

Water-Data Report 2011

01400500 RARITAN RIVER AT MANVILLE, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°33'20", long 74°34'58" referenced to North American Datum of 1983, Bridgewater Township, Somerset County, NJ, Hydrologic Unit 02030105, on left bank at downstream side of bridge on North Main Street (Finderne Avenue) at Manville, and 1.4 mi upstream from Millstone River.

DRAINAGE AREA.--490 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1903 to March 1907 (published as "at Finderne"), August 1908 to April 1915 (gage heights only, published in WSP 521), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54. WDR NJ-75-1: 1964(M), 1969(M), 1970(P), 1971(P), 1972(P), 1973(P), WDR NJ-02-1: 2000(M).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above NGVD of 1929. Prior to Aug 15, 1923, non-recording gage on downstream side of highway bridge at same site and datum. From Oct 1, 1952 to Sep 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage was above 5.50 ft. On Oct 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved 1,000 ft downstream to present site (station 01403060). Between Jun 9, 1978 and Jun 7, 1979, gage temporarily relocated at site 1.4 mi downstream, just upstream from Millstone River, because of reconstruction of highway bridge. Between Oct 1, 2006 and Mar 9, 2008, gage temporarily relocated at site 0.4 mi downstream, just upstream of an abandoned railroad bridge, because of reconstruction of highway bridge.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated at low flow by Spruce Run (see 01396790) and Round Valley (see 01397050) Reservoirs. Diversion to Round Valley Reservoir (see 01396920) since March 1966. Prior to Sep 1, 1986, the former Johns-Manville Corporation diverted water 1,500 ft upstream from station and returned to river 0.6 mi downstream from gage. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and (or) maximum (*):

[e, estimated]			
Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 1	1915	11,000	12.40
Mar 7	1130	15,300	14.82
Mar 11	1330	15,400	14.89
Apr 17	0945	20,700	17.10
Aug 28	1530	*53,000	*26.24
Sep 7	1130	16,400	15.60
Sep 8	2100	e24,800	e19.65

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	6,530	177	2,510	303	335	2,030	1,110	1,310	639	285	359	e1,520
2	2,650	198	2,970	359	548	1,230	1,170	1,180	595	278	333	e1,230
3	777	206	954	e505	1,410	1,000	e980	1,040	546	398	302	1,090
4	571	404	682	e410	e765	855	e940	e1,280	487	583	361	979
5	609	899	563	e345	e640	785	1,030	e1,450	461	349	303	903
6	615	492	478	e310	1,000	1,710	1,030	1,020	459	284	269	3,320
7	467	353	422	e315	1,120	11,300	997	876	441	261	310	13,500
8	369	298	365	e240	e1,310	3,560	955	e835	421	370	350	e17,500
9	310	269	311	e310	e1,200	2,130	967	e855	406	683	484	e12,800
10	271	249	284	e315	e875	3,110	825	825	506	392	485	4,280
11	270	233	e285	e325	e615	12,700	778	767	490	289	270	2,850
12	380	213	1,320	e331	e565	5,430	953	734	580	262	242	2,220
13	303	206	2,420	e370	e510	2,940	4,130	700	488	250	261	1,870
14	263	209	1,000	e315	530	2,150	e2,220	687	475	224	3,920	e1,530
15	383	208	e610	e330	1,240	1,790	1,340	1,310	647	211	4,000	e1,350
16	309	213	e520	e365	822	2,300	1,770	2,380	477	235	2,720	1,250
17	262	454	e440	e315	1,090	2,120	14,600	1,680	1,050	261	1,260	1,090
18	243	477	e395	406	2,590	1,570	4,670	2,390	820	279	695	1,030
19	251	317	e385	872	3,100	1,360	2,530	3,260	519	283	726	972
20	238	267	e360	945	1,340	1,200	2,000	3,160	433	333	1,010	940
21	209	244	e355	e685	1,000	1,360	1,690	2,210	383	384	612	931
22	193	231	e355	e465	819	1,560	1,300	1,620	355	392	2,240	949
23	187	222	e330	e380	669	1,690	2,200	1,240	449	392	1,200	1,380
24	196	213	e311	e375	608	2,940	e2,510	2,000	667	407	760	3,830
25	202	201	e293	e395	3,760	2,140	e3,140	1,250	824	448	825	1,460
26	191	231	e270	e410	3,360	1,570	1,940	e995	539	676	909	1,110
27	196	242	e250	e415	1,570	1,350	1,730	e910	434	512	929	1,090
28	217	216	e355	e470	2,060	1,240	2,650	818	375	428	e33,200	4,760
29	186	197	e380	e415	---	1,140	2,800	729	344	442	e18,700	5,800
30	169	193	e295	e383	---	1,070	1,600	815	323	405	e5,120	3,710
31	170	---	e315	e345	---	1,040	---	775	---	297	2,290	---
Total	18,187	8,532	20,783	12,724	35,451	78,370	66,555	41,101	15,633	11,293	85,445	97,244
Mean	587	284	670	410	1,266	2,528	2,218	1,326	521	364	2,756	3,241
Max	6,530	899	2,970	945	3,760	12,700	14,600	3,260	1,050	683	33,200	17,500
Min	169	177	250	240	335	785	778	687	323	211	242	903

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2011, BY WATER YEAR (WY)

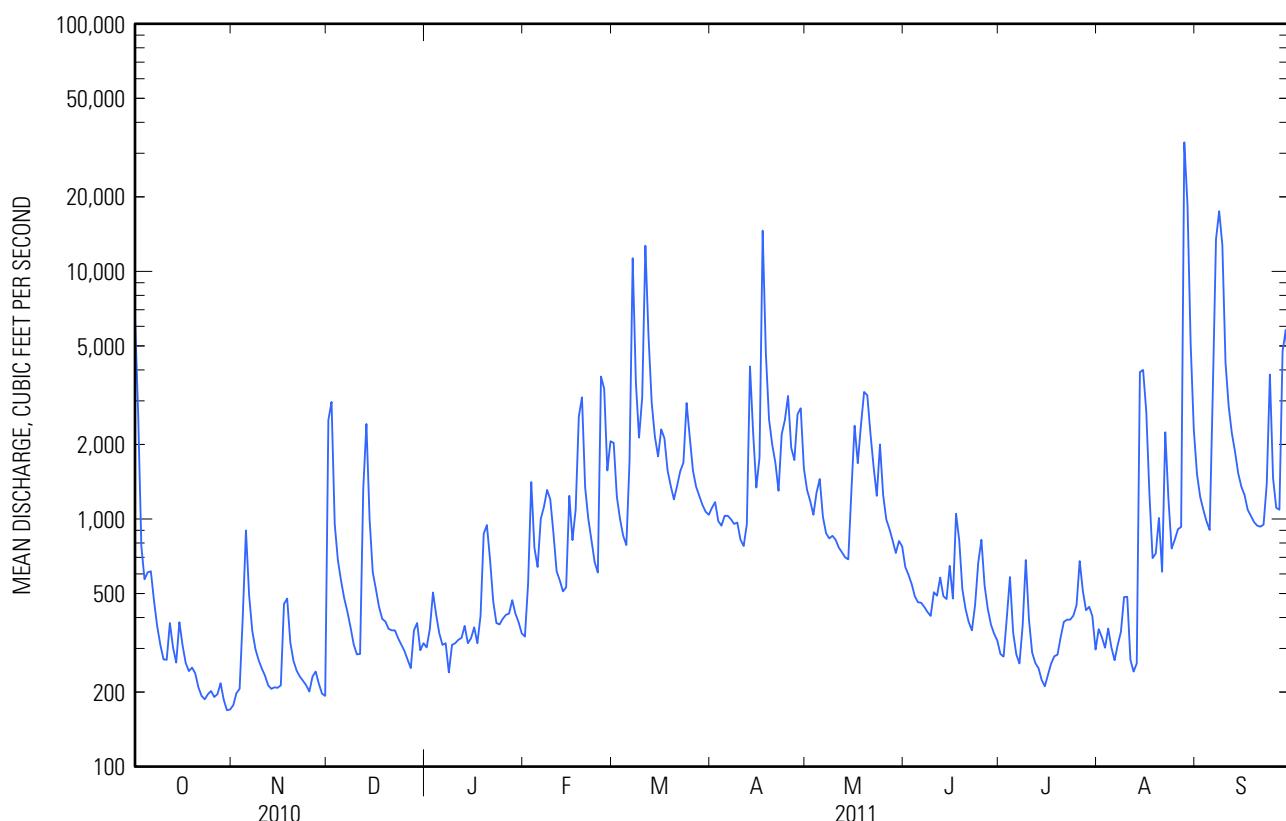
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	494	681	928	997	1,061	1,378	1,171	797	556	485	495	507
Max	2,433	2,460	2,877	3,856	2,406	3,527	3,507	2,707	2,581	2,542	2,756	3,241
(WY) (1904)	(1933)	(1997)	(1979)	(1925)	(2010)	(1983)	(1989)	(1972)	(1975)	(2011)	(2011)	(2011)
Min	64.8	87.5	148	188	216	354	259	212	88.8	65.1	50.5	51.2
(WY) (1942)	(1932)	(1966)	(1966)	(2002)	(1981)	(1985)	(1926)	(1965)	(1955)	(1932)	(1941)	

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**SUMMARY STATISTICS**

	Calendar Year 2010	Water Year 2011		Water Years 1904 - 2011	
Annual total	326,542	491,318			
Annual mean	895	1,346		795	
Highest annual mean				1,365	1984
Lowest annual mean				309	1965
Highest daily mean	22,200	Mar 14	a33,200	Aug 28	a33,200 Aug 28, 2011
Lowest daily mean	169	Oct 30	169	Oct 30	b17 Sep 19, 1964
Annual seven-day minimum	187	Oct 26	187	Oct 26	29 Aug 27, 1944
Maximum peak flow			a,c53,000	Aug 28	c77,600 Sep 16, 1999
Maximum peak stage			26.29	Aug 28	27.49 Sep 17, 1999
Instantaneous low flow			165	Oct 30 – Nov 1	17 Sep 19, 1964
10 percent exceeds	1,690		2,650		1,610
50 percent exceeds	471		615		448
90 percent exceeds	263		244		153

a Estimated

b Does not include water diverted to former Johns-Manville Corporation plant.

c From rating curve extended above 14,000 ft³/s on basis of slope-area measurements at gage heights 14.9, 20.42, and 27.49 ft.

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1923-25, 1959-74, 1976-97, 2008 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: August-September 2003, April 2008 to current year.

DISSOLVED OXYGEN, PERCENT OF SATURATION: August-September 2003, April 2008 to current year.

pH: August-September 2003, April 2008 to current year.

SPECIFIC CONDUCTANCE: August-September 2003, April 2008 to current year.

WATER TEMPERATURE: August-September 2003, April 2008 to current year.

TURBIDITY: April 2008 to current year.

INSTRUMENTATION.--Water-quality monitor since April 2008. Flow tank, pumping system; data recorded semi-hourly.

REMARKS.--The accuracy of continuous water-quality data is routinely verified through inspections for fouling and calibration drift. The New Jersey Water Science Center requires that either constant or prorated adjustments be made to the continuous water-quality record when the difference between a sensor's response and a known value exceeds the following criteria: Water Temperature, 0.2 degrees Celsius (+ or -); Specific Conductance, the greater of 5 microsiemens/cm (+ or -) or 3% of the measured value; Dissolved Oxygen, the greater of 0.3 mg/L (+ or -) or 5% of the measured value; pH, 0.3 units (+ or -); Turbidity, 0.5 FNU fouling, and the greater of 2.0 FNU (+ or -) or 5% of the measured value for drift. If the difference between a sensor's response and a known value is within specified criteria, the data are considered to be reliable and are not adjusted. Data from the following period(s) were adjusted - WATER TEMPERATURE: Most periods, variable by season; DISSOLVED OXYGEN: Apr 7 to May 6; TURBIDITY: Jan 4 to Apr 7, Apr 14 to May 6, Jun 2 -23, Aug 11-17. Water quality samples on August 30 and 31 were collected as part of a Hurricane Irene Synoptic.

COOPERATION.--Continuous records collected in cooperation with the New Jersey Water Supply Authority. Samples for analyses of trace elements, volatile organic compounds, and semi volatile compounds on August 30 and 31 were collected in cooperation with the New Jersey Department of Environmental Protection and the U.S. Environmental Protection Agency.

EXTREMES FOR PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: Maximum, 18.2 mg/L, Mar 4, 2009; minimum, 5.3 mg/L Jun 11, 2008.

DISSOLVED OXYGEN, PERCENT OF SATURATION: Maximum, 165%, Jun 20, 2010 (day of partial record); minimum, 66%, Jun 11, 2008.

pH: Maximum, 9.5 standard units, Mar 1, 2, 2009; minimum, 6.8 standard units, Dec 12, 13, 2008, and Dec 27, 2009.

SPECIFIC CONDUCTANCE: Maximum, 3,190 microsiemens/cm, Feb 02, 2011; minimum, 86 microsiemens/cm, Sep 8, 2011.

WATER TEMPERATURE: Maximum, 32.1°C, Jul 22,23, 2011; minimum, -0.3°C, Dec 27, 2010.

TURBIDITY: Maximum, 1,200 FNU, Mar 30, 2009; minimum, <0.5 FNU, Aug 11, 12, 2009.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 16.3 mg/L, Apr. 9; minimum, 5.8 mg/L, July 23.

DISSOLVED OXYGEN, PERCENT OF SATURATION: Maximum, 147%, Aug. 12; minimum, 75%, July 13.

pH: Maximum, 9.1 standard units, Nov. 29, Apr. 9, 11, May 12, 13; minimum, 6.9 standard units, Sept. 7, 8.

SPECIFIC CONDUCTANCE: Maximum, 3,190 microsiemens/cm, Feb. 2; minimum, 86 microsiemens/cm, Sept. 8.

WATER TEMPERATURE: Maximum, 32.1°C, July 22, 23; minimum, -0.3°C, Dec. 27.

TURBIDITY: Maximum, 900 FNU, Apr. 17; minimum, 1.0 FNU, Feb. 14.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 1 of 16

[%; percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, mg/L (00300)	Dissolved oxygen, unfiltered, mg/L (00301)	pH, water, unfiltered, % saturation (00301)	Specific conductance, water, µS/cm at 25 °C (00095)		Temperature, water, °C (00010)	
								field, standard units (00400)	unfiltered, µS/cm at 25 °C (00095)	temperature, water, °C (00010)	
08-30-2011	1330	766	28.0	E 5,120	8.7	95	7.1	223	19.9		
08-31-2011	0930	766	26.5	2,370	8.7	94	7.2	217	19.7		

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Alkalinity,									
		Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection-point, titration method, field, mg/L as CaCO ₃ (00453)	Escherichia coli, Defined Substrate	Total coliform, Defined Substrate	Barium, water, unfiltered, recoverable, µg/L (01007)	Beryllium, water, unfiltered, recoverable, µg/L (01012)	Cadmium, water, unfiltered, recoverable, µg/L (01027)		
08-30-2011	1330	22	45	55	2,500	370,000	36.2	.05	< .050		
08-31-2011	0930	15	--	--	< 1,000	71,000	35.9	.03	< .050		

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Manganese-									
		Chromium, water, unfiltered, recoverable, µg/L (01034)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Nickel, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)	Silver, water, unfiltered, recoverable, µg/L (01067)	Zinc, water, unfiltered, recoverable, µg/L (01092)		
08-30-2011	1330	.69	2.4	838	1.08	70.0	< .005	1.1	< .015	5.0	
08-31-2011	0930	.50	1.8	644	.75	59.5	.005	.85	< .015	3.5	

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Boron,	Arsenic,	Dibromo-3-	1,2-	1,2-	1,2-	1,2-
		water, unfiltered,	water, unfiltered, recoverable, unfiltered,	chloro- propane, water, unfiltered,	chloro- propane, water, unfiltered,	Dibromo- ethane, water, unfiltered,	Dichloro- ethane, water, unfiltered,	Dichloro- propane, water, unfiltered,
08-30-2011	1330	.89	37	.196	<.2	<.05	<.2	<.2
08-31-2011	0930	.84	35	.176	<.2	<.05	<.2	<.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 5 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	1,4-	2,4,6-	2,4-	2,4-	2-Methyl-	4-Chloro-3-	
		Dichloro- benzene, water, unfiltered, recover- able,	Trichloro- phenol, water, unfiltered, recover- able,	Dichloro- phenol, water, unfiltered, recover- able,	Dimethyl- phenol, water, unfiltered, recover- able,	4,6-dinitro- phenol, water, unfiltered, recover- able,	methyl- phenol, water, filtered, recover- able,	4-Nitro- phenol, water, unfiltered, recover- able,
08-30-2011	1330	<.1	<.34	<.36	<.8	<2	<.54	<.52
08-31-2011	0930	<.1	<.34	<.36	<.8	<2	<.54	<.52

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 6 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	cis-1,3-Dichloro-propene, water, unfiltered, recoverable, µg/L (34704)	Hexachlorobenzene, water, unfiltered, recoverable, µg/L (39700)	Penta-chlorophenol, water, unfiltered, recoverable, µg/L (39032)	trans-1,3-Dichloropropene, water, unfiltered, recoverable, µg/L (34699)	1,1,1,2-Tetra-chloroethane, water, unfiltered, recoverable, µg/L (77562)	1,1,1-Tri-chloroethane, water, unfiltered, recoverable, µg/L (34506)	1,1,2,2-Tetra-chloroethane, water, unfiltered, recoverable, µg/L (34516)	1,1,2-Tri-chloro-1,2,2-trifluoroethane, water, unfiltered, recoverable, µg/L (77652)	1,1,2-Tri-chloroethane, water, unfiltered, recoverable, µg/L (34511)
08-30-2011	1330	<.2	<.30	<.6	<.2	<.2	<.1	<.2	<.1	<.2
08-31-2011	0930	<.2	<.30	<.6	<.2	<.2	<.1	<.2	<.1	<.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 7 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	1,1-Dichloroethane, water, unfiltered, recoverable, µg/L (34496)	1,1-Dichloroethene, water, unfiltered, recoverable, µg/L (34501)	1,1-Dichloropropene, water, unfiltered, recoverable, µg/L (77168)	1,2,3-Tri-chlorobenzene, water, unfiltered, recoverable, µg/L (77613)	1,2,4-Tri-chlorobenzene, water, unfiltered, recoverable, µg/L (34551)	1,2,4-Tri-methylbenzene, water, unfiltered, recoverable, µg/L (77222)	1,2-Dichlorobenzene, water, unfiltered, recoverable, µg/L (34536)	1,2-Diphenylhydrazine, water, unfiltered, recoverable, µg/L (82626)	1,3,5-Tri-methylbenzene, water, unfiltered, recoverable, µg/L (77226)
08-30-2011	1330	<.1	<.1	<.2	<.2	<.2	<.2	<.1	<.30	<.2
08-31-2011	0930	<.1	<.1	<.2	<.2	<.2	<.2	<.1	<.30	<.2

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 8 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	1,3-Dichloro-benzene, water, unfiltered, recoverable, µg/L (34566)	2,2-Dichloro-propane, water, unfiltered, recoverable, µg/L (77170)	2,4-Dinitro-phenol, water, unfiltered, recoverable, µg/L (34616)	2,4-Dinitro-phenol, water, unfiltered, recoverable, µg/L (34611)	2,6-Dinitro-phenol, water, unfiltered, recoverable, µg/L (34626)	2-Chloro-naphthalene, water, unfiltered, recoverable, µg/L (34581)	2-Chloro-phenol, water, unfiltered, recoverable, µg/L (34586)	2-Chloro-toluene, water, unfiltered, recoverable, µg/L (77275)	2-Nitro-phenol, water, unfiltered, recoverable, µg/L (34591)
08-30-2011	1330	<.1	<.2	<2	<.56	<.4	<.16	<.26	<.2	<.4
08-31-2011	0930	<.1	<.2	<2	<.56	<.4	<.16	<.26	<.2	<.4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 9 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	3,3'-Dichloro-benzidine, water, unfiltered, recoverable, µg/L (34631)	4-Bromo-phenyl ether, water, unfiltered, recoverable, µg/L (34636)	4-Chloro-phenyl ether, water, unfiltered, recoverable, µg/L (34641)	4-Chloro-toluene, water, unfiltered, recoverable, µg/L (77277)	4-Iso-propyl-toluene, water, unfiltered, recoverable, µg/L (77356)	9H-Fluorene, water, unfiltered, recoverable, µg/L (34381)	Acenaphthene, water, unfiltered, recoverable, µg/L (34205)	Acenaphthylenne, water, unfiltered, recoverable, µg/L (34200)	Anthracene, water, unfiltered, recoverable, µg/L (34220)
08-30-2011	1330	<.42	<.24	<.34	<.2	<.2	.01	<.28	<.30	.01
08-31-2011	0930	<.42	<.24	<.34	<.2	<.2	<.34	<.28	<.30	<.38

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 10 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Benzene, water, unfiltered, recoverable, µg/L (34030)	Cene, water, unfiltered, recoverable, µg/L (34526)	pyrene, water, unfiltered, recoverable, µg/L (34247)	anthene, water, unfiltered, recoverable, µg/L (34230)	fluoranthene, water, unfiltered, recoverable, µg/L (34230)	[ghi]-perylene, water, unfiltered, recoverable, µg/L (34521)	fluoranthene, water, unfiltered, recoverable, µg/L (34242)	butyl phthalate, water, unfiltered, recoverable, µg/L (34292)	Benzyl naphthalene, water, unfiltered, recoverable, µg/L (34278)	Bis(2-chloroethoxy)-methane, water, unfiltered, recoverable, µg/L (34273)
08-30-2011	1330	<.1	<.26	<.32	<.30	<.38	<.30	<1.8	<.24	<.30	
08-31-2011	0930	<.1	<.26	<.32	<.30	<.38	<.30	<1.8	<.24	<.30	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 11 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Bis(2-chloroisopropyl) ether, water, unfiltered, recoverable, µg/L (34283)	Bis(2-ethylhexyl) phthalate, water, unfiltered, recoverable, µg/L (39100)	Bromo-benzene, water, unfiltered, recoverable, µg/L (81555)	Bromo-chloromethane, water, unfiltered, recoverable, µg/L (77297)	Dichloromethane, water, unfiltered, recoverable, µg/L (32101)	Chlorobenzene, water, unfiltered, recoverable, µg/L (34301)	Chloroethane, water, unfiltered, recoverable, µg/L (34311)	Chloromethane, water, unfiltered, recoverable, µg/L (34418)	Chrysene, water, unfiltered, recoverable, µg/L (34320)
08-30-2011	1330	<.14	<2.6	<.2	<.2	<.1	<.1	<.2	<.2	<.32
08-31-2011	0930	<.14	<2.6	<.2	<.2	<.1	<.1	<.2	<.2	<.32

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 12 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	cis-1,2-Di-chloro-ethene, water, unfiltered, recoverable, µg/L (77093)	[a,h]-anthra-cene, water, unfiltered, recoverable, µg/L (34556)	Dibromo-methane, water, unfiltered, recoverable, µg/L (32105)	Dibromo-methane, water, unfiltered, recoverable, µg/L (30217)	difluoro-methane, water, unfiltered, recoverable, µg/L (34668)	Dichloro-methane, water, unfiltered, recoverable, µg/L (34423)	Diethyl phthalate, water, unfiltered, recoverable, µg/L (34336)	Dimethyl phthalate, water, unfiltered, recoverable, µg/L (34341)	Di-n-butyl phthalate, water, unfiltered, recoverable, µg/L (39110)
08-30-2011	1330	<.1	<.42	<.2	<.2	<.2	<.2	<.62	<.36	<2.00
08-31-2011	0930	<.1	<.42	<.2	<.2	<.2	<.2	<.62	<.36	<2.00

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 13 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Di-n-octyl phthalate, water, unfiltered, recoverable, µg/L (34596)	Ethyl-benzene, water, unfiltered, recoverable, µg/L (34371)	Fluoranthene, water, unfiltered, recoverable, µg/L (34376)	Hexa-chlorobutadiene, water, unfiltered, recoverable, µg/L (39702)	Hexa-penta-diene, water, unfiltered, recoverable, µg/L (34386)	Hexa-chloro-ethane, water, unfiltered, recoverable, µg/L (34396)	Indeno-[1,2,3-cd]pyrene, water, unfiltered, recoverable, µg/L (34403)	Iso-phorone, water, unfiltered, recoverable, µg/L (34408)	Isopropyl-benzene, water, unfiltered, recoverable, µg/L (77223)
08-30-2011	1330	<.6	<.1	<.30	<.2	<.50	<.24	<.38	<.26	<.2
08-31-2011	0930	<.6	<.1	<.30	<.2	<.50	<.24	<.38	<.26	<.2

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 14 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Methyl tert-butyl ether, water, unfiltered, recover- able, µg/L (78032)	Naphtha- lene, water, unfiltered, recover- able, µg/L (34696)	n-Butyl- benzene, water, unfiltered, recover- able, µg/L (77342)	Nitro- benzene, water, unfiltered, recover- able, µg/L (34447)	methyl- amine, water, unfiltered, recover- able, µg/L (34438)	N-Nitro- sodi- propyl- amine, water, unfiltered, recover- able, µg/L (34428)	N-Nitro- sodi-n- phenyl- amine, water, unfiltered, recover- able, µg/L (34433)	N-Nitro- sodi- n-Propyl- benzene, water, unfiltered, recover- able, µg/L (77224)	Phenan- threne, water, unfiltered, recover- able, µg/L (34461)
08-30-2011	1330	<.2	<.5	<.2	<0.26	<.24	<.4	<.28	<.2	E .02
08-31-2011	0930	<.2	<.5	<.2	<0.26	<.24	<.4	<.28	<.2	E .02

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 15 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Phenol, water, unfiltered, recover- able, µg/L (34694)	Pyrene, water, unfiltered, recover- able, µg/L (34469)	sec-Butyl- benzene, water, unfiltered, recover- able, µg/L (77350)	Styrene, water, unfiltered, recover- able, µg/L (77128)	tert-Butyl- benzene, water, unfiltered, recover- able, µg/L (77353)	Tetra- chloro- ethene, water, unfiltered, recover- able, µg/L (34475)	Tetra- chloro- methane, water, unfiltered, recover- able, µg/L (32102)	Toluene, water, unfiltered, recover- able, µg/L (34010)	trans-1,2- Dichloro- ethene, water, unfiltered, recover- able, µg/L (34546)
08-30-2011	1330	<.28	<.36	<.2	<.1	<.2	<.1	<.2	<.1	<.1
08-31-2011	0930	<.28	<.36	<.2	<.1	<.2	<.1	<.2	<.1	<.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 16 of 16

[%, percent; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; NTRU, nephelometric turbidity ratio unit; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Tribromo- methane, water, unfiltered, recover- able, µg/L (32104)	Trichloro- ethene, water, unfiltered, recover- able, µg/L (39180)	fluoro- methane, water, unfiltered, recover- able, µg/L (34488)	Trichloro- methane, water, unfiltered, recover- able, µg/L (32106)	methanes, water, unfiltered, maximum sum- mation, µg/L (90867)	Vinyl chloride, water, unfiltered, recover- able, µg/L (39175)	Xylene (all isomers), water, unfiltered, recover- able, µg/L (81551)	Suspended sediment concen- tration, mg/L (80154)	Suspended sediment discharge, tons per day (80155)
08-30-2011	1330	<.2	<.1	<.2	<.1	<.6	<.2	<.2	23	E 318
08-31-2011	0930	<.2	<.1	<.2	<.1	<.6	<.2	<.2	15	96

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	
October				November				December				January	
1	8.2	7.1	7.5	12.6	9.8	11.2	12.1	9.3	10.4	14.2	13.6	13.8	
2	8.4	7.3	8.1	13.1	10.4	11.6	11.0	9.5	10.5	13.8	13.4	13.5	
3	9.2	8.3	8.8	13.4	10.8	11.9	11.6	11.0	11.4	13.9	13.4	13.7	
4	9.2	8.8	9.0	11.6	10.3	10.7	12.2	11.6	12.0	14.1	13.6	13.8	
5	9.4	9.1	9.2	10.4	10.0	10.2	12.7	12.2	12.4	14.2	13.6	13.8	
6	9.8	9.2	9.4	11.5	10.1	10.7	13.0	12.5	12.7	14.2	13.6	13.8	
7	9.8	9.1	9.3	12.5	10.7	11.4	13.2	12.8	13.0	14.0	13.4	13.7	
8	9.8	8.8	9.2	12.0	10.9	11.3	13.4	12.8	13.1	13.8	13.3	13.6	
9	9.9	8.8	9.2	13.1	11.0	11.8	13.9	13.2	13.5	14.4	13.4	13.8	
10	---	---	---	13.3	10.8	11.8	14.1	13.5	13.8	14.6	13.8	14.1	
11	---	---	---	13.5	10.6	11.8	14.1	13.6	13.8	14.8	13.9	14.2	
12	9.6	8.4	8.9	13.9	10.8	12.1	13.6	11.6	12.6	14.4	13.6	13.9	
13	10.2	8.7	9.3	14.3	11.0	12.4	11.7	11.4	11.5	14.6	13.5	14.0	
14	10.2	8.8	9.4	14.8	11.1	12.6	13.1	11.7	12.4	14.8	13.8	14.2	
15	10.5	9.0	9.7	14.5	10.8	12.3	13.6	13.1	13.4	15.0	13.8	14.3	
16	10.9	9.4	10.1	12.6	9.9	11.2	13.8	13.6	13.6	15.1	13.7	14.3	
17	11.2	9.7	10.3	12.0	9.1	10.3	13.8	13.6	13.7	15.2	13.8	14.4	
18	11.4	9.6	10.5	11.9	9.7	10.6	13.9	13.7	13.7	14.2	13.5	13.9	
19	11.3	9.6	10.4	13.6	10.2	11.5	13.9	13.6	13.7	13.9	13.4	13.6	
20	11.7	9.7	10.7	14.4	10.8	12.3	13.9	13.6	13.7	13.9	13.4	13.6	
21	11.6	9.7	10.7	15.0	11.2	12.7	13.9	13.6	13.7	14.1	13.4	13.7	
22	11.8	9.8	10.8	15.3	11.2	12.8	13.8	13.5	13.6	14.9	13.6	14.1	
23	12.2	10.2	11.2	14.7	10.8	12.4	13.9	13.5	13.6	15.2	13.8	14.4	
24	12.4	10.1	11.2	15.0	10.5	12.4	14.0	13.5	13.7	15.6	14.0	14.7	
25	12.2	9.8	11.0	13.9	10.8	12.2	14.0	13.6	13.7	15.2	14.0	14.4	
26	11.2	9.1	10.1	14.2	10.8	12.2	13.8	13.4	13.6	14.5	13.4	13.9	
27	9.6	8.0	8.8	15.0	11.2	12.8	13.6	13.1	13.4	14.4	13.1	13.6	
28	10.7	7.6	8.9	15.7	11.9	13.6	13.8	13.4	13.6	14.6	13.2	13.8	
29	10.9	7.9	9.3	16.2	12.4	14.0	14.0	13.6	13.7	15.0	13.3	14.0	
30	11.8	8.7	10.2	14.5	12.1	13.2	14.1	13.7	13.9	15.3	13.4	14.2	
31	12.3	9.3	10.8	---	---	---	14.2	13.7	13.9	15.5	13.6	14.4	
Month	---	---	---	16.2	9.1	11.9	14.2	9.3	13.1	15.6	13.1	14.0	

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	14.5	13.5	13.9	13.4	12.4	12.9	14.0	12.4	13.1	10.5	9.7	10.1
2	14.0	13.1	13.5	13.7	13.0	13.3	---	---	---	10.4	9.7	10.0
3	14.2	13.4	13.8	14.4	13.4	13.9	---	---	---	10.5	9.7	10.1
4	14.9	14.0	14.3	14.6	13.9	14.2	---	---	---	---	---	---
5	14.7	13.6	14.2	13.9	12.8	13.5	13.5	11.1	12.3	---	---	---
6	14.5	13.5	13.9	12.8	11.3	12.2	15.3	11.7	13.4	11.0	10.1	10.5
7	14.5	13.7	14.0	11.9	10.7	11.3	15.0	11.9	13.4	10.9	9.8	10.3
8	13.9	13.4	13.7	13.1	11.9	12.7	14.5	12.1	13.4	---	---	---
9	14.6	13.8	14.1	13.4	12.8	13.1	16.3	12.2	14.1	---	---	---
10	14.9	13.9	14.3	13.2	12.2	12.9	14.8	11.3	12.8	12.0	9.3	10.5
11	15.3	14.1	14.6	12.2	11.3	11.5	14.9	11.0	12.5	12.1	9.1	10.5
12	15.4	14.1	14.6	12.3	11.3	12.0	11.2	9.4	10.1	12.1	9.0	10.3
13	15.6	14.1	14.6	12.6	12.0	12.3	10.7	10.0	10.4	11.8	8.7	10
14	15.1	13.6	14.3	13.0	12.6	12.8	---	---	---	11.0	9.0	9.8
15	14.0	13.2	13.6	13.3	12.9	13.1	12.5	9.8	11.1	9.2	8.6	8.9
16	15.0	13.7	14.2	12.9	12.3	12.6	11.4	10.4	11.0	8.9	8.2	8.6
17	14.7	13.1	13.8	12.3	11.8	12.1	10.6	9.7	9.9	9.3	8.8	9.0
18	13.6	12.7	13.1	11.8	11.2	11.6	10.9	9.7	10.5	9.3	8.9	9.1
19	13.5	12.8	13.2	11.6	10.8	11.2	11.1	10.5	10.8	9.2	8.8	9.0
20	14.5	13.5	14.0	12.6	11.5	12.0	11.3	10.8	11.0	9.2	8.6	9.0
21	14.2	13.6	13.9	12.6	12.0	12.2	11.0	10.5	10.7	9.5	9.1	9.3
22	14.7	13.7	14.2	13.0	12.5	12.7	11.4	10.4	10.9	9.3	8.8	9.0
23	15.1	14.0	14.5	13.0	12.1	12.5	11.2	11.0	11.1	9.6	9.3	9.4
24	15.3	14.1	14.6	13.4	13.0	13.2	---	---	---	9.4	8.8	9.2
25	14.5	12.8	13.4	13.7	12.9	13.3	---	---	---	8.8	8.3	8.6
26	13.8	12.8	13.4	13.8	12.8	13.3	9.9	9.2	9.6	---	---	---
27	13.4	13.0	13.2	13.7	12.9	13.3	9.4	8.8	9.1	---	---	---
28	13.0	12.4	12.7	13.9	12.8	13.3	9.0	8.3	8.7	8.4	7.6	8.0
29	---	---	---	13.9	12.9	13.4	9.4	8.4	9.0	8.5	7.5	8.0
30	---	---	---	14.0	12.7	13.3	10.3	9.4	9.9	8.4	7.5	7.8
31	---	---	---	13.3	12.3	12.8	---	---	---	8.8	7.3	8.0
Month	15.6	12.4	13.9	14.6	10.7	12.7	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	8.8	7.2	7.9	9.8	7.0	8.3	9.9	6.5	7.9	---	---	---
2	9.1	7.1	8.0	10.0	7.0	8.4	10.1	6.5	8.1	---	---	---
3	9.8	7.6	8.6	8.0	6.9	7.4	10.4	6.5	7.9	9.0	8.4	8.7
4	10.1	8.0	8.9	9.0	7.3	8.0	9.3	6.5	7.7	8.8	8.2	8.5
5	10.6	8.5	9.5	9.7	7.2	8.3	10.5	7.0	8.6	8.7	7.9	8.3
6	10.8	8.6	9.6	9.8	6.7	8.1	10.7	6.8	8.4	8.6	8.0	8.3
7	10.8	8.1	9.4	9.9	6.6	8.0	10.3	6.6	8.1	8.4	7.5	7.6
8	10.6	7.6	9.0	9.4	6.4	7.4	10.2	6.6	8.2	---	---	---
9	10.4	6.9	8.4	8.6	6.7	7.6	9.4	6.4	7.4	---	---	---
10	9.5	6.4	7.8	9.8	7.1	8.2	9.7	6.8	8.0	8.6	7.9	8.4
11	7.7	6.6	7.1	10.0	6.7	8.2	10.9	6.6	8.5	8.9	8.6	8.8
12	9.4	7.2	8.2	9.8	6.2	7.9	11.5	6.6	8.8	9.0	8.8	8.9
13	10.0	7.8	8.8	9.8	6.0	7.8	11.5	6.8	8.8	---	---	---
14	9.6	7.9	8.6	10.5	6.4	8.3	7.8	7.4	7.6	---	---	---
15	10.1	8.0	8.9	10.5	6.6	8.4	8.0	7.6	7.8	---	---	---
16	9.9	7.8	8.8	10.6	6.5	8.5	8.2	7.8	8.0	9.8	8.8	9.4
17	8.3	7.6	8.0	10.5	6.5	8.4	8.6	8.0	8.2	10.0	9.4	9.7
18	9.0	7.6	8.2	10.5	6.6	8.4	8.5	7.7	8.0	10.4	9.7	10.0
19	9.2	7.2	8.1	10.1	6.3	8.1	8.6	7.5	8.0	10.4	9.7	10.0
20	9.3	7.0	8.0	10.2	6.2	8.0	8.4	7.7	8.0	10.1	9.5	9.7
21	9.2	6.9	8.0	9.7	6.4	7.9	8.5	7.5	7.9	10.3	9.5	9.9
22	9.4	6.9	8.0	9.5	6.1	7.6	8.0	7.5	7.8	10.5	9.2	9.7
23	8.0	6.8	7.4	9.3	5.8	7.4	9.0	7.9	8.4	9.4	8.5	8.9
24	8.4	7.2	7.7	8.9	6.0	7.3	9.3	8.1	8.6	8.7	8.2	8.4
25	8.5	7.7	8.1	8.7	6.2	7.1	8.5	7.9	8.2	8.9	8.5	8.7
26	8.8	7.5	8.1	8.8	6.5	7.5	8.9	7.8	8.3	9.2	8.5	8.8
27	9.2	7.6	8.2	9.2	6.6	7.8	---	---	---	9.2	8.5	8.8
28	9.1	7.2	8.0	9.2	6.8	7.9	---	---	---	8.8	7.5	8.1
29	9.3	7.0	8.0	9.1	6.8	7.7	---	---	---	8.4	7.5	7.9
30	9.7	7.0	8.2	9.3	6.7	7.9	---	---	---	8.9	8.4	8.7
31	---	---	---	10.2	6.5	8.1	8.8	8.4	8.6	---	---	---
Month	10.8	6.4	8.3	10.6	5.8	7.9	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
October				November				December				January
1	92	76	82	116	87	101	97	83	90	98	93	95
2	89	77	85	118	90	102	92	83	89	96	92	94
3	95	86	90	119	91	103	94	90	92	97	92	94
4	93	89	90	101	90	93	95	91	93	98	93	95
5	93	90	91	93	88	90	97	92	94	99	93	95
6	99	91	94	102	88	94	96	92	94	99	93	95
7	101	90	94	110	91	98	97	92	94	97	92	94
8	103	88	94	101	91	95	98	92	94	95	91	93
9	105	88	95	113	90	99	99	92	95	99	92	95
10	---	---	---	118	91	101	98	93	95	100	94	97
11	---	---	---	120	89	102	99	94	96	102	95	98
12	101	86	92	122	90	103	96	90	93	99	93	96
13	108	86	95	125	90	105	91	89	90	101	92	96
14	102	86	93	128	91	106	93	89	91	103	94	98
15	103	87	94	128	92	106	95	92	93	104	94	98
16	106	89	96	112	89	99	96	94	94	104	94	98
17	111	89	99	111	83	95	97	94	95	104	94	99
18	110	88	99	107	87	95	97	94	95	98	92	95
19	110	90	99	120	88	100	97	94	95	96	92	93
20	112	89	100	123	89	103	97	94	95	96	92	94
21	113	90	100	127	91	106	97	94	95	97	92	94
22	112	90	100	132	92	108	97	93	95	103	93	97
23	116	91	103	127	90	106	97	93	94	105	94	99
24	118	92	105	128	87	105	98	93	95	108	96	101
25	120	90	105	115	89	100	97	93	95	105	96	99
26	114	88	101	118	89	100	95	92	94	100	92	96
27	101	82	91	121	88	102	93	89	91	99	90	94
28	114	78	93	125	91	106	94	92	93	101	90	95
29	109	79	92	127	93	108	97	93	94	103	91	96
30	113	81	97	115	95	103	97	94	95	105	92	97
31	115	84	99	---	---	---	98	94	95	107	93	99
Month	---	---	---	132	83	101	99	83	94	108	90	96

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	100	93	96	108	99	104	115	101	108	106	95	100
2	97	91	93	109	101	105	---	---	---	103	96	99
3	98	92	95	111	101	106	---	---	---	109	98	103
4	103	96	99	113	105	108	---	---	---	---	---	---
5	102	94	98	112	105	108	124	102	112	---	---	---
6	101	93	96	106	98	103	135	102	118	110	97	103
7	101	95	97	99	91	95	132	104	117	111	96	104
8	97	93	95	107	98	103	124	104	115	---	---	---
9	102	95	98	107	103	105	146	102	122	---	---	---
10	105	96	100	105	101	104	137	102	117	128	95	110
11	109	97	102	101	96	97	146	101	119	131	94	110
12	109	97	101	104	96	101	110	94	100	133	94	111
13	111	98	102	104	100	102	97	92	94	127	92	106
14	112	96	102	106	103	105	---	---	---	115	94	102
15	102	93	98	109	103	106	---	---	---	95	88	91
16	111	97	103	107	103	105	105	94	98	91	84	87
17	115	98	105	108	102	105	94	87	89	93	88	91
18	107	95	101	108	100	104	100	89	96	94	91	92
19	103	98	100	108	99	104	100	95	98	95	89	92
20	108	99	104	112	101	106	103	97	99	94	88	92
21	107	101	104	107	101	104	105	96	100	99	92	95
22	112	101	106	111	102	106	103	96	100	96	91	93
23	115	102	108	107	101	103	101	97	99	97	94	95
24	114	103	108	108	101	104	---	---	---	98	93	95
25	108	97	101	111	102	106	---	---	---	97	91	93
26	106	97	102	112	102	107	102	93	97	---	---	---
27	107	101	104	113	103	108	100	92	95	---	---	---
28	105	100	102	114	102	108	96	88	91	99	87	93
29	---	---	---	116	103	110	95	86	92	101	87	94
30	---	---	---	118	104	111	103	93	98	101	88	93
31	---	---	---	112	103	107	---	---	---	108	86	96
Month	115	91	101	118	91	105	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	109	87	96	122	82	101	132	82	102	---	---	---
2	111	85	97	126	83	103	134	82	105	---	---	---
3	116	88	100	97	82	89	136	81	100	103	93	98
4	115	89	100	111	87	96	117	80	96	103	93	98
5	119	92	105	124	85	102	134	84	106	102	92	96
6	125	94	108	126	81	101	138	83	105	95	90	93
7	129	91	108	128	80	101	133	81	103	90	80	82
8	131	88	107	121	79	93	134	82	105	---	---	---
9	133	84	104	108	82	93	120	80	93	---	---	---
10	120	78	97	126	86	103	123	82	99	96	88	93
11	92	80	86	131	82	103	140	80	106	98	94	96
12	109	84	95	130	78	102	147	79	109	101	96	98
13	117	88	102	128	75	99	145	81	108	---	---	---
14	111	89	98	136	77	104	93	85	88	---	---	---
15	116	88	101	135	79	105	92	86	89	---	---	---
16	116	88	101	137	79	106	94	88	91	104	95	99
17	96	86	91	137	79	106	102	90	95	104	97	101
18	106	86	95	138	81	107	102	90	95	107	98	102
19	111	83	96	134	79	105	105	88	95	108	98	103
20	114	82	96	137	78	105	101	89	94	105	98	101
21	112	81	96	131	82	104	103	89	94	108	98	102
22	115	81	95	131	79	102	94	86	91	114	97	104
23	96	81	89	128	77	100	105	90	97	102	94	98
24	98	84	90	119	79	96	109	92	100	95	90	92
25	100	87	94	113	79	91	98	92	95	99	93	95
26	105	87	95	113	81	94	106	89	97	103	93	98
27	113	88	98	119	82	98	---	---	---	103	94	98
28	113	85	97	117	84	99	---	---	---	98	83	90
29	117	84	98	116	83	96	---	---	---	92	83	87
30	122	83	100	121	83	100	---	---	---	96	90	93
31	---	---	---	136	81	104	100	93	96	---	---	---
Month	133	78	98	138	75	100	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median	
October				November				December				January	
1	7.6	7.0	7.1	8.5	7.9	8.2	8.1	7.3	7.8	7.9	7.8	7.8	
2	7.2	7.1	7.2	8.6	8.0	8.2	7.4	7.3	7.4	7.9	7.8	7.8	
3	7.5	7.2	7.4	8.6	8.0	8.3	7.5	7.4	7.4	8.0	7.8	7.9	
4	7.5	7.4	7.4	8.3	7.8	7.9	7.6	7.5	7.6	7.9	7.7	7.9	
5	7.6	7.5	7.5	7.9	7.8	7.8	7.7	7.6	7.6	7.9	7.7	7.8	
6	7.7	7.6	7.6	8.0	7.8	7.8	7.7	7.7	7.7	7.8	7.7	7.8	
7	7.7	7.6	7.6	8.2	7.8	7.9	7.8	7.7	7.7	7.8	7.7	7.8	
8	7.7	7.5	7.6	8.1	7.8	7.9	7.8	7.7	7.8	7.8	7.6	7.7	
9	7.8	7.5	7.6	8.4	7.8	8.0	7.8	7.7	7.8	7.8	7.7	7.7	
10	---	---	---	8.5	7.8	8.0	7.8	7.5	7.8	7.9	7.8	7.8	
11	---	---	---	8.6	7.8	8.0	7.8	7.8	7.8	8.0	7.7	7.8	
12	7.8	7.5	7.7	8.7	7.9	8.1	7.8	7.5	7.7	7.9	7.7	7.8	
13	7.9	7.6	7.7	8.7	7.9	8.2	7.6	7.5	7.5	7.8	7.7	7.8	
14	7.8	7.6	7.7	8.9	7.9	8.3	7.6	7.5	7.6	7.8	7.7	7.7	
15	8.0	7.6	7.9	8.9	7.9	8.3	7.6	7.6	7.6	7.9	7.7	7.8	
16	8.1	7.8	7.9	8.5	7.9	8.1	7.7	7.6	7.6	8.0	7.7	7.8	
17	8.1	7.8	7.9	8.5	7.7	8.0	7.7	7.6	7.7	8.1	7.7	7.8	
18	8.2	7.8	8.0	8.1	7.7	7.9	7.7	7.7	7.7	7.8	7.6	7.7	
19	8.2	7.8	8.0	8.6	7.7	7.9	7.8	7.7	7.7	7.6	7.5	7.6	
20	8.3	7.8	8.1	8.8	7.7	8.1	7.8	7.7	7.8	7.6	7.5	7.5	
21	8.3	7.9	8.1	8.9	7.7	8.1	7.8	7.7	7.8	7.6	7.5	7.6	
22	8.4	8.0	8.2	8.9	7.8	8.2	7.9	7.8	7.8	7.8	7.6	7.6	
23	8.4	8.0	8.3	8.9	7.7	8.2	7.9	7.7	7.8	7.7	7.6	7.6	
24	8.5	8.0	8.3	9.0	7.8	8.4	7.9	7.8	7.9	7.8	7.6	7.7	
25	8.5	7.9	8.3	8.7	7.8	8.2	7.9	7.8	7.8	7.8	7.6	7.6	
26	8.3	7.9	8.2	8.8	7.8	8.2	7.9	7.8	7.8	7.6	7.4	7.5	
27	8.0	7.7	7.8	9.0	7.9	8.4	7.9	7.7	7.8	7.6	7.4	7.5	
28	8.2	7.6	7.8	9.0	8.0	8.6	7.9	7.8	7.9	7.7	7.5	7.5	
29	8.2	7.6	7.9	9.1	8.1	8.6	7.9	7.9	7.9	7.8	7.5	7.6	
30	8.3	7.7	8.0	8.8	8.1	8.4	7.9	7.8	7.8	7.8	7.5	7.6	
31	8.4	7.8	8.1	---	---	---	7.9	7.8	7.8	7.9	7.5	7.6	
Max	---	---	---	9.1	8.1	8.6	8.1	7.9	7.9	8.1	7.8	7.9	
Min	---	---	---	7.9	7.7	7.8	7.4	7.3	7.4	7.6	7.4	7.5	

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
February				March				April				May
1	7.6	7.5	7.5	7.5	7.4	7.4	8.5	7.8	8.0	7.8	7.7	7.8
2	7.5	7.4	7.4	7.6	7.4	7.5	---	---	---	7.9	7.8	7.8
3	7.4	7.3	7.3	7.6	7.6	7.6	---	---	---	8.0	7.8	7.9
4	7.4	7.3	7.3	7.6	7.6	7.6	---	---	---	---	---	---
5	7.5	7.3	7.4	7.7	7.6	7.6	9.0	8.3	8.7	---	---	---
6	7.5	7.3	7.4	7.7	7.3	7.6	9.0	8.4	8.8	8.3	7.9	8.2
7	7.4	7.3	7.4	7.3	7.1	7.1	9.0	8.6	8.9	8.4	8.3	8.3
8	7.4	7.3	7.4	7.4	7.2	7.3	9.0	8.6	8.7	---	---	---
9	7.5	7.4	7.4	7.5	7.4	7.4	9.1	8.2	8.7	---	---	---
10	7.6	7.4	7.5	7.5	7.3	7.4	9.0	8.7	8.9	8.9	8.7	8.9
11	7.6	7.5	7.6	7.3	7.1	7.1	9.1	8.7	8.8	9.0	8.7	8.9
12	7.7	7.4	7.6	7.4	7.2	7.3	8.8	7.9	8.5	9.1	8.7	8.9
13	7.8	7.5	7.6	7.4	7.4	7.4	7.9	7.3	7.4	9.1	8.6	8.9
14	7.8	7.5	7.6	7.5	7.4	7.4	---	---	---	9.0	8.2	8.7
15	7.6	7.4	7.5	7.5	7.5	7.5	8.4	7.6	8.0	8.2	7.6	7.9
16	7.7	7.4	7.5	7.5	7.4	7.5	8.4	7.4	7.8	7.6	7.4	7.5
17	7.9	7.6	7.7	7.5	7.4	7.4	7.4	7.1	7.2	7.6	7.5	7.6
18	7.6	7.3	7.5	7.6	7.5	7.5	7.5	7.2	7.4	7.6	7.4	7.6
19	7.6	7.3	7.4	7.7	7.5	7.6	7.6	7.5	7.5	7.5	7.4	7.5
20	7.6	7.4	7.5	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.4	7.5
21	7.6	7.5	7.5	7.7	7.6	7.6	7.8	7.6	7.7	7.6	7.5	7.5
22	7.7	7.6	7.6	7.7	7.6	7.6	7.8	7.7	7.7	7.6	7.5	7.6
23	7.8	7.6	7.7	7.7	7.6	7.6	7.8	7.5	7.7	7.7	7.6	7.6
24	7.8	7.7	7.7	7.6	7.4	7.5	---	---	---	7.7	7.4	7.6
25	7.8	7.2	7.5	7.7	7.5	7.6	---	---	---	7.5	7.4	7.4
26	7.4	7.2	7.3	7.8	7.6	7.6	7.6	7.5	7.5	---	---	---
27	7.5	7.4	7.4	7.8	7.6	7.7	7.7	7.6	7.6	---	---	---
28	7.5	7.4	7.4	7.9	7.7	7.8	7.6	7.3	7.6	7.7	7.6	7.6
29	---	---	---	8.0	7.7	7.9	7.6	7.4	7.5	7.8	7.6	7.7
30	---	---	---	8.2	7.8	8.0	7.8	7.6	7.7	7.7	7.6	7.6
31	---	---	---	8.3	7.8	7.9	---	---	---	7.9	7.6	7.7
Max	7.9	7.7	7.7	8.3	7.8	8.0	---	---	---	---	---	---
Min	7.4	7.2	7.3	7.3	7.1	7.1	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
				June			July			August		
1	8.0	7.7	7.8	8.6	7.8	8.1	8.6	7.6	8.0	---	---	---
2	8.2	7.7	7.9	8.6	7.8	8.2	8.7	7.7	8.2	---	---	---
3	8.5	7.8	8.1	8.2	7.7	7.9	8.7	7.7	8.0	7.6	7.5	7.5
4	8.7	7.9	8.2	8.1	7.8	7.9	8.4	7.6	7.9	7.6	7.5	7.6
5	8.7	8.0	8.3	8.6	7.8	8.1	8.7	7.6	8.2	7.7	7.5	7.6
6	8.9	8.1	8.5	8.6	7.7	8.0	8.7	7.8	8.2	7.6	7.2	7.5
7	9.0	8.2	8.6	8.6	7.7	8.1	8.7	7.7	8.1	7.2	6.9	7.0
8	9.0	8.2	8.7	8.5	7.5	7.8	8.7	7.8	8.2	---	---	---
9	9.0	7.9	8.4	8.0	7.6	7.8	8.5	7.4	7.8	---	---	---
10	8.7	7.8	8.4	8.5	7.8	8.1	8.3	7.5	7.8	7.3	7.1	7.2
11	8.1	7.7	8.0	8.6	7.6	8.1	8.5	7.5	7.9	7.4	7.3	7.4
12	8.0	7.7	7.8	8.6	7.7	8.1	8.6	7.5	8.1	7.5	7.4	7.4
13	8.3	7.9	8.0	8.6	7.6	8.1	8.6	7.7	8.2	---	---	---
14	8.3	7.9	8.0	8.7	7.8	8.2	8.0	7.2	7.3	---	---	---
15	8.2	7.8	7.9	8.7	7.8	8.3	7.3	7.1	7.2	---	---	---
16	8.3	7.8	8.0	8.8	7.9	8.4	7.3	7.2	7.3	7.6	7.5	7.6
17	7.9	7.6	7.6	8.9	8.0	8.4	7.6	7.2	7.4	7.6	7.5	7.6
18	7.9	7.6	7.6	8.9	7.9	8.5	7.7	7.5	7.5	7.7	7.6	7.6
19	8.0	7.5	7.6	8.8	7.8	8.4	7.8	7.5	7.6	7.8	7.6	7.7
20	8.0	7.5	7.7	8.8	7.8	8.4	7.8	7.5	7.6	7.8	7.6	7.7
21	8.0	7.5	7.7	8.6	7.9	8.3	7.7	7.5	7.5	7.8	7.6	7.7
22	8.1	7.6	7.7	8.6	7.7	8.0	7.6	7.3	7.4	8.0	7.6	7.7
23	7.9	7.6	7.8	8.5	7.6	7.9	7.8	7.5	7.6	7.9	7.4	7.6
24	8.0	7.7	7.8	8.3	7.5	7.8	7.9	7.6	7.7	7.5	7.2	7.3
25	7.9	7.7	7.8	8.2	7.5	7.6	7.8	7.6	7.7	7.5	7.3	7.4
26	8.0	7.7	7.8	8.0	7.5	7.7	7.8	7.5	7.6	7.6	7.4	7.5
27	8.2	7.7	7.9	8.3	7.6	7.8	---	---	---	7.7	7.5	7.6
28	8.2	7.7	7.9	8.3	7.6	7.8	---	---	---	7.6	7.0	7.4
29	8.4	7.7	7.9	8.2	7.5	7.7	---	---	---	7.3	7.0	7.1
30	8.6	7.7	8.1	8.4	7.6	7.8	---	---	---	7.4	7.3	7.3
31	---	---	---	8.6	7.5	7.9	7.4	7.3	7.4	---	---	---
Max	9.0	8.2	8.7	8.9	8.0	8.5	---	---	---	---	---	---
Min	7.9	7.5	7.6	8.0	7.5	7.6	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
October				November				December				January
1	299	139	180	400	395	397	385	163	284	448	415	425
2	218	161	183	401	395	397	198	167	186	615	448	535
3	265	218	245	395	378	389	246	198	224	578	466	503
4	290	265	277	378	258	329	273	246	262	479	449	460
5	320	290	300	339	298	316	290	273	283	470	448	461
6	321	314	318	326	300	313	304	290	296	481	455	467
7	330	320	325	340	326	333	317	304	309	901	459	543
8	338	330	333	345	337	342	326	317	320	673	562	604
9	348	338	342	355	345	350	340	326	331	619	569	590
10	---	---	---	366	355	361	349	340	347	641	593	620
11	---	---	---	373	366	371	361	349	357	593	542	569
12	400	347	367	378	373	375	357	220	293	768	541	590
13	366	359	363	382	376	378	223	200	210	613	567	578
14	359	317	349	383	380	381	244	218	229	582	565	572
15	366	353	358	383	380	382	277	244	260	582	560	572
16	371	364	367	380	306	371	300	277	290	563	502	524
17	368	364	366	379	267	361	316	300	309	503	460	478
18	377	365	372	362	329	338	328	316	321	1,960	467	1,170
19	385	353	375	340	327	331	337	328	332	1,510	1,100	1,350
20	382	377	378	345	340	343	345	337	341	1,370	914	1,120
21	385	382	383	347	342	345	355	344	351	972	860	918
22	388	383	385	355	345	350	359	350	355	1,020	871	931
23	394	388	390	369	355	363	361	353	357	936	908	919
24	396	394	395	370	365	368	364	358	361	908	830	863
25	396	393	395	376	366	371	368	362	365	830	734	780
26	393	386	389	381	375	378	381	365	374	831	685	733
27	390	346	377	380	376	378	382	369	376	970	781	886
28	392	381	385	379	375	378	463	381	395	944	901	922
29	388	382	385	380	374	377	433	402	413	991	913	958
30	390	386	387	382	363	378	415	400	408	915	836	865
31	395	389	390	---	---	---	438	401	416	846	787	812
Month	---	---	---	401	258	361	463	163	321	1,960	415	720

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	893	787	820	334	322	330	373	341	354	288	278	285
2	3,190	892	1,930	348	334	340	---	---	---	296	288	293
3	1,930	1,380	1,690	361	348	356	---	---	---	306	296	301
4	1,380	1,070	1,220	365	361	363	---	---	---	---	---	---
5	1,230	994	1,070	366	362	365	360	343	348	---	---	---
6	1,200	1,070	1,130	407	235	363	354	345	350	300	291	296
7	1,070	920	987	235	167	185	355	346	352	313	299	307
8	921	811	884	269	204	243	365	345	349	---	---	---
9	811	738	766	290	269	280	365	344	351	---	---	---
10	742	691	713	331	216	292	347	340	344	325	317	322
11	726	683	695	216	158	180	350	346	348	327	320	324
12	706	646	676	259	194	232	409	348	374	331	324	327
13	657	623	638	276	259	268	369	215	253	333	328	330
14	722	599	629	291	275	283	---	---	---	336	329	332
15	655	481	522	298	291	294	306	289	301	339	270	316
16	518	483	498	324	266	297	336	182	305	270	181	243
17	538	416	501	286	265	278	182	114	145	278	242	265
18	416	269	348	301	286	294	248	182	223	280	212	259
19	344	258	298	309	301	305	266	248	258	230	203	218
20	368	344	358	314	309	312	276	266	272	236	190	216
21	451	368	399	366	314	333	286	275	282	258	228	242
22	519	451	500	385	344	365	296	286	292	268	252	258
23	504	465	476	644	342	477	318	231	287	282	268	276
24	482	458	463	590	455	483	---	---	---	284	217	263
25	683	271	432	455	389	407	---	---	---	258	210	229
26	334	274	315	399	381	391	278	250	268	---	---	---
27	359	334	347	381	364	373	300	278	286	---	---	---
28	406	328	369	369	358	364	303	206	269	308	299	303
29	---	---	---	359	348	353	245	207	228	315	308	311
30	---	---	---	348	343	346	278	245	262	337	287	319
31	---	---	---	344	340	343	---	---	---	320	312	315
Month	3,190	258	703	644	158	326	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
				June			July			August		
1	321	314	318	360	356	358	335	313	321	---	---	---
2	332	318	324	368	360	363	334	303	314	---	---	---
3	336	328	332	377	256	354	307	231	300	294	285	291
4	341	329	334	365	323	342	325	293	311	301	294	299
5	345	337	341	344	325	332	318	310	313	305	301	303
6	349	341	344	359	344	351	326	317	319	313	140	260
7	351	343	347	367	359	364	338	311	328	155	111	130
8	353	344	348	371	235	344	338	334	336	---	---	---
9	372	283	348	362	328	346	336	107	289	---	---	---
10	376	347	357	335	326	330	314	302	310	227	198	215
11	356	265	338	348	327	336	323	313	315	245	227	236
12	347	343	345	360	348	356	333	323	329	258	245	251
13	343	335	340	366	360	362	341	333	338	---	---	---
14	361	319	334	380	365	375	340	178	214	---	---	---
15	352	333	340	378	374	375	219	178	199	---	---	---
16	333	326	330	383	377	380	232	197	212	282	279	281
17	329	249	306	384	367	377	235	210	222	283	280	282
18	297	283	290	367	346	355	277	235	254	286	282	284
19	299	297	298	348	332	340	305	250	281	287	284	285
20	325	299	310	343	329	335	309	235	264	289	285	287
21	340	325	332	336	309	328	285	228	251	289	288	289
22	350	340	343	309	270	285	273	179	213	292	281	290
23	360	265	347	270	262	267	264	226	251	295	263	280
24	356	321	347	288	268	280	277	258	267	270	173	203
25	321	277	287	307	257	281	296	250	282	248	207	225
26	296	276	282	300	275	288	276	255	265	276	248	267
27	320	296	309	287	268	280	---	---	---	281	273	277
28	334	320	326	271	263	267	---	---	---	285	119	208
29	347	334	339	293	232	276	---	---	---	193	129	156
30	356	347	350	297	279	288	---	---	---	210	182	193
31	---	---	---	313	297	304	242	223	232	---	---	---
Month	376	249	330	384	232	330	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	
October				November				December				January	
1	21.9	18.3	19.7	11.8	9.7	10.6	11.2	6.0	9.1	0.5	-0.1	0.1	
2	18.3	16.9	17.5	11.0	8.7	9.6	9.7	7.1	8.1	0.6	0.0	0.3	
3	17.4	16.0	16.5	10.2	7.8	8.9	7.1	5.6	6.3	0.5	-0.2	0.1	
4	16.0	14.9	15.5	9.9	9.0	9.5	5.6	4.2	4.8	0.9	-0.2	0.2	
5	14.9	14.7	14.8	10.3	9.2	9.8	4.2	2.8	3.6	0.9	0.0	0.2	
6	15.9	14.5	15.1	10.0	8.8	9.5	2.8	2.0	2.5	0.9	0.0	0.2	
7	16.8	14.7	15.6	9.6	7.9	8.6	2.6	1.7	2.1	0.5	0.0	0.1	
8	19.1	14.8	16.1	7.9	7.1	7.6	2.4	1.2	1.8	0.3	-0.1	0.1	
9	18.4	15.1	16.5	9.0	6.6	7.7	1.6	0.2	0.8	0.4	-0.2	0.0	
10	---	---	---	10.1	7.8	8.8	0.6	0.2	0.4	0.5	-0.2	0.0	
11	---	---	---	10.1	7.9	8.8	1.0	0.1	0.6	0.5	-0.2	0.0	
12	17.8	16.2	16.9	9.5	7.1	8.2	4.7	0.9	3.0	0.4	-0.1	0.1	
13	17.8	15.0	16.2	9.3	6.7	7.9	5.2	4.2	4.9	0.5	-0.1	0.1	
14	15.4	13.9	14.8	9.1	6.7	7.9	4.2	1.0	2.5	0.7	-0.1	0.1	
15	14.5	13.2	13.8	9.6	8.2	8.9	1.0	0.3	0.6	0.5	-0.1	0.1	
16	13.9	12.6	13.1	11.3	9.3	9.9	0.6	0.2	0.4	0.4	-0.1	0.0	
17	14.8	11.6	13.1	12.6	11.0	11.5	0.9	0.2	0.4	0.3	-0.2	0.0	
18	13.6	11.6	12.7	11.0	9.6	10.3	0.8	0.2	0.4	0.1	-0.1	0.0	
19	14.2	12.2	12.9	9.9	7.9	9.1	0.7	0.2	0.3	0.2	-0.2	0.0	
20	13.3	11.5	12.4	8.7	7.0	7.7	0.7	0.1	0.3	0.3	0.0	0.1	
21	14.1	11.8	12.5	8.0	6.3	7.1	0.7	0.1	0.3	0.4	-0.1	0.1	
22	13.1	10.9	11.8	8.9	6.8	7.7	1.0	0.1	0.4	0.5	-0.1	0.1	
23	12.9	9.9	11.4	9.1	7.3	8.2	0.7	0.1	0.3	0.7	-0.1	0.1	
24	13.2	11.1	12.2	8.7	7.1	7.8	1.0	0.1	0.4	0.5	-0.1	0.0	
25	14.6	11.7	13.2	7.2	6.6	6.9	0.5	0.0	0.2	0.5	-0.1	0.1	
26	16.0	13.9	15.0	7.3	5.9	6.8	0.2	-0.1	0.1	0.3	0.0	0.1	
27	18.0	15.9	16.9	6.2	4.9	5.5	-0.1	-0.3	-0.2	0.4	-0.1	0.1	
28	18.5	16.2	17.1	5.8	3.9	4.7	0.0	-0.2	-0.1	0.3	-0.1	0.1	
29	16.2	13.3	15.0	5.2	3.1	4.1	0.4	-0.2	0.1	0.3	0.0	0.1	
30	13.8	12.2	12.9	6.0	3.9	4.9	0.5	-0.1	0.0	0.4	0.0	0.1	
31	12.9	10.9	11.7	---	---	---	0.4	-0.1	0.0	0.5	-0.2	0.1	
Month	---	---	---	12.6	3.1	8.2	11.2	-0.3	1.8	0.9	-0.2	0.1	

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	0.2	0.0	0.1	6.2	5.3	5.7	7.1	6.4	6.8	15.6	14.3	15.1
2	0.3	-0.1	0.1	5.7	4.6	5.1	---	---	---	15.5	14.4	14.9
3	0.3	-0.1	0.0	5.0	3.6	4.1	---	---	---	17.2	14.7	15.8
4	0.4	0.1	0.2	4.6	3.1	3.9	---	---	---	---	---	---
5	0.3	0.1	0.2	7.2	4.6	5.8	11.5	10.3	11.1	---	---	---
6	0.7	0.2	0.4	9.3	7.2	8.2	10.3	8.9	9.6	15.2	13.6	14.5
7	0.7	0.4	0.5	9.1	7.0	7.9	9.8	9.3	9.6	16.3	14.5	15.3
8	0.8	0.1	0.5	7.0	5.5	6.2	9.3	8.1	8.6	---	---	---
9	0.7	0.2	0.3	6.6	5.5	5.8	10.6	7.6	9.1	---	---	---
10	1.1	0.3	0.5	7.1	5.6	6.0	11.9	10.6	11.2	18.4	16.5	17.3
11	1.3	0.3	0.5	8.7	7.1	8.1	14.6	11.3	12.8	19.0	16.8	17.7
12	1.1	0.3	0.5	8.2	7.1	7.7	15.2	13.3	14.8	19.8	17.5	18.5
13	1.4	0.3	0.7	8.1	7.0	7.3	13.3	10.1	10.8	18.6	17.4	18.1
14	2.8	0.5	1.5	7.0	6.3	6.6	---	---	---	17.4	16.7	17.2
15	2.2	0.9	1.6	7.2	5.7	6.4	12.7	11.7	12.2	17.0	16.1	16.4
16	2.9	1.0	2.0	8.1	6.9	7.4	11.7	9.7	10.4	16.7	15.7	16.2
17	5.0	2.8	3.9	10.2	8.1	9.0	11.7	10.0	10.9	15.7	15.3	15.4
18	5.4	3.3	4.2	12.0	9.6	10.6	11.7	10.6	11.2	16.2	15.2	15.6
19	4.6	3.5	4.0	12.0	11.0	11.6	11.7	10.4	10.9	17.1	15.7	16.3
20	3.5	2.2	2.9	11.0	9.0	9.7	11.6	10.0	10.6	17.1	16.0	16.4
21	3.3	3.0	3.2	9.4	7.0	8.1	13.0	11.3	12.1	17.7	15.5	16.6
22	3.7	2.4	3.1	8.3	6.5	7.3	12.7	10.5	11.4	17.7	16.3	17.1
23	3.7	2.2	2.9	8.3	5.2	6.8	10.5	9.7	10	16.3	15.6	15.8
24	3.1	2.3	2.8	6.1	4.4	5.1	---	---	---	17.9	15.9	16.7
25	3.9	3.1	3.6	6.5	5.0	5.8	---	---	---	20.5	17.8	19.1
26	4.6	3.1	3.8	6.5	5.3	6.1	17.5	15.0	16.0	---	---	---
27	6.0	4.5	5.2	6.9	5.5	6.3	18.2	17.3	17.7	---	---	---
28	6.2	5.7	5.9	6.8	5.5	6.3	18.1	17.4	17.8	23.6	22.0	22.8
29	---	---	---	7.4	5.7	6.6	17.4	15.6	16.2	24.0	22.5	23.2
30	---	---	---	7.9	6.6	7.4	15.6	14.1	14.9	24.6	22.9	23.8
31	---	---	---	7.9	7.1	7.6	---	---	---	25.7	23.5	24.5
Month	6.2	-0.1	2.0	12.0	3.1	7.0	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	26.2	24.4	25.3	26.6	23.2	24.9	30.3	26.8	28.4	---	---	---
2	25.4	23.1	24.6	27.2	23.5	25.4	29.8	26.7	28.1	---	---	---
3	23.6	21.4	22.6	25.8	23.7	24.6	29.2	25.8	27.4	21.8	20.3	21.1
4	21.8	19.8	20.9	25.7	23.5	24.5	26.9	25.5	26.2	22.9	21.4	22.2
5	20.9	19.2	20.0	27.8	23.8	25.7	27.9	24.5	26.2	22.9	22.5	22.7
6	22.4	19.3	20.8	28.0	24.6	26.3	28.2	25.4	26.7	22.6	18.8	20.8
7	24.1	20.8	22.4	28.8	25.1	26.9	28.7	25.7	27.1	19.2	18.4	18.7
8	26.1	22.2	24.1	28.0	25.1	26.4	29.2	26.5	27.8	---	---	---
9	27.9	24.2	25.9	26.6	24.4	25.5	27.8	25.0	26.5	---	---	---
10	27.3	25.1	26.1	28.3	24.6	26.3	27.3	24.8	26.0	20.5	20.1	20.3
11	25.7	22.7	24.4	29.1	25.1	27.1	27.9	24.5	26.1	20.2	19.6	19.8
12	22.7	21.6	22.2	29.9	26.5	28.2	27.7	23.8	25.8	20.7	19.3	19.9
13	23.0	21.4	22.1	29.0	26.7	27.8	26.9	24.0	25.5	---	---	---
14	22.4	20.7	21.5	28.4	24.6	26.5	25.5	21.4	22.7	---	---	---
15	22.1	19.9	21.0	28.0	24.1	26.1	22.0	21.0	21.4	---	---	---
16	23.2	21.2	22.1	28.3	24.7	26.6	22.0	21.2	21.6	19.3	17.5	18.1
17	22.2	21.1	21.7	28.9	25.0	27.0	23.6	21.2	22.4	17.8	16.6	17.0
18	23.5	21.3	22.4	29.4	25.7	27.6	24.3	22.8	23.5	16.7	15.6	16.2
19	24.8	22.5	23.6	30.1	26.7	28.5	25.5	23.2	24.2	17.2	15.7	16.5
20	25.6	22.9	24.0	30.8	27.2	29.0	24.5	22.6	23.7	17.1	16.6	16.9
21	25.3	23.2	24.2	30.9	28.1	29.4	25.0	23.5	24.1	17.6	16.6	17.1
22	25.5	23.3	24.3	32.1	28.6	30.3	23.8	22.0	22.9	19.4	17.6	18.5
23	24.5	23.3	24.1	32.1	29.8	30.8	23.1	21.5	22.3	20.1	19.2	19.5
24	23.3	22.3	22.7	30.4	28.7	29.6	23.3	21.5	22.4	19.7	19.4	19.6
25	23.5	21.5	22.5	28.7	26.2	27.7	22.7	22.3	22.5	20.2	19.4	19.8
26	24.1	22.4	23.2	27.9	25.7	26.7	24.1	21.8	22.9	20.8	19.7	20.3
27	25.4	22.4	23.8	28.4	26.2	27.1	---	---	---	20.8	19.9	20.4
28	26.2	23.6	24.9	27.7	25.8	26.6	---	---	---	20.5	19.8	20.1
29	27.0	24.3	25.5	27.7	25.5	26.5	---	---	---	20.1	19.6	19.9
30	27.1	23.8	25.3	29.0	26.0	27.5	---	---	---	19.6	18.5	18.9
31	---	---	---	30.1	26.2	28.1	21.6	20.0	20.9	---	---	---
Month	27.9	19.2	23.3	32.1	23.2	27.1	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

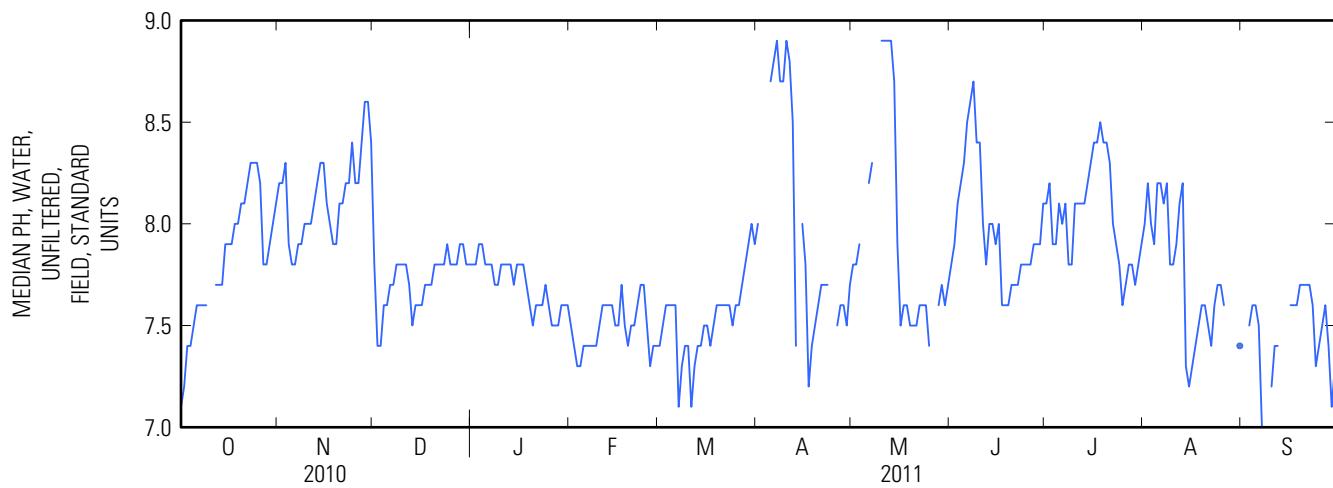
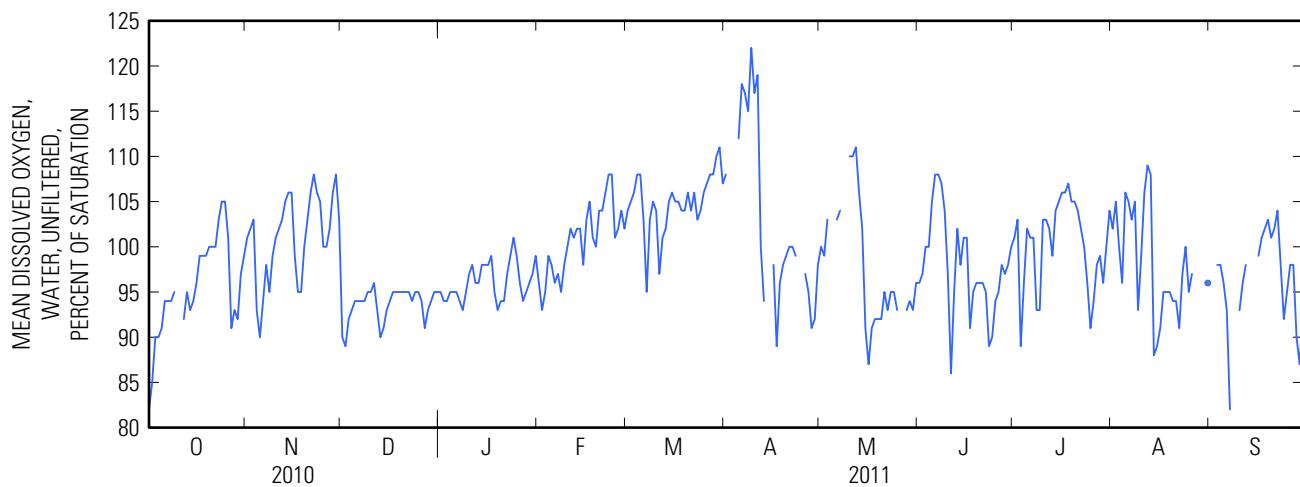
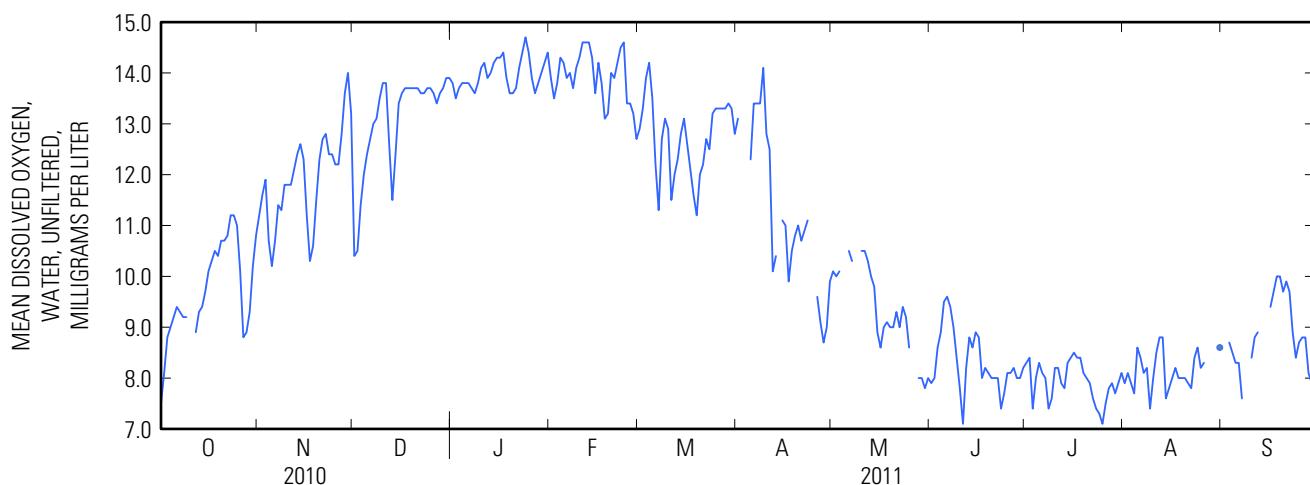
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	
October				November				December				January	
1	340	11	130	3.0	1.4	1.9	240	2.3	98	5.9	2.5	3.6	
2	60	14	35	2.9	1.5	1.8	120	24	54	9.0	3.5	5.2	
3	14	5.8	8.4	7.6	1.6	2.2	24	10	16	5.8	3.6	4.5	
4	9.6	4.4	5.7	95	1.8	25	11	6.3	8.2	6.0	3.2	4.0	
5	25	4.5	8.2	19	8.7	14	13	5.2	6.0	5.4	2.9	3.7	
6	7.7	4.9	5.9	8.7	4.1	5.8	7.8	4.5	5.3	5.5	2.6	3.3	
7	5.3	3.1	4.1	6.2	2.4	3.3	6.4	3.9	4.4	9.8	2.5	3.7	
8	4.1	2.7	3.5	3.8	2.2	2.6	6.3	3.6	4.3	3.9	2.2	2.7	
9	3.8	2.2	3.0	3.8	1.8	2.2	8.6	3.4	5.2	3.5	2.2	2.5	
10	---	---	---	3.0	1.6	1.9	4.7	3.1	3.4	3.2	2.1	2.5	
11	---	---	---	4.5	1.6	2.0	55	2.8	4.7	3.5	2.1	2.5	
12	20	4.1	7.5	4.5	1.5	2.2	78	2.8	39	3.5	2.2	2.8	
13	6.7	2.0	3.1	3.0	1.6	1.9	54	22	37	3.0	2.0	2.2	
14	40	1.9	7.6	3.2	1.5	1.8	22	12	16	2.5	1.9	2.0	
15	8.9	3.3	4.8	2.3	1.5	1.7	12	7.1	9.7	2.1	1.9	2.0	
16	5.1	2.3	3.0	130	1.6	7.5	9.8	5.4	6.5	2.6	1.7	1.9	
17	3.9	1.8	2.6	230	6.5	18	5.6	4.4	4.8	2.7	1.8	1.9	
18	3.8	1.7	2.3	9.0	4.4	6.2	6.8	4.0	4.6	97	1.8	26	
19	11	2.1	4.5	9.9	2.6	3.8	10	3.6	4.9	31	6.4	13	
20	2.8	1.7	2.2	6.9	2.2	2.7	6.1	3.4	4.1	12	9.6	11	
21	2.6	1.6	2.0	3.5	2.0	2.2	7.0	3.3	4.2	9.9	5.4	7.5	
22	3.0	1.6	2.0	3.5	1.8	2.1	7.6	3.3	4.5	5.5	3.6	4.5	
23	3.0	1.6	2.1	2.8	1.7	1.9	9.2	3.2	4.7	3.7	2.9	3.3	
24	2.9	1.6	1.9	5.1	1.9	2.4	6.5	2.9	3.7	3.3	2.3	2.6	
25	3.3	1.5	2.0	3.4	1.9	2.2	5.1	2.5	3.0	2.4	2.0	2.2	
26	5.2	1.5	2.2	3.2	2.2	2.7	3.4	2.4	2.9	3.2	1.7	2.2	
27	94	1.7	8.4	3.2	2.0	2.3	4.8	2.8	3.5	3.8	1.9	2.2	
28	5.1	1.5	2.8	4.0	2.0	2.4	5.1	2.9	3.6	2.5	1.8	2.0	
29	3.6	1.5	2.1	5.2	2.0	2.6	4.1	2.7	3.3	4.2	1.6	2.1	
30	3.6	1.5	1.8	4.8	2.0	2.7	5.6	2.7	3.3	7.0	1.4	2.6	
31	2.8	1.4	1.7	---	---	---	4.5	2.5	3.0	19	1.4	3.6	
Month	---	---	---	230	1.4	4.4	240	2.3	12	97	1.4	4.4	

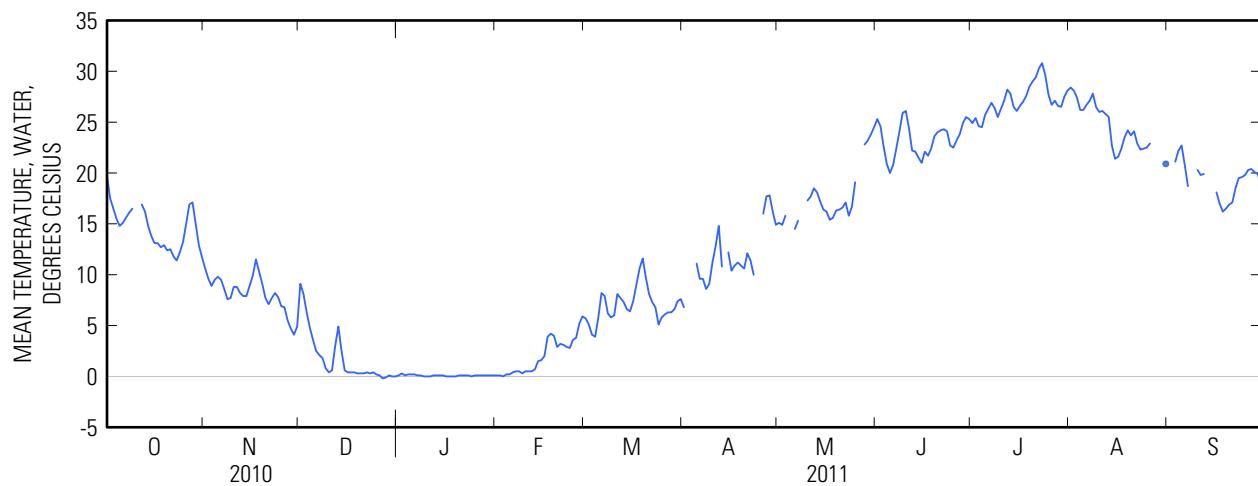
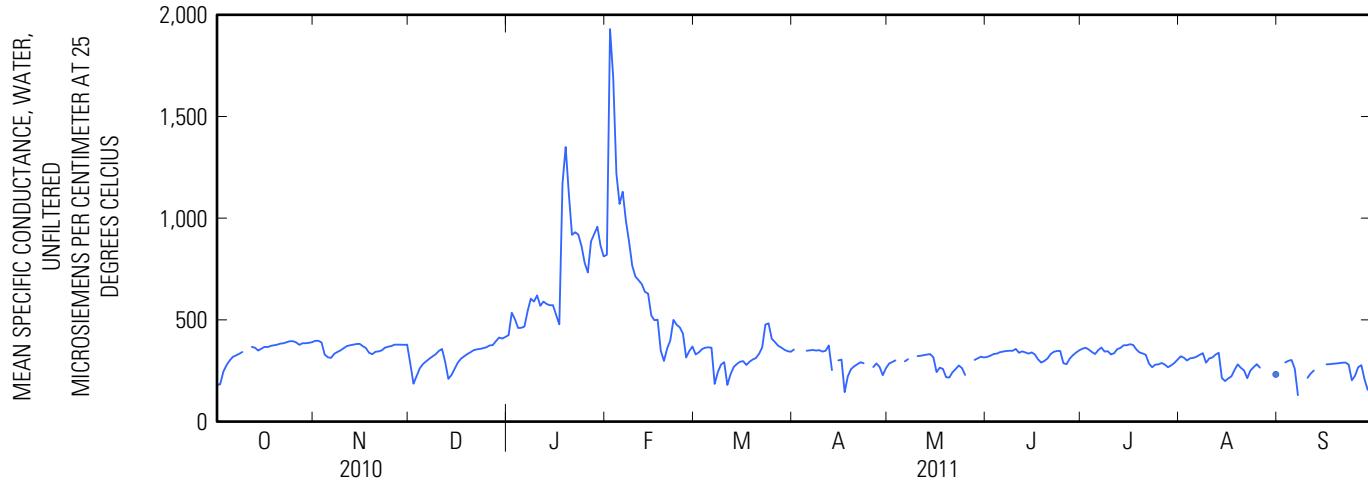
01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

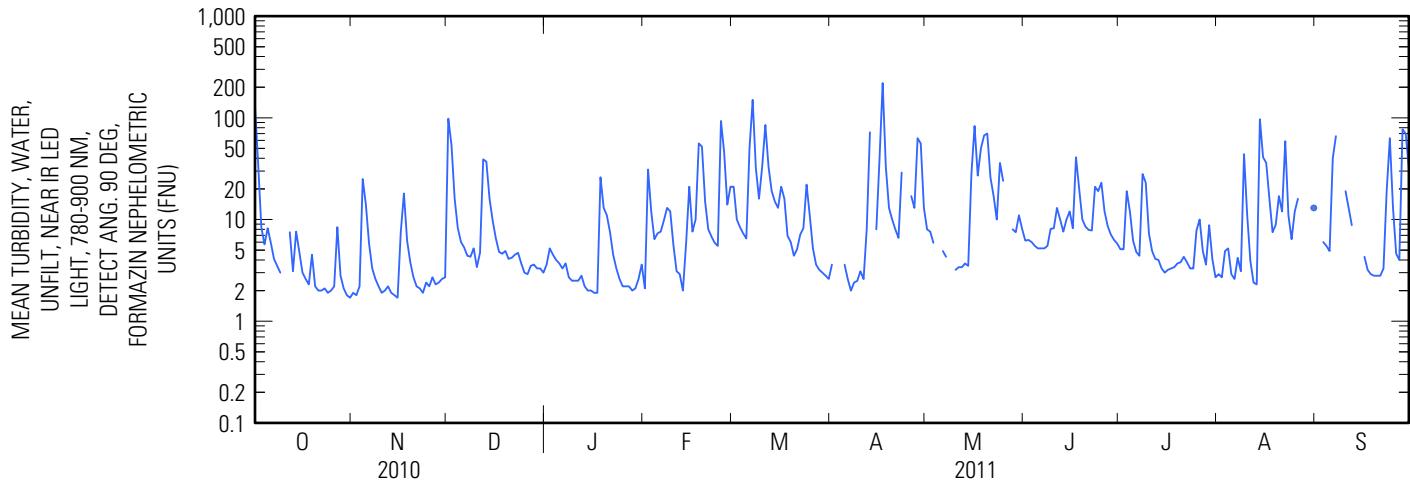
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	5.4	1.3	2.1	36	13	21	11	2.3	3.6	13	6.9	8.0
2	120	2.0	31	13	8.6	10	---	---	---	34	6.0	7.6
3	16	8.7	12	10	7.5	8.4	---	---	---	6.7	5.0	5.9
4	8.7	4.7	6.4	9.3	6.6	7.3	---	---	---	---	---	---
5	18	3.8	7.3	7.4	6.2	6.5	6.0	2.7	3.6	---	---	---
6	27	4.9	7.6	300	6.4	50	3.2	2.4	2.6	7.5	3.7	4.9
7	16	8.4	9.8	360	56	150	2.7	1.5	2.0	5.2	3.9	4.3
8	23	8.3	13	56	20	32	7.0	1.4	2.4	---	---	---
9	16	7.9	12	20	14	16	3.4	1.9	2.5	---	---	---
10	7.9	3.4	5.6	110	12	33	3.9	2.3	3.1	3.8	2.5	3.2
11	4.0	2.6	3.1	110	47	85	3.3	1.8	2.6	4.1	2.7	3.4
12	4.1	2.2	2.9	48	22	33	25	2.7	8.2	4.7	2.7	3.4
13	3.3	1.3	2.0	23	16	19	110	18	72	4.7	3.3	3.7
14	17	1.0	5.8	16	13	15	---	---	---	3.9	3.1	3.5
15	33	13	21	15	12	13	12	5.6	8.0	64	3.3	28
16	14	4.7	7.6	33	12	21	900	4.6	39	270	50	83
17	68	3.0	10	29	8.0	16	900	64	220	53	18	27
18	140	19	56	9.4	5.7	6.9	64	18	33	270	20	50
19	140	19	52	7.3	5.0	6.0	18	10	13	160	29	67
20	21	9.6	15	6.9	3.5	4.4	12	8.5	10	140	29	70
21	9.9	6.4	8.0	7.4	3.3	5.1	9.4	6.9	8.0	51	13	26
22	9.4	6.0	6.8	9.0	4.9	7.1	8.8	5.3	6.6	22	12	17
23	8.1	5.1	5.9	20	4.8	8.2	72	4.9	29	12	8.9	10
24	8.8	4.7	5.5	31	12	22	---	---	---	75	8.8	36
25	210	4.8	93	15	6.3	11	---	---	---	53	12	24
26	100	20	46	8.1	3.9	5.2	28	11	17	---	---	---
27	20	11	14	4.1	3.1	3.6	21	10	13	---	---	---
28	38	10	21	3.9	2.9	3.2	270	14	63	8.8	7.0	8.0
29	---	---	---	3.5	2.8	3.0	120	21	56	8.7	6.4	7.5
30	---	---	---	3.2	2.5	2.8	22	8.4	13	45	6.9	11
31	---	---	---	3.2	2.3	2.6	---	---	---	10	6.1	8.1
Month	210	1.0	17	360	2.3	20	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued**TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
				June			July			August		
1	7.3	5.2	6.2	7.4	3.8	5.1	4.2	2.0	2.9	---	---	---
2	9.7	5.1	6.3	6.7	3.9	5.1	4.5	1.8	2.7	---	---	---
3	6.7	5.3	6.0	92	6.4	19	77	1.7	4.9	6.9	4.7	6.0
4	6.5	4.8	5.5	16	8.3	12	15	2.4	5.2	8.8	4.1	5.5
5	6.2	4.6	5.2	9.0	4.3	6.2	4.8	1.9	2.9	5.6	4.0	4.9
6	6.3	4.6	5.2	6.4	3.7	4.8	4.1	1.7	2.6	140	4.0	40
7	6.3	4.2	5.2	6.4	3.2	4.4	9.9	2.5	4.2	140	33	66
8	7.7	4.6	5.5	160	3.6	28	5.6	1.9	3.1	---	---	---
9	43	4.4	8.1	48	12	23	200	1.9	44	---	---	---
10	10	6.6	8.2	12	4.6	7.3	23	5.8	11	24	15	19
11	46	7.8	13	6.9	3.3	4.9	7.0	2.2	3.9	15	9.6	13
12	13	8.4	10	6.0	2.9	4.1	3.5	1.5	2.4	10	6.8	8.8
13	9.3	6.5	7.6	6.4	2.7	4.0	4.2	1.2	2.3	---	---	---
14	57	6.2	10	5.4	2.2	3.3	180	4.1	97	---	---	---
15	14	10	12	4.5	2.1	3.0	68	26	41	---	---	---
16	12	6.8	8.2	5.3	2.1	3.2	63	20	36	6.2	3.3	4.3
17	87	8.3	41	6.1	2.3	3.3	25	9.0	16	3.6	2.8	3.2
18	33	12	20	5.3	2.3	3.4	9.8	5.2	7.5	3.3	2.4	2.9
19	13	8.8	10	8.5	2.4	3.7	17	4.8	8.9	3.5	2.2	2.8
20	10	7.1	8.5	5.9	2.4	3.8	28	12	17	3.2	2.4	2.8
21	9.8	6.4	7.9	7.8	2.5	4.3	78	4.9	12	3.3	2.4	2.8
22	9.7	6.6	7.8	6.3	2.3	3.8	110	18	59	9.0	2.6	3.3
23	170	7.3	21	6.0	2.0	3.3	18	6.8	11	72	2.5	19
24	92	10	19	5.1	2.1	3.3	7.9	4.6	6.4	140	25	63
25	34	15	23	31	2.3	7.8	33	4.7	12	25	5.8	13
26	16	9.1	12	15	6.1	10	26	8.4	16	5.9	3.4	4.6
27	11	7.0	8.6	9.0	3.1	4.9	---	---	---	5.0	3.3	4.0
28	9.1	5.7	7.1	5.3	2.4	3.6	---	---	---	180	3.3	77
29	7.9	5.0	6.3	110	3.7	8.8	---	---	---	96	39	70
30	7.5	4.5	5.8	6.3	2.6	4.1	---	---	---	51	16	32
31	---	---	---	4.1	1.7	2.7	15	10	13	---	---	---
Month	170	4.2	11	160	1.7	6.7	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

