	<1.0a
9	---	8.9	7.1	5.8b	10.0	6.0b	---	11.1	---	3.2a	1.5a	<1.0a
10	---	9.9	7.5b	4.3b	9.9	7.8	---	8.9b	---	<1.0a	2.1a	1.6a
11	---	9.8	7.9	5.3b	8.9	10.1	---	4.7b	---	<1.0a	1.0a	1.0a
12	2.3a	10.1	8.6	4.1b	8.0	9.3	---	3.3b	---	<1.0a	1.2a	<1.0a
13	<1.0a	9.8	7.1b	3.8a	8.0	7.5b	---	2.5a	---	---	<1.0a	---
14	1.2a	9.7	4.1a	10.2	7.2	5.2b	---	3.4a	---	<1.0a	<1.0a	---
15	3.8a	9.1	9.7	8.7	8.2	3.2a	---	3.0a	---	<1.0a	<1.0a	---
16	4.7a	8.5	10.0	10.5	10.8	5.2a	---	3.2a	2.2a	2.1a	2.8a	---
17	6.9b	9.9	10.1	11.3	11.4	6.2	---	1.6a	3.9a	---	3.5b	---
18	7.1	10.7	10.3	10.4	10.0	6.1b	---	1.6a	8.4	4.3a	3.3b	---
19	4.6	8.7	11.6	10.6	8.9	8.3b	---	4.1a	7.6b	2.8a	3.2b	---
20	2.0a	---	11.5	9.7	10.0	8.3	---	5.7a	7.4b	<1.0a	3.7b	---
21	1.9a	---	11.3	8.4	9.3	9.4	---	7.8	6.4	<1.0a	3.9b	---
22	1.5a	---	10.8	8.1	7.4	10.0	---	6.6	2.7a	<1.0a	3.9b	---
23	1.6a	---	10.0	7.7	---	10.0	---	4.2b	<1.0a	<1.0a	4.1b	---
24	<1.0a	---	9.9	10.8	---	8.3	---	2.7a	3.3a	<1.0a	4.1b	---
25	<1.0a	---	9.7	11.5	---	9.7	---	2.2a	3.8a	<1.0a	3.8b	---
26	<1.0a	---	8.5	10.1	---	10.3	---	2.1a	<1.0a	<1.0a	3.5b	---
27	1.2a	---	8.1	8.7	---	9.8	---	1.0a	<1.0a	1.2a	3.4b	---
28	<1.0a	---	8.0	8.0	---	10.0	---	3.0a	<1.0a	<1.0a	4.6b	---
29	1.2a	---	7.6	9.4	---	8.4	---	8.9	2.2a	<1.0a	5.5b	---
30	3.7a	6.2	7.1	9.1	---	---	---	9.0	5.1b	<1.0a	3.2a	---
31	3.0a	---	7.1	7.9	---	8.1	---	7.3	---	2.7a	1.1a	---



**DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 1,
PAMLICO RIVER AT CHANNEL LIGHT 16**

Table 3.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 1, October 1991-September 1992--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

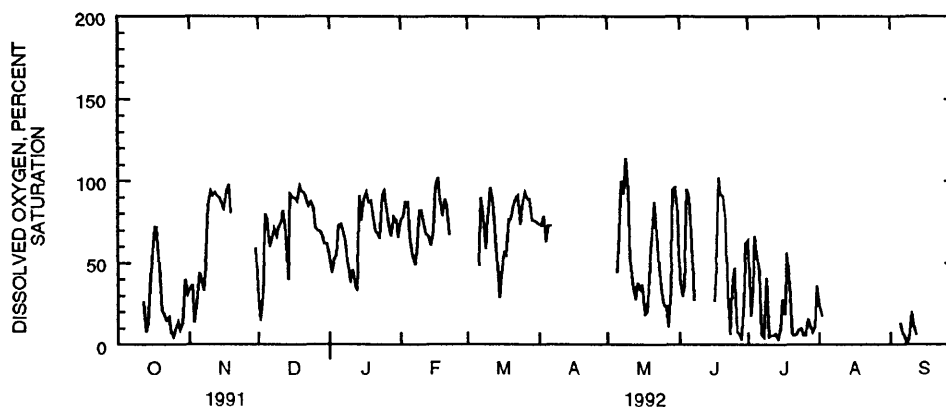
[Site 1 is at latitude 35°30'30", longitude 77°01'12", Beaufort County; U.S. Geological Survey downstream order number 0208450705]

Sensor Position--1 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 137 percent of saturation May 9, 1992; minimum value recorded, ≤10 percent of saturation October 13, 14, 20-31, December 1, 2, 3, 1991, March 16, May 5, 6, 16-18, 25-28, June 3, 7, 17, 22, 23, 25-29, July 2, 3, 6-31, August 1, 2, September 5-12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	34	28	54	76	---	74	---	41	64	24	---
2	---	37	15	44	79	---	73	---	30	18	18	---
3	---	14	30	52	87	---	79	---	36	27	---	---
4	---	26	80	55	87	---	63	---	95	67	---	---
5	---	44	77	73	67	---	73	45	90	56	---	13
6	---	40	60	74	55	49	73	58	62	45	---	≤10
7	---	33	64	70	49	90	---	100	---	≤10	---	≤10
8	---	48	71	63	56	78	---	92	---	≤10	---	≤10
9	---	85	67	51	82	59	---	114	---	41	---	≤10
10	---	94	72	38	82	77	---	95	---	≤10	---	20
11	---	91	75	46	74	96	---	51	---	≤10	---	12
12	26	93	82	36	68	87	---	35	---	≤10	---	≤10
13	≤10	91	69	33	67	71	---	28	---	≤10	---	---
14	13	90	40	91	61	48	---	38	---	≤10	---	---
15	42	86	92	76	70	29	---	34	---	≤10	---	---
16	52	82	90	89	97	47	---	37	27	28	---	---
17	72	94	90	93	102	56	---	19	47	19	---	---
18	72	98	88	87	89	55	---	20	102	56	---	---
19	48	81	97	88	79	77	---	48	92	37	---	---
20	21	---	94	80	89	77	---	63	91	≤10	---	---
21	19	---	93	70	85	85	---	87	77	≤10	---	---
22	15	---	90	68	68	90	---	74	32	≤10	---	---
23	17	---	85	65	---	91	---	48	≤10	≤10	---	---
24	≤10	---	87	91	---	74	---	32	41	≤10	---	---
25	≤10	---	83	94	---	88	---	25	47	≤10	---	---
26	≤10	---	72	82	---	93	---	23	≤10	≤10	---	---
27	14	---	70	71	---	89	---	11	≤10	16	---	---
28	≤10	---	70	67	---	89	---	33	≤10	12	---	---
29	13	---	67	78	---	76	---	95	26	≤10	---	---
30	40	59	62	76	---	---	---	96	62	11	---	---
31	31	---	62	66	---	75	---	80	---	36	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM,
SITE 1, PAMLICO RIVER AT CHANNEL LIGHT 16**

**Table 4.--Five-day mean water temperature and dissolved-oxygen values in water at site 1,
October 1991-September 1992, for day and night periods**

PAMLICO RIVER AT CHANNEL LIGHT 16

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	21.6	21.4	6.6	6.7	6.0	6.1	---	---
10/ 6/91-10/10/91	20.8	19.8	6.7	7.1	6.7	7.0	---	---
10/11/91-10/15/91	20.6	19.9	7.8	7.3	4.3	5.1	2.3	2.8
10/16/91-10/20/91	17.5	16.7	8.9	7.9	7.3	6.0	4.9	4.7
10/21/91-10/25/91	18.5	18.5	12.9	11.8	2.3	1.9	1.2	1.0
10/26/91-10/30/91	20.4	19.6	10.6	10.0	---	---	1.8	1.5
10/31/91-11/ 4/91	17.7	17.1	9.1	8.0	3.3	3.5	3.0	2.6
11/ 5/91-11/ 9/91	14.4	13.8	8.5	7.7	5.5	4.0	5.5	5.8
11/10/91-11/14/91	12.2	11.8	10.4	10.3	---	---	10.1	9.5
11/15/91-11/19/91	13.0	12.5	13.1	12.4	---	---	9.6	8.7
11/20/91-11/24/91	13.9	---	13.7	---	---	---	7.0	---
11/25/91-11/29/91	12.8	12.8	13.3	12.1	8.6	7.8	6.6	6.2
11/30/91-12/ 4/91	15.4	15.3	10.9	9.3	5.2	5.7	4.5	4.5
12/ 5/91-12/ 9/91	11.9	11.2	13.0	11.9	11.1	10.0	7.6	6.7
12/10/91-12/14/91	13.8	13.2	13.5	12.2	13.1	11.8	7.3	7.4
12/15/91-12/19/91	10.0	8.6	11.9	11.6	11.8	11.4	10.8	10.1
12/20/91-12/24/91	8.0	7.8	13.5	13.2	13.1	12.7	10.8	10.4
12/25/91-12/29/91	9.1	8.9	14.0	12.5	12.8	11.8	8.4	7.9
12/30/91- 1/ 3/92	9.8	9.6	12.4	10.5	12.3	10.5	6.3	6.0
1/ 4/92- 1/ 8/92	10.9	10.7	8.8	8.6	8.6	8.4	7.4	7.3
1/ 9/92- 1/13/92	9.9	9.8	9.3	9.4	6.2	6.7	4.6	5.3
1/14/92- 1/18/92	8.5	7.9	9.8	9.7	11.3	11.2	10.3	10.3
1/19/92- 1/23/92	7.6	7.5	10.2	10.2	9.8	9.8	8.8	8.7
1/24/92- 1/28/92	7.3	6.8	11.0	11.0	11.1	10.9	9.9	9.7
1/29/92- 2/ 2/92	7.3	7.0	10.4	10.6	10.5	10.5	9.1	9.0
2/ 3/92- 2/ 7/92	7.3	7.2	11.3	11.0	9.9	9.4	8.3	7.9
2/ 8/92- 2/12/92	7.4	7.3	11.5	10.8	10.4	10.6	8.7	9.0
2/13/92- 2/17/92	8.9	9.1	11.5	11.0	10.6	10.7	9.1	9.4
2/18/92- 2/22/92	10.7	10.8	10.5	10.1	10.9	10.6	9.1	8.9
2/23/92- 2/27/92	11.6	11.7	9.6	9.6	---	---	---	---
2/28/92- 3/ 3/92	11.4	11.3	9.5	9.7	---	---	---	---
3/ 4/92- 3/ 8/92	12.9	12.9	8.5	8.2	8.7	8.4	6.8	7.0
3/ 9/92- 3/13/92	13.1	13.1	7.3	6.9	8.7	8.3	8.0	8.3
3/14/92- 3/18/92	11.1	10.6	8.0	8.2	8.4	8.5	5.1	5.1
3/19/92- 3/23/92	11.4	10.9	8.5	8.4	9.3	9.4	9.2	9.6
3/24/92- 3/28/92	10.8	10.5	8.0	7.7	9.7	9.4	9.8	9.6
3/29/92- 4/ 2/92	12.0	11.7	---	---	8.9	8.9	7.9	8.2
4/ 3/92- 4/ 7/92	11.4	11.4	---	---	9.5	9.3	7.9	7.6
4/ 8/92- 4/12/92	---	---	---	---	---	---	---	---
4/13/92- 4/17/92	---	---	---	---	---	---	---	---
4/18/92- 4/22/92	---	---	---	---	---	---	---	---
4/23/92- 4/27/92	---	---	---	---	---	---	---	---
4/28/92- 5/ 2/92	---	---	---	---	---	---	---	---
5/ 3/92- 5/ 7/92	18.2	17.4	7.6	7.5	6.9	6.8	6.8	5.6
5/ 8/92- 5/12/92	18.2	18.0	10.3	9.5	8.8	8.3	7.5	6.3

Table 4.--Five-day mean water temperature and dissolved-oxygen values in water at site 1, October 1991-September 1992, for day and night periods--Continued

PAMLICO RIVER AT CHANNEL LIGHT 16

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	21.9	21.7	11.2	9.3	7.1	6.4	2.6	2.5
5/18/92- 5/22/92	21.8	21.1	6.8	5.3	5.8	4.8	5.5	5.4
5/23/92- 5/27/92	21.3	20.5	4.9	4.4	4.4	3.6	2.5	1.8
5/28/92- 6/ 1/92	19.3	19.2	6.5	5.9	5.4	4.9	6.5	6.5
6/ 2/92- 6/ 6/92	22.3	22.4	8.3	7.2	7.1	6.4	5.2	5.5
6/ 7/92- 6/11/92	25.2	25.7	---	---	6.3	6.3	1.4	3.1
6/12/92- 6/16/92	25.3	24.7	8.0	7.4	7.0	6.8	2.2	2.5
6/17/92- 6/21/92	25.2	24.6	8.2	7.4	7.4	5.0	6.4	7.1
6/22/92- 6/26/92	25.4	24.5	---	---	---	---	2.1	2.1
6/27/92- 7/ 1/92	25.6	24.9	---	---	---	---	2.7	2.9
7/ 2/92- 7/ 6/92	27.0	26.4	---	---	---	---	3.2	3.3
7/ 7/92- 7/11/92	28.4	27.8	---	---	---	---	<1.0	1.1
7/12/92- 7/16/92	30.6	29.7	10.8	9.7	10.0	9.2	<1.0	<1.0
7/17/92- 7/21/92	29.1	28.6	9.4	7.6	8.2	8.5	1.9	1.8
7/22/92- 7/26/92	29.5	28.8	7.7	7.1	9.0	9.1	<1.0	<1.0
7/27/92- 7/31/92	30.2	29.4	9.1	7.9	10.3	9.2	1.6	1.5
8/ 1/92- 8/ 5/92	28.9	28.0	8.4	7.4	8.7	8.8	1.2	1.4
8/ 6/92- 8/10/92	---	---	6.9	5.2	---	---	1.5	1.5
8/11/92- 8/15/92	---	---	6.1	4.9	---	---	<1.0	<1.0
8/16/92- 8/20/92	---	---	---	---	---	---	3.4	3.5
8/21/92- 8/25/92	---	---	---	---	---	---	3.9	3.9
8/26/92- 8/30/92	---	---	---	---	---	---	4.0	3.9
8/31/92- 9/ 4/92	28.4	26.7	7.3	6.1	6.1	5.6	2.7	3.0
9/ 5/92- 9/ 9/92	27.4	26.6	6.9	6.1	5.1	5.4	<1.0	<1.0
9/10/92- 9/14/92	26.1	25.0	5.8	4.9	5.4	5.1	1.0	1.1
9/15/92- 9/19/92	26.2	25.8	6.0	5.1	5.7	5.5	---	---
9/20/92- 9/24/92	26.1	25.2	5.2	4.7	5.6	5.6	---	---
9/25/92- 9/29/92	22.7	22.7	6.7	6.0	6.8	6.3	---	---

Table 5.--Vertical distributions of selected constituents in water at site 1, October 1991-September 1992

PAMLICO RIVER AT CHANNEL LIGHT 16

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (μS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 07...	1325	1.17	---	---	---	---	---	---
07...	1326	---	9.00	2,270	1.2	19.0	7.6	83
07...	1327	---	8.00	2,270	1.2	19.0	7.5	82
07...	1328	---	7.00	2,270	1.2	19.0	7.5	82
07...	1329	---	6.00	2,310	1.2	19.5	7.5	83
07...	1330	---	5.00	2,350	1.2	19.5	7.5	83
07...	1331	---	4.00	5,170	2.7	20.0	7.5	84
07...	1332	---	3.00	5,170	2.7	20.0	7.3	82
07...	1333	---	2.00	5,610	3.0	20.0	7.0	79
07...	1334	---	1.00	5,610	3.0	20.0	7.0	79
11...	0935	0.80	---	---	---	---	---	---
11...	0936	---	10.0	525	0.2	19.5	6.2	68
11...	0937	---	9.00	545	0.3	19.5	6.4	70
11...	0938	---	8.00	604	0.3	19.5	6.2	68
11...	0939	---	7.00	653	0.3	20.0	6.0	66
11...	0940	---	6.00	4,500	2.4	20.0	5.4	60
11...	0941	---	5.00	6,710	3.7	20.0	2.9	33
11...	0942	---	4.00	6,710	3.7	20.0	2.8	32
11...	0943	---	3.00	7,270	4.0	20.0	4.3	49
11...	0944	---	2.00	7,750	4.3	20.0	4.4	50
11...	0945	---	1.00	7,750	4.3	20.0	4.4	50
18...	1100	0.70	---	---	---	---	---	---
18...	1101	---	9.00	3,480	1.8	16.0	8.2	84
18...	1102	---	8.00	3,480	1.8	16.0	8.2	84
18...	1103	---	7.00	3,480	1.8	16.0	8.0	82
18...	1104	---	6.00	3,870	2.0	16.0	7.7	79
18...	1105	---	5.00	5,940	3.2	15.5	7.5	77
18...	1106	---	4.00	5,940	3.2	15.5	7.5	77
18...	1107	---	3.00	7,130	3.9	16.0	7.5	78
18...	1108	---	2.00	7,130	3.9	16.0	7.5	78
18...	1109	---	1.00	7,130	3.9	16.0	7.5	78
Nov. 01...	1400	2.46	---	---	---	---	---	---
01...	1401	---	10.0	9,480	5.3	17.5	13.0	141
01...	1402	---	9.00	9,690	5.4	17.0	13.0	140
01...	1403	---	8.00	9,960	5.6	17.0	9.8	106
01...	1404	---	7.00	9,960	5.6	16.5	9.9	105
01...	1405	---	6.00	10,400	5.9	16.0	4.1	43
01...	1406	---	5.00	12,000	6.8	17.0	3.4	37
01...	1407	---	4.00	14,500	8.4	17.5	3.6	40
01...	1408	---	3.00	14,500	8.4	17.5	3.0	33
01...	1409	---	2.00	14,600	8.5	17.5	3.0	33
01...	1410	---	1.00	15,000	8.7	17.5	2.0	22
20...	1400	1.16	---	---	---	---	---	---
20...	1401	---	9.00	12,000	6.8	14.0	13.6	138
20...	1402	---	8.00	14,600	8.5	13.0	13.0	130
20...	1403	---	7.00	15,600	9.1	13.5	13.4	136
20...	1404	---	6.00	15,600	9.1	13.0	12.4	125
20...	1405	---	5.00	16,700	9.8	13.0	8.6	87
20...	1406	---	4.00	16,800	9.8	13.0	8.6	87
20...	1407	---	3.00	16,800	9.8	13.0	6.3	64
20...	1408	---	2.00	16,400	9.6	13.0	6.0	61
20...	1409	---	1.00	16,400	9.6	13.0	6.0	61

¹Water level from 02084472, Pamlico River at Washington.

**Table 5.--Vertical distributions of selected constituents in water at site 1,
October 1991-September 1992--Continued**

PAMLICO RIVER AT CHANNEL LIGHT 16

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (µS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991 (Continued)								
Nov. 29...	1230	0.60	---	---	---	---	---	---
29...	1231	---	8.00	17,400	10.2	12.0	14.0	69
29...	1232	---	6.00	17,400	10.2	12.5	8.4	77
29...	1233	---	5.00	17,400	10.2	12.5	8.0	77
29...	1234	---	4.00	17,400	10.2	12.5	7.8	78
29...	1235	---	3.00	17,600	10.4	12.5	7.7	80
29...	1236	---	2.00	17,600	10.4	13.0	7.6	84
29...	1237	---	1.00	17,600	10.4	13.0	6.8	139
Dec. 10...	1510	0.35	---	---	---	---	---	---
10...	1511	---	8.00	12,400	7.1	13.5	13.1	132
10...	1512	---	7.00	12,700	7.3	13.5	13.3	134
10...	1513	---	6.00	13,200	7.6	13.5	13.1	132
10...	1514	---	5.00	15,000	8.7	13.0	12.1	122
10...	1515	---	4.00	17,800	10.5	13.0	10.8	110
10...	1516	---	3.00	18,200	10.7	13.0	9.2	94
10...	1517	---	2.00	18,600	11.0	13.0	8.8	90
10...	1518	---	1.00	19,100	11.3	13.0	8.8	90
1992								
Jan. 09...	1300	1.28	---	---	---	---	---	---
09...	1301	---	8.00	273	0.1	10.0	8.6	76
09...	1302	---	7.00	280	0.1	10.0	8.5	76
09...	1303	---	6.00	280	0.1	10.0	8.5	76
09...	1304	---	5.00	380	0.2	10.0	8.4	75
09...	1305	---	4.00	1,290	0.6	10.0	8.2	73
09...	1306	---	3.00	7,850	4.3	10.0	7.7	70
09...	1307	---	2.00	21,100	12.6	10.0	6.2	60
Feb. 10...	1045	1.71	---	---	---	---	---	---
10...	1046	---	8.00	6,970	3.8	6.0	11.6	96
10...	1047	---	6.00	6,970	3.8	6.0	11.6	96
10...	1048	---	2.00	13,000	7.5	9.0	9.9	90
Mar. 05...	1200	0.58	---	---	---	---	---	---
05...	1201	---	8.00	772	0.4	11.0	8.6	78
05...	1202	---	7.00	870	0.4	11.0	8.5	77
05...	1203	---	6.00	1,640	0.8	11.0	8.5	78
05...	1204	---	5.00	7,470	4.1	11.5	7.7	73
05...	1205	---	4.00	11,000	6.2	11.5	7.2	69
05...	1206	---	3.00	13,600	7.8	11.5	3.8	37
05...	1207	---	2.00	16,500	9.7	11.0	2.2	21
30...	1430	0.78	---	---	---	---	---	---
30...	1431	---	8.00	168	0.1	13.0	8.5	81
30...	1432	---	6.00	157	0.1	13.0	8.7	83
30...	1433	---	2.00	157	0.1	12.5	8.7	82
Apr. 07...	0935	0.74	---	---	---	---	---	---
07...	0936	---	8.00	2,090	1.0	12.5	10.0	95
07...	0937	---	7.00	2,090	1.0	12.5	10.0	95
07...	0938	---	6.00	2,090	1.0	12.5	10.0	95
07...	0939	---	5.00	2,410	1.2	12.5	9.9	94
07...	0940	---	4.00	6,590	3.6	12.0	8.4	80
07...	0941	---	2.00	9,580	5.4	11.5	7.4	71
May 04...	0850	0.09	---	---	---	---	---	---
04...	0851	---	8.00	2,820	1.5	20.0	6.1	68
04...	0852	---	6.00	2,820	1.5	20.0	6.3	70
04...	0853	---	4.00	2,860	1.5	20.0	6.2	69
04...	0854	---	2.00	3,860	2.0	20.0	5.6	63

¹Water level from 02084472, Pamlico River at Washington.

**Table 5.--Vertical distributions of selected constituents in water at site 1,
October 1991-September 1992--Continued**

PAMLICO RIVER AT CHANNEL LIGHT 16

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
June	01...	1135	0.82	---	---	---	---	---
	01...	1136	---	8.00	3,120	1.6	19.5	70
	01...	1137	---	6.00	3,120	1.6	19.5	68
	01...	1138	---	2.00	8,910	5.0	20.0	45
	08...	1055	1.18	---	---	---	---	---
	08...	1056	---	8.00	750	0.3	26.0	112
	08...	1057	---	7.00	770	0.4	26.0	112
	08...	1058	---	6.00	800	0.4	26.0	110
	08...	1059	---	5.00	2,100	1.1	24.0	60
	08...	1100	---	4.00	2,420	1.2	23.5	44
	08...	1101	---	3.00	4,190	2.2	23.0	40
	08...	1102	---	2.00	5,920	3.2	23.0	19
	08...	1103	---	1.00	6,110	3.3	23.0	17
	15...	1625	1.39	---	---	---	---	---
	15...	1626	---	8.00	700	0.3	26.5	99
	15...	1627	---	7.00	769	0.4	25.5	97
	15...	1628	---	6.00	2,110	1.1	25.0	95
	15...	1629	---	5.00	4,160	2.2	24.0	72
	15...	1630	---	4.00	5,240	2.8	24.0	67
	15...	1631	---	3.00	8,290	4.6	24.0	44
	15...	1632	---	2.00	8,880	4.9	24.0	39
July	13...	1215	-0.58	---	---	---	---	---
	13...	1216	---	8.00	4,150	2.2	30.5	129
	13...	1217	---	6.00	4,200	2.2	30.0	125
	13...	1218	---	4.00	4,890	2.6	30.0	113
	13...	1219	---	3.00	7,570	4.2	29.0	43
	13...	1220	---	2.00	10,900	6.2	28.5	8
	17...	1630	0.08	---	---	---	---	---
	17...	1631	---	8.00	7,150	3.9	29.0	140
	17...	1632	---	6.00	9,830	5.5	29.0	108
	17...	1633	---	2.00	12,600	7.2	29.0	27
	20...	1145	0.94	---	---	---	---	---
	20...	1146	---	8.00	6,410	3.5	29.0	132
	20...	1147	---	6.00	9,110	5.1	28.0	95
	20...	1148	---	4.00	13,200	7.6	28.0	3
	20...	1149	---	2.00	14,000	8.1	28.0	0
Aug.	03...	1100	0.51	---	---	---	---	---
	03...	1101	---	8.00	2,830	1.5	28.5	117
	03...	1102	---	6.00	6,340	3.4	28.5	53
	03...	1103	---	4.00	7,260	4.0	28.5	30
	03...	1104	---	2.00	8,090	4.5	28.5	31
Sept.	04...	1055	0.78	---	---	---	---	---
	04...	1056	---	8.00	2,250	1.1	27.0	84
	04...	1057	---	7.00	2,250	1.1	27.0	84
	04...	1058	---	6.00	2,250	1.1	27.0	84
	04...	1059	---	5.00	2,290	1.2	27.0	82
	04...	1100	---	4.00	3,150	1.6	26.5	83
	04...	1101	---	3.00	3,150	1.6	26.5	83
	04...	1102	---	2.00	3,150	1.6	26.5	83
	04...	1103	---	1.00	3,480	1.8	26.0	69

¹Water level from 02084472, Pamlico River at Washington.

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992

PAMLICO RIVER AT LIGHT 5

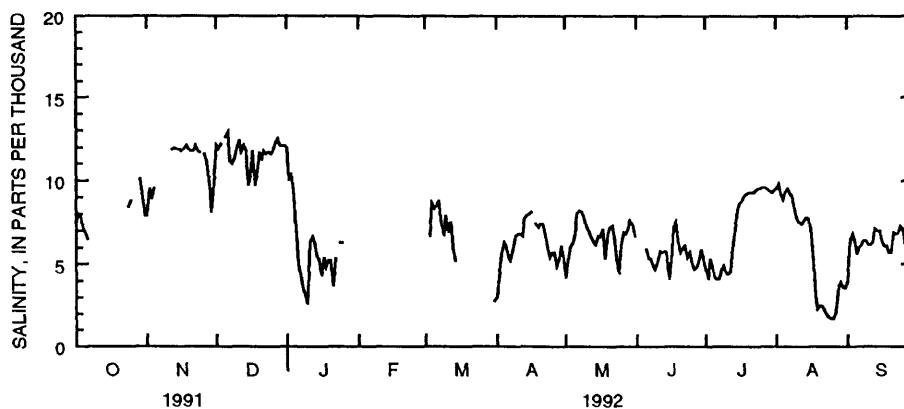
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--12 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 13.6 ppt December 6, 1991; minimum value recorded, 1.0 ppt January 15, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (In ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	7.9	12.1	12.0	---	---	3.0	4.2	---	4.7	9.5	4.0
2	8.0	9.5	11.9	10.1	---	---	4.2	5.2	---	4.1	9.8	6.4
3	7.9	8.9	12.2	10.3	---	6.7	5.6	6.1	---	5.3	9.2	6.8
4	7.1	9.5	---	9.1	---	8.6	6.3	6.2	---	4.8	8.9	6.4
5	6.9	---	12.6	7.2	---	8.3	6.1	6.8	5.9	4.2	9.3	5.6
6	6.5	---	12.9	5.0	---	8.5	5.4	8.0	5.3	4.1	9.5	6.0
7	---	---	11.2	4.3	---	8.8	5.2	8.2	5.3	4.1	9.2	6.2
8	---	---	11.0	3.5	---	7.4	5.9	8.1	4.9	4.6	9.1	6.4
9	---	---	11.3	3.2	---	6.7	6.7	7.8	4.7	4.9	8.3	6.4
10	---	---	11.9	2.6	---	7.9	6.8	7.2	5.1	4.4	7.7	6.2
11	---	---	12.4	6.3	---	6.9	6.8	7.0	5.8	4.4	7.5	6.2
12	---	11.9	11.7	6.6	---	7.5	6.7	6.6	5.7	4.6	7.4	6.3
13	---	12.0	12.1	6.3	---	6.0	7.7	6.3	5.8	6.0	7.5	7.1
14	---	11.9	11.8	5.4	---	5.2	7.9	6.2	5.7	7.1	7.8	7.0
15	---	11.9	9.7	5.3	---	---	8.0	6.7	4.1	8.2	7.7	7.0
16	---	11.8	10.3	4.3	---	---	8.1	6.6	5.2	8.6	7.1	6.4
17	---	11.9	11.8	5.4	---	---	---	7.1	7.2	8.8	5.6	6.1
18	---	12.1	9.7	4.8	---	---	7.4	5.3	7.5	9.1	3.1	6.1
19	---	11.9	10.5	5.2	---	---	7.2	6.8	6.4	9.2	2.3	5.7
20	---	11.8	11.7	5.2	---	---	7.4	7.2	5.7	9.3	2.5	5.7
21	---	11.8	11.2	3.7	---	---	7.4	7.3	6.0	9.3	2.5	6.9
22	---	12.1	11.8	5.3	---	---	6.7	6.7	6.1	9.3	2.2	6.8
23	---	11.8	11.6	---	---	---	6.1	5.3	5.4	9.4	1.9	6.9
24	8.4	11.7	11.7	6.3	---	---	5.4	4.4	5.7	9.5	1.8	7.3
25	8.8	---	11.6	6.3	---	---	5.7	6.1	5.1	9.5	1.7	7.1
26	---	11.6	11.8	---	---	---	5.7	6.9	4.7	9.6	1.7	6.2
27	8.9	11.1	12.3	---	---	---	4.9	6.8	4.8	9.6	2.1	7.2
28	---	9.7	12.5	---	---	---	5.3	7.1	5.1	9.5	3.7	7.0
29	10.1	8.1	12.1	---	---	---	6.1	7.6	5.9	9.4	3.9	7.5
30	9.0	9.8	12.1	---	---	---	5.3	7.4	5.4	9.3	3.6	7.2
31	7.9	---	12.1	---	---	2.8	---	6.7	---	9.4	3.6	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 2, PAMLICO RIVER AT LIGHT 5

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

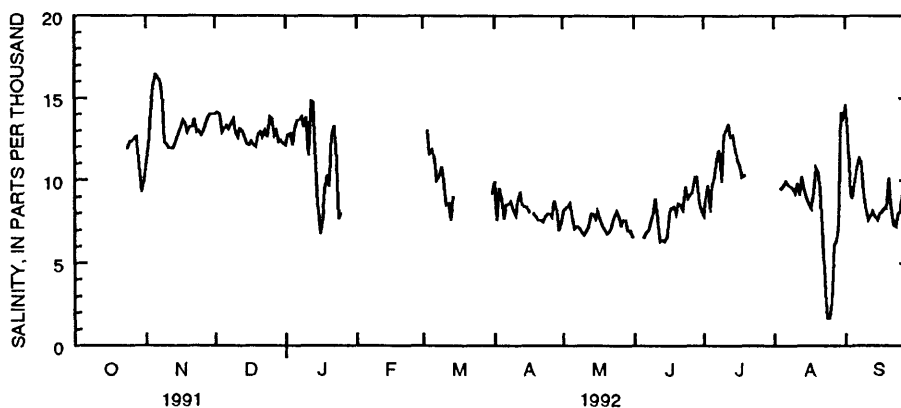
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--4 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.9 ppt November 5, 1991; minimum value recorded, 1.4 ppt August 24, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	11.1	14.0	12.1	---	---	9.9	8.1	---	7.9	---	14.6
2	---	12.0	14.1	12.7	---	---	7.6	8.3	---	9.2	---	12.6
3	---	14.1	14.0	12.8	---	13.0	9.5	8.4	---	9.7	---	9.2
4	---	15.7	12.9	12.1	---	11.6	8.9	8.6	---	8.1	9.5	8.9
5	---	16.4	13.1	13.1	---	11.8	7.7	7.6	6.6	9.7	9.6	10.0
6	---	16.3	13.3	13.6	---	11.2	8.5	7.1	6.9	10.3	9.9	10.7
7	---	16.0	13.1	13.6	---	10.0	8.5	7.2	7.0	11.3	9.7	11.3
8	---	15.3	13.4	13.8	---	10.2	8.7	7.1	7.6	11.8	9.6	11.1
9	---	12.3	13.7	13.2	---	10.8	8.2	6.9	8.0	9.9	9.5	9.3
10	---	12.1	12.9	13.8	---	10.0	7.9	6.7	8.9	12.7	9.2	8.2
11	---	11.9	12.6	11.5	---	8.5	8.7	6.9	7.3	13.0	9.8	7.6
12	---	11.9	13.1	14.8	---	8.6	9.3	7.2	6.3	13.4	9.1	7.9
13	---	11.9	13.0	14.7	---	7.6	8.5	8.0	6.4	12.6	10.2	8.1
14	---	12.3	12.5	10.8	---	9.0	8.4	8.0	6.3	12.7	9.4	7.8
15	---	12.8	12.2	8.6	---	---	8.4	7.7	6.6	11.8	8.9	7.6
16	---	13.1	12.1	6.8	---	---	8.1	8.1	8.1	11.2	8.6	8.0
17	---	13.6	12.3	7.7	---	---	---	7.6	8.3	10.8	8.3	8.1
18	---	13.4	12.1	9.5	---	---	8.0	7.2	8.4	10.2	9.3	8.3
19	---	12.9	12.0	10.3	---	---	7.8	7.0	8.0	10.3	10.7	8.3
20	---	13.2	12.7	9.6	---	---	7.6	6.8	8.6	---	10.4	10.1
21	---	13.2	12.9	12.6	---	---	7.6	6.9	8.5	---	9.5	8.1
22	---	13.7	12.6	13.3	---	---	7.5	7.2	8.1	---	6.3	7.3
23	---	12.9	13.0	12.0	---	---	7.8	7.8	9.6	---	3.2	7.2
24	11.9	13.0	12.6	7.7	---	---	8.0	8.1	8.9	---	1.7	8.0
25	12.3	12.7	13.8	8.0	---	---	8.0	7.9	9.1	---	1.7	8.1
26	12.3	12.9	13.7	---	---	---	7.8	7.2	9.3	---	2.6	9.3
27	12.5	13.4	12.7	---	---	---	8.8	7.6	10.2	---	6.1	9.1
28	12.6	13.8	13.0	---	---	---	8.2	7.6	10.2	---	6.4	8.2
29	10.8	14.0	12.3	---	---	---	7.0	7.0	8.7	---	7.4	7.9
30	9.3	14.0	12.4	---	---	---	7.4	7.0	8.2	---	14.1	8.4
31	10.0	---	12.2	---	---	9.2	---	6.6	---	---	13.6	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 2, PAMLICO RIVER AT LIGHT 5

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

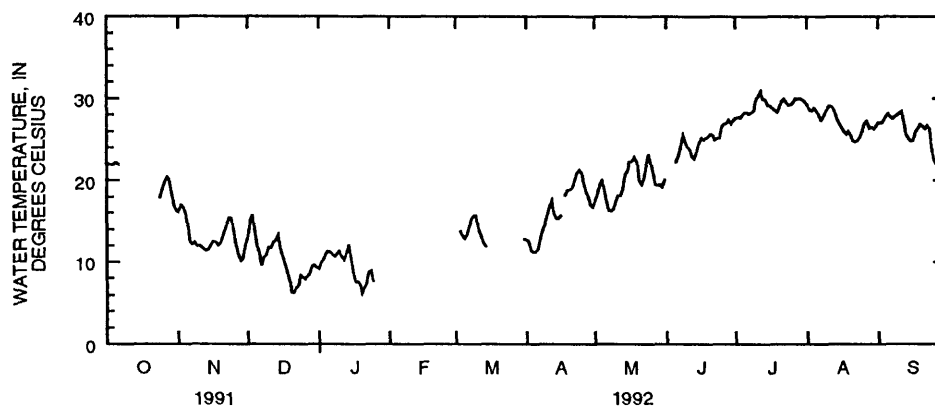
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--12 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.2 °C July 12, 1992; minimum value recorded, 4.3 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22.1	16.1	13.1	9.1	---	---	12.7	17.4	---	27.6	29.3	27.1
2	22.0	17.0	14.8	9.8	---	---	12.5	18.3	---	27.7	28.6	27.0
3	21.9	16.7	15.7	10.3	---	13.7	11.4	19.5	---	27.6	28.5	27.3
4	22.0	15.9	13.5	11.1	---	13.2	11.2	19.9	---	27.9	28.8	27.8
5	22.2	14.2	11.9	11.3	---	12.9	11.2	18.8	22.3	28.2	28.5	28.1
6	22.0	12.4	11.1	11.2	---	13.4	11.6	17.5	23.1	28.2	27.9	27.8
7	---	12.2	9.5	10.9	---	14.4	12.7	16.3	24.0	28.1	27.4	27.5
8	---	12.4	10.5	10.7	---	15.2	13.9	16.2	25.5	28.2	27.7	27.8
9	---	11.9	10.9	11.0	---	15.6	14.7	16.4	24.8	28.5	28.3	27.9
10	---	12.0	11.8	11.3	---	15.6	15.8	17.4	24.0	29.9	28.9	28.2
11	---	11.8	11.7	10.6	---	13.9	16.7	18.1	23.8	30.2	29.1	28.4
12	---	11.5	12.3	10.2	---	13.1	17.5	18.1	23.0	30.8	29.0	27.0
13	---	11.4	12.6	11.0	---	12.4	15.9	19.0	22.7	29.9	28.4	25.7
14	---	11.5	13.3	12.1	---	11.9	15.3	20.7	23.4	29.9	27.5	25.1
15	---	12.1	11.7	10.8	---	---	15.3	21.2	24.5	29.2	26.9	24.8
16	---	12.5	10.7	8.9	---	---	15.6	22.3	25.2	29.1	26.5	24.9
17	---	12.5	9.9	7.5	---	---	---	22.3	25.0	28.8	26.0	25.9
18	---	12.0	8.9	7.6	---	---	18.2	22.8	25.2	28.6	25.7	26.4
19	---	12.2	7.7	7.2	---	---	18.8	22.3	25.3	28.3	26.0	26.8
20	---	13.0	6.3	6.2	---	---	18.8	20.0	25.7	29.0	25.5	26.6
21	---	14.0	6.3	6.9	---	---	19.1	19.5	25.5	29.6	24.9	26.3
22	---	14.7	6.8	7.5	---	---	20.0	20.1	25.0	29.9	24.7	26.7
23	---	15.4	7.1	8.7	---	---	20.9	21.8	25.2	29.6	24.9	26.3
24	17.9	15.3	8.3	8.9	---	---	21.3	23.2	25.2	29.2	25.3	24.1
25	19.1	13.5	8.1	7.7	---	---	20.9	22.2	26.5	29.3	26.0	22.5
26	19.7	12.1	7.9	---	---	---	19.7	20.8	26.9	29.5	26.9	21.8
27	20.4	10.9	8.2	---	---	---	18.6	19.5	27.0	30.0	27.2	22.8
28	20.1	10.1	8.5	---	---	---	17.9	19.4	27.4	29.9	26.4	23.3
29	18.5	10.4	9.4	---	---	---	17.0	19.5	26.9	30.0	26.5	23.2
30	17.0	12.2	9.6	---	---	---	16.7	19.2	27.3	29.8	26.3	21.8
31	16.2	---	9.3	---	---	12.8	---	20.1	---	29.7	26.6	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 2, PAMLICO RIVER AT LIGHT 5

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

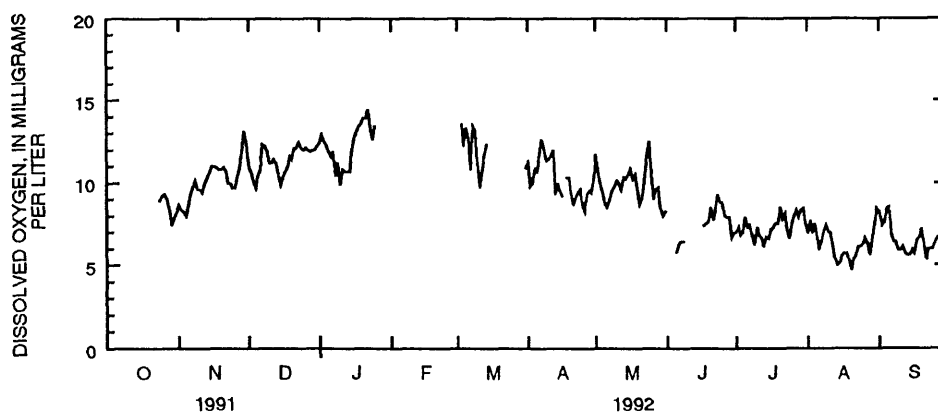
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--12 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.6 mg/L March 9, 1992; minimum value recorded, 3.2 mg/L August 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (In mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	8.6	10.9	12.4	---	---	11.2	11.7	---	7.0	6.9	8.2
2	---	8.3	10.7	12.9	---	---	9.8	10.5	---	7.3	7.7	7.4
3	---	8.2	10.1	12.5	---	13.5	10.0	9.8	---	6.8	6.9	7.6
4	---	8.0	9.7	12.2	---	12.2	10.9	9.4	---	7.0	7.5	8.4
5	---	8.6	10.4	11.9	---	13.3	10.6	8.7	5.8b	7.9	6.9	8.5
6	---	9.3	10.8	11.6	---	12.7	11.7	8.5	6.3b	7.3	5.9	6.9
7	---	9.8	12.3	11.9	---	10.8	12.6	8.9	6.4	7.4	6.4	6.4b
8	---	10.1	12.2	10.4	---	13.4	12.1	9.5	6.4	6.8b	7.0	6.4
9	---	9.6	11.9	11.2	---	13.1	11.3	9.7	---	6.2b	7.4	5.9
10	---	9.6	11.2	9.9	---	11.2	11.4	10.1	---	7.3	7.0	5.9b
11	---	9.4	11.2	10.8	---	9.7	11.6	10.0	---	6.8	7.0	6.1
12	---	10.0	11.4	10.7	---	10.8	12.0	9.6	---	6.6	6.1	5.7
13	---	10.2	11.1	10.7	---	11.6	9.3	10.3	---	6.1b	5.4b	5.6
14	---	10.6	10.3	10.7	---	12.3	10.0	10.2	---	6.7	5.0b	5.6b
15	---	11.0	9.9	11.8	---	---	9.5	10.5	---	6.6	5.1b	5.9
16	---	11.0	10.4	12.7	---	---	9.2	10.8	---	7.1b	5.5b	5.7
17	---	10.9	10.7	13.1	---	---	---	10.2	7.4	7.3	5.7b	6.5
18	---	10.8	11.0	13.4	---	---	10.3	10.5	7.5	7.5	5.7b	6.7
19	---	10.8	11.6	13.6	---	---	10.3	9.4	7.6	7.5	5.3b	7.2
20	---	10.9	11.4	13.9	---	---	9.4	8.7	8.5	8.5	4.7b	6.2b
21	---	10.7	12.1	13.9	---	---	8.6	9.1	7.7	7.8	5.3b	5.3b
22	---	10.0	12.1	14.4	---	---	9.1	10.1	8.2	8.1	5.5b	6.0b
23	---	10.0	12.4	13.3	---	---	9.4	11.6	9.3	7.1	6.1	6.0
24	8.9	9.7	12.1	12.6	---	---	9.6	12.5	8.8	6.6	6.1	6.0
25	9.2	9.7	12.0	13.4	---	---	8.5	10.5	8.8	7.5	6.2b	6.4
26	9.3	10.2	12.1	---	---	---	8.2	9.0	8.0	8.0	6.6	6.7
27	9.0	10.9	12.0	---	---	---	9.3	9.6	7.9	8.3	6.3b	6.7b
28	8.5	11.8	11.9	---	---	---	9.5	9.7	7.9	7.9	5.6b	7.1
29	7.4	13.1	12.0	---	---	---	9.4	8.5	6.7	8.3	6.5	7.6
30	7.9	12.4	12.0	---	---	---	10.3	8.0	6.9	8.4	7.5	8.1
31	8.2	---	12.2	---	---	10.9	---	8.2	---	7.5	8.4	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 2, PAMLICO RIVER AT LIGHT 5

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

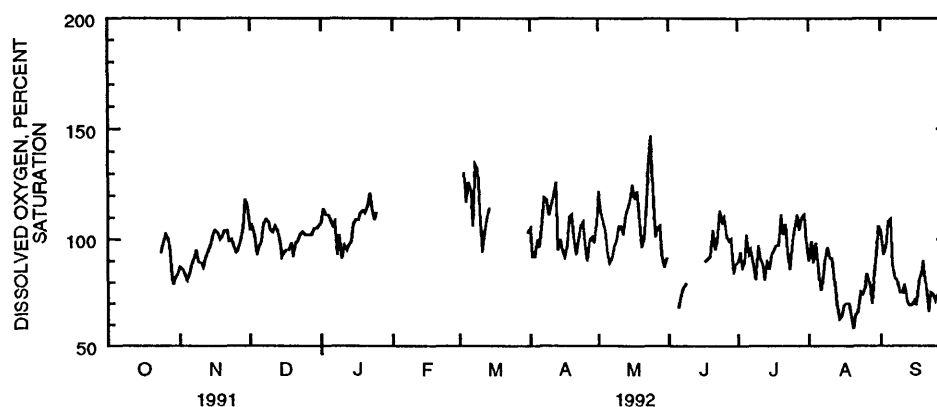
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--12 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 169 percent of saturation March 9, 1992; minimum value recorded, 40 percent of saturation August 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	87	104	108	---	---	105	122	---	89	90	103
2	---	86	106	114	---	---	92	112	---	94	99	93
3	---	84	102	111	---	130	92	107	---	86	89	96
4	---	81	93	111	---	117	100	104	---	89	98	108
5	---	84	96	109	---	126	96	93	68	102	89	109
6	---	88	99	106	---	122	108	89	74	93	76	88
7	---	91	107	108	---	106	119	91	77	95	81	82
8	---	95	109	93	---	134	118	97	79	88	90	81
9	---	89	108	102	---	132	111	99	---	81	96	75
10	---	89	104	91	---	113	116	106	---	97	91	75
11	---	87	103	97	---	94	120	106	---	91	91	79
12	---	92	106	95	---	103	126	102	---	88	80	71
13	---	94	104	97	---	109	95	111	---	81	70	69
14	---	97	99	99	---	114	100	114	---	89	63	69
15	---	102	92	107	---	---	95	118	---	86	64	71
16	---	104	94	109	---	---	92	125	---	93	69	69
17	---	103	95	109	---	---	---	118	90	95	70	80
18	---	100	95	112	---	---	110	122	91	97	70	84
19	---	101	98	113	---	---	111	108	92	97	65	90
20	---	104	92	112	---	---	101	96	104	111	58	78
21	---	104	98	115	---	---	93	100	95	102	64	66
22	---	99	99	121	---	---	100	112	99	107	66	75
23	---	100	102	114	---	---	106	133	113	94	75	74
24	94	97	103	109	---	---	108	147	108	86	74	71
25	99	94	102	112	---	---	95	122	110	99	77	74
26	102	95	102	---	---	---	90	101	101	105	84	76
27	100	99	102	---	---	---	100	105	99	111	80	79
28	94	105	102	---	---	---	101	106	100	104	70	84
29	79	118	105	---	---	---	98	93	84	110	81	89
30	82	115	105	---	---	---	107	87	88	111	93	92
31	84	---	106	---	---	103	---	91	---	99	106	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE,
SITE 2, PAMLICO RIVER AT LIGHT 5**

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

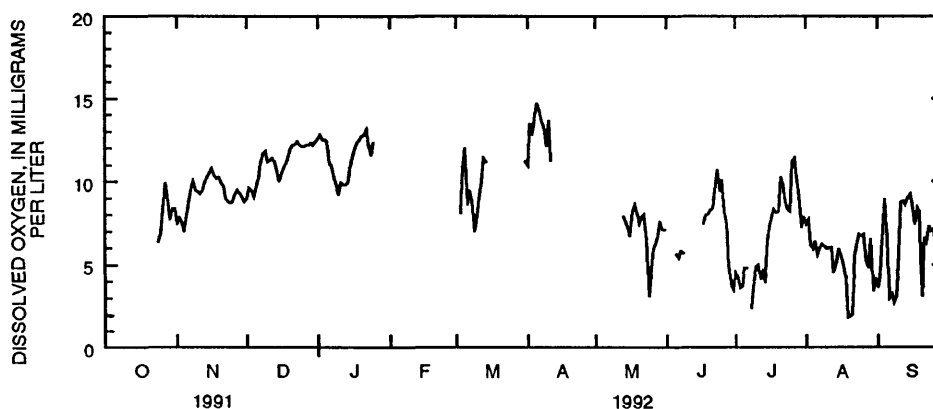
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 17.9 mg/L April 7, 1992; minimum value recorded, <1.0 mg/L March 6, May 13, 14, 16, 23-25, June 28, July 3, 6, 8, 12-14, 22, 29, 30, September 5-10, 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	7.4	9.0	12.6	---	---	11.0	---	---	4.5a	7.4	3.6b
2	---	7.8	9.6	12.8	---	---	13.5	---	---	4.2b	7.7	4.5b
3	---	7.6	9.5	12.5	---	8.1b	12.8	---	---	3.6a	6.2b	7.1
4	---	7.0	9.1	12.5	---	10.8b	14.0	---	---	3.7b	5.9a	8.9
5	---	8.0	9.6	12.4	---	12.0	14.7	---	5.6b	4.8a	6.4b	6.6a
6	---	8.7	10.2	11.1	---	8.6a	14.3	---	5.4b	4.8a	5.6b	3.0a
7	---	9.6	11.1	11.0	---	9.5b	13.7	---	5.8b	---	6.0	3.2a
8	---	10.0	11.7	10.3	---	8.8	13.3	---	5.7b	2.4a	6.2	2.7a
9	---	9.5	11.8	9.9	---	7.0b	12.1	---	---	4.0a	6.1b	3.1a
10	---	9.4	11.2	9.2	---	7.6b	13.7	---	---	4.9b	5.9b	5.6a
11	---	9.3	11.3	9.9	---	9.0	11.3	---	---	5.0b	6.0b	8.7
12	---	9.5	11.4	9.8	---	10.0	---	---	---	4.1a	6.0a	8.8
13	---	9.9	11.2	9.8	---	11.4	---	7.9a	---	4.5a	4.5a	8.6
14	---	10.3	10.6	9.9	---	11.2	---	7.6a	---	3.9a	5.0a	9.0
15	---	10.6	10.0	10.8	---	---	---	7.2b	---	6.4b	5.9b	9.2
16	---	10.8	10.5	11.5	---	---	---	6.7a	---	7.2	5.6a	8.6
17	---	10.4	10.8	12.0	---	---	---	8.2b	7.5b	7.9	5.1b	7.4
18	---	10.2	11.1	12.3	---	---	---	8.6	8.0	8.3	4.2a	8.4
19	---	10.3	11.5	12.5	---	---	---	8.0	8.0	8.1	1.8a	8.2b
20	---	9.9	11.9	12.7	---	---	---	7.5	8.3a	8.2a	1.9a	3.1a
21	---	9.7	12.2	12.8	---	---	---	7.9	8.4b	10.3	2.0a	6.6a
22	---	9.0	12.2	13.1	---	---	---	8.0	9.5	9.8a	5.5b	6.3b
23	---	8.8	12.4	12.2	---	---	---	6.5a	10.7	8.8a	6.3b	7.3b
24	6.4b	8.7	12.2	11.6	---	---	---	3.1a	9.4	8.3	6.8	7.0
25	6.9b	8.8	12.1	12.3	---	---	---	4.4a	10.1	8.2	6.7	7.1
26	8.4b	9.2	12.1	---	---	---	---	5.9a	8.2	11.2	6.8b	5.9b
27	9.9	9.5	12.2	---	---	---	---	6.2a	7.4b	11.4	5.2b	5.3b
28	9.1	9.3	12.2	---	---	---	---	6.7a	4.9a	10.3b	4.8b	6.9b
29	7.7	9.1	12.3	---	---	---	---	7.6	3.7a	9.1a	6.5b	8.0
30	8.4	8.8	12.2	---	---	---	---	7.1	3.5a	7.2a	3.4b	8.2
31	8.4	---	12.4	---	---	11.2	---	7.1b	---	7.9a	4.2b	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 2, PAMLICO RIVER AT LIGHT 5

p. 40 added to original

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

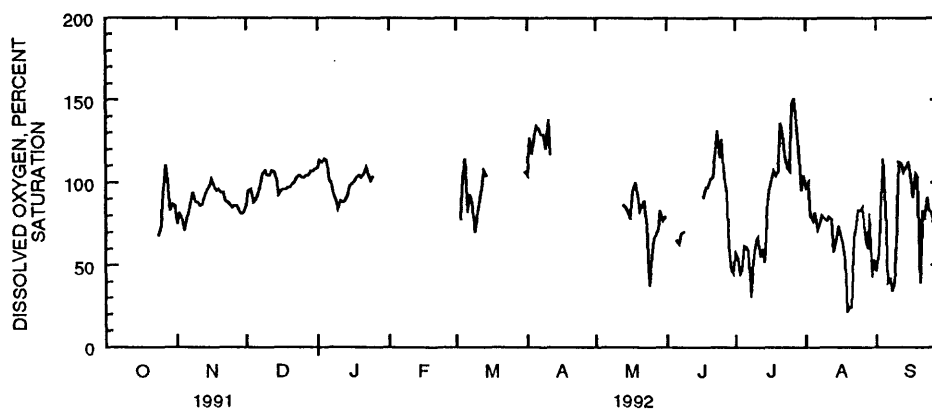
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 194 percent of saturation July 27, 1992; minimum value recorded, ≤10 percent of saturation March 6, May 13, 14, 16, 23-25, June 28, July 3, 6-8, 12-14, 22, 29, 30, September 5-10, 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	75	86	109	---	---	104	---	---	57	97	46
2	---	81	95	113	---	---	127	---	---	54	100	57
3	---	79	96	112	---	78	117	---	---	45	80	90
4	---	71	88	114	---	103	128	---	---	47	77	114
5	---	78	89	113	---	114	134	---	65	62	82	85
6	---	81	93	101	---	82	132	---	63	61	72	39
7	---	89	97	100	---	93	129	---	69	---	76	41
8	---	94	105	93	---	88	129	---	70	31	80	34
9	---	88	107	90	---	70	120	---	---	52	78	39
10	---	88	104	84	---	77	138	---	---	65	77	72
11	---	86	104	89	---	87	117	---	---	67	79	112
12	---	87	107	88	---	96	---	---	---	55	78	111
13	---	91	106	89	---	107	---	86	---	60	58	106
14	---	95	102	92	---	104	---	85	---	52	64	109
15	---	98	93	98	---	---	---	82	---	84	74	111
16	---	102	95	99	---	---	---	78	---	95	69	104
17	---	98	96	101	---	---	---	95	91	102	63	91
18	---	95	96	103	---	---	---	100	97	107	52	105
19	---	96	97	104	---	---	---	92	97	104	22	103
20	---	94	97	103	---	---	---	83	102	107	24	39
21	---	94	99	105	---	---	---	86	103	136	24	83
22	---	89	100	109	---	---	---	89	115	129	66	78
23	---	88	103	105	---	---	---	74	131	117	76	91
24	68	87	104	101	---	---	---	37	115	109	83	83
25	74	85	103	103	---	---	---	51	126	107	83	82
26	93	86	103	---	---	---	---	66	103	147	95	67
27	110	86	104	---	---	---	---	68	94	151	66	62
28	101	83	104	---	---	---	---	72	62	136	60	81
29	83	81	107	---	---	---	---	83	47	120	81	94
30	87	82	107	---	---	---	---	77	45	95	43	93
31	86	---	108	---	---	106	---	79	---	104	53	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 2,
PAMLICO RIVER AT LIGHT 5**

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

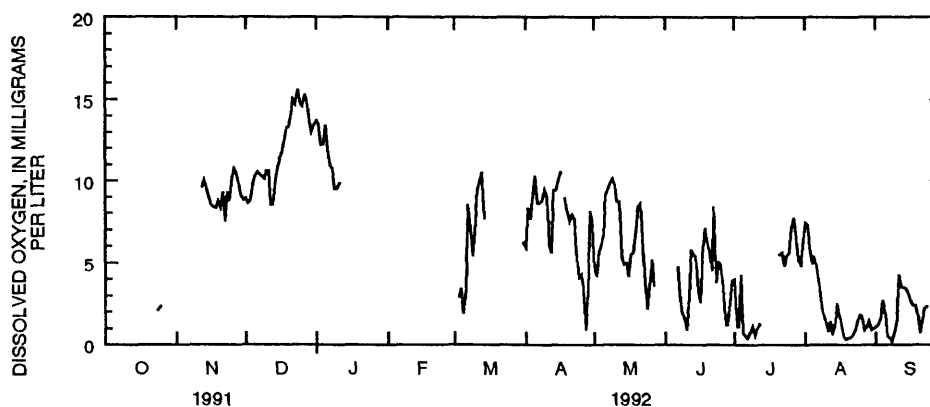
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--4 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 18.6 mg/L January 5, 1992; minimum value recorded, <1.0 mg/L March 4-7, April 26-28, May 15, 16, 19, 23, 24, 27, June 8-11, 13, 15-17, 21, 26-30, July 1-12, 21-23, August 3-5, 9-23, 26-31, September 4-12, 19-21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	8.9	13.7	---	---	5.9b	4.6b	---	4.0a	7.4	1.1a
2	---	---	8.6	13.5	---	---	8.3	4.2b	---	1.1a	7.3	1.2a
3	---	---	8.7	12.2	---	---	2.9a	7.6	5.7b	---	1.1a	5.9a
4	---	---	9.8	12.2	---	---	3.4a	9.1	6.0b	---	4.3a	4.9a
5	---	---	10.3	13.4	---	---	1.9a	10.3	6.7b	---	<1.0a	5.4a
6	---	---	10.5	11.9	---	---	3.3a	8.6	9.1	4.7b	<1.0a	4.7b
7	---	---	10.4	10.9	---	---	8.5a	8.6	9.5	3.1a	<1.0a	3.7b
8	---	---	10.3	10.7	---	---	7.1	8.7	9.9	1.9a	<1.0a	2.8a
9	---	---	10.1	9.5	---	---	5.4b	9.4	10.1	1.6a	1.1a	1.8a
10	---	---	10.6	9.5	---	---	6.9b	9.0	9.7b	<1.0a	<1.0a	1.3a
11	---	---	10.6	9.8	---	---	9.4	6.1b	8.7b	2.9a	1.0a	<1.0a
12	---	9.6	8.5	---	---	---	10.0	5.6b	8.7a	5.8b	1.2a	1.4a
13	---	10.0	8.5	---	---	---	10.5	9.4	5.4a	5.5a	---	<1.0a
14	---	9.5	10.1	---	---	---	7.7	9.4	4.9a	5.4b	---	1.1a
15	---	8.9	10.8	---	---	---	---	9.9	5.0a	3.3a	---	2.5a
16	---	8.5	11.4	---	---	---	10.5	4.2a	2.6a	---	1.9a	2.7b
17	---	8.4	11.7	---	---	---	---	5.5a	5.5a	---	1.1a	2.4b
18	---	8.3	12.5	---	---	---	---	5.6a	7.1	---	<1.0a	2.4a
19	---	8.7	13.3	---	---	---	---	8.0	7.0a	6.4b	---	<1.0a
20	---	8.3	13.3	---	---	---	---	7.5b	8.4	5.7b	---	<1.0a
21	---	9.3	14.1	---	---	---	---	7.9	8.6	4.5a	5.5a	<1.0a
22	---	7.5	15.0	---	---	---	---	7.6	6.5b	8.4a	5.6a	<1.0a
23	---	9.3	14.7	---	---	---	---	5.7b	3.8a	3.8a	4.8a	<1.0a
24	2.1a	8.7	15.6	---	---	---	---	4.1a	2.2a	5.1b	5.4b	1.4a
25	2.3a	10.2	14.7	---	---	---	---	4.3a	3.6a	4.8a	5.6b	1.8a
26	---	10.7	14.6	---	---	---	---	3.5a	5.2a	3.5a	7.1b	1.7a
27	---	10.4	15.3	---	---	---	---	<1.0a	3.6a	1.2a	7.7	<1.0a
28	---	9.7	14.9	---	---	---	---	3.2a	---	1.2a	6.8a	1.1a
29	---	9.1	13.6	---	---	---	---	8.1b	---	2.5a	5.3a	1.4a
30	---	8.8	13.0	---	---	---	---	7.3	---	3.9a	4.8a	<1.0a
31	---	---	13.4	---	---	---	6.2	---	6.1b	---	6.0a	1.0a



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 2, PAMLICO RIVER AT LIGHT 5

Table 6.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 2, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 5

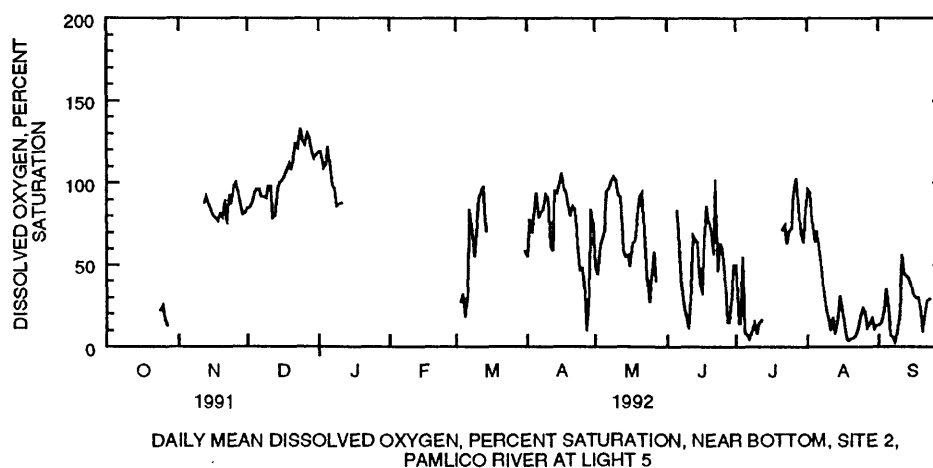
[Site 2 is at latitude 35°25'48", longitude 76°50'30", Beaufort County; U.S. Geological Survey downstream order number 0208453300]

Sensor Position--4 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 170 percent of saturation January 5, 1992; minimum value recorded, ≤10 percent of saturation October 27, 1991, March 4-7, April 26-28, May 12, 15, 16, 23, 24, 27, June 8-11, 13, 15, 16, 21, 26-30, July 1-11, 21-23, August 3, 4, 9-23, 26, 27, 28, September 4-12, 19-21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	85	119	---	---	55	49	---	50	96	13
2	---	---	85	119	---	---	78	44	---	14	94	15
3	---	---	88	109	---	27	70	62	---	14	77	22
4	---	---	94	111	---	32	83	66	---	55	64	35
5	---	---	96	122	---	18	94	72	83	≤10	71	24
6	---	---	96	109	---	32	79	95	55	≤10	60	≤10
7	---	---	92	99	---	84	82	97	36	≤10	48	≤10
8	---	---	92	96	---	71	84	102	23	≤10	35	≤10
9	---	---	91	86	---	55	93	104	19	14	23	≤10
10	---	---	98	87	---	70	91	101	11	≤10	17	20
11	---	---	98	88	---	91	62	93	35	14	10	56
12	---	88	79	---	---	95	59	92	68	16	18	44
13	---	92	80	---	---	98	95	59	65	---	≤10	43
14	---	87	97	---	---	71	94	55	64	---	14	41
15	---	83	100	---	---	---	99	56	39	---	31	37
16	---	80	102	---	---	---	106	49	32	---	24	32
17	---	79	104	---	---	---	---	63	66	---	14	30
18	---	77	108	---	---	---	95	65	86	---	≤10	30
19	---	81	112	---	---	---	86	80	78	---	≤10	24
20	---	79	108	---	---	---	80	92	70	---	≤10	≤10
21	---	90	115	---	---	---	86	94	56	72	≤10	20
22	---	75	123	---	---	---	84	71	102	74	≤10	28
23	---	93	121	---	---	---	64	43	46	63	11	29
24	22	87	133	---	---	---	47	27	63	71	18	---
25	25	98	125	---	---	---	48	41	60	73	23	---
26	---	100	123	---	---	---	39	58	44	94	21	---
27	---	94	130	---	---	---	10	40	15	103	12	---
28	---	86	127	---	---	---	33	---	15	90	14	---
29	---	81	119	---	---	---	84	---	31	70	17	---
30	---	82	115	---	---	---	75	---	50	64	11	---
31	---	---	117	---	---	59	---	68	---	79	13	---



**Table 7.--Five-day mean water temperature and dissolved-oxygen values in water at site 2,
October 1991-September 1992, for day and night periods**

PAMLICO RIVER AT LIGHT 5

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	22.1	22.0	----	---	---	---	---	---
10/ 6/91-10/10/91	21.7	20.8	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	18.7	18.1	9.4	8.8	6.4	6.8	2.0	2.4
10/26/91-10/30/91	19.3	18.6	8.6	8.1	8.8	8.7	1.2	1.3
10/31/91-11/ 4/91	16.5	16.1	8.3	8.2	7.7	7.5	---	---
11/ 5/91-11/ 9/91	12.6	12.1	9.6	9.6	9.2	9.4	---	---
11/10/91-11/14/91	11.8	11.5	10.1	10.0	9.7	9.7	9.8	9.6
11/15/91-11/19/91	12.5	12.1	11.0	10.8	10.5	10.4	8.1	8.6
11/20/91-11/24/91	14.7	14.5	10.3	10.0	9.1	9.1	8.7	9.0
11/25/91-11/29/91	11.6	10.9	11.4	11.5	9.3	9.1	10.1	9.8
11/30/91-12/ 4/91	13.9	13.9	10.6	10.5	9.3	9.2	9.2	9.0
12/ 5/91-12/ 9/91	11.0	10.5	11.8	11.5	11.1	11.0	10.4	10.5
12/10/91-12/14/91	12.6	12.0	11.1	10.7	11.2	10.9	9.6	9.6
12/15/91-12/19/91	10.0	8.9	10.9	10.9	11.0	10.9	12.1	12.1
12/20/91-12/24/91	7.2	7.0	12.1	11.9	12.2	12.2	14.6	14.6
12/25/91-12/29/91	8.6	8.5	12.1	11.9	12.2	12.2	14.5	14.4
12/30/91- 1/ 3/92	9.7	9.8	12.5	12.3	12.5	12.5	13.2	13.1
1/ 4/92- 1/ 8/92	11.1	10.9	11.6	11.6	11.5	11.1	12.0	11.3
1/ 9/92- 1/13/92	10.9	10.9	10.6	10.5	9.7	9.6	9.6	9.6
1/14/92- 1/18/92	9.5	8.6	12.5	12.6	11.4	11.6	---	---
1/19/92- 1/23/92	7.4	7.4	13.8	13.7	12.7	12.6	---	---
1/24/92- 1/28/92	8.2	7.6	13.2	13.2	12.1	12.1	---	---
1/29/92- 2/ 2/92	---	---	---	---	---	---	---	---
2/ 3/92- 2/ 7/92	---	---	---	---	---	---	---	---
2/ 8/92- 2/12/92	---	---	---	---	---	---	---	---
2/13/92- 2/17/92	---	---	---	---	---	---	---	---
2/18/92- 2/22/92	---	---	---	---	---	---	---	---
2/23/92- 2/27/92	---	---	---	---	---	---	---	---
2/28/92- 3/ 3/92	13.8	13.1	13.5	12.7	8.8	9.5	3.8	4.0
3/ 4/92- 3/ 8/92	14.0	13.9	12.9	12.3	10.2	9.7	5.0	4.9
3/ 9/92- 3/13/92	14.0	13.7	11.5	10.9	8.8	9.4	8.7	8.5
3/14/92- 3/18/92	11.9	11.2	12.5	11.1	11.3	9.9	7.8	8.6
3/19/92- 3/23/92	---	---	---	---	---	---	---	---
3/24/92- 3/28/92	---	---	---	---	---	---	---	---
3/29/92- 4/ 2/92	12.9	12.2	11.2	10.1	12.7	11.6	6.8	7.1
4/ 3/92- 4/ 7/92	11.9	11.6	11.6	11.2	13.9	13.8	8.6	9.0
4/ 8/92- 4/12/92	16.1	15.8	11.9	11.1	12.4	13.0	7.5	7.9
4/13/92- 4/17/92	15.8	15.7	9.7	9.4	---	---	9.9	9.7
4/18/92- 4/22/92	19.3	19.2	9.8	9.3	---	---	7.8	7.8
4/23/92- 4/27/92	20.5	19.7	9.2	8.8	---	---	3.2	3.4
4/28/92- 5/ 2/92	17.8	17.3	10.4	10.2	---	---	5.4	6.5
5/ 3/92- 5/ 7/92	18.4	17.9	9.2	8.9	---	---	7.3	7.9
5/ 8/92- 5/12/92	17.5	17.3	9.8	9.8	8.9	8.9	9.4	9.1

**Table 7.--Five-day mean water temperature and dissolved-oxygen values in water at site 2,
October 1991-September 1992, for day and night periods--Continued**

PAMLICO RIVER AT LIGHT 5

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	21.5	21.3	10.7	10.2	7.4	7.7	4.1	5.8
5/18/92- 5/22/92	21.1	20.5	9.8	9.5	8.1	7.8	7.2	7.2
5/23/92- 5/27/92	21.7	21.0	10.9	10.2	5.1	5.3	3.6	3.4
5/28/92- 6/ 1/92	19.8	19.6	8.8	8.1	7.1	7.3	6.6	6.3
6/ 2/92- 6/ 6/92	23.2	22.4	6.6	5.7	5.8	5.4	5.8	5.4
6/ 7/92- 6/11/92	24.7	24.1	6.7	6.2	5.7	5.8	1.6	3.0
6/12/92- 6/16/92	24.2	23.5	8.5	7.0	7.5	6.6	4.2	4.6
6/17/92- 6/21/92	25.6	25.1	8.0	7.5	8.3	7.9	6.1	6.0
6/22/92- 6/26/92	26.1	25.7	9.1	8.1	10.1	8.9	4.7	4.7
6/27/92- 7/ 1/92	27.5	27.1	7.7	6.9	5.2	4.1	2.6	2.4
7/ 2/92- 7/ 6/92	28.0	27.8	7.6	6.9	4.6	3.5	1.2	1.8
7/ 7/92- 7/11/92	29.4	29.0	7.5	6.3	4.8	3.8	<1.0	<1.0
7/12/92- 7/16/92	30.0	29.3	7.1	6.2	5.4	5.5	1.1	1.5
7/17/92- 7/21/92	29.1	28.7	8.3	7.3	8.6	9.0	3.7	6.6
7/22/92- 7/26/92	29.7	29.3	7.8	7.0	9.2	9.2	5.6	5.9
7/27/92- 7/31/92	30.2	29.6	8.5	7.5	9.0	8.9	5.9	6.4
8/ 1/92- 8/ 5/92	29.0	28.4	7.7	6.6	6.8	6.4	5.8	6.3
8/ 6/92- 8/10/92	28.2	27.9	7.1	6.5	6.1	5.9	2.9	2.2
8/11/92- 8/15/92	28.3	27.6	6.2	5.0	5.6	5.3	1.4	1.3
8/16/92- 8/20/92	26.0	25.6	5.5	5.2	3.6	3.4	<1.0	<1.0
8/21/92- 8/25/92	25.3	25.3	5.9	5.9	5.5	6.1	1.0	1.3
8/26/92- 8/30/92	26.8	26.5	6.7	6.5	5.3	5.0	1.2	1.1
8/31/92- 9/ 4/92	27.5	27.1	8.4	7.8	5.9	6.0	1.7	1.7
9/ 5/92- 9/ 9/92	28.0	27.6	7.1	6.1	3.5	3.5	<1.0	<1.0
9/10/92- 9/14/92	27.0	26.3	5.9	5.7	8.3	8.7	3.2	3.7
9/15/92- 9/19/92	25.9	25.9	6.6	6.3	8.5	7.5	2.5	2.1
9/20/92- 9/24/92	26.1	25.4	6.1	5.6	6.0	6.5	1.6	2.1
9/25/92- 9/29/92	22.7	22.6	7.0	6.8	6.5	6.4	---	---

Table 8.--Vertical distributions of selected constituents in water at site 2, October 1991-September 1992

PAMLICO RIVER AT LIGHT 5

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (µS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 07...	1215	1.15	---	---	---	---	---	---
07...	1216	---	12.0	11,900	6.8	20.0	8.7	100
07...	1217	---	11.0	11,900	6.8	20.0	8.7	100
07...	1218	---	10.0	11,900	6.8	20.0	8.7	100
07...	1219	---	9.00	11,900	6.8	20.0	8.7	100
07...	1220	---	8.00	11,900	6.8	20.0	8.7	100
07...	1221	---	7.00	11,900	6.8	20.0	8.7	100
07...	1222	---	6.00	11,900	6.8	20.0	8.6	99
07...	1223	---	5.00	11,900	6.8	20.0	8.6	99
07...	1224	---	4.00	14,500	8.4	21.0	7.9	93
07...	1225	---	3.00	16,300	9.5	21.0	7.9	94
07...	1226	---	2.00	16,300	9.5	21.0	7.9	94
07...	1227	---	1.00	16,300	9.5	21.0	7.9	94
23...	1100	0.72	---	---	---	---	---	---
23...	1101	---	12.0	11,300	6.4	16.0	10.5	111
23...	1102	---	11.0	11,700	6.7	16.0	9.8	104
23...	1103	---	10.0	13,400	7.7	16.0	9.0	96
23...	1104	---	9.00	14,800	8.6	16.5	7.8	84
23...	1105	---	8.00	16,200	9.5	17.0	6.5	71
23...	1106	---	7.00	17,400	10.2	17.5	4.9	55
23...	1107	---	6.00	19,300	11.5	18.0	2.3	26
23...	1108	---	5.00	19,800	11.8	18.0	1.3	15
23...	1109	---	4.00	20,800	12.4	18.0	1.0	11
23...	1110	---	3.00	20,800	12.4	18.0	1.1	13
23...	1111	---	2.00	20,800	12.4	18.0	1.1	13
23...	1112	---	1.00	20,100	12.0	18.5	1.4	16
Nov. 20...	1230	1.03	---	---	---	---	---	---
20...	1231	---	12.0	20,000	11.9	13.0	11.0	113
20...	1232	---	10.0	20,700	12.4	13.0	11.0	113
20...	1233	---	8.00	21,400	12.8	12.0	7.8	79
20...	1234	---	6.00	22,300	13.4	12.0	7.8	79
20...	1235	---	4.00	22,700	13.7	12.5	6.2	64
20...	1236	---	2.00	23,300	14.1	12.5	5.6	57
Dec. 11...	1525	0.33	---	---	---	---	---	---
11...	1526	---	12.0	20,700	12.4	12.0	11.8	119
11...	1527	---	10.0	20,700	12.4	12.0	11.7	118
11...	1528	---	8.00	21,000	12.6	12.0	11.8	118
11...	1529	---	6.00	21,000	12.6	12.0	11.6	116
11...	1530	---	4.00	21,000	12.6	11.5	11.6	116
11...	1531	---	2.00	21,000	12.6	12.0	11.4	114
1992								
Jan. 10...	0920	1.36	---	---	---	---	---	---
10...	0921	---	14.0	3,070	1.6	11.0	9.6	88
10...	0922	---	12.0	3,490	1.8	11.0	9.5	87
10...	0923	---	10.0	16,300	9.5	11.0	---	---
10...	0924	---	8.00	20,200	12.0	11.0	9.5	93
10...	0925	---	6.00	21,800	13.1	11.0	---	---
10...	0926	---	4.00	22,300	13.4	11.0	9.8	97
10...	0927	---	2.00	22,300	13.4	11.0	9.8	97
Feb. 28...	1030	0.92	---	---	---	---	---	---
28...	1031	---	12.0	12,800	7.3	12.5	13.2	130
28...	1032	---	10.0	12,800	7.3	12.5	13.1	129
28...	1033	---	8.00	13,600	7.8	12.5	12.5	124
28...	1034	---	6.00	13,600	7.8	11.5	11.2	108
28...	1035	---	4.00	24,300	14.7	11.5	3.8	38

¹Water level from 02084472, Pamlico River at Washington.

**Table 8.--Vertical distributions of selected constituents in water at site 2,
October 1991-September 1992--Continued**

PAMLICO RIVER AT LIGHT 5

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific depth conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
Mar. 02...	1200	0.52	---	---	---	---	---	---
02...	1201	---	12.0	14,400	8.3	11.0	12.2	117
02...	1202	---	8.00	15,600	9.1	11.0	12.6	121
02...	1203	---	4.00	15,600	9.1	11.0	12.6	121
30...	1050	0.67	---	---	---	---	---	---
30...	1051	---	12.0	5,390	2.8	12.5	12.5	120
30...	1052	---	8.00	10,300	5.8	11.5	9.9	94
30...	1053	---	4.00	13,800	8.0	11.0	7.0	67
Apr. 17...	0950	0.37	---	---	---	---	---	---
17...	0951	---	12.0	13,900	8.0	16.0	9.0	96
17...	0952	---	8.00	13,900	8.0	16.0	9.0	96
17...	0953	---	4.00	13,900	8.0	16.0	9.0	96
May 12...	1215	1.09	---	---	---	---	---	---
12...	1216	---	12.0	11,300	6.4	18.0	9.5	105
12...	1217	---	8.00	11,600	6.6	18.0	9.5	105
12...	1218	---	4.00	11,800	6.7	18.0	9.5	105
June 01...	0930	0.72	---	---	---	---	---	---
01...	0931	---	12.0	10,300	5.8	21.0	7.7	90
01...	0932	---	8.00	10,800	6.1	21.0	7.4	86
01...	0933	---	4.00	11,800	6.7	20.5	5.6	65
16...	1020	1.23	---	---	---	---	---	---
16...	1021	---	12.0	8,500	4.7	26.0	9.7	123
16...	1022	---	8.00	12,000	6.8	25.5	8.8	112
16...	1023	---	7.00	12,200	7.0	25.0	8.4	106
16...	1024	---	6.00	12,800	7.3	25.0	3.5	44
16...	1025	---	5.00	14,400	8.3	23.5	1.8	22
16...	1026	---	4.00	15,100	8.8	23.5	1.7	21
16...	1027	---	3.00	15,300	8.9	23.5	0.5	6
July 13...	1045	-0.67	---	---	---	---	---	---
13...	1046	---	12.0	10,700	6.1	29.0	5.5	74
13...	1047	---	8.00	11,400	6.5	29.0	4.7	64
13...	1048	---	4.00	16,300	9.5	27.0	1.0	13
20...	1410	1.11	---	---	---	---	---	---
20...	1411	---	12.0	15,500	9.0	30.0	11.2	156
20...	1412	---	8.00	15,600	9.1	28.5	10.1	137
20...	1413	---	6.00	16,000	9.3	28.5	6.6	90
20...	1414	---	4.00	16,200	9.5	28.0	0.2	3
Aug. 03...	0955	0.62	---	---	---	---	---	---
03...	0956	---	12.0	15,600	9.1	28.5	6.8	93
03...	0957	---	8.00	15,600	9.1	28.5	6.6	90
03...	0958	---	4.00	15,600	9.1	28.5	6.5	88
Sept. 04...	0855	0.83	---	---	---	---	---	---
04...	0856	---	12.0	12,300	7.0	27.0	6.7	88
04...	0857	---	8.00	12,300	7.0	27.0	6.6	87
04...	0858	---	6.00	13,200	7.6	27.0	5.3	70
04...	0859	---	4.00	15,800	9.2	26.5	1.8	24

¹Water level from 02084472, Pamlico River at Washington.

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992

PAMLICO RIVER AT LIGHT 4

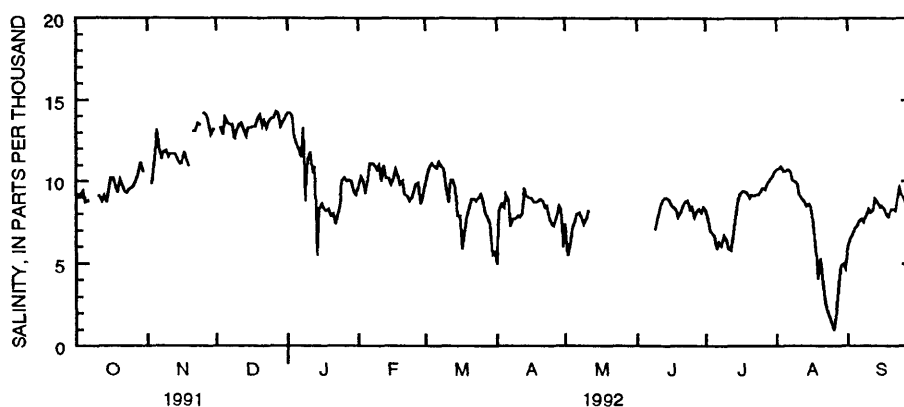
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.0 ppt December 24, 1991; minimum value recorded, 0.7 ppt August 26, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	---	---	14.2	9.6	9.8	5.0	7.4	---	8.2	10.7	6.0
2	9.2	---	---	14.2	10.3	10.4	8.2	5.5	---	7.6	10.8	6.5
3	9.2	9.9	13.3	14.1	10.1	10.9	8.6	6.1	---	7.0	10.9	6.8
4	9.4	11.4	12.9	12.7	9.3	11.1	8.4	7.1	---	6.8	10.6	7.1
5	8.7	13.2	13.9	12.3	9.9	10.9	9.2	7.5	---	6.7	10.6	7.3
6	8.8	12.0	13.6	11.9	11.1	10.8	8.8	8.0	---	5.9	10.7	7.6
7	---	11.4	13.5	11.5	11.1	11.2	7.3	8.1	---	6.3	10.6	7.7
8	---	11.8	13.5	13.3	11.0	10.9	7.7	7.7	---	6.1	10.1	7.5
9	---	11.9	12.6	8.8	10.7	10.7	7.7	7.4	7.1	6.7	10.0	7.9
10	---	11.5	13.1	11.4	11.0	9.8	7.9	7.7	7.9	6.4	9.9	8.3
11	9.1	11.7	13.5	11.8	10.0	8.7	7.8	8.2	8.5	5.9	9.2	8.1
12	8.8	11.7	13.6	10.5	11.0	10.1	8.1	---	8.8	5.8	8.9	8.2
13	9.1	11.7	13.2	10.9	10.2	10.1	9.6	---	9.0	6.6	8.8	8.9
14	8.7	11.4	12.8	5.5	10.2	9.6	9.1	---	9.0	7.8	8.5	8.7
15	9.4	11.1	13.3	8.3	9.8	7.9	9.0	---	8.8	8.9	8.6	8.4
16	10.2	11.1	13.3	8.6	10.1	7.9	9.0	---	8.5	9.2	8.4	8.5
17	10.2	11.8	13.4	8.3	10.7	5.9	8.7	---	8.4	9.4	7.4	8.3
18	9.8	11.3	13.4	8.2	10.4	6.8	8.7	---	8.3	9.4	5.8	7.9
19	9.3	11.0	13.9	8.3	9.8	7.9	8.8	---	7.8	9.3	4.1	7.8
20	10.1	---	14.1	7.9	10.0	8.3	8.9	---	8.1	9.0	5.3	8.3
21	9.8	13.1	13.4	8.0	9.2	8.9	8.8	---	8.5	9.2	4.2	8.3
22	9.4	13.1	13.7	7.4	9.1	8.9	8.4	---	8.7	9.1	2.9	8.2
23	9.3	13.6	13.3	7.9	8.8	8.8	8.5	---	8.8	9.2	2.1	9.1
24	9.5	13.5	13.7	8.5	9.0	9.0	7.7	---	8.3	9.2	1.8	9.6
25	9.6	---	13.9	10.0	9.4	9.2	7.4	---	8.4	9.4	1.3	9.1
26	9.7	14.2	13.9	10.2	9.8	8.7	7.3	---	7.8	9.6	1.0	8.7
27	10.1	14.1	14.3	10.0	9.9	8.0	7.8	---	8.2	9.5	2.1	8.1
28	10.4	13.4	14.2	10.1	8.6	7.8	8.5	---	8.3	9.8	3.8	9.5
29	11.2	12.9	13.4	10.0	9.1	7.4	8.3	---	8.1	10.1	4.9	9.6
30	10.6	13.2	13.6	9.4	---	5.6	6.0	---	8.4	10.3	5.0	9.7
31	---	---	13.9	9.2	---	5.7	---	---	---	10.5	4.7	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 3, PAMLICO RIVER AT LIGHT 4

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

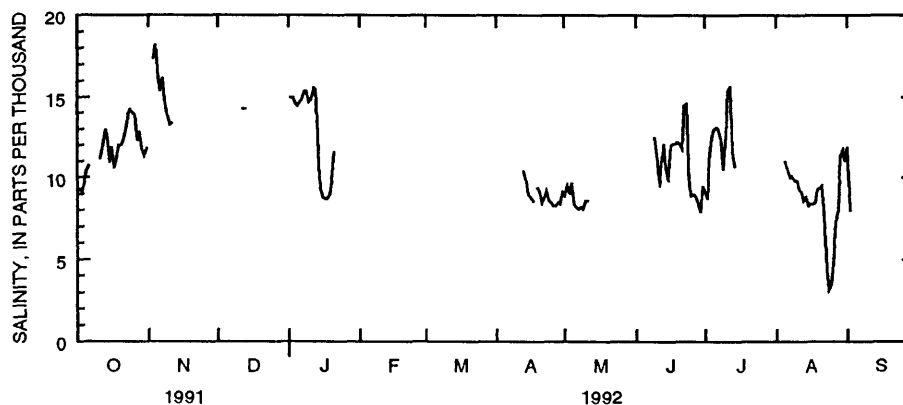
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 19.2 ppt November 4, 1991; minimum value recorded, 1.5 ppt August 25, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	---	---	---	---	---	---	8.9	---	9.1	---	11.9
2	9.3	---	---	15.0	---	---	---	9.5	---	8.7	---	8.0
3	9.2	17.4	---	15.0	---	---	---	9.0	---	11.1	---	---
4	9.7	18.2	---	14.6	---	---	---	9.7	---	12.5	---	---
5	10.4	16.2	---	14.5	---	---	---	8.4	---	13.0	11.0	---
6	10.7	15.4	---	14.7	---	---	---	8.2	---	13.1	10.5	---
7	---	16.2	---	14.9	---	---	---	8.1	---	13.0	10.0	---
8	---	14.9	---	15.4	---	---	---	8.2	---	12.4	10.1	---
9	---	13.9	---	15.4	---	---	---	8.1	12.5	10.5	9.8	---
10	---	13.3	---	14.7	---	---	---	8.6	11.4	12.7	9.8	---
11	11.2	13.4	---	14.9	---	---	---	8.6	9.5	15.4	9.3	---
12	12.0	---	14.3	15.6	---	---	---	---	10.9	15.7	9.1	---
13	13.0	---	14.3	15.5	---	---	10.4	---	12.1	11.6	8.6	---
14	12.5	---	---	11.6	---	---	9.8	---	10.6	10.7	8.8	---
15	10.9	---	---	9.3	---	---	9.0	---	9.8	---	8.3	---
16	11.9	---	---	8.8	---	---	8.8	---	12.0	---	8.4	---
17	10.6	---	---	8.7	---	---	8.6	---	12.1	---	8.4	---
18	11.0	---	---	8.7	---	---	---	---	12.1	---	8.5	---
19	12.0	---	---	9.0	---	---	9.4	---	12.2	---	9.3	---
20	12.0	---	---	9.8	---	---	9.2	---	12.1	---	9.4	---
21	12.3	---	---	11.6	---	---	8.5	---	11.8	---	9.5	---
22	13.0	---	---	---	---	---	8.8	---	14.5	---	7.7	---
23	13.9	---	---	12.9	---	---	9.2	---	14.6	---	4.4	---
24	14.2	---	---	---	---	---	8.6	---	9.6	---	3.2	---
25	14.0	---	---	---	---	---	8.5	---	8.9	---	3.5	---
26	13.9	---	---	---	---	---	8.3	---	9.0	---	4.8	---
27	12.3	---	---	---	---	---	8.3	---	8.8	---	7.3	---
28	12.9	---	---	---	---	---	8.5	---	8.4	---	8.0	---
29	11.8	---	---	---	---	---	8.4	---	7.9	---	11.3	---
30	11.4	---	---	---	---	---	9.1	---	9.5	---	11.7	---
31	11.8	---	---	---	---	---	---	---	---	---	11.0	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 3, PAMLICO RIVER AT LIGHT 4

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

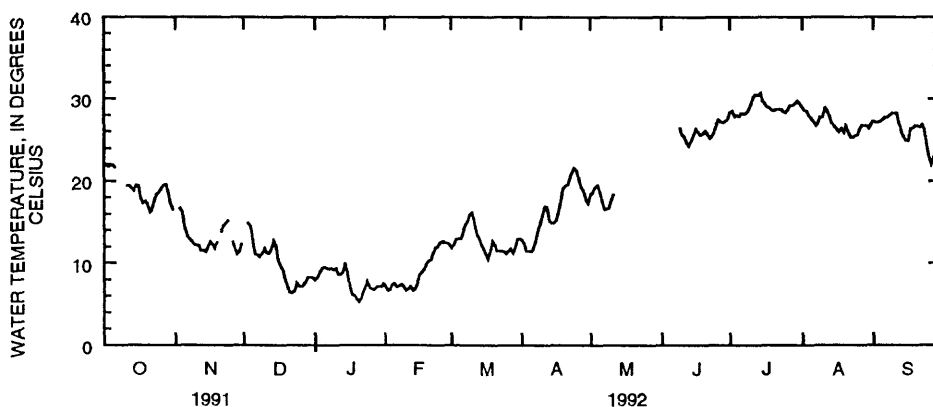
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.1 °C July 12, 1992; minimum value recorded, 4.6 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22.0	---	---	8.0	7.3	11.9	12.8	18.3	---	28.3	28.9	27.3
2	21.9	---	---	8.3	6.7	12.3	12.3	18.6	---	28.4	28.5	27.1
3	21.7	16.7	14.9	8.8	6.9	12.9	11.5	19.3	---	27.8	28.4	27.1
4	21.8	16.1	14.5	9.4	7.4	13.0	11.5	19.5	---	28.0	28.0	27.3
5	21.9	14.6	12.1	9.5	7.5	13.0	11.4	18.8	---	27.8	27.6	27.4
6	21.7	13.3	11.1	9.4	7.1	13.7	11.7	17.7	---	28.2	27.2	27.7
7	---	13.0	11.0	9.3	7.3	14.6	12.7	16.5	---	28.1	26.7	27.7
8	---	12.7	10.8	9.4	7.4	15.1	13.8	16.6	---	28.2	27.0	28.0
9	---	12.3	11.2	9.2	7.2	15.9	14.6	16.7	26.4	28.5	27.7	28.2
10	---	12.2	11.7	9.4	6.7	16.1	15.8	17.5	25.7	29.2	27.7	28.2
11	19.4	12.1	11.3	8.7	6.9	15.3	16.9	18.3	25.4	30.2	28.8	28.2
12	19.4	11.6	11.2	8.6	7.2	13.5	16.8	---	24.6	30.5	28.5	27.1
13	19.1	11.6	11.8	8.9	6.7	13.0	15.2	---	24.3	30.4	27.8	25.9
14	18.8	11.4	12.7	10.0	6.9	12.3	14.9	---	24.9	30.6	27.1	25.3
15	19.5	11.9	12.0	8.9	7.5	11.7	14.9	---	25.7	29.8	26.6	24.9
16	19.4	12.6	10.3	7.4	8.6	11.2	15.3	---	26.3	29.4	26.2	24.9
17	18.0	12.2	9.7	6.2	8.9	10.5	16.1	---	25.9	29.0	26.0	26.3
18	17.3	11.8	9.1	6.1	9.2	11.5	17.5	---	25.6	28.9	26.3	26.4
19	17.5	12.5	8.1	5.7	9.9	12.7	19.0	---	25.8	28.6	25.9	26.7
20	17.2	---	7.0	5.3	10.2	12.2	19.4	---	26.1	28.5	26.6	26.6
21	16.2	13.8	6.5	5.7	10.4	11.5	19.6	---	25.8	28.7	25.9	26.5
22	16.4	14.6	6.4	6.5	11.2	11.5	20.3	---	25.2	28.7	25.3	26.8
23	17.6	14.8	6.7	7.3	11.9	11.5	21.0	---	25.5	28.7	25.3	26.2
24	18.4	15.2	7.6	7.8	12.0	11.4	21.5	---	26.0	28.4	25.5	24.3
25	18.6	---	7.2	7.0	12.5	11.2	21.3	---	26.9	28.3	25.6	22.7
26	19.1	12.6	7.2	6.9	12.7	11.5	20.0	---	27.4	28.7	26.3	22.0
27	19.5	11.7	7.5	6.8	12.4	11.7	19.3	---	27.2	29.1	26.7	22.9
28	19.6	11.1	7.7	7.2	12.4	11.3	18.7	---	27.1	29.1	26.7	24.0
29	18.5	11.4	8.3	7.2	12.3	12.0	17.7	---	27.3	29.4	26.6	23.3
30	17.3	12.3	8.3	7.2	---	12.9	17.3	---	27.5	29.7	26.4	22.1
31	16.5	---	8.2	7.5	---	13.0	---	---	---	29.4	26.9	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 3, PAMLICO RIVER AT LIGHT 4

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

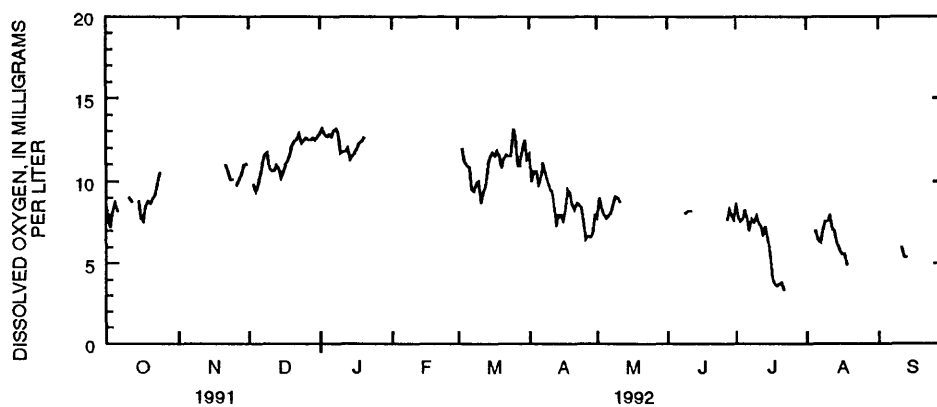
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.4 mg/L March 24, 1992; minimum value recorded, 2.6 mg/L July 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	---	---	12.9	---	---	11.6	7.8	---	8.7	---	---
2	7.7	---	---	13.1	---	---	10.0	9.0	---	7.8	---	---
3	7.2	---	9.8	12.8	---	11.9	10.6	8.3	---	7.6	---	---
4	8.3	---	9.4	12.7	---	11.2	10.6	8.0	---	7.7	---	---
5	8.7	---	9.7	12.8	---	10.9	9.7	7.8	---	8.3	7.0	---
6	8.2	---	10.4	12.7	---	10.8	10.2	7.9	---	7.7	6.4	---
7	---	---	10.9	13.0	---	9.5	11.1	8.1	---	7.0	6.3	---
8	---	---	11.6	13.1	---	9.4	10.5	8.7	---	7.7	7.0	---
9	---	---	11.7	12.9	---	9.9	10.0	9.1	8.1	7.5	7.6	---
10	---	---	10.8	11.7	---	10.0	9.5	9.0	8.2	7.9	7.6	---
11	9.0	---	10.6	11.8	---	8.7	9.4	8.8	8.2	7.5	8.0	6.0b
12	8.8	---	10.6	11.8	---	9.4	8.3	---	---	7.3	7.1	5.4b
13	---	---	10.9	12.0	---	9.7	7.3	---	---	6.7	7.0b	5.4b
14	---	---	10.7	11.3	---	10.9	8.0	---	---	7.3	6.2	---
15	8.8	---	10.2	11.5	---	11.4	8.0	---	---	6.5	5.8	---
16	7.8	---	10.6	11.7	---	11.7	7.5	---	---	5.6b	5.6b	---
17	7.6	---	10.9	12.0	---	11.5	8.5	---	---	4.1b	5.6b	---
18	8.5	---	11.2	12.3	---	11.8	9.5	---	---	3.7b	4.9b	---
19	8.8	---	11.6	12.4	---	11.5	9.3	---	---	3.6b	---	---
20	8.7	---	12.1	12.6	---	10.8	8.6	---	---	3.7b	---	---
21	8.9	10.9	12.4	---	---	11.3	8.3	---	---	3.8b	---	---
22	9.2	10.6	12.5	---	---	11.6	8.7	---	---	3.4b	---	---
23	10.0	10.1	12.8	---	---	11.5	8.6	---	---	---	---	---
24	10.5	10.1	12.3	---	---	11.5	8.4	---	---	---	---	---
25	---	---	12.5	---	---	13.1	7.4	---	---	---	---	---
26	---	9.8	12.6	---	---	12.7	6.5	---	---	---	---	---
27	---	10.1	12.5	---	---	10.9	6.7	---	7.7	---	---	---
28	---	10.5	12.5	---	---	10.9	6.6	---	8.3	---	---	---
29	---	10.9	12.6	---	---	11.9	6.8	---	7.9	---	---	---
30	---	11.0	12.5	---	---	12.5	7.9	---	7.7	---	---	---
31	---	---	12.7	---	---	11.3	---	---	---	---	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 3, PAMLICO RIVER AT LIGHT 4

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

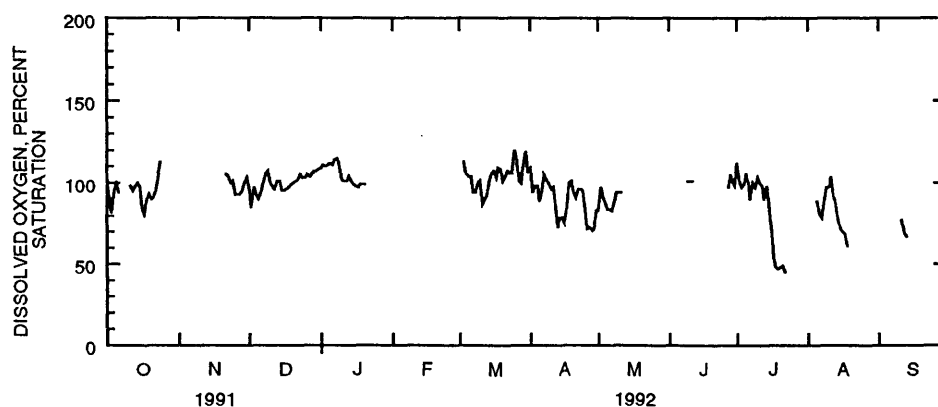
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 146 percent of saturation March 24, 1992; minimum value recorded, 34 percent of saturation July 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	---	---	109	---	---	109	83	---	112	---	---
2	88	---	---	111	---	---	94	97	---	100	---	---
3	82	---	97	110	---	113	98	91	---	97	---	---
4	95	---	92	111	---	106	98	88	---	99	---	---
5	99	---	90	112	---	104	89	84	---	106	89	---
6	94	---	94	111	---	104	95	84	---	100	81	---
7	---	---	99	114	---	94	105	83	---	90	79	---
8	---	---	105	115	---	94	102	89	---	100	88	---
9	---	---	107	112	---	100	99	94	101	97	97	---
10	---	---	100	102	---	101	96	94	101	103	97	---
11	98	---	97	101	---	87	97	94	101	100	104	77
12	95	---	96	101	---	90	86	---	---	98	92	69
13	---	---	101	104	---	92	73	---	---	90	89	67
14	---	---	101	101	---	102	79	---	---	98	79	---
15	97	---	95	99	---	105	79	---	---	87	72	---
16	85	---	95	98	---	107	75	---	---	74	70	---
17	81	---	96	97	---	103	86	---	---	54	69	---
18	89	---	97	99	---	109	100	---	---	48	61	---
19	93	---	99	99	---	108	101	---	---	47	---	---
20	90	---	100	99	---	101	94	---	---	48	---	---
21	91	105	101	---	---	104	91	---	---	49	---	---
22	95	104	102	---	---	107	96	---	---	45	---	---
23	105	100	105	---	---	106	96	---	---	---	---	---
24	113	101	103	---	---	106	95	---	---	---	---	---
25	---	---	103	---	---	120	84	---	---	---	---	---
26	---	93	105	---	---	116	72	---	---	---	---	---
27	---	93	104	---	---	101	73	---	97	---	---	---
28	---	95	105	---	---	100	71	---	105	---	---	---
29	---	100	107	---	---	111	72	---	100	---	---	---
30	---	103	107	---	---	119	83	---	98	---	---	---
31	---	---	108	---	---	107	---	---	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 3,
PAMLICO RIVER AT LIGHT 4**

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 13.4 mg/L January 7, 1992; minimum value recorded, <1.0 mg/L July 11, 12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (In mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	---	11.8	---	---	---	7.8	---	3.5b	---	---
2	---	---	---	11.9	---	---	11.2	9.1	---	3.1b	---	---
3	---	---	9.7	11.6	---	9.8	11.6	8.5	---	2.8b	---	---
4	---	---	9.3	11.4	---	9.0	11.8	8.1	---	2.8b	---	---
5	---	---	9.6	11.5	---	8.6	11.3	7.8	---	2.7b	6.6b	---
6	---	---	10.2	11.3	---	8.3	11.7	7.8	---	2.6a	---	---
7	---	---	10.7	11.6	---	7.1	12.1	7.9	---	2.4a	---	---
8	---	---	11.2	11.8	---	---	11.8	8.4	---	2.5a	---	---
9	---	---	11.4	11.0	---	---	11.4	8.9	6.8b	2.4b	---	---
10	---	---	10.6	10.3	---	---	11.0	8.9	7.4b	2.3b	---	---
11	9.3	---	10.5	10.6	---	---	11.0	8.8	7.7	2.0a	---	4.7b
12	7.8b	---	10.5	10.9	---	---	9.6	---	6.4b	1.7a	---	4.2b
13	8.2b	---	10.8	11.1	---	---	8.7	---	6.3b	4.8b	---	---
14	8.8	---	10.6	10.5	---	---	9.3	---	6.7	6.5b	---	---
15	8.5	---	10.1	10.7	---	---	9.3	---	6.9	6.5	---	---
16	7.1b	---	10.5	11.2	---	---	9.0	---	7.1	6.5	---	---
17	7.6	---	10.7	11.7	---	---	9.0	---	6.2b	6.4	---	---
18	8.4	---	11.0	12.0	---	---	9.5	---	6.2b	6.4	---	---
19	8.5	---	11.4	12.2	---	---	9.1	---	6.2	6.4	---	---
20	8.3	---	11.8	12.6	---	---	8.4	---	6.3	6.3	---	---
21	8.8	10.8	12.0	---	---	---	8.4	---	5.1b	6.2	---	---
22	9.0	10.6	12.1	---	---	---	8.7	---	---	5.1b	---	---
23	8.2	10.1	12.1	---	---	---	8.6	---	---	---	---	---
24	8.8	10.0	11.8	---	---	---	8.7	---	---	---	---	---
25	9.1	---	11.9	---	---	---	7.9	---	---	---	---	---
26	7.7b	9.7	11.9	---	---	---	7.5	---	---	---	---	---
27	8.7b	9.9	11.7	---	---	---	8.1	---	4.8b	---	---	---
28	8.8	10.3	11.7	---	---	---	7.8	---	3.5b	---	---	---
29	8.4b	10.5	11.6	---	---	---	7.9	---	3.3b	---	---	---
30	8.9	10.6	11.5	---	---	---	8.3	---	3.2b	---	---	---
31	9.3	---	11.7	---	---	---	---	---	---	---	---	---

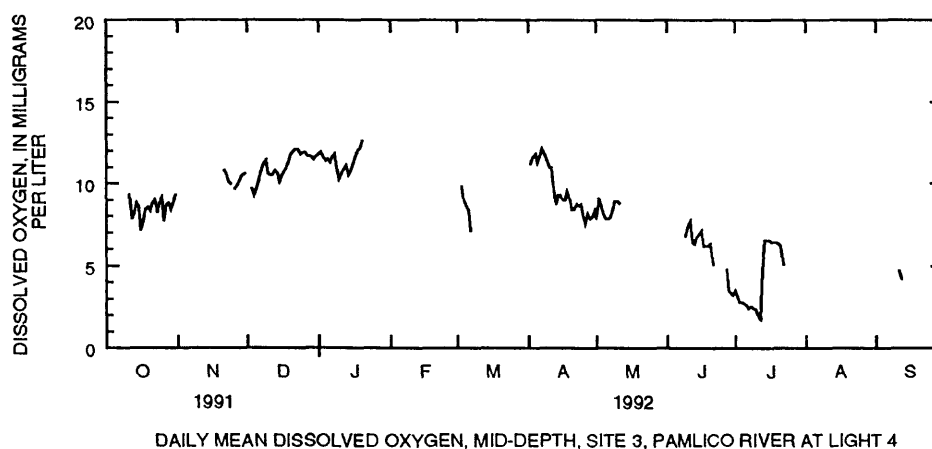


Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

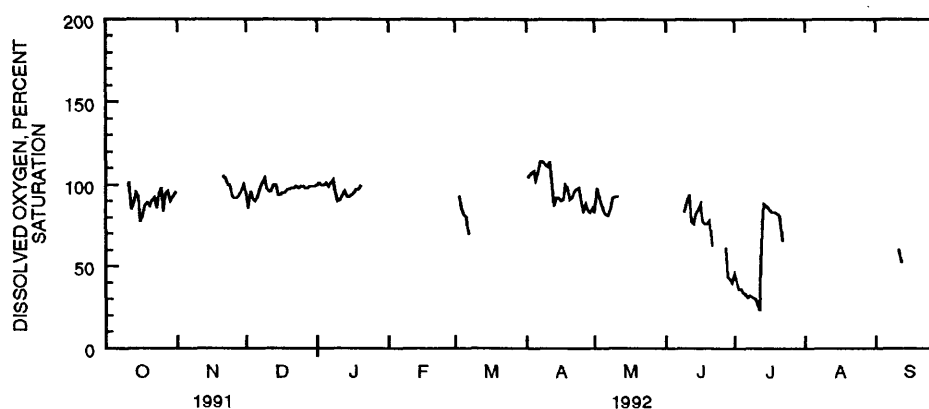
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 135 percent of saturation July 14, 1992; minimum value recorded, ≤10 percent of saturation July 11, 12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (In percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	---	100	---	---	---	83	---	45	---	---
2	---	---	---	101	---	---	105	98	---	40	---	---
3	---	---	96	100	---	93	107	92	---	36	---	---
4	---	---	91	100	---	86	108	88	---	36	---	---
5	---	---	90	101	---	82	103	84	---	34	84	---
6	---	---	93	99	---	80	108	82	---	33	---	---
7	---	---	97	101	---	70	114	81	---	31	---	---
8	---	---	101	103	---	---	114	86	---	32	---	---
9	---	---	104	96	---	---	112	92	84	31	---	---
10	---	---	98	90	---	---	111	93	90	30	---	---
11	101	---	96	91	---	---	114	93	94	27	---	60
12	85	---	96	94	---	---	99	---	77	23	---	53
13	89	---	100	96	---	---	87	---	76	64	---	---
14	95	---	100	93	---	---	92	---	82	88	---	---
15	93	---	94	93	---	---	92	---	85	87	---	---
16	77	---	94	94	---	---	90	---	88	86	---	---
17	81	---	95	95	---	---	91	---	77	84	---	---
18	87	---	95	97	---	---	100	---	76	83	---	---
19	89	---	97	97	---	---	98	---	76	83	---	---
20	87	---	97	99	---	---	91	---	78	82	---	---
21	90	105	98	---	---	---	92	---	63	81	---	---
22	92	104	98	---	---	---	96	---	---	66	---	---
23	86	100	99	---	---	---	97	---	---	---	---	---
24	94	100	98	---	---	---	98	---	---	---	---	---
25	98	---	99	---	---	---	89	---	---	---	---	---
26	84	92	99	---	---	---	83	---	---	---	---	---
27	95	92	98	---	---	---	88	---	61	---	---	---
28	96	94	98	---	---	---	84	---	44	---	---	---
29	90	96	99	---	---	---	83	---	42	---	---	---
30	93	100	99	---	---	---	86	---	40	---	---	---
31	95	---	99	---	---	---	---	---	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 3,
PAMLICO RIVER AT LIGHT 4**

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

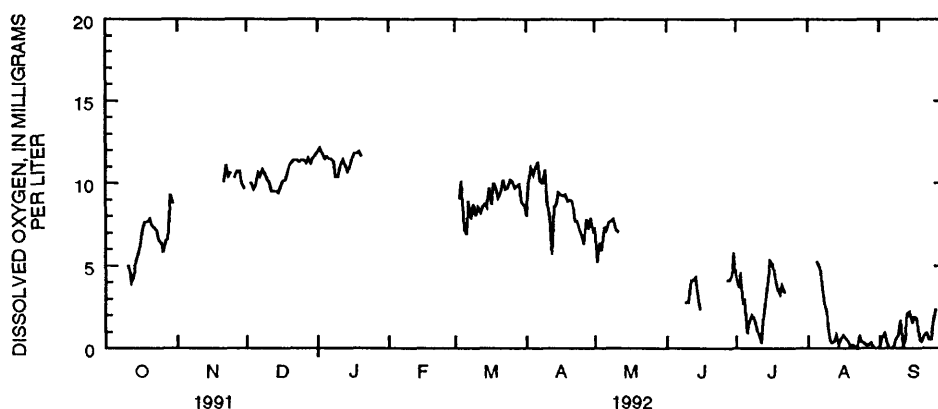
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 12.8 mg/L January 19, 20, 1992; minimum value recorded, <1.0 mg/L March 6, June 11, July 1, 4, 6-15, August 9-31, September 1-15, 17-25, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	---	11.9	---	---	8.0	7.2b	---	4.2a	---	<1.0a
2	---	---	---	12.1	---	---	9.9	5.2b	---	3.7a	---	<1.0a
3	---	---	10.0	11.8	---	9.1	10.9	6.4b	---	4.6a	---	<1.0a
4	---	---	9.6	11.5	---	10.1	10.5	5.9b	---	2.8a	---	<1.0a
5	---	---	9.8	11.6	---	7.2a	10.9	7.3b	---	2.9a	5.2b	<1.0a
6	---	---	10.6	11.5	---	6.9a	11.3	7.1	---	<1.0a	4.9b	<1.0a
7	---	---	10.4	11.5	---	8.9	10.1	7.6	---	1.5a	3.6b	<1.0a
8	---	---	10.8	11.3	---	7.8	10.0	7.7	---	2.0a	2.7a	<1.0a
9	---	---	10.5	10.4	---	8.7	10.8	7.8	2.8a	1.8a	2.2a	<1.0a
10	---	---	10.3	10.4	---	8.0b	8.6	7.2	2.8a	1.2a	<1.0a	1.7a
11	5.0b	---	10.0	11.1	---	8.5	7.9	7.1b	4.1a	<1.0a	<1.0a	<1.0a
12	4.0b	---	9.5	11.4	---	8.2	5.7b	---	4.1a	<1.0a	<1.0a	<1.0a
13	4.4b	---	9.5	11.1	---	8.5	8.5	---	4.3a	1.6a	<1.0a	2.1a
14	5.2b	---	9.5	10.7	---	8.7	8.7	---	3.4a	2.9a	<1.0a	2.2a
15	5.7b	---	9.4	10.9	---	8.5	9.4	---	2.4a	4.2a	<1.0a	1.5a
16	6.2b	---	9.8	11.5	---	9.7	9.3	---	---	5.3b	<1.0a	1.9a
17	7.2	---	10.1	11.8	---	8.7	9.2	---	---	5.1b	<1.0a	1.8a
18	7.6	---	10.2	11.8	---	10.0	9.3	---	---	4.4b	<1.0a	<1.0a
19	7.6	---	10.7	11.9	---	9.6	8.9	---	---	3.6b	<1.0a	<1.0a
20	7.8	---	11.1	11.7	---	9.1	9.0	---	---	3.3b	<1.0a	<1.0a
21	7.4	10.1	11.3	---	---	9.4	8.9	---	---	3.8b	<1.0a	<1.0a
22	7.3	11.1	11.4	---	---	10.2	7.7b	---	---	3.4b	<1.0a	<1.0a
23	7.1	10.4	11.4	---	---	9.6	7.7b	---	---	---	<1.0a	<1.0a
24	6.5	10.6	11.3	---	---	9.7	7.2b	---	---	---	<1.0a	1.5a
25	6.4b	---	11.4	---	---	10.2	6.8b	---	---	---	<1.0a	2.3a
26	5.8b	10.4	11.4	---	---	10.1	6.3b	---	---	---	<1.0a	---
27	6.5b	10.7	11.2	---	---	9.7	7.8	---	4.1a	---	<1.0a	---
28	6.6	10.7	11.5	---	---	9.8	7.2b	---	4.1a	---	<1.0a	---
29	9.3	10.0	11.2	---	---	9.9	7.9	---	4.4a	---	<1.0a	---
30	8.8	9.7	11.5	---	---	8.8	7.1	---	5.8a	---	<1.0a	---
31	---	---	11.7	---	---	8.7	---	---	---	---	<1.0a	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 3, PAMLICO RIVER AT LIGHT 4

Table 9.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 3, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 4

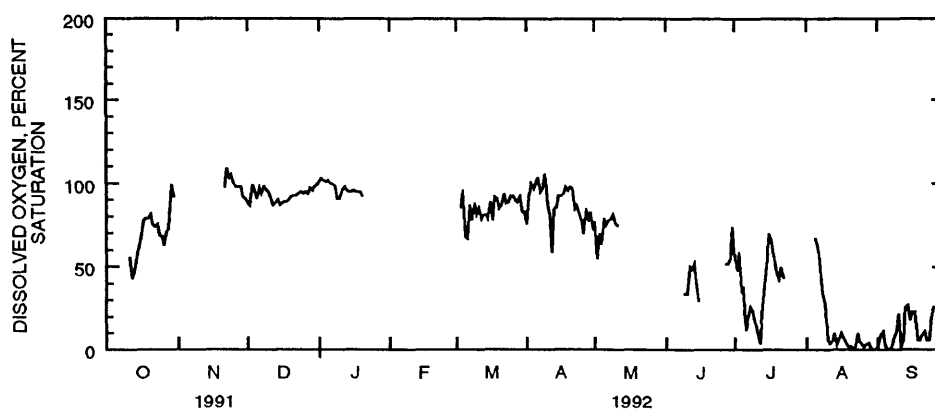
[Site 3 is at latitude 35°24'47", longitude 76°45'52", Beaufort County; U.S. Geological Survey downstream order number 0208454253]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 123 percent of saturation April 9, 1992; minimum value recorded, ≤10 percent of saturation March 6, June 11, July 1, 4, 6-15, August 9-31, September 1-25, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	---	101	---	---	76	77	---	55	---	≤10
2	---	---	---	103	---	---	92	55	---	48	---	≤10
3	---	---	99	102	---	86	100	70	---	59	---	11
4	---	---	95	101	---	96	97	64	---	36	---	≤10
5	---	---	91	102	---	68	100	79	---	37	67	≤10
6	---	---	97	100	---	67	104	75	---	12	62	≤10
7	---	---	94	100	---	87	95	78	---	19	45	≤10
8	---	---	98	98	---	78	97	79	---	26	34	≤10
9	---	---	96	91	---	88	106	81	34	23	28	11
10	---	---	95	91	---	81	87	76	34	15	≤10	22
11	55	---	91	96	---	85	82	75	50	10	≤10	≤10
12	43	---	87	98	---	79	59	---	49	≤10	≤10	≤10
13	48	---	88	96	---	81	85	---	52	22	10	26
14	56	---	90	95	---	81	86	---	41	39	≤10	27
15	62	---	87	95	---	79	93	---	30	55	≤10	18
16	67	---	88	96	---	89	93	---	---	70	10	23
17	77	---	89	95	---	78	94	---	---	66	≤10	23
18	79	---	89	95	---	92	98	---	---	57	≤10	≤10
19	79	---	91	95	---	91	96	---	---	47	≤10	≤10
20	81	---	92	93	---	85	98	---	---	43	≤10	≤10
21	75	98	93	---	---	87	97	---	---	50	≤10	11
22	74	109	93	---	---	94	85	---	---	44	≤10	≤10
23	75	103	94	---	---	88	87	---	---	---	10	≤10
24	69	105	95	---	---	89	82	---	---	---	≤10	17
25	68	---	94	---	---	93	77	---	---	---	≤10	26
26	63	98	95	---	---	93	70	---	---	---	≤10	---
27	71	98	94	---	---	90	85	---	52	---	≤10	---
28	73	98	97	---	---	89	77	---	52	---	≤10	---
29	99	92	96	---	---	92	83	---	55	---	≤10	---
30	92	91	98	---	---	83	74	---	74	---	≤10	---
31	---	---	99	---	---	83	---	---	---	---	≤10	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 3,
PAMLICO RIVER AT LIGHT 4**

**Table 10.--Five-day mean water temperature and dissolved-oxygen values in water at site 3,
October 1991-September 1992, for day and night periods**

PAMLICO RIVER AT LIGHT 4

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	21.9	21.8	8.3	8.0	---	---	---	---
10/ 6/91-10/10/91	20.7	19.8	8.4	7.9	7.8	8.4	6.7	6.0
10/11/91-10/15/91	19.4	19.2	9.3	8.7	8.6	8.1	4.8	4.8
10/16/91-10/20/91	17.8	17.3	8.4	8.2	8.2	8.0	7.4	7.4
10/21/91-10/25/91	17.5	17.8	10.0	9.5	9.1	8.4	6.9	6.7
10/26/91-10/30/91	18.8	18.4	---	---	8.5	8.6	7.5	7.5
10/31/91-11/ 4/91	16.6	16.2	---	---	9.3	9.1	---	---
11/ 5/91-11/ 9/91	13.1	12.8	---	---	---	---	---	---
11/10/91-11/14/91	11.8	11.6	---	---	---	---	---	---
11/15/91-11/19/91	12.4	12.2	---	---	---	---	---	---
11/20/91-11/24/91	14.5	14.3	10.7	10.3	10.7	10.2	11.2	10.1
11/25/91-11/29/91	12.1	11.8	10.4	10.1	10.2	9.9	10.5	10.3
11/30/91-12/ 4/91	13.8	13.7	10.6	10.0	10.5	9.9	10.2	10.0
12/ 5/91-12/ 9/91	11.3	11.0	11.1	10.9	10.8	10.7	10.5	10.4
12/10/91-12/14/91	11.9	11.7	10.8	10.5	10.7	10.4	9.9	9.5
12/15/91-12/19/91	9.7	9.1	11.0	11.1	10.8	10.9	10.1	10.2
12/20/91-12/24/91	6.9	6.8	12.5	12.4	12.0	11.9	11.4	11.2
12/25/91-12/29/91	7.7	7.6	12.6	12.5	11.8	11.7	11.4	11.3
12/30/91- 1/ 3/92	8.4	8.4	12.8	12.8	11.7	11.7	11.8	11.8
1/ 4/92- 1/ 8/92	9.4	9.4	13.0	12.8	11.6	11.4	11.5	11.4
1/ 9/92- 1/13/92	8.9	9.0	12.2	11.7	10.9	10.6	10.9	10.8
1/14/92- 1/18/92	7.7	7.2	11.9	11.8	11.3	11.3	11.4	11.4
1/19/92- 1/23/92	6.2	6.3	12.6	12.5	12.5	12.5	12.0	11.7
1/24/92- 1/28/92	7.2	6.9	---	---	---	---	---	---
1/29/92- 2/ 2/92	7.3	7.0	---	---	---	---	---	---
2/ 3/92- 2/ 7/92	7.3	7.3	---	---	---	---	---	---
2/ 8/92- 2/12/92	7.2	6.9	---	---	---	---	---	---
2/13/92- 2/17/92	7.8	8.0	---	---	---	---	---	---
2/18/92- 2/22/92	10.3	10.5	---	---	---	---	---	---
2/23/92- 2/27/92	12.3	12.3	---	---	---	---	---	---
2/28/92- 3/ 3/92	12.5	12.3	12.0	11.7	9.8	9.7	9.6	10.3
3/ 4/92- 3/ 8/92	14.1	14.1	10.3	10.0	8.1	8.2	8.2	7.7
3/ 9/92- 3/13/92	14.9	14.1	9.8	9.4	---	---	8.9	8.0
3/14/92- 3/18/92	11.7	11.2	11.9	11.3	---	---	9.3	9.0
3/19/92- 3/23/92	12.0	11.6	11.6	11.0	---	---	9.7	9.4
3/24/92- 3/28/92	11.7	11.2	12.1	11.6	---	---	10.0	9.8
3/29/92- 4/ 2/92	12.9	12.3	11.8	10.8	12.4	10.7	9.3	8.8
4/ 3/92- 4/ 7/92	12.1	11.7	10.6	10.4	11.9	11.6	10.9	10.5
4/ 8/92- 4/12/92	15.9	15.6	9.7	8.9	11.1	10.3	8.8	8.3
4/13/92- 4/17/92	15.4	15.3	8.2	7.8	9.3	8.9	9.2	9.0
4/18/92- 4/22/92	19.4	19.5	9.2	8.5	9.1	8.4	8.9	8.2
4/23/92- 4/27/92	20.8	20.2	7.6	7.2	8.3	8.0	7.4	7.0
4/28/92- 5/ 2/92	18.3	18.0	7.7	7.8	8.2	8.2	7.0	6.4
5/ 3/92- 5/ 7/92	18.3	18.0	8.1	8.0	8.0	7.9	7.2	7.0
5/ 8/92- 5/12/92	17.6	17.4	9.1	8.9	8.9	8.7	7.7	7.0

Table 10.--Five-day mean water temperature and dissolved-oxygen values in water at site 3, October 1991-September 1992, for day and night periods--Continued

PAMLICO RIVER AT LIGHT 4

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	---	---	---	---	---	---	---	---
5/18/92- 5/22/92	---	---	---	---	---	---	---	---
5/23/92- 5/27/92	---	---	---	---	---	---	---	---
5/28/92- 6/ 1/92	---	---	---	---	---	---	---	---
6/ 2/92- 6/ 6/92	---	---	---	---	---	---	---	---
6/ 7/92- 6/11/92	26.1	25.7	8.6	8.0	7.8	6.9	3.4	3.4
6/12/92- 6/16/92	25.2	25.2	---	---	6.8	6.5	3.7	3.1
6/17/92- 6/21/92	26.0	25.6	---	---	6.1	5.9	---	---
6/22/92- 6/26/92	26.4	26.2	8.5	7.0	7.8	5.4	6.2	3.8
6/27/92- 7/ 1/92	27.7	27.5	8.3	8.0	3.6	3.4	4.8	4.1
7/ 2/92- 7/ 6/92	28.1	27.8	8.0	7.5	2.7	2.7	3.2	2.7
7/ 7/92- 7/11/92	29.1	28.9	7.9	7.2	2.3	2.2	1.4	1.2
7/12/92- 7/16/92	30.3	29.8	7.0	5.9	5.6	5.5	3.4	3.1
7/17/92- 7/21/92	28.9	28.5	3.9	3.5	6.6	6.0	4.2	3.7
7/22/92- 7/26/92	28.7	28.4	3.6	3.1	5.0	4.4	3.2	3.6
7/27/92- 7/31/92	29.5	29.2	---	---	---	---	---	---
8/ 1/92- 8/ 5/92	28.4	27.9	7.7	6.8	7.2	6.7	5.5	5.0
8/ 6/92- 8/10/92	27.4	27.2	7.3	6.9	---	---	2.7	2.1
8/11/92- 8/15/92	27.8	27.3	7.1	6.2	---	---	<1.0	<1.0
8/16/92- 8/20/92	26.2	26.1	5.8	4.8	---	---	<1.0	<1.0
8/21/92- 8/25/92	25.7	25.4	---	---	---	---	<1.0	<1.0
8/26/92- 8/30/92	26.8	26.3	---	---	---	---	<1.0	<1.0
8/31/92- 9/ 4/92	27.4	27.0	---	---	---	---	<1.0	<1.0
9/ 5/92- 9/ 9/92	28.0	27.7	---	---	---	---	<1.0	<1.0
9/10/92- 9/14/92	27.0	26.4	5.9	5.6	4.5	4.6	1.6	1.1
9/15/92- 9/19/92	26.0	25.9	---	---	---	---	1.2	1.2
9/20/92- 9/24/92	26.1	25.5	---	---	---	---	1.0	<1.0
9/25/92- 9/29/92	23.0	22.9	---	---	---	---	2.3	2.4

Table 11.--Vertical distributions of selected constituents in water at site 3, October 1991-September 1992

PAMLICO RIVER AT LIGHT 4

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (μS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 07...	1050	0.96	---	---	---	---	---	---
07...	1051	---	14.0	17,700	10.4	20.0	8.2	96
07...	1052	---	13.0	17,300	10.2	20.0	8.2	96
07...	1053	---	12.0	17,300	10.2	20.0	8.1	95
07...	1054	---	11.0	17,300	10.2	20.0	8.1	95
07...	1055	---	10.0	17,300	10.2	20.0	8.0	94
07...	1056	---	9.00	17,300	10.2	20.0	8.0	94
07...	1057	---	8.00	17,300	10.2	20.0	8.0	94
07...	1058	---	7.00	17,300	10.2	20.0	7.8	91
07...	1059	---	6.00	17,300	10.2	20.0	7.8	91
07...	1100	---	5.00	17,300	10.2	20.0	7.8	91
07...	1101	---	4.00	17,300	10.2	20.0	7.8	91
07...	1102	---	3.00	17,300	10.2	20.0	7.7	90
07...	1103	---	2.00	17,300	10.2	20.0	7.5	88
07...	1104	---	1.00	17,300	10.2	20.0	7.5	88
10...	1140	0.86	---	---	---	---	---	---
10...	1141	---	12.0	15,900	9.3	19.0	9.0	103
10...	1142	---	11.0	15,900	9.3	19.0	8.6	98
10...	1143	---	10.0	17,000	10.0	19.0	7.6	87
10...	1144	---	9.00	18,500	10.9	19.0	7.5	87
10...	1145	---	8.00	18,500	10.9	19.0	7.5	87
10...	1146	---	7.00	18,500	10.9	19.0	8.2	95
10...	1147	---	6.00	18,500	10.9	19.0	7.5	87
10...	1148	---	5.00	18,800	11.1	19.0	7.8	90
10...	1149	---	4.00	18,800	11.1	19.0	8.5	98
10...	1150	---	3.00	19,000	11.3	19.0	7.7	89
10...	1151	---	2.00	19,000	11.3	19.0	7.7	89
10...	1152	---	1.00	19,000	11.3	19.0	7.7	89
18...	0940	0.62	---	---	---	---	---	---
18...	0941	---	11.0	16,400	9.6	17.0	8.3	91
18...	0942	---	10.0	16,400	9.6	17.0	8.2	90
18...	0943	---	9.00	16,600	9.7	17.0	8.2	90
18...	0944	---	8.00	16,700	9.8	17.0	8.1	89
18...	0945	---	7.00	17,200	10.1	17.0	8.0	88
18...	0946	---	6.00	17,600	10.4	17.0	7.8	86
18...	0947	---	5.00	18,600	11.0	17.0	7.7	85
18...	0948	---	4.00	18,700	11.1	17.0	7.5	83
18...	0949	---	3.00	19,200	11.4	17.0	7.5	83
18...	0950	---	2.00	19,500	11.6	17.0	7.5	83
18...	0951	---	1.00	19,900	11.8	17.0	7.3	81
Nov. 01...	1220	2.24	---	---	---	---	---	---
01...	1221	---	12.0	15,900	9.3	17.0	10.1	111
01...	1222	---	11.0	16,100	9.4	16.5	10.2	111
01...	1223	---	10.0	16,200	9.5	16.5	10.2	110
01...	1224	---	9.00	16,800	9.8	16.0	10.2	110
01...	1225	---	8.00	18,000	10.6	16.0	9.8	106
01...	1226	---	7.00	19,000	11.3	16.5	9.4	103
01...	1227	---	6.00	19,700	11.7	16.5	9.4	104
01...	1228	---	5.00	20,100	12.0	16.5	9.0	99
01...	1229	---	4.00	20,300	12.1	16.5	8.9	99
01...	1230	---	3.00	21,300	12.8	16.5	8.6	96
01...	1231	---	2.00	21,200	12.7	16.5	8.7	97
01...	1232	---	1.00	21,200	12.7	16.5	8.7	97

¹Water level from 02084472, Pamlico River at Washington.

**Table 11.--Vertical distributions of selected constituents in water at site 3,
October 1991-September 1992---Continued**

PAMLICO RIVER AT LIGHT 4

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (µS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991 (Continued)								
Nov. 20...	1120	0.80	---	---	---	---	---	---
20...	1121	---	10.0	21,200	12.7	13.0	11.8	121
20...	1122	---	8.00	21,200	12.7	13.0	11.8	121
20...	1123	---	6.00	21,200	12.7	13.0	11.8	121
20...	1124	---	4.00	21,200	12.7	13.0	11.6	119
20...	1125	---	2.00	21,600	13.0	13.0	11.2	115
Dec. 11...	1450	0.34	---	---	---	---	---	---
11...	1451	---	14.0	22,300	13.4	12.0	11.5	116
11...	1452	---	12.0	22,300	13.4	11.5	11.5	115
11...	1453	---	10.0	22,300	13.4	11.5	11.2	112
11...	1454	---	8.00	22,300	13.4	11.5	11.2	112
11...	1455	---	6.00	22,800	13.7	11.5	11.0	110
11...	1456	---	4.00	22,600	13.6	11.5	10.8	109
11...	1457	---	2.00	23,300	14.1	11.5	10.0	101
1992								
Jan. 21...	1035	0.34	---	---	---	---	---	---
21...	1036	---	10.0	13,600	7.8	5.5	12.4	104
21...	1037	---	6.00	14,500	8.4	5.0	12.5	104
21...	1038	---	2.00	16,700	9.8	5.0	12.5	105
Mar. 02...	1035	0.33	---	---	---	---	---	---
02...	1036	---	10.0	17,500	10.3	12.0	12.0	119
02...	1037	---	6.00	19,500	11.6	12.0	9.6	96
02...	1038	---	2.00	20,000	11.9	12.0	8.6	86
Apr. 01...	1300	1.06	---	---	---	---	---	---
01...	1301	---	10.0	7,300	4.0	13.0	12.4	121
01...	1302	---	8.00	7,370	4.0	13.0	12.4	121
01...	1303	---	6.00	7,390	4.0	13.0	12.1	119
01...	1304	---	4.00	16,000	9.3	12.5	10.3	102
01...	1305	---	2.00	18,000	10.6	12.0	8.2	81
17...	0840	0.48	---	---	---	---	---	---
17...	0841	---	10.0	14,900	8.7	15.5	8.0	85
17...	0842	---	6.00	14,900	8.7	15.5	8.0	85
17...	0843	---	4.00	14,900	8.7	15.5	8.0	85
17...	0844	---	2.00	14,900	8.7	15.5	8.0	85
May 12...	1020	0.96	---	---	---	---	---	---
12...	1021	---	10.0	14,300	8.3	18.0	8.7	97
12...	1022	---	6.00	14,300	8.3	18.0	8.5	95
12...	1023	---	2.00	15,200	8.8	18.0	5.3	59
June 08...	1345	1.09	---	---	---	---	---	---
08...	1346	---	10.0	12,900	7.4	27.0	9.7	107
08...	1347	---	6.00	14,100	8.1	24.0	7.9	99
08...	1348	---	2.00	17,400	10.2	23.0	3.1	39
26...	0925	0.41	---	---	---	---	---	---
26...	0926	---	10.0	13,600	7.8	27.0	8.0	105
26...	0927	---	6.00	15,100	8.8	26.5	7.0	92
26...	0928	---	2.00	16,500	9.7	26.0	5.4	71

¹Water level from 02084472, Pamlico River at Washington.

**Table 11.--Vertical distributions of selected constituents in water at site 3,
October 1991-September 1992--Continued**

PAMLICO RIVER AT LIGHT 4

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
July 13...	0800	-0.50	---	---	---	---	---	---
13...	0801	---	10.0	10,400	5.9	29.5	6.4	87
13...	0802	---	6.00	10,400	5.9	29.5	6.1	83
13...	0803	---	4.00	16,000	9.3	28.5	2.0	27
13...	0804	---	3.00	20,100	12.0	27.5	0.1	1
13...	0805	---	2.00	20,100	12.0	27.5	0.1	1
Aug. 04...	1110	0.52	---	---	---	---	---	---
04...	1111	---	10.0	17,400	10.2	27.5	7.1	96
04...	1112	---	6.00	17,400	10.2	27.5	6.4	86
04...	1113	---	2.00	17,800	10.5	27.5	5.7	77
Sept. 10...	1125	0.40	---	---	---	---	---	---
10...	1126	---	12.0	14,000	8.1	28.0	6.5	87
10...	1127	---	10.0	14,700	8.5	28.0	6.2	83
10...	1128	---	8.00	14,800	8.6	27.0	6.2	82
10...	1129	---	6.00	15,600	9.1	27.0	4.3	57
10...	1130	---	4.00	22,800	13.7	27.0	0	0
10...	1131	---	2.00	23,300	14.1	27.0	0	0

¹Water level from 02084472, Pamlico River at Washington.

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992

PAMLICO RIVER AT LIGHT 3

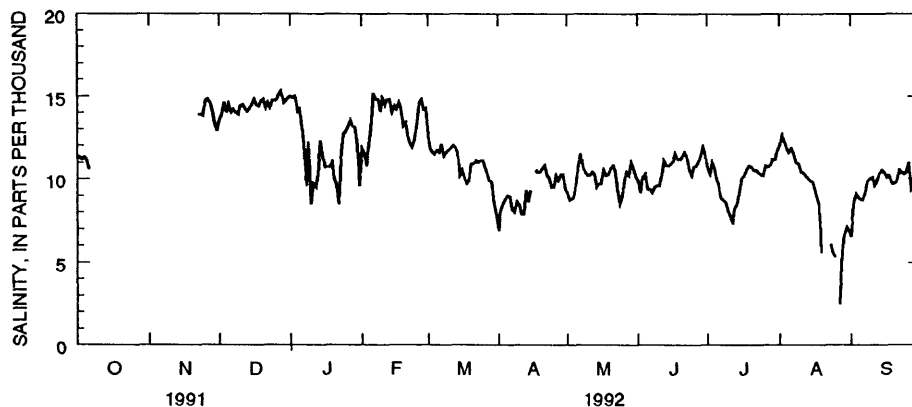
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 9208455155]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.9 ppt February 6, 1992; minimum value recorded, 1.9 ppt August 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11.4	---	13.6	15.0	11.8	12.6	6.9	9.2	9.9	10.6	12.0	6.5
2	11.3	---	13.8	14.9	11.5	11.8	8.1	8.7	9.2	10.3	12.6	8.5
3	11.2	---	14.6	15.0	10.8	11.6	8.5	8.8	10.1	11.0	12.3	9.1
4	11.3	---	14.0	14.1	12.1	11.5	8.8	8.9	10.3	10.6	11.8	8.9
5	11.2	---	14.5	14.2	13.0	11.7	9.0	9.9	9.4	10.0	11.6	8.7
6	10.6	---	14.0	13.1	15.2	11.6	8.9	10.9	9.4	9.6	11.8	8.7
7	---	---	14.2	12.1	14.8	12.1	8.2	11.5	9.2	8.9	11.5	9.2
8	---	---	14.0	9.6	14.8	11.4	8.0	10.6	9.5	8.7	11.0	9.8
9	---	---	13.9	12.2	14.1	11.6	8.6	10.4	9.6	8.6	10.9	10.0
10	---	---	14.4	8.5	14.9	11.7	8.4	10.2	9.6	8.1	10.4	10.1
11	---	---	14.5	9.7	14.5	11.8	7.9	10.2	10.3	7.8	10.4	9.6
12	---	---	14.3	9.5	14.8	12.0	7.9	10.4	11.1	7.3	10.2	9.8
13	---	---	14.1	10.3	14.8	11.9	9.3	10.3	10.8	8.2	10.1	10.3
14	---	---	14.3	12.3	14.0	11.6	8.6	9.5	10.8	8.5	9.9	10.5
15	---	---	14.5	11.5	14.4	10.2	9.3	9.7	10.9	9.3	9.8	10.4
16	---	---	14.8	10.7	14.2	10.5	---	9.7	11.1	10.0	9.5	10.1
17	---	---	14.5	10.7	14.6	10.0	10.5	10.5	11.5	10.2	8.9	10.2
18	---	---	14.4	10.7	14.3	9.7	10.4	10.2	11.2	10.5	8.4	9.7
19	---	---	14.7	11.0	13.2	9.9	10.4	10.3	11.2	10.8	5.6	9.7
20	---	---	14.8	10.1	13.4	10.9	10.6	10.6	11.3	10.7	---	9.8
21	---	---	14.3	9.6	12.6	10.9	10.8	10.8	11.6	10.5	---	10.5
22	---	13.9	14.6	8.5	12.1	11.1	10.2	10.5	11.4	10.5	---	10.4
23	---	13.9	14.3	11.2	11.9	11.0	10.1	9.4	10.5	10.4	6.1	10.3
24	---	13.8	14.7	12.7	12.4	11.1	9.5	8.5	10.2	10.3	5.6	10.4
25	---	14.7	14.7	12.8	13.4	11.1	9.5	8.8	10.7	10.2	5.3	11.0
26	---	14.8	14.8	13.1	14.6	10.7	10.2	9.9	10.8	10.8	---	9.4
27	---	14.6	15.1	13.5	14.8	10.3	9.9	10.4	11.1	10.7	2.5	9.6
28	---	14.1	15.3	13.2	14.2	9.9	10.3	10.2	11.3	10.8	5.6	9.9
29	---	13.4	14.6	13.1	14.3	9.8	10.3	11.0	11.9	11.2	6.6	10.2
30	---	12.9	14.7	12.0	---	8.5	9.4	10.6	11.6	11.2	7.1	10.1
31	---	---	14.9	9.6	---	8.0	---	10.1	---	11.6	6.9	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

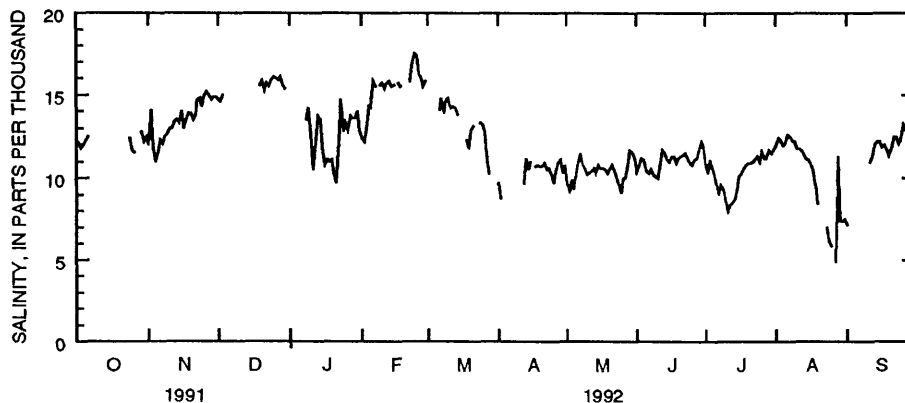
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 20.0 ppt February 24, 1992; minimum value recorded, 1.7 ppt August 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.3	12.0	14.7	---	12.4	---	9.7	9.7	10.4	10.7	12.0	7.2
2	12.1	14.1	14.6	15.6	12.2	---	8.8	9.1	10.8	10.3	12.4	---
3	11.8	11.9	15.0	---	12.9	---	---	9.9	11.2	11.1	12.3	---
4	12.0	11.0	---	---	14.3	---	---	9.3	11.1	10.6	12.0	---
5	12.2	11.6	---	---	14.2	---	---	10.2	10.4	10.2	12.1	---
6	12.5	12.3	---	---	15.8	14.1	---	10.9	10.3	9.5	12.6	---
7	---	12.1	---	---	15.5	14.8	---	11.5	10.5	9.0	12.5	---
8	---	12.5	---	13.5	---	13.9	---	10.8	10.2	9.6	12.3	---
9	---	12.7	---	14.2	15.6	14.7	---	10.6	10.1	9.3	12.2	---
10	---	13.0	---	12.6	15.7	14.8	---	10.2	10.0	8.5	11.8	---
11	---	13.0	---	10.5	15.4	14.2	---	10.3	10.9	8.0	11.8	11.0
12	---	13.4	---	12.2	15.7	14.3	9.7	10.4	11.7	8.4	11.7	11.3
13	---	13.5	---	13.7	15.8	14.2	11.2	10.6	11.5	8.5	11.5	12.0
14	---	13.3	---	13.5	15.5	13.8	10.5	10.3	11.1	8.7	11.2	12.2
15	---	14.0	---	11.9	15.6	---	11.0	10.8	11.0	9.4	11.1	12.2
16	---	13.0	---	10.8	---	12.9	---	10.6	11.3	10.1	10.9	11.9
17	---	13.5	---	11.1	15.7	---	10.7	10.6	11.3	10.3	10.5	12.0
18	---	13.9	---	11.0	15.5	12.3	10.8	10.5	10.9	10.5	9.6	11.7
19	---	13.9	15.6	11.1	---	11.8	10.7	10.3	11.2	10.8	8.5	11.4
20	---	13.5	15.8	10.3	---	12.9	10.7	10.5	11.3	10.9	---	11.8
21	---	13.8	15.3	9.7	---	13.1	10.9	10.8	11.4	10.9	---	12.5
22	---	14.7	15.7	12.2	15.8	---	10.5	10.5	11.5	11.0	---	12.5
23	---	14.8	15.5	14.7	16.8	---	10.6	10.1	11.2	11.1	7.0	12.1
24	12.4	14.3	15.9	12.8	17.5	13.3	10.2	9.6	10.9	11.3	6.2	12.3
25	11.7	15.0	16.1	13.3	17.4	13.2	9.7	9.1	10.8	11.0	5.9	13.2
26	11.6	15.2	16.0	12.9	16.3	12.8	10.4	10.0	11.1	11.6	---	12.9
27	---	15.0	15.9	13.7	16.0	11.1	11.0	10.0	11.2	11.2	4.9	13.6
28	---	14.7	16.1	13.6	15.5	10.3	11.1	10.8	11.7	11.2	11.3	12.5
29	12.8	14.9	15.6	13.6	15.8	---	10.3	11.7	12.2	11.7	7.4	12.3
30	12.2	14.9	15.4	14.0	---	---	10.8	11.6	12.0	11.5	7.4	12.3
31	12.5	---	---	12.9	---	---	---	11.2	---	11.7	7.5	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

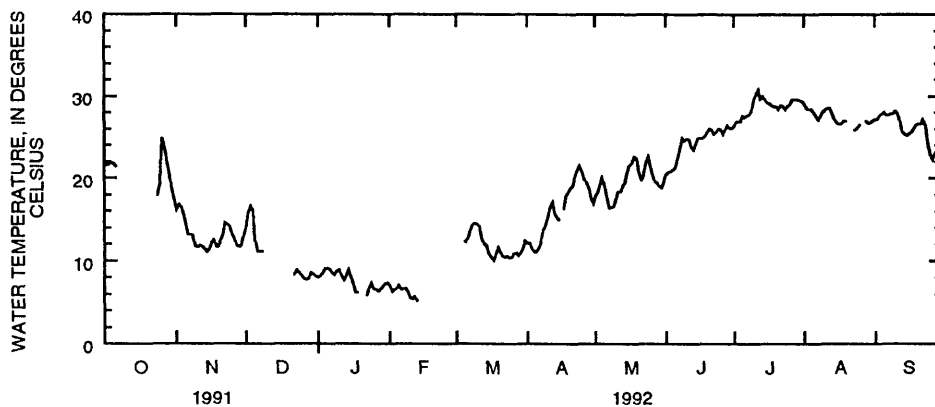
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.7 °C July 12, 1992; minimum value recorded, 3.5 °C February 12, 13, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (°C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21.6	16.2	13.9	8.0	7.1	---	12.1	17.8	20.4	26.4	29.1	27.2
2	21.6	16.8	15.7	8.2	6.4	---	12.2	18.3	20.7	26.9	28.6	27.2
3	21.7	16.5	16.6	8.6	6.6	---	11.5	19.4	20.8	26.9	28.4	27.6
4	21.9	15.7	16.0	9.1	6.7	---	11.1	20.0	21.0	26.9	28.4	27.8
5	21.8	14.4	12.5	9.1	7.1	12.3	11.1	19.0	21.3	27.6	28.2	28.0
6	21.5	13.2	11.2	9.0	6.6	12.7	11.6	17.8	22.5	27.4	27.7	27.7
7	---	13.2	11.2	8.6	6.7	13.5	12.1	16.4	23.5	27.6	27.2	27.7
8	---	13.1	11.2	8.3	6.8	14.4	13.7	16.5	24.9	27.7	27.4	27.9
9	---	11.8	---	8.7	6.2	14.6	14.3	16.6	24.6	28.2	28.0	27.9
10	---	11.7	---	8.9	5.6	14.5	15.5	17.6	24.8	29.6	28.3	28.2
11	---	11.9	---	8.2	5.4	14.2	16.5	18.4	24.7	30.2	28.5	28.0
12	---	11.7	---	7.7	5.7	12.6	17.1	18.4	23.9	30.8	28.6	27.0
13	---	11.5	---	8.1	5.3	12.1	15.9	19.2	23.5	29.7	28.1	25.8
14	---	11.2	---	8.9	---	11.8	15.3	19.5	24.1	30.0	27.3	25.4
15	---	11.5	---	8.2	---	10.9	15.1	20.7	24.9	29.6	26.8	25.2
16	---	12.1	---	7.4	---	10.5	---	21.6	24.9	29.2	26.6	25.4
17	---	12.5	---	6.2	---	10.1	16.3	21.8	24.9	29.1	26.6	25.6
18	---	11.7	---	6.2	---	10.7	17.8	22.6	25.1	28.9	27.0	26.1
19	---	11.7	---	---	---	11.6	18.3	22.4	25.5	28.7	27.0	26.5
20	---	12.4	---	---	---	11.2	18.8	20.8	26.1	28.7	---	26.6
21	---	13.3	---	---	---	10.6	19.1	19.9	25.9	28.4	---	26.6
22	---	14.6	8.4	5.9	---	10.5	20.2	20.1	25.4	28.9	---	27.1
23	---	14.4	8.9	6.7	---	10.6	20.9	21.8	25.6	28.8	25.9	26.4
24	18.0	14.2	8.6	7.3	---	10.4	21.5	22.6	26.1	28.4	26.1	24.4
25	19.5	13.2	8.2	6.7	---	10.5	20.8	21.7	26.0	28.8	26.5	22.9
26	24.9	12.8	7.9	6.6	---	10.9	20.0	20.4	25.4	29.0	---	22.3
27	23.8	11.9	7.8	6.4	---	11.0	19.5	19.7	26.0	29.6	---	22.9
28	22.3	11.7	7.9	6.6	---	10.6	18.8	19.4	26.5	29.6	26.9	23.4
29	20.7	11.9	8.6	6.9	---	11.0	17.6	19.1	26.1	29.6	26.7	23.2
30	18.6	12.9	8.4	7.3	---	11.6	17.0	18.9	26.1	29.5	26.8	21.9
31	17.3	---	8.2	7.4	---	12.4	---	19.7	---	29.4	27.0	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

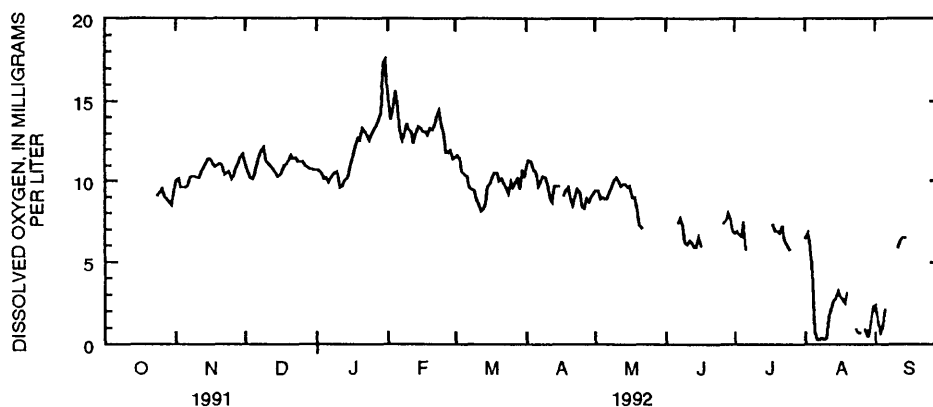
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L.]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 21.2 mg/L January 30, 1992; minimum value recorded, <1.0 mg/L August 5-11, 23-25, 27-31, September 2-5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	10.0	11.1	10.7	15.1	11.5	10.9	9.4	---	6.8	6.5	2.4a
2	---	10.1	10.7	10.7	13.9	11.6	11.3	9.4	---	6.9	6.8	1.3a
3	---	9.6	10.2	10.5	14.4	11.4	11.2	8.9	---	6.7	6.0b	<1.0a
4	---	9.6	10.1	10.1	15.6	10.6	10.7	9.0	---	6.6	3.7	1.0a
5	---	9.6	10.4	10.2	14.9	10.4	10.6	8.9	---	7.5	<1.0a	2.1a
6	---	9.7	11.0	9.9	13.2	10.3	9.7b	8.9	7.4	5.8b	<1.0a	---
7	---	10.2	11.5	10.1	12.6	9.6	9.9	9.3	7.7	---	<1.0a	---
8	---	10.3	11.9	10.4	12.9	9.5	10.3	9.7	7.2	---	<1.0a	---
9	---	10.3	12.1	10.5	13.6	9.4	10.2	10.0	6.2	---	<1.0a	---
10	---	10.2	11.3	10.6	13.2	8.9	9.7b	10.2	6.1	---	<1.0a	---
11	---	10.2	11.1	9.6	13.1	8.6	9.0b	10.0	6.3	---	1.6a	5.9
12	---	10.6	11.0	9.7	12.4	8.1	8.7	9.7	6.2	---	2.2a	6.3
13	---	10.8	10.8	10.0	13.0	8.2	9.7	9.8	5.9	---	2.6a	6.5
14	---	11.1	10.5	10.1	13.4	8.6	9.7	9.8	5.9	---	2.8a	6.5
15	---	11.4	10.3	10.4	13.3	9.7	9.7	9.6	6.5	---	3.2	---
16	---	11.4	10.4	11.1	13.1	9.8	---	9.7	6.0	---	2.9a	---
17	---	11.1	10.6	11.7	13.1	10.3	9.1	9.0	---	---	2.7a	---
18	---	10.9	11.0	12.2	12.9	10.5	9.4	9.0	---	7.3	2.5a	---
19	---	11.0	11.1	12.7	13.3	10.5	9.6	8.2	---	6.9	3.1a	---
20	---	11.1	11.3	12.6	13.2	10.0	9.0	7.3	---	6.9	---	---
21	---	11.0	11.6	13.3	13.5	10.1	8.5	7.1	---	6.8	---	---
22	---	10.4	11.4	13.1	14.1	9.8	9.1	---	---	7.2	---	---
23	---	10.5	11.5	12.9	14.4	9.6	9.5	---	---	6.4	<1.0a	---
24	9.1	10.6	11.2	12.6	13.5	9.2	9.3	---	---	6.1	<1.0a	---
25	9.3	10.1	11.2	12.9	12.9	9.9	8.4	---	---	5.8b	<1.0a	---
26	9.5	10.3	11.2	13.2	11.8	9.6	8.3	---	7.4	---	---	---
27	9.0	10.8	11.0	13.5	11.8	9.9	8.9	---	7.6	---	<1.0a	---
28	8.9	11.1	10.9	13.8	11.9	10.1	8.7	---	8.0	---	<1.0a	---
29	8.7	11.5	10.8	14.3	11.4	9.5b	9.0	---	7.7	---	<1.0a	---
30	8.5	11.7	10.8	17.3	---	10.7	9.2	---	6.9b	---	1.6a	---
31	9.4	---	10.7	17.5	---	10.2	---	---	---	---	2.3a	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

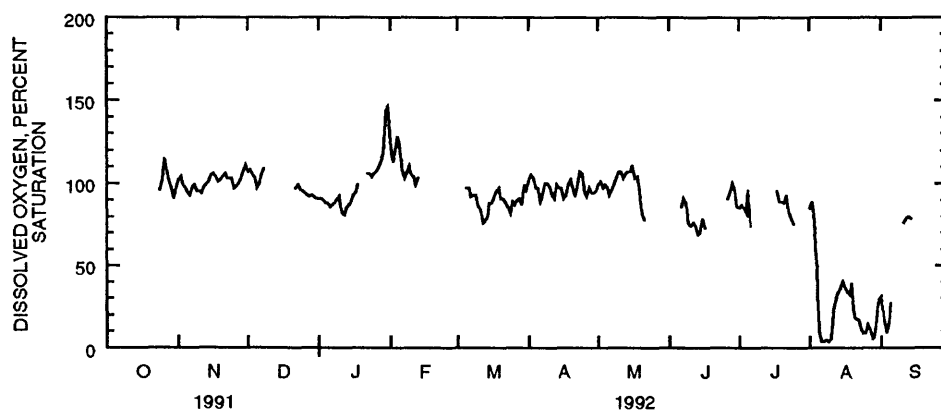
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 180 percent of saturation January 30, 1992; minimum value recorded, ≤10 percent of saturation August 5-11, 20, 22-29, September 2-5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (In percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	102	107	91	125	---	102	99	---	85	85	31
2	---	104	108	91	113	---	105	101	---	87	89	17
3	---	99	105	90	118	---	103	97	---	85	77	≤10
4	---	97	103	88	128	---	97	99	---	82	47	13
5	---	94	97	88	124	97	97	97	---	96	10	27
6	---	93	100	86	108	97	89	93	86	74	≤10	---
7	---	98	105	87	103	92	92	96	91	---	≤10	---
8	---	99	109	88	106	93	100	100	88	---	≤10	---
9	---	95	---	90	110	93	100	103	75	---	≤10	---
10	---	95	---	92	105	87	97	107	74	---	≤10	---
11	---	94	---	82	104	84	93	107	76	---	21	76
12	---	98	---	81	99	76	91	103	74	---	28	79
13	---	99	---	85	103	77	99	106	69	---	33	80
14	---	101	---	87	---	80	97	107	70	---	36	79
15	---	105	---	88	---	88	97	107	79	---	40	---
16	---	106	---	93	---	88	---	111	73	---	37	---
17	---	104	---	94	---	92	93	103	---	---	34	---
18	---	101	---	99	---	95	99	104	---	95	32	---
19	---	102	---	---	---	97	102	95	---	89	39	---
20	---	104	---	---	---	91	97	82	---	89	---	---
21	---	106	---	---	---	91	92	78	---	88	---	---
22	---	103	97	106	---	88	100	---	---	93	---	---
23	---	103	99	106	---	86	107	---	---	83	11	---
24	96	103	96	104	---	82	106	---	---	79	<10	---
25	102	97	95	106	---	89	94	---	---	75	<10	---
26	115	98	94	107	---	87	92	---	91	---	---	---
27	107	100	93	110	---	90	97	---	95	---	11	---
28	102	103	92	113	---	91	94	---	100	---	<10	---
29	97	107	93	118	---	87	94	---	96	---	<10	---
30	91	111	92	144	---	99	95	---	86	---	21	---
31	98	---	91	146	---	96	---	---	---	---	29	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 4,
PAMLICO RIVER AT LIGHT 3**

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

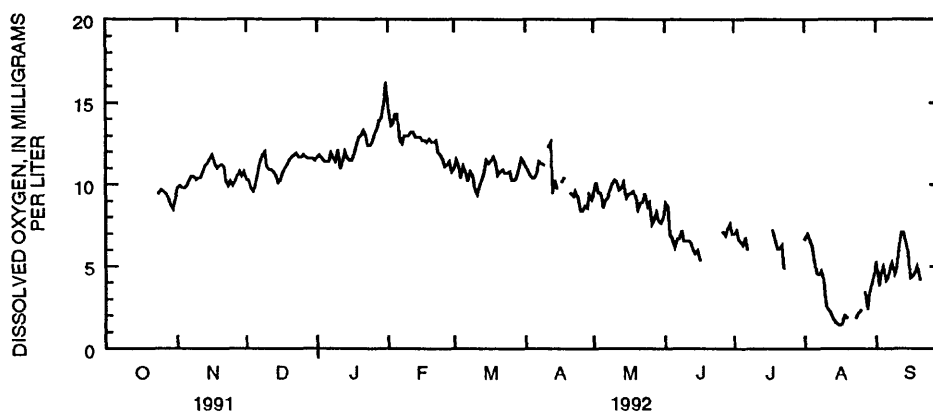
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, >20.0 mg/L April 10, 1992; minimum value recorded, <1.0 August 16, September 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	9.8	10.3	11.7	14.7	11.0	11.1	9.5	8.9	7.0	6.7	5.3b
2	---	9.9	10.3	11.8	13.6	11.5	10.9	10.1	8.7b	7.2	7.0	3.8a
3	---	9.8	9.8	11.6	13.7	11.1	10.6	9.5	7.0b	6.7b	6.7	4.7b
4	---	9.8	9.6	11.4	14.3	10.4	10.4	9.5	6.7	6.5	6.3	5.0b
5	---	9.9	9.9	11.4	14.3	11.1	10.4	8.6	6.2b	6.3a	5.6b	4.1b
6	---	10.2	10.7	11.4	12.7	10.7	10.7	9.0	6.7b	6.8	4.6b	4.3a
7	---	10.5	11.3	11.9	12.5	10.2	11.4	9.2	6.7b	6.1b	4.5b	4.9a
8	---	10.5	11.8	11.6	13.0	10.8	11.3	9.7	7.2b	---	4.7b	5.2b
9	---	10.3	12.0	11.4	13.0	10.5	11.2	10.0	6.6	---	4.2b	4.5a
10	---	10.4	11.1	12.1	13.0	9.8	---	10.3	6.6	---	2.6a	5.0a
11	---	10.4	10.9	11.0	13.2	9.4	12.3	10.2	6.6b	---	2.4a	6.1b
12	---	10.8	10.9	11.5	13.2	9.9	12.6	9.7	6.5	---	2.2a	7.1
13	---	11.1	10.8	12.0	12.9	10.3	9.5	9.8	6.0b	---	1.9a	7.1
14	---	11.3	10.5	11.6	12.9	10.8	10.3	10.1	5.8b	---	1.6a	6.5
15	---	11.6	10.1	11.5	12.9	11.5	9.8	9.2	6.0b	---	1.5a	5.8b
16	---	11.8	10.3	11.5	12.7	11.3	---	9.4b	5.4a	---	1.4a	4.3b
17	---	11.3	10.7	11.9	12.7	11.5	10.2	9.5	---	---	1.5a	4.4b
18	---	11.0	11.0	12.4	12.6	11.7	10.4	9.6	---	7.2	2.0a	4.7b
19	---	11.1	11.2	12.9	12.8	11.3	---	9.2	---	6.7	1.9a	5.0b
20	---	11.2	11.5	13.0	12.6	10.6	---	8.5	---	6.1b	---	4.2a
21	---	11.1	11.7	13.3	12.6	10.8	9.5	8.9	---	6.1b	---	---
22	---	10.2	11.8	13.0	12.7	10.9	9.3	8.9	---	6.3	---	---
23	---	9.9	11.9	12.4	12.0	10.7	9.6	9.5	---	4.9b	1.9a	---
24	9.5	10.2	11.7	12.4	11.8	10.7	9.2	8.7	---	---	2.1a	---
25	9.7	9.9	11.7	12.6	11.5	10.8	8.4b	8.9	---	---	2.3a	---
26	9.6	10.1	11.8	13.1	11.1	10.3	8.4	7.6	7.1	---	---	---
27	9.5	10.5	11.7	13.4	11.2	10.3	8.7	7.8	6.9b	---	3.4a	---
28	9.2	10.8	11.6	13.9	11.4	10.4	8.6	8.3	7.3b	---	2.4a	---
29	8.8	10.5	11.6	14.0	10.8	10.9	9.4	7.8	7.6	---	3.4b	---
30	8.5	10.8	11.6	14.9	---	11.6	9.1	7.7	7.0b	---	4.0b	---
31	9.2	---	11.5	16.2	---	11.4	---	8.0	---	---	4.5b	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

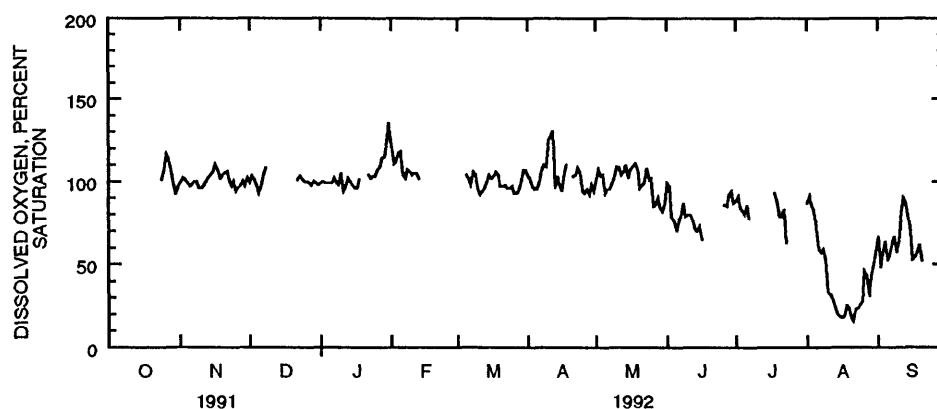
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, >193 percent of saturation April 10, 1992; minimum value recorded, ≤10 percent of saturation September 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	99	99	99	122	---	103	100	99	88	87	67
2	---	102	103	100	111	---	102	107	97	91	91	48
3	---	101	101	99	112	---	97	103	79	84	86	59
4	---	99	97	99	117	---	95	104	76	82	82	64
5	---	97	93	99	118	104	95	93	70	80	72	52
6	---	98	97	99	104	101	99	95	77	86	59	55
7	---	100	103	102	102	98	106	95	79	78	57	63
8	---	100	108	99	107	106	110	99	87	---	59	67
9	---	96	---	98	106	104	109	102	79	---	53	57
10	---	96	---	105	104	96	---	109	80	---	33	64
11	---	97	---	94	105	92	127	109	80	---	32	78
12	---	100	---	97	105	94	131	104	77	---	29	90
13	---	102	---	102	102	96	96	106	71	---	25	88
14	---	104	---	100	---	100	103	110	70	---	20	80
15	---	106	---	98	---	104	98	102	73	---	19	70
16	---	110	---	96	---	102	---	107	65	---	18	53
17	---	107	---	96	---	103	105	109	---	---	19	54
18	---	102	---	101	---	106	110	111	---	93	25	58
19	---	103	---	---	---	104	---	107	---	88	24	62
20	---	105	---	---	---	97	---	96	---	79	---	52
21	---	106	---	---	---	97	103	98	---	79	---	---
22	---	101	101	104	---	98	104	99	---	83	---	---
23	---	97	103	102	---	96	108	108	---	63	24	---
24	101	100	101	103	---	96	105	101	---	---	26	---
25	107	94	100	103	---	97	94	102	---	---	28	---
26	116	96	100	107	---	93	93	85	86	---	---	---
27	113	97	99	109	---	93	95	86	85	---	43	---
28	107	100	98	114	---	94	92	90	92	---	31	---
29	99	97	100	115	---	99	98	84	94	---	43	---
30	92	102	99	124	---	107	94	82	87	---	50	---
31	97	---	98	135	---	107	---	87	---	---	57	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 4,
PAMLICO RIVER AT LIGHT 3**

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

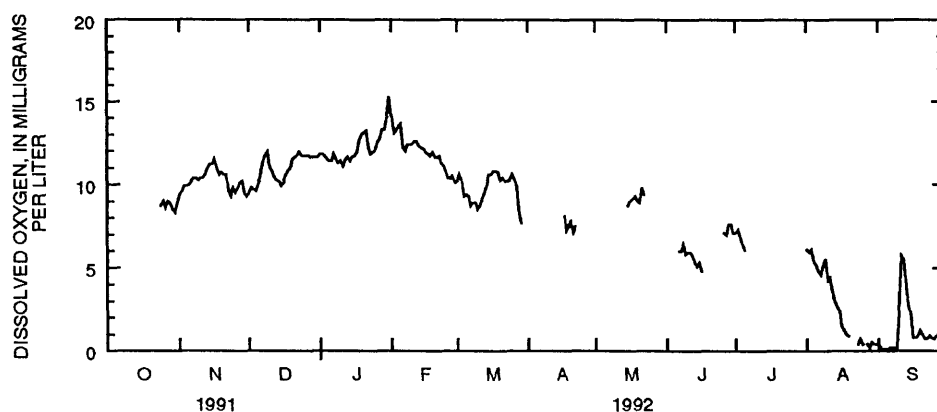
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.8 mg/L January 31, 1992; minimum value recorded, <1.0 August 16-19, 23-25, 27-31, September 1-10, 15-29, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	9.4	9.5	11.8	14.1	10.2	---	---	---	7.1	6.1	<1.0a
2	---	9.6	9.8	11.8	13.1	10.6	---	---	---	7.3	5.9b	<1.0a
3	---	9.9	9.7	11.7	13.2	10.3	---	---	---	6.9	6.1	<1.0a
4	---	9.9	9.6	11.5	13.5	9.3	---	---	---	6.4	5.3b	<1.0a
5	---	10.0	10.0	11.4	13.6	9.4	---	---	---	6.1a	5.2b	<1.0a
6	---	10.2	10.5	11.4	12.2	9.3	---	---	6.0b	---	4.8b	<1.0a
7	---	10.4	11.2	11.8	12.0	8.7	---	---	6.0b	---	4.6b	<1.0a
8	---	10.4	11.7	11.5	12.4	8.9	---	---	6.4b	---	5.1b	<1.0a
9	---	10.3	11.9	11.3	12.4	8.9	---	---	5.8b	---	5.5b	<1.0a
10	---	10.4	11.1	11.4	12.4	8.5	---	---	5.9b	---	4.3b	3.1a
11	---	10.4	10.8	11.1	12.6	8.7	---	---	5.9b	---	4.4b	5.7
12	---	10.6	10.5	11.5	12.6	9.2	---	---	5.7b	---	3.6a	5.4
13	---	10.9	10.3	11.6	12.3	9.5	---	---	5.3b	---	3.1a	4.3
14	---	11.2	10.2	11.4	12.2	10.0	---	---	5.1b	---	2.7a	2.8
15	---	11.2	9.9	11.6	12.1	10.6	---	8.7	5.3b	---	2.4a	2.1a
16	---	11.5	10.1	11.7	11.9	10.6	---	9.0	4.8a	---	1.5a	<1.0a
17	---	11.0	10.5	11.9	11.8	10.8	8.1	9.1	---	---	1.2a	<1.0a
18	---	10.6	10.8	12.6	11.7	10.8	7.2	9.3	---	---	1.0a	<1.0a
19	---	10.7	11.0	13.0	11.9	10.7	7.5	9.0	---	---	<1.0a	1.2a
20	---	10.6	11.5	13.1	11.6	10.3	7.9	8.9	---	---	---	1.0a
21	---	10.6	11.6	13.2	11.6	10.4	7.0	9.8	---	---	---	<1.0a
22	---	9.6	11.7	12.2	11.7	10.2	7.5	9.4	---	---	---	<1.0a
23	---	9.3	11.9	11.8	11.3	10.2	---	---	---	---	<1.0a	<1.0a
24	8.7	9.8	11.7	11.9	11.1	10.3	---	---	---	---	<1.0a	<1.0a
25	9.0	9.5	11.7	12.0	10.7	10.6	---	---	---	---	<1.0a	<1.0a
26	8.6	9.7	11.7	12.5	10.4	10.4	---	---	7.1	---	---	<1.0a
27	9.0	10.1	11.7	12.8	10.4	9.8	---	---	7.0	---	<1.0a	1.0a
28	8.9	10.2	11.6	13.3	10.5	8.5	---	---	7.6	---	<1.0a	2.1a
29	8.5	9.5	11.6	13.3	10.1	7.7	---	---	7.6	---	<1.0a	3.3a
30	8.3	9.3	11.6	14.1	---	---	---	---	7.1b	---	<1.0a	2.8a
31	9.0	---	11.6	15.3	---	---	---	---	---	---	<1.0a	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 4, PAMLICO RIVER AT LIGHT 3

Table 12.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 4, October 1991-September 1992--Continued

PAMLICO RIVER AT LIGHT 3

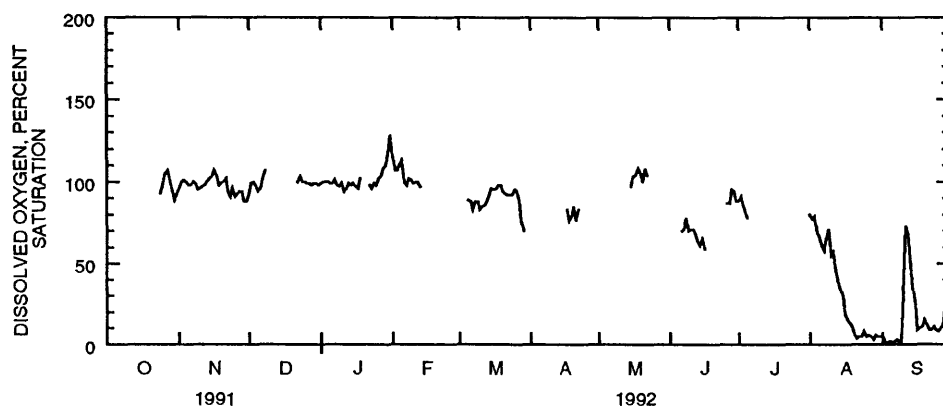
[Site 4 is at latitude 35°21'24", longitude 76°38'48", Beaufort County; U.S. Geological Survey downstream order number 0208455155]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 141 percent of saturation January 31, 1992; minimum value recorded, ≤10 percent of saturation August 16-31, September 1-10, 16-28, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	96	92	99	116	---	---	---	---	88	80	≤10
2	---	100	99	100	107	---	---	---	---	91	77	≤10
3	---	101	100	100	107	---	---	---	---	86	79	≤10
4	---	100	97	100	111	---	---	---	---	81	59	≤10
5	---	98	94	99	113	89	---	---	---	78	57	≤10
6	---	98	96	99	100	88	---	---	70	---	51	≤10
7	---	100	102	101	98	83	---	---	71	---	58	≤10
8	---	99	107	98	102	88	---	---	78	---	55	≤10
9	---	95	---	97	101	88	---	---	70	---	71	≤10
10	---	96	---	99	99	83	---	---	71	---	55	41
11	---	97	---	94	100	85	---	---	71	---	57	73
12	---	98	---	96	100	86	---	---	68	---	46	68
13	---	100	---	99	97	88	---	---	63	---	40	53
14	---	102	---	98	---	92	---	---	61	---	34	35
15	---	103	---	99	---	96	---	97	65	---	30	25
16	---	107	---	97	---	95	---	103	59	---	19	≤10
17	---	104	---	96	---	96	83	104	---	---	15	10
18	---	98	---	102	---	98	76	108	---	---	13	11
19	---	99	---	---	---	98	79	105	---	---	11	15
20	---	100	---	---	---	94	85	100	---	---	---	12
21	---	102	---	---	---	93	76	108	---	---	---	≤10
22	---	94	100	98	---	92	83	104	---	---	---	≤10
23	---	91	103	96	---	92	---	---	---	---	≤10	11
24	93	96	100	99	---	92	---	---	---	---	≤10	≤10
25	99	91	100	98	---	95	---	---	---	---	≤10	≤10
26	105	92	99	102	---	94	---	---	87	---	---	10
27	107	94	99	104	---	89	---	---	87	---	≤10	12
28	102	94	98	108	---	76	---	---	95	---	≤10	24
29	95	88	99	110	---	70	---	---	94	---	≤10	39
30	89	88	99	117	---	---	---	---	88	---	≤10	32
31	93	---	98	128	---	---	---	---	---	---	≤10	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 4,
PAMLICO RIVER AT LIGHT 3**

**Table 13.--Five-day mean water temperature and dissolved-oxygen values in water at site 4,
October 1991-September 1992, for day and night periods**

PAMLICO RIVER AT LIGHT 3

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	21.9	21.6	----	---	---	---	---	---
10/ 6/91-10/10/91	21.6	20.5	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	18.8	19.7	9.3	9.0	9.7	9.3	8.8	8.5
10/26/91-10/30/91	22.1	21.0	9.0	8.7	9.3	8.9	8.9	8.6
10/31/91-11/ 4/91	16.6	16.0	9.9	9.7	9.9	9.7	9.7	9.6
11/ 5/91-11/ 9/91	13.2	12.6	10.1	10.1	10.4	10.3	10.3	10.3
11/10/91-11/14/91	11.8	11.4	10.7	10.6	10.9	10.8	10.7	10.8
11/15/91-11/19/91	12.2	11.7	11.2	11.1	11.4	11.3	11.0	10.9
11/20/91-11/24/91	14.0	13.7	10.8	10.5	10.6	10.3	10.0	9.8
11/25/91-11/29/91	12.4	12.0	10.9	10.9	10.5	10.4	10.0	9.7
11/30/91-12/ 4/91	15.3	14.9	10.8	10.5	10.1	10.0	9.5	9.6
12/ 5/91-12/ 9/91	11.6	11.1	11.6	11.4	11.4	11.2	11.3	11.1
12/10/91-12/14/91	---	---	10.9	10.7	10.8	10.6	10.6	10.4
12/15/91-12/19/91	---	---	10.9	10.7	10.8	10.7	10.6	10.5
12/20/91-12/24/91	8.7	8.6	11.5	11.3	11.8	11.7	11.8	11.7
12/25/91-12/29/91	8.2	8.1	11.0	10.9	11.7	11.6	11.7	11.6
12/30/91- 1/ 3/92	8.4	8.3	10.7	10.6	11.7	11.6	11.7	11.6
1/ 4/92- 1/ 8/92	8.9	8.7	10.3	10.1	11.6	11.5	11.5	11.5
1/ 9/92- 1/13/92	8.4	8.3	10.3	9.8	11.6	11.7	11.4	11.4
1/14/92- 1/18/92	7.5	7.0	11.3	11.3	11.9	11.9	11.9	12.0
1/19/92- 1/23/92	6.5	6.4	12.9	12.8	12.8	12.9	12.5	12.6
1/24/92- 1/28/92	6.8	6.5	13.4	13.2	13.2	13.2	12.6	12.5
1/29/92- 2/ 2/92	7.1	6.9	15.8	15.4	14.8	14.5	14.1	13.9
2/ 3/92- 2/ 7/92	7.0	6.6	14.4	13.7	13.5	13.3	12.9	12.7
2/ 8/92- 2/12/92	6.0	5.8	13.4	12.8	13.1	13.1	12.5	12.5
2/13/92- 2/17/92	5.2	4.8	13.3	13.1	12.9	12.7	12.1	11.9
2/18/92- 2/22/92	---	---	13.5	13.6	12.7	12.5	11.8	11.6
2/23/92- 2/27/92	---	---	13.0	12.2	11.5	11.3	10.8	10.6
2/28/92- 3/ 3/92	---	---	11.6	11.3	11.3	10.9	10.5	10.1
3/ 4/92- 3/ 8/92	13.4	13.0	10.1	9.8	10.9	10.3	9.2	9.1
3/ 9/92- 3/13/92	13.7	13.1	8.8	8.3	10.1	9.9	9.1	8.9
3/14/92- 3/18/92	11.1	10.5	10.0	9.9	11.5	11.4	10.6	10.6
3/19/92- 3/23/92	11.0	10.6	10.2	9.5	10.9	10.6	10.4	10.2
3/24/92- 3/28/92	10.9	10.6	10.0	9.6	10.6	10.4	9.9	9.6
3/29/92- 4/ 2/92	12.1	11.7	10.8	10.5	11.3	11.0	7.6	7.3
4/ 3/92- 4/ 7/92	11.8	11.4	10.7	10.0	10.9	10.6	---	---
4/ 8/92- 4/12/92	15.9	15.5	9.8	9.3	13.6	10.1	---	---
4/13/92- 4/17/92	15.6	15.5	9.6	9.3	10.2	9.5	8.4	7.7
4/18/92- 4/22/92	19.3	19.0	9.3	9.0	10.3	9.0	7.4	7.4
4/23/92- 4/27/92	20.8	20.0	9.1	8.6	9.3	8.2	---	---
4/28/92- 5/ 2/92	18.1	17.6	9.3	9.0	9.8	9.0	---	---
5/ 3/92- 5/ 7/92	18.6	18.1	9.1	9.0	9.4	8.9	---	---
5/ 8/92- 5/12/92	17.8	17.6	10.0	9.8	10.4	9.6	---	---

**Table 13.--Five-day mean water temperature and dissolved-oxygen values in water at site 4,
October 1991-September 1992, for day and night periods--Continued**

PAMLICO RIVER AT LIGHT 3

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	21.0	20.6	9.7	9.3	9.7	9.5	8.8	8.9
5/18/92- 5/22/92	21.3	20.8	8.0	7.6	9.1	8.9	9.5	9.2
5/23/92- 5/27/92	21.6	20.7	---	---	8.6	8.2	---	---
5/28/92- 6/ 1/92	19.7	19.4	---	---	8.2	8.2	---	---
6/ 2/92- 6/ 6/92	21.6	21.3	7.5	7.2	7.3	6.6	5.8	6.1
6/ 7/92- 6/11/92	24.8	24.4	6.9	6.3	6.7	6.7	6.0	5.9
6/12/92- 6/16/92	24.5	24.1	6.4	5.8	6.1	5.7	5.4	5.1
6/17/92- 6/21/92	25.8	25.4	---	---	---	---	---	---
6/22/92- 6/26/92	25.9	25.4	7.9	7.2	7.3	6.7	7.4	6.9
6/27/92- 7/ 1/92	26.6	26.1	7.9	7.0	7.4	7.0	7.6	7.1
7/ 2/92- 7/ 6/92	27.4	27.0	7.0	6.4	6.8	6.3	6.9	6.3
7/ 7/92- 7/11/92	29.1	28.7	---	---	6.6	6.2	---	---
7/12/92- 7/16/92	30.1	29.4	---	---	---	---	---	---
7/17/92- 7/21/92	28.9	28.5	7.5	6.5	7.0	6.3	---	---
7/22/92- 7/26/92	29.0	28.6	6.6	6.0	5.7	5.1	---	---
7/27/92- 7/31/92	29.8	29.3	7.0	6.0	7.1	6.2	6.8	5.9
8/ 1/92- 8/ 5/92	28.7	28.2	4.9	3.8	6.6	6.1	5.8	5.5
8/ 6/92- 8/10/92	28.0	27.5	<1.0	<1.0	4.2	3.5	5.0	4.5
8/11/92- 8/15/92	28.0	27.4	2.7	2.4	2.1	1.7	3.4	2.6
8/16/92- 8/20/92	27.0	26.5	2.6	2.4	1.7	1.6	1.1	<1.0
8/21/92- 8/25/92	26.5	26.0	1.2	<1.0	2.0	2.1	<1.0	<1.0
8/26/92- 8/30/92	27.3	26.5	<1.0	<1.0	3.4	3.4	<1.0	<1.0
8/31/92- 9/ 4/92	27.7	27.2	1.6	1.5	4.9	4.4	<1.0	<1.0
9/ 5/92- 9/ 9/92	28.1	27.6	2.5	3.2	4.7	4.6	<1.0	<1.0
9/10/92- 9/14/92	27.0	26.3	6.7	6.0	6.8	6.1	4.9	3.9
9/15/92- 9/19/92	26.0	25.7	---	---	4.9	4.6	1.2	1.0
9/20/92- 9/24/92	26.3	25.6	---	---	3.6	4.4	<1.0	<1.0
9/25/92- 9/29/92	23.1	22.8	---	---	---	---	1.3	1.6

Table 14.--Vertical distributions of selected constituents in water at site 4, October 1991-September 1992

PAMLICO RIVER AT LIGHT 3

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 07...	0930	0.73	---	---	---	---	---	---
07...	0931	---	9.00	20,100	12.0	20.0	8.7	103
07...	0932	---	8.00	20,100	12.0	20.0	8.7	103
07...	0933	---	7.00	20,100	12.0	20.0	8.6	102
07...	0934	---	6.00	20,100	12.0	20.0	8.6	102
07...	0935	---	5.00	20,100	12.0	20.0	8.6	102
07...	0936	---	4.00	20,100	12.0	20.0	8.6	102
07...	0937	---	3.00	20,100	12.0	20.0	8.5	101
07...	0938	---	2.00	20,100	12.0	20.0	8.5	101
07...	0939	---	1.00	20,100	12.0	20.0	8.5	101
23...	1400	1.19	---	---	---	---	---	---
23...	1401	---	10.0	17,300	10.2	18.0	10.1	114
23...	1402	---	9.00	17,900	10.6	17.0	9.6	106
23...	1403	---	8.00	17,900	10.6	17.0	9.6	106
23...	1404	---	7.00	20,100	12.6	17.0	9.6	107
23...	1405	---	6.00	19,800	11.8	17.0	9.6	107
23...	1406	---	5.00	19,800	11.8	17.0	9.6	107
23...	1407	---	4.00	21,100	12.6	17.0	9.4	105
23...	1408	---	3.00	21,100	12.6	17.0	8.1	91
23...	1409	---	2.00	21,100	12.6	17.5	8.1	92
23...	1410	---	1.00	21,300	12.8	18.0	7.3	83
Nov. 01...	1050	2.01	---	---	---	---	---	---
01...	1051	---	10.0	19,100	11.3	16.0	10.2	111
01...	1052	---	9.00	19,100	11.3	15.5	10.0	108
01...	1053	---	8.00	19,100	11.3	15.5	10.0	108
01...	1054	---	7.00	19,100	11.3	15.5	9.9	107
01...	1055	---	6.00	19,200	11.4	15.5	9.9	107
01...	1056	---	5.00	19,600	11.7	15.5	9.8	106
01...	1057	---	4.00	19,700	11.7	15.5	9.7	105
01...	1058	---	3.00	20,300	12.1	16.0	9.7	106
01...	1059	---	2.00	20,300	12.1	16.0	9.4	103
01...	1100	---	1.00	22,700	13.7	16.0	8.6	95
21...	1220	0.66	---	---	---	---	---	---
21...	1221	---	8.00	22,200	13.4	14.0	11.0	116
21...	1222	---	6.00	22,300	13.4	13.5	11.0	115
21...	1223	---	4.00	22,400	13.5	13.5	11.0	115
21...	1224	---	2.00	22,900	13.8	13.0	10.5	109
Dec. 11...	1300	0.41	---	---	---	---	---	---
11...	1301	---	10.0	24,800	15.1	12.0	11.1	113
11...	1302	---	9.00	24,000	14.5	11.5	11.2	113
11...	1303	---	8.00	24,000	14.5	11.5	11.2	113
11...	1304	---	7.00	24,000	14.5	11.5	11.2	113
11...	1305	---	6.00	24,300	14.7	11.0	11.1	111
11...	1306	---	5.00	24,500	14.9	11.0	11.1	111
11...	1307	---	4.00	24,700	15.0	11.0	11.1	111
11...	1308	---	3.00	24,700	15.0	11.0	11.1	111
11...	1309	---	2.00	24,800	15.1	11.0	11.1	111
11...	1310	---	1.00	25,000	15.2	11.0	11.0	110

¹Water level is from 02084472, Pamlico River at Washington.

**Table 14.--Vertical distributions of selected constituents in water at site 4,
October 1991-September 1992--Continued**

PAMLICO RIVER AT LIGHT 3

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992								
Jan. 21...	1230	0.63	---	---	---	---	---	---
21...	1231	---	8.00	16,400	9.6	5.5	13.2	112
21...	1232	---	4.00	16,600	9.7	5.0	13.2	111
21...	1233	---	2.00	16,600	9.7	5.0	12.9	108
Mar. 04...	1400	1.08	---	---	---	---	---	---
04...	1401	---	8.00	19,500	11.6	12.0	10.2	102
04...	1402	---	4.00	19,500	11.6	12.0	10.3	103
04...	1403	---	2.00	23,300	14.1	12.0	8.8	89
27...	0955	0.55	---	---	---	---	---	---
27...	0956	---	8.00	18,000	10.6	11.0	10.2	99
27...	0957	---	4.00	18,100	10.7	11.0	10.2	99
27...	0958	---	2.00	18,200	10.7	11.0	10.2	99
Apr. 16...	1130	0.72	---	---	---	---	---	---
16...	1131	---	8.00	17,500	10.3	15.0	9.3	98
16...	1132	---	4.00	17,500	10.3	15.0	9.3	98
16...	1133	---	2.00	18,500	10.9	15.0	9.0	96
May 14...	1010	1.00	---	---	---	---	---	---
14...	1011	---	8.00	15,700	9.2	19.5	9.6	111
14...	1012	---	4.00	16,800	9.8	19.0	9.7	111
14...	1013	---	2.00	17,500	10.3	19.0	9.1	105
June 05...	1010	1.04	---	---	---	---	---	---
05...	1011	---	8.00	16,200	9.5	21.0	7.3	87
05...	1012	---	4.00	17,200	10.1	21.0	6.6	79
05...	1013	---	2.00	17,500	10.3	21.0	6.0	71
25...	1015	0.58	---	---	---	---	---	---
25...	1016	---	8.00	18,600	11.0	24.0	7.5	95
25...	1017	---	4.00	19,100	11.3	24.0	7.4	94
25...	1018	---	2.00	19,100	11.3	24.0	7.4	94
July 17...	1035	0.18	---	---	---	---	---	---
17...	1036	---	8.00	17,500	10.3	29.0	7.4	102
17...	1037	---	4.00	17,500	10.3	29.0	7.4	102
17...	1038	---	2.00	17,500	10.3	29.0	7.4	102
31...	1009	1.19	---	---	---	---	---	---
31...	1010	---	8.00	19,500	11.6	29.0	6.5	90
31...	1011	---	4.00	19,500	11.6	29.0	6.5	90
31...	1012	---	2.00	19,700	11.7	29.0	6.5	91
Sept. 10...	0935	0.62	---	---	---	---	---	---
10...	0936	---	8.00	17,200	10.1	27.5	5.6	75
10...	0937	---	4.00	17,700	10.4	27.5	5.1	69
10...	0938	---	3.00	18,000	10.6	27.5	4.4	59
10...	0939	---	2.00	20,100	12.0	27.5	0.6	8

¹Water level from 02084472, Pamlico River at Washington.

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992

GOOSE CREEK AT LIGHT 6

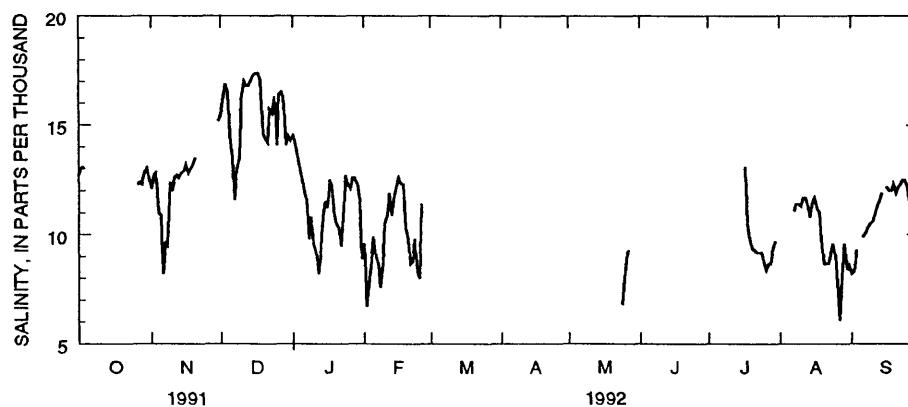
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County, U.S. Geological Survey downstream order number 0208455615]

Sensor Position--9 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 17.9 ppt December 16, 1991; minimum value recorded, 5.2 ppt August 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	12.7	12.1	15.5	14.5	9.6	---	---	---	---	---	---	8.2
2	13.0	12.7	16.1	14.2	6.7	---	---	---	---	---	---	8.3
3	13.1	12.8	16.9	13.6	7.7	---	---	---	---	---	---	9.3
4	---	11.0	16.5	13.0	8.8	---	---	---	---	---	---	---
5	---	10.9	14.5	12.6	9.9	---	---	---	---	---	---	---
6	---	8.2	13.5	11.9	9.0	---	---	---	---	---	---	9.9
7	---	9.6	11.6	11.6	8.6	---	---	---	---	---	11.1	10.1
8	---	9.5	13.0	9.8	7.6	---	---	---	---	---	11.4	10.3
9	---	12.4	13.5	10.8	8.7	---	---	---	---	---	11.4	10.5
10	---	12.0	16.2	9.6	10.5	---	---	---	---	---	11.3	10.6
11	---	12.6	17.0	9.2	10.9	---	---	---	---	---	11.7	10.9
12	---	12.7	16.8	8.2	11.9	---	---	---	---	---	11.7	11.3
13	---	12.6	16.8	9.0	10.9	---	---	---	---	---	11.4	11.5
14	---	12.8	17.1	10.8	11.8	---	---	---	---	---	10.8	11.9
15	---	12.9	17.3	11.5	12.3	---	---	---	---	---	11.5	---
16	---	13.2	17.4	11.2	12.6	---	---	---	---	---	11.7	12.2
17	---	12.8	17.4	12.5	12.3	---	---	---	---	13.1	11.2	12.0
18	---	13.0	17.1	12.2	12.3	---	---	---	---	10.5	11.0	12.0
19	---	13.2	14.6	10.9	10.3	---	---	---	---	9.8	9.8	12.3
20	---	13.5	14.4	10.5	9.8	---	---	---	---	9.4	8.7	11.9
21	---	---	14.2	10.3	8.7	---	---	---	---	9.3	8.7	12.2
22	---	---	15.7	9.5	8.8	---	---	---	---	9.2	8.7	12.3
23	---	---	15.5	10.8	9.8	---	---	---	---	9.2	9.2	12.5
24	---	---	16.3	12.7	8.3	---	---	6.8	---	9.2	9.6	12.5
25	---	---	14.1	12.3	8.0	---	---	8.0	---	8.7	9.0	12.1
26	12.3	---	16.4	12.1	11.4	---	---	9.1	---	8.4	7.8	11.2
27	12.4	---	16.5	12.6	---	---	---	9.3	---	8.7	6.1	11.3
28	12.3	---	16.3	12.6	---	---	---	---	---	8.7	8.6	12.1
29	12.8	---	14.1	12.3	---	---	---	---	---	9.4	9.6	12.4
30	13.0	15.2	14.5	11.6	---	---	---	---	---	9.7	8.4	12.5
31	12.5	---	14.3	8.9	---	---	---	---	---	---	8.6	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

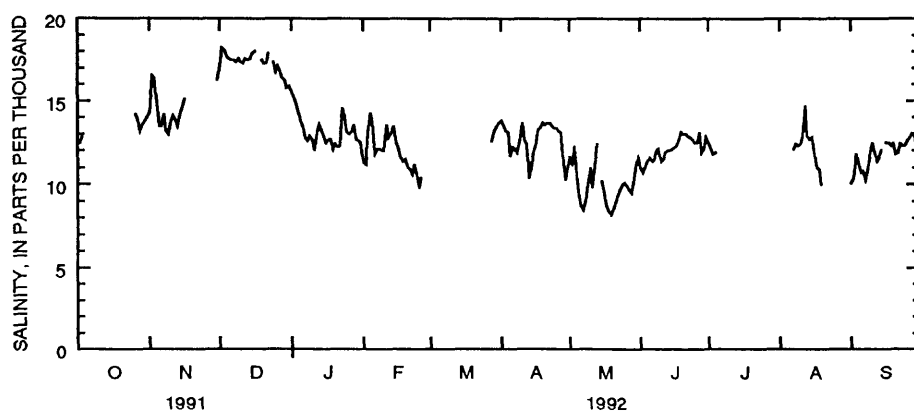
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 18.8 ppt December 3, 1991; minimum value recorded, 7.2 ppt May 21, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.4	14.3	17.1	15.6	11.3	---	13.8	11.7	11.0	12.5	---	10.1
2	12.5	16.5	18.2	15.2	11.2	---	13.6	11.1	10.7	12.1	---	10.4
3	12.8	16.4	18.1	14.8	13.1	---	13.2	12.3	11.0	11.8	---	11.8
4	---	14.9	17.7	14.2	14.3	---	13.1	10.5	11.4	11.9	---	11.3
5	---	13.5	17.6	13.8	13.7	---	11.7	9.3	11.6	---	---	10.7
6	---	13.5	17.5	13.4	11.8	---	12.2	8.7	11.4	---	---	10.8
7	---	14.2	17.5	12.8	12.1	---	12.1	8.5	11.5	---	12.1	10.3
8	---	13.2	17.4	12.6	12.1	---	11.9	9.1	12.0	---	12.4	10.8
9	---	13.0	17.6	12.9	12.0	---	12.6	10.0	12.1	---	12.3	11.7
10	---	13.8	17.4	12.7	12.0	---	13.7	11.0	11.4	---	12.4	12.5
11	---	14.1	17.3	12.0	13.6	---	12.7	9.8	11.5	---	12.9	12.0
12	---	13.8	17.6	13.1	12.8	---	12.4	11.1	11.9	---	14.7	11.4
13	---	13.5	17.5	13.6	13.0	---	10.4	12.4	12.0	---	12.9	11.6
14	---	14.2	17.6	13.2	13.5	---	11.0	---	12.0	---	12.7	12.0
15	---	14.7	17.9	12.9	12.5	---	11.8	10.2	12.1	---	12.8	---
16	---	15.1	18.0	12.5	12.2	---	12.3	9.7	12.2	---	12.0	12.5
17	---	---	---	12.7	11.6	---	13.3	8.8	12.3	---	11.0	12.5
18	---	---	---	12.7	11.4	---	13.4	8.4	12.7	---	10.9	12.3
19	---	---	17.5	12.1	11.5	---	13.7	8.2	13.1	---	10.0	12.4
20	---	14.9	17.3	12.4	11.0	---	13.6	8.5	13.0	---	---	11.8
21	---	---	17.3	12.2	10.9	---	13.7	8.9	13.0	---	---	11.9
22	---	---	17.9	12.3	10.6	---	13.7	9.3	12.9	---	---	12.4
23	---	---	---	14.6	11.2	---	13.6	9.7	12.8	---	---	12.3
24	---	---	17.4	14.0	10.6	---	13.4	10.0	12.7	---	---	12.3
25	---	---	16.8	13.1	9.8	---	13.4	10.1	12.5	---	---	12.6
26	14.2	---	17.1	13.0	10.4	---	13.2	9.9	12.5	---	---	12.8
27	13.8	---	16.8	13.1	---	---	13.1	9.7	13.1	---	---	13.0
28	13.2	---	16.4	13.6	---	12.6	11.3	9.5	11.9	---	---	12.9
29	13.6	---	16.3	12.7	---	13.2	10.3	10.1	12.1	---	---	12.2
30	13.8	16.3	15.8	12.6	---	13.5	11.1	11.2	12.8	---	---	12.5
31	14.1	---	15.9	12.5	---	13.7	---	11.6	---	---	---	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

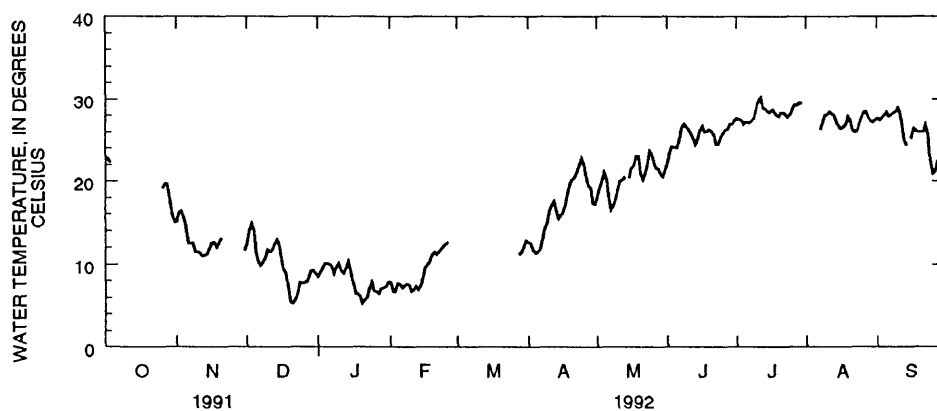
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--9 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 31.5 °C July 12, 1992; minimum value recorded, 4.5 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22.9	15.1	12.4	8.5	7.9	---	12.6	18.1	22.3	27.6	---	27.6
2	22.7	16.2	13.9	8.9	6.7	---	12.5	19.2	23.5	27.5	---	27.4
3	22.3	16.3	14.8	9.5	6.7	---	11.7	20.2	24.2	27.5	---	27.7
4	---	15.6	13.9	10.1	7.7	---	11.3	21.0	24.1	26.9	---	28.0
5	---	14.0	11.4	10.1	7.6	---	11.4	20.2	24.0	27.2	---	28.4
6	---	12.5	10.2	10.0	7.2	---	11.8	18.4	25.0	27.2	---	27.9
7	---	12.5	9.9	9.8	7.5	---	12.7	16.5	26.5	27.1	26.3	28.0
8	---	12.5	10.2	8.9	7.6	---	14.2	17.0	26.9	27.3	27.0	28.3
9	---	11.5	10.8	9.6	7.5	---	14.9	17.7	26.7	27.7	28.0	28.4
10	---	11.5	11.7	10.1	6.8	---	16.3	19.0	26.3	29.1	28.1	28.9
11	---	11.3	11.5	9.3	6.9	---	17.0	20.0	25.8	29.9	28.4	28.4
12	---	10.9	11.6	8.9	7.3	---	17.5	20.2	25.2	30.2	28.2	26.8
13	---	11.0	12.3	9.4	6.9	---	16.6	20.5	24.5	28.9	28.0	25.0
14	---	11.2	12.9	10.3	7.5	---	15.5	---	25.0	28.8	27.2	24.3
15	---	11.9	12.4	9.4	8.3	---	15.8	20.4	26.2	28.4	26.6	---
16	---	12.5	10.6	7.9	9.6	---	16.2	21.6	26.7	28.3	26.4	25.1
17	---	12.6	9.4	6.5	10.0	---	17.1	21.8	26.0	28.7	26.6	26.4
18	---	12.0	9.0	6.5	10.2	---	18.4	23.0	26.1	28.5	25.9	26.1
19	---	12.4	6.9	6.1	11.1	---	19.7	23.0	26.3	28.0	27.9	26.0
20	---	13.1	5.4	5.3	11.4	---	20.2	20.9	26.1	27.9	27.3	26.0
21	---	---	5.3	5.7	11.2	---	20.4	20.2	25.6	28.3	26.3	26.0
22	---	---	5.7	6.1	11.5	---	21.1	20.7	24.5	28.3	26.0	26.8
23	---	---	6.3	7.1	11.8	---	21.9	22.1	24.5	28.1	26.1	25.7
24	---	---	7.8	7.8	12.2	---	22.7	23.6	25.4	27.8	26.9	22.6
25	---	---	7.7	6.8	12.4	---	21.9	23.3	25.8	28.2	27.8	20.9
26	19.2	---	7.8	6.7	12.6	---	20.6	22.1	26.2	28.7	28.4	21.1
27	19.7	---	7.9	6.5	---	---	19.5	21.6	26.3	29.3	28.5	22.4
28	19.6	---	8.2	7.0	---	11.2	19.1	21.4	26.9	29.2	27.7	22.6
29	17.9	---	9.2	7.2	---	11.5	17.3	20.8	26.9	29.5	27.3	22.2
30	16.0	11.6	9.3	7.3	---	12.2	17.2	20.6	27.3	29.4	27.2	20.6
31	15.0	---	8.9	7.8	---	12.8	---	21.5	---	---	27.4	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

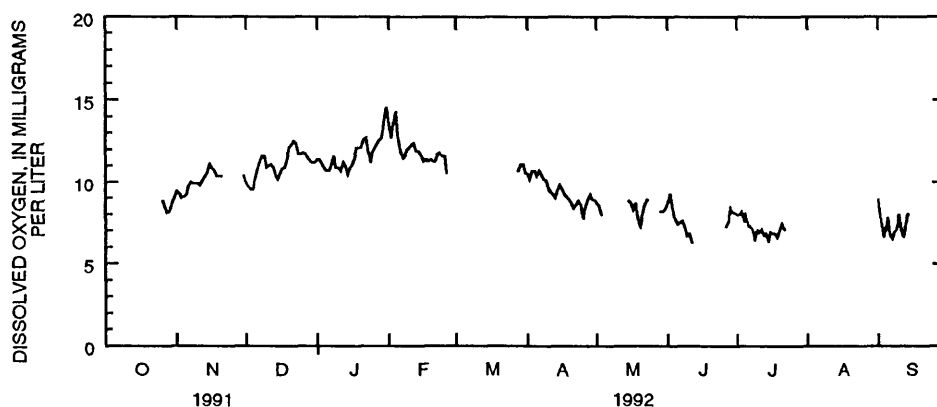
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--9 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.9 mg/L February 3, 1992; minimum value recorded, 5.4 mg/L September 3, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	9.4	9.9	11.4	13.5	---	10.5	8.7	8.7	8.0	---	8.9
2	---	9.3	9.7	11.4	12.7	---	10.2	8.5	9.3	8.0	---	7.6
3	---	9.0	9.5	11.1	13.6	---	10.7	8.0	8.5	8.2	---	6.6
4	---	9.1	9.5	10.8	14.3	---	10.7	---	7.7	7.5	---	7.0
5	---	9.2	10.2	10.7	12.8	---	10.4	---	7.4	8.1	---	7.8
6	---	9.7	10.8	10.7	12.0	---	10.7	---	7.5	7.3	---	6.7
7	---	10.0	11.2	11.0	11.5	---	10.5	---	7.6	7.3	---	6.5
8	---	9.9	11.6	11.6	11.6	---	10.2	---	7.2	7.1	---	6.9
9	---	9.9	11.6	10.9	12.0	---	10.1	---	6.7	6.4	---	7.1
10	---	9.9	10.9	10.9	12.1	---	9.5	---	6.8	7.0	---	8.0
11	---	9.8	11.0	10.7	12.3	---	9.4	---	6.3	6.9	---	7.0
12	---	10.1	11.1	11.2	12.4	---	9.2	---	---	7.1	---	6.6
13	---	10.3	10.9	11.0	11.9	---	9.0	---	---	6.7	---	7.4
14	---	10.6	10.4	10.5	11.9	---	9.5	---	---	6.8	---	8.0
15	---	11.1	10.2	10.8	11.6	---	9.8	8.8	---	6.3	---	---
16	---	10.9	10.6	11.1	11.3	---	9.5	8.7	---	6.9	---	7.5
17	---	10.7	10.8	11.5	11.4	---	9.2	8.3	---	6.8	---	---
18	---	10.4	10.9	12.1	11.3	---	9.1	8.7	---	6.8	---	---
19	---	10.4	11.5	12.1	11.4	---	8.9	7.5	---	6.6	---	---
20	---	10.4	12.1	12.1	11.3	---	8.7	7.3	---	7.1	---	---
21	---	---	12.3	12.6	11.3	---	8.4	8.1	---	7.4	---	---
22	---	---	12.5	12.7	11.7	---	8.6	8.6	---	7.1	---	---
23	---	---	12.4	12.0	11.8	---	8.8	8.9	---	---	---	---
24	---	---	11.7	11.2	11.6	---	8.6	---	---	---	---	---
25	---	---	11.7	11.8	11.6	---	7.7	---	---	---	---	---
26	8.8	---	11.8	12.1	10.6	---	8.4	---	7.3	---	---	---
27	8.4	---	11.7	12.4	---	---	8.9	---	7.6	---	---	---
28	8.1	---	11.5	12.6	---	10.7	9.2	---	8.4	---	---	---
29	8.2	---	11.3	12.7	---	11.1	8.9	8.2	8.1	---	---	---
30	8.7	10.4	11.2	14.0	---	11.1	8.9	8.2	8.1	---	---	---
31	9.1	---	11.2	14.6	---	10.6	---	8.4	---	---	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

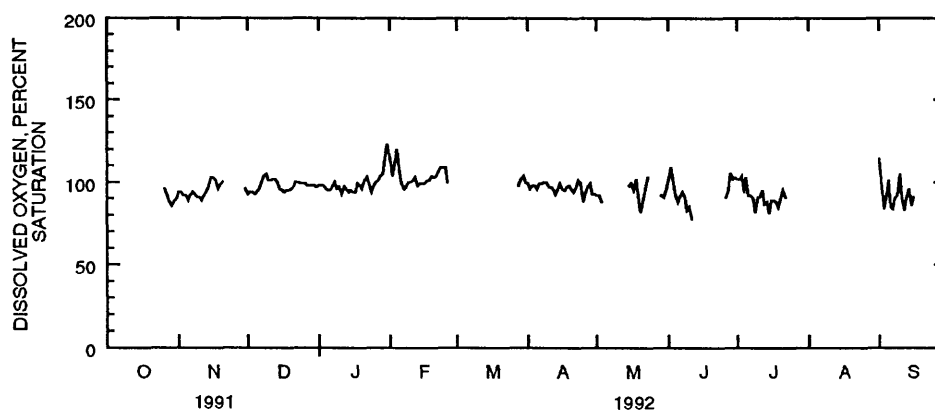
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--9 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 146 percent of saturation September 1, 1992; minimum value recorded, 67 percent of saturation October 26, 1991.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (In percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	94	93	98	114	---	99	92	101	102	---	114
2	---	94	94	98	104	---	96	92	109	102	---	97
3	---	92	94	98	111	---	98	88	102	104	---	84
4	---	92	93	96	120	---	98	---	92	94	---	90
5	---	89	94	95	108	---	96	---	88	103	---	101
6	---	92	96	95	99	---	99	---	92	92	---	85
7	---	94	99	97	96	---	99	---	94	92	---	84
8	---	93	104	100	97	---	100	---	91	91	---	90
9	---	91	105	96	100	---	100	---	83	82	---	92
10	---	91	101	97	100	---	97	---	85	91	---	105
11	---	89	101	93	101	---	97	---	78	91	---	90
12	---	92	102	97	103	---	96	---	---	95	---	83
13	---	94	102	96	98	---	93	---	---	87	---	90
14	---	97	99	94	99	---	96	---	---	88	---	96
15	---	103	96	95	99	---	99	98	---	81	---	86
16	---	103	95	94	99	---	96	99	---	89	---	91
17	---	101	94	94	101	---	95	95	---	89	---	---
18	---	96	95	99	101	---	97	102	---	88	---	---
19	---	98	95	98	104	---	98	88	---	85	---	---
20	---	100	96	96	103	---	96	82	---	91	---	---
21	---	---	97	101	104	---	94	90	---	95	---	---
22	---	---	100	103	107	---	97	96	---	91	---	---
23	---	---	100	99	109	---	101	103	---	---	---	---
24	---	---	99	94	109	---	99	---	---	---	---	---
25	---	---	99	97	109	---	88	---	---	---	---	---
26	96	---	99	100	100	---	93	---	91	---	---	---
27	92	---	98	101	---	---	97	---	95	---	---	---
28	88	---	98	104	---	98	99	---	106	---	---	---
29	86	---	98	105	---	102	93	92	102	---	---	---
30	88	96	98	117	---	104	93	91	103	---	---	---
31	90	---	97	123	---	100	---	96	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 5,
GOOSE CREEK AT LIGHT 6**

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

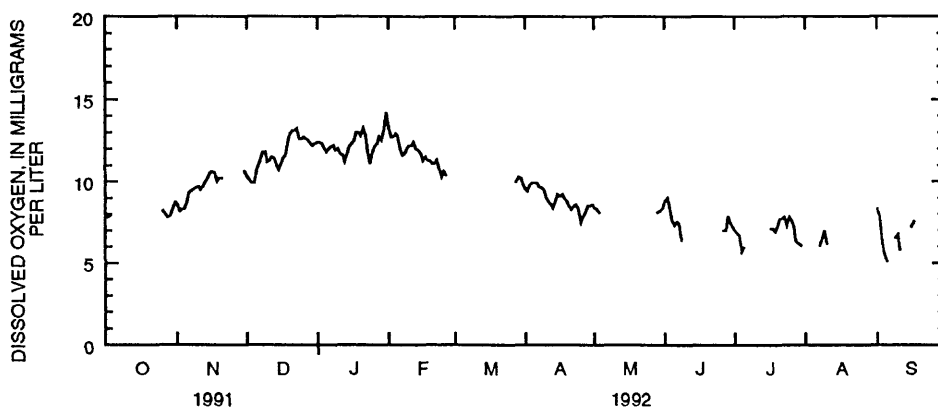
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.1 mg/L January 31, 1992; minimum value recorded, 3.0 mg/L September 5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	8.6	10.3	12.4	13.3	---	9.5	8.4	8.8	7.0	---	8.3
2	7.8	8.2	10.1	12.4	12.7	---	9.4	8.3	9.0	6.8	---	7.8
3	7.9	8.3	9.9	12.3	12.7	---	9.8	8.1	8.5	6.7	---	6.2b
4	---	8.3	9.9	12.0	12.9	---	9.9	---	7.6	5.7b	---	5.6b
5	---	8.7	10.5	11.8	12.8	---	9.9	---	7.3	5.9b	---	5.1b
6	---	9.3	11.0	12.0	12.0	---	9.9	---	7.5	---	---	---
7	---	9.4	11.3	12.1	11.6	---	9.7	---	7.4	---	6.1	---
8	---	9.5	11.8	12.2	11.7	---	9.6	---	6.4b	---	6.4b	---
9	---	9.6	11.8	11.9	12.0	---	9.5	---	---	---	7.0	6.5
10	---	9.7	11.2	12.0	12.2	---	9.0	---	---	---	6.2	6.7b
11	---	9.5	11.3	11.7	12.2	---	8.8	---	---	---	---	5.8b
12	---	9.7	11.5	11.6	12.4	---	8.6	---	---	---	---	---
13	---	9.9	11.4	11.2	12.0	---	8.4	---	---	---	---	---
14	---	10.2	11.0	11.7	11.9	---	8.8	---	---	---	---	---
15	---	10.5	10.7	12.1	11.7	---	9.2	---	---	---	---	---
16	---	10.6	11.1	12.3	11.3	---	9.1	---	---	---	---	7.2
17	---	10.5	11.4	12.5	11.5	---	9.2	---	---	7.1	---	7.5
18	---	10.0	11.6	13.0	11.3	---	9.0	---	---	7.1	---	---
19	---	10.2	12.5	13.0	11.3	---	8.8	---	---	6.9	---	---
20	---	10.2	12.9	12.8	11.1	---	8.5	---	---	7.3	---	---
21	---	---	13.1	13.2	11.1	---	8.3	---	---	7.7	---	---
22	---	---	13.1	12.8	11.3	---	8.5	---	---	7.7	---	---
23	---	---	13.2	11.8	10.9	---	8.6	---	---	7.8	---	---
24	---	---	12.6	11.1	10.3	---	8.3	---	---	7.3	---	---
25	---	---	12.6	11.7	10.6	---	7.5	---	---	7.8	---	---
26	8.2	---	12.7	12.1	10.4	---	7.8	---	7.0	7.6	---	---
27	8.0	---	12.6	12.3	---	---	8.1	---	7.0	7.2	---	---
28	7.8	---	12.5	12.7	---	10.0	8.5	---	7.9	6.3b	---	---
29	7.9	---	12.3	12.5	---	10.3	8.5	8.1	7.4	6.2	---	---
30	8.3	10.6	12.2	13.2	---	10.2	8.6	8.2	7.2	6.1	---	---
31	8.7	---	12.3	14.2	---	9.8	---	8.4	---	---	---	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

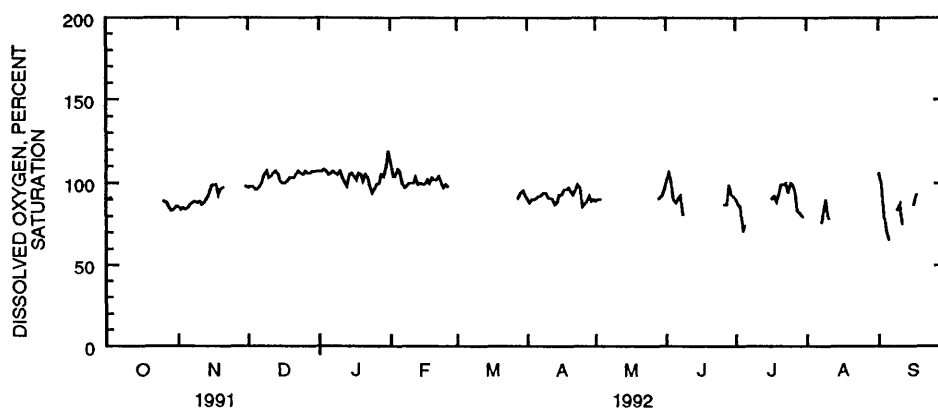
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 149 percent of saturation September 1, 1992; minimum value recorded, 38 percent of saturation September 5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	86	97	107	112	---	90	89	101	90	---	106
2	90	84	98	107	104	---	88	90	106	87	---	99
3	91	85	98	108	104	---	90	90	102	86	---	80
4	---	84	96	107	108	---	90	---	90	71	---	72
5	---	85	96	105	107	---	91	---	88	74	---	66
6	---	87	98	106	100	---	92	---	91	---	---	---
7	---	88	100	107	97	---	92	---	92	---	76	---
8	---	89	105	106	98	---	94	---	81	---	81	---
9	---	88	107	105	100	---	94	---	---	---	90	84
10	---	89	103	107	100	---	91	---	---	---	79	87
11	---	87	104	103	100	---	91	---	---	---	---	75
12	---	88	106	100	103	---	90	---	---	---	---	---
13	---	90	107	98	99	---	87	---	---	---	---	---
14	---	93	105	105	100	---	88	---	---	---	---	---
15	---	98	101	106	99	---	93	---	---	---	---	---
16	---	99	100	104	99	---	93	---	---	---	---	87
17	---	99	100	102	102	---	96	---	---	91	---	93
18	---	93	101	106	100	---	96	---	---	92	---	---
19	---	96	103	105	103	---	97	---	---	89	---	---
20	---	97	103	101	102	---	95	---	---	94	---	---
21	---	---	103	105	102	---	93	---	---	99	---	---
22	---	---	105	103	104	---	96	---	---	99	---	---
23	---	---	107	98	101	---	99	---	---	100	---	---
24	---	---	106	94	97	---	97	---	---	94	---	---
25	---	---	105	96	99	---	86	---	---	100	---	---
26	89	---	107	99	98	---	87	---	87	99	---	---
27	88	---	106	100	---	---	89	---	87	94	---	---
28	86	---	106	105	---	91	92	---	99	83	---	---
29	83	---	107	104	---	94	89	91	93	82	---	---
30	84	98	107	110	---	95	90	92	92	80	---	---
31	86	---	107	119	---	93	---	96	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 5,
GOOSE CREEK AT LIGHT 6**

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

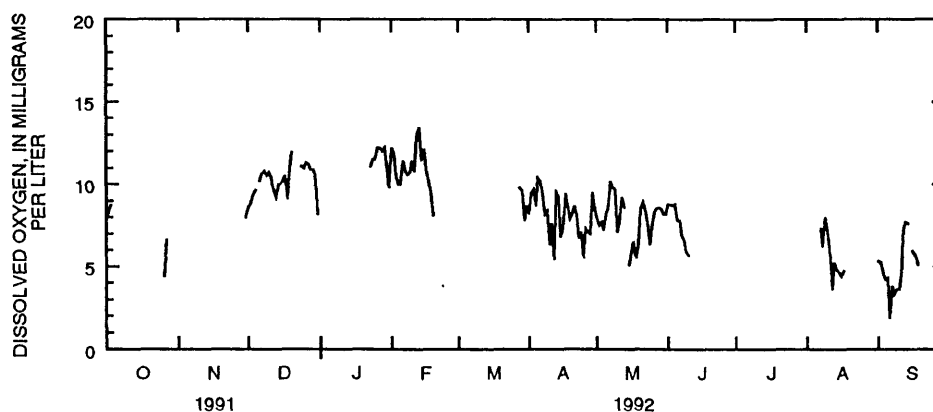
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 14.1 mg/L February 12, 1992; minimum value recorded, <1.0 mg/L April 28, September 3-9, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	---	8.6	---	12.2	---	8.2	8.0	8.8	---	---	5.3a
2	8.4	---	8.8	---	11.8	---	9.4	7.5	8.8	---	---	5.2a
3	8.7	---	9.3	---	10.5	---	9.7	7.7	8.7	---	---	4.5a
4	---	---	9.6	---	10.0	---	8.7b	7.2b	8.8	---	---	4.2a
5	---	---	---	---	10.0	---	10.4	6.2b	7.8	---	---	4.3a
6	---	---	10.2	---	11.4	---	10.2	8.5a	7.8	---	---	1.9a
7	---	---	10.6	---	10.8	---	9.5	10.2	6.9b	---	7.3	3.8a
8	---	---	10.8	---	10.6	---	8.2b	9.8	6.6b	---	6.2b	3.3a
9	---	---	10.5	---	10.7	---	8.4b	9.7	5.9b	---	8.0	3.6a
10	---	---	10.7	---	11.4	---	6.3a	7.1b	5.7b	---	7.1	3.6a
11	---	---	10.4	---	10.8	---	7.6a	7.7b	---	---	6.1b	4.5a
12	---	---	9.6	---	12.9	---	5.4b	9.2	---	---	3.6a	7.3
13	---	---	9.2	---	13.4	---	9.5	8.6	---	---	5.2b	7.7
14	---	---	10.0	---	11.4	---	9.2	---	---	---	4.8b	7.6
15	---	---	10.0	---	12.1	---	6.8b	5.1b	---	---	4.6b	---
16	---	---	10.2	---	10.9	---	7.3a	5.7b	---	---	4.4b	5.9
17	---	---	10.5	---	10.2	---	9.4	6.5	---	---	4.7b	5.7b
18	---	---	9.1	---	9.5	---	8.8	5.5b	---	---	---	5.1
19	---	---	11.0	---	8.1	---	7.9	6.3a	---	---	---	---
20	---	---	11.9	---	---	---	8.1	8.5	---	---	---	---
21	---	---	---	---	---	---	8.7	8.9	---	---	---	---
22	---	---	---	---	---	---	8.1	8.5	---	---	---	---
23	---	---	---	11.1	---	---	6.7b	7.7b	---	---	---	---
24	---	---	11.1	11.5	---	---	7.1b	6.3b	---	---	---	---
25	---	---	11.0	11.5	---	---	5.5b	7.4b	---	---	---	---
26	4.4b	---	11.3	12.2	---	---	7.3	8.3	---	---	---	---
27	6.6	---	11.2	12.2	---	---	7.1	8.5	---	---	---	---
28	---	---	10.9	12.0	---	9.8	7.0a	8.6	---	---	---	---
29	---	---	10.9	12.2	---	9.6	9.5	6.5	---	---	---	---
30	---	8.0	10.6	11.0	---	7.8	8.5	8.2	---	---	---	---
31	---	---	8.2b	9.8	---	8.7	---	8.2	---	---	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 5, GOOSE CREEK AT LIGHT 6

Table 15.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 5, October 1991-September 1992--Continued

GOOSE CREEK AT LIGHT 6

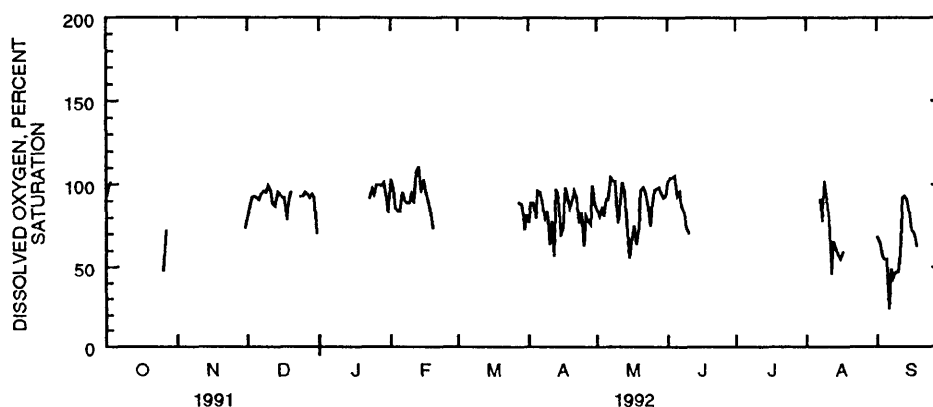
[Site 5 is at latitude 35°19'54", longitude 76°37'06", Beaufort County; U.S. Geological Survey downstream order number 0208455615]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 131 percent of saturation June 2, 1992; minimum value recorded, ≤10 percent of saturation April 28, September 5-9, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	---	81	---	103	---	77	85	101	---	---	68
2	98	---	85	---	97	---	89	81	104	---	---	65
3	101	---	92	---	86	---	89	85	104	---	---	57
4	---	---	93	---	84	---	80	81	105	---	---	55
5	---	---	---	---	84	---	96	91	93	---	---	55
6	---	---	91	---	95	---	95	91	95	---	---	24
7	---	---	94	---	90	---	90	104	87	---	91	49
8	---	---	96	---	89	---	80	102	83	---	78	43
9	---	---	95	---	89	---	84	102	74	---	102	47
10	---	---	99	---	94	---	64	77	71	---	91	47
11	---	---	96	---	89	---	78	85	---	---	79	58
12	---	---	88	---	107	---	57	101	---	---	46	92
13	---	---	87	---	111	---	97	95	---	---	66	93
14	---	---	95	---	95	---	93	76	---	---	61	91
15	---	---	94	---	103	---	69	56	---	---	57	---
16	---	---	92	---	96	---	74	65	---	---	55	72
17	---	---	92	---	90	---	98	75	---	---	59	71
18	---	---	79	---	85	---	94	64	---	---	---	63
19	---	---	91	---	74	---	86	74	---	---	---	---
20	---	---	95	---	---	---	89	96	---	---	---	---
21	---	---	---	---	---	---	96	98	---	---	---	---
22	---	---	---	---	---	---	92	96	---	---	---	---
23	---	---	---	92	---	---	77	89	---	---	---	---
24	---	---	93	97	---	---	83	75	---	---	---	---
25	---	---	93	94	---	---	63	86	---	---	---	---
26	48	---	95	100	---	---	81	96	---	---	---	---
27	72	---	94	100	---	---	78	97	---	---	---	---
28	---	---	92	99	---	89	76	98	---	---	---	---
29	---	---	94	101	---	88	99	95	---	---	---	---
30	---	74	92	92	---	73	88	92	---	---	---	---
31	---	---	71	83	---	82	---	93	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 5,
GOOSE CREEK AT LIGHT 6**

**Table 16.--Five-day mean water temperature and dissolved-oxygen values in water at site 5,
October 1991-September 1992, for day and night periods**

GOOSE CREEK AT LIGHT 6

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	22.6	22.4	---	---	7.9	7.9	8.5	8.5
10/ 6/91-10/10/91	---	---	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	19.0	18.9	9.3	8.7	8.8	8.0	6.7	4.2
10/26/91-10/30/91	18.5	17.9	8.5	8.3	8.1	8.1	5.3	6.6
10/31/91-11/ 4/91	15.7	15.5	9.3	9.1	8.5	8.4	---	---
11/ 5/91-11/ 9/91	12.6	12.2	9.8	9.8	9.4	9.4	---	---
11/10/91-11/14/91	11.3	11.1	10.2	10.3	9.8	9.8	---	---
11/15/91-11/19/91	12.4	12.3	10.8	10.6	10.4	10.3	---	---
11/20/91-11/24/91	13.4	13.6	10.4	10.1	10.2	10.0	---	---
11/25/91-11/29/91	11.4	11.3	10.9	10.6	11.0	10.6	8.9	7.6
11/30/91-12/ 4/91	13.5	13.3	9.8	9.6	10.3	10.0	9.0	9.1
12/ 5/91-12/ 9/91	10.6	10.3	11.2	11.2	11.4	11.3	10.6	10.3
12/10/91-12/14/91	12.1	12.1	10.9	10.7	11.3	11.1	10.1	9.7
12/15/91-12/19/91	9.4	8.7	11.0	11.0	11.6	11.7	10.1	10.6
12/20/91-12/24/91	6.2	6.3	12.2	12.1	13.0	12.9	11.5	11.4
12/25/91-12/29/91	8.2	8.3	11.6	11.5	12.5	12.4	11.1	10.9
12/30/91- 1/ 3/92	9.1	9.1	11.3	11.2	12.4	12.3	9.0	9.1
1/ 4/92- 1/ 8/92	9.8	9.7	11.1	10.8	12.1	11.9	---	---
1/ 9/92- 1/13/92	9.5	9.6	11.1	10.7	11.8	11.5	---	---
1/14/92- 1/18/92	8.1	7.6	11.4	11.3	12.5	12.4	---	---
1/19/92- 1/23/92	6.2	6.1	12.3	12.1	12.6	12.4	11.7	11.2
1/24/92- 1/28/92	7.0	6.8	12.2	12.0	12.1	12.1	12.0	11.9
1/29/92- 2/ 2/92	7.5	7.2	13.6	13.5	13.3	13.1	11.5	11.1
2/ 3/92- 2/ 7/92	7.4	7.4	13.0	12.5	12.5	12.2	10.5	10.6
2/ 8/92- 2/12/92	7.3	7.1	12.1	12.1	12.1	12.1	11.4	11.7
2/13/92- 2/17/92	8.6	8.8	11.7	11.5	11.7	11.5	11.7	10.9
2/18/92- 2/22/92	11.3	11.2	11.5	11.4	11.3	11.1	8.9	8.0
2/23/92- 2/27/92	12.2	12.2	11.5	11.0	10.7	10.3	---	---
2/28/92- 3/ 3/92	---	---	---	---	---	---	---	---
3/ 4/92- 3/ 8/92	---	---	---	---	---	---	---	---
3/ 9/92- 3/13/92	---	---	---	---	---	---	---	---
3/14/92- 3/18/92	---	---	---	---	---	---	---	---
3/19/92- 3/23/92	---	---	---	---	---	---	---	---
3/24/92- 3/28/92	11.5	11.1	10.8	10.6	10.1	9.9	10.0	9.7
3/29/92- 4/ 2/92	12.5	12.2	10.8	10.5	10.0	9.6	8.9	8.6
4/ 3/92- 4/ 7/92	12.0	11.8	10.7	10.5	9.9	9.7	9.9	9.2
4/ 8/92- 4/12/92	16.3	16.3	9.8	9.4	9.2	8.8	7.2	7.4
4/13/92- 4/17/92	16.4	16.1	9.5	9.2	9.1	8.9	8.8	8.1
4/18/92- 4/22/92	20.2	20.3	8.8	8.6	8.8	8.4	8.3	8.0
4/23/92- 4/27/92	21.3	20.9	8.6	8.4	8.2	8.0	6.4	7.2
4/28/92- 5/ 2/92	18.4	18.0	8.9	8.6	8.6	8.2	8.1	8.2
5/ 3/92- 5/ 7/92	19.4	18.7	8.0	7.9	8.3	8.3	8.5	8.5
5/ 8/92- 5/12/92	19.0	19.0	---	---	---	---	8.8	8.4

**Table 16.--Five-day mean water temperature and dissolved-oxygen values in water at site 5,
October 1991-September 1992, for day and night periods--Continued**

GOOSE CREEK AT LIGHT 6

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	21.2	21.2	8.8	8.5	---	---	6.4	6.3
5/18/92- 5/22/92	21.7	21.3	8.2	7.9	---	---	7.7	7.6
5/23/92- 5/27/92	22.6	22.5	9.1	9.1	---	---	8.1	7.3
5/28/92- 6/ 1/92	21.5	21.5	8.6	8.3	8.6	8.2	8.6	8.3
6/ 2/92- 6/ 6/92	24.4	24.3	8.1	7.8	8.1	7.7	8.4	8.0
6/ 7/92- 6/11/92	26.6	26.2	7.1	6.6	7.2	6.2	6.9	5.7
6/12/92- 6/16/92	25.6	25.5	---	---	---	---	---	---
6/17/92- 6/21/92	26.2	25.7	---	---	---	---	---	---
6/22/92- 6/26/92	25.5	25.2	7.5	7.1	7.3	6.8	---	---
6/27/92- 7/ 1/92	27.2	27.0	8.3	8.0	7.4	7.2	---	---
7/ 2/92- 7/ 6/92	27.4	27.0	8.1	7.5	6.5	6.0	---	---
7/ 7/92- 7/11/92	28.6	28.3	7.2	6.6	---	---	---	---
7/12/92- 7/16/92	29.1	28.5	7.1	6.4	7.7	6.8	---	---
7/17/92- 7/21/92	28.4	28.0	7.2	6.6	7.5	7.0	---	---
7/22/92- 7/26/92	28.4	28.2	7.5	7.5	7.9	7.4	---	---
7/27/92- 7/31/92	29.5	29.1	---	---	6.5	6.1	---	---
8/ 1/92- 8/ 5/92	---	27.3	---	---	---	5.2	---	6.4
8/ 6/92- 8/10/92	27.6	27.1	---	---	6.6	6.1	7.0	7.1
8/11/92- 8/15/92	27.8	27.3	---	---	---	---	5.1	4.3
8/16/92- 8/20/92	27.2	26.9	---	---	---	---	4.5	4.9
8/21/92- 8/25/92	26.9	26.5	---	---	---	---	---	---
8/26/92- 8/30/92	28.1	27.4	---	---	---	---	---	---
8/31/92- 9/ 4/92	28.1	27.4	8.3	7.2	7.6	6.5	5.5	4.7
9/ 5/92- 9/ 9/92	28.5	28.0	7.5	6.5	6.3	5.9	4.1	2.3
9/10/92- 9/14/92	26.8	25.9	8.0	7.0	6.5	5.9	6.5	6.4
9/15/92- 9/19/92	25.9	25.6	7.7	6.8	7.6	7.0	6.0	5.4
9/20/92- 9/24/92	25.5	24.6	---	---	---	---	---	---
9/25/92- 9/29/92	21.9	21.9	---	---	---	---	---	---

Table 17.--Vertical distributions of selected constituents in water at site 5, October 1991-September 1992

GOOSE CREEK AT LIGHT 6

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (µS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 04...	1230	1.17	---	---	---	---	---	---
04...	1231	---	9.00	21,600	13.0	22.0	8.2	101
04...	1232	---	6.00	21,600	13.0	22.0	8.4	104
04...	1233	---	2.00	21,500	12.9	22.0	8.8	109
25...	1200	0.85	---	---	---	---	---	---
25...	1201	---	11.0	20,100	12.0	18.0	9.2	105
25...	1202	---	10.0	20,100	12.0	18.0	9.2	105
25...	1203	---	9.00	20,100	12.0	18.0	9.0	102
25...	1204	---	8.00	20,100	12.0	18.0	8.6	98
25...	1205	---	7.00	20,100	12.0	18.0	8.6	98
25...	1206	---	6.00	20,100	12.0	18.0	8.4	96
25...	1207	---	5.00	20,100	12.0	18.0	8.4	96
25...	1208	---	4.00	20,100	12.0	18.0	8.4	96
25...	1209	---	3.00	20,100	12.0	18.0	8.0	91
25...	1210	---	2.00	20,100	12.0	18.0	8.0	91
25...	1211	---	1.00	20,100	12.0	18.0	7.6	86
Nov. 21...	1350	0.75	---	---	---	---	---	---
21...	1351	---	9.00	23,500	14.2	14.0	10.2	108
21...	1352	---	8.00	23,500	14.2	14.0	10.2	108
21...	1353	---	6.00	23,500	14.2	14.0	10.2	108
21...	1354	---	4.00	23,600	14.3	14.0	9.8	104
21...	1355	---	2.00	23,500	14.2	13.0	9.2	96
29...	1100	0.66	---	---	---	---	---	---
29...	1101	---	9.00	24,800	15.1	10.0	11.0	108
29...	1102	---	6.00	26,100	16.0	11.0	10.4	104
29...	1103	---	2.00	26,900	16.5	11.0	8.8	89
Dec. 11...	1105	0.67	---	---	---	---	---	---
11...	1106	---	9.00	27,800	17.1	11.5	10.8	110
11...	1107	---	8.00	27,800	17.1	11.5	10.8	110
11...	1108	---	7.00	27,800	17.1	11.0	10.8	110
11...	1109	---	6.00	27,800	17.1	11.0	10.8	110
11...	1110	---	5.00	28,100	17.3	11.0	10.8	110
11...	1111	---	4.00	28,100	17.3	11.0	10.7	109
11...	1112	---	3.00	28,100	17.3	11.0	10.7	109
11...	1113	---	2.00	28,100	17.3	11.0	10.6	108
11...	1114	---	1.00	28,100	17.3	11.0	10.6	108
1992								
Jan. 22...	1145	0.26	---	---	---	---	---	---
22...	1146	---	9.00	16,300	9.5	6.0	12.4	106
22...	1147	---	6.00	18,600	11.0	5.5	12.4	106
22...	1148	---	2.00	20,300	12.1	6.0	12.2	107
Feb. 14...	1130	0.40	---	---	---	---	---	---
14...	1131	---	9.00	20,800	12.4	7.0	11.8	106
14...	1132	---	6.00	20,800	12.4	7.0	11.8	106
14...	1133	---	2.00	19,500	11.6	9.5	11.8	111
27...	1210	0.35	---	---	---	---	---	---
27...	1211	---	9.00	19,700	11.7	12.5	10.4	105
27...	1212	---	6.00	19,700	11.7	12.5	10.4	105
27...	1213	---	2.00	19,600	11.7	12.5	9.8	99

¹Water level from 02084472, Pamlico River at Washington.

**Table 17.--Vertical distributions of selected constituents in water at site 5,
October 1991-September 1992--Continued**

GOOSE CREEK AT LIGHT 6

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
Mar. 27...	1030	0.56	---	---	---	---	---	---
27...	1031	---	9.00	20,200	12.0	11.5	10.8	107
27...	1032	---	6.00	20,200	12.0	11.5	10.0	99
27...	1033	---	2.00	20,300	12.1	11.0	9.8	96
Apr. 16...	1255	0.91	---	---	---	---	---	---
16...	1256	---	9.00	19,200	11.4	16.0	9.6	105
16...	1257	---	6.00	19,200	11.4	16.0	9.6	105
16...	1258	---	4.00	19,200	11.4	16.0	9.6	105
16...	1259	---	2.00	20,000	11.9	16.0	8.5	93
May 14...	1250	1.20	---	---	---	---	---	---
14...	1251	---	9.00	18,200	10.7	19.0	9.0	104
14...	1252	---	6.00	18,200	10.7	20.0	8.5	100
14...	1253	---	2.00	18,200	10.7	20.0	8.1	95
28...	1215	1.69	---	---	---	---	---	---
28...	1216	---	9.00	16,200	9.5	21.0	8.5	101
28...	1217	---	6.00	16,200	9.5	21.0	8.3	99
28...	1218	---	2.00	16,200	9.5	21.0	8.2	98
June 25...	1230	0.73	---	---	---	---	---	---
25...	1231	---	9.00	20,700	12.4	25.5	---	---
25...	1232	---	6.00	20,800	12.4	25.5	---	---
25...	1233	---	2.00	21,000	12.6	25.0	---	---
July 16...	1315	0.0	---	---	---	---	---	---
16...	1316	---	9.00	19,000	11.3	28.0	7.0	96
16...	1317	---	6.00	19,000	11.3	28.0	7.0	96
16...	1318	---	4.00	19,000	11.3	28.0	7.0	96
16...	1319	---	2.00	19,000	11.3	28.0	7.0	96
31...	1150	1.02	---	---	---	---	---	---
31...	1151	---	9.00	20,500	12.2	28.5	6.1	84
31...	1152	---	6.00	20,500	12.2	28.5	6.0	83
31...	1153	---	2.00	20,700	12.4	28.5	5.3	73
Aug. 31...	1220	0.46	---	---	---	---	---	---
31...	1221	---	9.00	15,100	8.8	27.0	8.5	113
31...	1222	---	6.00	16,300	9.5	27.0	6.5	86
31...	1223	---	2.00	17,400	10.2	27.0	4.7	63
Sept. 08...	1135	0.95	---	---	---	---	---	---
08...	1136	---	9.00	17,800	10.5	28.0	6.4	87
08...	1137	---	6.00	17,800	10.5	28.0	5.3	72
08...	1138	---	2.00	18,300	10.8	28.0	3.1	42
15...	1035	0.91	---	---	---	---	---	---
15...	1036	---	9.00	20,600	12.3	24.0	7.1	91
15...	1037	---	6.00	20,600	12.3	24.0	7.1	91
15...	1038	---	2.00	20,900	12.5	24.0	6.8	87

¹Water level from 02084472, Pamlico River at Washington.

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992

PUNGO RIVER AT JUNCTION LIGHT PR

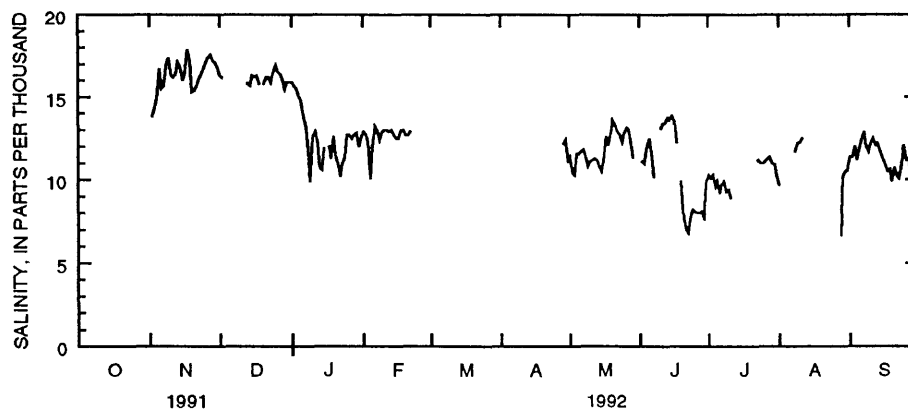
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County, U.S. Geological Survey downstream order number 0208457700]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 18.8 ppt November 5, 9, 1991; minimum value recorded, 4.7 ppt August 28, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	16.3	15.9	12.9	---	---	11.4	---	10.3	9.7	11.4
2	---	13.8	16.2	15.7	12.7	---	---	10.4	11.1	10.1	---	11.4
3	---	14.2	---	15.5	12.3	---	---	10.3	11.0	10.3	---	12.0
4	---	14.9	---	15.0	10.1	---	---	11.6	12.0	9.6	---	11.2
5	---	16.7	---	14.8	12.0	---	---	11.6	12.5	9.9	---	11.9
6	---	15.5	---	13.8	13.2	---	---	11.7	11.4	9.2	---	12.4
7	---	15.7	---	13.4	12.9	---	---	11.8	10.2	9.7	---	12.9
8	---	16.9	---	11.8	12.4	---	---	11.3	---	9.9	11.7	12.0
9	---	17.4	---	9.9	12.9	---	---	10.8	---	9.3	12.2	11.7
10	---	16.3	---	12.6	13.0	---	---	11.1	13.1	9.4	12.3	12.3
11	---	16.2	---	12.9	13.0	---	---	11.2	13.4	8.9	12.5	12.5
12	---	16.4	---	12.2	12.9	---	---	11.3	13.4	---	---	12.1
13	---	17.1	15.8	10.7	13.0	---	---	11.2	13.7	---	---	12.2
14	---	16.8	15.7	10.6	12.7	---	---	10.8	13.6	---	---	11.7
15	---	16.0	16.3	11.9	12.5	---	---	10.5	13.8	---	---	11.3
16	---	16.4	16.2	---	12.5	---	---	11.1	13.5	---	---	11.0
17	---	17.9	16.3	12.0	13.0	---	---	12.6	12.3	---	---	10.5
18	---	17.2	15.8	11.3	13.0	---	---	12.1	---	---	---	10.6
19	---	15.3	---	12.6	12.7	---	---	12.9	9.9	---	---	9.9
20	---	15.4	15.8	11.5	12.7	---	---	13.6	7.7	---	---	10.7
21	---	15.7	16.2	11.0	12.9	---	---	13.3	7.0	---	---	10.2
22	---	16.1	16.2	10.2	---	---	---	12.9	6.8	---	---	10.1
23	---	16.4	15.9	11.0	---	---	---	12.7	7.8	11.2	---	10.9
24	---	16.7	16.5	11.4	---	---	---	12.3	8.2	11.0	---	12.1
25	---	17.1	16.9	12.7	---	---	---	12.8	8.1	11.0	---	11.2
26	---	17.4	16.5	12.7	---	---	---	13.1	8.0	11.1	---	11.3
27	---	17.6	16.4	12.5	---	---	---	13.0	8.0	11.3	---	10.2
28	---	17.2	16.1	12.7	---	---	12.2	12.2	8.1	11.4	6.7	10.9
29	---	17.1	15.5	12.8	---	---	12.4	11.4	7.6	11.0	10.2	11.3
30	---	16.8	15.9	12.0	---	---	11.2	---	9.8	10.9	10.5	---
31	---	---	15.9	12.5	---	---	---	10.4	---	10.3	10.5	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 6, PUNGO RIVER AT JUNCTION LIGHT PR

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

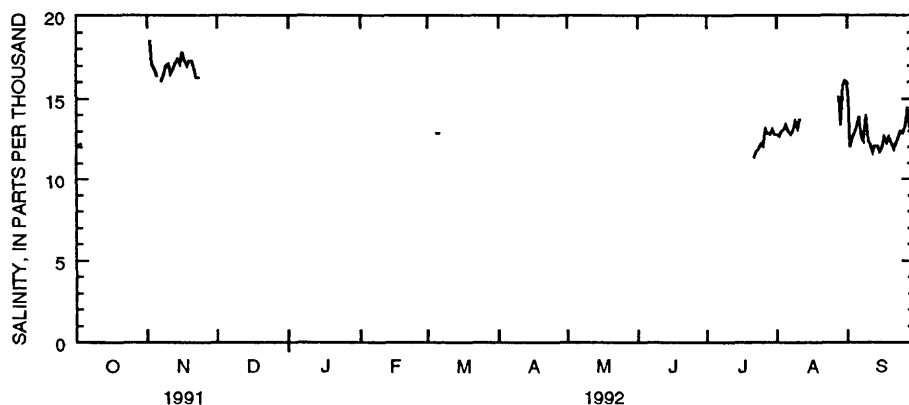
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 19.3 ppt November 4, 1991; minimum value recorded, 7.8 ppt August 28, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.1	---	---	---	---	---	---	---	---	---	12.8	16.0
2	12.1	18.5	---	---	---	---	---	---	---	---	12.7	12.0
3	12.2	17.1	---	---	---	---	---	---	---	---	13.0	12.6
4	---	16.8	---	---	---	---	---	---	---	---	13.1	12.9
5	---	16.4	---	---	---	12.9	---	---	---	---	13.4	13.4
6	---	---	---	---	---	12.9	---	---	---	---	13.0	13.9
7	---	16.1	---	---	---	---	---	---	---	---	12.8	12.6
8	---	16.4	---	---	---	---	---	---	---	---	13.0	12.4
9	---	17.0	---	---	---	---	---	---	---	---	13.6	14.0
10	---	17.1	---	---	---	---	---	---	---	---	13.2	12.4
11	---	16.5	---	---	---	---	---	---	---	---	13.7	12.2
12	---	16.8	---	---	---	---	---	---	---	---	---	11.7
13	---	17.1	---	---	---	---	---	---	---	---	---	12.1
14	---	17.4	---	---	---	---	---	---	---	---	---	12.1
15	---	17.1	---	---	---	---	---	---	---	---	---	11.7
16	---	17.8	---	---	---	---	---	---	---	---	---	11.9
17	---	17.3	---	---	---	---	---	---	---	---	---	12.6
18	---	17.0	---	---	---	---	---	---	---	---	---	12.3
19	---	17.3	---	---	---	---	---	---	---	---	---	12.6
20	---	17.3	---	---	---	---	---	---	---	---	---	12.3
21	---	16.8	---	---	---	---	---	---	---	---	---	11.9
22	---	16.3	---	---	---	---	---	---	---	11.4	---	12.2
23	---	16.3	---	---	---	---	---	---	---	11.7	---	12.6
24	---	---	---	---	---	---	---	---	---	11.9	---	13.0
25	---	---	---	---	---	---	---	---	---	12.2	---	12.9
26	---	---	---	---	---	---	---	---	---	12.1	---	13.4
27	---	---	---	---	---	---	---	---	---	13.1	---	14.5
28	---	---	---	---	---	---	---	---	---	12.9	15.1	13.1
29	---	---	---	---	---	---	---	---	---	12.8	13.4	12.4
30	---	---	---	---	---	---	---	---	---	13.1	15.8	---
31	---	---	---	---	---	---	---	---	---	12.8	16.1	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 6, PUNGO RIVER AT JUNCTION LIGHT PR

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

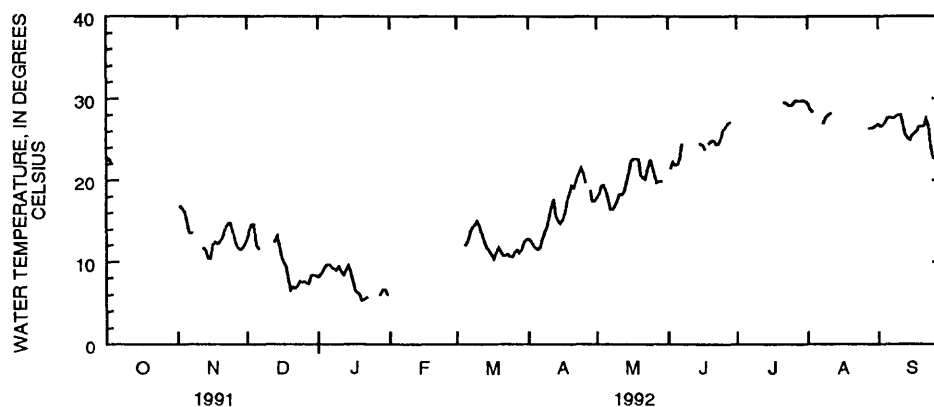
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 31.1 °C July 27, 1992; minimum value recorded, 4.3 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22.9	---	12.8	8.2	---	---	12.8	17.8	---	---	29.4	26.9
2	22.7	16.8	13.7	8.4	---	---	12.6	18.3	21.5	---	28.7	26.6
3	22.3	16.6	14.6	8.8	---	---	12.0	19.3	22.2	---	28.5	26.8
4	---	16.1	14.6	9.4	---	---	11.6	19.4	21.8	---	---	27.1
5	---	14.7	12.1	9.7	---	12.1	11.5	18.7	22.0	---	---	27.6
6	---	13.5	11.6	9.7	---	12.7	11.8	17.8	23.0	---	---	27.7
7	---	13.6	---	9.3	---	13.6	12.7	16.5	24.4	---	---	27.6
8	---	---	---	9.1	---	14.2	13.6	16.5	---	---	27.1	27.6
9	---	---	---	9.0	---	14.6	14.2	16.9	---	---	27.7	27.9
10	---	---	---	9.4	---	15.0	15.6	17.5	---	---	28.0	28.0
11	---	---	---	8.8	---	14.5	16.8	18.3	---	---	28.2	28.0
12	---	11.6	---	8.4	---	13.2	17.7	18.2	---	---	---	26.8
13	---	11.4	12.5	8.9	---	12.5	15.6	18.7	---	---	---	25.7
14	---	10.4	13.1	9.5	---	11.7	15.0	19.7	---	---	---	25.2
15	---	10.4	12.2	9.0	---	11.4	14.8	21.1	24.5	---	---	25.0
16	---	12.0	10.6	7.7	---	10.9	15.2	22.4	24.3	---	---	25.5
17	---	12.4	10.0	6.5	---	10.4	16.1	22.7	23.9	---	---	25.8
18	---	12.2	9.4	6.3	---	11.0	17.5	22.7	---	---	---	26.1
19	---	12.4	7.8	6.1	---	11.7	18.5	22.6	24.6	---	---	26.6
20	---	12.9	6.6	5.3	---	11.3	19.3	20.7	24.9	---	---	26.6
21	---	13.7	6.9	5.4	---	10.8	19.1	20.3	24.9	---	---	26.7
22	---	14.3	6.8	5.7	---	10.8	20.2	20.2	24.4	29.5	---	27.5
23	---	14.8	7.0	---	---	10.9	20.8	21.4	24.5	29.4	---	26.7
24	---	14.8	7.6	---	---	10.6	21.5	22.6	25.1	29.2	---	24.5
25	---	13.5	7.5	---	---	10.6	20.9	21.7	26.1	29.2	---	22.8
26	---	12.4	7.6	---	---	11.1	19.8	20.6	26.5	29.4	---	22.6
27	---	11.7	7.4	---	---	11.4	---	19.7	27.0	29.8	---	23.4
28	---	11.5	7.3	6.1	---	11.1	18.7	19.9	27.1	29.7	26.4	23.9
29	---	11.6	8.3	6.6	---	11.5	17.4	19.9	---	29.7	26.4	23.4
30	---	12.1	8.4	6.6	---	12.4	17.4	---	---	29.8	26.5	---
31	---	---	8.3	6.1	---	12.7	---	20.4	---	29.7	26.7	---



**DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 6, PUNGO RIVER AT
JUNCTION LIGHT PR**

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L.]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 19.5 mg/L January 13, 1992; minimum value recorded, 4.4 mg/L September 7, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	10.4	12.9	13.7	---	10.7	9.2	---	---	---	7.0
2	---	10.4	10.1	12.8	13.4	---	10.2	9.0	9.3	---	---	6.6
3	---	10.1	9.5	12.3	13.8	---	10.3	8.7	9.0	---	---	6.3
4	---	10.0	9.3	12.0	15.1	---	10.3	8.2	7.8	---	---	6.2
5	---	9.9	9.6	11.9	13.8	9.8	10.1	8.2	7.5	---	---	5.8b
6	---	10.2	---	12.0	12.7	9.8	10.3	8.2	8.0	---	---	5.8
7	---	10.3	---	12.0	12.3	9.4	10.5	8.4	8.3	---	---	6.2b
8	---	10.3	---	12.4	12.4	9.2	10.4	8.9	---	---	8.8	6.4
9	---	10.3	---	12.7	12.6	9.5	10.2	9.5	---	---	8.0	6.4
10	---	10.3	---	12.2	12.7	9.4	10.1	9.6	---	---	6.5	6.3b
11	---	10.2	---	12.0	12.9	9.1	9.8	9.5	---	---	7.6	---
12	---	10.6	---	12.8	12.9	9.3	9.5	9.1	---	---	---	---
13	---	10.7	---	13.4	12.6	9.6	9.2	9.0	---	---	---	---
14	---	10.8	12.5	12.2	12.6	9.8	9.6	9.3	---	---	---	---
15	---	11.2	12.1	11.5	12.6	9.9	9.5	9.2	---	---	---	---
16	---	10.9	12.4	11.5	12.3	9.9	9.2	9.2	---	---	---	---
17	---	10.5	12.6	11.8	12.2	10.5	9.2	9.1	---	---	---	---
18	---	10.4	12.9	12.5	11.9	10.7	9.2	9.3	---	---	---	---
19	---	10.7	13.2	12.5	12.0	10.4	9.0	8.7	8.0	---	---	---
20	---	10.8	13.7	13.1	11.9	10.0	8.8	8.0	8.2	---	---	---
21	---	10.7	13.6	13.6	12.0	10.1	8.5	8.4	7.6	---	---	---
22	---	10.3	13.8	14.6	---	10.3	8.7	8.5	8.0	8.8	---	---
23	---	9.9	13.9	14.3	---	10.1	8.9	8.6	8.1	8.2	---	---
24	---	9.7	13.5	13.1	---	10.2	8.7	9.0	7.9	7.6	---	---
25	---	9.4	13.4	13.1	---	10.5	8.1	8.8	7.7	8.1	---	---
26	---	9.6	13.4	13.2	---	10.3	7.7	8.1	7.1	8.6	---	---
27	---	9.8	13.3	13.6	---	10.2	---	8.1	6.9	8.1	---	---
28	---	9.9	13.2	13.3	---	10.4	8.5	8.2	6.5	7.2	6.0	---
29	---	10.2	13.0	13.6	---	10.6	8.8	7.7	---	7.3	7.2b	---
30	---	10.4	12.8	14.7	---	10.9	9.1	---	---	6.9	8.0	---
31	---	---	12.8	14.2	---	10.4	---	8.8	---	---	7.9	---

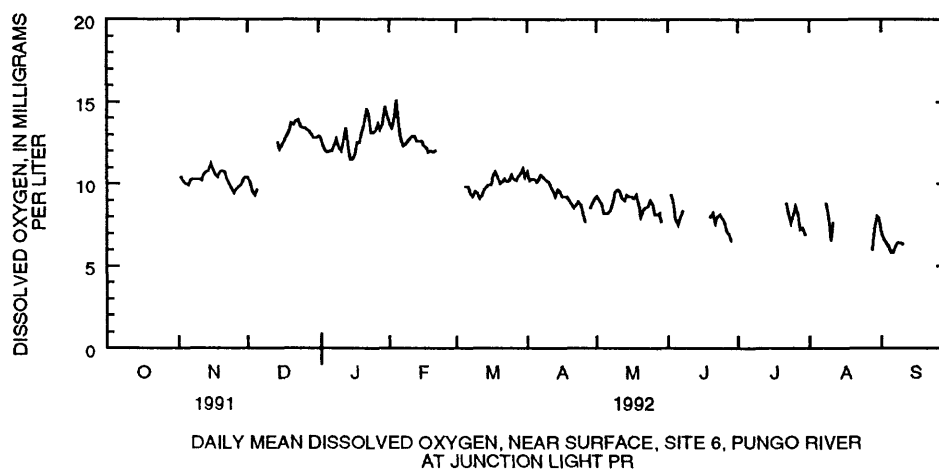


Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

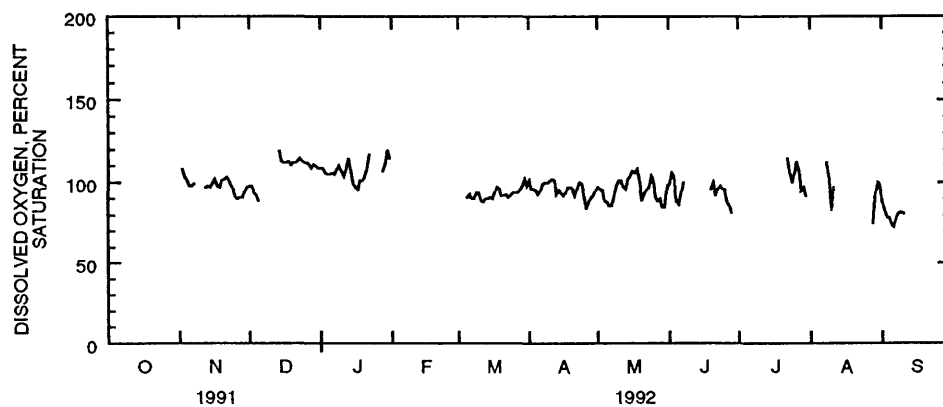
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County, U.S. Geological Survey downstream order number 0208457700]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 170 percent of saturation January 13, 1992; minimum value recorded, 55 percent of saturation September 7, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	98	109	---	---	101	97	---	---	---	89
2	---	108	98	109	---	---	96	96	106	---	---	83
3	---	104	94	106	---	---	96	95	104	---	---	79
4	---	101	92	105	---	---	95	89	89	---	---	79
5	---	98	89	105	---	91	93	88	87	---	---	74
6	---	98	---	106	---	93	95	86	94	---	---	73
7	---	99	---	105	---	90	99	86	100	---	---	79
8	---	---	---	108	---	90	100	91	---	---	112	81
9	---	---	---	110	---	94	100	98	---	---	102	82
10	---	---	---	107	---	94	101	101	---	---	83	81
11	---	---	---	104	---	89	102	101	---	---	97	---
12	---	97	---	109	---	88	101	97	---	---	---	---
13	---	98	---	115	---	90	93	96	---	---	---	---
14	---	97	119	107	---	90	95	102	---	---	---	---
15	---	100	113	100	---	91	94	104	---	---	---	---
16	---	102	112	97	---	90	92	107	---	---	---	---
17	---	98	112	96	---	94	94	106	---	---	---	---
18	---	97	113	101	---	97	97	108	---	---	---	---
19	---	101	111	101	---	96	97	100	96	---	---	---
20	---	102	112	103	---	92	96	89	100	---	---	---
21	---	103	112	108	---	92	92	93	92	---	---	---
22	---	101	113	117	---	93	97	95	96	115	---	---
23	---	98	115	---	---	91	100	97	98	107	---	---
24	---	96	113	---	---	92	99	104	96	100	---	---
25	---	91	112	---	---	94	91	101	96	106	---	---
26	---	90	112	---	---	94	84	91	88	113	---	---
27	---	91	111	---	---	94	88	---	86	107	---	---
28	---	91	109	107	---	95	91	90	82	95	75	---
29	---	94	111	111	---	98	92	85	---	97	90	---
30	---	97	110	120	---	102	95	85	---	92	100	---
31	---	---	109	115	---	98	---	---	---	---	99	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 6,
PUNGO RIVER AT JUNCTION LIGHT PR**

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

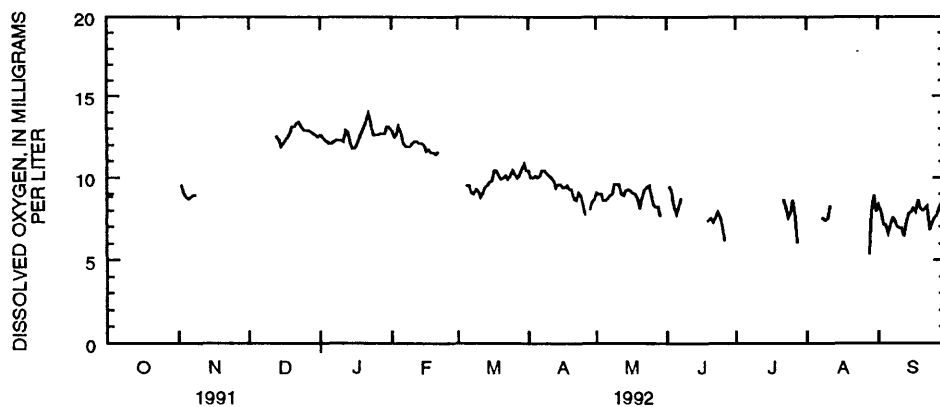
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L, but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.0 mg/L January 22, 1992; minimum value recorded, 1.4 mg/L August 28, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	---	---	12.6	12.9	---	10.4	9.1	---	---	---	8.3
2	8.8	9.5	---	12.5	12.5	---	10.0	9.0	9.4	---	---	7.9
3	8.8	9.1	---	12.3	12.6	---	10.0	9.0	9.2	---	---	7.1
4	---	8.8	---	12.2	13.1	---	10.1	8.6	8.2	---	---	7.1
5	---	8.7	---	12.1	12.8	9.5	10.0	8.6	7.8	---	---	6.6
6	---	8.8	---	12.1	12.1	9.5	10.1	8.7	8.3	---	---	7.0
7	---	8.9	---	12.2	11.9	9.1	10.4	8.9	8.7	---	---	7.5
8	---	8.9	---	12.3	11.9	9.0	10.4	9.0	---	---	7.5	7.4
9	---	---	---	12.3	11.9	9.3	10.2	9.6	---	---	7.4	7.0
10	---	---	---	12.3	12.1	9.2	10.1	9.6	---	---	7.5	6.9b
11	---	---	---	12.2	12.2	8.8	10.0	9.6	---	---	8.2	6.9
12	---	---	---	12.9	12.2	9.1	9.8	9.0	---	---	---	6.4
13	---	---	12.5	12.8	12.1	9.4	9.4	8.9	---	---	---	7.1
14	---	---	12.3	12.1	12.1	9.5	9.6	9.2	---	---	---	7.8
15	---	---	11.9	11.8	12.0	9.7	9.6	9.3	---	---	---	7.9
16	---	---	12.1	11.8	11.6	9.8	9.4	9.2	---	---	---	8.1
17	---	---	12.3	12.1	11.7	10.4	9.4	9.1	---	---	---	7.9
18	---	---	12.5	12.4	11.5	10.4	9.5	9.0	---	---	---	8.6
19	---	---	12.8	12.8	11.5	10.1	9.3	8.7	7.4b	---	---	8.1
20	---	---	13.1	13.0	11.4	9.9	9.3	8.1	7.5	---	---	8.0
21	---	---	13.1	13.4	11.5	10.0	8.7	8.8	7.3	---	---	8.1
22	---	---	13.3	13.9	---	10.1	8.6	9.2	7.5	8.6	---	8.2
23	---	---	13.4	13.5	---	9.9	9.1	9.4	7.9	8.2	---	6.8
24	---	---	13.1	12.6	---	10.1	8.9	9.5	7.6	7.6	---	7.1
25	---	---	12.9	12.6	---	10.4	8.2	9.0	7.1	7.9	---	7.5
26	---	---	12.9	12.6	---	10.2	7.8	8.3	6.2	8.6	---	7.7
27	---	---	12.9	12.7	---	10.0	---	8.2	---	7.6	---	8.1
28	---	---	12.8	12.7	---	10.1	8.1	8.2	---	6.1b	5.4a	8.4
29	---	---	12.7	12.7	---	10.5	8.5	7.7	---	---	7.9	7.5
30	---	---	12.6	13.1	---	10.8	8.7	---	---	---	8.9	---
31	---	---	12.5	13.1	---	10.4	---	8.2	---	---	7.9	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 6, PUNGO RIVER AT JUNCTION LIGHT PR

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

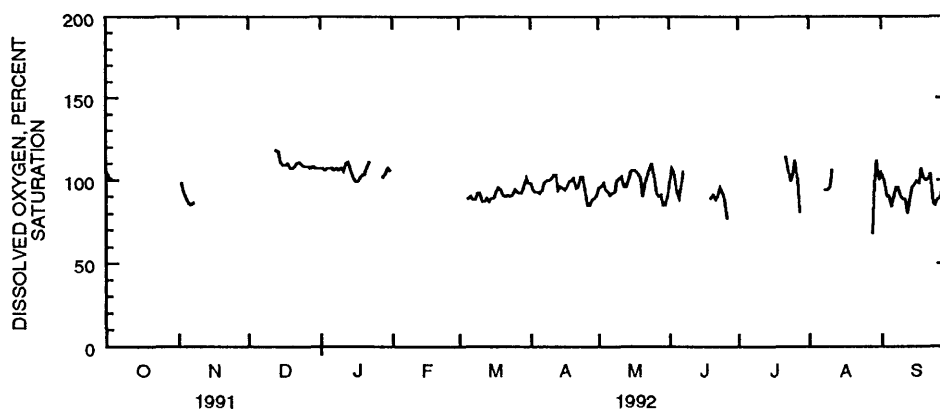
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 157 percent of saturation August 29, 1992; minimum value recorded, 17 percent of saturation August 28, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	106	---	---	107	---	---	98	95	---	---	---	104
2	102	98	---	107	---	---	94	96	107	---	---	99
3	101	93	---	106	---	---	93	98	105	---	---	90
4	---	89	---	107	---	---	93	94	93	---	---	90
5	---	86	---	107	---	89	92	93	89	---	---	84
6	---	85	---	107	---	90	94	91	98	---	---	89
7	---	86	---	106	---	88	98	92	105	---	---	95
8	---	---	---	107	---	88	100	93	---	---	94	95
9	---	---	---	106	---	92	100	100	---	---	94	90
10	---	---	---	107	---	92	101	101	---	---	96	88
11	---	---	---	105	---	87	103	102	---	---	106	88
12	---	---	---	110	---	87	103	96	---	---	---	80
13	---	---	---	111	---	89	94	96	---	---	---	87
14	---	---	---	117	---	87	96	100	---	---	---	95
15	---	---	---	111	---	89	95	105	---	---	---	97
16	---	---	109	99	---	89	94	106	---	---	---	99
17	---	---	109	99	---	93	96	106	---	---	---	98
18	---	---	110	101	---	95	99	104	---	---	---	107
19	---	---	107	103	---	94	100	101	89	---	---	101
20	---	---	107	103	---	91	101	90	91	---	---	100
21	---	---	108	107	---	90	95	98	88	---	---	101
22	---	---	110	111	---	91	96	102	90	114	---	104
23	---	---	111	---	---	90	102	106	95	107	---	86
24	---	---	109	---	---	91	102	110	92	99	---	85
25	---	---	108	---	---	94	92	103	88	104	---	88
26	---	---	108	---	---	93	85	92	77	112	---	89
27	---	---	108	---	---	92	---	90	---	100	---	96
28	---	---	107	102	---	92	88	91	---	81	68	100
29	---	---	108	104	---	96	89	85	---	---	98	88
30	---	---	107	107	---	101	91	---	---	---	112	---
31	---	---	107	106	---	98	---	91	---	---	100	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 6,
PUNGO RIVER AT JUNCTION LIGHT PR**

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

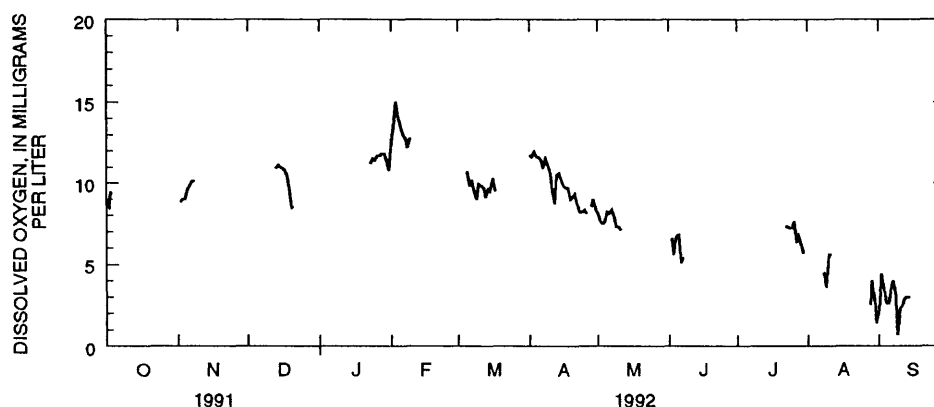
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 14.3 mg/L February 3, 1992; minimum value recorded, <1.0 mg/L July 27, August 28, 30, 31, September 1-12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	---	---	---	12.6	---	11.7	8.1	---	---	---	2.2a
2	8.5	8.8	---	---	13.8	---	11.6	7.6	6.6b	---	---	4.4a
3	9.4	9.0	---	---	15.0	---	11.9	7.5	5.6b	---	---	3.5a
4	---	9.0	---	---	14.0	---	11.6	7.6	6.7b	---	---	2.6a
5	---	9.6	---	---	13.5	10.7	11.6	8.2	6.8	---	---	2.6a
6	---	9.8	---	---	13.0	9.8	11.4	8.1	5.1b	---	---	3.3a
7	---	10.1	---	---	12.7	10.2	10.9	8.3	5.4b	---	---	4.0a
8	---	10.1	---	---	12.2	9.5	11.5	7.9	---	---	4.5b	3.5a
9	---	---	---	---	12.8	9.0	11.1	7.3	---	---	3.6a	<1.0a
10	---	---	---	---	---	9.9	10.6	7.3	---	---	5.6b	2.3a
11	---	---	---	---	---	9.8	9.5	7.1b	---	---	5.6a	2.4a
12	---	---	---	---	---	9.7	8.7	---	---	---	---	2.9a
13	---	---	10.9	---	---	9.1	10.5	---	---	---	---	3.0b
14	---	---	11.1	---	---	9.6	10.6	---	---	---	---	3.0b
15	---	---	11.0	---	---	9.5	10.2	---	---	---	---	---
16	---	---	10.9	---	---	10.3	9.8	---	---	---	---	---
17	---	---	10.8	---	---	9.5	9.7	---	---	---	---	---
18	---	---	10.4	---	---	---	9.7	---	---	---	---	---
19	---	---	9.4	---	---	---	9.0	---	6.7b	---	---	---
20	---	---	8.4	---	---	---	9.1	---	---	---	---	---
21	---	---	---	---	---	---	9.3	---	---	---	---	---
22	---	---	---	---	---	---	8.6	---	---	7.3a	---	---
23	---	---	---	11.2	---	---	8.2	---	---	7.3b	---	---
24	---	---	---	11.5	---	---	8.2	---	---	7.2	---	---
25	---	---	---	11.4	---	---	8.3	---	---	7.2b	---	---
26	---	---	---	11.7	---	---	8.1	---	---	7.6b	---	---
27	---	---	---	11.7	---	---	---	---	---	6.3a	---	---
28	---	---	---	11.8	---	---	8.5	---	---	6.7a	2.5a	---
29	---	---	---	11.8	---	---	9.0	6.8b	---	6.2	4.0b	---
30	---	---	---	11.3	---	---	8.3	---	---	5.7b	2.8a	---
31	---	---	---	10.8	---	---	---	6.6	---	---	1.4a	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 6, PUNGO RIVER AT JUNCTION LIGHT PR

Table 18.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 6, October 1991-September 1992--Continued

PUNGO RIVER AT JUNCTION LIGHT PR

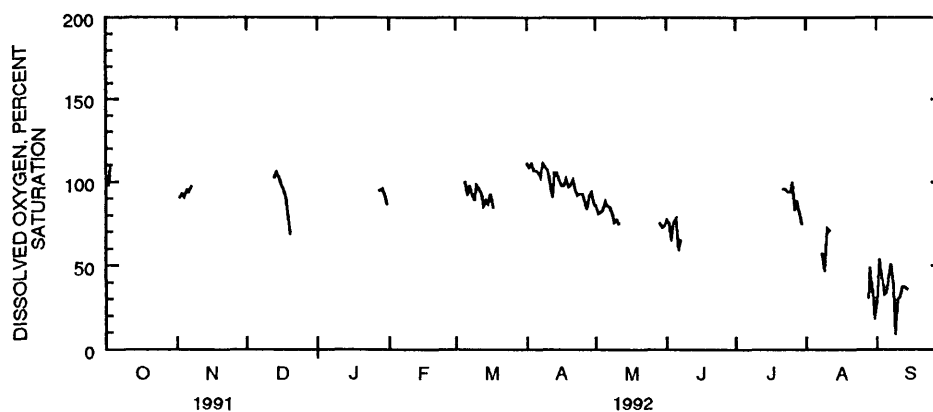
[Site 6 is at latitude 35°22'42", longitude 76°33'24", Beaufort County; U.S. Geological Survey downstream order number 0208457700]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 127 percent saturation July 26, 1992; minimum value recorded, ≤10 percent of saturation August 11, 28, 30, 31, September 1-11, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	---	---	---	---	---	111	86	---	---	---	28
2	99	91	---	---	---	---	109	81	75	---	---	54
3	108	93	---	---	---	---	111	82	65	---	---	44
4	---	91	---	---	---	---	107	83	76	---	---	33
5	---	95	---	---	---	100	107	88	78	---	---	34
6	---	94	---	---	---	92	106	86	59	---	---	42
7	---	97	---	---	---	98	103	85	65	---	---	51
8	---	---	---	---	---	93	111	81	---	---	57	44
9	---	---	---	---	---	89	109	76	---	---	47	≤10
10	---	---	---	---	---	98	107	77	---	---	72	30
11	---	---	---	---	---	96	98	75	---	---	71	31
12	---	---	---	---	---	93	91	---	---	---	---	37
13	---	---	103	---	---	86	106	---	---	---	---	37
14	---	---	106	---	---	89	106	---	---	---	---	36
15	---	---	103	---	---	87	101	---	---	---	---	---
16	---	---	98	---	---	93	98	---	---	---	---	---
17	---	---	96	---	---	85	98	---	---	---	---	---
18	---	---	91	---	---	---	102	---	---	---	---	---
19	---	---	79	---	---	---	97	---	80	---	---	---
20	---	---	69	---	---	---	98	---	---	---	---	---
21	---	---	---	---	---	---	101	---	---	---	---	---
22	---	---	---	---	---	---	95	---	---	96	---	---
23	---	---	---	---	---	---	92	---	---	96	---	---
24	---	---	---	---	---	---	93	---	---	94	---	---
25	---	---	---	---	---	---	93	---	---	94	---	---
26	---	---	---	---	---	---	89	---	---	100	---	---
27	---	---	---	---	---	---	---	---	---	83	---	---
28	---	---	---	95	---	---	92	---	---	89	31	---
29	---	---	---	96	---	---	94	75	---	82	49	---
30	---	---	---	92	---	---	87	73	---	75	34	---
31	---	---	---	87	---	---	---	74	---	---	18	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 6,
PUNGO RIVER AT JUNCTION LIGHT PR**

Table 19.--Five-day mean water temperature and dissolved-oxygen values in water at site 6, October 1991-September 1992, for day and night periods

PUNGO RIVER AT JUNCTION LIGHT PR

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	22.6	22.4	---	---	9.2	8.6	9.2	8.9
10/ 6/91-10/10/91	---	---	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	---	---	---	---	---	---	---	---
10/26/91-10/30/91	---	---	---	---	---	---	---	---
10/31/91-11/ 4/91	16.6	16.1	10.3	10.0	9.5	8.9	8.9	9.1
11/ 5/91-11/ 9/91	14.0	13.6	10.3	10.2	8.9	8.8	10.0	9.9
11/10/91-11/14/91	11.4	11.1	10.6	10.6	---	---	---	---
11/15/91-11/19/91	12.1	12.1	10.8	10.6	---	---	---	---
11/20/91-11/24/91	14.3	14.1	10.3	10.0	---	---	---	---
11/25/91-11/29/91	12.2	11.7	9.9	9.8	---	---	---	---
11/30/91-12/ 4/91	13.7	13.5	10.1	9.7	---	---	---	---
12/ 5/91-12/ 9/91	11.7	11.6	9.8	9.6	---	---	---	---
12/10/91-12/14/91	12.8	12.6	12.6	12.4	12.4	12.2	11.1	11.0
12/15/91-12/19/91	10.0	9.1	12.8	12.7	12.4	12.4	10.5	10.2
12/20/91-12/24/91	7.1	7.0	13.7	13.6	13.2	13.1	8.3	8.0
12/25/91-12/29/91	7.7	7.7	13.3	13.1	12.9	12.8	---	---
12/30/91- 1/ 3/92	8.5	8.5	12.8	12.6	12.5	12.4	---	---
1/ 4/92- 1/ 8/92	9.6	9.2	12.2	12.1	12.2	12.1	---	---
1/ 9/92- 1/13/92	9.0	8.8	12.9	12.4	12.6	12.4	---	---
1/14/92- 1/18/92	7.8	7.4	12.1	11.7	12.1	12.0	---	---
1/19/92- 1/23/92	5.8	5.2	13.8	13.5	13.4	13.2	11.3	11.3
1/24/92- 1/28/92	6.4	6.0	13.4	13.1	12.7	12.5	11.7	11.6
1/29/92- 2/ 2/92	6.5	6.4	14.0	13.9	13.0	12.8	12.2	12.4
2/ 3/92- 2/ 7/92	---	---	13.6	13.3	12.5	12.3	13.8	13.2
2/ 8/92- 2/12/92	---	---	12.8	12.6	12.2	12.0	12.7	12.4
2/13/92- 2/17/92	---	---	12.6	12.2	12.0	11.7	---	---
2/18/92- 2/22/92	---	---	12.1	11.9	11.5	11.5	---	---
2/23/92- 2/27/92	---	---	---	---	---	---	---	---
2/28/92- 3/ 3/92	---	---	---	---	---	---	---	---
3/ 4/92- 3/ 8/92	13.3	12.9	9.7	9.5	9.4	9.2	10.0	9.9
3/ 9/92- 3/13/92	14.0	13.6	9.5	9.3	9.3	9.1	9.6	9.6
3/14/92- 3/18/92	11.3	10.9	10.3	10.2	10.0	10.0	9.7	9.7
3/19/92- 3/23/92	11.2	10.9	10.2	10.1	10.0	9.9	---	---
3/24/92- 3/28/92	11.2	10.9	10.4	10.3	10.2	10.1	---	---
3/29/92- 4/ 2/92	12.6	12.3	10.7	10.4	10.5	10.3	11.6	11.8
4/ 3/92- 4/ 7/92	12.2	11.8	10.4	10.2	10.2	10.1	11.6	11.3
4/ 8/92- 4/12/92	16.1	15.6	10.1	9.8	10.2	9.8	10.2	10.2
4/13/92- 4/17/92	15.5	15.2	9.5	9.2	9.6	9.4	10.3	10.0
4/18/92- 4/22/92	19.3	19.1	9.0	8.6	9.2	8.9	9.3	8.6
4/23/92- 4/27/92	20.6	20.0	8.6	8.0	8.5	8.1	8.2	8.2
4/28/92- 5/ 2/92	18.2	17.7	9.1	8.9	8.8	8.7	8.4	8.1
5/ 3/92- 5/ 7/92	18.4	17.9	8.4	8.2	8.8	8.7	8.0	8.0
5/ 8/92- 5/12/92	17.6	17.5	9.5	9.2	9.4	9.2	7.6	7.1

**Table 19.--Five-day mean water temperature and dissolved-oxygen values in water at site 6,
October 1991-September 1992, for day and night periods--Continued**

PUNGO RIVER AT JUNCTION LIGHT PR

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	21.4	21.1	9.3	9.1	9.3	9.0	---	---
5/18/92- 5/22/92	21.4	20.8	8.7	8.3	8.9	8.7	---	---
5/23/92- 5/27/92	21.5	20.8	8.6	8.5	8.9	8.7	---	---
5/28/92- 6/ 1/92	20.2	20.1	8.4	8.3	8.2	8.3	7.0	6.9
6/ 2/92- 6/ 6/92	22.3	22.3	8.4	8.1	8.6	8.4	6.1	5.8
6/ 7/92- 6/11/92	25.6	24.8	8.4	8.1	8.8	8.4	5.6	6.1
6/12/92- 6/16/92	24.6	23.6	---	---	---	---	---	---
6/17/92- 6/21/92	24.8	24.5	8.3	7.5	7.7	7.2	7.0	7.3
6/22/92- 6/26/92	25.6	25.3	8.1	7.3	7.4	7.1	---	---
6/27/92- 7/ 1/92	27.3	27.0	6.9	6.7	---	---	---	---
7/ 2/92- 7/ 6/92	---	---	---	---	---	---	---	---
7/ 7/92- 7/11/92	---	---	---	---	---	---	---	---
7/12/92- 7/16/92	---	---	---	---	---	---	---	---
7/17/92- 7/21/92	29.6	29.2	8.8	8.0	8.3	8.1	5.3	7.2
7/22/92- 7/26/92	29.5	29.2	8.6	7.8	8.5	7.8	7.3	7.2
7/27/92- 7/31/92	30.0	29.5	7.7	6.9	7.0	6.3	6.3	6.0
8/ 1/92- 8/ 5/92	29.0	28.5	---	---	---	---	---	---
8/ 6/92- 8/10/92	27.8	27.2	8.1	7.4	7.7	7.3	5.0	4.8
8/11/92- 8/15/92	28.5	28.2	7.6	6.7	8.2	7.1	5.3	5.1
8/16/92- 8/20/92	---	---	---	---	---	---	---	---
8/21/92- 8/25/92	---	---	---	---	---	---	---	---
8/26/92- 8/30/92	26.7	26.3	7.5	6.8	7.8	7.0	3.3	2.7
8/31/92- 9/ 4/92	27.0	26.7	7.0	6.2	7.7	7.2	2.6	3.1
9/ 5/92- 9/ 9/92	28.0	27.5	6.5	5.7	7.4	6.8	2.8	2.7
9/10/92- 9/14/92	26.8	26.2	6.9	6.9	7.2	7.1	2.9	2.9
9/15/92- 9/19/92	26.0	25.8	---	---	8.5	7.6	---	---
9/20/92- 9/24/92	26.5	25.8	---	---	7.9	7.4	---	---
9/25/92- 9/29/92	23.3	23.2	---	---	7.9	8.0	---	---

Table 20.--Vertical distributions of selected constituents in water at site 6, October 1991-August 1992

PUNGO RIVER AT JUNCTION LIGHT PR

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (μS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 04...	1130	1.03	---	---	---	---	---	---
04...	1131	---	8.00	21,600	13.0	22.0	9.0	111
04...	1132	---	6.00	21,500	12.9	22.0	9.0	111
04...	1133	---	2.00	21,500	12.9	22.0	10.0	124
Nov. 01...	1045	2.01	---	---	---	---	---	---
01...	1046	---	11.0	28,400	17.5	16.0	10.1	114
01...	1047	---	10.0	28,400	17.5	16.0	10.1	114
01...	1048	---	9.00	28,800	17.8	16.0	10.0	113
01...	1049	---	8.00	28,600	17.6	16.0	10.1	114
01...	1050	---	7.00	28,600	17.6	16.0	10.1	114
01...	1051	---	6.00	29,200	18.0	16.0	10.1	114
01...	1052	---	5.00	29,200	18.0	16.0	9.9	112
01...	1053	---	4.00	29,700	18.4	16.0	9.7	110
01...	1054	---	3.00	30,100	18.6	16.0	9.5	108
01...	1055	---	2.00	30,200	18.7	16.0	9.4	107
01...	1056	---	1.00	30,200	18.7	16.0	9.4	107
Dec. 12...	1325	0.36	---	---	---	---	---	---
12...	1326	---	10.0	25,900	15.8	12.5	12.6	131
12...	1327	---	8.00	26,300	16.1	12.0	12.6	130
12...	1328	---	6.00	26,300	16.1	12.0	12.6	130
12...	1329	---	4.00	26,300	16.1	12.0	12.5	129
12...	1330	---	2.00	26,500	16.2	12.0	12.5	129
1992								
Jan. 22...	1010	0.37	---	---	---	---	---	---
22...	1011	---	10.0	21,500	12.9	5.5	14.0	121
22...	1012	---	6.00	24,900	15.1	5.5	13.7	121
22...	1013	---	2.00	26,700	16.3	5.5	13.3	118
Mar. 04...	1130	0.94	---	---	---	---	---	---
04...	1131	---	10.0	19,800	11.8	12.0	10.4	104
04...	1132	---	6.00	21,000	12.6	12.0	10.0	101
04...	1133	---	2.00	22,100	13.3	12.0	9.8	99
31...	1045	0.24	---	---	---	---	---	---
31...	1046	---	10.0	19,600	11.7	13.0	10.6	108
31...	1047	---	6.00	19,800	11.8	13.0	10.6	108
31...	1048	---	2.00	21,900	13.2	12.0	9.8	99
Apr. 27...	1035	1.05	---	---	---	---	---	---
27...	1036	---	10.0	20,100	12.0	19.0	8.0	93
27...	1037	---	6.00	20,100	12.0	19.0	7.9	92
27...	1038	---	2.00	20,100	12.0	19.0	7.9	92
May 28...	1020	1.35	---	---	---	---	---	---
28...	1021	---	10.0	21,000	12.6	20.0	8.3	99
28...	1022	---	6.00	21,000	12.6	20.0	8.3	99
28...	1023	---	2.00	21,000	12.6	20.0	8.1	96
June 18...	1230	1.28	---	---	---	---	---	---
18...	1231	---	10.0	19,900	11.8	24.5	8.5	109
18...	1232	---	6.00	19,900	11.8	24.5	8.3	107
18...	1233	---	2.00	19,900	11.8	24.5	8.1	104

¹Water level from 02084472, Pamlico River at Washington.

**Table 20.--Vertical distributions of selected constituents in water at site 6,
October 1991-August 1992--Continued**

PUNGO RIVER AT JUNCTION LIGHT PR

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
July 21...	1055	0.76	---	---	---	---	---	---
21...	1056	---	10.0	18,700	11.1	29.0	7.8	108
21...	1057	---	6.00	18,700	11.1	29.0	7.4	103
21...	1058	---	2.00	18,800	11.1	29.0	7.2	100
Aug. 07...	0915	1.16	---	---	---	---	---	---
07...	0916	---	10.0	21,100	12.6	26.5	7.1	95
07...	0917	---	6.00	21,200	12.7	26.5	7.1	95
07...	0918	---	2.00	21,400	12.8	27.0	6.2	84
27...	1135	0.95	---	---	---	---	---	---
27...	1136	---	10.0	13,000	7.5	29.0	8.0	109
27...	1137	---	8.00	13,100	7.5	28.0	7.7	103
27...	1138	---	6.00	15,700	9.2	28.0	5.8	78
27...	1139	---	4.00	28,400	17.5	27.0	4.5	63
27...	1140	---	2.00	30,800	19.1	29.0	4.3	62

¹Water level from 02084472, Pamlico River at Washington.

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992

NEUSE RIVER AT CHANNEL LIGHT 11

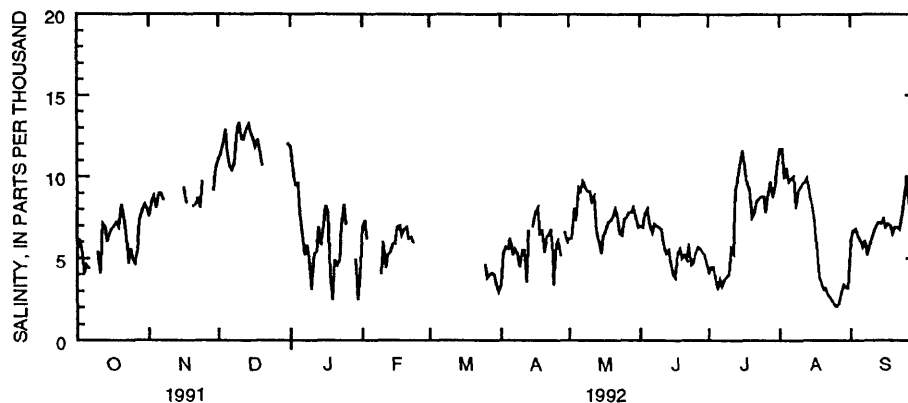
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--10 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 14.4 ppt December 10, 1991; minimum value recorded, 1.2 ppt January 31, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (In ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	7.6	11.1	11.8	6.9	---	3.4	6.2	7.0	4.1	11.7	6.0
2	6.0	8.5	11.3	10.7	7.3	---	5.3	6.2	6.9	4.5	11.7	6.7
3	5.6	8.8	12.0	9.5	6.2	---	5.7	8.1	7.7	4.5	9.9	6.8
4	4.0	8.1	12.9	9.6	---	---	5.6	7.3	8.0	3.7	10.5	6.4
5	4.6	9.0	11.4	7.8	---	---	6.2	9.3	7.0	3.1	9.7	6.1
6	4.4	9.0	10.6	6.5	---	---	5.2	9.1	6.6	3.7	9.9	5.7
7	---	8.6	10.4	5.2	---	---	5.6	9.7	7.1	3.3	10.0	6.1
8	---	---	10.8	5.8	---	---	5.3	9.3	7.0	3.7	8.1	5.2
9	---	---	12.9	5.0	4.1	---	4.5	9.1	6.9	3.9	9.1	5.8
10	5.4	---	13.3	3.1	6.0	---	5.5	9.1	6.8	4.0	9.4	6.2
11	4.1	---	12.3	5.3	4.4	---	5.5	8.5	5.7	5.6	9.6	6.6
12	7.1	---	12.3	5.4	5.2	---	3.6	8.8	5.3	5.3	9.7	7.0
13	6.9	---	12.9	6.9	5.4	---	6.7	6.7	5.5	9.2	9.9	7.2
14	6.0	---	13.2	5.8	5.9	---	---	6.1	4.8	9.9	8.9	7.1
15	6.5	---	12.7	6.7	5.9	---	7.0	5.3	4.0	10.9	8.2	7.4
16	6.8	9.3	12.3	8.2	6.9	---	7.8	6.3	3.8	11.6	7.6	6.9
17	7.0	8.4	11.8	7.8	7.0	---	8.1	6.7	5.3	10.6	5.8	7.1
18	7.2	---	12.3	4.0	6.4	---	6.5	7.2	5.6	9.6	3.9	7.0
19	6.9	---	11.4	2.5	6.8	---	6.7	7.3	5.0	9.2	3.6	6.5
20	8.3	8.2	10.7	4.9	6.9	---	5.4	7.5	5.2	7.5	3.1	6.9
21	7.7	8.3	---	4.6	6.2	---	6.3	8.0	4.9	7.7	3.2	6.9
22	6.7	8.7	---	4.9	6.3	---	6.5	7.7	5.9	8.5	2.8	6.8
23	4.7	8.1	---	7.0	6.0	---	6.8	6.5	4.6	8.6	2.6	7.7
24	5.6	9.7	---	8.3	---	---	3.4	6.4	4.7	8.8	2.4	8.7
25	4.9	---	---	7.1	---	4.6	5.9	7.4	5.3	8.8	2.1	9.9
26	4.7	---	---	---	---	3.8	6.1	7.5	5.7	7.8	2.1	8.1
27	5.5	---	---	---	---	4.0	5.2	7.8	5.6	9.0	2.3	7.2
28	7.3	---	---	---	---	4.1	---	7.8	5.4	9.7	3.0	7.0
29	7.9	9.2	---	4.9	---	4.0	6.6	8.1	5.2	8.7	3.4	7.3
30	8.3	10.5	---	2.5	---	3.3	6.0	7.5	4.7	9.5	3.2	8.1
31	8.0	---	12.0	4.0	---	3.0	---	6.9	---	10.6	3.2	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 8, NEUSE RIVER AT CHANNEL LIGHT 11

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

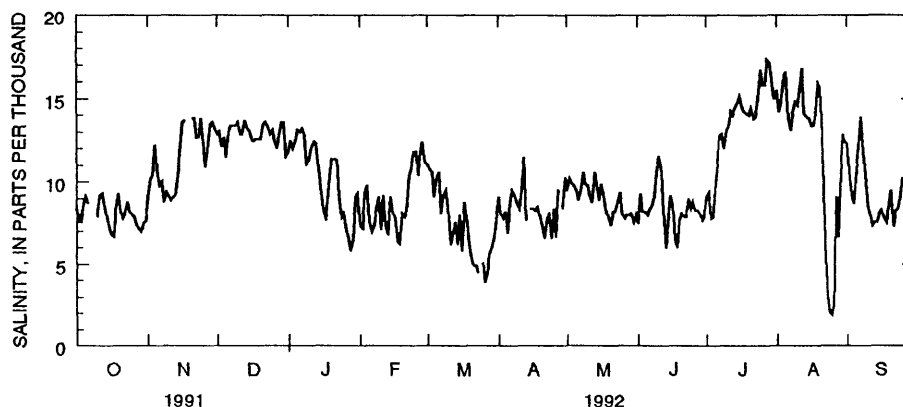
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 20.8 ppt August 1, 1992; minimum value recorded, 1.1 ppt August 24, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	9.1	12.9	11.8	7.3	11.0	9.1	9.5	7.5	9.1	15.5	12.3
2	7.6	10.2	13.0	12.5	7.2	10.8	8.1	10.2	9.3	9.4	14.2	10.2
3	7.6	10.4	12.1	12.0	9.4	10.6	7.8	9.9	8.2	7.8	14.8	9.0
4	8.7	12.2	12.7	12.5	9.8	9.1	8.2	9.8	8.2	7.9	16.3	8.7
5	9.1	10.4	11.5	13.1	7.6	10.2	6.9	9.5	8.0	9.5	16.6	10.7
6	8.7	9.8	13.0	13.0	7.0	10.6	8.7	8.9	8.4	11.1	13.8	12.1
7	---	10.0	13.4	13.2	7.4	8.1	9.5	9.5	8.6	12.8	13.1	13.9
8	---	8.8	13.4	12.8	8.4	9.2	9.2	10.6	9.2	12.9	14.1	12.3
9	---	9.4	13.4	11.1	9.1	9.5	8.7	9.9	10.6	12.0	14.8	10.4
10	7.9	9.1	13.6	11.3	7.1	8.5	8.4	9.8	11.6	13.1	14.6	8.6
11	9.2	8.9	12.9	12.1	9.2	6.2	9.5	9.2	10.6	13.3	15.5	8.1
12	9.3	9.1	12.9	12.4	7.3	6.9	11.5	8.8	8.2	14.2	16.8	7.4
13	8.5	9.2	13.7	12.3	6.8	7.6	7.7	10.6	6.0	14.0	14.1	7.6
14	7.9	10.4	13.2	10.8	9.1	6.2	---	9.9	7.5	14.5	13.9	7.6
15	7.2	12.2	13.1	9.7	8.1	8.0	8.4	8.9	9.2	14.8	13.8	8.1
16	6.8	13.6	12.6	8.5	7.8	5.8	8.4	9.9	8.6	15.1	13.4	8.3
17	6.7	13.7	12.5	7.7	6.4	8.8	8.3	9.2	6.5	14.5	13.4	7.8
18	8.3	---	12.6	8.9	6.3	7.9	8.5	8.2	6.0	14.2	14.3	7.6
19	9.3	---	12.6	10.7	8.1	6.3	7.9	7.8	7.7	14.1	15.9	8.4
20	8.2	13.8	12.6	11.4	7.9	5.6	7.4	7.4	8.1	14.0	15.6	9.5
21	7.8	13.8	13.5	11.4	8.3	4.9	6.6	8.2	7.9	14.4	12.8	7.3
22	8.1	12.7	13.6	11.3	10.4	4.9	7.8	8.2	7.9	13.8	6.3	8.2
23	8.8	12.7	13.3	9.2	10.8	4.5	8.0	8.8	9.0	13.9	3.0	8.4
24	8.2	13.8	12.9	7.9	11.8	---	6.6	9.4	8.4	15.0	2.1	9.0
25	8.0	12.4	13.1	8.1	11.8	5.1	8.4	8.1	8.8	16.7	1.9	10.2
26	7.9	10.9	12.5	7.1	10.4	3.9	6.7	7.8	8.3	15.8	2.5	10.2
27	7.4	11.9	12.0	6.5	11.8	4.5	9.6	8.0	8.3	15.8	9.1	10.4
28	7.2	13.5	12.8	5.8	12.4	5.6	---	8.0	8.1	17.3	6.7	9.3
29	7.0	13.6	13.6	6.5	11.2	6.0	8.4	8.1	7.7	17.1	9.6	8.8
30	7.5	13.2	13.6	9.1	---	6.7	10.3	7.6	7.9	15.8	12.9	9.0
31	7.7	---	11.6	9.3	---	7.7	---	8.0	---	15.0	12.5	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 8, NEUSE RIVER AT CHANNEL LIGHT 11

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

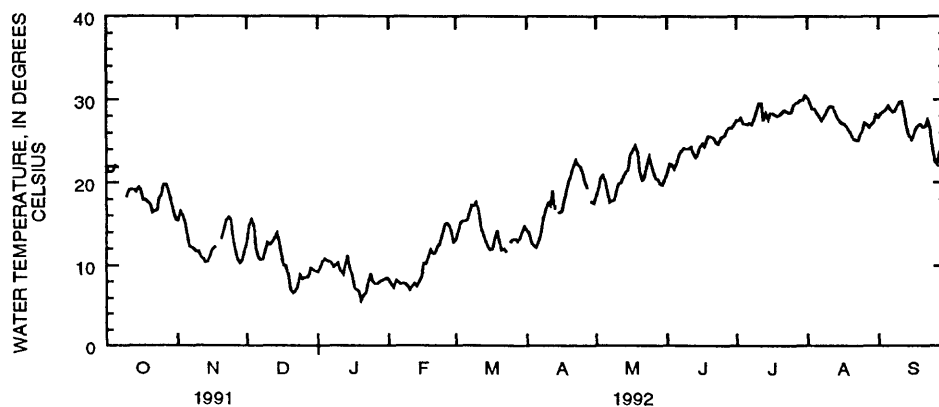
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--10 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.9 °C September 10, 1992; minimum value recorded, 4.0 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	21.9	15.4	12.8	9.2	8.2	13.0	14.2	18.3	21.0	27.5	30.2	27.9
2	21.3	16.5	14.8	9.6	7.6	14.0	13.9	19.2	22.3	27.5	29.5	28.3
3	21.3	16.1	15.5	10.4	7.3	15.1	12.7	20.7	22.2	27.8	28.9	28.6
4	21.4	15.2	14.7	10.8	8.2	15.3	12.3	20.9	21.7	27.1	28.9	28.7
5	22.1	13.6	12.1	10.6	8.0	15.3	12.2	20.2	22.4	27.1	28.5	29.2
6	21.9	12.3	10.9	10.5	7.7	15.5	12.9	19.0	23.5	27.0	28.0	28.9
7	---	12.2	10.7	10.4	7.9	16.3	13.7	17.7	23.8	27.2	27.5	28.5
8	---	12.0	10.7	9.8	7.8	17.3	15.6	17.8	24.2	27.0	27.8	28.6
9	---	11.6	11.8	10.1	7.5	17.2	16.8	17.9	24.1	27.7	28.3	29.2
10	18.4	11.7	12.7	10.3	7.0	17.6	17.5	19.0	24.1	28.7	29.0	29.7
11	19.1	11.0	12.5	9.3	7.5	16.5	17.2	19.9	24.3	29.5	29.2	29.8
12	19.2	10.8	12.7	8.9	7.8	14.4	19.0	20.0	23.6	29.5	29.1	28.4
13	19.2	10.4	13.2	9.8	7.5	13.8	16.9	20.8	23.1	27.5	28.6	27.0
14	18.9	10.5	13.8	11.2	8.1	12.9	---	21.2	23.3	28.3	27.9	25.8
15	19.4	11.2	13.0	9.9	8.7	12.3	16.4	21.6	24.3	27.6	27.4	25.2
16	19.2	11.9	11.3	8.7	10.3	11.9	16.6	23.3	24.7	28.3	27.2	25.5
17	17.9	12.2	10.1	7.2	10.2	12.0	17.8	23.9	24.4	28.3	27.1	26.5
18	18.0	---	10.0	7.0	10.9	13.1	18.8	24.5	25.2	28.2	26.8	26.9
19	17.7	---	8.6	6.8	11.9	14.2	20.2	23.6	25.6	28.0	26.4	27.0
20	17.4	13.3	7.0	5.7	11.4	13.0	20.8	21.4	25.5	28.2	25.9	26.7
21	16.4	14.5	6.6	6.3	11.5	11.9	21.9	20.3	25.4	28.4	25.3	26.8
22	16.6	15.4	6.8	6.7	12.3	12.0	22.7	20.5	24.9	28.7	25.1	27.5
23	16.7	15.8	7.4	7.9	12.6	11.7	22.2	22.0	24.7	28.6	25.1	26.7
24	18.1	15.6	8.8	9.0	13.7	---	22.0	23.1	25.4	28.4	25.7	24.4
25	18.6	13.4	8.3	8.0	14.9	12.9	21.2	22.3	25.5	28.5	26.2	22.6
26	19.8	12.0	8.5	7.8	15.1	13.1	20.2	21.2	25.7	29.3	27.2	22.2
27	19.8	10.8	8.5	7.8	14.8	13.2	19.4	20.6	26.5	29.5	27.0	23.6
28	19.2	10.3	8.7	8.0	14.2	12.9	---	20.4	26.6	29.6	26.7	23.9
29	18.1	10.5	9.7	8.2	12.8	13.3	17.7	19.9	26.6	29.9	27.0	23.4
30	16.5	11.7	9.5	8.3	---	14.2	17.5	19.7	26.9	29.9	27.3	22.0
31	15.5	---	9.3	8.5	---	14.7	---	20.6	---	30.5	28.2	---



**DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 8, NEUSE RIVER
AT CHANNEL LIGHT 11**

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--10 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 20.0 mg/L February 18, 1992; minimum value recorded, <1.0 mg/L July 11, 13, 15, 24, 27, 28, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11.0	10.7	11.7	12.3	12.1	10.8	9.1	9.0	---	---	6.4	---
2	8.7	10.0	9.9	13.5	12.5	12.8	9.3	8.5	---	---	6.8	---
3	---	9.5	7.9	13.2	13.4	13.1	9.1	8.6	---	---	7.1b	---
4	8.2	10.6	8.6	12.7	14.3	12.2	10.3	9.2	---	---	6.3b	---
5	7.2	10.2	10.1	12.2	13.4	13.0	9.7	9.2	---	---	7.1	---
6	6.2b	10.6	11.3	11.4	13.3	12.0	11.9	8.7	---	---	6.7	---
7	---	11.1	12.3	10.9	14.1	10.6	12.0	8.6	---	---	7.4	---
8	---	11.1	11.9	10.7	15.0	11.0	12.1	9.6	---	---	---	---
9	---	10.3	9.7	10.8	15.1	11.2	12.4	9.3	---	---	---	---
10	12.5	10.5	9.6	8.4	15.6	11.4	11.8	10.0	---	8.3	---	---
11	12.8	10.7	10.9	9.2	15.8	8.4	10.7	10.4	---	6.3a	---	---
12	11.3	11.4	11.6	10.1	16.1	10.7	10.9	9.5	---	7.4a	---	---
13	11.9	11.6	11.5	9.7	15.5	10.1	8.8	11.1	---	4.8a	---	---
14	12.8	12.9	9.9	8.7	16.7	11.7	---	10.5	---	6.4b	---	---
15	12.7	14.1	10.3	9.9	17.2	12.1	10.6	10.1	---	5.2a	---	7.1
16	10.8	13.2	10.5	10.4	15.9	10.5	9.9	10.0	---	6.0b	---	7.8
17	9.4	13.2	11.0	11.2	15.9	11.6	9.4	---	---	5.6b	---	8.6
18	10.6	---	11.2	11.4	16.8	11.4	9.4	---	---	4.6b	---	8.2
19	11.2	---	11.4	11.4	17.9	---	9.5	---	---	4.7b	---	8.2
20	9.2	12.6	12.1	12.0	---	---	9.8	---	---	6.1b	---	7.1
21	9.4	12.0	12.2	12.1	---	---	9.3	---	---	4.0a	---	6.2
22	10.8	10.6	12.6	12.8	---	---	9.0	8.6	---	3.3b	---	7.2
23	13.1	11.2	12.4	12.2	---	---	7.9	10.2	---	2.9a	---	5.3b
24	13.6	10.9	11.7	11.0	---	---	9.1	10.1	---	2.4a	---	4.4b
25	14.6	11.5	12.5	12.3	13.5	11.6	7.3	8.5	---	2.6a	---	3.9b
26	14.7	11.1	13.1	12.3	11.4	10.2	7.6	7.5	---	3.5b	---	5.5b
27	13.3	11.2	13.0	13.0	11.8	9.8	8.3	7.2	---	2.3a	---	9.1
28	10.3	12.4	12.9	12.8	11.9	9.5	---	7.4	---	1.9a	---	8.5b
29	8.8	12.8	12.9	12.7	8.1b	10.4	7.9	6.7	---	3.2a	---	6.5b
30	8.8	12.4	12.5	12.5	---	10.5	8.9	6.9	---	---	---	5.4b
31	9.4	---	12.4	12.2	---	9.3	---	7.4	---	6.9	---	---

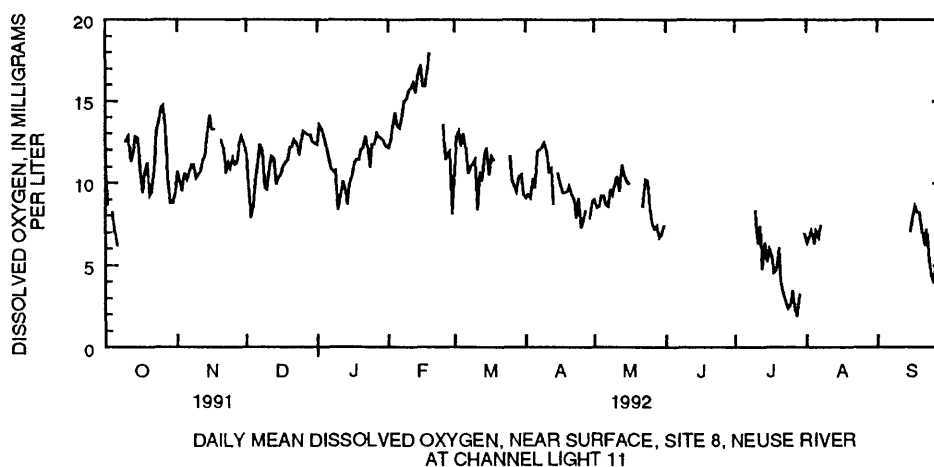


Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

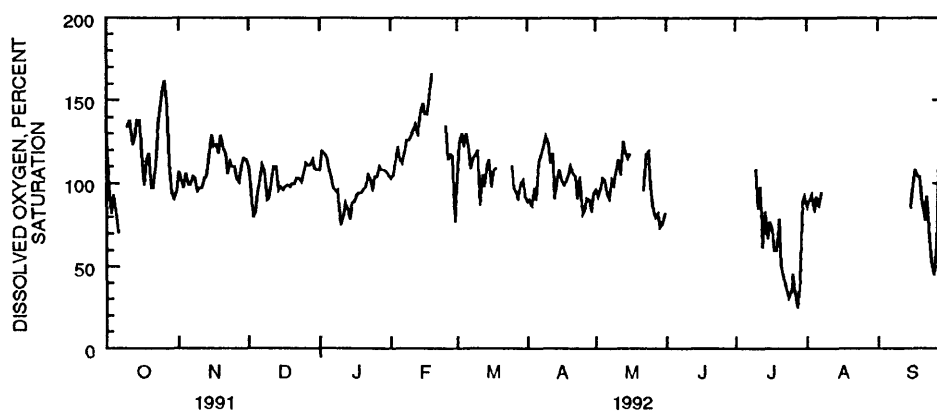
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--10 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 193 percent of saturation March 3, 1992; minimum value recorded, ≤10 percent of saturation July 13, 15, 28, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	126	107	110	108	103	103	89	96	---	---	86	---
2	98	102	99	119	105	124	90	92	---	---	90	---
3	---	97	80	118	112	130	86	97	---	---	93	---
4	93	106	84	115	122	122	97	103	---	---	83	---
5	83	99	94	109	114	130	90	102	---	---	92	---
6	71	99	103	103	112	120	113	94	---	---	86	---
7	---	104	111	97	119	109	116	91	---	---	94	---
8	---	103	107	95	126	115	122	102	---	---	---	---
9	---	95	90	96	126	117	128	99	---	---	---	---
10	134	97	91	75	129	120	124	108	---	108	---	---
11	138	97	102	80	132	87	112	114	---	85	---	---
12	123	103	110	88	135	105	118	105	---	98	---	---
13	129	104	110	85	129	98	91	125	---	62	---	---
14	138	116	96	79	142	111	---	119	---	83	---	---
15	138	129	98	88	148	114	108	115	---	67	---	86
16	117	122	96	89	142	98	102	117	---	77	---	96
17	99	123	98	93	142	108	99	---	---	73	---	108
18	113	---	99	94	152	109	101	---	---	60	---	104
19	118	---	98	94	166	---	105	---	---	60	---	104
20	97	121	100	96	---	---	110	---	---	79	---	88
21	97	118	100	98	---	---	106	---	---	51	---	78
22	111	106	103	105	---	---	104	96	---	43	---	92
23	135	113	103	103	---	---	91	117	---	38	---	67
24	145	110	101	95	---	---	104	119	---	31	---	53
25	157	110	107	104	134	110	82	98	---	34	---	45
26	162	103	112	104	114	97	84	84	---	46	---	63
27	146	101	111	110	117	94	91	80	---	30	---	108
28	112	111	111	108	116	90	---	82	---	25	---	101
29	94	115	114	108	77	100	83	74	---	42	---	77
30	91	114	109	107	---	102	94	76	---	---	---	62
31	95	---	108	105	---	92	---	82	---	92	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 8,
NEUSE RIVER AT CHANNEL LIGHT 11**

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

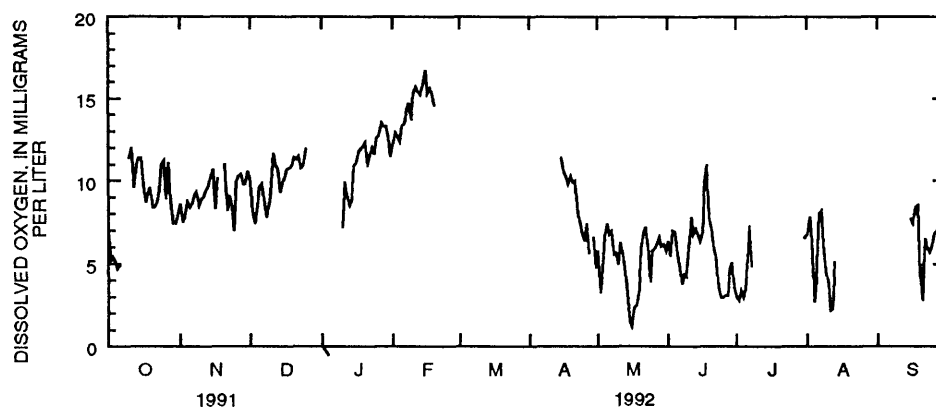
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 17.5 mg/L February 14, 1992; minimum value recorded, <1.0 mg/L April 27, May 15, 16, June 24, August 4, 5, 9-12, September 19, 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (In mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	7.0	8.6	9.9	---	12.2	---	---	5.8a	6.4	3.0b	6.8b	---
2	5.2	7.5	8.1	---	12.9	---	---	3.3a	5.5b	2.8b	7.8	---
3	5.4	7.8	7.4	---	12.7	---	---	4.7b	7.0b	3.4b	6.4b	---
4	5.1b	8.7	8.5	---	12.4	---	---	6.7b	6.9	3.0b	2.7a	---
5	4.7b	8.4	9.6	---	13.3	---	---	7.4	5.6b	3.5b	4.0a	---
6	4.9b	8.6	9.8	---	13.5	---	---	6.8	4.8b	5.3b	8.0	---
7	---	9.1	8.9	---	14.3	---	---	7.0	3.8b	7.3b	8.2	---
8	---	9.3	7.8	---	14.7	---	---	5.6b	4.4b	4.9b	6.2b	---
9	---	8.5	8.6	---	13.7	---	---	5.7b	4.3b	---	4.6a	---
10	11.4	8.9	9.3	7.2	15.3	---	---	5.0a	6.0b	---	3.8a	---
11	12.0	9.0	11.7	9.9	15.7	---	---	6.3b	7.8	---	2.2a	---
12	9.6	9.4	11.0	8.9	15.4	---	---	5.6b	6.8b	---	2.3a	---
13	11.0	9.6	10.7	8.5	15.2	---	---	4.5b	7.1	---	5.1b	---
14	11.4	10.2	9.3	8.9b	15.8	---	---	3.2a	6.8b	---	---	---
15	11.4	10.7	9.8	10.9	16.7	---	11.4	1.5a	6.4b	---	---	7.7
16	10.1	8.3	10.2	11.1	15.3	---	10.6	1.2a	6.9b	---	---	7.4
17	8.7	10.1	10.7	11.8	15.6	---	10.2	2.4a	9.9	---	---	8.4
18	9.1	---	10.8	11.9	15.3	---	9.8	2.5a	11.0	---	---	8.5
19	9.6	---	10.9	12.1	14.6	---	10.3	3.5a	7.8b	---	---	4.3a
20	8.4	11.0	11.4	12.3	---	---	9.9	5.9b	7.1	---	---	2.8a
21	8.4	8.2b	11.3	10.9	---	---	10.0	6.9	5.9b	---	---	6.5
22	8.7	9.1b	11.5	11.6	---	---	8.0	7.2	5.5b	---	---	6.0b
23	9.4	8.4	10.8	12.0	---	---	7.6	6.1b	3.6b	---	---	5.7b
24	11.0	7.0	10.9	11.6	---	---	6.8b	3.9b	3.0a	---	---	6.0
25	11.2	9.9	11.9	12.6	---	---	6.4b	5.8b	3.0b	---	---	6.8
26	8.9	10.3	---	12.8	---	---	7.4b	5.9b	3.1b	---	---	7.0
27	11.1	10.4	---	13.5	---	---	5.7a	6.2	3.1b	---	---	7.1
28	8.8	9.8	---	13.3	---	---	---	6.6	4.7b	---	---	8.6
29	7.4	9.8	---	13.3	---	---	6.6b	6.1	5.1b	---	---	8.4
30	7.4	10.6	---	12.6	---	---	4.8b	6.2	3.6b	---	---	7.9
31	8.0	---	---	11.5	---	---	---	5.8b	---	6.6	---	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 8, NEUSE RIVER AT CHANNEL LIGHT 11

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

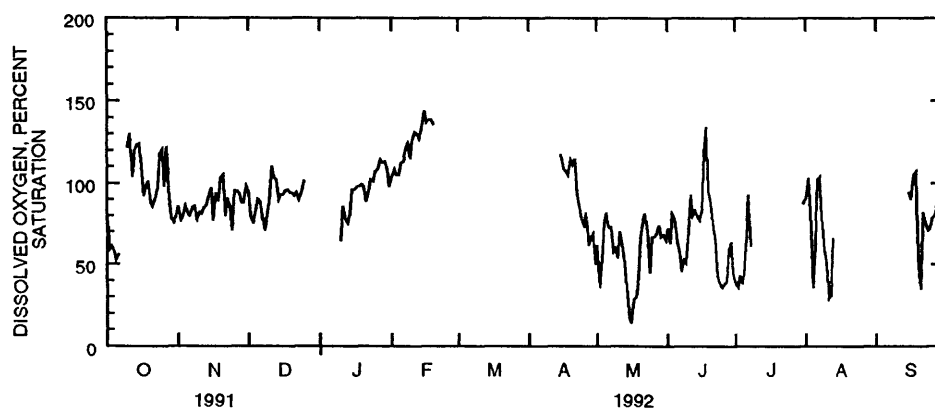
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 185 percent of saturation July 7, 1992; minimum value recorded, ≤10 percent of saturation April 27, 28, May 15, 16, August 4, 5, 10-12, September 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	81	86	94	---	104	---	---	62	72	38	91	---
2	59	77	80	---	108	---	---	36	63	36	103	---
3	61	79	75	---	105	---	---	53	81	43	83	---
4	58	86	83	---	105	---	---	75	78	38	36	---
5	53	81	90	---	112	---	---	82	64	44	52	---
6	56	80	89	---	113	---	---	73	57	67	102	---
7	---	85	80	---	121	---	---	73	46	93	104	---
8	---	86	71	---	124	---	---	58	53	62	79	---
9	---	78	80	---	115	---	---	60	51	---	59	---
10	122	82	88	65	126	---	---	54	71	---	50	---
11	130	81	110	86	131	---	---	70	93	---	29	---
12	104	85	104	77	130	---	---	62	80	---	31	---
13	120	86	102	75	127	---	---	51	83	---	66	---
14	123	92	90	81	134	---	---	36	80	---	---	---
15	124	97	93	96	144	---	117	17	77	---	---	94
16	110	77	93	96	137	---	109	14	83	---	---	90
17	92	94	95	98	139	---	107	28	119	---	---	105
18	97	---	96	98	139	---	105	30	134	---	---	107
19	101	---	94	99	136	---	114	42	95	---	---	54
20	88	105	94	98	---	---	111	67	88	---	---	35
21	86	80	92	89	---	---	115	77	72	---	---	82
22	90	91	94	95	---	---	93	81	66	---	---	76
23	97	85	90	102	---	---	87	70	43	---	---	71
24	117	71	94	101	---	---	78	45	37	---	---	72
25	120	95	101	107	---	---	73	67	36	---	---	78
26	98	95	---	108	---	---	82	67	38	---	---	80
27	122	94	---	114	---	---	62	69	39	---	---	84
28	96	88	---	112	---	---	---	74	59	---	---	102
29	79	88	---	113	---	---	69	67	64	---	---	99
30	76	98	---	108	---	---	50	68	45	---	---	91
31	80	---	---	98	---	---	---	65	---	88	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 8,
NEUSE RIVER AT CHANNEL LIGHT 11**

Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 13.5 mg/L February 12, 1992; minimum value recorded, <1.0 mg/L October 13, 14, 25, 26, November 22, 1991, February 25-27, March 3-7, April 12, 29, May 14-19, June 25-28, July 2-15, 21-31, August 1-22, 26-29, 30, September 1, 2, 4, 5, 6-8, 19-21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	6.0b	10.8	9.2	6.7	5.0b	2.7a	6.6b	2.2a	1.9a	1.1a
2	10.0	---	5.1b	9.0	10.3	4.1a	6.7b	3.2a	3.9b	1.0a	6.3a	3.1a
3	8.8	---	6.8	10.3	9.9	<1.0a	8.4	3.1a	6.8b	1.8a	6.7a	4.2a
4	6.0b	---	8.2	8.3	8.9	6.0a	6.8b	3.4a	6.4	<1.0a	1.2a	3.1a
5	3.4a	---	9.0	6.4	10.3	4.8a	10.1b	7.8a	5.5b	<1.0a	1.0a	<1.0a
6	3.0a	---	8.2	7.5	11.0	1.2a	9.0	8.9	4.8b	<1.0a	6.4a	<1.0a
7	---	---	8.1	7.2	11.0	5.3a	4.3b	8.8	3.4b	<1.0a	6.8a	<1.0a
8	---	---	7.8	7.0	10.3	4.1b	4.0a	7.7	1.9a	<1.0a	4.9a	1.5a
9	---	---	8.3	4.8b	9.8	2.6a	3.6a	6.7b	1.7a	<1.0a	4.2a	3.1a
10	5.6b	---	9.2	5.0b	11.4	2.6a	3.0a	7.4	1.8a	<1.0a	2.5a	---
11	3.4a	---	9.9	6.6	9.0	6.8b	1.4a	7.6a	2.8a	<1.0a	<1.0a	---
12	3.2a	---	9.1	6.7	11.0	6.5b	1.0a	8.6b	4.8b	<1.0a	<1.0a	---
13	4.1a	---	7.3	5.6b	10.8	6.7b	10.5a	2.9a	6.2b	<1.0a	2.8a	---
14	5.2a	---	9.2	5.2b	7.6	7.2a	---	2.3a	6.1a	1.9a	3.5a	---
15	6.6a	---	9.6	8.2	8.3	4.0b	6.1b	1.3a	4.7b	2.5a	3.6a	6.9
16	8.7b	---	9.9	8.8	7.1b	8.5	9.0	1.0a	4.8b	4.5b	3.1a	6.5
17	8.7	---	10.2	9.5	12.1	---	8.6	2.8a	7.1b	4.9b	1.5a	6.2b
18	5.8a	---	10.7	9.2	11.4	---	8.1	3.4a	7.6	4.6b	<1.0a	5.4a
19	3.6b	---	10.8	8.7	6.0a	---	7.5	4.6a	5.1b	2.9a	<1.0a	1.3a
20	7.7b	2.5a	11.0	8.6	7.2b	---	5.7b	7.3	5.2b	2.7a	<1.0a	.1a
21	8.3	1.8a	10.4	8.4	6.8b	---	7.9	6.5b	3.7a	1.4a	<1.0a	5.1a
22	6.9b	2.1a	9.7	7.6	5.9b	---	6.7	6.7	5.6b	<1.0a	4.5a	5.1b
23	5.0b	3.4a	9.3	8.1	5.3b	---	---	4.7a	3.5a	<1.0a	7.3b	4.7b
24	3.9a	3.8b	10.2	8.6	4.5b	---	---	3.2b	2.5a	<1.0a	7.9	5.2b
25	3.0a	6.3b	9.0	9.9	2.0a	12.4	---	6.1a	1.2a	<1.0a	6.7	5.9
26	2.3a	8.4	10.7	10.1	2.4a	11.8	---	6.9	2.6a	<1.0a	5.6a	5.8b
27	5.2b	7.0a	9.4	10.6	2.6a	10.5	---	7.0	2.6a	<1.0a	1.0a	5.3b
28	9.0	7.0	7.0b	10.5	1.8a	10.1	---	7.0	4.7a	<1.0a	2.6a	5.8b
29	8.6	6.7	6.7b	10.1	5.6a	7.9	5.6a	7.1	4.8b	<1.0a	1.8a	6.7b
30	8.9	6.7	8.3	7.7	---	4.8b	4.2b	7.0	4.1b	<1.0a	1.8a	6.6
31	---	---	11.1	7.6	---	4.1b	---	6.2	---	<1.0a	2.0a	---

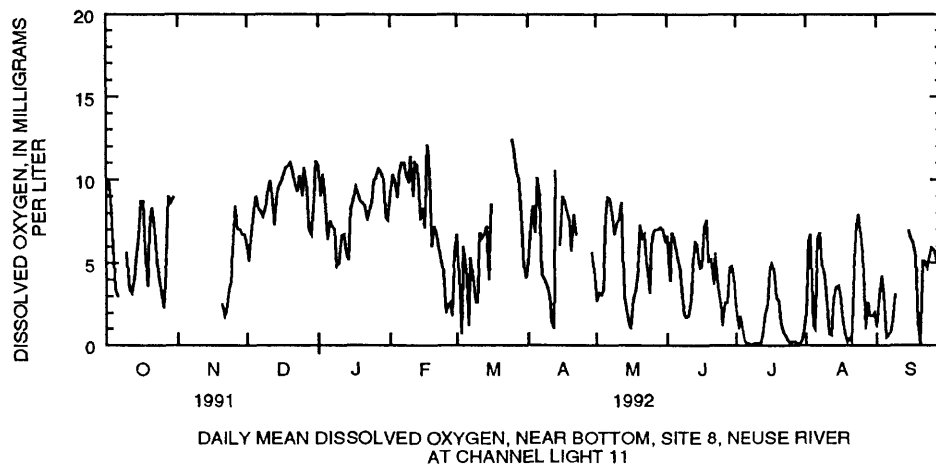


Table 21.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 8, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 11

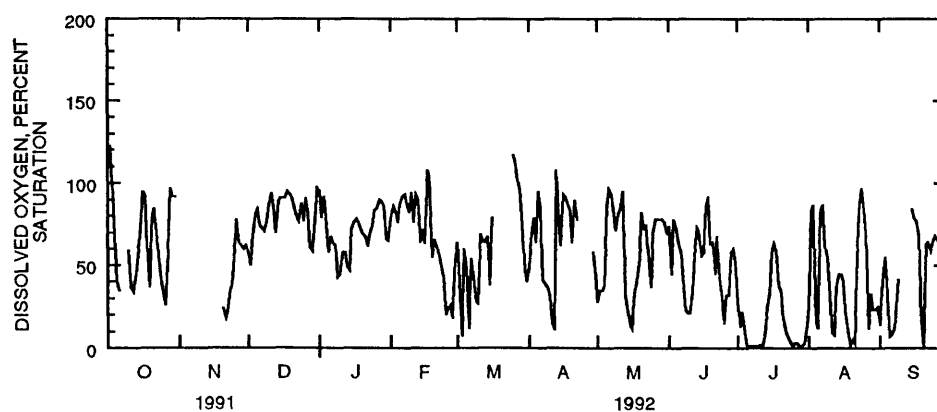
[Site 8 is at latitude 34°59'56", longitude 76°56'36", Craven County; U.S. Geological Survey downstream order number 0209262905]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 141 percent of saturation August 7, 1992; minimum value recorded, ≤10 percent of saturation October 13, 14, 25, 26, November 22, 1991, February 25-28, March 3-7, April 30, May 14-17, 19, June 25-28, July 2-15, 21-31, August 1-22, 26-29, 31, September 1, 2, 4-8, 19-21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	57	95	79	64	49	28	74	28	25	14
2	122	---	50	79	86	40	65	35	45	13	83	40
3	100	---	68	92	83	7	79	35	78	22	87	55
4	68	---	81	75	76	60	64	38	73	10	16	40
5	40	---	84	58	87	48	95	86	64	≤10	12	≤10
6	35	---	74	68	92	12	85	96	57	≤10	82	≤10
7	---	---	73	64	93	54	41	93	41	≤10	87	11
8	---	---	71	62	87	43	39	81	23	≤10	62	20
9	---	---	77	43	82	28	37	71	21	≤10	55	41
10	59	---	87	45	94	27	31	81	21	≤10	32	---
11	37	---	94	58	76	69	15	84	34	≤10	≤10	---
12	34	---	86	58	93	64	11	95	56	≤10	≤10	---
13	45	---	70	49	90	64	108	32	73	≤10	37	---
14	56	---	89	47	64	68	---	25	71	24	45	---
15	72	---	91	72	72	38	62	14	56	33	45	84
16	95	---	91	76	63	79	93	12	58	58	40	79
17	92	---	91	78	108	---	91	33	86	63	19	77
18	62	---	95	76	104	---	87	41	92	59	≤10	68
19	37	---	93	72	55	---	83	54	63	38	≤10	17
20	80	24	91	69	66	---	64	82	64	34	≤10	≤10
21	85	18	85	68	62	---	90	72	45	18	≤10	63
22	70	21	80	62	56	---	78	75	68	10	55	64
23	52	35	77	69	50	---	---	54	42	≤10	89	59
24	41	38	88	74	43	---	---	37	31	≤10	97	63
25	32	60	77	83	20	117	---	70	15	≤10	83	68
26	26	78	91	85	24	113	---	78	32	≤10	70	66
27	58	64	81	90	26	101	---	78	32	≤10	12	62
28	97	62	61	89	18	96	---	78	58	≤10	33	69
29	92	60	59	86	53	75	58	78	60	≤10	23	78
30	92	62	72	66	---	47	44	76	52	≤10	23	76
31	---	---	97	65	---	40	---	69	---	11	25	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 8,
NEUSE RIVER AT CHANNEL LIGHT 11**

**Table 22.---Five-day mean water temperature and dissolved-oxygen values in water at site 8,
October 1991-September 1992, for day and night periods**

NEUSE RIVER AT CHANNEL LIGHT 11

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	21.6	21.5	8.6	7.7	5.4	5.0	6.6	6.7
10/ 6/91-10/10/91	19.8	19.0	9.7	9.3	8.6	9.9	4.9	5.3
10/11/91-10/15/91	19.5	19.0	12.9	11.5	11.2	10.7	4.6	4.9
10/16/91-10/20/91	18.2	17.5	10.4	9.6	9.2	8.8	7.5	6.5
10/21/91-10/25/91	17.8	17.2	12.9	12.6	10.0	9.6	5.1	4.9
10/26/91-10/30/91	18.8	18.1	11.3	10.3	8.7	8.5	6.8	7.5
10/31/91-11/ 4/91	15.8	15.5	10.3	10.0	8.4	8.0	---	---
11/ 5/91-11/ 9/91	12.3	12.0	10.7	10.7	8.7	8.9	---	---
11/10/91-11/14/91	11.0	10.6	11.6	11.6	9.5	9.6	---	---
11/15/91-11/19/91	12.2	11.9	13.7	13.2	10.1	9.8	4.1	3.0
11/20/91-11/24/91	15.1	14.9	11.3	11.2	8.2	9.0	2.8	3.1
11/25/91-11/29/91	11.5	10.9	12.0	11.9	10.0	10.2	6.9	7.4
11/30/91-12/ 4/91	14.1	14.0	9.9	9.7	9.0	8.7	6.7	6.8
12/ 5/91-12/ 9/91	11.4	11.1	11.4	10.5	9.0	8.8	8.3	8.2
12/10/91-12/14/91	13.2	13.0	11.0	10.6	10.5	10.4	8.9	9.1
12/15/91-12/19/91	10.6	9.6	11.1	11.0	10.8	10.5	10.5	10.3
12/20/91-12/24/91	7.6	7.2	12.4	12.1	11.4	11.0	10.1	9.9
12/25/91-12/29/91	8.8	8.8	13.0	12.7	12.3	11.8	9.8	8.0
12/30/91- 1/ 3/92	9.7	9.7	12.9	12.7	---	---	9.9	10.2
1/ 4/92- 1/ 8/92	10.5	10.3	11.7	11.4	---	---	7.2	6.9
1/ 9/92- 1/13/92	9.7	9.8	9.9	9.0	9.2	8.4	5.7	5.6
1/14/92- 1/18/92	9.0	8.1	10.4	10.5	11.1	11.1	9.3	8.7
1/19/92- 1/23/92	6.8	6.8	12.1	12.1	11.8	11.8	8.4	8.0
1/24/92- 1/28/92	8.2	7.8	12.5	12.3	13.0	12.8	10.0	10.2
1/29/92- 2/ 2/92	8.3	7.9	12.4	12.4	12.7	12.3	9.1	8.8
2/ 3/92- 2/ 7/92	8.0	7.8	13.9	13.7	13.4	13.1	10.4	10.1
2/ 8/92- 2/12/92	7.7	7.4	15.9	15.3	15.2	14.9	10.6	10.2
2/13/92- 2/17/92	9.2	9.2	16.6	15.8	15.9	15.5	8.7	9.6
2/18/92- 2/22/92	11.8	11.7	18.2	17.2	15.3	14.4	7.9	6.2
2/23/92- 2/27/92	14.3	14.3	13.0	12.1	---	---	3.3	2.8
2/28/92- 3/ 3/92	14.2	13.6	12.4	10.1	---	---	3.9	3.9
3/ 4/92- 3/ 8/92	16.2	15.9	12.5	10.9	---	---	4.3	4.1
3/ 9/92- 3/13/92	16.0	15.2	11.0	9.8	---	---	5.7	5.2
3/14/92- 3/18/92	12.8	12.3	12.1	10.9	---	---	6.2	6.3
3/19/92- 3/23/92	12.6	12.0	---	---	---	---	---	---
3/24/92- 3/28/92	13.3	12.8	10.9	10.2	---	---	11.4	10.7
3/29/92- 4/ 2/92	14.3	13.7	10.1	9.1	---	---	5.5	6.0
4/ 3/92- 4/ 7/92	13.2	12.6	11.4	10.4	---	---	7.3	7.5
4/ 8/92- 4/12/92	17.9	17.1	12.1	10.7	---	---	2.4	3.5
4/13/92- 4/17/92	17.0	16.6	10.0	9.5	10.5	10.3	8.6	7.9
4/18/92- 4/22/92	21.4	20.9	9.8	8.7	9.7	8.9	7.1	7.0
4/23/92- 4/27/92	21.5	20.1	8.7	7.6	7.3	5.8	---	---
4/28/92- 5/ 2/92	18.6	18.1	8.8	8.0	5.8	5.1	4.7	3.6
5/ 3/92- 5/ 7/92	19.8	19.3	9.2	9.0	7.0	6.3	6.9	6.9
5/ 8/92- 5/12/92	19.3	18.9	10.0	9.6	5.9	5.2	7.3	7.1

Table 22.---Five-day mean water temperature and dissolved-oxygen values in water at site 8, October 1991-September 1992, for day and night periods---Continued

NEUSE RIVER AT CHANNEL LIGHT 11

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	22.7	22.2	10.9	10.0	2.7	2.0	2.0	2.2
5/18/92- 5/22/92	22.3	21.4	8.3	8.6	5.5	5.5	6.1	5.7
5/23/92- 5/27/92	22.1	21.5	8.9	8.1	5.8	5.3	5.6	5.6
5/28/92- 6/ 1/92	20.5	20.3	7.3	6.8	6.4	6.2	6.8	6.3
6/ 2/92- 6/ 6/92	22.9	22.3	---	---	6.1	5.4	5.5	5.3
6/ 7/92- 6/11/92	24.4	23.9	---	---	5.7	5.3	2.4	2.4
6/12/92- 6/16/92	23.9	23.6	---	---	6.9	6.9	5.4	5.3
6/17/92- 6/21/92	25.7	24.9	9.9	9.3	8.5	7.9	5.7	5.7
6/22/92- 6/26/92	25.7	24.9	---	---	3.9	2.8	3.0	2.8
6/27/92- 7/ 1/92	27.2	26.7	---	---	4.3	3.4	3.9	3.1
7/ 2/92- 7/ 6/92	27.6	26.9	---	---	3.9	3.9	<1.0	<1.0
7/ 7/92- 7/11/92	28.7	27.8	9.0	6.4	6.8	4.6	<1.0	<1.0
7/12/92- 7/16/92	28.8	27.6	7.3	4.5	---	---	2.0	2.6
7/17/92- 7/21/92	28.5	28.0	5.5	4.1	---	---	3.3	2.6
7/22/92- 7/26/92	29.0	28.4	3.3	2.4	---	---	<1.0	<1.0
7/27/92- 7/31/92	30.3	29.7	4.7	4.3	7.0	5.6	<1.0	<1.0
8/ 1/92- 8/ 5/92	29.4	28.6	7.1	6.4	6.1	5.2	2.9	4.3
8/ 6/92- 8/10/92	28.6	27.8	7.4	7.0	6.2	5.3	5.4	3.9
8/11/92- 8/15/92	28.7	28.0	---	---	3.3	3.5	2.3	2.3
8/16/92- 8/20/92	26.6	26.5	---	---	---	---	<1.0	1.1
8/21/92- 8/25/92	25.8	25.4	---	---	---	---	5.8	5.8
8/26/92- 8/30/92	27.3	27.0	---	---	---	---	2.9	1.7
8/31/92- 9/ 4/92	28.7	28.1	---	---	---	---	2.6	2.4
9/ 5/92- 9/ 9/92	29.2	28.6	---	---	---	---	1.4	1.4
9/10/92- 9/14/92	28.2	27.4	7.5	7.0	8.3	7.8	7.4	7.0
9/15/92- 9/19/92	26.5	26.1	8.6	7.4	7.3	6.4	5.2	4.3
9/20/92- 9/24/92	26.5	25.8	6.0	5.5	5.4	5.9	4.1	4.7
9/25/92- 9/29/92	23.2	23.1	7.3	6.7	7.7	7.4	5.8	5.8

Table 23.--Vertical distributions of selected constituents in water at site 8, October 1991-September 1992

NEUSE RIVER AT CHANNEL LIGHT 11

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 01...	1030	1.07	---	---	---	---	---	---
01...	1031	---	10.0	8,580	4.7	21.5	11.6	136
01...	1032	---	8.00	9,680	5.4	21.0	9.8	114
01...	1033	---	6.00	9,600	5.4	21.5	9.8	115
01...	1034	---	4.00	11,500	6.5	22.0	8.6	103
01...	1035	---	2.00	16,000	9.3	22.0	2.2	27
09...	1210	1.50	---	---	---	---	---	---
09...	1211	---	11.0	10,700	6.1	18.5	10.6	118
09...	1212	---	10.0	10,700	6.1	18.5	10.6	118
09...	1213	---	9.00	10,700	6.1	18.5	10.6	118
09...	1214	---	8.00	10,800	6.1	18.0	10.5	115
09...	1215	---	7.00	10,800	6.1	18.0	10.4	114
09...	1216	---	6.00	11,200	6.4	18.0	10.3	113
09...	1217	---	5.00	11,200	6.4	18.0	10.1	111
09...	1218	---	4.00	11,200	6.4	18.0	10.1	111
09...	1219	---	3.00	11,700	6.7	18.0	9.0	99
09...	1220	---	2.00	11,700	6.7	18.0	9.0	99
09...	1221	---	1.00	13,800	8.0	18.0	7.0	78
Nov. 18...	1330	1.14	---	---	---	---	---	---
18...	1331	---	10.0	13,000	7.5	12.0	13.3	130
18...	1332	---	8.00	14,300	8.3	12.0	12.9	126
18...	1333	---	6.00	17,200	10.1	12.5	8.7	87
18...	1334	---	4.00	23,100	13.9	13.0	7.4	77
18...	1335	---	2.00	23,100	13.9	13.0	7.3	76
19...	0950	0.74	---	---	---	---	---	---
19...	0951	---	10.0	13,400	7.7	12.0	13.3	130
19...	0952	---	8.00	15,600	9.1	12.0	12.7	125
19...	0953	---	6.00	16,300	9.5	12.0	12.1	119
19...	0954	---	4.00	19,800	11.8	13.0	5.1	52
19...	0955	---	2.00	23,100	13.9	13.0	4.5	47
Dec. 10...	1115	0.85	---	---	---	---	---	---
10...	1116	---	10.0	22,300	13.4	12.0	9.5	97
10...	1117	---	8.00	22,300	13.4	12.0	9.3	94
10...	1118	---	6.00	23,300	14.1	12.0	9.0	92
10...	1119	---	4.00	23,400	14.1	12.0	8.6	88
10...	1120	---	2.00	23,400	14.1	12.5	8.7	89
1992								
Jan. 09...	1010	1.21	---	---	---	---	---	---
09...	1011	---	10.0	7,900	4.4	10.0	11.5	105
09...	1012	---	9.00	7,900	4.4	10.0	11.5	105
09...	1013	---	8.00	7,900	4.4	10.0	11.0	100
09...	1014	---	7.00	7,900	4.4	10.0	11.0	100
09...	1015	---	6.00	11,300	6.4	10.0	9.7	90
09...	1016	---	5.00	11,500	6.5	10.0	14.0	130
09...	1017	---	4.00	14,100	8.1	10.0	14.0	131
09...	1018	---	3.00	15,900	9.3	10.0	13.0	122
09...	1019	---	2.00	16,200	9.5	10.0	9.4	89
09...	1020	---	1.00	18,300	10.8	10.0	5.2	49

¹Water level from 02092162, Neuse River at New Bern.

**Table 23.--Vertical distributions of selected constituents in water at site 8,
October 1991-September 1992--Continued**

NEUSE RIVER AT CHANNEL LIGHT 11

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
Feb. 24...	1330	0.60	---	---	---	---	---	---
24...	1331	---	10.0	11,200	6.4	13.5	14.8	148
24...	1332	---	9.00	11,200	6.4	13.0	14.8	147
24...	1333	---	8.00	11,300	6.4	12.5	14.0	137
24...	1334	---	7.00	11,300	6.4	12.5	13.9	136
24...	1335	---	6.00	11,300	6.4	12.5	14.0	137
24...	1336	---	5.00	11,500	6.5	12.5	13.8	135
24...	1337	---	4.00	11,900	6.8	12.5	12.1	119
24...	1338	---	3.00	15,900	9.3	12.0	4.2	41
24...	1339	---	2.00	20,500	12.2	11.5	4.6	46
24...	1340	---	1.00	20,600	12.3	11.0	4.6	45
Mar. 24...	1040	1.25	---	---	---	---	---	---
24...	1041	---	10.0	6,800	3.7	11.5	13.6	128
24...	1042	---	6.00	7,070	3.8	11.5	11.4	107
24...	1043	---	2.00	7,880	4.3	11.5	11.2	106
Apr. 14...	1450	1.25	---	---	---	---	---	---
14...	1451	---	10.0	10,600	6.0	16.0	11.6	122
14...	1452	---	6.00	14,000	8.1	15.0	9.7	101
14...	1453	---	2.00	19,200	11.4	15.5	6.8	73
28...	1300	1.58	---	---	---	---	---	---
28...	1301	---	10.0	9,140	5.1	19.0	8.4	94
28...	1302	---	6.00	9,140	5.1	19.0	8.4	94
28...	1303	---	2.00	9,200	5.1	19.0	8.4	94
May 21...	0930	1.58	---	---	---	---	---	---
21...	0931	---	10.0	13,800	8.0	20.0	7.2	83
21...	0932	---	6.00	13,800	8.0	20.0	7.0	81
21...	0933	---	2.00	13,800	8.0	20.0	5.5	64
June 17...	1105	1.36	---	---	---	---	---	---
17...	1106	---	10.0	8,290	4.5	24.0	9.0	110
17...	1107	---	6.00	8,290	4.5	24.0	9.0	110
17...	1108	---	2.00	8,290	4.5	24.0	7.5	92
July 09...	1230	0.18	---	---	---	---	---	---
09...	1231	---	10.0	7,290	4.0	28.0	9.1	119
09...	1232	---	9.00	7,520	4.1	28.0	9.0	118
09...	1233	---	8.00	8,180	4.5	28.0	8.1	107
09...	1234	---	7.00	9,310	5.2	27.0	5.8	75
09...	1235	---	6.00	16,700	9.8	26.5	5.0	66
09...	1236	---	4.00	17,900	10.6	26.5	0	0
09...	1237	---	3.00	19,000	11.3	26.5	0	0
09...	1238	---	2.00	19,700	11.7	26.0	0	0
30...	1200	0.99	---	---	---	---	---	---
30...	1201	---	10.0	14,700	8.5	30.0	7.8	109
30...	1202	---	6.00	18,100	10.7	29.5	7.0	98
30...	1203	---	2.00	25,300	15.4	28.5	0.1	1
Sept. 14...	1100	1.36	---	---	---	---	---	---
14...	1101	---	10.0	12,200	7.0	25.0	7.4	94
14...	1102	---	6.00	12,500	7.2	25.0	7.0	89
14...	1103	---	2.00	12,500	7.2	25.0	6.6	84

¹Water level from 02092162, Neuse River at New Bern.

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992

NEUSE RIVER AT CHANNEL LIGHT 9

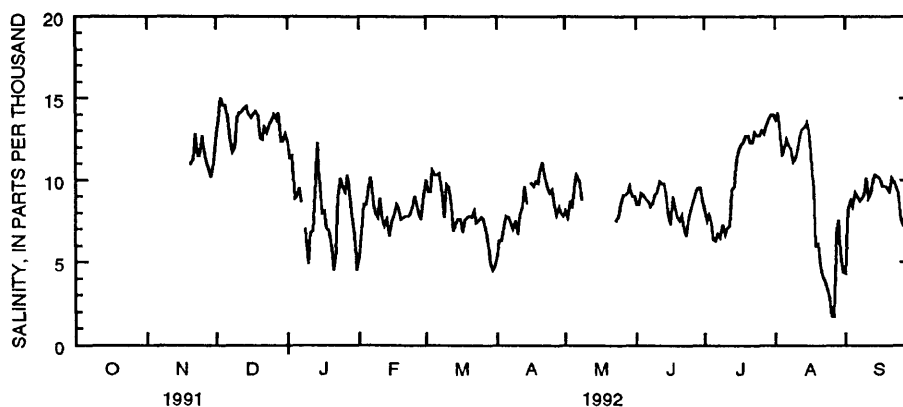
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.5 ppt December 3, 1991; minimum value recorded, 1.4 ppt August 26, 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	12.8	12.3	5.3	10.0	5.4	8.1	8.5	8.2	13.7	4.3
2	---	---	13.7	11.4	6.9	9.3	6.3	7.7	8.5	7.5	14.1	8.2
3	---	---	15.0	11.5	8.5	9.3	6.3	8.7	9.2	7.9	13.1	8.7
4	---	---	14.6	8.9	8.5	10.6	7.2	8.3	9.1	7.4	11.5	8.4
5	---	---	14.6	9.0	9.5	10.3	7.8	9.8	8.8	6.4	11.8	9.2
6	---	---	13.7	9.5	10.2	10.3	7.7	10.3	8.7	6.3	12.5	9.0
7	---	---	12.6	8.7	8.5	10.4	7.4	10.0	8.4	6.7	12.1	8.7
8	---	---	11.7	---	8.0	9.2	7.0	8.8	8.6	6.5	11.9	8.8
9	---	---	12.0	7.0	7.7	7.7	7.5	---	9.1	7.3	11.1	9.1
10	---	---	13.8	4.9	8.9	9.7	6.7	---	9.3	6.7	11.3	10.1
11	---	---	14.1	6.8	7.6	9.5	7.9	---	9.9	7.1	11.8	8.9
12	---	---	14.1	6.9	7.2	8.4	8.4	---	9.8	7.2	12.7	9.2
13	---	---	14.4	9.2	7.6	6.9	9.6	---	9.8	9.4	13.1	9.9
14	---	---	14.5	12.3	6.6	7.3	8.6	---	9.2	9.6	13.2	10.3
15	---	---	14.0	10.1	7.5	7.6	---	---	7.8	11.2	13.5	10.2
16	---	---	13.8	8.0	7.8	7.6	9.8	---	7.3	11.8	13.0	10.1
17	---	---	14.0	8.1	8.5	6.8	9.6	---	9.0	12.2	11.4	9.6
18	---	---	14.2	7.1	8.3	7.5	9.9	---	8.4	12.3	9.4	9.6
19	---	---	13.9	6.9	7.6	7.7	9.8	---	7.8	12.7	6.0	9.5
20	---	11.0	12.6	6.3	7.7	7.8	10.5	---	7.5	12.7	6.1	9.3
21	---	11.3	12.5	4.5	7.8	7.7	11.1	---	7.9	12.3	4.8	10.1
22	---	12.8	13.2	5.6	7.8	8.1	10.2	---	7.1	12.3	4.1	9.9
23	---	11.5	12.9	9.0	7.9	7.4	9.6	7.5	6.6	12.9	3.8	9.5
24	---	11.5	13.4	10.1	8.3	7.5	9.2	7.8	7.7	12.7	3.4	9.2
25	---	12.7	13.7	9.6	9.0	7.7	9.4	8.5	8.2	12.7	2.8	7.6
26	---	11.8	14.0	9.3	8.5	7.6	8.6	9.1	8.7	13.0	1.7	7.2
27	---	11.1	13.7	10.3	7.9	7.0	7.9	9.1	9.3	12.8	1.7	7.8
28	---	10.6	14.1	9.2	7.6	6.4	8.3	9.2	9.5	13.3	6.7	8.2
29	---	10.2	12.4	7.8	9.1	4.9	8.0	9.6	9.5	13.7	7.5	8.4
30	---	11.0	12.4	6.7	---	4.5	7.8	9.0	8.8	14.0	5.1	7.9
31	---	---	12.8	4.5	---	4.7	---	9.0	---	14.0	4.4	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 9, NEUSE RIVER AT CHANNEL LIGHT 9

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

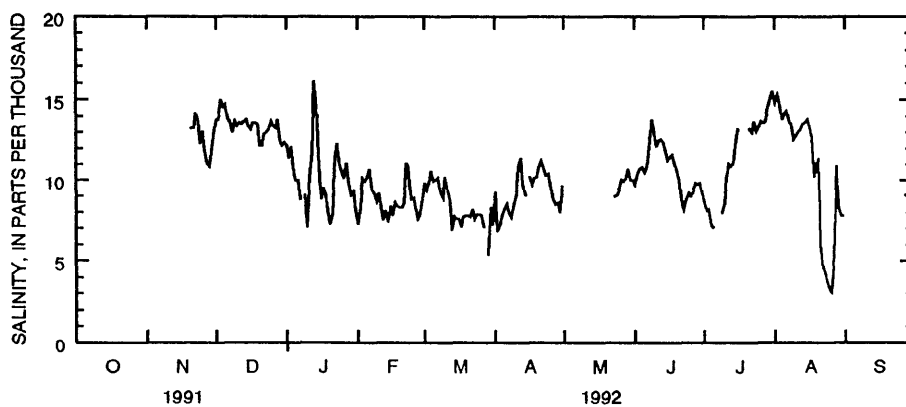
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 17.2 ppt January 13, July 31, 1992; minimum value recorded, 1.9 ppt August 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	13.8	12.2	7.3	9.8	9.3	---	9.7	8.6	14.8	---
2	---	---	13.8	11.4	8.3	9.4	6.8	---	10.4	8.1	15.3	---
3	---	---	15.0	12.1	10.1	9.8	7.2	---	10.7	8.2	14.8	---
4	---	---	14.6	10.5	9.9	10.6	7.9	---	10.8	7.2	13.8	---
5	---	---	14.7	10.0	10.1	9.9	8.2	---	10.5	7.1	14.1	---
6	---	---	13.8	10.0	10.7	10.0	8.5	---	10.9	---	14.3	---
7	---	---	13.7	8.8	9.4	10.1	8.0	---	12.1	---	13.7	---
8	---	---	13.0	---	9.2	9.2	7.7	---	13.8	---	13.5	---
9	---	---	13.7	9.1	8.7	8.9	8.5	---	13.2	8.0	12.6	---
10	---	---	13.4	7.1	9.2	10.2	9.1	---	12.1	8.6	12.8	---
11	---	---	13.6	10.2	8.3	9.4	10.8	---	12.5	10.1	13.0	---
12	---	---	13.5	11.7	7.5	8.7	11.4	---	12.6	11.0	13.2	---
13	---	---	13.7	16.1	8.1	6.9	9.7	---	12.4	10.9	13.5	---
14	---	---	13.8	14.6	7.4	7.7	9.1	---	11.9	11.1	13.6	---
15	---	---	13.4	11.6	8.4	7.6	---	---	11.3	12.5	13.8	---
16	---	---	13.2	8.8	7.8	7.6	10.2	---	11.5	13.2	13.4	---
17	---	---	13.6	9.5	8.6	7.1	9.7	---	11.6	---	12.7	---
18	---	---	13.6	9.1	8.4	7.7	10.1	---	11.0	---	10.2	---
19	---	---	13.5	7.9	8.3	7.8	10.2	---	10.7	---	10.7	---
20	---	13.3	12.2	7.3	8.3	7.8	10.8	---	10.0	---	11.4	---
21	---	13.3	12.2	7.9	8.6	7.7	11.2	---	8.6	13.2	6.0	---
22	---	14.2	12.9	11.4	11.1	8.2	10.7	---	8.2	13.0	4.6	---
23	---	13.7	13.0	12.3	10.8	7.6	10.3	9.0	8.8	13.7	4.2	---
24	---	12.3	13.2	11.0	8.8	7.9	10.4	9.1	9.2	13.1	3.6	---
25	---	13.1	13.7	10.6	8.9	7.9	9.5	9.4	9.0	13.4	3.2	---
26	---	11.9	13.4	10.1	8.3	7.8	8.8	10.0	9.3	13.7	3.1	---
27	---	11.1	13.3	11.1	7.6	7.1	8.5	9.9	9.8	13.6	5.3	9.1
28	---	10.9	13.8	10.0	7.8	---	8.6	10.1	9.7	13.7	10.9	9.0
29	---	11.7	12.5	9.1	8.8	5.4	8.0	10.7	9.8	14.6	8.4	8.8
30	---	13.1	12.2	9.3	---	8.3	9.6	10.0	9.3	15.1	7.8	8.4
31	---	---	12.4	8.1	---	7.2	---	10.0	---	15.5	7.8	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 9, NEUSE RIVER AT CHANNEL LIGHT 9

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 32.1 °C September 10, 1992; minimum value recorded, 4.5 °C January 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	12.4	9.3	8.2	11.6	13.5	17.5	21.5	27.5	---	---
2	---	---	14.1	9.5	7.2	12.4	13.1	18.2	21.7	27.2	---	27.5
3	---	---	15.2	9.9	6.6	12.7	12.3	19.4	22.1	26.8	---	28.1
4	---	---	14.4	10.8	7.3	12.7	11.8	20.0	22.2	27.3	---	28.2
5	---	---	12.0	10.7	7.6	13.0	11.7	18.8	22.8	28.0	---	28.4
6	---	---	10.6	10.7	7.0	13.3	12.0	17.7	23.0	---	---	28.5
7	---	---	10.2	10.4	7.3	14.3	12.8	16.5	24.4	---	---	28.6
8	---	---	10.9	---	7.7	15.5	14.7	16.6	25.6	---	---	28.6
9	---	---	11.3	10.4	7.2	16.3	15.5	---	25.0	---	---	28.4
10	---	---	12.3	10.6	6.6	15.5	16.8	---	25.0	---	---	28.9
11	---	---	11.8	9.0	6.5	14.8	17.0	---	24.7	---	---	28.8
12	---	---	12.1	7.9	6.8	13.9	17.1	---	24.3	---	---	27.7
13	---	---	12.7	9.5	6.3	13.1	15.8	---	24.1	---	---	26.4
14	---	---	13.5	10.5	6.8	12.7	15.0	---	24.7	---	---	25.8
15	---	---	12.7	9.8	7.6	12.3	---	---	25.4	---	---	25.6
16	---	---	10.9	8.5	9.1	11.6	15.2	---	26.1	---	---	25.9
17	---	---	10.2	7.0	9.0	11.3	16.4	---	25.1	---	---	26.6
18	---	---	9.8	7.0	9.2	12.3	17.6	---	25.6	---	---	27.0
19	---	---	8.6	6.4	10.9	13.4	18.9	---	25.9	---	---	27.0
20	---	13.3	7.2	5.2	10.9	12.5	18.7	---	26.0	---	---	26.9
21	---	14.2	6.6	6.0	10.5	11.8	18.2	---	25.8	---	---	26.8
22	---	14.5	7.2	6.8	10.9	11.9	20.0	---	25.3	---	---	27.2
23	---	15.1	7.3	7.9	11.5	11.7	21.0	21.3	27.2	---	---	26.8
24	---	15.4	8.2	8.5	12.1	11.4	21.3	22.6	28.5	---	---	24.2
25	---	13.6	8.3	7.7	12.0	11.6	21.1	22.3	28.8	---	---	22.6
26	---	12.2	8.0	7.6	12.5	12.2	20.5	21.5	28.6	---	---	22.1
27	---	11.1	8.3	7.2	12.5	12.4	19.6	21.1	27.3	---	---	23.2
28	---	10.5	8.4	7.7	12.4	12.2	18.7	20.3	26.8	---	---	23.6
29	---	10.6	9.6	7.9	11.7	12.5	17.3	20.0	27.0	---	---	23.2
30	---	11.5	9.9	8.1	---	12.9	17.0	20.0	26.8	---	---	21.9
31	---	---	9.3	8.4	---	13.6	---	21.0	---	---	---	---

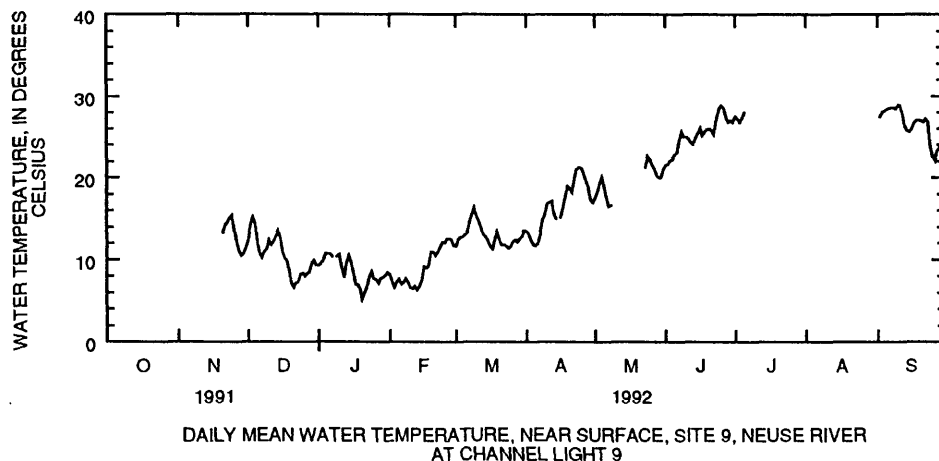


Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 18.4 mg/L June 24, 1992; minimum value recorded, <1.0 mg/L July 6, 11, 12, 15-17, 19, 20, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	9.1	12.3	---	11.6	11.4	7.7	---	11.8	4.4b	---
2	---	---	7.6	12.6	---	13.3	11.4	9.3	---	12.0	5.0b	---
3	---	---	6.2	11.9	---	13.5	11.3	9.7	---	12.1	5.0b	---
4	---	---	6.7	11.8	---	11.3	11.8	10.3	---	10.0	5.7b	---
5	---	---	6.9	11.7	---	11.4	10.9	8.8	---	12.6	5.6b	---
6	---	---	7.4	11.6	---	11.4	11.3	8.3	---	12.6a	4.9b	---
7	---	---	8.2	12.6	---	10.9	12.1	8.5	---	12.1	5.6b	---
8	---	---	9.2	---	---	13.6	12.2	---	---	10.8	6.6b	---
9	---	---	10.2	12.5	---	13.9	11.6	---	---	7.8b	7.2	---
10	---	---	10.7	12.9	---	9.7b	13.8	---	---	8.4b	---	---
11	---	---	10.6	---	---	9.1	11.4	---	---	7.2a	---	---
12	---	---	10.9	---	---	11.9	11.0	---	---	5.9a	---	---
13	---	---	10.5	---	---	12.0	9.4	---	---	3.1a	---	---
14	---	---	10.3	---	---	13.0	9.5	---	---	1.9a	---	---
15	---	---	10.5	---	---	13.0	---	---	---	<1.0a	---	---
16	---	---	10.9	---	---	12.1	9.7	---	---	<1.0a	---	---
17	---	---	10.9	---	---	12.8	10.2	---	---	1.3a	---	---
18	---	---	11.3	---	---	12.3	10.4	---	---	1.5a	---	---
19	---	---	11.8	---	---	11.4	10.0	---	---	1.1a	---	---
20	---	11.9	12.2	---	---	10.2	9.8	---	---	2.1a	---	---
21	---	11.5	12.7	---	---	11.1	7.7b	---	---	2.3a	---	---
22	---	9.7	12.4	---	14.5	11.4	8.8	---	---	2.4a	---	---
23	---	10.1	12.9	---	14.7	10.9	8.6	8.4	---	1.7a	---	---
24	---	9.7	12.4	---	14.4	11.4	7.4	---	12.2	1.7a	---	---
25	---	9.1	12.5	---	12.9	10.8	6.5	---	11.0	1.8a	---	---
26	---	9.5	12.6	---	11.5	9.5	6.5	---	10.6	1.8a	---	---
27	---	9.8	12.6	---	12.1	9.1	6.1	---	10.3b	3.0a	---	---
28	---	10.7	12.3	---	11.9	9.7	6.3	---	10.4	3.3b	---	---
29	---	11.9	13.0	---	10.5	10.6	6.9	---	10.1	4.5b	---	---
30	---	11.0	12.7	---	---	10.8	7.1	---	9.9	5.9b	---	---
31	---	---	12.4	---	---	10.9	---	---	---	5.1b	---	---

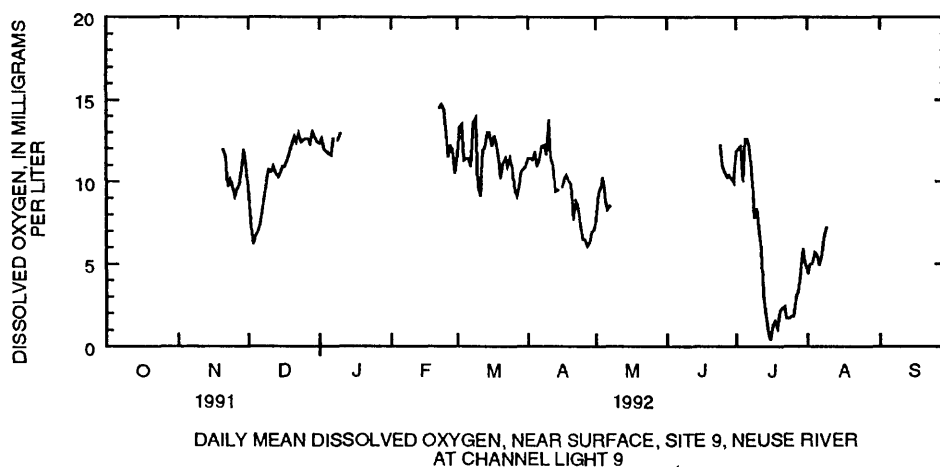


Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

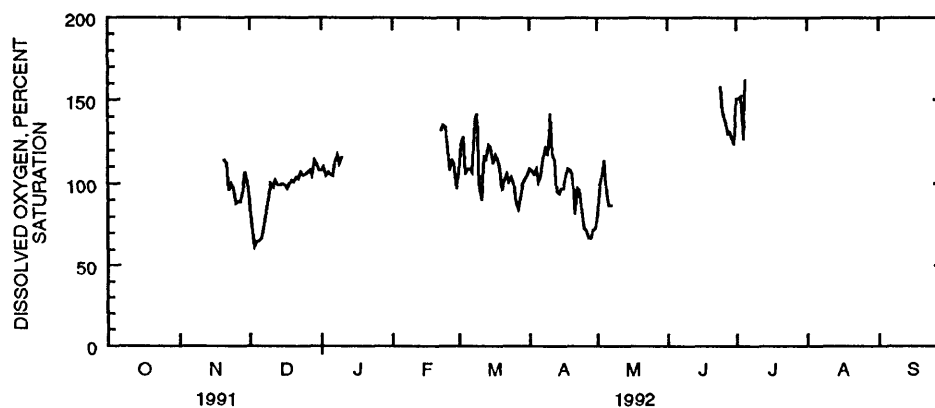
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--8 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 242 percent of saturation June 24, 1992; minimum value recorded, 37 percent of saturation April 21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	85	108	---	107	109	81	---	151	---	---
2	---	---	74	110	---	124	108	99	---	151	---	---
3	---	---	62	105	---	128	106	106	---	152	---	---
4	---	---	65	107	---	106	109	114	---	127	---	---
5	---	---	65	106	---	109	101	94	---	162	---	---
6	---	---	67	105	---	109	105	87	---	---	---	---
7	---	---	73	113	---	107	115	87	---	---	---	---
8	---	---	83	---	---	137	121	---	---	---	---	---
9	---	---	93	112	---	142	117	---	---	---	---	---
10	---	---	100	116	---	98	142	---	---	---	---	---
11	---	---	98	---	---	90	118	---	---	---	---	---
12	---	---	102	---	---	116	114	---	---	---	---	---
13	---	---	99	---	---	115	95	---	---	---	---	---
14	---	---	99	---	---	123	94	---	---	---	---	---
15	---	---	100	---	---	122	---	---	---	---	---	---
16	---	---	99	---	---	112	97	---	---	---	---	---
17	---	---	97	---	---	117	105	---	---	---	---	---
18	---	---	100	---	---	115	109	---	---	---	---	---
19	---	---	102	---	---	109	108	---	---	---	---	---
20	---	114	101	---	---	96	106	---	---	---	---	---
21	---	112	104	---	---	102	82	---	---	---	---	---
22	---	96	103	---	132	106	97	---	---	---	---	---
23	---	100	107	---	135	101	96	95	---	---	---	---
24	---	97	105	---	134	104	84	---	158	---	---	---
25	---	88	106	---	120	100	73	---	144	---	---	---
26	---	89	107	---	108	89	72	---	138	---	---	---
27	---	89	108	---	114	85	67	---	130	---	---	---
28	---	96	105	---	112	91	67	---	131	---	---	---
29	---	107	114	---	97	100	72	---	127	---	---	---
30	---	101	112	---	---	103	73	---	124	---	---	---
31	---	---	108	---	---	105	---	---	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 9,
NEUSE RIVER AT CHANNEL LIGHT 9**

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

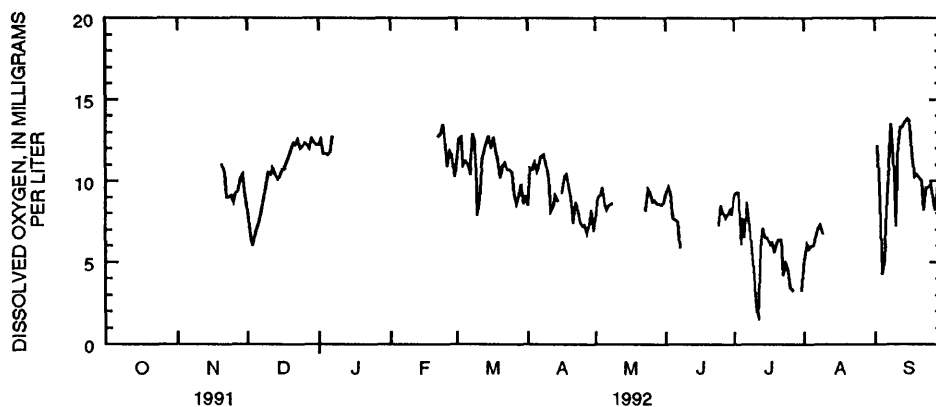
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--5 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 15.9 mg/L February 24, 1992; minimum value recorded, <1.0 mg/L July 10-12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	8.1	12.2	---	11.1	8.5	7.6b	9.2	9.2	5.1b	---
2	---	---	7.3	12.5	---	12.6	10.8	9.0	9.6	9.3	6.1b	12.1
3	---	---	6.0	11.7	---	12.7	10.7	9.1	9.3	9.3	5.8b	8.7b
4	---	---	6.5	11.7	---	11.0	11.1	9.6	7.7	6.1a	6.0b	4.3a
5	---	---	7.0	11.6	---	11.2	10.6	8.5	7.6	7.7b	6.0b	5.1a
6	---	---	7.5	11.8	---	11.0	11.0	8.2	7.5b	6.5b	6.5b	8.2b
7	---	---	8.0	12.7	---	10.4	11.5	8.5	5.9b	8.7b	7.1	11.0b
8	---	---	8.9	---	---	12.9	11.6	8.6	---	7.6b	7.3	13.5
9	---	---	9.8	---	---	12.4	11.0	---	---	5.7a	6.8b	11.5b
10	---	---	10.5	---	---	7.9b	10.1	---	---	4.2a	---	7.2b
11	---	---	10.4	---	---	8.9	8.1b	---	---	2.2a	---	11.6b
12	---	---	10.8	---	---	11.3	8.4b	---	---	1.5a	---	13.3
13	---	---	10.4	---	---	11.8	9.1	---	---	5.9a	---	13.3
14	---	---	10.1	---	---	12.4	8.8	---	---	7.1a	---	13.6
15	---	---	10.3	---	---	12.8	---	---	---	6.5a	---	13.8
16	---	---	10.7	---	---	12.0	9.3	---	---	6.5b	---	13.7
17	---	---	10.7	---	---	12.7	10.3	---	---	6.1b	---	11.9
18	---	---	11.1	---	---	11.9	10.4	---	---	6.2	---	10.3
19	---	---	11.5	---	---	11.3	9.6	---	---	5.6b	---	10.4
20	---	11.0	11.9	---	---	10.2	9.0	---	---	6.2b	---	10.2b
21	---	10.5	12.3	---	---	10.9	7.4a	---	---	6.4	---	10.0
22	---	9.0	12.2	---	12.8	11.1	8.7	---	---	6.4b	---	8.2b
23	---	9.0	12.5	---	12.9	10.7	8.3	8.2	---	4.2a	---	9.6
24	---	9.1	12.0	---	13.5	10.7	7.5	9.5	7.3b	4.9a	---	9.6
25	---	8.7	12.1	---	12.1	10.5	7.2	9.3	8.5	4.5b	---	9.8
26	---	9.2	12.3	---	10.9	9.2	7.3	8.7	8.0	3.5a	---	8.8
27	---	9.4	12.2	---	11.8	8.6	6.8	8.8	7.7	3.3a	---	8.2
28	---	10.2	12.0	---	11.6	9.0	7.3	8.6	7.9	---	---	9.8
29	---	10.4	12.6	---	10.3	9.8	8.2	8.6	8.2	---	---	9.3
30	---	9.1	12.4	---	---	8.6	6.9b	8.5	7.9	---	---	9.9
31	---	---	12.2	---	---	9.1	---	8.7	---	3.3a	---	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 9, NEUSE RIVER AT CHANNEL LIGHT 9

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

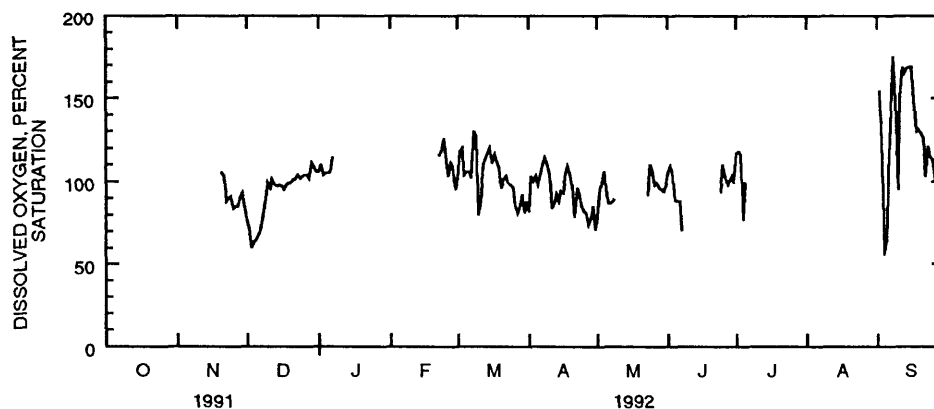
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--5 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 230 percent of saturation September 11, 1992; minimum value recorded, 11 percent of saturation April 21, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	76	106	---	102	82	79	105	117	---	---
2	---	---	72	110	---	118	103	96	109	118	---	154
3	---	---	60	104	---	120	100	99	106	116	---	112
4	---	---	64	105	---	104	103	106	89	77	---	56
5	---	---	65	105	---	106	98	92	88	99	---	65
6	---	---	68	106	---	106	103	87	88	---	---	106
7	---	---	71	114	---	102	109	87	71	---	---	143
8	---	---	80	---	---	130	114	89	---	---	---	175
9	---	---	90	---	---	127	110	---	---	---	---	149
10	---	---	99	---	---	80	104	---	---	---	---	95
11	---	---	96	---	---	88	84	---	---	---	---	151
12	---	---	101	---	---	110	87	---	---	---	---	169
13	---	---	98	---	---	113	92	---	---	---	---	165
14	---	---	97	---	---	117	88	---	---	---	---	168
15	---	---	98	---	---	120	---	---	---	---	---	169
16	---	---	97	---	---	111	93	---	---	---	---	169
17	---	---	95	---	---	116	105	---	---	---	---	149
18	---	---	98	---	---	112	109	---	---	---	---	130
19	---	---	99	---	---	108	104	---	---	---	---	131
20	---	105	99	---	---	96	97	---	---	---	---	129
21	---	103	101	---	---	101	79	---	---	---	---	126
22	---	88	101	---	116	103	96	---	---	---	---	103
23	---	90	104	---	118	99	93	92	---	---	---	121
24	---	91	102	---	126	98	85	110	94	---	---	115
25	---	84	103	---	112	96	82	107	110	---	---	113
26	---	85	104	---	103	86	81	98	103	---	---	101
27	---	85	104	---	111	81	74	99	98	---	---	96
28	---	91	102	---	109	84	78	96	100	---	---	116
29	---	93	111	---	95	92	85	95	103	---	---	109
30	---	84	109	---	---	81	71	94	99	---	---	113
31	---	---	106	---	---	88	---	98	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 9,
NEUSE RIVER AT CHANNEL LIGHT 9**

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

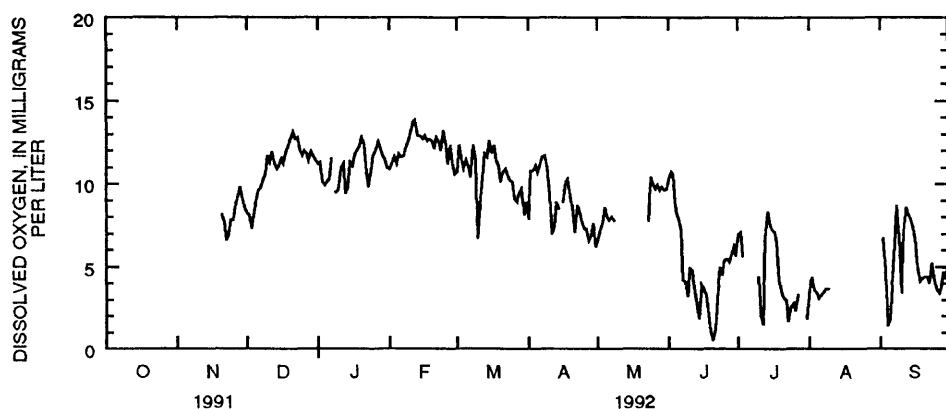
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.8 mg/L February 24, 1992; minimum value recorded, <1.0 mg/L April 21, June 7, 14, 18-22, 26, July 10-12, 23-26, August 5, September 3-7, 10, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	---	---	8.2b	11.2	10.9	10.7	7.9	6.6b	10.3	7.0b	3.7b	---
2	---	---	8.1	11.3	11.3	12.3	10.8	7.2	10.7	7.1b	4.4b	6.7b
3	---	---	7.3b	10.1	11.6	11.4	10.8	7.7b	10.5	5.7a	3.6a	4.8a
4	---	---	8.3	9.9	11.2	10.9	11.1	8.6	8.3b	---	3.4a	1.4a
5	---	---	8.9	10.1	11.8	11.4	10.7	8.0	7.9	---	3.1a	1.8a
6	---	---	9.6	10.3	11.6	11.0	11.2	7.8	7.2b	---	3.3a	3.8a
7	---	---	9.7	11.5	11.7	10.4	11.6	8.0	4.2a	---	3.5b	6.3a
8	---	---	10.2	---	12.2	12.3	11.7	7.8	4.1a	---	3.7b	8.7b
9	---	---	10.6	9.5	12.6	11.4	11.0	---	3.2a	---	3.7b	6.8b
10	---	---	11.7	9.6	13.1	6.7b	9.3b	---	4.9a	4.4a	---	3.4a
11	---	---	11.3	11.0	13.7	8.7b	7.0a	---	4.8b	2.1a	---	7.1a
12	---	---	11.9	11.2	13.8	10.4	7.4a	---	3.5b	1.5a	---	8.6
13	---	---	11.2	9.4	12.9	11.8	8.9	---	2.6a	6.8a	---	8.2
14	---	---	10.9	9.8	12.9	11.6	8.5	---	1.9a	8.3a	---	7.9
15	---	---	11.1	11.3	12.7	12.6	---	---	3.9a	7.5a	---	7.3
16	---	---	11.5	11.1	12.9	11.8	8.9	---	3.6a	7.2b	---	6.7
17	---	---	11.2	11.8	12.6	12.3	10.1	---	3.3a	7.1b	---	5.0b
18	---	---	11.9	12.0	12.7	11.4	10.3	---	2.1a	6.5b	---	4.1b
19	---	---	12.3	12.3	12.6	11.1	9.3b	---	1.1a	4.2a	---	4.3b
20	---	8.1	12.7	12.8	12.1	10.1	8.6	---	<1.0a	3.4b	---	4.4a
21	---	7.7	13.1	12.4	12.8	10.7	7.1a	---	1.2a	3.1b	---	4.4a
22	---	6.6b	12.7	10.7	12.5	10.9	8.7b	---	3.1a	3.0a	---	4.0b
23	---	7.0	12.8	9.8	12.0	10.5	8.4	7.8	5.0b	1.7a	---	5.2b
24	---	7.8	12.0	10.8	13.2	10.2	7.7	10.4b	4.5a	2.6a	---	4.4b
25	---	7.8	11.7	11.7	12.3	10.1	7.3	10.0b	5.4a	2.8a	---	3.6b
26	---	8.6	12.0	12.0	11.2	9.1	7.3	9.7	5.5a	2.3a	---	3.4b
27	---	9.1	11.8	12.5	12.3	8.9	6.6	9.9b	5.3b	3.3a	---	3.8b
28	---	9.8	11.4	12.2	11.3	9.4	6.9b	9.6	5.7b	---	---	4.7b
29	---	9.2	11.9	11.7	10.6	9.7	7.6	9.8	6.2b	---	---	4.3b
30	---	8.5	11.7	11.4	---	8.1b	6.2b	9.6	5.7b	---	---	5.1b
31	---	---	11.4	11.0	---	8.9	---	9.7	---	1.9a	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 9, NEUSE RIVER AT CHANNEL LIGHT 9

Table 24.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 9, October 1991-September 1992--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

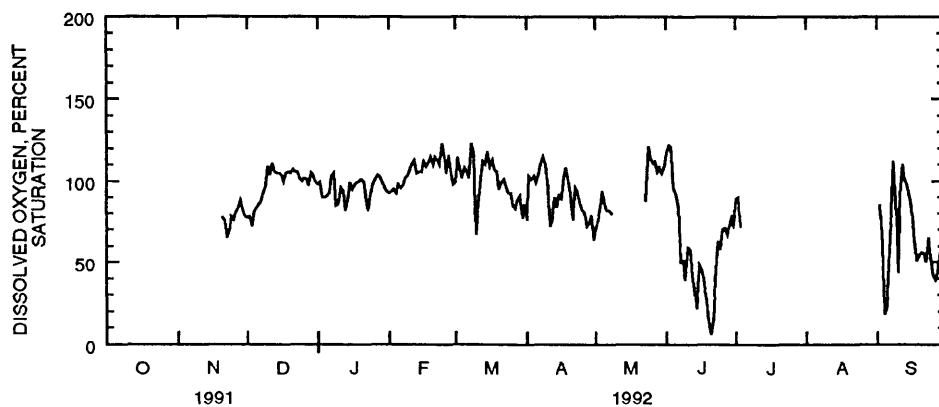
[Site 9 is at latitude 34°56'54", longitude 76°48'36", Craven County; U.S. Geological Survey downstream order number 0209265810]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 169 percent of saturation March 8, 1992; minimum value recorded, ≤10 percent of saturation April 21, June 7, 14, 18-22, 26, September 4-7, 10, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	77	98	93	99	76	70	117	89	---	---
2	---	---	78	99	94	115	103	76	122	90	---	85
3	---	---	72	90	95	107	101	84	121	72	---	61
4	---	---	81	90	93	102	103	94	96	---	---	18
5	---	---	83	91	98	108	99	86	92	---	---	23
6	---	---	86	93	96	106	104	82	84	---	---	49
7	---	---	87	103	98	102	110	82	50	---	---	82
8	---	---	93	---	102	123	115	80	51	---	---	112
9	---	---	97	85	104	116	110	---	39	---	---	88
10	---	---	109	86	107	67	96	---	59	---	---	44
11	---	---	104	96	111	86	72	---	58	---	---	92
12	---	---	111	94	113	102	77	---	42	---	---	110
13	---	---	106	82	105	112	90	---	31	---	---	101
14	---	---	105	88	106	110	84	---	22	---	---	97
15	---	---	105	99	106	118	---	---	48	---	---	90
16	---	---	104	95	112	109	88	---	45	---	---	83
17	---	---	100	98	109	113	103	---	40	---	---	63
18	---	---	105	99	111	107	108	---	26	---	---	51
19	---	---	106	100	115	106	100	---	14	---	---	54
20	---	77	105	101	110	95	93	---	≤10	---	---	56
21	---	75	107	100	115	99	76	---	15	---	---	55
22	---	65	106	88	113	101	96	---	39	---	---	50
23	---	69	106	82	110	97	94	88	63	---	---	65
24	---	78	102	93	123	93	87	121	58	---	---	53
25	---	76	100	98	115	93	82	115	70	---	---	42
26	---	80	102	101	105	85	81	111	71	---	---	39
27	---	83	101	104	116	83	72	112	67	---	---	44
28	---	88	97	103	107	88	74	106	72	---	---	56
29	---	83	105	99	98	91	79	108	79	---	---	50
30	---	78	104	96	---	77	64	105	71	---	---	58
31	---	---	99	94	---	86	---	109	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 9,
NEUSE RIVER AT CHANNEL LIGHT 9**

**Table 25.--Five-day mean water temperature and dissolved-oxygen values in water at site 9,
October 1991-September 1992, for day and night periods**

NEUSE RIVER AT CHANNEL LIGHT 9

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	---	---	---	---	---	---	---	---
10/ 6/91-10/10/91	---	---	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	---	---	---	---	---	---	---	---
10/26/91-10/30/91	---	---	---	---	---	---	---	---
10/31/91-11/ 4/91	---	---	---	---	---	---	---	---
11/ 5/91-11/ 9/91	---	---	---	---	---	---	---	---
11/10/91-11/14/91	---	---	---	---	---	---	---	---
11/15/91-11/19/91	13.3	12.9	12.9	12.2	12.2	11.1	8.9	7.9
11/20/91-11/24/91	14.6	14.5	10.6	10.1	9.7	9.3	7.5	7.3
11/25/91-11/29/91	11.6	11.1	10.4	10.4	9.6	9.5	8.9	8.9
11/30/91-12/ 4/91	13.7	13.6	8.0	7.4	7.5	7.0	8.3	7.9
12/ 5/91-12/ 9/91	11.1	10.9	8.7	8.7	8.6	8.5	10.0	10.1
12/10/91-12/14/91	12.6	12.4	10.7	10.5	10.5	10.3	11.4	11.2
12/15/91-12/19/91	10.5	9.6	11.2	11.2	11.0	11.0	11.8	11.7
12/20/91-12/24/91	7.4	7.3	12.7	12.4	12.3	12.1	12.7	12.5
12/25/91-12/29/91	8.6	8.7	12.7	12.5	12.4	12.2	11.9	11.7
12/30/91- 1/ 3/92	9.6	9.7	12.5	12.1	12.3	12.0	11.3	10.8
1/ 4/92- 1/ 8/92	10.6	10.4	12.3	12.3	11.9	12.1	10.8	10.7
1/ 9/92- 1/13/92	9.4	9.5	12.5	12.6	---	---	10.0	10.0
1/14/92- 1/18/92	8.7	8.0	---	---	---	---	11.5	11.4
1/19/92- 1/23/92	6.6	6.6	---	---	---	---	11.4	11.5
1/24/92- 1/28/92	7.8	7.5	---	---	---	---	11.9	12.1
1/29/92- 2/ 2/92	8.1	7.7	---	---	---	---	11.4	11.1
2/ 3/92- 2/ 7/92	7.3	7.2	---	---	---	---	11.6	11.6
2/ 8/92- 2/12/92	7.0	6.7	---	---	---	---	13.1	13.2
2/13/92- 2/17/92	7.9	8.0	---	---	---	---	12.9	12.5
2/18/92- 2/22/92	10.7	10.7	14.4	14.7	13.5	12.2	12.9	12.1
2/23/92- 2/27/92	12.3	12.1	13.4	12.3	12.6	11.8	12.7	11.8
2/28/92- 3/ 3/92	12.4	12.0	12.7	11.5	12.0	11.2	11.4	10.9
3/ 4/92- 3/ 8/92	14.1	13.9	12.6	11.4	12.0	11.0	11.8	11.0
3/ 9/92- 3/13/92	14.7	14.2	11.6	10.6	10.8	9.8	9.8	9.4
3/14/92- 3/18/92	12.2	11.9	13.1	12.1	12.7	12.0	12.3	11.6
3/19/92- 3/23/92	12.3	11.9	11.4	10.5	11.2	10.3	11.0	10.1
3/24/92- 3/28/92	12.2	11.9	10.3	9.9	9.7	9.4	9.7	9.4
3/29/92- 4/ 2/92	13.4	12.9	11.6	10.5	9.8	9.0	9.4	8.9
4/ 3/92- 4/ 7/92	12.3	12.1	11.9	11.4	11.3	10.9	11.4	11.0
4/ 8/92- 4/12/92	16.5	16.2	12.3	11.4	10.2	9.2	9.9	8.3
4/13/92- 4/17/92	15.7	15.3	9.9	9.5	9.5	9.3	9.2	9.1
4/18/92- 4/22/92	19.0	18.9	9.6	8.9	9.1	8.7	8.7	8.6
4/23/92- 4/27/92	20.9	20.2	7.1	6.5	7.5	7.1	7.5	7.1
4/28/92- 5/ 2/92	17.9	17.5	7.9	7.3	8.1	7.6	7.1	6.8
5/ 3/92- 5/ 7/92	18.5	18.1	9.4	9.0	9.1	8.5	8.3	7.8
5/ 8/92- 5/12/92	16.9	16.3	---	---	8.7	10.0	7.8	8.3

Table 25.--Five-day mean water temperature and dissolved-oxygen values in water at site 9, October 1991-September 1992, for day and night periods--Continued

NEUSE RIVER AT CHANNEL LIGHT 9

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	---	---	---	---	---	---	---	---
5/18/92- 5/22/92	21.2	20.7	7.9	7.8	8.5	8.3	9.4	8.1
5/23/92- 5/27/92	21.9	21.5	8.9	7.8	8.8	9.0	9.3	9.9
5/28/92- 6/ 1/92	20.7	20.6	---	---	8.8	8.8	9.9	9.9
6/ 2/92- 6/ 6/92	22.6	22.5	---	---	8.3	7.9	8.9	8.2
6/ 7/92- 6/11/92	25.2	24.8	---	---	5.4	5.4	4.3	4.0
6/12/92- 6/16/92	25.0	24.9	---	---	---	---	3.2	2.8
6/17/92- 6/21/92	26.0	25.4	---	---	---	---	1.7	1.4
6/22/92- 6/26/92	28.0	27.7	12.7	10.1	8.3	7.4	5.0	5.0
6/27/92- 7/ 1/92	27.4	26.8	11.4	9.9	8.8	7.8	6.4	5.7
7/ 2/92- 7/ 6/92	27.4	27.2	12.6	11.1	8.3	7.1	---	---
7/ 7/92- 7/11/92	---	---	9.8	8.0	5.9	4.5	---	---
7/12/92- 7/16/92	---	---	2.7	1.3	6.2	5.4	7.0	6.2
7/17/92- 7/21/92	---	---	1.9	1.7	6.3	6.0	5.0	4.2
7/22/92- 7/26/92	---	---	2.0	1.6	5.0	3.9	2.8	2.1
7/27/92- 7/31/92	---	---	4.7	4.4	3.9	3.5	2.9	2.5
8/ 1/92- 8/ 5/92	---	---	5.5	4.8	6.4	5.5	4.0	3.2
8/ 6/92- 8/10/92	---	---	6.6	5.8	7.4	6.6	3.8	3.4
8/11/92- 8/15/92	---	---	---	---	---	---	---	---
8/16/92- 8/20/92	---	---	---	---	---	---	---	---
8/21/92- 8/25/92	---	---	---	---	---	---	---	---
8/26/92- 8/30/92	---	---	---	---	---	---	---	---
8/31/92- 9/ 4/92	28.3	27.5	---	---	8.9	7.8	4.6	3.8
9/ 5/92- 9/ 9/92	28.7	28.3	---	---	9.9	9.8	5.5	5.4
9/10/92- 9/14/92	27.7	26.9	---	---	12.7	12.0	7.6	7.2
9/15/92- 9/19/92	26.7	26.4	---	---	12.4	11.3	5.7	4.9
9/20/92- 9/24/92	26.4	25.8	---	---	9.6	9.3	4.6	4.2
9/25/92- 9/29/92	23.0	22.9	---	---	9.6	8.7	4.2	3.7

Table 26.--Vertical distributions of selected constituents in water at site 9, October 1991-September 1992

NEUSE RIVER AT CHANNEL LIGHT 9

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (μS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 09...	1355	1.49	---	---	---	---	---	---
09...	1356	---	10.0	14,300	8.3	18.0	10.0	111
09...	1357	---	9.00	14,300	8.3	18.0	10.0	111
09...	1358	---	8.00	14,300	8.3	18.0	9.9	110
09...	1359	---	7.00	14,300	8.3	18.0	9.9	110
09...	1400	---	6.00	14,300	8.3	18.0	9.7	108
09...	1401	---	5.00	14,300	8.3	18.0	9.7	108
09...	1402	---	4.00	14,300	8.3	18.0	9.7	108
09...	1403	---	3.00	14,400	8.3	19.0	8.0	91
09...	1404	---	2.00	16,800	9.8	19.0	7.5	86
09...	1405	---	1.00	16,900	9.9	19.0	5.5	63
Nov. 19...	1345	0.89	---	---	---	---	---	---
19...	1346	---	8.00	18,600	11.0	13.0	12.2	124
19...	1347	---	6.00	19,400	11.5	12.5	11.8	119
19...	1348	---	4.00	19,700	11.7	12.5	11.4	115
19...	1349	---	2.00	20,700	12.4	12.5	7.7	78
Dec. 09...	1355	-0.19	---	---	---	---	---	---
09...	1356	---	7.00	19,000	11.3	12.0	12.9	129
09...	1357	---	6.00	19,000	11.3	11.5	12.9	127
09...	1358	---	5.00	19,300	11.5	11.5	12.8	126
09...	1359	---	4.00	20,100	12.0	11.5	12.8	127
09...	1400	---	3.00	23,500	14.2	11.5	11.0	111
09...	1401	---	2.00	23,600	14.3	11.5	10.8	109
09...	1402	---	1.00	23,500	14.2	12.0	9.2	93
1992								
Jan. 08...	1205	1.84	---	---	---	---	---	---
08...	1206	---	9.00	10,300	5.8	10.0	11.7	108
08...	1207	---	8.00	10,300	5.8	10.0	11.7	108
08...	1208	---	7.00	10,400	5.9	10.0	11.6	107
08...	1209	---	6.00	12,600	7.2	10.0	11.6	108
08...	1210	---	5.00	14,000	8.1	10.0	11.6	108
08...	1211	---	4.00	16,000	9.3	10.0	11.6	109
08...	1212	---	3.00	17,100	10.0	10.0	11.6	110
08...	1213	---	2.00	17,700	10.4	10.0	11.6	110
08...	1214	---	1.00	17,700	10.4	10.0	11.6	110
Feb. 21...	1000	0.70	---	---	---	---	---	---
21...	1001	---	6.00	13,300	7.6	10.0	13.3	124
21...	1002	---	4.00	13,300	7.6	10.5	13.0	123
21...	1003	---	2.00	14,900	8.7	12.0	12.0	118
Mar. 18...	1200	0.27	---	---	---	---	---	---
18...	1201	---	6.00	12,800	7.3	13.0	13.0	129
18...	1202	---	4.00	12,800	7.3	12.5	12.8	127
18...	1203	---	2.00	13,300	7.6	12.0	12.4	121
Apr. 15...	1130	0.90	---	---	---	---	---	---
15...	1131	---	6.00	16,400	9.6	15.0	10.2	108
15...	1132	---	4.00	16,400	9.6	15.0	10.0	105
15...	1133	---	2.00	16,400	9.6	15.0	9.9	104
30...	1025	1.28	---	---	---	---	---	---
30...	1026	---	6.00	12,800	7.3	17.0	7.2	78
30...	1027	---	4.00	13,700	7.9	17.0	6.6	72
30...	1028	---	2.00	13,900	8.0	17.0	6.5	71

¹Water level from 02092162, Neuse River at New Bern.

**Table 26.--Vertical distributions of selected constituents in water at site 9,
October 1991-September 1992--Continued**

NEUSE RIVER AT CHANNEL LIGHT 9

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (µS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
May 22...	1240	1.45	---	---	---	---	---	---
22...	1241	---	6.00	13,500	7.8	21.0	8.6	101
22...	1242	---	4.00	13,500	7.8	21.0	8.5	100
22...	1243	---	2.00	13,500	7.8	21.0	8.5	100
June 23...	1305	1.06	---	---	---	---	---	---
23...	1306	---	6.00	10,900	6.2	28.0	11.0	146
23...	1307	---	4.00	13,100	7.5	27.0	8.6	113
23...	1308	---	2.00	15,600	9.1	26.0	5.4	70
July 09...	1105	0.21	---	---	---	---	---	---
09...	1106	---	6.00	13,000	7.5	28.0	6.5	87
09...	1107	---	4.00	13,200	7.6	28.0	6.4	86
09...	1108	---	2.00	13,700	7.9	27.5	6.0	80
30...	1330	0.97	---	---	---	---	---	---
30...	1331	---	6.00	24,100	14.6	29.0	6.2	88
30...	1332	---	4.00	24,500	14.9	29.0	4.5	64
30...	1333	---	2.00	25,000	15.2	29.0	3.1	44
Sept. 01...	1025	0.91	---	---	---	---	---	---
01...	1026	---	6.00	6,770	3.7	27.0	7.7	99
01...	1027	---	4.00	7,230	4.0	27.0	7.2	93
01...	1028	---	2.00	9,070	5.1	27.0	5.7	74

¹Water level from 02092162, Neuse River at New Bern.

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992

ADAMS CREEK AT LIGHT 4

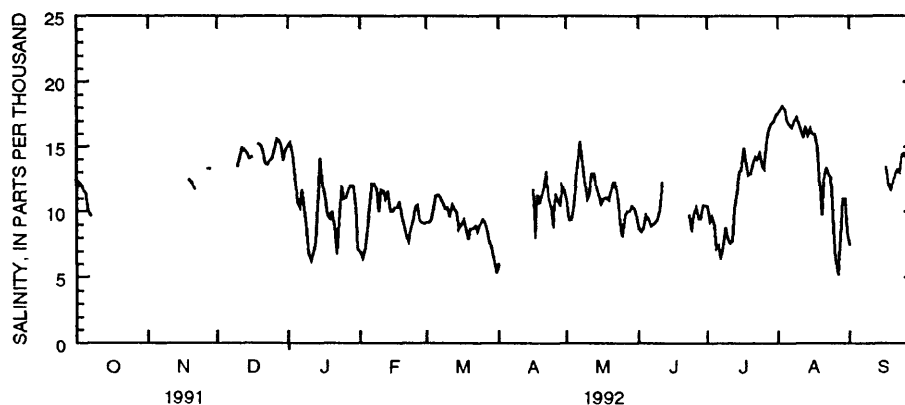
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 26.4 ppt July 17, 1992; minimum value recorded, 0.3 ppt April 17, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.4	---	---	15.1	7.0	9.2	6.0	10.9	8.7	10.4	17.6	7.5
2	12.2	---	---	15.3	6.5	9.2	---	9.4	8.5	9.3	17.9	---
3	12.1	---	---	14.4	7.0	9.4	---	9.4	8.7	9.6	18.1	---
4	11.6	---	---	12.6	8.5	10.0	---	10.1	9.7	9.0	17.8	---
5	11.5	---	---	10.7	10.3	11.2	---	12.1	9.5	7.2	17.0	---
6	10.0	---	---	10.3	12.1	11.3	---	13.6	8.9	7.4	16.7	---
7	9.7	---	---	11.7	12.1	11.1	---	15.4	9.0	6.4	16.5	---
8	---	---	---	10.2	11.8	10.7	---	13.7	9.2	7.3	17.0	---
9	---	---	---	9.0	10.0	10.2	---	12.4	9.4	8.8	17.3	---
10	---	---	13.5	6.8	11.7	10.3	---	11.0	10.1	7.9	16.8	---
11	---	---	14.3	6.3	11.6	9.6	---	11.3	12.2	7.6	16.3	---
12	---	---	14.9	7.0	11.0	10.5	---	12.9	---	7.8	15.7	---
13	---	---	14.7	7.7	11.6	10.2	---	12.9	---	10.2	16.6	---
14	---	---	14.5	11.4	10.0	9.9	---	11.9	---	11.5	15.9	---
15	---	---	14.1	14.1	10.0	8.7	---	11.2	---	13.0	16.4	---
16	---	---	14.2	12.0	10.3	9.0	11.7	10.6	---	13.2	16.0	---
17	---	---	---	10.9	10.3	9.4	8.0	11.0	---	14.9	16.0	13.4
18	---	---	---	9.8	10.8	8.7	11.3	11.1	---	13.9	15.0	12.0
19	---	12.4	15.2	9.5	9.7	7.9	10.6	10.9	---	12.8	12.6	11.7
20	---	12.2	15.1	10.0	8.9	8.7	11.2	11.6	---	12.9	9.8	12.2
21	---	11.8	14.6	8.9	8.2	8.7	12.0	12.2	---	13.6	12.4	12.9
22	---	---	13.7	6.8	7.7	8.9	13.1	12.2	---	14.2	13.4	13.2
23	---	---	13.6	9.2	8.6	8.5	11.1	10.9	9.7	14.0	12.8	13.0
24	---	---	13.9	12.0	9.3	9.0	10.3	8.7	8.5	14.5	12.6	14.4
25	---	---	14.1	11.0	10.4	9.4	8.8	8.1	9.8	13.5	8.7	14.5
26	---	---	14.7	11.1	10.5	9.2	11.4	9.7	10.3	13.3	6.4	14.0
27	---	13.3	15.6	11.8	9.3	8.5	10.9	10.0	9.5	15.5	5.2	12.7
28	---	13.3	15.5	12.0	9.2	7.7	10.4	10.0	9.5	16.3	8.1	---
29	---	---	15.1	12.0	9.1	7.2	12.0	10.4	10.5	16.8	11.0	13.0
30	---	---	13.9	10.4	---	6.2	11.6	10.2	10.5	17.0	11.0	13.1
31	---	---	14.8	7.1	---	5.3	---	9.6	---	17.4	8.5	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

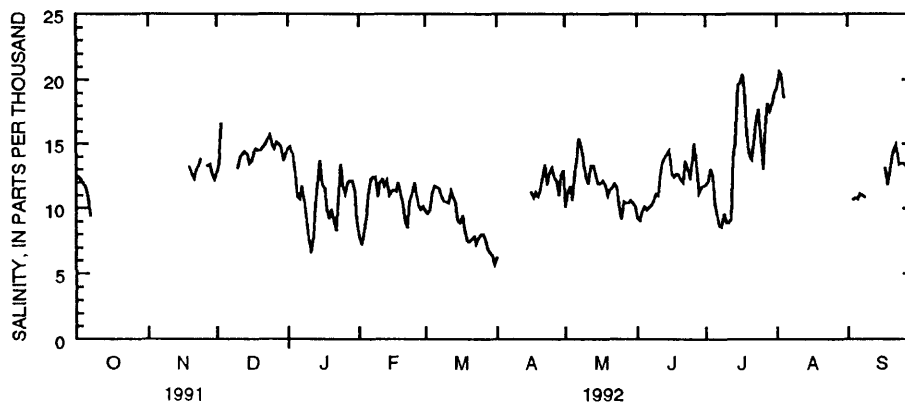
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 27.3 ppt July 15, 1992; minimum value recorded, 4.6 ppt March 31, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (In ppt),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct .	Nov .	Dec .	Jan .	Feb .	Mar .	Apr .	May	June	July	Aug .	Sept .
1	12.4	---	12.8	14.6	7.8	9.8	6.2	10.1	9.3	11.8	19.4	---
2	12.4	---	13.4	14.8	7.2	9.6	---	11.2	9.1	12.1	20.6	---
3	12.2	---	16.6	14.2	8.0	9.9	---	11.7	9.7	13.0	20.4	10.7
4	11.9	---	---	12.6	9.3	11.1	---	10.6	10.1	12.4	18.7	10.8
5	11.7	---	---	10.9	11.0	11.7	---	12.7	9.9	10.3	---	10.7
6	10.9	---	---	10.7	12.2	11.6	---	13.7	10.1	9.5	---	11.1
7	9.5	---	---	11.7	12.4	11.5	---	15.4	10.2	8.7	---	11.0
8	---	---	---	10.6	12.4	10.9	---	14.8	10.6	8.6	---	10.9
9	---	---	---	9.5	10.9	10.5	---	13.4	11.1	9.6	---	---
10	---	---	13.1	7.7	12.0	10.5	---	12.3	11.0	8.9	---	---
11	---	---	14.0	6.6	12.2	10.4	---	11.9	12.8	8.9	---	---
12	---	---	14.2	7.8	11.7	11.3	---	13.3	13.6	9.2	---	---
13	---	---	14.4	10.2	12.1	10.9	---	13.3	14.0	13.9	---	---
14	---	---	14.2	12.3	11.0	10.4	---	12.6	14.2	15.1	---	---
15	---	---	13.5	13.7	11.3	9.1	---	11.9	14.5	19.6	---	---
16	---	---	13.7	11.8	11.4	8.9	11.2	11.9	12.6	19.7	---	---
17	---	---	14.3	11.5	11.3	9.5	10.8	12.1	12.4	20.4	---	13.1
18	---	---	14.6	9.9	12.0	8.4	11.2	11.8	12.6	19.3	---	11.8
19	---	13.2	14.5	9.2	11.1	7.5	10.9	11.0	12.6	15.8	---	12.6
20	---	12.6	14.5	9.9	10.2	7.4	11.3	11.4	12.2	14.0	---	14.0
21	---	12.3	14.8	9.1	9.0	7.6	12.4	11.6	12.0	13.8	---	14.6
22	---	12.9	14.9	8.3	8.5	7.8	13.4	11.9	13.7	15.0	---	14.9
23	---	13.3	15.3	10.6	10.5	7.3	11.8	11.6	13.1	16.7	---	13.4
24	---	13.8	15.7	13.4	11.1	7.7	12.7	9.9	12.2	17.7	---	13.5
25	---	---	14.9	11.7	12.0	8.0	13.1	9.2	13.5	15.2	---	13.5
26	---	---	14.6	11.1	11.1	8.0	12.4	10.5	15.0	13.0	---	13.3
27	---	13.3	15.1	12.0	10.1	7.5	12.1	10.4	12.9	16.3	---	12.6
28	---	13.4	15.0	12.1	9.9	6.9	11.0	10.4	11.2	18.2	---	---
29	---	12.6	14.7	12.1	10.1	6.6	12.5	10.6	11.6	17.6	---	12.5
30	---	12.2	13.7	11.3	---	6.3	12.9	10.4	11.7	18.2	---	12.5
31	---	---	14.2	9.1	---	5.7	---	10.1	---	19.0	---	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

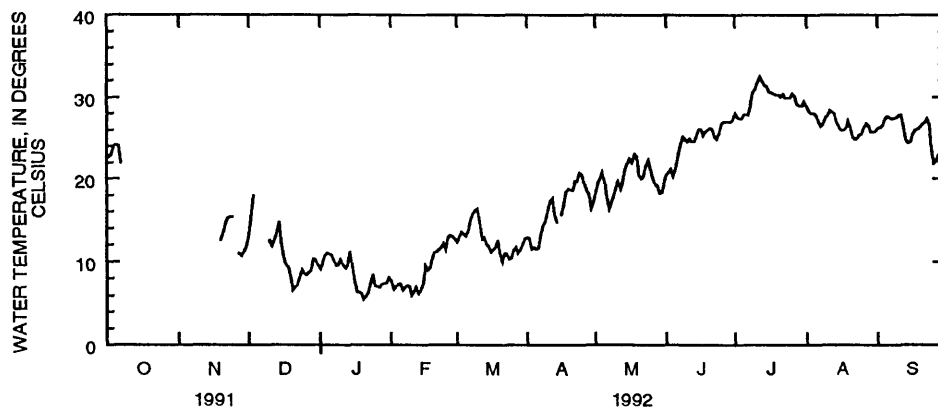
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 34.1 °C July 12, 1992; minimum value recorded, 4.9 °C January 17, 20, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (In °C),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22.6	---	13.1	9.1	7.7	12.3	12.9	18.3	20.4	28.0	28.8	26.2
2	22.8	---	15.2	9.7	6.7	12.8	12.8	19.4	20.8	27.5	28.2	26.3
3	23.0	---	17.9	10.6	6.9	13.5	11.5	20.0	21.1	27.4	28.0	26.6
4	24.0	---	---	11.0	7.3	13.3	11.7	20.7	20.3	27.4	28.0	27.3
5	24.2	---	---	10.9	7.4	13.0	11.5	19.6	21.3	27.9	27.8	27.6
6	24.1	---	---	10.8	6.6	13.7	11.6	17.8	23.0	27.9	27.1	27.5
7	22.0	---	---	10.2	6.9	14.9	13.0	16.3	24.0	27.8	26.5	27.3
8	---	---	---	9.5	7.2	15.7	14.3	17.2	25.1	29.0	26.6	27.4
9	---	---	---	9.6	7.0	16.2	14.9	18.0	24.9	30.6	27.5	27.5
10	---	---	12.5	10.2	6.1	16.3	16.3	19.1	24.6	31.1	27.8	27.8
11	---	---	11.9	9.5	6.5	14.8	17.2	19.6	24.9	31.8	28.4	27.8
12	---	---	12.4	9.2	6.9	12.7	17.6	18.8	24.6	32.5	28.2	26.4
13	---	---	13.3	9.6	6.2	12.9	15.6	19.8	24.6	32.0	28.0	24.9
14	---	---	14.8	11.2	6.6	12.1	14.8	21.1	25.1	31.5	26.9	24.4
15	---	---	12.4	9.6	7.5	11.9	---	21.9	26.1	31.3	26.3	24.6
16	---	---	10.6	7.6	9.5	11.2	15.6	22.5	26.1	30.7	26.0	25.4
17	---	---	9.7	6.4	9.0	11.5	17.0	22.0	25.3	30.6	26.0	26.0
18	---	---	9.3	6.4	9.1	11.7	18.4	23.0	25.8	30.5	26.2	26.1
19	---	12.6	8.1	6.2	10.3	12.6	18.8	22.7	26.0	30.3	27.1	26.3
20	---	13.4	6.6	5.5	11.1	11.1	18.7	20.5	26.2	30.3	26.3	26.7
21	---	14.7	6.9	5.9	11.2	10.0	18.6	20.0	26.1	30.1	25.2	26.9
22	---	15.2	7.1	6.4	11.5	11.0	19.7	20.2	25.2	30.4	24.9	27.3
23	---	15.3	8.0	7.4	11.6	10.9	19.6	21.6	24.9	29.9	25.0	26.6
24	---	15.3	9.0	8.5	12.2	10.3	20.7	22.3	25.6	29.9	25.4	23.6
25	---	---	8.5	7.1	11.4	10.5	20.5	21.3	26.7	29.9	25.5	21.9
26	---	---	8.4	7.0	12.8	11.3	19.5	20.1	27.0	30.5	26.2	22.2
27	---	10.9	8.7	6.9	13.1	11.7	18.6	19.4	27.0	30.1	26.8	22.9
28	---	10.7	8.9	7.3	13.0	11.0	18.0	19.1	27.0	29.1	26.5	---
29	---	11.1	10.3	7.4	12.7	11.4	16.4	18.3	27.0	29.0	25.8	22.7
30	---	11.7	10.3	7.5	---	12.1	17.2	18.4	27.2	29.0	25.8	20.5
31	---	---	9.6	8.1	---	12.7	---	19.6	---	29.4	25.8	---



DAILY MEAN WATER TEMPERATURE, NEAR SURFACE, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

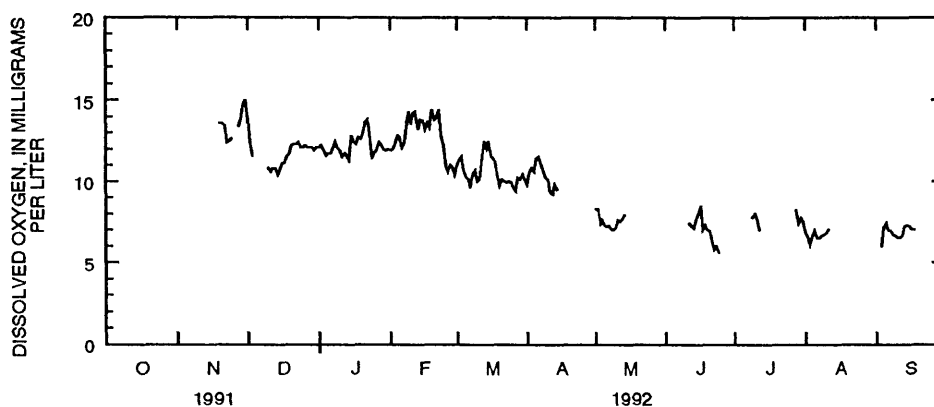
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 17.0 mg/L January 15, 1992; minimum value recorded, 3.8 mg/L June 23, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	13.8	12.1	11.9	11.0	9.8	8.3	---	---	6.8	---
2	---	---	12.4	12.2	12.0	11.3	10.5	8.3	---	---	6.5	---
3	---	---	11.6	11.9	12.3	11.5	10.8	7.4	---	---	6.1	6.0b
4	---	---	---	11.6	12.8	10.7	10.6	7.6	---	---	6.6b	7.1
5	---	---	---	11.7	12.7	10.3	11.4	7.3	---	---	6.9	7.4
6	---	---	---	11.7	12.1	10.1	11.5	7.2	---	---	6.5	6.9b
7	---	---	---	12.0	12.4	9.6	11.1	7.3	---	---	6.5	6.9b
8	---	---	---	12.4	13.4	10.5	10.7	7.0	---	---	6.6	6.7b
9	---	---	---	12.1	14.3	10.7	10.2	7.0	---	7.8	6.7	6.6b
10	---	---	10.8	11.9	13.5	10.0	10.1	7.1	---	8.0	6.8	6.5b
11	---	---	10.6	11.5	14.2	10.1	9.3	7.6	7.4	7.7	7.0	6.5
12	---	---	10.8	11.7	14.3	11.5	9.2	7.5	7.3	7.0	---	6.6
13	---	---	10.8	11.6	13.2	12.5	9.8	7.7	7.1	---	---	7.2
14	---	---	10.4	11.3	13.8	12.0	9.5	7.9	7.6	---	---	7.3
15	---	---	10.7	12.8	13.7	12.5	---	---	8.0	---	---	7.2
16	---	---	11.1	12.4	13.2	11.6	---	---	8.5	---	---	7.0
17	---	---	11.1	12.3	13.6	11.4	---	---	7.0	---	---	7.0
18	---	---	11.5	12.7	13.3	11.2	---	---	7.3	---	---	---
19	---	13.6	11.7	12.6	14.4	10.2	---	---	7.0	---	---	---
20	---	13.6	12.2	12.9	13.8	9.7	---	---	6.9	---	---	---
21	---	13.4	12.3	13.6	13.9	10.1	---	---	6.3b	---	---	---
22	---	12.4	12.3	13.8	14.4	10.0	---	---	5.8b	---	---	---
23	---	12.5	12.4	12.9	12.8	9.9	---	---	6.0b	---	---	---
24	---	12.6	12.1	11.4	12.2	10.0	---	---	5.6b	---	---	---
25	---	---	12.1	11.7	10.9	9.9	---	---	---	---	---	---
26	---	---	12.2	11.9	10.6	9.6	---	---	---	---	---	---
27	---	13.4	12.1	12.4	11.0	9.4	---	---	---	---	---	---
28	---	13.8	12.1	12.3	10.9	10.2	---	---	---	8.2	---	---
29	---	14.6	12.1	12.0	10.4	10.1	---	---	---	7.4	---	---
30	---	15.0	11.9	11.9	---	10.4	---	---	---	7.7	---	---
31	8.2	---	12.1	12.0	---	10.1	---	---	---	7.5	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

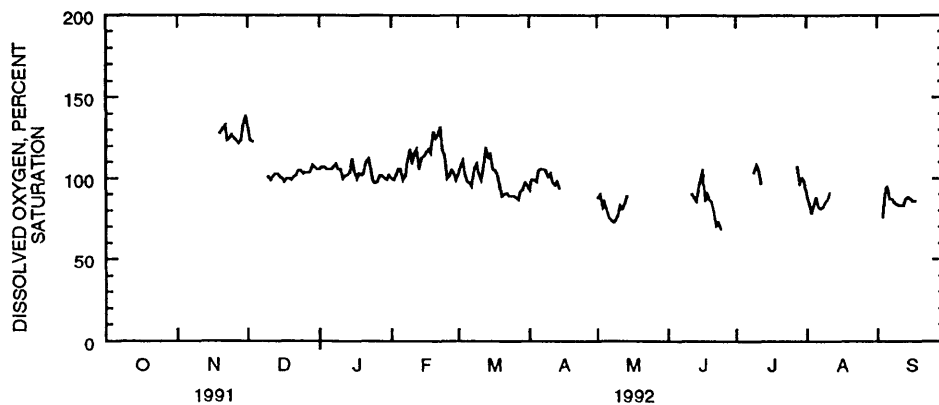
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--6 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 151 percent of saturation November 21, 1991; minimum value recorded, 46 percent of saturation June 23, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	---	---	131	106	100	103	93	89	---	---	88	---
2	---	---	124	107	99	107	99	90	---	---	83	---
3	---	---	123	107	102	111	99	82	---	---	78	76
4	---	---	---	106	106	103	98	85	---	---	84	90
5	---	---	---	106	106	98	105	80	---	---	88	95
6	---	---	---	106	99	97	106	76	---	---	82	87
7	---	---	---	107	102	95	106	74	---	---	81	87
8	---	---	---	109	111	106	105	73	---	---	82	85
9	---	---	---	106	118	109	101	74	---	104	85	84
10	---	---	101	106	109	103	103	77	---	108	87	83
11	---	---	99	100	116	99	97	83	90	106	91	83
12	---	---	101	102	118	108	96	81	88	97	---	83
13	---	---	103	102	106	119	98	85	86	---	---	87
14	---	---	103	104	113	112	94	89	92	---	---	88
15	---	---	101	112	114	116	---	---	99	---	---	87
16	---	---	100	104	116	106	---	---	106	---	---	86
17	---	---	98	100	118	105	---	---	86	---	---	86
18	---	---	100	103	116	103	---	---	90	---	---	---
19	---	128	100	102	129	96	---	---	87	---	---	---
20	---	131	99	103	125	89	---	---	85	---	---	---
21	---	133	101	110	127	90	---	---	78	---	---	---
22	---	124	102	112	132	91	---	---	71	---	---	---
23	---	125	105	107	118	89	---	---	73	---	---	---
24	---	127	105	98	114	89	---	---	69	---	---	---
25	---	---	103	97	100	89	---	---	---	---	---	---
26	---	---	104	98	101	88	---	---	---	---	---	---
27	---	122	104	102	105	87	---	---	---	---	---	---
28	---	124	104	102	104	92	---	---	---	107	---	---
29	---	133	108	100	99	93	---	---	---	97	---	---
30	---	139	107	99	---	97	---	---	---	100	---	---
31	---	---	106	102	---	96	---	---	---	98	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE, SITE 10,
ADAMS CREEK AT LIGHT 4**

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

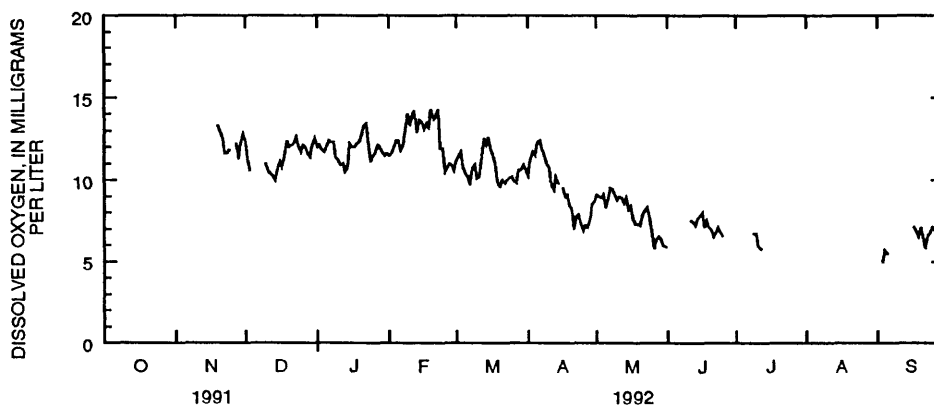
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--4 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 16.5 mg/L January 15, 1992; minimum value recorded, 2.8 mg/L September 3, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (In mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8b	---	12.3	12.0	11.5	11.2	10.3	9.1	---	---	---	---
2	---	---	11.3	12.1	11.6	11.4	11.2	9.0	---	---	---	---
3	---	---	10.6	11.8	11.9	11.7	11.7	8.9	---	---	---	5.0b
4	---	---	---	11.7	12.4	10.8	11.5	9.1	---	---	---	5.7b
5	---	---	---	12.0	12.4	10.4	12.3	8.3	---	---	---	5.5b
6	---	---	---	12.4	11.8	10.2	12.4	8.7	---	---	---	---
7	---	---	---	12.3	12.1	9.7	11.9	9.5	---	---	---	---
8	---	---	---	12.3	13.1	10.7	11.5	9.4	---	---	---	---
9	---	---	---	11.4	14.0	10.9	11.0	9.1	---	6.7b	---	---
10	---	---	11.0	11.2	13.3	10.1	10.7	8.8	---	6.7b	---	---
11	---	---	10.5	10.9	13.9	10.2	9.7	9.0	7.5	5.9b	---	---
12	---	---	10.4	11.0	14.2	11.4	9.4	8.9	7.4	5.8b	---	---
13	---	---	10.3	10.5	12.9	12.5	10.2	8.6	7.2	---	---	---
14	---	---	10.0	10.7	13.6	12.1	9.8	8.9	7.6	---	---	---
15	---	---	10.6	12.2	13.5	12.6	---	8.2	7.8	---	---	---
16	---	---	11.1	12.0	13.1	11.8	9.5	8.4	8.0	---	---	---
17	---	---	10.8	12.0	13.4	11.4	9.0	7.6	7.1	---	---	7.1
18	---	---	11.4	12.2	13.2	11.0	9.1	7.3	7.5	---	---	6.8
19	---	13.3	12.4	12.3	14.3	9.7	8.4	7.3	7.1	---	---	6.5b
20	---	12.9	12.0	12.6	13.7	9.6	8.3	7.2	7.0	---	---	7.1
21	---	12.5	12.1	13.3	13.8	10.0	7.0	7.9	6.5b	---	---	6.3b
22	---	11.6	12.2	13.4	14.3	9.8	7.8	8.1	6.7	---	---	5.8b
23	---	11.6	12.6	12.4	11.9	10.0	7.9	8.3	7.1	---	---	6.6b
24	---	11.8	12.0	11.1	11.9	10.1	7.3	7.6	6.8b	---	---	6.7
25	---	---	11.7	11.4	10.5	10.2	6.9	6.9b	6.6	---	---	7.1
26	---	---	12.1	11.6	10.7	9.9	7.2	5.8b	---	---	---	6.9
27	---	12.2	12.0	12.1	11.0	9.8	7.1	6.3	---	---	---	7.0
28	---	11.3	11.6	12.0	10.9	10.6	7.6	6.5	---	---	---	---
29	---	12.2	11.4	11.7	10.6	10.6	8.5	6.4	---	---	---	---
30	---	12.8	12.1	11.5	---	10.9	8.7	6.0	---	---	---	---
31	---	---	12.5	11.6	---	10.6	---	5.9b	---	---	---	---



DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

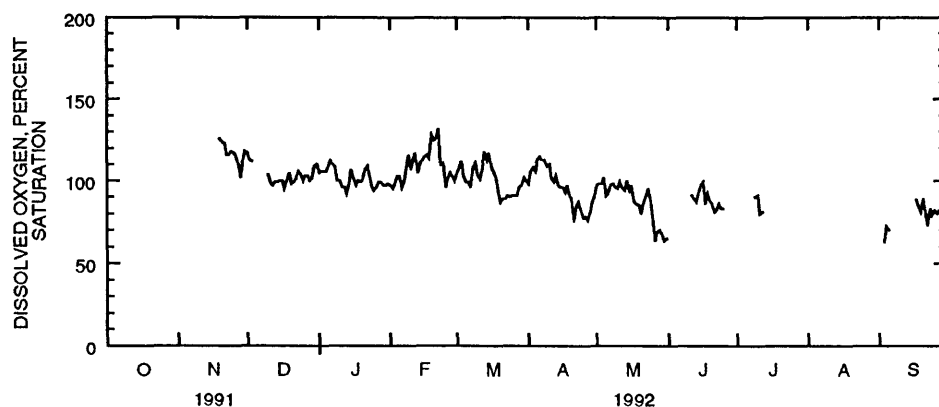
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--4 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 147 percent of saturation February 19, 1992; minimum value recorded, 35 percent of saturation September 3, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	---	117	105	97	105	98	97	---	---	---	---
2	---	---	113	106	95	108	106	98	---	---	---	---
3	---	---	112	106	98	112	108	98	---	---	---	63
4	---	---	---	106	103	103	106	102	---	---	---	72
5	---	---	---	109	103	99	113	91	---	---	---	70
6	---	---	---	112	96	99	115	92	---	---	---	---
7	---	---	---	110	100	96	113	97	---	---	---	---
8	---	---	---	108	108	108	113	98	---	---	---	---
9	---	---	---	100	116	111	109	96	---	90	---	---
10	---	---	104	100	107	104	110	95	---	91	---	---
11	---	---	98	96	113	101	101	99	91	80	---	---
12	---	---	97	96	117	108	99	95	89	81	---	---
13	---	---	99	92	105	118	103	94	87	---	---	---
14	---	---	99	98	111	113	97	100	92	---	---	---
15	---	---	100	107	113	117	---	94	97	---	---	---
16	---	---	100	101	115	108	96	97	99	---	---	---
17	---	---	95	97	116	105	93	87	86	---	---	88
18	---	---	100	100	114	102	97	86	92	---	---	84
19	---	126	105	99	128	92	91	85	88	---	---	81
20	---	124	98	100	125	87	89	80	86	---	---	89
21	---	123	99	107	126	89	75	87	81	---	---	79
22	---	116	101	109	132	89	85	90	82	---	---	73
23	---	116	106	104	110	91	87	95	86	---	---	83
24	---	118	104	96	111	90	82	87	83	---	---	79
25	---	---	100	94	96	91	77	78	83	---	---	82
26	---	---	103	96	101	91	78	64	---	---	---	80
27	---	111	103	99	105	91	76	69	---	---	---	82
28	---	102	100	99	103	96	81	70	---	---	---	---
29	---	111	102	97	100	97	87	68	---	---	---	---
30	---	118	109	97	---	102	91	64	---	---	---	---
31	---	---	110	98	---	100	---	65	---	---	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH, SITE 10,
ADAMS CREEK AT LIGHT 4**

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

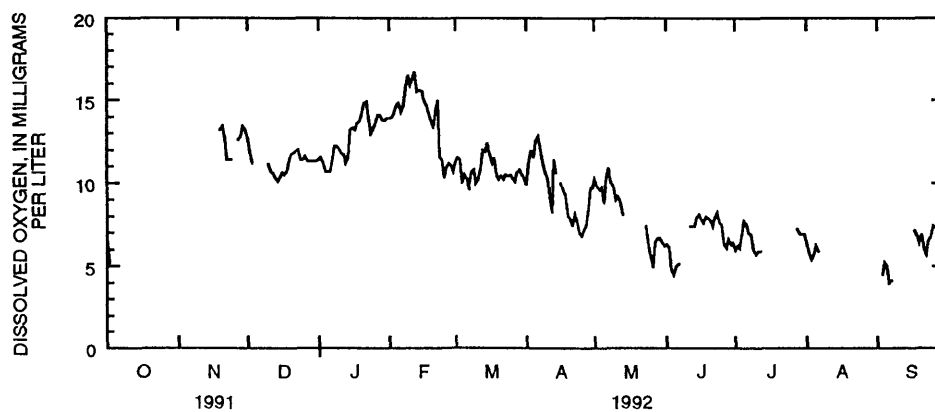
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 18.5 mg/L February 9, 1992; minimum value recorded, 1.0 mg/L June 4, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	---	12.6	11.4	13.9	11.3	9.9	10.2	6.3b	6.0b	6.3b	---
2	5.2b	---	11.9	11.5	14.0	11.5	11.1	9.8	6.1b	6.2b	5.7b	---
3	---	---	11.2	11.2	14.2	11.4	12.0	9.6	4.8b	6.1b	5.4b	4.5b
4	---	---	---	10.7	14.7	10.0	11.5	9.7b	4.5a	7.0	5.7b	5.2b
5	---	---	---	10.7	14.8	10.5	12.5	8.8	5.0b	7.7b	6.2b	5.0b
6	---	---	---	10.7	14.3	10.2	12.8	10.1	5.1b	7.5	5.9b	4.0b
7	---	---	---	11.2	14.7	9.6	12.2	10.9	---	7.0b	---	4.1b
8	---	---	---	12.2	15.7	10.7	11.3	10.0	---	6.9b	---	---
9	---	---	---	12.2	16.5	10.8	10.7	9.9	---	6.0b	---	---
10	---	---	11.1	12.1	15.9	10.0	10.3	9.0	---	5.7b	---	---
11	---	---	10.7	11.8	16.3	10.2	9.2	9.2	7.4b	5.9b	---	---
12	---	---	10.6	11.7	16.7	10.9	8.2b	8.9	7.4	5.9b	---	---
13	---	---	10.3	11.2	15.5	12.0	11.4	8.1	7.4	---	---	---
14	---	---	10.1	11.5	15.6	11.9	10.6	---	7.9	---	---	---
15	---	---	10.3	13.2	15.5	12.4	---	---	8.1	---	---	---
16	---	---	10.6	13.3	15.0	11.7	10.0	---	7.8	---	---	---
17	---	---	10.5	13.2	14.7	11.2	9.5	---	7.6	---	---	7.1
18	---	---	10.7	13.6	14.3	11.5	9.3	---	8.0	---	---	6.8
19	---	13.2	11.4	13.7	13.8	10.5	8.0	---	7.9	---	---	6.4b
20	---	13.4	11.7	14.1	13.3	10.2	7.9b	---	7.8	---	---	6.9b
21	---	12.7	11.8	14.8	14.3	10.4	7.4	---	7.4b	---	---	6.0b
22	---	11.4	11.9	14.9	15.0	10.2	8.1b	---	7.9	---	---	5.7b
23	---	11.4	12.0	14.0	11.6	10.5	7.8b	7.4	8.2	---	---	6.6b
24	---	11.4	11.4	13.0	11.4	10.4	7.0b	6.2b	7.6	---	---	6.7
25	---	---	11.4	13.2	10.3	10.5	6.8b	5.6b	7.5	---	---	7.4
26	---	---	11.6	13.6	10.9	10.3	7.1b	4.9b	6.3b	---	---	7.3
27	---	12.6	11.3	14.1	11.2	10.1	7.4	6.4	6.1b	---	---	7.4
28	---	12.8	11.3	14.1	11.1	10.6	8.5	6.7	6.6b	7.2	---	---
29	---	13.4	11.3	13.8	10.7	10.8	9.7	6.7	6.3b	6.9b	---	7.4
30	---	13.2	11.3	13.8	---	10.5	9.7	6.4	6.4b	6.9	---	7.6
31	---	---	11.3	13.9	---	10.3	---	6.2b	---	6.9	---	---



DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM, SITE 10, ADAMS CREEK AT LIGHT 4

Table 27.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 10, October 1991-September 1992--Continued

ADAMS CREEK AT LIGHT 4

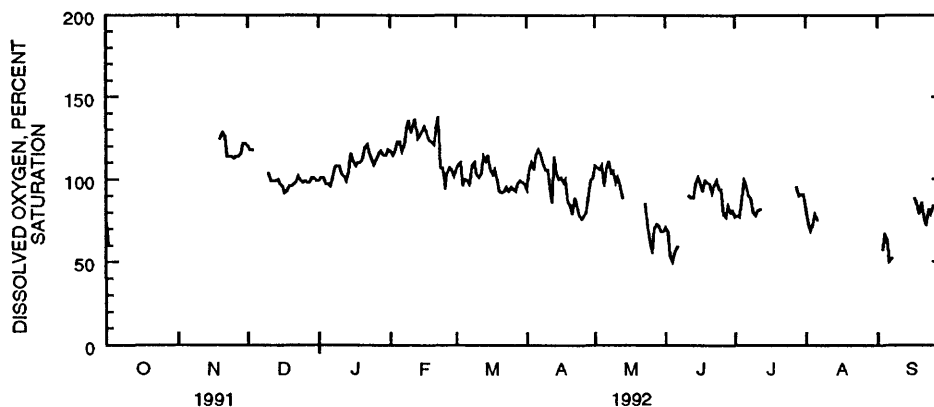
[Site 10 is at latitude 34°57'24", longitude 76°40'54", Craven County; U.S. Geological Survey downstream order number 0209266925]

Sensor Position--2 ft above streambed.

Extremes for October 1991-September 1992--Maximum value recorded, 156 percent of saturation February 9, 22, 1992; minimum value recorded, 10 percent of saturation June 4, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991-SEPTEMBER 1992**

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	---	120	99	117	106	94	108	71	77	82	---
2	60	---	118	101	115	109	105	107	68	78	73	---
3	---	---	118	101	117	110	110	106	54	77	69	57
4	---	---	---	97	123	96	106	108	50	89	73	66
5	---	---	---	97	123	100	115	96	56	99	79	63
6	---	---	---	96	117	99	118	106	59	96	75	50
7	---	---	---	100	121	96	116	111	---	90	---	52
8	---	---	---	107	130	108	110	104	---	89	---	---
9	---	---	---	108	136	110	106	105	---	80	---	---
10	---	---	104	108	128	103	106	98	---	78	---	---
11	---	---	99	103	133	101	95	101	90	81	---	---
12	---	---	99	102	137	104	86	96	89	82	---	---
13	---	---	99	99	125	114	114	89	89	---	---	---
14	---	---	100	105	127	111	104	---	97	---	---	---
15	---	---	97	116	130	115	---	---	101	---	---	---
16	---	---	96	111	132	106	101	---	97	---	---	---
17	---	---	92	108	127	103	98	---	93	---	---	88
18	---	---	93	110	124	106	100	---	99	---	---	84
19	---	125	96	110	123	99	86	---	98	---	---	79
20	---	128	96	112	121	93	85	---	97	---	---	86
21	---	126	97	119	131	92	79	---	92	---	---	75
22	---	114	98	121	138	93	89	---	96	---	---	72
23	---	114	102	116	107	95	85	85	99	---	---	82
24	---	114	99	112	107	93	78	71	94	---	---	79
25	---	---	98	109	94	95	76	63	94	---	---	84
26	---	---	99	112	104	94	77	55	79	---	---	84
27	---	114	98	116	107	93	80	70	77	---	---	86
28	---	116	98	117	106	97	91	73	84	95	---	---
29	---	122	101	115	102	99	99	72	80	90	---	86
30	---	122	101	115	---	98	101	68	81	91	---	84
31	---	---	99	118	---	97	---	68	---	91	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM, SITE 10,
ADAMS CREEK AT LIGHT 4**

**Table 28.--Five-day mean water temperature and dissolved-oxygen values in water at site 10,
October 1991-September 1992, for day and night periods**

ADAMS CREEK AT LIGHT 4

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	23.6	23.4	---	---	6.0	5.2	5.9	5.4
10/ 6/91-10/10/91	22.9	21.8	---	---	---	---	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	---	---	---	---	---	---	---	---
10/26/91-10/30/91	---	---	---	---	---	---	---	---
10/31/91-11/ 4/91	---	---	---	---	---	---	---	---
11/ 5/91-11/ 9/91	---	---	---	---	---	---	---	---
11/10/91-11/14/91	---	---	---	---	---	---	---	---
11/15/91-11/19/91	12.8	12.2	13.8	13.5	13.5	13.2	13.3	13.1
11/20/91-11/24/91	15.1	14.5	13.1	12.6	12.2	11.8	12.1	11.8
11/25/91-11/29/91	11.6	11.1	14.0	13.7	12.2	12.1	12.8	12.7
11/30/91-12/ 4/91	15.1	14.6	13.2	12.8	11.9	11.2	12.2	11.7
12/ 5/91-12/ 9/91	12.7	12.7	11.6	10.8	11.6	11.3	12.0	11.3
12/10/91-12/14/91	13.2	12.8	10.8	10.5	10.6	10.2	10.6	10.2
12/15/91-12/19/91	9.9	9.1	11.5	11.2	11.5	11.3	11.0	10.7
12/20/91-12/24/91	7.7	7.6	12.3	12.1	12.2	11.9	11.8	11.7
12/25/91-12/29/91	9.1	9.1	12.2	12.0	11.9	11.6	11.5	11.2
12/30/91- 1/ 3/92	9.9	9.9	12.1	12.0	12.3	11.9	11.4	11.2
1/ 4/92- 1/ 8/92	10.5	10.2	12.0	11.9	12.1	12.2	11.2	11.2
1/ 9/92- 1/13/92	9.7	9.7	11.8	11.5	11.1	10.7	11.9	11.4
1/14/92- 1/18/92	8.3	7.6	12.7	12.2	12.2	11.8	13.3	13.1
1/19/92- 1/23/92	6.4	6.4	13.2	12.9	12.9	12.6	14.4	14.1
1/24/92- 1/28/92	7.5	6.9	12.1	11.9	11.8	11.6	13.7	13.5
1/29/92- 2/ 2/92	7.6	7.3	12.1	11.9	11.7	11.5	14.0	13.8
2/ 3/92- 2/ 7/92	7.2	6.9	12.6	12.3	12.3	12.0	14.7	14.6
2/ 8/92- 2/12/92	6.8	6.5	14.2	13.7	13.9	13.5	16.5	16.1
2/13/92- 2/17/92	7.9	8.0	13.7	13.2	13.5	13.0	15.3	15.0
2/18/92- 2/22/92	10.9	11.0	14.3	13.8	14.2	13.7	14.3	13.9
2/23/92- 2/27/92	12.5	12.1	11.8	10.7	11.4	10.4	11.3	10.3
2/28/92- 3/ 3/92	13.2	12.7	11.4	10.7	11.5	10.8	11.6	10.6
3/ 4/92- 3/ 8/92	14.3	14.3	10.4	10.0	10.6	10.2	10.4	10.2
3/ 9/92- 3/13/92	14.7	13.9	11.5	10.6	11.5	10.6	11.3	10.4
3/14/92- 3/18/92	11.9	11.4	12.0	11.3	12.0	11.3	12.0	11.3
3/19/92- 3/23/92	11.3	10.6	10.1	9.8	9.9	9.8	10.4	10.3
3/24/92- 3/28/92	11.3	10.8	10.1	9.6	10.3	9.9	10.6	10.2
3/29/92- 4/ 2/92	12.6	12.2	10.5	10.0	11.0	10.6	10.7	10.5
4/ 3/92- 4/ 7/92	12.3	11.8	11.4	10.7	12.2	11.6	12.4	11.9
4/ 8/92- 4/12/92	16.4	16.1	10.1	9.6	10.7	10.2	10.0	10.0
4/13/92- 4/17/92	15.9	15.5	9.6	9.3	9.8	9.2	10.3	9.9
4/18/92- 4/22/92	19.3	18.7	---	---	8.3	7.7	8.1	7.9
4/23/92- 4/27/92	20.2	19.3	---	---	7.5	7.0	7.5	7.0
4/28/92- 5/ 2/92	18.3	17.5	8.6	8.0	8.9	8.5	9.9	9.6
5/ 3/92- 5/ 7/92	19.0	18.4	7.5	7.2	9.2	8.7	10.1	9.6
5/ 8/92- 5/12/92	18.9	18.5	7.3	7.2	9.3	8.6	9.6	9.0

**Table 28.--Five-day mean water temperature and dissolved-oxygen values in water at site 10,
October 1991-September 1992, for day and night periods--Continued**

ADAMS CREEK AT LIGHT 4

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
5/13/92- 5/17/92	22.0	21.3	8.0	7.8	8.5	7.8	8.2	7.6
5/18/92- 5/22/92	21.6	20.9	---	---	7.9	7.4	7.7	7.6
5/23/92- 5/27/92	21.1	20.5	---	---	7.2	6.5	6.2	5.8
5/28/92- 6/ 1/92	19.4	19.2	---	---	6.5	5.9	6.8	6.3
6/ 2/92- 6/ 6/92	21.7	21.4	---	---	---	---	5.2	4.7
6/ 7/92- 6/11/92	25.0	24.6	7.9	7.1	7.9	7.2	7.6	7.0
6/12/92- 6/16/92	25.6	25.1	8.0	7.3	7.9	7.3	7.9	7.5
6/17/92- 6/21/92	26.2	25.6	7.3	6.3	7.3	6.7	7.9	7.6
6/22/92- 6/26/92	26.3	25.7	6.2	5.4	7.3	6.4	7.9	6.8
6/27/92- 7/ 1/92	27.5	27.1	---	---	---	---	6.6	6.1
7/ 2/92- 7/ 6/92	27.9	27.3	---	---	---	---	7.1	6.8
7/ 7/92- 7/11/92	30.5	30.3	8.1	7.4	7.0	5.9	6.4	6.1
7/12/92- 7/16/92	32.2	30.7	7.1	6.2	6.1	6.0	6.1	5.6
7/17/92- 7/21/92	30.8	29.9	---	---	---	---	---	---
7/22/92- 7/26/92	30.5	29.8	---	---	---	---	---	---
7/27/92- 7/31/92	29.5	28.9	8.4	7.1	9.1	7.3	7.6	6.6
8/ 1/92- 8/ 5/92	28.3	27.7	6.9	6.1	---	---	6.0	5.6
8/ 6/92- 8/10/92	27.4	26.9	7.1	6.2	---	---	6.2	5.7
8/11/92- 8/15/92	27.8	27.0	7.5	5.7	---	---	---	---
8/16/92- 8/20/92	26.4	26.1	---	---	---	---	---	---
8/21/92- 8/25/92	25.5	25.0	---	---	---	---	---	---
8/26/92- 8/30/92	26.5	25.9	---	---	---	---	---	---
8/31/92- 9/ 4/92	26.8	26.4	7.0	6.5	5.5	5.3	5.0	4.8
9/ 5/92- 9/ 9/92	27.7	27.2	7.3	6.2	5.5	5.3	4.3	4.1
9/10/92- 9/14/92	26.4	25.7	7.2	6.7	---	---	---	---
9/15/92- 9/19/92	25.9	25.7	7.2	6.9	7.1	6.9	6.9	6.7
9/20/92- 9/24/92	26.2	25.4	---	---	6.8	6.2	6.7	6.1
9/25/92- 9/29/92	22.8	22.6	---	---	7.2	6.8	7.6	7.2

Table 29.--Vertical distributions of selected constituents in water at site 10, October 1991-September 1992

ADAMS CREEK AT LIGHT 4

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (µS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 08...	1010	0.98	---	---	---	---	---	---
08...	1011	---	5.00	16,600	9.7	20.0	8.9	104
08...	1012	---	4.00	16,600	9.7	20.0	8.9	104
08...	1013	---	3.00	16,600	9.7	20.0	8.8	103
08...	1014	---	2.00	16,700	9.8	20.0	8.7	102
08...	1015	---	1.00	16,700	9.8	20.0	8.7	102
Nov. 18...	1210	1.22	---	---	---	---	---	---
18...	1211	---	5.00	21,600	13.0	12.0	13.8	139
18...	1212	---	4.00	21,600	13.0	12.0	13.8	139
18...	1213	---	2.00	21,600	13.0	12.0	13.6	137
Dec. 09...	1145	-0.16	---	---	---	---	---	---
09...	1146	---	5.00	23,000	13.9	12.0	11.5	116
09...	1147	---	4.00	23,000	13.9	12.0	11.6	118
09...	1148	---	3.00	23,000	13.9	12.0	11.5	116
09...	1149	---	2.00	23,000	13.9	11.5	11.6	116
09...	1150	---	1.00	23,300	14.1	11.5	11.8	119
1992								
Jan. 08...	1010	1.55	---	---	---	---	---	---
08...	1011	---	5.00	16,200	9.5	9.0	12.0	111
08...	1012	---	4.00	16,400	9.6	9.0	12.0	111
08...	1013	---	2.00	17,400	10.2	9.0	11.9	110
Feb. 21...	1130	0.48	---	---	---	---	---	---
21...	1131	---	5.00	15,200	8.8	11.5	13.4	130
21...	1132	---	4.00	15,200	8.8	11.5	13.4	130
21...	1133	---	2.00	15,200	8.8	11.5	13.2	128
Mar. 18...	1035	0.05	---	---	---	---	---	---
18...	1036	---	5.00	15,700	9.2	12.0	10.9	108
18...	1037	---	4.00	15,800	9.2	11.5	10.8	105
18...	1038	---	2.00	16,600	9.7	11.5	10.8	105
Apr. 15...	1245	0.96	---	---	---	---	---	---
15...	1246	---	5.00	18,600	11.0	15.5	9.3	100
15...	1247	---	4.00	18,600	11.0	15.5	9.3	100
15...	1248	---	2.00	18,900	11.2	15.0	9.0	96
30...	1155	1.32	---	---	---	---	---	---
30...	1156	---	5.00	16,800	9.8	17.0	8.4	93
30...	1157	---	4.00	18,100	10.7	17.0	8.4	93
30...	1158	---	2.00	21,200	12.7	16.5	8.6	96
May 22...	1025	1.41	---	---	---	---	---	---
22...	1026	---	5.00	20,300	12.1	20.0	8.6	102
22...	1027	---	4.00	20,300	12.1	20.0	8.6	102
22...	1028	---	2.00	20,300	12.1	20.0	8.6	102
June 10...	1235	2.01	---	---	---	---	---	---
10...	1236	---	5.00	18,500	10.9	25.0	7.8	101
10...	1237	---	4.00	18,500	10.9	25.0	7.8	101
10...	1238	---	2.00	18,500	10.9	25.0	7.8	101

¹Water level from 02092162, Neuse River at New Bern.

**Table 29.--Vertical distributions of selected constituents in water at site 10,
October 1991-September 1992--Continued**

ADAMS CREEK AT LIGHT 4

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conduc- tance (µS/cm)	Salinity (ppt)	Temper- ature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992 (Continued)								
July 08...	1130	1.26	---	---	---	---	---	---
08...	1131	---	5.00	14,000	8.1	29.0	9.0	123
08...	1132	---	4.00	14,600	8.5	29.0	8.5	116
08...	1133	---	2.00	15,400	9.0	29.0	7.0	96
27...	1315	0.60	---	---	---	---	---	---
27...	1316	---	5.00	24,500	14.9	29.0	9.6	136
27...	1317	---	4.00	24,500	14.9	29.0	9.6	136
27...	1318	---	2.00	24,500	14.9	29.0	9.6	136
Sept. 02...	1230	1.10	---	---	---	---	---	---
02...	1231	---	5.00	16,700	9.8	27.0	7.2	96
02...	1232	---	4.00	18,400	10.9	27.0	6.3	84
02...	1233	---	2.00	21,500	12.9	26.5	4.5	60
16...	1025	1.36	---	---	---	---	---	---
16...	1026	---	5.00	21,700	13.0	25.0	7.0	92
16...	1027	---	4.00	21,700	13.0	25.0	6.9	90
16...	1028	---	2.00	22,200	13.4	25.0	6.7	88

¹Water level from 02092162, Neuse River at New Bern.

Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992

NEUSE RIVER AT JUNCTION LIGHT

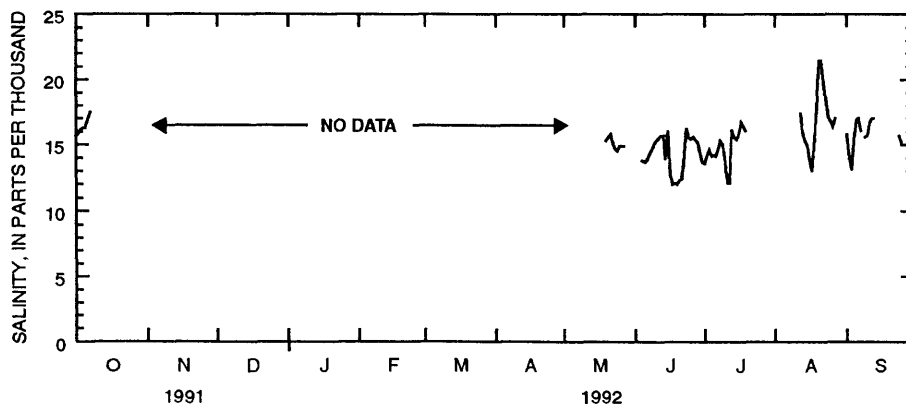
[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--12 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 22.1 ppt August 18, 1992; minimum value recorded, 11.0 ppt July 12, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug .	Sept .
1	15.7	---	---	13.6	---	15.8
2	15.9	---	---	14.2	---	14.0
3	16.2	---	---	14.6	---	13.1
4	16.3	---	13.8	14.1	---	15.3
5	16.3	---	13.7	14.2	---	16.9
6	16.9	---	13.9	14.1	---	17.0
7	17.5	---	14.2	14.5	---	16.1
8	---	---	14.6	15.3	---	---
9	---	---	15.0	15.0	---	15.6
10	---	---	15.3	13.7	---	15.7
11	---	---	15.5	12.1	---	16.6
12	---	---	15.7	12.1	17.4	17.0
13	---	---	15.7	16.2	16.0	17.0
14	---	---	13.9	15.6	15.3	---
15	---	---	16.1	15.4	14.9	---
16	---	---	12.7	15.7	13.9	---
17	---	---	12.0	16.7	13.0	---
18	---	---	12.1	16.5	15.5	---
19	---	15.3	12.0	16.1	17.8	---
20	---	15.5	12.3	---	21.5	---
21	---	15.8	12.4	---	21.5	---
22	---	15.2	13.6	---	19.8	---
23	---	14.7	16.3	---	18.2	---
24	---	14.5	15.5	---	17.1	15.7
25	---	14.9	15.4	14.1	16.7	15.2
26	---	14.9	15.6	---	16.4	---
27	---	14.9	15.3	---	17.0	---
28	---	---	15.2	---	---	---
29	---	---	14.3	---	---	---
30	---	---	13.7	---	---	---
31	---	---	---	---	---	---



DAILY MEAN SALINITY, NEAR SURFACE, SITE 11, NEUSE RIVER AT JUNCTION LIGHT

Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

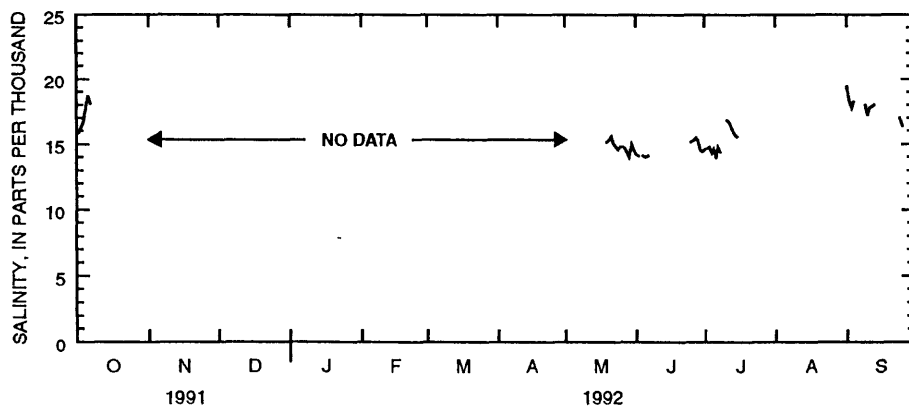
[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--2 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 20.5 ppt September 1, 1992; minimum value recorded, 12.6 ppt September 30, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug.	Sept .
1	15.8	---	14.2	14.6	---	19.4
2	15.9	---	14.1	14.7	---	18.3
3	16.3	---	---	14.8	---	17.8
4	16.7	---	14.1	14.3	---	18.2
5	17.5	---	14.0	14.6	---	---
6	18.7	---	14.1	13.9	---	---
7	18.1	---	---	14.8	---	---
8	---	---	---	14.4	---	---
9	---	---	---	---	---	18.0
10	---	---	---	---	---	17.2
11	---	---	---	16.8	---	17.8
12	---	---	---	16.6	---	17.9
13	---	---	---	16.2	---	18.0
14	---	---	---	15.8	---	---
15	---	---	---	15.6	---	---
16	---	---	---	---	---	---
17	---	---	---	---	---	---
18	---	---	---	---	---	---
19	---	15.2	---	---	---	---
20	---	15.3	---	---	---	---
21	---	15.6	---	---	---	---
22	---	15.1	---	---	---	---
23	---	14.8	---	---	---	---
24	---	14.6	---	---	---	17.0
25	---	14.8	15.2	---	---	16.4
26	---	14.8	15.3	---	---	---
27	---	14.7	15.5	---	---	---
28	---	14.3	15.3	---	---	---
29	---	14.0	14.5	---	---	---
30	---	15.0	14.4	---	---	13.1
31	---	14.5	---	---	---	---



DAILY MEAN SALINITY, NEAR BOTTOM, SITE 11, NEUSE RIVER AT JUNCTION LIGHT

Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--12 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 30.9 °C August 31, 1992; minimum value recorded, 19.2 °C October 7, 1991.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug .	Sept .
1	---	---	---	25.3	---	28.7
2	---	---	---	25.5	---	28.3
3	---	---	---	25.8	---	29.0
4	22.1	---	22.1	26.1	---	28.6
5	22.1	---	22.5	26.5	---	28.8
6	22.0	---	23.5	26.4	---	28.8
7	20.4	---	24.3	26.7	---	28.7
8	---	---	24.5	27.3	---	---
9	---	---	24.6	27.9	---	28.0
10	---	---	24.9	---	---	28.6
11	---	---	24.7	---	---	28.6
12	---	---	24.4	---	29.6	27.4
13	---	---	24.1	---	29.3	26.3
14	---	---	24.4	---	29.1	---
15	---	---	25.4	---	28.4	---
16	---	---	25.3	---	28.2	---
17	---	---	24.2	---	28.1	---
18	---	---	24.6	---	28.4	---
19	---	22.7	24.8	---	28.9	---
20	---	21.2	24.8	---	29.0	---
21	---	20.4	24.4	---	28.3	---
22	---	20.3	24.2	---	27.4	---
23	---	21.4	24.3	---	27.6	---
24	---	21.9	24.7	---	28.1	22.7
25	---	21.3	25.0	---	28.4	21.7
26	---	20.8	24.3	---	29.3	---
27	---	20.4	24.2	---	29.2	---
28	---	---	24.2	---	28.6	---
29	---	---	24.5	---	28.4	---
30	---	---	24.7	---	28.0	---
31	---	---	---	---	29.4	---

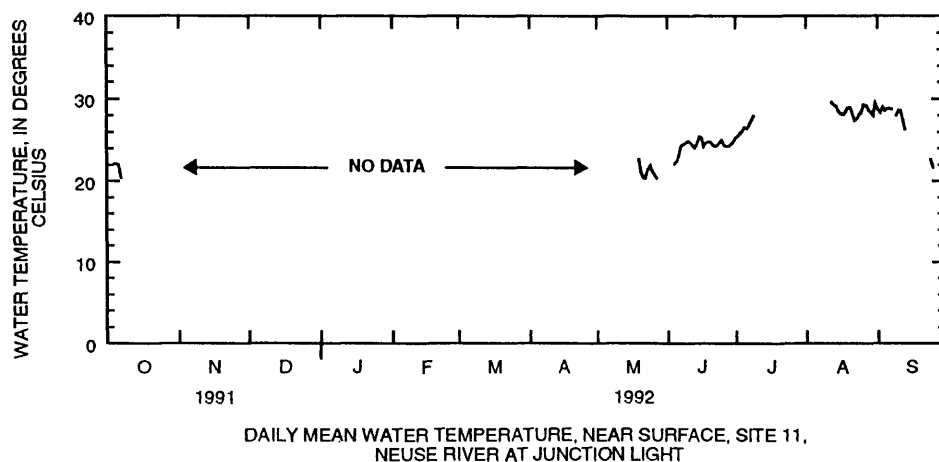


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L.]

Sensor Position--12 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 12.5 mg/L August 27, 1992; minimum value recorded, 4.8 mg/L September 12, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (In mg/L),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct.	May	June	July	Aug.	Sept.
1	---	---	---	---	---	---
2	---	---	---	---	---	---
3	---	---	---	---	---	---
4	---	---	---	---	---	---
5	---	---	---	---	---	---
6	---	---	---	---	---	---
7	---	---	---	---	---	---
8	---	---	---	---	---	---
9	---	---	---	---	---	7.2
10	---	---	---	---	---	7.4
11	---	---	---	7.9	---	6.7
12	---	---	---	8.4	6.6	5.6b
13	---	---	---	7.7	7.7	5.7b
14	---	---	---	7.8	---	---
15	---	---	---	8.0	---	---
16	---	---	---	8.0	---	---
17	---	---	---	7.8	---	---
18	---	---	---	7.4	---	---
19	---	---	---	7.8	---	---
20	---	---	---	8.2	---	---
21	---	---	---	8.3	---	---
22	---	---	---	8.4	---	---
23	---	---	---	7.7	---	---
24	---	---	---	7.0	---	---
25	---	---	---	6.8	---	---
26	---	---	---	---	---	---
27	---	---	---	---	8.2	---
28	---	---	---	---	---	---
29	---	---	---	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---

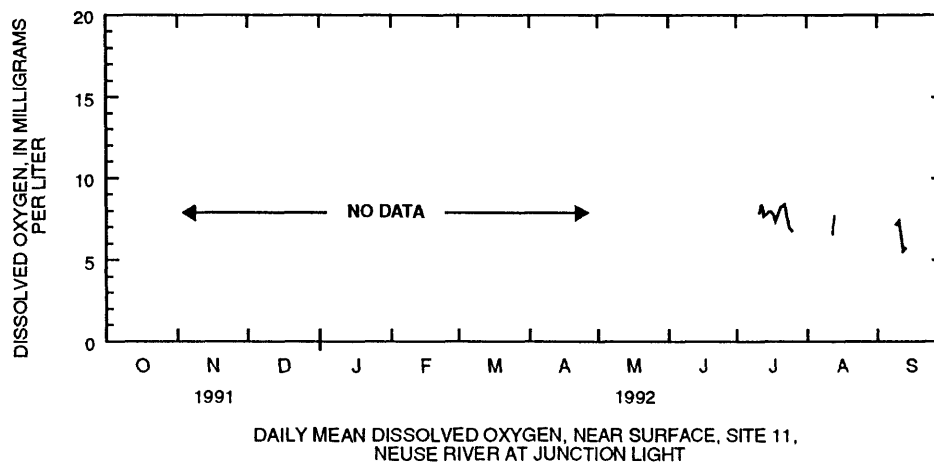


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--12 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 164 percent of saturation August 27, 1992; minimum value recorded, 61 percent of saturation September 12, 13, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug.	Sept .
1	---	---	---	---	---	---
2	---	---	---	---	---	---
3	---	---	---	---	---	---
4	---	---	---	---	---	---
5	---	---	---	---	---	---
6	---	---	---	---	---	---
7	---	---	---	---	---	---
8	---	---	---	---	---	---
9	---	---	---	---	---	92
10	---	---	---	---	---	96
11	---	---	---	---	---	87
12	---	---	---	---	87	71
13	---	---	---	---	101	70
14	---	---	---	---	---	---
15	---	---	---	---	---	---
16	---	---	---	---	---	---
17	---	---	---	---	---	---
18	---	---	---	---	---	---
19	---	---	---	---	---	---
20	---	---	---	---	---	---
21	---	---	---	---	---	---
22	---	---	---	---	---	---
23	---	---	---	---	---	---
24	---	---	---	---	---	---
25	---	---	---	---	---	---
26	---	---	---	---	---	---
27	---	---	---	---	107	---
28	---	---	---	---	---	---
29	---	---	---	---	---	---
30	---	---	---	---	---	---
31	---	---	---	---	---	---

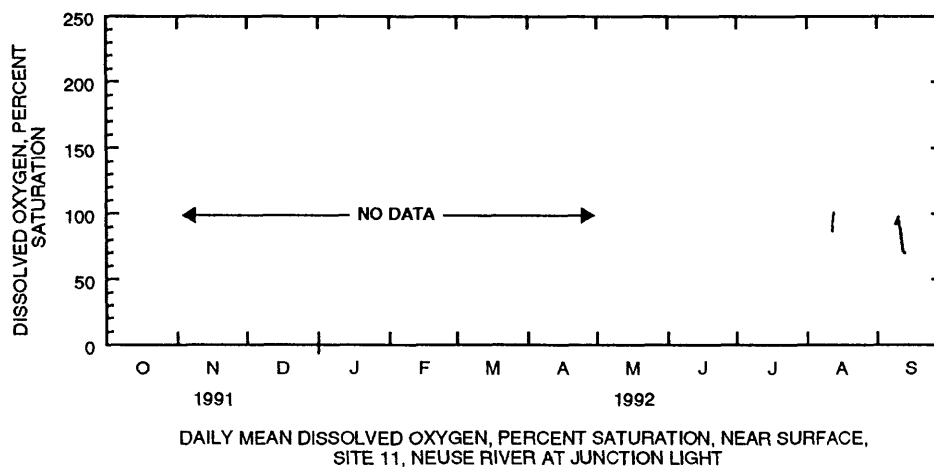


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--8 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 11.2 mg/L October 1, 1991, August 19, 1992; minimum value recorded, 4.1 mg/L September 6, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (In mg/L),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug .	Sept .
1	10.7	---	---	7.1	---	8.8
2	10.1	---	---	6.7	---	9.2
3	9.3	---	---	6.8	---	9.2
4	9.3	---	9.0	6.2	---	7.7
5	8.8	---	8.7	6.3	---	7.7
6	8.7	---	8.9	---	---	7.5b
7	8.2	---	9.1	---	---	7.2
8	---	---	8.5	---	---	---
9	---	---	8.0	---	---	6.6
10	---	---	8.0	---	---	6.9
11	---	---	8.1	7.4	---	6.5
12	---	---	7.8	7.4	6.7	5.7b
13	---	---	7.9	7.0	7.9	5.8b
14	---	---	8.1	7.2	8.6	---
15	---	---	7.7	7.8	8.7	---
16	---	---	8.0	8.1	9.5	---
17	---	---	8.0	8.2	9.8	---
18	---	---	8.0	8.0	9.5	---
19	---	---	7.7	7.9	10.0	---
20	---	---	7.4	8.1	9.1	---
21	---	---	7.9	8.3	8.4	---
22	---	---	8.3	7.9	8.9	---
23	---	---	8.4	7.6	8.8	---
24	---	---	8.4	7.2	8.9	---
25	---	---	7.5	7.8	8.7	---
26	---	---	7.2	---	9.2	---
27	---	---	7.2	---	9.6	---
28	---	---	7.3	---	8.6	---
29	---	---	7.5	---	8.7	---
30	---	---	7.4	---	9.0	---
31	---	---	---	---	9.2	---

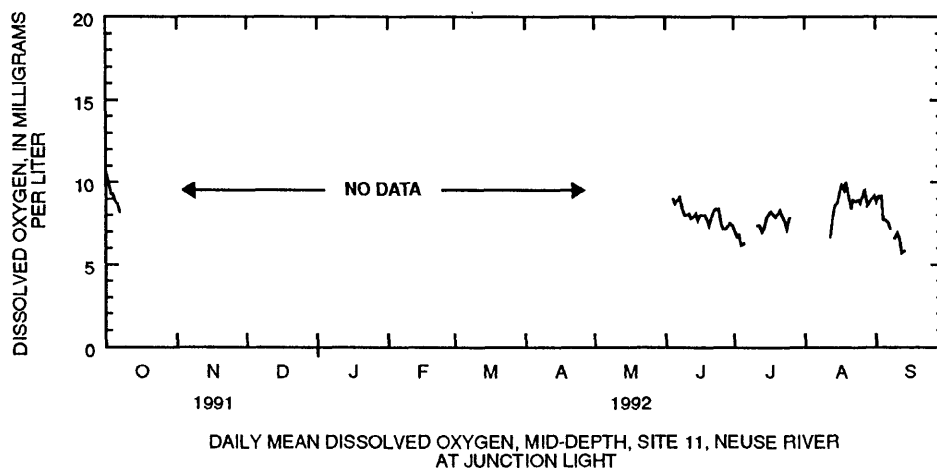


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--8 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 189 percent of saturation October 4, 1991; minimum value recorded, 54 percent of saturation September 6, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug .	Sept .
1	---	---	---	87	---	115
2	---	---	---	82	---	119
3	---	---	---	83	---	120
4	168	---	103	77	---	99
5	101	---	100	79	---	101
6	100	---	105	---	---	97
7	91	---	109	---	---	94
8	---	---	103	---	---	83
9	---	---	97	---	---	85
10	---	---	97	---	---	90
11	---	---	98	---	---	84
12	---	---	93	---	88	72
13	---	---	94	---	103	72
14	---	---	97	---	113	---
15	---	---	94	---	112	---
16	---	---	98	---	122	---
17	---	---	96	---	126	---
18	---	---	96	---	123	---
19	---	---	93	---	130	---
20	---	---	89	---	119	---
21	---	---	96	---	108	---
22	---	---	100	---	112	---
23	---	---	101	---	112	---
24	---	---	101	---	114	---
25	---	---	92	---	112	---
26	---	---	86	---	121	---
27	---	---	86	---	126	---
28	---	---	87	---	112	---
29	---	---	90	---	112	---
30	---	---	89	---	116	---
31	---	---	---	---	120	---

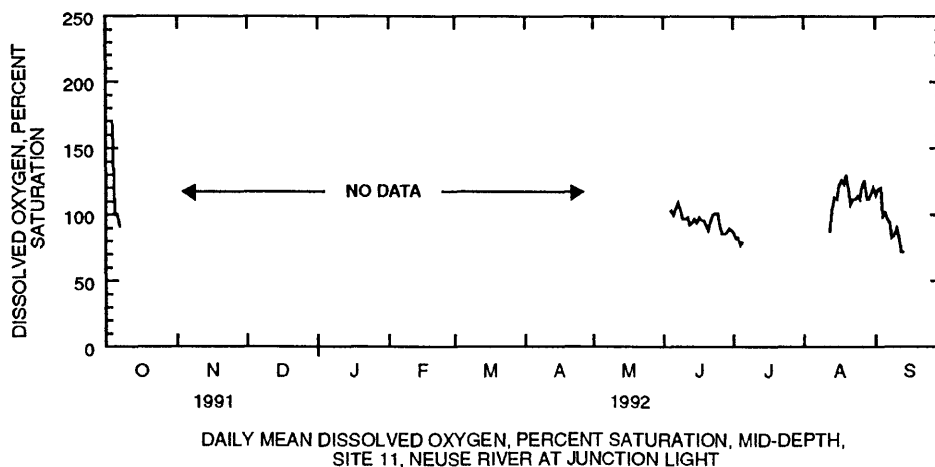


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--2 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, >22.0 mg/L May 22, 1992; minimum value recorded, 4.1 mg/L August 30, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug.	Sept .
1	8.9	---	9.6	5.2b	---	8.3
2	8.3	---	9.6	5.0b	---	---
3	7.4	---	---	5.2b	---	---
4	---	---	8.9	---	---	---
5	---	---	8.3	---	---	---
6	---	---	9.3	---	---	---
7	---	---	7.7	---	---	---
8	---	---	8.0	---	---	---
9	---	---	---	---	---	---
10	---	---	---	---	---	---
11	---	---	---	6.3b	---	---
12	---	---	---	5.9b	5.9	---
13	---	---	---	6.6	7.1	---
14	---	---	---	6.6	7.8	---
15	---	---	---	7.1	7.6	---
16	---	---	---	7.2	8.1	---
17	---	---	---	7.3	8.6	---
18	---	---	---	6.9	8.2	---
19	---	8.8	---	6.6	8.5	---
20	---	8.7	---	6.8	8.3	---
21	---	10.1	---	7.2	7.6	---
22	---	---	---	7.0	8.3	---
23	---	17.9	---	7.1	8.4	---
24	---	16.8	---	7.7	7.8	---
25	---	12.3	6.3	---	7.0	---
26	---	11.3	5.8	---	8.8b	---
27	---	10.4	5.5b	---	7.6b	---
28	---	10.0	5.6b	---	6.5b	---
29	---	9.7	5.7	---	6.3	---
30	---	9.1	5.2b	---	6.4b	---
31	---	9.3	---	---	7.9	---

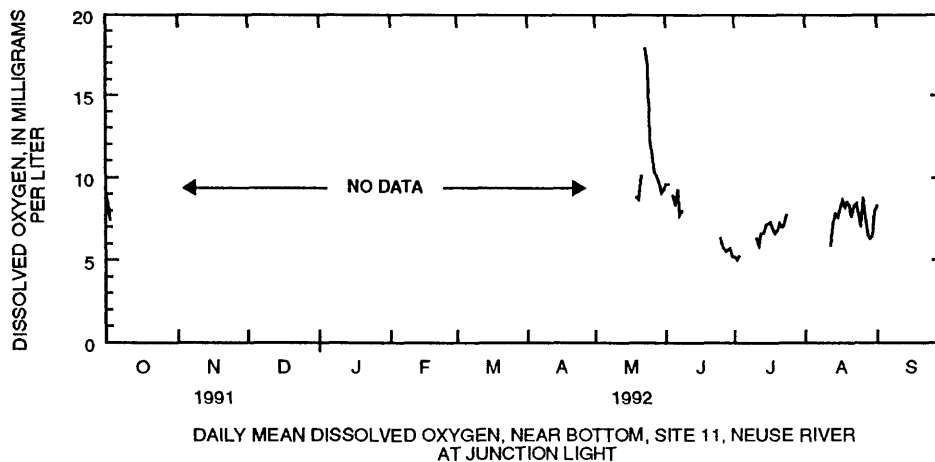


Table 30.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 11, October 1991 and May-September 1992--Continued

NEUSE RIVER AT JUNCTION LIGHT

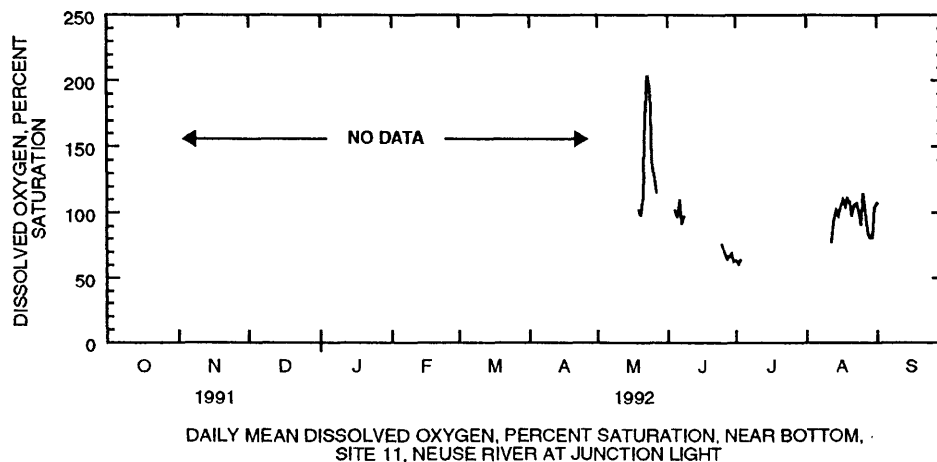
[Site 11 is at latitude 35°08'42", longitude 76°30'06", Pamlico County; U.S. Geological Survey downstream order number 0209269000]

Sensor Position--2 ft above streambed.

Extremes for October 1991 and May-September 1992--Maximum value recorded, 250 percent of saturation May 23, 1992; minimum value recorded, 51 percent of saturation July 2, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
OCTOBER 1991 AND MAY-SEPTEMBER 1992**

Day	1991	1992				
	Oct .	May	June	July	Aug.	Sept.
1	---	---	---	64	---	107
2	---	---	---	61	---	---
3	---	---	---	64	---	---
4	---	---	102	---	---	---
5	---	---	96	---	---	---
6	---	---	110	---	---	---
7	---	---	92	---	---	---
8	---	---	97	---	---	---
9	---	---	---	---	---	---
10	---	---	---	---	---	---
11	---	---	---	---	---	---
12	---	---	---	---	78	---
13	---	---	---	---	93	---
14	---	---	---	---	102	---
15	---	---	---	---	98	---
16	---	---	---	---	104	---
17	---	---	---	---	110	---
18	---	---	---	---	105	---
19	---	102	---	---	111	---
20	---	98	---	---	108	---
21	---	112	---	---	97	---
22	---	---	---	---	106	---
23	---	204	---	---	107	---
24	---	193	---	---	101	---
25	---	139	76	---	91	---
26	---	126	69	---	115	---
27	---	116	65	---	109	---
28	---	---	67	---	84	---
29	---	---	69	---	81	---
30	---	---	63	---	81	---
31	---	---	---	---	104	---



**Table 31.--Five-day mean water temperature and dissolved-oxygen values in water at site 11,
October 1991 and May-September 1992, for day and night periods**

NEUSE RIVER AT JUNCTION LIGHT

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
10/ 1/91-10/ 5/91	---	---	---	---	9.8	9.3	8.3	7.9
10/ 6/91-10/10/91	21.1	20.2	---	---	8.6	8.2	---	---
10/11/91-10/15/91	---	---	---	---	---	---	---	---
10/16/91-10/20/91	---	---	---	---	---	---	---	---
10/21/91-10/25/91	---	---	---	---	---	---	---	---
10/26/91-10/30/91	---	---	---	---	---	---	---	---
4/28/92- 5/ 2/92	---	---	---	---	---	---	---	---
5/ 3/92- 5/ 7/92	---	---	---	---	---	---	---	---
5/ 8/92- 5/12/92	---	---	---	---	---	---	---	---
5/13/92- 5/17/92	---	---	---	---	---	---	---	---
5/18/92- 5/22/92	21.5	21.1	---	---	---	---	10.8	11.2
5/23/92- 5/27/92	21.4	20.9	---	---	---	---	14.0	12.6
5/28/92- 6/ 1/92	19.7	---	---	---	---	---	9.5	9.5
6/ 2/92- 6/ 6/92	23.0	22.6	---	---	9.0	8.8	9.2	8.6
6/ 7/92- 6/11/92	24.9	24.4	---	---	8.6	8.0	8.0	8.1
6/12/92- 6/16/92	24.9	24.5	---	---	8.0	7.8	---	---
6/17/92- 6/21/92	24.8	24.3	---	---	7.9	7.7	---	---
6/22/92- 6/26/92	24.8	24.2	---	---	8.1	7.7	6.5	6.0
6/27/92- 7/ 1/92	24.8	24.6	---	---	7.5	7.1	5.5	5.2
7/ 2/92- 7/ 6/92	26.2	26.0	---	---	6.7	6.3	5.3	5.0
7/ 7/92- 7/11/92	27.7	27.4	7.7	7.8	7.6	7.3	6.9	6.1
7/12/92- 7/16/92	---	---	8.2	7.6	7.8	7.3	6.8	6.7
7/17/92- 7/21/92	---	---	8.3	7.6	8.3	7.8	7.0	6.9
7/22/92- 7/26/92	---	---	7.8	7.2	8.0	7.6	7.3	7.3
7/27/92- 7/31/92	---	---	---	---	---	---	---	---
8/ 1/92- 8/ 5/92	---	---	---	---	---	---	---	---
8/ 6/92- 8/10/92	---	---	---	---	---	---	---	---
8/11/92- 8/15/92	29.4	28.8	7.3	6.7	8.0	7.8	7.1	6.9
8/16/92- 8/20/92	28.7	28.4	---	---	9.8	9.2	8.5	8.1
8/21/92- 8/25/92	28.2	27.8	---	7.6	8.9	8.4	8.1	7.8
8/26/92- 8/30/92	28.9	28.5	9.1	8.1	9.4	8.9	7.1	6.8
8/31/92- 9/ 4/92	29.0	28.5	---	---	9.1	8.2	8.7	8.1
9/ 5/92- 9/ 9/92	28.6	28.4	7.4	6.8	7.3	6.8	---	---
9/10/92- 9/14/92	27.8	27.5	6.6	6.0	6.4	6.0	---	---
9/15/92- 9/19/92	---	---	---	---	---	---	---	---
9/20/92- 9/24/92	23.5	23.2	---	---	---	---	---	---
9/25/92- 9/29/92	21.7	22.4	---	---	---	---	---	---

Table 32.--Vertical distributions of selected constituents in water at site 11, October 1991-September 1992

NEUSE RIVER AT JUNCTION LIGHT

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (µS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1991								
Oct. 08...	0805	1.19	---	---	---	---	---	---
08...	0806	---	11.0	27,400	16.8	18.5	9.5	112
08...	0807	---	10.0	27,400	16.8	18.5	9.5	112
08...	0808	---	9.00	27,600	16.9	18.5	9.4	111
08...	0809	---	8.00	27,600	16.9	18.5	9.4	111
08...	0810	---	7.00	27,600	16.9	18.5	9.3	110
08...	0811	---	6.00	27,100	16.6	19.0	9.3	111
08...	0812	---	5.00	27,100	16.6	19.0	8.6	103
08...	0813	---	4.00	27,100	16.6	19.0	8.6	103
08...	0814	---	3.00	27,100	16.6	19.0	8.6	103
08...	0815	---	2.00	31,000	19.2	20.0	8.3	103
08...	0816	---	1.00	31,000	19.2	20.0	8.3	103
1992								
May 18...	1455	0.87	---	---	---	---	---	---
18...	1456	---	12.0	24,400	14.8	24.5	8.8	115
18...	1457	---	7.00	25,200	15.3	22.5	8.7	110
18...	1458	---	3.00	25,700	15.7	22.0	8.7	109
June 03...	1120	1.29	---	---	---	---	---	---
03...	1121	---	12.0	22,900	13.8	22.0	9.7	121
03...	1122	---	7.00	23,900	14.5	21.5	9.5	117
03...	1123	---	3.00	23,900	14.5	21.5	9.4	116
24...	1030	0.95	---	---	---	---	---	---
24...	1031	---	12.0	25,600	15.6	24.5	8.5	112
24...	1032	---	7.00	26,200	16.0	24.0	8.3	108
24...	1033	---	3.00	26,500	16.2	24.0	8.1	106
July 10...	1030	0.63	---	---	---	---	---	---
10...	1031	---	12.0	23,800	14.4	28.5	7.2	101
10...	1032	---	7.00	24,100	14.6	28.0	7.2	100
10...	1033	---	3.00	24,500	14.9	28.0	7.3	102
24...	1100	0.14	---	---	---	---	---	---
24...	1101	---	12.0	28,400	17.5	29.0	7.0	101
24...	1102	---	7.00	28,400	17.5	29.0	6.8	98
24...	1103	---	3.00	28,400	17.5	29.0	6.6	95
Aug. 11...	1055	0.29	---	---	---	---	---	---
11...	1056	---	12.0	28,300	17.4	27.5	6.4	90
11...	1057	---	10.0	28,300	17.4	27.5	6.7	94
11...	1058	---	8.00	28,400	17.5	27.5	6.4	90
11...	1059	---	7.00	28,500	17.5	27.5	6.1	86
11...	1100	---	6.00	28,500	17.5	27.5	6.4	90
11...	1101	---	4.00	29,100	18.0	27.5	6.0	84
11...	1102	---	3.00	29,300	18.1	27.5	5.8	81
11...	1103	---	2.00	29,600	18.3	27.5	5.4	76
31...	0945	0.83	---	---	---	---	---	---
31...	0946	---	12.0	26,800	16.4	27.0	8.1	112
31...	0947	---	7.00	26,800	16.4	27.0	7.9	109
31...	0948	---	3.00	27,700	17.0	27.0	7.9	109
Sept. 08...	1530	1.09	---	---	---	---	---	---
08...	1531	---	12.0	25,600	15.6	28.0	7.5	106
08...	1532	---	7.00	25,600	15.6	28.0	6.8	95
08...	1533	---	3.00	28,600	17.6	28.0	4.0	56

¹Water level from 02092162, Neuse River at New Bern.

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992

NEUSE RIVER AT LIGHT 7

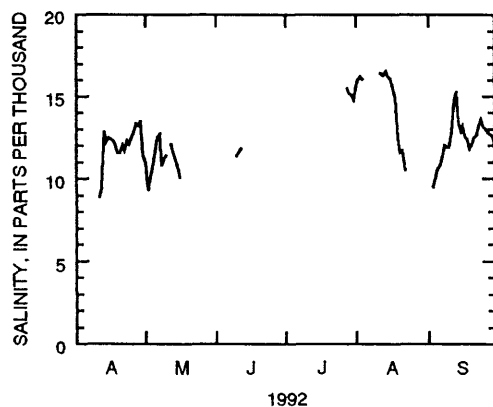
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--10 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 17.1 ppt August 12, 1992; minimum value recorded 8.6 ppt April 11, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR SURFACE (in ppt),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	11.0	---	---	15.7	---
2	---	9.3	---	---	16.0	---
3	---	9.9	---	---	16.2	9.5
4	---	10.7	---	---	16.1	10.1
5	---	11.4	---	---	---	10.6
6	---	12.5	---	---	---	10.8
7	---	12.7	---	---	---	11.4
8	---	10.8	---	---	---	12.0
9	---	11.2	---	---	---	11.9
10	---	11.4	11.4	---	---	11.9
11	8.9	---	11.6	---	---	12.8
12	9.5	12.1	11.8	---	16.4	14.8
13	12.9	11.6	---	---	16.3	15.3
14	12.2	11.1	---	---	16.5	13.4
15	12.5	10.6	---	---	16.2	12.9
16	12.4	10.1	---	---	16.1	13.2
17	12.3	---	---	---	15.5	12.5
18	12.1	---	---	---	14.9	12.4
19	11.6	---	---	---	12.5	11.8
20	11.6	---	---	---	11.6	12.1
21	12.0	---	---	---	11.7	12.5
22	11.7	---	---	---	10.5	12.6
23	12.3	---	---	---	---	13.1
24	12.1	---	---	---	---	13.6
25	12.5	---	---	---	---	13.1
26	12.9	---	---	---	---	13.0
27	13.3	---	---	---	---	12.8
28	13.2	---	---	15.5	---	12.7
29	13.5	---	---	15.2	---	12.6
30	11.4	---	---	15.1	---	12.0
31	---	---	---	14.8	---	---



**DAILY MEAN SALINITY, NEAR SURFACE, SITE 12,
NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

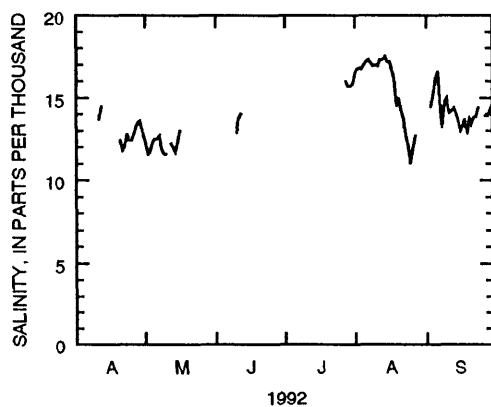
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--3 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 19.0 ppt August 20, 1992; minimum value recorded, 6.7 ppt August 27, 1992.

**DAILY MEAN VALUES OF SALINITY, NEAR BOTTOM (in ppt),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	12.3	---	---	16.5	---
2	---	11.6	---	---	16.7	---
3	---	11.7	---	---	16.8	14.5
4	---	12.3	---	---	16.7	15.3
5	---	12.5	---	---	17.0	16.2
6	---	12.5	---	---	17.2	16.6
7	---	12.7	---	---	17.3	14.3
8	---	11.9	---	---	17.1	13.2
9	---	11.6	---	---	16.9	14.8
10	---	11.6	12.9	---	17.0	15.0
11	13.7	---	13.7	---	16.9	14.1
12	14.5	12.2	14.0	---	17.3	14.2
13	---	12.0	---	---	17.3	14.4
14	---	11.7	---	---	17.5	14.1
15	---	12.4	---	---	17.2	13.6
16	---	13.0	---	---	17.2	13.0
17	---	---	---	---	16.7	13.3
18	---	---	---	---	16.2	13.7
19	---	---	---	---	14.5	12.8
20	12.4	---	---	---	15.0	13.7
21	11.8	---	---	---	14.3	13.4
22	12.0	---	---	---	13.7	13.8
23	12.8	---	---	---	12.7	13.8
24	12.4	---	---	---	12.0	14.4
25	12.4	---	---	---	11.0	---
26	12.8	---	---	---	11.9	---
27	13.2	---	---	---	12.7	13.9
28	13.5	---	---	16.0	---	13.9
29	13.6	---	---	15.7	---	14.2
30	12.8	---	---	15.7	---	14.6
31	---	---	---	15.8	---	---



**DAILY MEAN SALINITY, NEAR BOTTOM, SITE 12,
NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

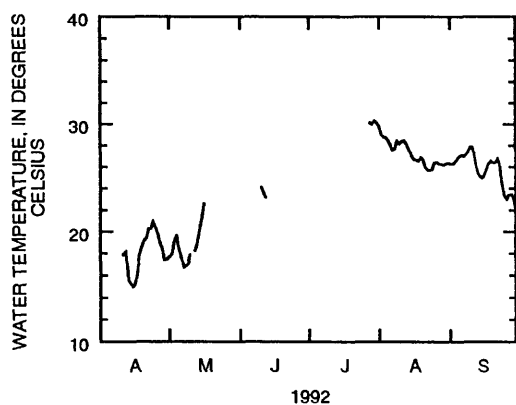
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--10 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 31.4 °C July 30, 1992; minimum value recorded, 14.6 °C April 14, 1992.

**DAILY MEAN VALUES OF WATER TEMPERATURE, NEAR SURFACE (in °C),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	17.7	---	---	29.7	26.3
2	---	17.9	---	---	29.1	26.3
3	---	19.0	---	---	28.8	26.5
4	---	19.7	22.1	---	28.8	26.8
5	---	18.6	---	---	28.5	27.0
6	---	17.8	---	---	28.1	27.1
7	---	16.8	---	---	27.6	27.0
8	---	16.9	---	---	27.7	27.2
9	---	17.1	---	---	28.4	27.5
10	---	17.9	24.1	---	28.2	27.9
11	17.9	---	23.7	---	28.4	27.9
12	18.1	18.3	23.2	---	28.5	26.5
13	15.6	18.9	---	---	28.1	25.5
14	15.3	20.2	---	---	27.6	25.2
15	15.0	21.4	---	---	27.1	25.0
16	15.2	22.6	---	---	26.7	25.2
17	16.1	---	---	---	26.7	25.8
18	17.7	---	---	---	26.6	26.3
19	18.6	---	---	---	26.9	26.6
20	19.2	---	---	---	26.8	26.4
21	19.4	---	---	---	26.0	26.4
22	20.3	---	---	---	25.7	26.8
23	20.3	---	---	---	25.7	26.3
24	20.9	---	---	---	25.8	24.5
25	20.4	---	---	---	26.4	23.3
26	19.7	---	---	---	26.5	23.0
27	19.0	---	---	---	26.3	23.4
28	18.4	---	---	30.1	26.3	23.5
29	17.4	---	---	30.0	25.2	23.2
30	17.5	---	---	30.3	26.3	22.1
31	---	---	---	30.1	26.4	---



**DAILY MEAN WATER TEMPERATURE, NEAR SURFACE,
SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

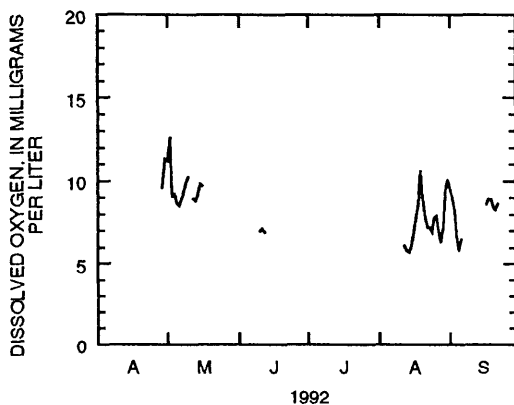
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--10 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 18.2 mg/L May 2, 1992; minimum value recorded, 4.1 mg/L September 5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR SURFACE (in mg/L),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	11.2	---	---	---	9.6
2	---	12.6	---	---	---	8.8
3	---	9.1	---	---	---	8.2
4	---	9.2	8.8	---	---	6.4
5	---	8.6	---	---	---	5.8b
6	---	8.5	---	---	---	6.5
7	---	9.0	---	---	---	---
8	---	9.3	---	---	---	---
9	---	9.9	---	---	---	---
10	---	10.2	7.0	---	---	---
11	---	---	7.1	---	---	---
12	---	8.9	6.9	---	6.1b	---
13	---	8.8	---	---	5.8b	---
14	---	9.2	---	---	5.7	---
15	---	9.8	---	---	6.1	---
16	---	9.7	---	---	6.9	---
17	---	---	---	---	7.7	8.6
18	---	---	---	---	8.6	8.9
19	---	---	---	---	10.6	8.9
20	---	---	---	---	8.9	8.4
21	---	---	---	---	7.8	8.3
22	---	---	---	---	7.2	8.6
23	---	---	---	---	7.2	---
24	---	---	---	---	6.9b	---
25	---	---	---	---	7.8	---
26	---	---	---	---	7.9	---
27	---	---	---	---	6.8	---
28	---	---	---	6.8	6.3	---
29	---	---	---	---	7.2	---
30	9.6	---	---	---	9.2	---
31	11.3	---	---	---	10.1	---



**DAILY MEAN DISSOLVED OXYGEN, NEAR SURFACE,
SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

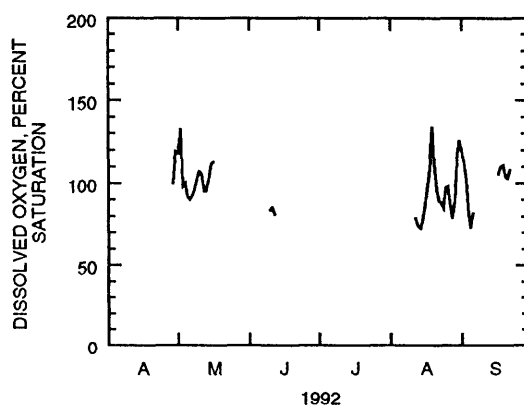
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--10 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 189 percent of saturation May 2, 1992; minimum value recorded, 52 percent of saturation September 5, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR SURFACE (in percent),
APRIL-SEPTEMBER 1992**

Day	Apr.	May	June	July	Aug.	Sept.
1	---	118	---	---	---	120
2	---	133	---	---	---	110
3	---	98	---	---	---	102
4	---	100	101	---	---	81
5	---	92	---	---	---	73
6	---	90	---	---	---	82
7	---	93	---	---	---	---
8	---	96	---	---	---	---
9	---	103	---	---	---	---
10	---	107	84	---	---	---
11	---	---	85	---	---	---
12	---	95	81	---	79	---
13	---	95	---	---	74	---
14	---	102	---	---	73	---
15	---	112	---	---	77	---
16	---	113	---	---	87	---
17	---	---	---	---	96	106
18	---	---	---	---	108	110
19	---	---	---	---	134	111
20	---	---	---	---	112	104
21	---	---	---	---	96	103
22	---	---	---	---	89	108
23	---	---	---	---	88	---
24	---	---	---	---	85	---
25	---	---	---	---	97	---
26	---	---	---	---	98	---
27	---	---	---	---	85	---
28	---	---	---	90	79	---
29	100	---	---	---	89	---
30	119	---	---	---	114	---
31	---	---	---	---	126	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION,
NEAR SURFACE, SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

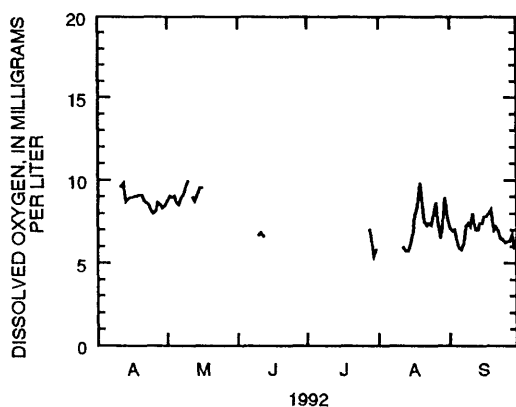
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--7 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 12.1 mg/L August 19, 1992; minimum value recorded, 2.0 mg/L July 30, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, MID-DEPTH (in mg/L),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	8.7	---	---	---	7.1
2	---	9.0	---	---	---	6.9
3	---	8.9	---	---	---	7.0b
4	---	9.0	9.2	---	---	6.3b
5	---	8.6	---	---	---	5.9b
6	---	8.5	---	---	---	5.8b
7	---	8.9	---	---	---	6.2b
8	---	9.1	---	---	---	7.2
9	---	9.6	---	---	---	7.4b
10	---	9.9	6.7	---	---	7.2b
11	9.6	---	6.8	---	---	8.0
12	9.8	8.9	6.6	---	5.9b	7.0
13	8.7	8.7	---	---	5.7b	7.0
14	8.8	9.1	---	---	5.7b	7.4
15	8.9	9.5	---	---	6.1	7.4
16	8.9	9.5	---	---	6.8	7.8
17	9.0	---	---	---	7.8	7.8
18	9.0	---	---	---	8.4	8.0
19	9.1	---	---	---	9.8	8.2
20	9.1	---	---	---	8.8	7.0
21	8.7	---	---	---	7.5	7.2
22	8.6	---	---	---	7.3	6.9b
23	8.5	---	---	---	7.4	6.5
24	8.2	---	---	---	7.3b	6.4
25	8.0	---	---	---	7.8	6.2
26	8.1	---	---	---	8.6	6.3
27	8.6	---	---	---	7.3	6.3
28	8.5	---	---	7.0	6.5	6.7
29	8.3	---	---	6.4b	7.4	6.0
30	8.4	---	---	5.4a	8.9	6.3
31	---	---	---	5.8b	7.8	---



**DAILY MEAN DISSOLVED OXYGEN, MID-DEPTH,
SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

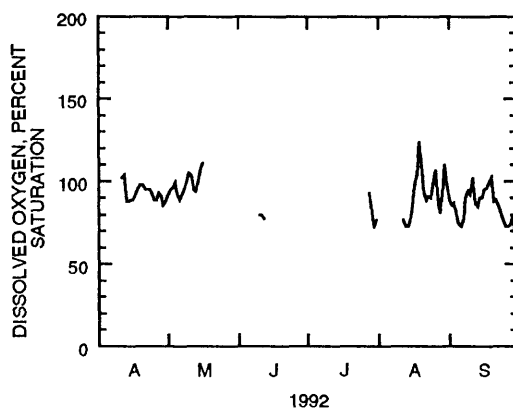
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--7 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 154 percent of saturation August 19, 1992; minimum value recorded, 26 percent of saturation July 30, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, MID-DEPTH (in percent),
APRIL-SEPTEMBER 1992**

Day	Apr.	May	June	July	Aug.	Sept.
1	---	92	---	---	---	89
2	---	95	---	---	---	86
3	---	96	---	---	---	87
4	---	99	105	---	---	79
5	---	92	---	---	---	74
6	---	89	---	---	---	73
7	---	92	---	---	---	78
8	---	95	---	---	---	90
9	---	100	---	---	---	94
10	---	105	80	---	---	92
11	102	---	80	---	---	102
12	104	95	78	---	77	87
13	88	94	---	---	73	85
14	88	100	---	---	73	90
15	89	108	---	---	77	90
16	89	111	---	---	85	95
17	92	---	---	---	97	96
18	95	---	---	---	104	99
19	98	---	---	---	124	102
20	98	---	---	---	110	88
21	95	---	---	---	93	89
22	95	---	---	---	89	86
23	95	---	---	---	91	81
24	93	---	---	---	90	77
25	89	---	---	---	98	73
26	89	---	---	---	107	73
27	93	---	---	---	90	74
28	91	---	---	93	81	80
29	86	---	---	85	92	70
30	88	---	---	72	110	72
31	---	---	---	77	98	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION,
MID-DEPTH, SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

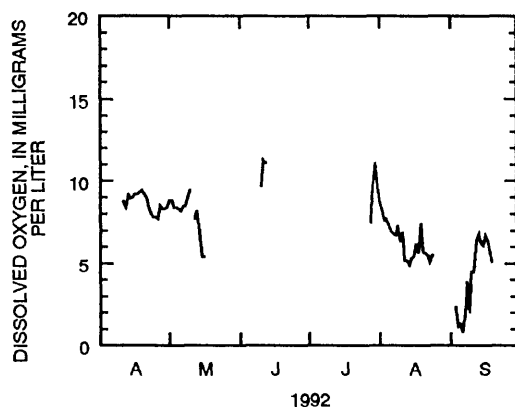
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575; a, daily minimum value is less than or equal to 2.0 mg/L; b, daily minimum value is less than or equal to 5.0 mg/L but greater than 2.0 mg/L]

Sensor Position--3 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 13.4 mg/L July 29, 1992; minimum value recorded, <1.0 mg/L August 20, September 3-11, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, NEAR BOTTOM (in mg/L),
APRIL-SEPTEMBER 1992**

Day	Apr.	May	June	July	Aug.	Sept.
1	---	8.8	---	---	8.5	---
2	---	8.8	---	---	8.3	---
3	---	8.4	---	---	7.6	2.3a
4	---	8.4	5.3	---	7.7	1.2a
5	---	8.3	---	---	7.3b	1.3a
6	---	8.2	---	---	7.0	<1.0a
7	---	8.5	---	---	6.8b	1.9a
8	---	8.5	---	---	6.7	3.9a
9	---	9.0	---	---	7.3	2.0a
10	---	9.4	9.7	---	6.3b	4.5a
11	8.7	---	11.3	---	6.9	4.5a
12	8.4	7.7	11.1	---	5.2b	6.4b
13	9.1	8.2	---	---	5.2b	6.8
14	8.9	6.9	---	---	4.9b	6.2
15	9.0	5.4b	---	---	5.3b	6.1b
16	9.2	5.4b	---	---	5.4b	6.7
17	9.2	---	---	---	6.2b	6.4
18	9.3	---	---	---	5.6b	5.8
19	9.4	---	---	---	7.4	5.1b
20	9.2	---	---	---	5.7a	---
21	8.9	---	---	---	5.6b	---
22	8.4	---	---	---	5.5b	---
23	8.0	---	---	---	5.1b	---
24	7.8	---	---	---	5.5b	---
25	7.8	---	---	---	---	---
26	7.7	---	---	---	---	---
27	8.5	---	---	---	---	---
28	8.3	---	---	7.5b	---	---
29	8.3	---	---	9.7	---	---
30	8.4	---	---	11.1	---	---
31	---	---	---	9.6	---	---



**DAILY MEAN DISSOLVED OXYGEN, NEAR BOTTOM,
SITE 12, NEUSE RIVER AT LIGHT 7**

Table 33.--Daily mean values of salinity, water temperature, dissolved oxygen, and dissolved oxygen, percent saturation, in water at site 12, April-September 1992--Continued

NEUSE RIVER AT LIGHT 7

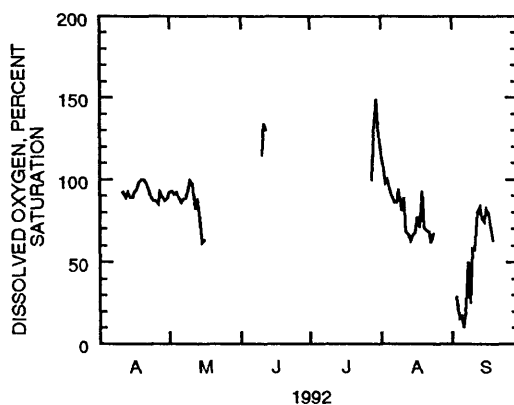
[Site 12 is at latitude 35°00'30", longitude 76°39'42", Craven County; U.S. Geological Survey downstream order number 0209267575]

Sensor Position--3 ft above streambed.

Extremes for April-September 1992--Maximum value recorded, 178 percent of saturation July 29, 30, 1992; minimum value recorded, 40 percent of saturation August 20, September 3-11, 1992.

**DAILY MEAN VALUES OF DISSOLVED OXYGEN, PERCENT SATURATION, NEAR BOTTOM (in percent),
APRIL-SEPTEMBER 1992**

Day	Apr .	May	June	July	Aug .	Sept .
1	---	92	---	---	114	---
2	---	93	---	---	109	---
3	---	91	---	---	98	29
4	---	92	61	---	100	16
5	---	89	---	---	94	17
6	---	86	---	---	90	10
7	---	88	---	---	86	24
8	---	88	---	---	86	50
9	---	93	---	---	94	25
10	---	99	115	---	81	58
11	92	---	134	---	89	57
12	89	82	130	---	68	80
13	92	88	---	---	67	83
14	89	76	---	---	63	76
15	89	62	---	---	66	74
16	92	63	---	---	68	82
17	94	---	---	---	77	79
18	98	---	---	---	71	72
19	100	---	---	---	93	63
20	100	---	---	---	71	---
21	97	---	---	---	69	---
22	94	---	---	---	68	---
23	89	---	---	---	62	---
24	87	---	---	---	67	---
25	87	---	---	---	---	---
26	85	---	---	---	---	---
27	92	---	---	---	---	---
28	89	---	---	100	---	---
29	87	---	---	129	---	---
30	88	---	---	149	---	---
31	---	---	---	127	---	---



**DAILY MEAN DISSOLVED OXYGEN, PERCENT SATURATION,
NEAR BOTTOM, SITE 12, NEUSE RIVER AT LIGHT 7**

**Table 34.--Five-day mean water temperature and dissolved-oxygen values in water at site 12,
April-September 1992, for day and night periods**

NEUSE RIVER AT LIGHT 7

[Day, 9:15 a.m.-9:00 p.m.; Night, 9:15 p.m.-9:00 a.m.]

Date	Mean water temperature, near surface (°C)		Mean dissolved oxygen, near surface (mg/L)		Mean dissolved oxygen, mid-depth (mg/L)		Mean dissolved oxygen, near bottom (mg/L)	
	Day	Night	Day	Night	Day	Night	Day	Night
3/29/92- 4/ 2/92	---	---	---	---	---	---	---	---
4/ 3/92- 4/ 7/92	---	---	---	---	---	---	---	---
4/ 8/92- 4/12/92	18.2	17.4	9.7	10.2	9.7	9.5	8.6	8.7
4/13/92- 4/17/92	15.5	15.5	---	---	9.0	8.8	9.1	9.1
4/18/92- 4/22/92	19.3	19.2	---	---	8.9	8.8	9.0	8.9
4/23/92- 4/27/92	20.3	19.6	---	---	8.4	8.2	8.1	7.9
4/28/92- 5/ 2/92	18.0	17.6	10.6	10.8	8.7	8.4	8.6	8.5
5/ 3/92- 5/ 7/92	18.5	18.0	9.0	8.8	8.9	8.7	8.4	8.3
5/ 8/92- 5/12/92	18.0	17.8	9.8	9.5	9.6	9.3	8.7	8.7
5/13/92- 5/17/92	21.3	21.0	9.6	9.2	9.4	9.1	6.5	6.0
5/18/92- 5/22/92	---	---	---	---	---	---	---	---
5/23/92- 5/27/92	---	---	---	---	---	---	---	---
5/28/92- 6/ 1/92	---	---	---	---	---	---	---	---
6/ 2/92- 6/ 6/92	22.3	22.1	9.0	8.7	9.3	9.1	4.0	3.0
6/ 7/92- 6/11/92	24.2	23.7	7.3	6.9	6.9	6.5	6.0	6.4
6/12/92- 6/16/92	23.2	23.1	7.1	6.9	6.8	6.6	11.3	11.2
6/17/92- 6/21/92	---	---	---	---	---	---	---	---
6/22/92- 6/26/92	---	---	---	---	---	---	---	---
6/27/92- 7/ 1/92	---	---	---	---	---	---	---	---
7/ 2/92- 7/ 6/92	---	---	---	---	---	---	---	---
7/ 7/92- 7/11/92	---	---	---	---	---	---	---	---
7/12/92- 7/16/92	---	---	---	---	---	---	---	---
7/17/92- 7/21/92	---	---	---	---	---	---	---	---
7/22/92- 7/26/92	---	---	---	---	---	---	---	---
7/27/92- 7/31/92	30.4	29.9	8.2	6.9	7.0	5.8	9.4	9.0
8/ 1/92- 8/ 5/92	29.1	28.7	---	---	---	---	8.0	7.7
8/ 6/92- 8/10/92	28.2	27.8	---	---	---	---	6.9	6.8
8/11/92- 8/15/92	28.0	27.6	6.3	5.9	6.2	5.9	5.5	5.2
8/16/92- 8/20/92	26.8	26.6	8.8	8.4	8.5	8.3	6.0	6.2
8/21/92- 8/25/92	26.0	25.9	7.7	7.0	7.7	7.4	5.4	5.4
8/26/92- 8/30/92	26.5	26.1	7.9	7.4	7.9	7.5	---	---
8/31/92- 9/ 4/92	26.7	26.3	9.2	7.4	7.2	6.5	2.5	1.8
9/ 5/92- 9/ 9/92	27.4	27.0	6.9	5.7	6.7	6.4	2.2	2.5
9/10/92- 9/14/92	26.7	26.2	---	---	7.6	7.1	5.6	5.9
9/15/92- 9/19/92	26.0	25.8	8.9	8.2	8.0	7.6	5.9	6.1
9/20/92- 9/24/92	26.1	25.6	8.8	8.0	6.7	6.7	---	---
9/25/92- 9/29/92	23.3	23.2	---	---	6.4	6.2	---	---

Table 35.--Vertical distributions of selected constituents in water at site 12, April-September 1992

NEUSE RIVER AT LIGHT 7

Date	Time	Gage height ¹ (ft)	Sampling depth (ft above bottom)	Specific conductance (µS/cm)	Salinity (ppt)	Temperature of water (°C)	Dissolved oxygen (mg/L)	Dissolved oxygen (percent saturation)
1992								
Apr. 10...	1240	0.56	---	---	---	---	---	---
10...	1241	---	10.0	15,200	8.8	17.5	9.8	109
10...	1242	---	6.00	16,000	9.3	15.5	9.3	99
10...	1243	---	2.00	23,000	13.9	12.5	8.3	85
28...	1030	1.28	---	---	---	---	---	---
28...	1031	---	10.0	21,500	12.9	18.5	8.5	98
28...	1032	---	6.00	21,500	12.9	18.5	8.4	97
28...	1033	---	2.00	22,000	13.2	18.5	8.2	95
May 11...	1130	1.37	---	---	---	---	---	---
11...	1131	---	10.0	19,300	11.5	18.5	9.8	112
11...	1132	---	6.00	20,100	12.0	18.5	9.6	110
11...	1133	---	2.00	20,900	12.5	18.5	9.6	111
June 03...	1300	1.44	---	---	---	---	---	---
03...	1301	---	10.0	18,300	10.8	22.0	9.8	120
03...	1302	---	6.00	19,200	11.4	22.0	9.8	120
03...	1303	---	2.00	20,300	12.1	21.5	9.2	112
09...	1140	0.82	---	---	---	---	---	---
09...	1141	---	10.0	18,000	10.6	25.0	7.8	101
09...	1142	---	6.00	18,000	10.6	24.5	7.6	97
09...	1143	---	2.00	20,200	12.0	24.0	6.3	80
July 08...	1410	1.14	---	---	---	---	---	---
08...	1411	---	10.0	15,800	9.2	29.0	10.1	139
08...	1412	---	6.00	19,300	11.5	27.0	8.5	114
08...	1413	---	2.00	20,100	12.0	27.0	7.2	97
24...	1245	0.46	---	---	---	---	---	---
24...	1246	---	10.0	24,300	14.7	28.0	8.3	116
24...	1247	---	6.00	24,600	14.9	27.5	7.5	104
24...	1248	---	2.00	25,400	15.5	27.5	6.1	85
27...	1140	0.39	---	---	---	---	---	---
27...	1141	---	10.0	24,100	14.6	30.0	9.3	134
27...	1142	---	6.00	24,100	14.6	30.0	9.2	132
27...	1143	---	2.00	24,500	14.9	29.5	6.8	97
Aug. 11...	1245	0.27	---	---	---	---	---	---
11...	1246	---	10.0	26,900	16.5	28.5	7.4	105
11...	1247	---	8.00	27,000	16.5	28.5	7.4	105
11...	1248	---	6.00	27,000	16.5	28.5	7.4	105
11...	1249	---	4.00	27,100	16.6	28.5	6.8	97
11...	1250	---	2.00	27,400	16.8	28.5	6.0	85
Sept. 02...	1030	1.20	---	---	---	---	---	---
02...	1031	---	10.0	16,400	9.6	26.0	8.3	108
02...	1032	---	6.00	18,400	10.9	26.0	6.8	89
02...	1033	---	2.00	21,300	12.8	26.0	4.3	57
16...	1155	1.33	---	---	---	---	---	---
16...	1156	---	10.0	21,500	12.9	25.0	7.7	101
16...	1157	---	6.00	21,500	12.9	25.0	7.6	99
16...	1158	---	2.00	22,200	13.4	25.0	5.7	75

¹Water level from 02092162, Neuse River at New Bern.