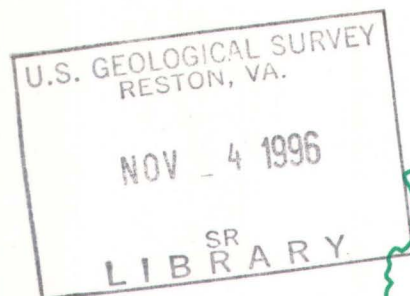


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# Water Resources Data New Jersey Water Year 1995

Volume 1. Surface-Water Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-95-1  
Prepared in cooperation with the New Jersey Department  
of Environmental Protection and with other agencies



## CALENDAR FOR WATER YEAR 1995

1994

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1995

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APRIL							MAY							JUNE						
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## United States Department of the Interior

U.S. GEOLOGICAL SURVEY  
Water Resources Division  
Mountain View Office Park  
810 Bear Tavern Road, Suite 206  
West Trenton, New Jersey 08628

I am pleased to announce the release of our Annual report "Water Resources Data for New Jersey, Water Year 1995". This report was prepared by the U.S. Geological Survey, in cooperation with the State of New Jersey as well as many local and federal government agencies.

This report is being published again in two volumes:

Volume 1.--Surface-water data.

Volume 2.--Ground-water data.

This volume contains surface-water data, such as stream discharge and surface-water-quality measurements, elevations of lakes and reservoirs, major surface-water diversions and tidal elevations. Special sections are devoted to low-flow and crest-stage data as well as to summaries of tidal-crest elevations in the New Jersey estuaries and intracoastal waterways.

Streamflow data again are presented in the format that was introduced in the 1988 report. The format includes extensive tabular presentations of streamflow statistics. Also, station numbers are included in the table of contents, and tables of discontinued surface-water and surface-water-quality stations are presented.

The New Jersey District of the U.S. Geological Survey has made a home page available on the world wide web. Real-time data for more than 30 stream-gaging stations around the State, peak-flow files for many gaging stations, monthly hydrologic conditions and links to other sites of interest may be accessed. This information is available at:

**<http://wwwnj.er.usgs.gov/>**

Copies of this report in paper or microfiche are for sale through the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. Data can also be provided in various machine-readable formats on magnetic tape or 5-1/4 inch and 3-1/2 inch floppy disk. When ordering, refer to U.S. Geological Survey Water-Data Report NJ-95-1 (for Volume 1) and NJ-95-2 (for Volume 2). For further information on this report, or to change or remove your address from our mailing list, please contact me at the above address, telephone (609) 771-3980, send e-mail to [wbauers@usgs.gov](mailto:wbauers@usgs.gov).

Sincerely,

William R. Bauersfeld, Chief  
Hydrologic Data Assessment Program









# Water Resources Data New Jersey Water Year 1995

## Volume 1. Surface-Water Data

by T.J. Reed, M.J. Deluca, G.L. Centinaro, and J.T. Hutchinson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-95-1  
Prepared in cooperation with the New Jersey Department  
of Environmental Protection and with other agencies



**UNITED STATES DEPARTMENT OF THE INTERIOR**

**BRUCE BABBITT, *Secretary***

**GEOLOGICAL SURVEY**

**Gordon P. Eaton, *Director***

**For information on the water program in New Jersey write to**

**District Chief, Water Resources Division**

**U.S. Geological Survey**

**Mountain View Office Park**

**810 Bear Tavern Road, Suite 206**

**West Trenton, New Jersey 08628**

## PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of stream-flow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. The following individuals contributed significantly to the completion of the report.

Edward W. Moshinski

Jacob Gibbs

Robert D. Schopp

M.D. Morgan word processed the text of the report with assistance from K.L. Laubach and I.C. Heerwagen. G.L. Simpson and D.K. Sun drafted the illustrations.

The data were collected, computed, and processed by the following personnel:

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D.S. Kauffman

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M. Campbell

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P. Capozzella

C.E. Gurney

R.G. Reiser

T.P. Suro

K. VanNest

Some water-quality samples were collected by the following N.J. Department of Environmental Protection personnel:

A.A. Altieri

R. Maruska

J.R. Spiritosanto

R.F. Fenton

J.R. Specht

Some water quality samples were also collected by Lyda Craig of the New Jersey Pinelands Commission.

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of William R. Bauersfeld, Chief of the Hydrologic Data Assessment Program; under the general supervision of David A. Stedfast, Acting Assistant District Chief; Eric Evenson, District Chief, New Jersey; and William J. Carswell, Jr., Regional Hydrologist, Northeastern Region.

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13. ABSTRACT (Maximum 200 words) Water-resources data for the 1995 water year for New Jersey are presented in two volumes, and consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. Volume 1 contains discharge records for 98 gaging stations; tide summaries for 9 stations; stage-only at 5 gaging stations; stage and contents for 37 lakes and reservoirs; and water quality for 92 surface-water sites. Also included are data for 77 crest-stage partial-record stations, 12 tidal crest-stage gages, and 75 low-flow partial-record stations. Locations of these sites are shown on figures 9 and 10. Additional water data were collected at various sites not involved in the systematic data-collection program. Miscellaneous data were collected at 53 measuring sites. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Federal, State, and local agencies in New Jersey.				
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Note.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (s) sediment, (t) water temperature, (e) elevation, gage height or contents]

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## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations in New Jersey have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (\*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Discontinued Surface-Water Discharge Stations			
Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
Wallkill River near Unionville, NY	01368000	140	1938-81
Auxiliary outlet of Upper Greenwood Lake at Moe, NJ	01368720	----	1968-80a
Passaic River near Bernardsville, NJ	01378690*	8.83	1968-77
Russia Brook tributary at Milton, NJ	01379630	1.64	1969-71
Beaver Brook at Splitrock Reservoir, NJ	01380000	5.50	1925-46, 1976-88a
Wanaque River at Monks, NJ	01384000	40.4	1935-85
Cupsaw Brook near Wanaque, NJ	01385000	4.37	1935-58
Erskine Brook near Wanaque, NJ	01385500	1.14	1934-38
West Brook near Wanaque, NJ	01386000	11.8	1935-78
Blue Mine Brook near Wanaque, NJ	01386500	1.01	1935-58
Passaic River at Paterson, NJ	01389800	785	1897-1955
Weasel Brook at Clifton, NJ	01392000	4.45	1937-62
Second River at Belleville, NJ	01392500*	11.6	1938-64
Elizabeth River at Irvington, NJ	01393000	2.90	1931-38
Elizabeth River at Elizabeth, NJ	01393500	20.2	1922-73
East Fork East Branch Rahway River at West Orange, NJ	01393800	.83	1972-74
West Branch Rahway River at Millburn, NJ	01394000	7.10	1940-50
Robinsons Branch Rahway River at Goodmans, NJ	01395500	12.7	1921-24
Walnut Brook near Flemington, NJ	01397500*	2.24	1936-61
Back Brook tributary near Ringoes, NJ	01398045*	1.98	1977-88
North Branch Raritan River at Pluckimien, NJ	01399000	52.0	1903-06
Lamington (Black) River at Succasunna, NJ	01399190	7.37	1976-87
Lamington (Black) River near Ironia, NJ	01399200	10.9	1975-87
Axle Brook near Pottersville, NJ	01399525*	1.22	1977-88
South Branch Rockaway Creek at Whitehouse, NJ	01399690	13.2	1964-67, 1977-86
North Branch Raritan River at North Branch, NJ	01399830*	174	1977-81
Millstone River at Plainsboro, NJ	01400730*	65.8	1964-75, 1987-89
Baldwins Creek at Baldwin Lake, near Pennington, NJ	01400932	2.52	1963-70
Honey Branch near Pennington, NJ	01400953	.70	1967-75
Millstone River at Carnegie Lake, at Princeton, NJ	01401301*	159	1972-74, 1987-89
Millstone River near Kingston, NJ	01401500	171	1934-49
Royce Brook tributary at Frankfort, NJ	01402590	.29	1969-74
Raritan River at Bound Brook, NJ	01403000	779	1903-09, 1945-66
Green Brook at Plainfield, NJ	01403500*	9.75	1938-84
Bound Brook at Middlesex, NJ	01403900*	48.4	1972-77
Bound Brook at Bound Brook, NJ	01404000	49.0	1923-30
Lawrence Brook at Patricks Corner, NJ	01404500	29.0	1922-26
Lawrence Brook at Farrington Dam, NJ	01405000*	34.4	1927-90
Matchaponix Brook at Spotswood, NJ	01405300	43.9	1957-67
South River at Old Bridge, NJ	01405500	94.6	1939-88



## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
Deep Run near Browntown, NJ	01406000	8.07	1932-40
Tennent Brook near Browntown, NJ	01406500	5.25	1932-41
Matawan Creek at Matawan, NJ	01407000	6.11	1932-55
South Branch Metedeconk River at Lakewood, NJ	01408140	26.0	1973-76
Cedar Creek at Lanoka Harbor, NJ	01409000	55.3	1933-58, 1971
Oyster Creek near Brookville, NJ	01409095	7.43	1965-84
Westecunk Creek at Stafford Forge, NJ	01409280	15.8	1974-88
Absecon Creek at Absecon, NJ	01410500	17.9	1946-85
Great Egg Harbor River tributary at Sicklerville, NJ	01410787	1.64	1972-79
Fourmile Branch at New Brooklyn, NJ	01410810*	7.74	1973-79
Great Egg Harbor River near Blue Anchor, NJ	01410820	37.3	1972-79
Maurice River at Brotmanville, NJ	01411485	88.1	1992-94
Blackwater Branch at Norma, NJ	01411495	12.5	1992-94
Maurice River near Millville, NJ	01411800	191	1992-94
Maurice River at Union Lake Dam at Millville, NJ	01411878	2.16	1993-94
Menantico Creek near Millville, NJ	01412000*	23.2	1931-57, 1978-85
West Branch Cohansey River at Seeley, NJ	01412500*	2.58	1951-67
Cohansey River at Seeley, NJ	01412800*	28.0	1978-88
Loper Run near Bridgeton, NJ	01413000	2.34	1937-59
Paulins Kill at Columbia, NJ	01444000	179	1908-09
Pequest River at Huntsville, NJ	01445000*	31.0	1940-62
Pequest River at Townsburys, NJ	01445430*	92.5	1977-80
Beaver Brook near Belvidere, NJ	01446000*	36.7	1923-61
Brass Castle Creek near Washington, NJ	01455160	2.34	1970-83a
Pohatcong Creek at New Village, NJ	01455200*	33.3	1960-70
Beaver Brook near Weldon, NJ	01455355	1.72	1969-71
Musconetcong River at outlet of Lake Hopatcong, NJ	01455500*	25.3	1928-75
Musconetcong River near Hackettstown, NJ	01456000*	68.9	1922-73
Delaware River at Riegelsville, NJ	01457500*	6328	1906-71
Delaware and Raritan Canal at Kingston, NJ	01460500	---	1947-91
Delaware River at Lambertville, NJ	01462000	6680	1898-06
New Sharon Run at Carsons Mills, NJ	01463587	6.63	1976-77
Shipetaukin Creek tributary at Lawrenceville, NJ	01463657	.78	1976-77
Little Shabakunk Creek at Bakersville, NJ	01463690	3.98	1976-77
Thorton Creek at Bordentown, NJ	01464525*	.84	1976-77
South Branch Rancocas Creek at Vincentown, NJ	01465850*	64.5	1961-75
Middle Branch Mount Misery Brook in Lebanon State Forest, NJ	01466000	2.82	1953-65, 1977
Mill Creek near Willingboro, NJ	01467019	4.12	1975-78
Mill Creek at Levitt Parkway, at Willingboro, NJ	01467021	9.12	1975-77
Mantua Creek at Pitman, NJ	01475000*	6.05	1940-76
Still Run near Mickleton, NJ	01476600	3.98	1957-66
Oldmans Creek near Woodstown, NJ	01477500	18.5	1932-40
Salem River at Woodstown, NJ	01482500*	14.6	1940-85, 1989
Alloway Creek at Alloway, NJ	01483000	20.3	1953-72

a Not published, on file at U.S. Geological Survey, West Trenton, NJ.

## DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

The following stations have been discontinued as continuous water-quality stations. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the period of record shown for each station.

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (water years)
Passaic River near Chatham, NJ	01379500	100	Sed.	1964-68
			Temp.	1967-68
Green Pond Brook at Picatinny Arsenal, NJ	01379773	7.65	Temp., S.C., pH, D.O.	1984-86
Green Pond Brook at Wharton, NJ	01379790*	12.6	Temp., S.C., pH, D.O.	1984-85
Passaic River at Two Bridges, NJ	01382000	361	Temp., S.C., pH, D.O.	1963-74
				1969-74
Wanaque River at Wanaque, NJ	01387000	90.4	Temp.	1964-80
Ramapo River near Mahwah, NJ	01387500	118	Sed.	1964-65
Pompton River near Two Bridges, NJ	01389000	372	Temp., S.C., pH, D.O.	1969-74
Passaic River at Little Falls, NJ	01389500	762	Sed.	1964-65
			Temp., S.C.	1981-86
South Branch Raritan River near High Bridge, NJ	01396500	65.3	Temp.	1961-79
			S.C.	1969-79
Spruce Run at Clinton, NJ	01396800	41.3	Temp.	1969, 1971-80
South Branch Raritan River at Stanton, NJ	01397000	147	Temp., S.C.	1969-79
			Sed.	1960-63
South Branch Rockaway Creek at Whitehouse, NJ	01399690	13.2	Temp., S.C.	1977-78
			Sed.	1977
Rockaway Creek at Whitehouse, NJ	01399700	37.1	Temp., S.C.	1977-78
Raritan River near Manville, NJ	01400510	497	Temp., S.C., pH, D.O.	1968-74
Baldwins Creek at Baldwin Lake, near Pennington, NJ	01400932	2.52	Temp.	1963-66
			Sed.	1963-69
Stony Brook at Princeton, NJ	01401000	44.5	Temp.	1957-70
			Sed.	1960-70
Millstone River near Manville, NJ	01402900	287	Temp., S.C., pH, D.O.	1968-74
Raritan River near South Bound Brook, NJ	01404100	862	Temp., S.C., pH, D.O.	1969-77
Manasquan River at Squankum, NJ	01408000	44	Temp., S.C., pH, D.O.	1969-74
Toms River near Toms River, NJ	01408500	123	Temp., S.C.	1964-66, 1975-81
				1975-81
Oyster Creek near Brookville, NJ	01409095	7.43	Temp., D.O.	1975-76
			S.C., pH	1975-77
West Branch Wading River near Jenkins, NJ	01409810	84.1	Temp., S.C.	1978-81
Great Egg Harbor River trib. at Sicklerville, NJ	01410787	1.64	Sed.	1974-78
Fourmile Branch at New Brooklyn, NJ	01410810	7.74	Sed.	1974-78
Great Egg Harbor River at Folsom, NJ	01411000	57.1	Temp.	1961-75, 1977-80
			S.C.	1969-75, 1977-80
			Sed.	1966-70, 1979
Delaware Bay at Ship John Shoal Lighthouse, NJ	01412350		Temp.	1970-86
Maurice River at Norma, NJ	01411500	112.0	Temp.	1967-68, 1980-87, 1993-94
			S.C.	1980-87, 1993-94
			pH	1993-94
			Sed.	1965-68
Delaware River near Delaware Water Gap, Pa.	01440200	3850	Sed.	1964-65, 1972
Delaware River at Dunnfield, NJ	01442750	4150	Temp.	1967-76
			Sed.	1966-76
Delaware River at Trenton, NJ	01463500	6780	Sed.	1949-82
Delaware River at Marine Terminal, at Trenton, NJ	01464040	6870	Temp., S.C.	1973-76
Crosswicks Creek near Extonville, NJ	01464500	81.5	Temp.	1967-70
			Sed.	1965-70
McDonalds Branch in Lebanon State Forest, NJ	01466500	2.35	Temp.	1960-92
			S.C.	1968-92
			pH, D.O.	1984-92

\* Unpublished records are available in the files of the District office.

**DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS**

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record (water years)
Rancocas Creek at Willingboro, NJ	01467016	315	Temp., S.C., D.O. pH	1969-74 1970-72 1970-74
Cooper River at Haddonfield, NJ	01467150	17.0	Temp., Sed.	1968-69
Raccoon Creek near Swedesboro, NJ	01477120	26.9	Temp. Sed.	1966-73 1966-69

Type of record: Temp. (temperature), S.C. (specific conductance), pH (pH), D.O. (dissolved oxygen), Sed. (sediment).



## DISCONTINUED LOW-FLOW STATIONS

The following low-flow partial-record stations in New Jersey have been discontinued. Stream flow measurements were made during periods of base-flow, for the period of record shown for each station. These measurements, when correlated with the simultaneous discharge at nearby continuous-record sites, will give a picture of the low-flow potentiality of a stream.

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Wallkill River at outlet Lk Mohawk at Sparta, NJ	01367620	4.38	1979-86
Wallkill River at Franklin, NJ	01367700	29.4	1959-64, 1982-83, 1985, 1987-90
Beaver Run near Hamburg, NJ	01367750	5.59	1966-72
Papakating Creek at Pelletstown, NJ	01367800	15.8	1959-64
West Branch Papakating Creek at McCoys Corner, NJ	01367850	11.0	1967-72
Clove Brook above Clove Acre Lake at Sussex, NJ	01367890	19.2	1967-72
Clove Brook at Sussex, NJ	01367900	19.7	1959-64
Musquapsink Brook near Westwood, NJ	01377475	2.12	1964-72, 1975, 1978, 1981-86
Tenakill Brook at Cresskill, NJ	01378350	3.01	1964-73, 1975
Dwars Kill at Norwood, NJ	01378410	4.23	1973-80
Norwood Brook at Norwood, NJ	01378430	2.03	1973-80
Hirshfeld Brook at New Milford, NJ	01378520	4.54	1965-72
French Brook at New Bridge, NJ	01378530	0.46	1965-72
Coles Brook at Hackensack, NJ	01378560	7.00	1965-72
Wolf Creek at Ridgewood, NJ	01378615	1.18	1964-72
Passaic River at outlet Osborn Pd at Osborn Mill, NJ	01378700	10.1	1961-68
Great Brook at Green Village, NJ	01378750	7.92	1961-65
Primrose Brook near New Vernon, NJ	01378800	4.68	1961-65
Great Brook near Basking Ridge, NJ	01378850	23.1	1961-65
Black Brook near Meyersville, NJ	01378900	11.7	1959-63
Harrisons Brook at Liberty Corner, NJ	01379150	3.74	1964-67
Dead River near Millington, NJ	01379200	20.8	1961-67, 1973-75, 1986-89
Passaic River at Stirling, NJ	01379300	84.1	1968-70, 1972-73, 1983-84
Passaic River at Lower Chatham Bridge near Chatham, NJ	01379550	116.0	1964, 1984, 1988-89
Passaic River at Hanover, NJ	01379570	128.0	1963-66, 1973, 1987-89
Rockaway River at Dover, NJ	01379750	30.8	1963-66, 1983-86
Hibernia Brook at outlet of Lake Telemark, NJ	01380050	2.53	1966-72
Stony Brook near Rockaway Valley, NJ	01380300	8.43	1963-67, 1985-86
Crooked Brook near Boonton, NJ	01381150	7.86	1963-66
Whippany River near Morristown, NJ	01381400	14.0	1964-72
Jacquis Brook at Greystone Park State Hospital, NJ	01381470	1.39	1967-73
Watnong Brook at Morris Plains NJ	01381490	7.77	1966-72
Whippany River near Whippany, NJ	01381600	48.5	1963-66, 1973
Troy Brook at Troy Hills, NJ	01381700	10.1	1961-66, 1972-73
West Brook at Troy Hills, NJ	01381750	1.32	1961-66
Pequannock River near Stockholm, NJ	01382050	5.39	1959-64
Kanouse Brook at Newfoundland, NJ	01382360	3.87	1963-67
Macopin River at Macopin Reservoir, NJ	01382450	5.25	1970-73
Belcher Creek at Stowaway Rd at West Milford, NJ	01382870	2.44	1973-77
Belcher Creek tributary at West Milford, NJ	01382880	0.61	1973-77
Belcher Creek at West Milford, NJ	01382890	7.27	1973-77
Morsetown Brook at West Milford, NJ	01382910	1.31	1973-77
Green Brook near West Milford, NJ	01382960	1.47	1973-77
Cooley Brook near West Milford, NJ	01382990	1.34	1973-77
Stag Brook near Mahwah, NJ	01387520	1.35	1963-70, 1972

## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Darlington Brook at Darlington, NJ	01387600	3.38	1963-67
Ramapo River near Darlington, NJ	01387670	131	1963-66,1982-83
Bear Swamp Brook near Oakland, NJ	01387700	3.25	1963-67
Ramapo River tributary 5 at Oakland, NJ	01387930	0.86	1963-67
Ramapo River tributary 6 at Pompton Plains, NJ	01387950	1.79	1963-67
Haycock Brook at Pompton Lakes, NJ	01387980	4.18	1963-64,1973-77
Pompton River at Two Bridges, NJ	01389000	372	1963-68,1984,1986-88
Goffle Brook at Hawthorne, NJ	01389850	8.77	1963-67
Hohokus Brook at Wyckoff, NJ	01390700	5.31	1963-67
Valentine Brook at Allendale, NJ	01390800	2.48	1963-67
Saddle River at Paramus, NJ	01391110	45.0	1964-69,1971-72
Sprout Brook at Rochelle Park, NJ	01391485	5.56	1964-72
Third River at Nutley, NJ	01392200	11.4	1963-73
Elizabeth River below Chancellor Ave at Irvington, NJ	01393200	5.14	1955,1961-62,1966
South Branch Rahway River at Colonia, NJ	01396030	9.41	1979-86
South Branch Raritan River trib 7 at Budd Lake, NJ	01396080	0.21	1973-1977
South Branch Raritan River at outlet of Budd Lake, NJ	01396090	5.03	1964,1973-77,1980-83
South Branch Raritan River at Bartley, NJ	01396120	12.5	1964-73,1990
Drakes Brook at Reger Road at Flanders, NJ	01396160	11.6	1965,1990
Drakes Brook at Bartly, NJ	01396180	16.6	1964-73,1975-76,1988-90
South Branch Raritan River at Middle Valley, NJ	01396280	47.7	1963-67,1973,1975,1982-92
South Branch Raritan River at Califon, NJ	01396350	58.5	1975-76,1989-90
Spruce Run near High Bridge, NJ	01396590	15.5	1973-77
Spruce Run near Clinton, NJ	01396600	18.1	1959-64
Mulhockaway Creek at Van Syckel, NJ	01396670	11.8	1973-77
Mulhockaway Creek near Clinton, NJ	01396700	20.5	1959-64
Capoolong Creek at Lansdowne, NJ	01396900	14.1	1959-65
Prescott Brook at Round Valley, NJ	01397100	4.61	1958-63
Assiscong Creek at Bartles Corners, NJ	01397290	2.98	1981-89
Neshanic River near Fleminton, NJ	01397800	11.4	1981-89
Third Neshanic River near Ringoes, NJ	01397900	9.24	1981-89
Back Brook near Reaville, NJ	01398052	11.4	1981-89
Pleasant Run at Centerville, NJ	01398075	8.11	1982-89
India Brook near Mendham, NJ	01398220	4.36	1964-67
North Branch Raritan River near Chester, NJ	01398260	7.57	1964-67,1980-92
Dawsons Brook near Ironia, NJ	01398300	1.04	1964-67
Burnett Brook near Chester, NJ	01398360	6.64	1964-67
Peapack Brook at Gladstone, NJ	01398700	4.23	1964-67
Peapack Brook at Far Hills, NJ	01398850	11.7	1964-67,1973-76
Mine Brook at Far Hills, NJ	01398950	7.78	1964-67,1973-76
Middle Brook at Burnt Mills, NJ	01399100	6.67	1964-67,1976
Lamington River near Chester, NJ	01399280	17.3	1963-64,1973,1990
Cold Brook at Oldwick, NJ	01399540	5.32	1973-76
Rockaway Creek at McCrea Mills, NJ	01399570	17.0	1961-65
South Branch Rockaway Creek tributary at Lebanon, NJ	01399600	1.02	1958,1960-64

## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Rockaway Creek at Whitehouse, NJ	01399700	37.1	1959-62,1964-65,1973
Chambers Brook near North Branch, NJ	01399820	4.71	1964-72
Chambers Brook at North Branch Depot, NJ	01399900	10.2	1959-64,1976
Millstone River at Applegarth, NJ	01400560	15.0	1960-64,1971-72
Millstone River at Hightstown, NJ	01400580	19.7	1960-64,1969-74
Rocky Brook at Hightstown, NJ	01400593	9.58	1965-72
Peddie Brook at Hightstown, NJ	01400596	3.07	1965-72
Millstone River at Locust Corner, NJ	01400600	37.5	1959-64,1971-72
Cranbury Brook at Old Church, NJ	01400670	3.69	1960-64
Cranbury Brook at Cranbury Station, NJ	01400700	9.56	1959-64,1971-72
Bear Brook near Hickory Corner, NJ	01400750	3.46	1960-65
Little Bear Brook at Hickory Corner, NJ	01400770	1.88	1960-64
Bear Brook near Grovers Mill, NJ	01400800	9.52	1959-64
Bear Brook at Princeton Junction, NJ	01400810	12.4	1962-67,1971-72
Millstone River at Princeton Junction, NJ	01400820	78.5	1960-61
Woodsville Brook at Woodsville, NJ	01400850	1.78	1957-59,1965-73
Stony Brook at Pennington, NJ	01400947	26.7	1965-72
Honey Branch near Rosedale, NJ	01400970	3.83	1957-59,1971-72
Stony Brook at Clarksville, NJ	01401100	46.5	1959-64
Duck Pond Run at Clarksville, NJ	01401200	3.74 (revised)	1954-55,1960-67
Beden Brook near Hopewell, NJ	01401520	6.67	1965-72
Rock Brook at Blawenburg, NJ	01401590	8.02	1962-67,1971-72
Pike Run near Rocky Hill, NJ	01401700	22.2	1959-63,1971-72
Ten Mile Run near Blackwells Mills, NJ	01401800	4.36	1960-64,1971-72
Six Mile Run at Blackwells Mills, NJ	01401900	16.1	1960-67,1971-72
Royce Brook at Manville, NJ	01402700	11.7	1960-64
East Branch Middle Brook at Martinsville, NJ	01403100	8.45	1959-64
Bound Brook at South Plainfield, NJ	01403330	9.55	1979-86
Cedar Brook at South Plainfield, NJ	01403350	7.10	1979-86
Ambrose Brook at Middlesex, NJ	01404060	13.9	1979-91
Mill Brook at Highland Park, NJ	01404180	1.41	1979-86
Lawrence Brook at outlet of Davidsons Mill Pond, NJ	01404300	12.2	1973-77
Oakeys Brook near Patricks Corner, NJ	01404400	4.75	1973-77
Beaverdam Brook near Patricks Corner, NJ	01404700	1.51	1973-77
Milford Brook at Englishtown, NJ	01405170	4.86	1982,1984-91
McGellairds Brook at Englishtown, NJ	01405180	14.9	1982,1984-91
Pine Brook at Clarks Mills, NJ	01405210	4.66	1982,1984-91
Matchaponix Brook near Englishtown, NJ	01405240	29.1	1978-88
Barclay Brook near Englishtown, NJ	01405285	4.94	1977-88
Manalapan Brook near Manalapan, NJ	01405335	16.0	1979-88
Manalapan Brook at Bridge Street at Spotswood, NJ	01405440	43.9	1973-76
Iresick Brook at East Spotswood, NJ	01405470	2.29	1973-77
East Creek at North Centerville, NJ	01407055	2.56	1969,1986-93
Waachaack Creek at Middle Road near Keansburg, NJ	01407070	4.30	1987-93
Town Brook at Church Street at New Monmouth, NJ	01407102	3.35	1987-93

## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Hop Brook at Holmdel, NJ	01407200	5.72	1969-74,1989
Willow Brook at Holmdel, NJ	01407250	6.88	1969-74,1989
Big Brook at Vanderburg, NJ	01407300	8.41	1969-74,1989
Yellow Brook at Colts Neck, NJ	01407400	9.71	1969-74,1989
Mine Brook at Colts Neck, NJ	01407450	5.48	1969-74,1989
Pine Brook at Tinton Falls, NJ	01407520	12.1	1969-74,1989
Poricy Brook at Red Bank, NJ	01407532	2.54	1987-93
Shark River at Glendola, NJ	01407700	9.14	1956-63,1966
Wreck Pond Brook near Spring Lake, NJ	01407800	7.00	1956-63,1966
Debois Creek at Adelphia, NJ	01407860	7.21	1966,1969-74
Yellow Brook at West Farms, NJ	01407890	3.57	1966,1969-74
Manasquan River at West Farms, NJ	01407900	33.5	1959-66,1973
Timber Swamp Creek near Farmingdale, NJ	01407970	3.38	1964-72
Mingamahone Brook at Squankum, NJ	01408020	10.7	1966,1969-74
North Branch Metedeconk River at Lakewood, NJ	01408100	19.4	1959-63,1966
Toms River at Whitesville, NJ	01408300	45.2	1959-63,1966
Union Branch at Lakehurst, NJ	01408440	19.0	1960-64
Manapagua Brook at Lakehurst, NJ	01408460	6.32	1960-64
Ridgeway Branch near Lakehurst, NJ	01408490	28.2	1959-63
Webbs Mill Branch near Whiting, NJ	01408800	2.92	1973-77
Webbs Mill Branch tributary near Whiting, NJ	01408810	0.53	1973-77
North Branch Forked River near Forked River, NJ	01409050	13.4	1961-65
South Branch Forked River near Forked River, NJ	01409080	1.28	1968-74
Oyster Creek near Waretown, NJ	01409100	9.95	1961-65
Mill Creek near Manahawkin, NJ	01409150	10.4	1961-67
Fourmile Branch near Manahawkin, NJ	01409200	5.24	1961-67
Cedar Run near Manahawkin, NJ	01409250	3.34	1961-67
Mullica River at outlet Atsion Lake at Atsion, NJ	01409387	26.7	1980-81,1985-89
Mill Branch near Tuckerton, NJ	01409300	4.89	1961-67
Mullica River tributary near Atsion, NJ	01409395	4.10	1975-77
Wildcat Branch at Chesilhurst, NJ	01409403	1.03	1974-77
Sleeper Branch near Atsion, NJ	01409404	18.2	1975-77
Clark Branch near Atsion, NJ	01409405	7.12	1975-77
Sleeper Branch at Batsto, NJ	01409406	36.1	1975-77
Pump Branch near Blue Anchor, NJ	01409407	6.20	1974-77
Blue Anchor Brook near Blue Anchor, NJ	01409409	3.01	1974-77
Albertson Brook near Hammonton, NJ	01409410	19.3	1975-77
Nescochague Creek at Pleasant Mills, NJ	01409411	43.8	1975-77
Springers Brook near Indian Mills, NJ	01409450	12.6	1959-63,1977
Springers Brook near Atsion, NJ	01409460	21.2	1975-77
Landing Creek at Philadelphia Ave at Egg Harbor City, NJ	01409575	4.86	1974-77
West Branch Wading River near Chatsworth, NJ	01409730	44.8	1975-77
Tulpehocken Creek near Jenkins, NJ	01409780	21.9	1975-77
West Branch Wading River near Harrisville, NJ	01409800	83.9	1957-63
Oswego River at Oswego Lake, NJ	01409970	61.4	1975-77



## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
West Branch Bass River near New Gretna, NJ	01410200	6.54	1969-74
Clarks Mill Stream at Port Republic, NJ	01410215	8.61	1986-93
Morses Mill Stream at Port Republic, NJ	01410225	8.25	1986-93
Great Egg Harbor River at Berlin, NJ	01410775	1.88	1964-74
Great Egg Harbor River near Sicklerville, NJ	01410784	15.1	1971-77
Fourmile Branch near Williamstown, NJ	01410800	5.34	1959-64,1971
Penny Pot Stream near Folsom, NJ	01411020	5.35	1968-72
Hospitality Branch near Cecil, NJ	01411040	8.30	1990-92
Whitehall Branch near Cecil, NJ	01411042	2.21	1990-92
Hospitality Branch at Berryland, NJ	01411053	20.0	1976-86
Deep Run at Weymouth, NJ	01411140	20.0	1976-86
Babcock Creek at Mays Landing, NJ	01411200	20.0	1959-63
English Creek near Scullville, NJ	01411250	3.80	1986-93
Tarkiln Brook near Head of River, NJ	01411299	7.40	1990-92
Mill Creek near Steelmantown, NJ	01411302	3.82	1990-91
Mill Branch near Northfield, NJ	01411305	7.47	1986-93
Mill Creek at outlet Magnolia Lk at Ocean View, NJ	01411351	2.28	1991-92
Mill Creek at Cold Spring, NJ	01411388	1.34	1991-92
Fishing Creek at Rio Grande, NJ	01411400	2.29	1965-72,1990-92
Green Creek at Green Creek, NJ	01411404	2.49	1965-72
Dias Creek near Cape May Court House, NJ	01411408	1.27	1965-73,1991-92
Bidwell Creek tributary near Cape May Court House, NJ	01411410	0.41	1967-73,1990-92
Bidwell Creek trib. No. 2 near Cape May Court House, NJ	01411412	0.19	1967-72
Goshen Creek at Goshen, NJ	01411418	0.33	1967-72,1990-92
Dennis Creek trib No. 2 at Dennisville, NJ	01411428	4.00	1990-92
Sluice Creek at Clermont, NJ	01411430	0.67	1967-72,1990-91
Sluice Creek near South Dennis, NJ	01411434	8.47	1991-92
Dennis Creek trib. No. 1 near Dennisville, NJ	01411438	2.74	1990-92
East Creek near Eldora, NJ	01411442	8.10	1990-92
West Creek at outlet Pickle Factory Pond near Eldora, NJ	01411445	11.9	1990-92
Still Run at Aura, NJ	01411450	3.21	1976-90
Scotland Run near Williamstown, NJ	01411460	3.96	1966,1990-92
Scotland Run at Fries Mill, NJ	01411461	9.25	1990-92
Scotland Run at Franklinville, NJ	01411462	14.8	1976-90
Muddy Run at Centerton, NJ	01411700	37.7	1976-84
Maurice River near Millville, NJ	01411800	191.0	1966-72
Mill Creek near Millville, NJ	01411850	15.1	1973-79
Buckshutem Creek near Laurel Lake, NJ	01411950	16.1	1976-84
Muskee River near Port Elizabeth, NJ	01412120	13.1	1969,1976-84
Cohansey River near Beals Mill, NJ	01412405	9.44	1976-84
Barrett Run near Bridgeton, NJ	01413010	7.02	1966,1976-84
Indian Fields Branch at Bridgeton, NJ	01413020	4.64	1976-84
Stow Creek at Jericho, NJ	01413050	8.00	1966-74
Canton Ditch near Canton, NJ	01413060	2.50	1959-63
Raccoon Ditch at Davis Mill, NJ	01413080	3.19	1976-84

## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Shimers Brook near Montague, NJ	01438400	7.07	1958-64,1966
Big Flat Brook near Hainesville, NJ	01439800	22.6	1959-64,1966
Big Flat Brook at Tuttle's Corner, NJ	01439830	28.2	1963,1970-73
Little Flat Brook at Hainesville, NJ	01439900	7.73	1959-64
Vancampens Brook near Millbrook, NJ	01440100	7.27	1958-68
Stony Brook near Columbia, NJ	01442800	3.51	1958-68
Paulins Kill at Lafayette, NJ	01443300	33.0	1959-64,1966
Culvers Creek at Branchville, NJ	01443400	11.2	1959-64
Paulins Kill near Newton, NJ	01443450	69.0	1973-77
Paulins Kill at Paulins Kill, NJ	01443460	72.9	1973-77
Trout Brook near Middletown, NJ	01443475	24.0	1979-89
Honey Run near Ramseysburg, NJ	01445800	2.21	1982-90
Honey Run near Hope, NJ	01445900	10.3	1966-72
Pohatcong Creek at Carpentersville, NJ	01455300	57.1	1932,1952-64
Weldon Brook near Woodport, NJ	01455350	3.27	1965-69,1971-72
Beaver Brook near Woodport, NJ	01455360	2.79	1966-72
Weldon Brook at Hurdstown, NJ	01455370	8.10	1973-77
Musconetcong River at Stanhope, NJ	01455550	29.7	1973-76
Lubbers Run at Lockwood, NJ	01455780	16.3	1982-90
Hatchery Brook at Hackettstown, NJ	01456100	1.81	1966-72
Hakihokake Creek at Milford, NJ	01458100	17.2	1944,1958-64
Harihokake Creek near Frenchtown, NJ	01458400	9.75	1944,1958-65
Nishisakawick Creek at Frenchtown, NJ	01458600	12.3	1958-64
Little Nishisakawick Creek at Frenchtown, NJ	01458700	3.50	1958-65
Lockatong Creek near Raven Rock, NJ	01460900	23.2	1944,1958-64
Alexauken Creek near Lambertville, NJ	01461900	14.9	1944,1958-64
Moore Creek near Titusville, NJ	01462200	10.2	1958-64
Jacobs Creek at Somerset, NJ	01462800	13.3	1957-64
Shipetaukin Creek at Lawrenceville, NJ	01463650	4.48	1963-67
Shipetaukin Creek at Bakersville, NJ	01463670	8.96	1963-67
Shabakunk Creek at Ewingville, NJ	01463750	5.00	1963-67
West Branch Shabakunk Creek near Ewingville, NJ	01463790	4.56	1963-72
Miry Run at Robbinsville, NJ	01463830	4.02	1963-67
Miry Run at Mercerville, NJ	01463860	12.4	1963-67
Pond Run at Trenton, NJ	01463980	8.94	1963-69,1971-72
Crosswicks Creek near Cookstown, NJ	01464300	21.2	1966,1969-74
North Run at Cookstown, NJ	01464380	7.17	1966,1969-74
Lahaway Creek near Hornerstown, NJ	01464460	21.4	1966,1969-74
Miry Run at Holmes Mills, NJ	01464480	3.15	1966,1969-74
Doctors Creek at Allentown, NJ	01464515	17.2	1966,1968-72,1991-92
Blacks Creek at Mansfield Square, NJ	01464530	19.7	1966-72
Crafts Creek at Hedding, NJ	01464540	10.6	1959-63
Assiscunk Creek at Columbus, NJ	01464580	8.28	1959-63
Assiscunk Creek near Burlington, NJ	01464590	37.2	1966-74
Southwest Branch Rancocas Creek at Medford, NJ	01465880	47.2	1961-66,1973

## DISCONTINUED LOW-FLOW STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record (water years)
Sharps Run at Medford, NJ	01465884	4.41	1982-90
Little Creek near Lumbertom, NJ	01465898	19.2	1982-90
Southwest Branch Rancocas Creek at Eayrestown, NJ	01465900	76.2	1959-61
Parkers Creek near Mount Laurel, NJ	01467010	2.66	1964-72
Mill Creek at Willingboro, NJ	01467020	7.73	1959-64,1976
Pompeston Creek at Cinnaminson, NJ	01467057	5.74	1964-72
North Branch Pennsauken Creek at Maple Shade, NJ	01467070	13.0	1959-63
South Branch Pennsauken Creek at Maple Shade, NJ	01467080	8.13	1964-67
Newton Creek at Collingswood, NJ	01467305	1.32	1964-72
Newton Creek at West Collingswood, NJ	01467312	3.48	1964-72
S. Br. Newton Creek at Glover Ave at Haddon Heights, NJ	01467315	0.52	1968-74
S. Br. Newton Creek at 13th Ave at Haddon Heights, NJ	01467317	0.63	1964-67
N. Br. Big Timber Creek at Laurel Springs, NJ	01467350	6.55	1959-71
Mantua Creek at Glassboro, NJ	01474950	1.20	1965-66,1974-77
Mantua Creek at Greentree Road, at Glassboro, NJ	01474970	2.78	1965-66,1974-77
Raccoon Creek near Mullica Hill, NJ	01477100	10.1	1959-63
South Branch Raccoon Creek near Mullica Hill, NJ	01477118	8.30	1966-72
Salem River at Sharptown, NJ	01482520	27.3	1966-72,1974-75
Major Run at Sharptown, NJ	01482530	3.04	1966-72,1974-75
Deep Run near Alloway, NJ	01483010	5.30	1977-84

## **INTRODUCTION**

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of New Jersey each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - New Jersey."

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 98 gaging stations; tide summaries at 9 gaging stations; stage-only at 5 gaging stations; stage and contents at 37 lakes and reservoirs; and water quality at 92 surface-water stations. Also included are data for 77 crest-stage partial-record stations and stage-only at 12 tidal crest-stage gages. Locations of these sites are shown on figures 9 and 10. Additional water data were collected at various sites not involved in the systematic data-collection program. Discharge measurements were made at 75 low-flow partial-record stations. Miscellaneous data were collected at 53 discharge measuring sites. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

This series of annual reports for New Jersey began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. For the 1975 through 1989 water years, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1977 water year, these data were published in two volumes based on drainage basins. Beginning with the 1990 water year, the format was changed to include all surface-water discharge and surface-water quality records in Volume 1 and all ground-water level and ground-water quality records in Volume 2.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Jersey were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Part 1B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, CO, 80225-0286.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NJ-95-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information, Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 771-3900.

## **COOPERATION**

The U.S. Geological Survey and agencies of the State of New Jersey have had joint-funding agreements for the collection of water-resource records since 1921. Organizations that assisted in collecting the data in this report through joint-funding agreements with the Survey are:

New Jersey Department of Environmental Protection, Robert C. Shinn Jr., Commissioner.  
New Jersey Water Supply Authority, Thomas G. Baxter, Executive Director.  
North Jersey District Water Supply Commission, William R. Goble, Chief Engineer.  
Passaic Valley Water Commission, Joseph A. Bella, Executive Director.  
City of New Brunswick, Thomas J. Brennan, Director, Water Utility Department.  
County of Bergen, Quenten Weist II, Director of Public Works and County Engineer.  
County of Gloucester, Charles E. Romick, Director of Planning.  
County of Morris, Herman Nodel, Chairman, Morris County Municipal Utilities Authority.  
County of Somerset, Michael J. Amorosa, County Engineer.  
Pinelands Commission, Terrance D. Moore, Executive Director.  
Township of West Windsor, Elaine W. Ballai, Chairman of Environmental Commission.  
Delaware River Basin Commission, Gerald M. Hansler, Executive Director.



Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 12 surface-water stations, and by the U.S. Army Armament Research and Development Center for the collection of records at 3 surface-water stations. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Funding was also supplied by the following Federal Energy Regulatory Commission licensees: Jersey Central Power and Light Company, Passaic Valley Water Commission, and Independent Hydro Developers Inc. Assistance was provided by the National Weather Service and the National Ocean Service.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark, New Brunswick and Spotswood; American Cyanamid Company; Elizabeth-town Water Company; Ewing-Lawrence Sewerage Authority; United Water New Jersey; New Jersey-American Water Company; and Jersey Central Power and Light Company.

Organizations that supplied data are acknowledged in station descriptions.

## SUMMARY OF HYDROLOGIC CONDITIONS

### Streamflow

Streamflow for the 1995 water year was well below normal throughout the State, averaging around 60 percent of normal in the northeastern, central, and southern parts of the State and 75 percent of normal in the northwestern part of the State. Precipitation for the water year ranged from 37.2 inches, 85.0 percent of the 30-year reference-period (1961-90) mean, at Trenton to 31.0 inches, 77.0 percent of the 30-year mean, at Atlantic City. Precipitation in the Newark area was 33.6 inches, 76.4 percent of the 30-year mean. Figure 1 shows monthly precipitation at three National Weather Service sites compared with the 30-year means. Combined contents of 13 major water-supply reservoirs was 61.7 billion gallons at the end of September 1994 (117 percent of the 30-year mean (normal) capacity for the end of September). Contents increased to a maximum 74.4 billion gallons by the end of May (102 percent of normal capacity for the end of May) and, by September 30, 1995, was 40.1 billion gallons (75.9 percent of normal capacity for the end of September).

Water year 1994 ended with streamflow near or above normal throughout the State. Precipitation in October was about 30 percent of the 30-year reference-period mean, which resulted in below-normal streamflow by the end of October. Below normal precipitation throughout much of the water year resulted in below-normal streamflow in most of the streams and rivers throughout the State for the entire year. Isolated storms, primarily during the summer months, resulted in minor local flooding. The lack of significant precipitation throughout the year resulted in numerous water restrictions, drought watches, and warnings, which were declared by the State, the Delaware River Basin Commission, and local water authorities. Because the water year began with above normal levels at most reservoirs, restrictions were not issued until late in the year. Lawn watering, car washing, and other non-essential types of water use were banned. On August 29, with precipitation well below normal and reservoir levels also below normal, the Commissioner of the New Jersey Department of Environmental Protection (NJDEP) declared a drought warning for the Passaic and Hackensack River Basins in the northeastern part of the State. On September 9, minimum passing flows, normally required to maintain aquatic life in the streams and rivers, were reduced to conserve reservoir water. On September 13, the Governor of New Jersey declared a drought emergency for the northeastern counties of the State. A drought emergency restricts the use of water for outdoor watering of lawns and plants, car washing, and other nonessential tasks. On September 15, the NJDEP and Delaware River Basin Commission declared a drought warning for the Delaware River Basin because reservoir levels upstream in New York State had decreased to below-normal levels. With the declaration of this drought warning, the amount of water permitted to be diverted from the Delaware River Basin by both New Jersey and New York City was reduced, as were target flows in the mainstem Delaware River. The drought warning declarations remained in effect through September.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 83.3 ft<sup>3</sup>/s for the water year; this flow is 68 percent of the 1919-94 average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 55.8 ft<sup>3</sup>/s, which is 65 percent of the 1926-94 average. The observed annual mean discharge of the Delaware River at Trenton was 8,542 ft<sup>3</sup>/s, which is 74 percent of the 1913-94 average. The Delaware River is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for upstream storage and diversion) for the year was 89.4 percent of the long-term (1961-90) average. Monthly mean discharge at each of these index gaging stations during the current water year and the long-term normal monthly discharge are shown in figure 3. Annual mean discharge at each of these index gaging stations and the mean annual discharge for the period of record are shown in figure 4. Seven long-term gaging stations, most of which are located in the southern part of the State, each with more than 30 years of data, registered record low annual mean flows during the water year. Also, 16 gaging stations, located throughout the State, recorded the lowest daily mean discharges for the period of record during August or September.

Combined usable storage in 13 major water-supply reservoirs in New Jersey decreased from 61.7 billion gallons (76.7 percent of capacity) on September 30, 1994, to 40.1 billion gallons (49.9 percent of capacity) on September 30, 1995. Usable storage in Wanaque Reservoir decreased from 17.9 billion gallons (64.2 percent of capacity) on September 30, 1994, to 10.8 billion gallons (38.9 percent of capacity) on September 30, 1995.

**Water Quality**

Below-normal precipitation throughout most of the water year caused decreased dilution and, in turn, increased concentrations of dissolved solids in streams throughout the State. Dilution of dissolved solids generally indicates an improvement in water quality because concentrations of undesirable substances, such as trace elements, organic compounds, nutrients, bacteria, and nuisance aquatic organisms, usually are decreased. The reduced level of dilution during 1995 is apparent when monthly mean values of specific conductance, which are related directly to dissolved-solids concentration, for the water year are compared with mean specific-conductance values for an earlier period. Monthly mean specific-conductance values for the Delaware River at Trenton, a large drainage area in northwestern New Jersey and parts of New York and Pennsylvania, in 1995 are compared with the monthly mean values for 1968-94 in figure 5. Specific-conductance values were above the long-term mean for much of the year but within the range of maximum historical monthly mean values (1968-1994) throughout the year, except during May when values exceeded the previously established maximum monthly mean of daily mean values.

The monthly mean of daily mean values of the temperature of the water flowing past the continuous-monitoring station on the Delaware River at Trenton in water year 1995 were within the range of the historical monthly mean values for the entire year, except for January when values equaled the previously established maximum (fig. 6).

The extreme monthly median concentrations of dissolved oxygen in the Delaware River at Trenton during the 1995 water year were within the range of historical (1968-94) extreme median values (fig. 7) for the period October 1994 through May 1995, equal to the previous lowest June median daily minimum value, and below previously established minimums for July, August, and September. The monthly median of the daily minimum concentrations was lowest in September (5.25 milligrams per liter). The monthly median of maximum concentrations was highest in February (13.2 milligrams per liter) when the monthly mean water temperature was 2.5 °C.

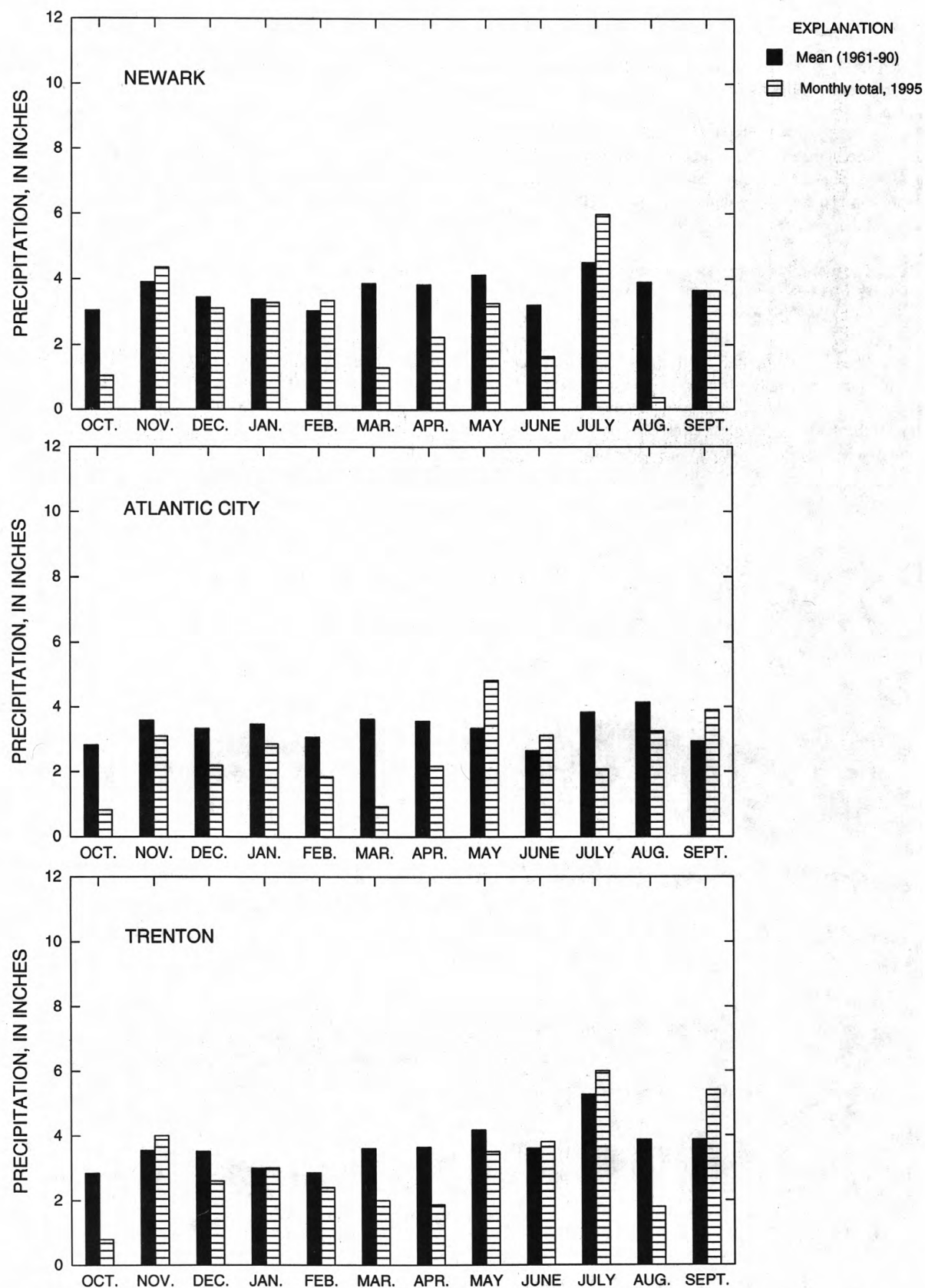
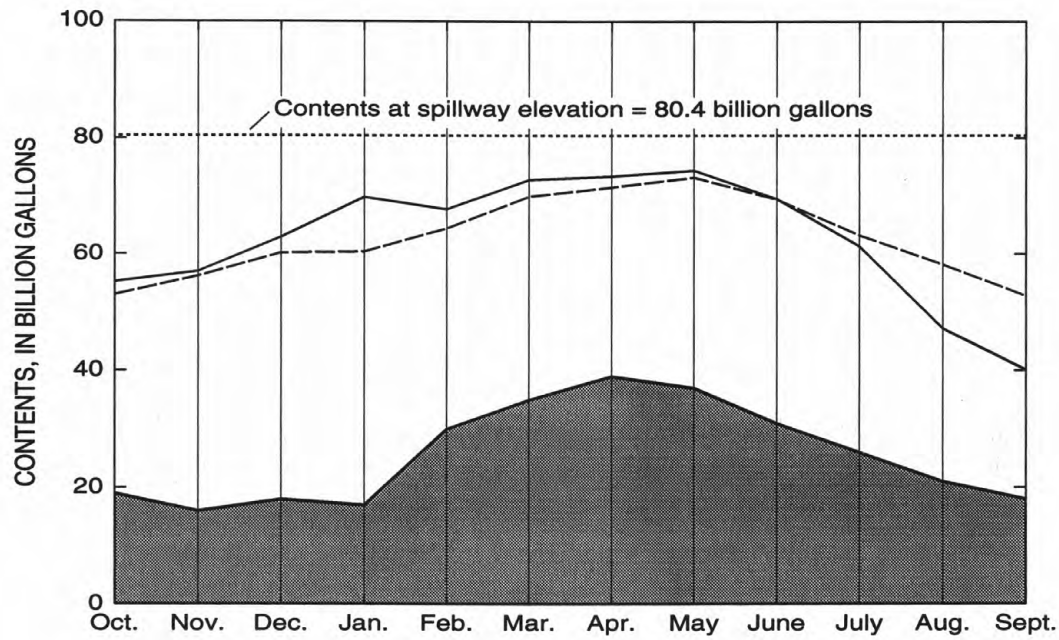



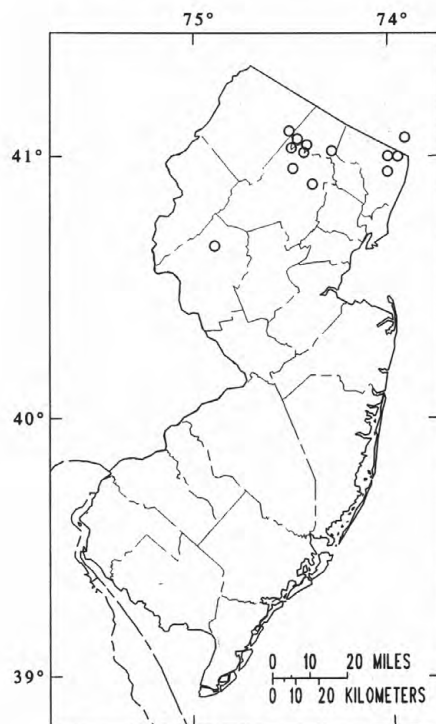


Figure 1.--Monthly precipitation at three National Weather Service locations.



EXPLANATION

-  Shaded area indicates lowest monthly contents for reference period
-  Average contents, 1961-90
-  Month-end contents, 1995 water year

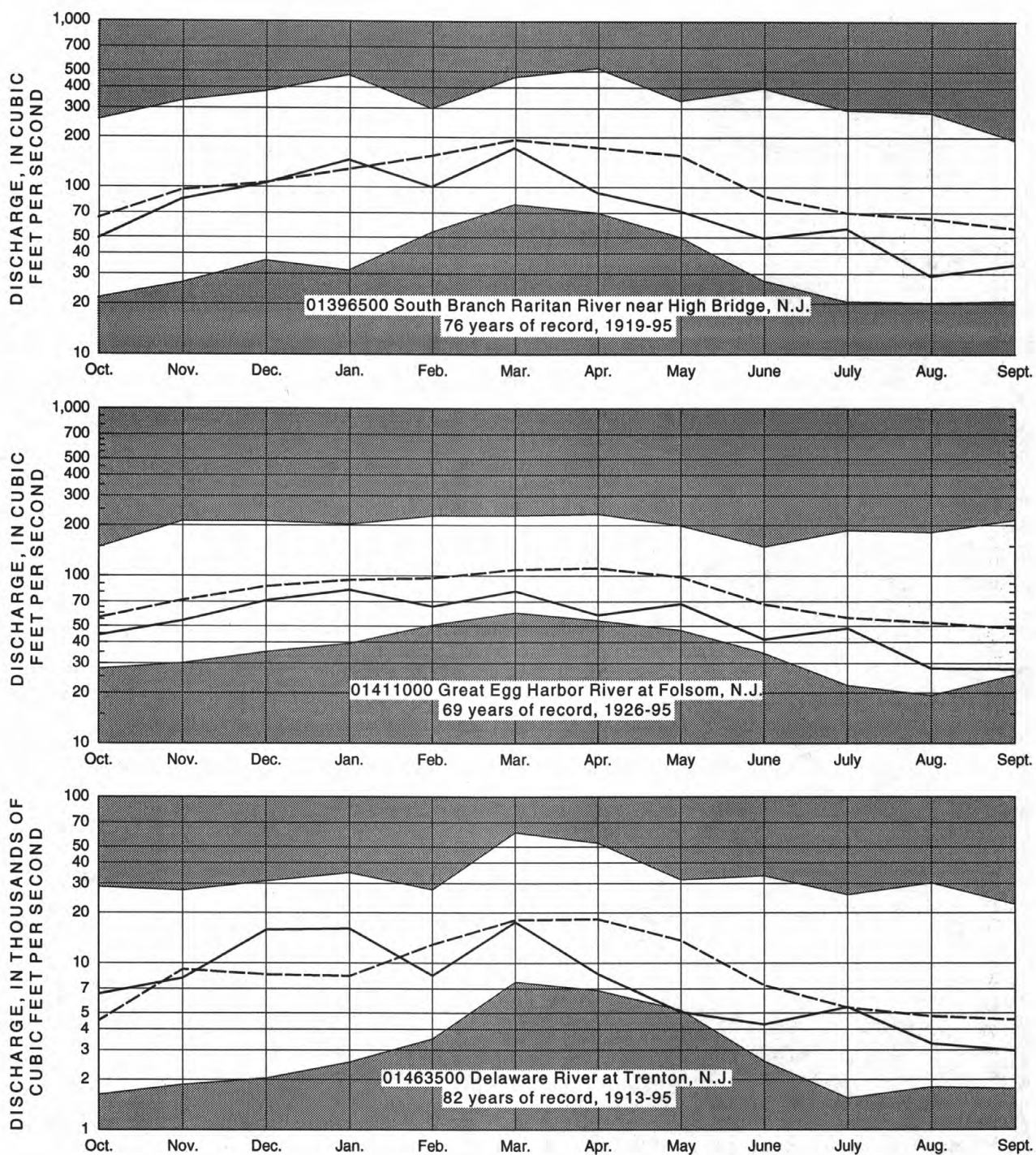


Map showing locations of reservoirs

Figure 2. Combined usable storage in 13 major water-supply reservoirs.



## WATER RESOURCES DATA-NEW JERSEY, 1995



## EXPLANATION

UNSHADED AREA--Indicates range between highest and lowest mean recorded for the month, prior to 1995 water year

BROKEN LINE--Indicates normal (median of the monthly means) for the standard reference period, 1961-90

SOLID LINE--Indicates observed monthly mean flow for the 1995 water year

Figure 3. Monthly mean discharge at index gaging stations.

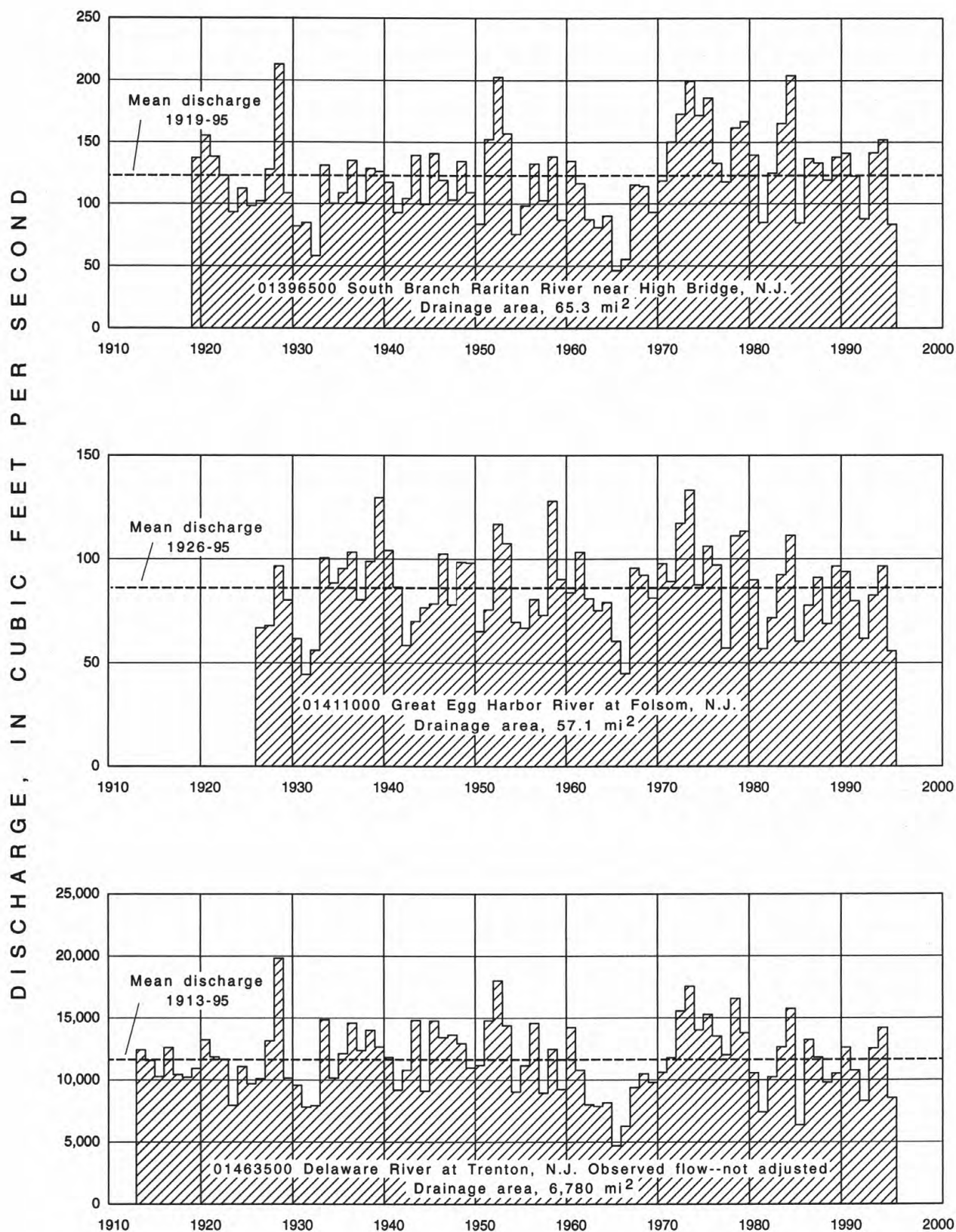
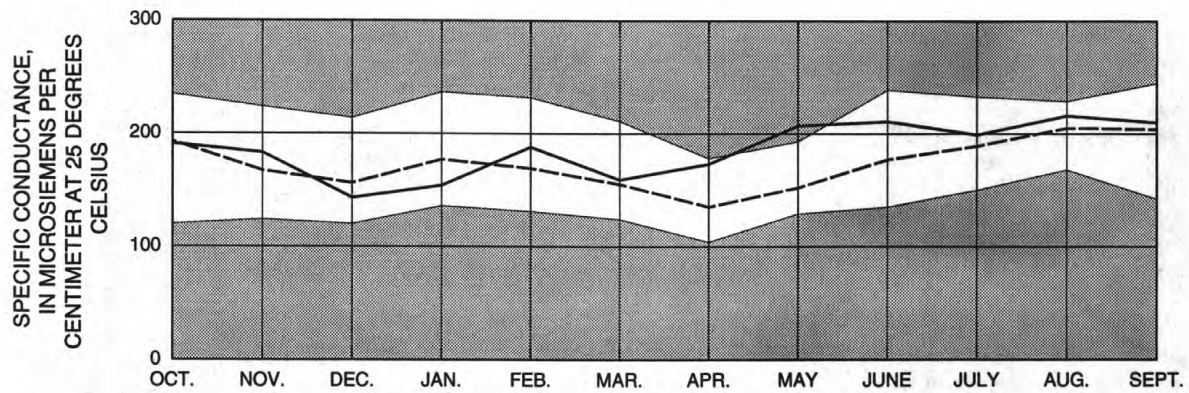


Figure 4. Annual mean discharge at index gaging stations.

# **WATER RESOURCES DATA-NEW JERSEY, 1995**



## **EXPLANATION**

UNSHADED AREA--Indicates the range between the highest monthly mean of daily values and the lowest monthly mean of daily values, water years 1968-94.

SOLID LINE--Indicates the monthly mean of daily values for water year 1995.

BROKEN LINE--Indicates the mean of monthly mean values for water years 1968-94.

Figure 5.--Monthly mean specific conductance at Delaware River at Trenton, New Jersey.

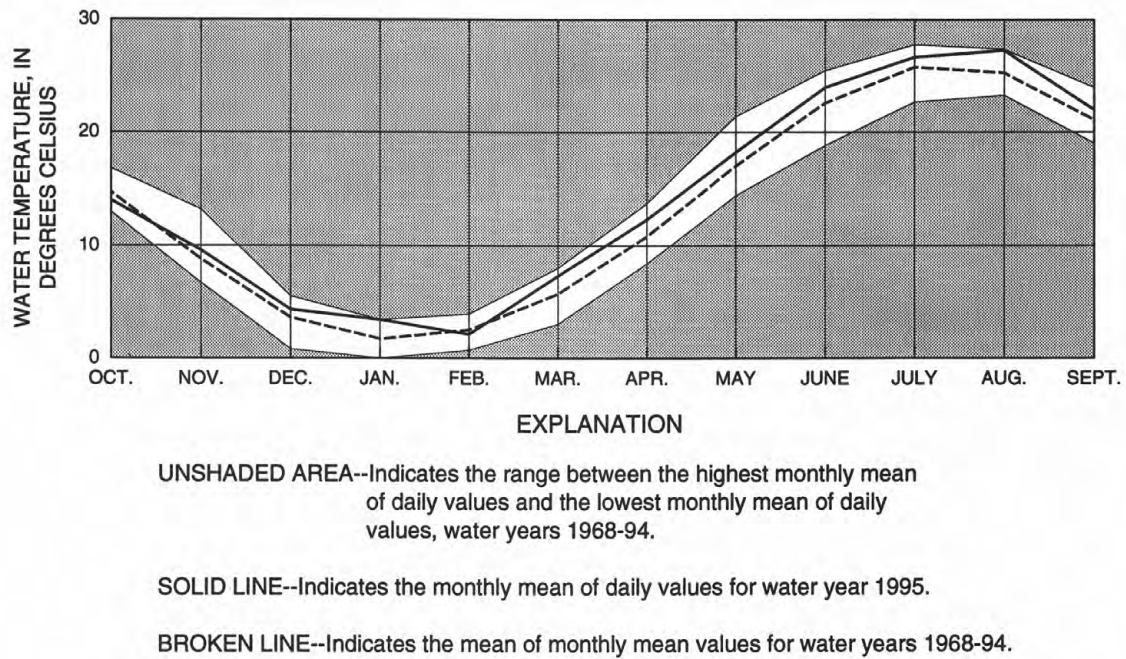


Figure 6.--Monthly mean water temperature at Delaware River at Trenton, New Jersey.

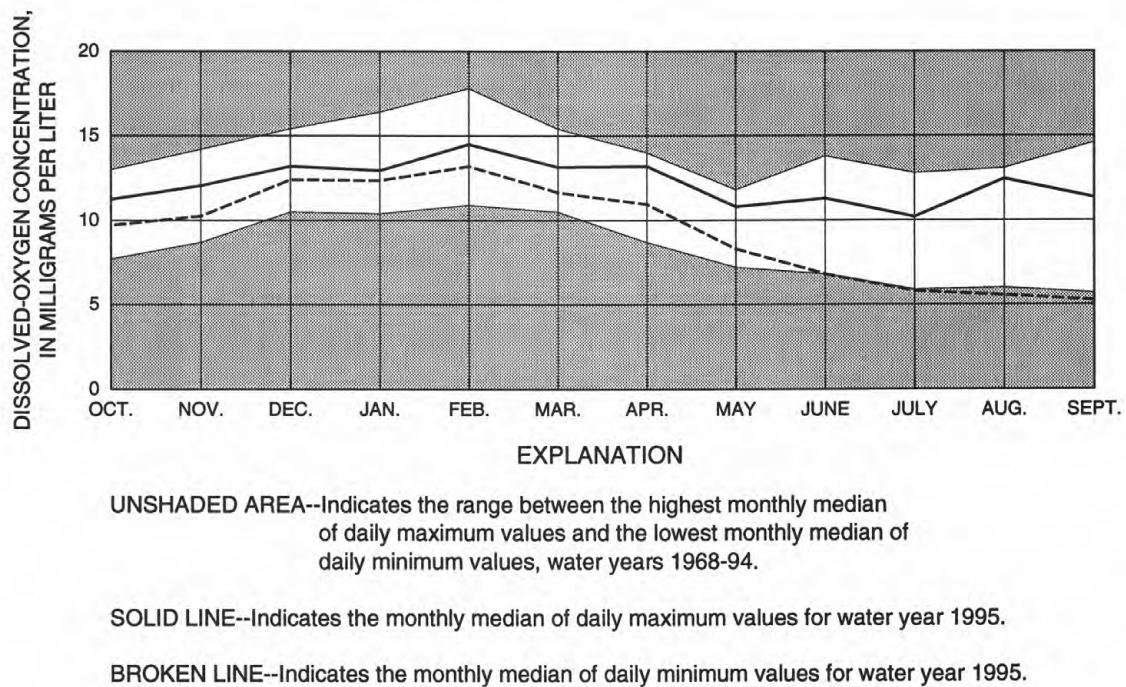


Figure 7.--Monthly medians of daily maximum and minimum dissolved-oxygen concentrations at Delaware River at Trenton, New Jersey.



## ***WATER RESOURCES DATA - NEW JERSEY, 1995***

### **SPECIAL NETWORKS AND PROGRAMS**

Hydrologic Bench-mark Network is a network of 53 surface-water sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man. The Bench-mark Network station published in this report is McDonalds Branch in Lebanon State Forest, NJ (01466500).

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The 284 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. NASQAN stations published in this report are: Raritan River at Queens Bridge, at Bound Brook, NJ (01403300), and Delaware River at Trenton, NJ (01463500).

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP). No NTN stations are published in this report.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest. No NAWQA stations are published in this report.

Radiochemical Programs is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. The Radiochemical Program station published in this report is Delaware River at Trenton, NJ (01463500).

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States. No Tritium Network stations are published in this report.

### **EXPLANATION OF THE RECORDS**

The surface-water records published in this report are for the 1995 water year that began October 1, 1994, and ended September 30, 1995. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs and surface-water-quality data. The locations of the stations where the data were collected are shown in figures 9 and 10. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. Generally the "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells.

#### **Downstream Order System**

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 01396500, which appears just to the left of the station name, includes the two-digit Part number "01" plus the 6-digit downstream-order number "396500". The Part number designates the major drainage basin; for example, Part "01" covers the North Atlantic slope basins. In some areas where all 8-digit numbers are used up, 10-digit station numbers are assigned between the 8-digit numbers.

#### **Latitude-Longitude System**

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

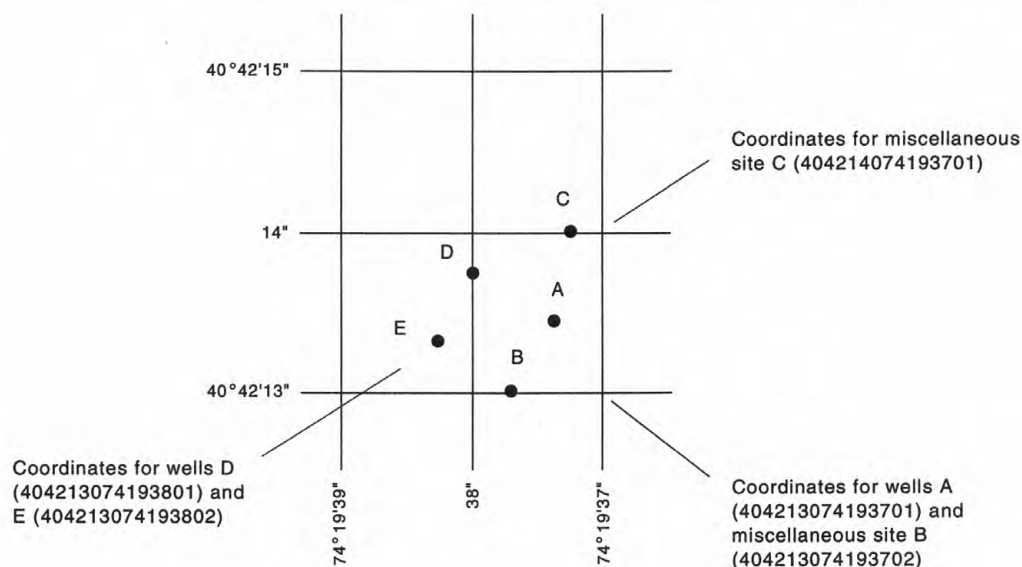


Figure 8. System for numbering wells and miscellaneous sites (latitude and longitude).

### **Records of Stage and Water Discharge**

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figures 11 and 12.

### **Data Collection and Computation**

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, with digital recorders that punch stage values on paper tapes at selected time intervals, or with data collection platforms (DCP) that electronically record and then transmit the data via satellite to ground receiving stations. At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharges. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross section area. Discharge is computed by multiplying path velocity by the appropriate stage related coefficient and area. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the unit mean stages (gage heights) to the stage-discharge curves or tables and averaging the results. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.



In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

### **Data Presentation**

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1988 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

### **Station manuscript**

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**--This indicates the period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that flow at it can reasonably be considered equivalent to flow at the present station.

**REVISED RECORDS.**--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

**GAGE.**--The type of gage in current use, the datum of the current gage referred to sea level (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.



**REMARKS.**--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir station, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

**COOPERATION.**--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

**REVISIONS.**--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

**PEAK DISCHARGES FOR CURRENT YEAR.**--For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (\*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of instantaneous peak discharges in the PEAK DISCHARGES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table. No changes have been made to the data presentations of lake contents.

### **Data table of daily mean values**

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and run-off in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

### **Statistics of monthly mean data**

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS \_\_\_\_ - \_\_\_\_, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station records within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

**Summary statistics**

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year, but also for the previous calendar year and for the designated period, as appropriate. The designated period selected, "WATER YEARS \_\_\_\_-\_\_\_\_," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

**ANNUAL TOTAL.**--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**ANNUAL MEAN.**--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations, the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**HIGHEST ANNUAL MEAN.**--The maximum annual mean discharge occurring for the designated period.

**LOWEST ANNUAL MEAN.**--The minimum annual mean discharge occurring for the designated period.

**HIGHEST DAILY MEAN.**--The maximum daily mean discharge for the year or for the designated period.

**LOWEST DAILY MEAN.**--The minimum daily mean discharge for the year or for the designated period.

**ANNUAL 7-DAY MINIMUM.**--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date for the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

**INSTANTANEOUS PEAK FLOW.**--The maximum instantaneous discharge occurring for the water year or for the designated period. Secondary instantaneous peak discharges above a selected base discharge are given in the station manuscript under the heading "PEAK DISCHARGES FOR CURRENT YEAR."

**INSTANTANEOUS PEAK STAGE.**--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

**INSTANTANEOUS LOW FLOW.**--The minimum instantaneous discharge occurring for the water year or for the designated period.

**ANNUAL RUNOFF.**--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites. Following the listings of measurements at miscellaneous sites is a table of maximum elevations at tidal crest-stage stations.

### **Identifying Estimated Daily Discharge**

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated" or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

### **Accuracy of the Records**

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures for more than 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

### **Other Records Available**

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the New Jersey District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.



### **Records of Surface-Water Quality**

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 11.

#### **Classification of Records**

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records", as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

#### **Arrangement of Records**

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites which are not at a surface-water daily record station appear in separate tables following the table of discharge measurements at miscellaneous sites.

#### **On-site Measurements and Sample Collection**

Water-quality data must represent the in-situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on-site when the samples are collected. In addition, specific procedures must be used in collecting, treating, and shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. These references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

In streams, concentrations of various constituents may vary within the cross section depending on variables such as flow rate, the sources of the constituents, and mixing. Generally, constituents in solid phases are more variable in the cross section than are dissolved constituents. In many cases, samples must integrate several parts of the stream cross section to be representative, especially if loads will be calculated. One sample may be representative of the cross section when the distribution of constituents is homogeneous. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from several verticals.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. In some instances, apparent inconsistencies may exist in the data. For example, the orthophosphate-phosphorus concentration may exceed total phosphorus concentration. However, the difference in the inconsistent values normally is smaller than the precision of the analytical techniques. Inconsistencies between pH and carbonate and bicarbonate concentrations are commonly caused by intake or loss of carbon dioxide by the sample before it can be analyzed.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Geological Survey, New Jersey District Office whose address is given on the back of the title page of this report.



### **Water Temperature**

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, maximum, minimum and mean temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the New Jersey District Office.

### **Sediment**

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

### **Laboratory Measurements**

Samples for biochemical-oxygen demand and for fecal coliform and enterococcus bacteria are analyzed at the District laboratory or at the New Jersey Department of Health, Public Health and Environmental Laboratories. Samples for nutrients are analyzed at the New Jersey Department of Health or at the Geological Survey Laboratory in Arvada, Colorado. Sediment samples are analyzed in the Geological Survey Laboratories in Lemoyne, Pennsylvania, and Iowa City, Iowa. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

### **Data Presentation**

The column headings for water-quality constituents include 5-digit EPA Storet parameter codes. The codes are included to permit accurate cross reference to data from other data bases using the same code system.

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites which are not at a surface-water daily record station are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

## **SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS**

### **Remark Codes**

The following remark codes may appear with the water-quality data in this report:

#### **PRINTED OUTPUT**

#### **REMARK**

E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

**Dissolved Trace-Element Concentrations**

Note.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ( $\mu\text{g/L}$ ) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter ( $\text{ng/L}$ ). Present data above the  $\mu\text{g/L}$  level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey begins using new trace-element protocols in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

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**Methylene Blue Active Substances**

MBAS determinations made from January 1, 1970 through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected by using the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data, are applied:

$$\text{MBASCOR} = \text{M} - 0.0088\text{N} - 0.00019\text{C}$$

where:

MBASCOR = corrected MBAS concentration, in  $\text{mg/L}$ ;

M = reported MBAS concentration, in  $\text{mg/L}$ ;

N = dissolved nitrate plus nitrite, as nitrogen, concentration, in  $\text{mg/L}$ ; and

C = dissolved chloride concentration, in  $\text{mg/L}$ .

The detection limit of the new method is  $0.02 \text{ mg/L}$ , whereas the detection limit for the old method was  $0.01 \text{ mg/L}$ . A detection limit of  $0.02 \text{ mg/L}$  should be used with corrected MBAS data from January 1, 1970 through August 29, 1993.

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**CURRENT WATER RESOURCES PROJECTS IN NEW JERSEY**

Survey is currently involved in a number of hydrologic investigations in the State of New Jersey. The following is a list of these investigations. Results are published at the conclusion of short-term projects or periodically in the case of long-term projects. Hydrologic data from these projects are entered into the WATSTORE data base. Subsequent sections contain information on recent publications and on WATSTORE.

**Barneget Bay Non-Point Source**

Compositional Modeling of Organic Transport and Biodegradation of Organic Compounds in the Unsaturated Zone and Ground Water

Distribution and Sources of Arsenic in Soils near the Imperial Oil Site, Monmouth County, New Jersey

Efficacy of Composted Biosolids Application in the New Jersey Pinelands for Disturbed Site Recovery

Flood Characteristics of New Jersey Streams

Geohydrology of the Naval Air Warfare Center, West Trenton, New Jersey

Geohydrology of the Picatinny Arsenal in Morris County, New Jersey

Ground-Water Contamination with Chlorinated Volatile Organic Compounds at Picatinny Arsenal, Morris County, New Jersey

Ground-Water Data Collection Network

Ground-Water Levels in Major Aquifers of the Coastal Plain, 1993

Hydrologic Controls on Well-Contributing Areas in New Jersey

Hydrology of Surficial Aquifer Systems

Hydrology of Wetlands

Hydrogeologic Support to Fort Dix, Burlington County, New Jersey

Hydrogeologic Support to McGuire Air Force Base, Burlington County, New Jersey

Investigation of Contaminant Transport in a Fractured Rock Aquifer, Rutgers University, Busch Campus

Investigation of Water Quality in the Wanaque South Project Diversion Area, Morris and Passaic Counties, New Jersey

Lake Herbicides  
Low Flow Characteristics of New Jersey Streams  
Magnitude and Frequency of Floods at Roadway Sites in New Jersey  
Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone  
Multispecies Transport in Ground Water  
New Jersey-Long Island National Water Quality Assessment  
New Jersey Tide Telemetry System  
New Jersey Water Use Program  
Passaic Flood Warning System  
Pesticide Vulnerability of Public Ground-Water Supplies  
Radium and Trace Metal Leaching in the Kirkwood-Cohansey Aquifer System  
Small Watershed Flood Data Collection  
Quality of Water Data Collection Network  
Relations Between Streamflow, Salinity, and Water Quality in Estuaries of the Toms and Metedeconk Rivers, New Jersey  
Removal of Volatile Ground-Water Contaminants by Inducing Air-Phase Transport  
Review of Remedial Investigation for the Vineland Chemical Superfund Site  
Small-Scale Watershed Delineation for GIS (14-Digit Hydrologic Unit Codes)  
Somerset County Flood Information System  
Strategic Environmental Research Development Program, Biodegradation, Picatinny Arsenal  
Surface Water Data Collection Network  
Surfactant Sorption to Soil and its Effect on the Distribution of Anthropogenic Organic Compounds  
Vulnerability Assessment of the Kirkwood-Cohansey Aquifer System to Radium, Mercury, and Trace Metals  
Watershed-Based Method for Relating Water Quality to Flow Characteristics  
Water-Supply Availability in Salem and Gloucester Counties, New Jersey

#### **WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS**

- Ayers, M.A., Wolock, D.M., McCabe, G.J., Hay, L.E., and Tasker, G.D., 1993, Sensitivity of water resources in the Delaware River basin to climate variability and change: U.S. Geological Survey Open-File Report 92-52, 68 p.
- Barringer, J.L., 1994, Interactions of metallic substances and acidic ground water in the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 90-4095, 68 p.
- Barringer, J.L., Kish, G.R., and Velnich, A.J., 1993, Corrosiveness of ground water in the Kirkwood-Cohansey aquifer system of the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 90-4180, 79 p. 1 pl.
- Barton, G.J., and Ivahnenko, Tamara, 1992, Hydrogeologic, geophysical, and ground-water-quality reconnaissance at and near the Ciba-Geigy Superfund Site, Ocean County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 91-4048, 84 p., 10 pls.
- Barton, G.J., Storck, D.A., and Paulachok, G.N., 1993, Records of wells, exploratory boreholes, and ground-water quality, Atlantic County and vicinity, New Jersey: U.S. Geological Survey Open-File Report 92-631, 95 p., 1 pl.
- Bauersfeld, W.R., Moshinsky, E.W., Gurney C.E., 1995, Water resources data for New Jersey - water year 1994, volume 1, surface-water data: U.S. Geological Survey Water-Data Report NJ-94-1, 554 p



- Bauersfeld, W.R., Jones, W.D., and Gurney C.E. 1995, Water resources data for New Jersey - water year 1994, volume 2, ground-water data: U.S. Geological Survey Water-Data Report NJ-94-2, 225 p.
- Buxton, D.E., and Dunne, Paul, 1993, Water-quality data for the Millstone River at Weston, New Jersey, and the Shark River at Remsen Mill, New Jersey, March-September 1992: U.S. Geological Survey Open-File Report 93-444, 16 p.
- Clawges, R.M., and Titus, E.O., 1993, Methods for predicting water demand for crop uses in New Jersey in 1990, 2000, 2010, and 2020, and for estimating water use for livestock and selected sectors of the food- processing industry in New Jersey in 1987: U.S. Geological Survey Water-Resources Investigations Report 92-4145, 211 p., 1 pl.
- Czarnik, T.S., and Kozinski, Jane, 1994, Ground-water quality in the central part of the Passaic River Basin, northeastern New Jersey, 1959-88: U.S. Geological Survey Water-Resources Investigations Report 92-4083, 66 p.
- Drake, Jr., A.A., and Volkert, R.A., 1993, Bedrock geologic map of the Newton East quadrangle, Sussex County, New Jersey: U.S. Geological Survey Geologic Quadrangle Map 1707, 1 sheet, scale 1:24,000.
- Dunne, Paul, and Price, C.V., 1995, Geographic Information System programs for use in the water-supply-allocation permitting process: U.S. Geological Survey Open-File Report 95-157, 31 p.
- Dunne, Paul, and Velnich, A.J., 1994, Development, installation, and operation of a flood-monitoring system in Somerset County, New Jersey: U.S. Geological Survey Open-File Report 94-65, 23 p.
- Ervin, E.M., Voronin, L.M., and Fusillo, T.V., 1994, Water quality of the Potomac-Raritan-Magothy aquifer system in the Coastal Plain, west-central New Jersey: U.S. Geological Survey Water-Resources Investigations Report 94-4113.
- Gordon, Alison D., 1995, Hydrogeology of, and simulated ground-water flow in, the valley-fill aquifers of the upper Rockaway River Basin, Morris County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 93-4145, p. 74.
- Hickman, R.E., 1992, Water-quality data from reconnaissance surveys of selected estuaries in southern New Jersey, July-October 1989: U.S. Geological Survey Open-File Report 91-491, 61 p.
- Hickman, R.E., 1995, Statistical characteristics of stream discharge in tributaries of selected estuaries in New Jersey: U.S. Geological Survey Water-Resources Investigations Report 91-4141, 53 p.
- Ivahnenko, Tamara, and Buxton, D.E., 1994, Agricultural pesticides in six drainage basins used for public water supply in New Jersey, 1990: U.S. Geological Survey Water-Resources Investigations Report 93-4101, 56 p.
- Jacobsen, Eric, Hardy, M.A., and Kurtz, B.A., 1993, Hydrologic conditions in the Jacobs Creek, Stony Brook, and Beden Brook drainage basins, west- central New Jersey, 1986-88: U.S. Geological Survey Water-Resources Investigations Report 91-4164, 104 p., 1 pl.
- Johnsson, P.A., and Barringer, J.L., 1993, Water quality and hydrogeochemical processes in McDonalds Branch Basin, New Jersey Pinelands, 1984-88: U.S. Geological Survey Water-Resources Investigations Report 91-4081, 111 p.
- Joss, Craig J., and Baehr, Arthur L., 1995, Documentation of AIR3D, an adaptation of the ground-water-flow code MODFLOW to simulate three-dimensional air flow in the unsaturated zone: U.S. Geological Survey Open-File Report 94-533, p. 154.
- Kozinski, Jane, Szabo, Zoltan, Zapecza, O.S., and Barringer, T.H., 1995, Natural radioactivity in, and inorganic chemistry of ground water in the Kirkwood-Cohansey aquifer system, southern New Jersey, 1983-89: U.S. Geological Survey Water-Resources Investigations Report 92-4144, 130 p.
- Lacombe, Pierre J., and Rosman, Robert, 1995, Hydrology of the unconfined aquifer system in the upper Maurice River basin and adjacent areas in Gloucester County, New Jersey, 1986-87: U.S. Geological Survey Water-Resources Investigations Report 92-4128, 5 sheets.
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- MacLeod, C.L., Barringer, T.H., Vowinkel, E.F., and Price, C.V., 1995, Relation of nitrate concentrations in ground water to well depth, well use, and land use in Franklin Township, Gloucester County, New Jersey, 1970-85: U.S. Geological Survey Water-Resources Investigations Report 94-4174, 29 p.
- Navoy, A.S., 1994, Simulated effects of projected withdrawals from the Wenonah-Mount Laurel aquifer on ground-water levels in the Camden, New Jersey, area and vicinity: U.S. Geological Survey Water-Resources Investigations Report 92-4152, 22 p.
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- Reed, T.J., and Hunchak-Kariouk, Kathryn, 1995, Surface-water-temperature statistics for streams in New Jersey and vicinity, 1955-93: U.S. Geological Survey Open-File Report 95-196, 142 p.
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- Storck, D.A., 1994, Hydrology of, and water quality in, the Open Burning Area and vicinity, Picatinny Arsenal, New Jersey, 1989-90: U.S. Geological Survey Water-Resources Investigations Report 92-4134, 69 p.
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- \_\_\_\_\_, 1993, National Water Summary 1990-91--Hydrologic events and stream water quality: U.S. Geological Survey Water-Supply Paper 2400, 590 p.
- Vowinkel, E.F., and Tapper, R.J., 1995, Indicators of the sources and distribution of nitrate in water from shallow domestic wells in agricultural areas of the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 93-4178, p. 48.
- Watt, M.K., Johnson, M.L., and Lacombe, P.J., 1994, Hydrology of the unconfined aquifer system, Toms River, Metedeconk River, and Kettle Creek Basins, New Jersey, 1987-90: U.S. Geological Survey Water-Resources Investigations Report 93-4110, 5 pl.

## **WATER-RELATED ARTICLES FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS**

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- Lewis, J.C., 1992, Effect of anisotropy on ground-water discharge to streams in fractured Mesozoic-Basin rocks, in Hotchkiss, W.R., and Johnson, A.I., eds., Regional aquifer systems of the United States, Aquifers of the southern and eastern states, AWRA Monograph Series No. 17, p. 93- 105.
- Szabo, Zoltan, Rice, Donald E., Ivahnenko, Tamara, and Vowinkel, Eric F., 1994, Delineation of the distribution of pesticides and nitrates in an unconfined aquifer in the New Jersey Coastal Plain by flow-path analysis: Proceedings of the Fourth National Conference on Pesticides, November 1-3, 1993, p. 100-119.

### **WATER-RELATED FACT SHEETS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS**

- Ayers, M.A., 1994, National Water-Quality Assessment Program--Scope of the Long Island-New Jersey coastal drainages study-unit investigation: U.S.Geological Survey NAWQA Fact Sheet FS 94-030.
- Buxton, H.T., 1995, Surficial aquifer system of the New Jersey Coastal Plain--Significance to Resource Management: U.S. Geological Survey Fact Sheet FS 086-95.
- Stackelberg, Paul, and Ayers, M.A., 1994, National Water-Quality Assessment Program--Long Island-New Jersey coastal drainages: U.S. Geological Survey NAWQA Fact Sheet FS 94-012.
- U.S. Geological Survey, 1995, United States Geological Survey Programs in New Jersey: U.S. Geological Survey Fact Sheet FS 030-95.

### **ACCESS TO WATSTORE DATA**

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- Ground-Water Site Inventory Data Base - Contains inventory data for over 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey  
National Water Data Exchange  
421 USGS National Center  
Reston, Virginia 20192



In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch and 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.)

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria which produce pink to red colonies with black or red-dish-brown precipitate after incubation at 41°C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic invertebrates are invertebrate animals inhabiting the bottoms of lakes, streams, and other water bodies. They are useful as indicators of water quality.



Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter ( $\text{g/m}^3$ ), and periphyton and benthic organisms in grams per square mile ( $\text{g/m}^2$ ).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing-record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second ( $\text{ft}^3/\text{s}$ ,  $\text{ft}^3/\text{s}$ ) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Extractable organic halides (EOX) are organic compounds which contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried stream bottom sediments. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the stream bottom sediments.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

High tide is the maximum height reached by each rising tide.

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Low tide is the minimum height reached by each falling tide.

Mean high tide is the average of all high tides over a specified period.

Mean low tide is the average of all low tides over a specified period.

Mean water level is the average of all tides over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ( $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ( $\mu\text{g/L}$ ,  $\mu\text{g/L}$ ) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter ( $\text{mg/L}$ ,  $\text{mg/L}$ ) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in  $\text{mg/L}$  and is based on the mass of dry sediment per liter of water-sediment mixture.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic-invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter ( $\text{m}^2$ ), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter ( $\text{mL}$ ) or liter ( $\text{L}$ ). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters ( $\text{mm}$ ), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).



Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay .....	0.00024 - 0.004	Sedimentation
Silt .....	.004 - .062	Sedimentation
Sand .....	.062 - 2.0	Sedimentation or sieve
Gravel .....	2.0 - 64.0	Sieve

The partial-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth ( $1 \times 10^{12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [ $\text{mg C}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes and [ $\text{mg C}/(\text{m}^3/\text{time})$ ] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.



Milligrams of oxygen per area or volume per unit time [ $\text{mg O}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes and [ $\text{mg O}/(\text{m}^3/\text{time})$ ] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

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

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge ( $\text{ft}^3/\text{s}$ ) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization or organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hard-board) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimeted. all areas shown are those for the stage when the planimeted map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom .....	Animal
Phylum .....	Arthropoda
Class .....	Insecta
Order .....	Ephemeroptera
Family .....	Ephemeridae
Genus .....	Hexagenia
Species .....	Hexagenia Limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.



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## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
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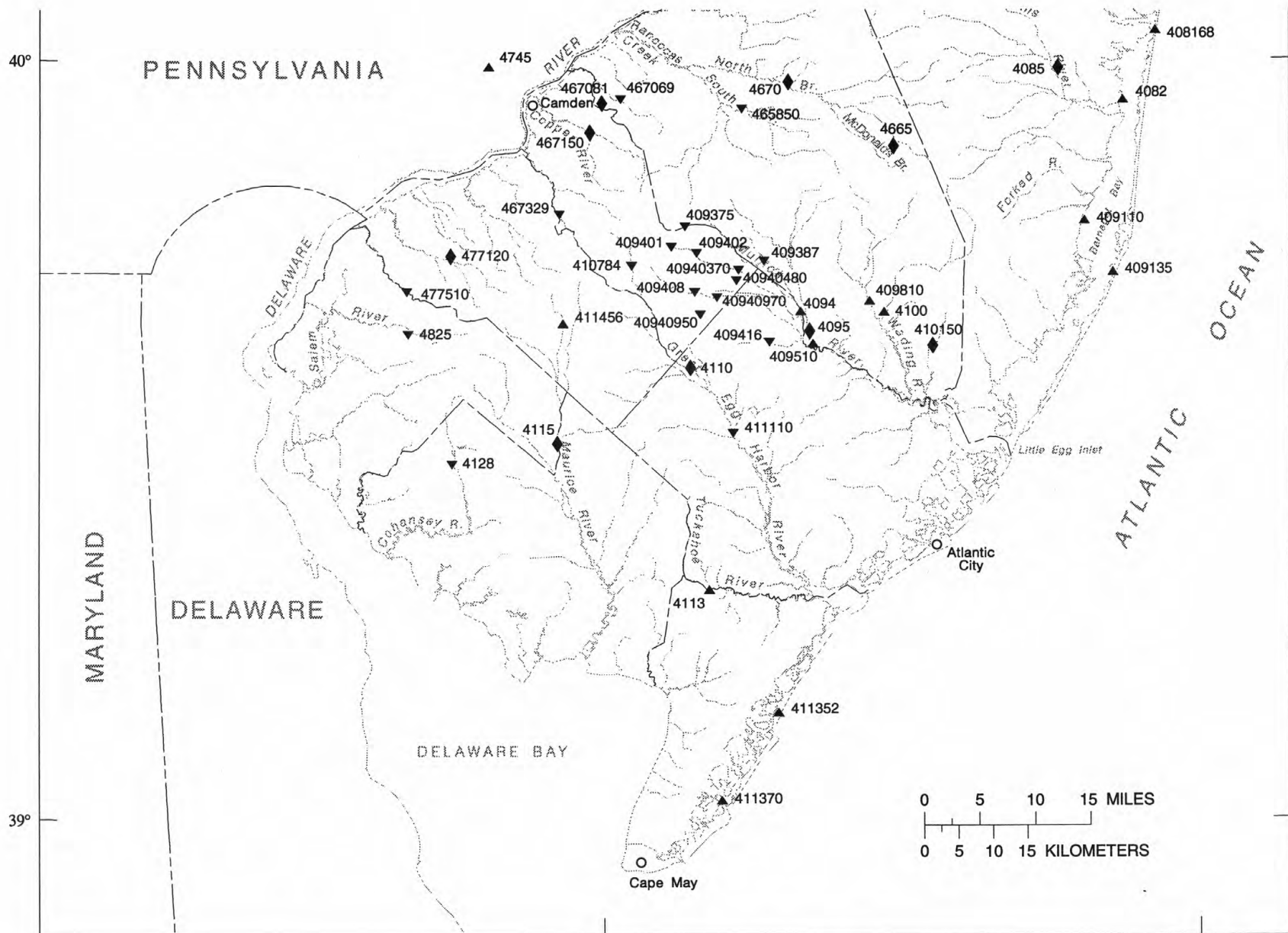


Figure 9.--Map showing location of gaging stations and surface-water quality stations.

# WATER RESOURCES DATA-NEW JERSEY, 1995

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## HUDSON RIVER BASIN

## 01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--Lat 41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.8 mi upstream of Papakating Creek, 1.7 mi southwest of Independence Corner, 2.0 mi southeast of Sussex, and 2.1 mi northwest of McAfee.

DRAINAGE AREA.--60.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
18...	1130	E30	607	8.3	9.5	760	9.7	85	E1.7	20	100	230	
JAN 1995													
17...	1200	163	393	7.9	7.5	752	10.2	86	E1.3	80	40	140	
MAR													
16...	1130	177	399	8.0	10.0	752	10.1	91	<1.0	80	20	150	
MAY													
30...	1130	E50	491	8.1	17.0	750	8.3	87	<1.0	2400	200	190	
JUL													
18...	1200	E60	486	8.0	22.0	748	7.3	85	E1.6	>24000	7100	190	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
18...	52	24	34	2.4	187	19	64	0.1	8.5	342	328	11	
JAN 1995													
17...	33	14	23	1.2	115	14	41	<0.1	6.6	206	205	12	
MAR													
16...	35	14	21	1.1	123	14	39	<0.1	5.4	216	206	13	
MAY													
30...	44	19	27	1.5	161	13	48	<0.1	7.7	272	262	14	
JUL													
18...	46	19	22	2.6	156	21	46	0.1	10	274	265	9	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
18...	0.009	2.60	<0.03	<0.03	0.50	0.35	3.1	3.0	0.02	0.02	4.3	0.4	
JAN 1995													
17...	0.007	0.60	0.08	0.10	0.30	0.22	0.90	0.82	0.02	<0.01	3.6	0.5	
MAR													
16...	0.004	0.51	<0.03	<0.03	0.30	0.20	0.81	0.71	0.02	<0.01	3.1	0.4	
MAY													
30...	0.013	1.20	<0.03	<0.03	0.50	0.28	1.7	1.5	0.03	0.02	4.1	0.9	
JUL													
18...	0.012	1.10	<0.03	<0.03	0.60	0.47	1.7	1.6	0.06	0.04	6.2	--	

## HUDSON RIVER BASIN

01367770 WALLKILL RIVER NEAR SUSSEX, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 18...	1130	21	1	<10	50	<1	<1	2
MAY 1995 30...	1130	13	2	<10	30	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 18...	240	<1	90	<0.1	<1	<1	20
MAY 1995 30...	720	1	150	<0.1	1	<1	40

## HUDSON RIVER BASIN

## 01367910 PAPAKATING CREEK AT SUSSEX, NJ

LOCATION.--Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23 in Sussex, 0.7 mi downstream from Clove Brook, 2.6 mi southwest of Independence Corner, and 3.4 mi northwest of McAfee.

DRAINAGE AREA.--59.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DEMAND, BIO-CHEM-ICAL, 5 DAY SATUR-ATION	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)
OCT 1994												
17...	1130	E15	316	7.7	7.5	760	9.3	78	E1.2	330	70	100
JAN 1995												
18...	1130	E85	236	7.8	5.5	760	11.9	95	<1.1	210	130	72
MAR												
16...	1130	E110	222	7.7	9.5	750	11.0	98	<1.0	<20	50	66
MAY												
23...	1200	E15	277	7.7	14.0	760	7.4	72	2.1	340	200	93
JUL												
20...	1200	E15	322	7.6	22.0	751	5.7	66	E1.7	16000	500	110
DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
	(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994												
17...	32	4.9	17	1.7	77	19	31	<0.1	5.8	176	161	12
JAN 1995												
18...	23	3.6	15	1.7	44	18	26	<0.1	6.1	132	124	11
MAR												
16...	21	3.3	15	1.4	40	16	27	<0.1	4.9	128	116	12
MAY												
23...	30	4.5	16	1.4	71	16	29	<0.1	5.7	174	149	11
JUL												
20...	35	5.0	17	2.4	80	16	32	0.1	8.9	186	167	20
DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
	(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994												
17...	0.011	0.74	0.12	0.17	0.50	0.51	1.2	1.2	0.05	0.05	3.5	0.2
JAN 1995												
18...	0.005	0.83	0.09	0.07	0.70	0.60	1.5	1.4	0.06	0.03	3.6	0.7
MAR												
16...	0.008	0.66	0.03	0.03	0.40	0.37	1.1	1.0	0.05	0.03	2.8	0.6
MAY												
23...	0.032	0.69	0.22	0.23	0.50	0.50	1.2	1.2	0.11	0.11	3.8	0.5
JUL												
20...	0.040	0.53	0.18	0.16	0.88	0.58	1.4	1.1	0.14	0.05	5.8	0.6

## HUDSON RIVER BASIN

01367910 PAPAKATING CREEK AT SUSSEX, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 17...	1130	14	<1	<10	30	<1	<1	2
MAY 1995 23...	1200	16	<1	<10	10	<1	<1	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 17...	280	<1	80	0.1	<1	<1	20
MAY 1995 23...	660	<1	200	<0.1	1	<1	20



## HUDSON RIVER BASIN

## 01368000 WALLKILL RIVER NEAR UNIONVILLE, NY

LOCATION.--Lat 41°15'36", long 74°32'58", Sussex County, New Jersey, Hydrologic Unit 02020007, on right bank on downstream side of bridge on Quarryville-Milton Road, 2.0 mi south of New York-New Jersey State line, and 3.0 mi south of Unionville.

DRAINAGE AREA.--140 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1963-78, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
OCT 1994													
19...	1200	E75	455	7.9	11.0	752	9.4	86	E1.5	110	70	170	
JAN 1995													
18...	1200	250	320	8.0	6.5	755	10.1	83	<1.5	790	130	110	
MAR													
15...	1130	368	313	7.7	9.5	755	9.5	84	E1.3	330	60	110	
MAY													
31...	1130	E85	418	7.7	17.0	756	7.9	82	<1.0	170	60	150	
JUL													
19...	1200	105	402	7.9	23.0	752	5.1	60	E1.9	5400	280	140	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
19...	43	15	24	2.0	132	20	44	<0.1	7.2	248	241	7	
JAN 1995													
18...	28	9.0	19	1.5	82	17	33	<0.1	6.7	178	167	9	
MAR													
15...	28	8.8	18	2.3	79	15	35	<0.1	5.8	178	163	7	
MAY													
31...	39	13	22	1.5	124	15	41	<0.1	7.5	224	218	15	
JUL													
19...	37	12	19	2.7	117	18	37	0.1	8.3	224	209	7	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
19...	0.025	1.50	<0.03	<0.03	0.60	0.36	2.1	1.9	0.07	0.03	4.3	0.5	
JAN 1995													
18...	0.006	0.79	<0.03	<0.03	0.40	0.29	1.2	1.1	0.06	<0.01	3.9	0.4	
MAR													
15...	0.008	0.69	0.03	<0.03	0.40	0.29	1.1	0.98	0.03	0.02	3.6	0.6	
MAY													
31...	0.029	1.10	0.11	0.12	0.40	0.41	1.5	1.5	0.06	0.03	4.5	0.6	
JUL													
19...	0.034	1.10	0.07	0.06	0.60	0.42	1.7	1.5	0.07	0.04	5.6	0.5	

## HUDSON RIVER BASIN

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 19...	1200	16	1	<10	40	<1	<1	2
MAY 1995 31...	1130	11	1	<10	30	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 19...	520	1	110	<0.1	<1	<1	<10
MAY 1995 31...	790	1	140	<0.1	1	<1	<10

## HUDSON RIVER BASIN

01368950 BLACK CREEK NEAR VERNON, NJ

LOCATION.--Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at bridge on Maple Grange Road, 0.6 mi upstream of confluence with Wawayanda Creek, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.

DRAINAGE AREA.--17.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
OCT 1994												
18...	1200	10	687	7.8	8.5	755	7.3	63	E1.2	40	60	270
JAN 1995												
17...	1130	63	506	7.5	8.0	752	6.6	57	E2.3	110	60	170
MAR												
23...	1200	39	560	8.2	7.5	741	11.2	96	<1.0	50	10	210
MAY												
23...	1200	23	608	8.2	15.5	760	9.5	96	E1.8	330	130	230
JUL												
18...	1130	19	512	7.7	22.5	748	3.8	45	3.8	24000	20000	200

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
18...	61	29	44	1.3	233	16	79	0.1	8.8	390	382	14
JAN 1995												
17...	40	18	26	1.5	158	15	49	0.2	6.9	272	254	5
MAR												
23...	50	21	28	1.6	184	15	55	0.1	6.6	298	291	2
MAY												
23...	51	25	33	1.1	204	14	61	0.1	6.9	344	317	8
JUL												
18...	46	20	28	3.8	156	22	56	0.1	8.4	294	282	24

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
18...	0.004	0.60	<0.03	<0.03	0.50	0.45	1.1	1.0	0.07	0.06	6.0	0.4
JAN 1995												
17...	0.009	0.56	0.09	0.08	0.60	0.43	1.2	0.99	0.03	0.02	3.9	0.3
MAR												
23...	0.006	0.84	0.09	<0.03	0.30	0.23	1.1	1.1	0.03	<0.01	3.4	0.4
MAY												
23...	0.018	0.57	<0.03	<0.03	0.30	0.17	0.87	0.74	0.01	<0.01	3.0	0.6
JUL												
18...	0.062	0.81	0.22	0.18	1.0	0.76	1.8	1.6	0.16	0.08	6.9	2.0

## HUDSON RIVER BASIN

01368950 BLACK CREEK NEAR VERNON, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 18...	1200	23	<1	<10	30	<1	<1	<1
MAY 1995 23...	1200	13	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 18...	470	<1	90	<0.1	<1	<1	<10
MAY 1995 23...	390	<1	110	<0.1	1	<1	<10



## 01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, Hydrologic Unit 02030103, on right bank 20 ft downstream from Penn Central Transportation Co. railroad bridge at West Nyack, 1,000 ft upstream from State Highway 59, and 1.0 mi downstream from DeForest Lake.

DRAINAGE AREA.--30.7 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1958 to current year.

REVISIONS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder, stop-log control, and crest-stage gage. Datum of gage is 53.50 ft above sea level (levels by Hackensack Water Co.).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft<sup>3</sup>/s, Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft<sup>3</sup>/s; maximum gage height, 10.52 ft, May 30, 1984; minimum daily discharge, 2.6 ft<sup>3</sup>/s, June 12, 1965, Sept. 25-26, 30, 1966.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 333 ft<sup>3</sup>/s, Mar. 9, gage height, 5.40 ft; minimum daily, 6.2 ft<sup>3</sup>/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	50	37	45	28	105	17	40	36	38	20	16
2	14	45	36	46	26	82	14	36	36	39	18	16
3	11	43	36	38	21	58	12	32	37	38	15	16
4	12	47	62	37	37	40	16	32	37	38	16	16
5	12	33	52	36	39	36	16	38	37	38	19	16
6	12	33	40	37	30	34	14	38	37	38	19	16
7	12	34	39	62	26	31	21	35	37	41	18	16
8	12	33	37	40	22	39	27	41	39	44	17	14
9	13	32	37	38	19	248	36	37	38	43	17	14
10	13	34	63	37	18	95	38	39	38	43	16	14
11	14	29	41	37	18	61	20	37	38	45	16	14
12	14	29	38	39	18	51	32	38	39	43	16	14
13	13	31	38	39	14	44	61	38	36	42	16	15
14	13	32	37	39	14	40	40	37	36	41	16	15
15	13	32	37	40	14	36	36	37	36	41	16	15
16	13	32	37	45	25	34	31	37	36	43	16	13
17	13	32	38	44	27	37	27	37	36	43	16	15
18	13	32	37	39	27	39	23	38	36	40	16	13
19	16	32	36	39	27	31	29	39	37	39	16	13
20	34	32	e36	90	28	28	31	37	37	40	16	13
21	38	79	e36	54	34	31	29	37	37	41	16	13
22	42	32	36	71	34	32	31	38	37	41	16	18
23	44	34	36	70	30	30	27	38	38	38	15	15
24	40	37	47	66	42	31	25	38	39	26	15	12
25	39	37	40	59	40	31	23	40	38	25	15	12
26	42	36	37	55	34	23	20	39	37	28	15	18
27	44	71	37	47	27	23	18	33	37	25	15	14
28	43	44	37	46	88	18	18	37	38	25	16	10
29	43	40	36	43	---	12	18	38	39	27	16	6.2
30	43	38	36	28	---	19	19	37	38	24	15	6.7
31	44	---	36	28	---	20	---	36	---	22	16	---
TOTAL	744	1145	1228	1434	807	1439	769	1154	1117	1139	505	418.9
MEAN	24.0	38.2	39.6	46.3	28.8	46.4	25.6	37.2	37.2	36.7	16.3	14.0
MAX	44	79	63	90	88	248	61	41	39	45	20	18
MIN	11	29	36	28	14	12	12	32	36	22	15	6.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1995, BY WATER YEAR (WY)

MEAN	31.4	31.9	37.3	42.7	49.8	70.7	73.1	52.6	34.8	33.4	28.6	33.7
MAX	84.2	88.6	121	125	152	151	204	162	162	127	83.3	100
(WY)	1990	1976	1973	1978	1973	1961	1983	1989	1972	1984	1966	1975
MIN	7.27	7.59	5.63	8.95	10.3	6.95	9.61	7.04	12.7	11.6	12.3	9.34
(WY)	1967	1967	1967	1967	1967	1981	1966	1965	1981	1977	1981	1962

# HACKENSACK RIVER BASIN

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01376800 HACKENSACK RIVER AT WEST NYACK, NY--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1959 - 1995	
ANNUAL TOTAL	15843.4		11899.9		43.5	
ANNUAL MEAN	43.4		32.6		74.1	
HIGHEST ANNUAL MEAN					13.4	
LOWEST ANNUAL MEAN					1320	
HIGHEST DAILY MEAN	342	Mar 29	248	Mar 9	2.6	Feb 3 1973
LOWEST DAILY MEAN	8.1	Mar 1	6.2	Sep 29	3.1	Jun 12 1965
ANNUAL SEVEN-DAY MINIMUM	9.3	Feb 26	11	Sep 24		Sep 25 1966
10 PERCENT EXCEEDS	93		44		86	
50 PERCENT EXCEEDS	24		36		24	
90 PERCENT EXCEEDS	13		14		12	

e Estimated.

## HACKENSACK RIVER BASIN

## 01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 22.51 ft above sea level.

REMARKS.--Records good. Flow regulated by De Forest Lake (since Feb. 1956) and Lake Tappan (since 1965), see Hackensack River basin, reservoirs in. Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River basin, diversions). Water occasionally diverted from Oradell Reservoir to Lake Tappan. Several measurements of water temperature, other than those published, were made during the year. United Water New Jersey (formerly Hackensack Water Co.) gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with United Water New Jersey (formerly Hackensack Water Co.).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	51	20	120	27	40	95	73	29	77	30	41
2	137	24	20	118	27	35	116	34	29	90	123	24
3	145	21	20	65	26	34	155	33	29	83	160	19
4	141	21	20	32	29	34	163	32	33	76	160	22
5	141	21	54	30	28	33	132	26	55	76	114	21
6	139	45	30	36	28	34	91	27	66	77	26	16
7	139	48	23	91	27	33	88	25	66	78	22	16
8	136	47	21	37	29	41	88	25	66	117	21	17
9	135	47	20	34	56	89	89	25	66	117	24	16
10	132	48	28	33	82	39	72	26	66	103	59	15
11	129	22	52	33	86	37	34	26	69	46	59	14
12	129	20	21	41	119	36	33	25	75	30	59	14
13	128	20	19	70	125	36	53	25	36	33	73	15
14	128	20	19	70	125	36	38	25	34	90	124	15
15	125	20	18	70	108	35	33	25	32	141	124	14
16	126	21	17	75	39	34	33	23	31	144	122	12
17	135	21	17	78	35	34	35	22	31	94	113	14
18	142	21	18	75	35	34	80	24	31	44	104	11
19	138	21	17	71	81	57	93	23	60	23	119	11
20	138	21	17	123	86	102	90	22	101	22	125	9.9
21	136	44	16	50	86	190	91	21	123	21	118	9.5
22	133	61	16	36	84	213	91	62	111	34	110	12
23	133	21	38	33	82	110	90	104	57	93	108	15
24	134	20	135	33	65	90	89	96	55	97	102	12
25	119	20	161	31	34	74	89	67	56	67	95	12
26	108	19	152	31	39	83	88	50	55	63	93	19
27	97	19	139	31	62	94	88	31	55	46	91	14
28	89	78	123	29	88	94	89	29	54	28	95	12
29	64	28	113	28	---	94	88	30	54	23	93	11
30	55	22	111	28	---	94	89	30	62	21	72	9.9
31	52	---	110	27	---	94	---	29	---	17	54	---
TOTAL	3798	912	1585	1659	1738	2083	2503	1115	1687	2071	2792	463.3
MEAN	123	30.4	51.1	53.5	62.1	67.2	83.4	36.0	56.2	66.8	90.1	15.4
MAX	145	78	161	123	125	213	163	104	123	144	160	41
MIN	52	19	16	27	26	33	33	21	29	17	21	9.5

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1995, BY WATER YEAR (WY)

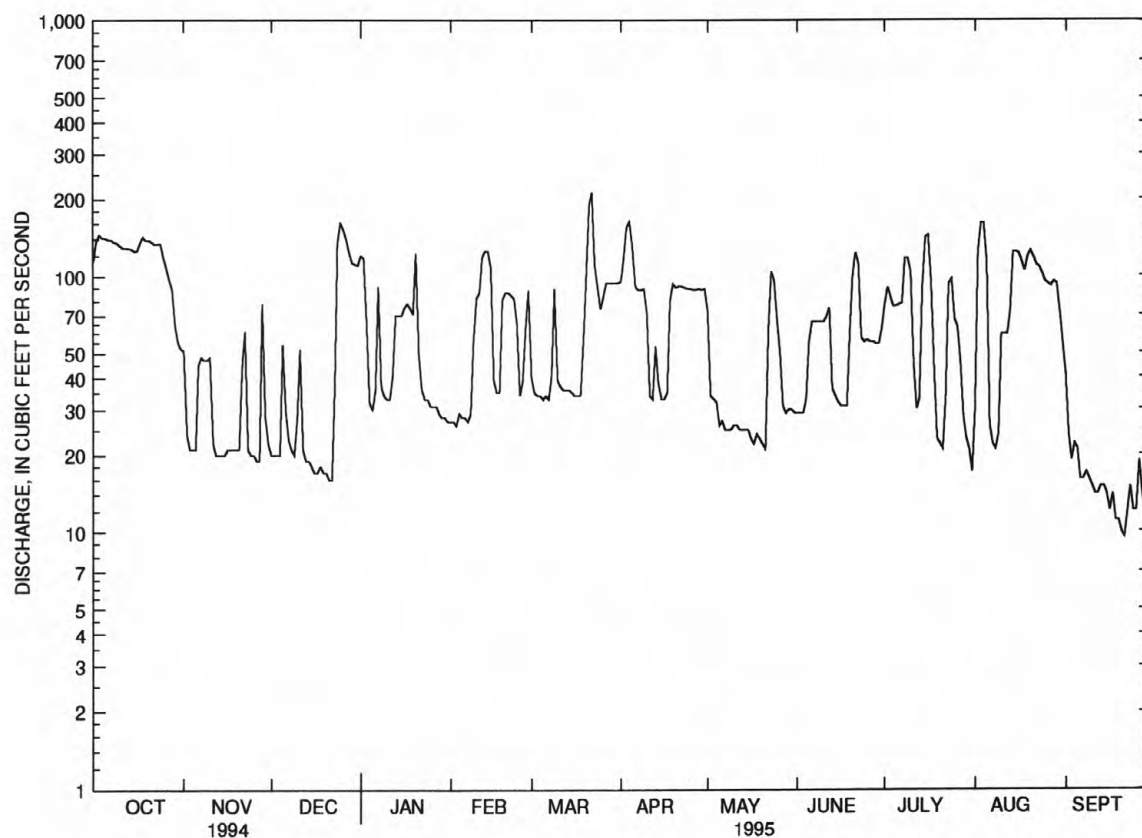
	MEAN	60.7	71.7	78.4	88.5	91.8	137	139	102	74.0	77.4	70.9	63.4
MAX	312	240	202	251	221	379	438	310	319	339	197	177	
(WY)	1956	1956	1973	1949	1951	1953	1983	1989	1972	1945	1955	1975	
MIN	12.1	17.7	12.6	22.6	23.0	11.2	14.5	20.4	13.4	11.6	11.3	7.87	
(WY)	1942	1950	1981	1982	1967	1981	1981	1981	1957	1954	1944	1953	

# HACKENSACK RIVER BASIN

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## 01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1942 - 1995
ANNUAL TOTAL	33783	22406.3	
ANNUAL MEAN	92.6	61.4	87.9
HIGHEST ANNUAL MEAN			156 1952
LOWEST ANNUAL MEAN			30.9 1981
HIGHEST DAILY MEAN	584 Mar 29	213 Mar 22	2190 May 31 1984
LOWEST DAILY MEAN	16 Dec 21	9.5 Sep 21	5.8 Sep 1 1953
ANNUAL SEVEN-DAY MINIMUM	17 Dec 16	11 Sep 16	6.3 Aug 30 1953
INSTANTANEOUS PEAK FLOW		269 Jan 20	2530 May 17 1989
INSTANTANEOUS PEAK STAGE		2.57 Jan 20	8.08 May 17 1989
INSTANTANEOUS LOW FLOW		8.6 Sep 22	.00 Jan 16 1970
10 PERCENT EXCEEDS	187	125	171
50 PERCENT EXCEEDS	60	47	59
90 PERCENT EXCEEDS	22	19	21



01377000 HACKENSACK RIVER AT RIVERVALE, NJ, DAILY MEAN DISCHARGE



## HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1964 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)
NOV 1994 03...	1100	21	430	7.6	11.0	765	7.6	69	2.8	350
JAN 1995 30...	1035	27	443	8.1	0.0	762	13.4	92	<1.0	110
MAR 20...	1145	101	464	8.0	8.5	762	11.7	100	2.8	170
MAY 16...	1110	24	471	7.9	14.5	760	7.9	78	2.1	920
JUL 24...	1120	108	430	7.9	26.5	760	6.2	77	3.7	350

DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 1994 03...	60	130	39	7.2	31	2.1	94	17	62	<0.1
JAN 1995 30...	40	120	36	6.8	32	1.6	82	15	64	<0.1
MAR 20...	20	120	36	6.3	42	1.6	76	14	79	<0.1
MAY 16...	130	130	40	7.4	36	1.7	95	15	72	<0.1
JUL 24...	150	120	37	6.5	35	1.6	90	12	65	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV 1994 03...	4.8	234	222	4	0.031	0.50	0.36	0.31	0.70
JAN 1995 30...	4.4	234	213	--	0.006	0.80	0.09	<0.03	0.40
MAR 20...	2.3	244	228	11	0.009	0.36	<0.03	<0.03	0.40
MAY 16...	2.6	252	234	11	0.015	0.45	0.14	0.08	0.50
JUL 24...	5.5	252	217	41	0.008	0.10	0.10	0.08	1.0

## HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 1994 03...	0.48	1.2	0.98	0.05	0.01	4.8	0.8	--	--
JAN 1995 30...	0.28	1.2	1.1	0.02	<0.01	3.6	0.6	47	3.4
MAR 20...	0.28	0.76	0.64	0.03	<0.01	3.7	1.3	--	--
MAY 16...	0.41	0.95	0.86	0.03	0.01	3.9	0.5	--	--
JUL 24...	0.28	1.1	0.38	0.09	<0.01	5.0	3.4	--	--

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 16...	1110	12	2	<10	50	<1	<1	5

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 16...	320	<1	160	<0.1	<1	<1	<10

## HACKENSACK RIVER BASIN

## 01377500 PASCACK BROOK AT WESTWOOD, NJ

LOCATION.--Lat 40°59'33", long 74°01'19", Bergen County, Hydrologic Unit 02030103, on right bank 75 ft upstream from Harrington Avenue in Westwood, 500 ft downstream from Musquapsink Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--29.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WDR NJ-87-1: 1984 (P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft above sea level.

REMARKS.--Records fair. Flow regulated by Woodcliff Lake 3.0 mi above station (see Hackensack River basin, reservoirs in). Water diverted for municipal supply by United Water New York (formerly Spring Valley Water Company), by pumpage from well fields in headwater area of Pascack Brook in vicinity of Spring Valley, NY, and by Park Ridge Water Department by pumping from wells above Woodcliff Lake probably reduces flow past this station. Several measurements of water temperature were made during the year. United Water New Jersey gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with United Water New Jersey.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 20	1800	*704	*3.97	Mar. 9	0515	455	3.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	27	27	33	26	80	25	63	27	21	20	24
2	33	24	24	56	25	43	26	36	27	29	16	19
3	29	21	24	38	24	34	25	32	27	21	14	12
4	28	20	23	28	29	32	26	29	28	20	24	13
5	26	20	105	24	30	30	25	27	26	17	54	15
6	24	22	90	23	25	30	25	31	26	18	37	43
7	23	21	40	137	24	29	25	34	25	19	27	45
8	22	19	32	54	24	47	26	29	24	21	20	45
9	22	18	28	33	24	246	30	21	20	19	20	45
10	21	31	42	28	24	60	55	23	18	18	19	43
11	20	20	122	26	24	43	32	31	22	39	20	45
12	19	18	47	28	24	38	27	35	57	30	21	44
13	18	18	32	29	23	36	101	38	31	24	19	35
14	18	18	30	29	23	35	51	39	28	21	18	32
15	19	18	28	29	24	34	34	36	27	16	17	27
16	19	18	27	40	32	33	29	33	25	17	17	24
17	20	17	28	49	30	34	27	32	23	20	15	40
18	21	18	28	34	30	35	27	32	21	66	12	24
19	19	18	26	29	30	31	33	32	19	32	10	24
20	19	17	25	293	31	30	33	32	21	24	9.0	22
21	19	57	25	207	33	32	32	33	20	22	23	21
22	17	69	24	72	32	33	38	30	41	21	70	34
23	21	25	24	50	29	33	38	30	27	24	80	39
24	22	23	32	43	37	32	33	28	24	23	76	20
25	19	22	27	37	37	30	32	28	26	35	63	20
26	18	22	24	33	30	28	31	47	26	31	48	65
27	18	22	22	31	27	28	31	28	24	35	33	43
28	19	170	22	30	117	28	31	28	22	39	11	28
29	19	81	22	28	---	26	36	25	22	31	19	22
30	18	35	22	26	---	26	43	24	19	26	23	26
31	20	---	21	26	---	26	---	28	---	22	17	---
TOTAL	664	929	1093	1623	868	1302	1027	994	773	801	872.0	939
MEAN	21.4	31.0	35.3	52.4	31.0	42.0	34.2	32.1	25.8	25.8	28.1	31.3
MAX	34	170	122	293	117	246	101	63	57	66	80	65
MIN	17	17	21	23	23	26	25	21	18	16	9.0	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1995, BY WATER YEAR (WY)

	MEAN	37.9	48.8	51.8	53.6	58.5	79.8	79.1	62.7	49.7	45.5	42.6	39.7
MAX	143	131	129	151	135	197	198	155	175	180	127	157	
(WY)	1956	1978	1984	1979	1973	1953	1983	1989	1972	1945	1971	1971	
MIN	10.1	9.83	15.8	10.8	15.7	34.8	28.9	21.2	18.2	14.2	9.99	9.45	
(WY)	1942	1950	1940	1954	1954	1965	1991	1992	1939	1944	1935	1939	

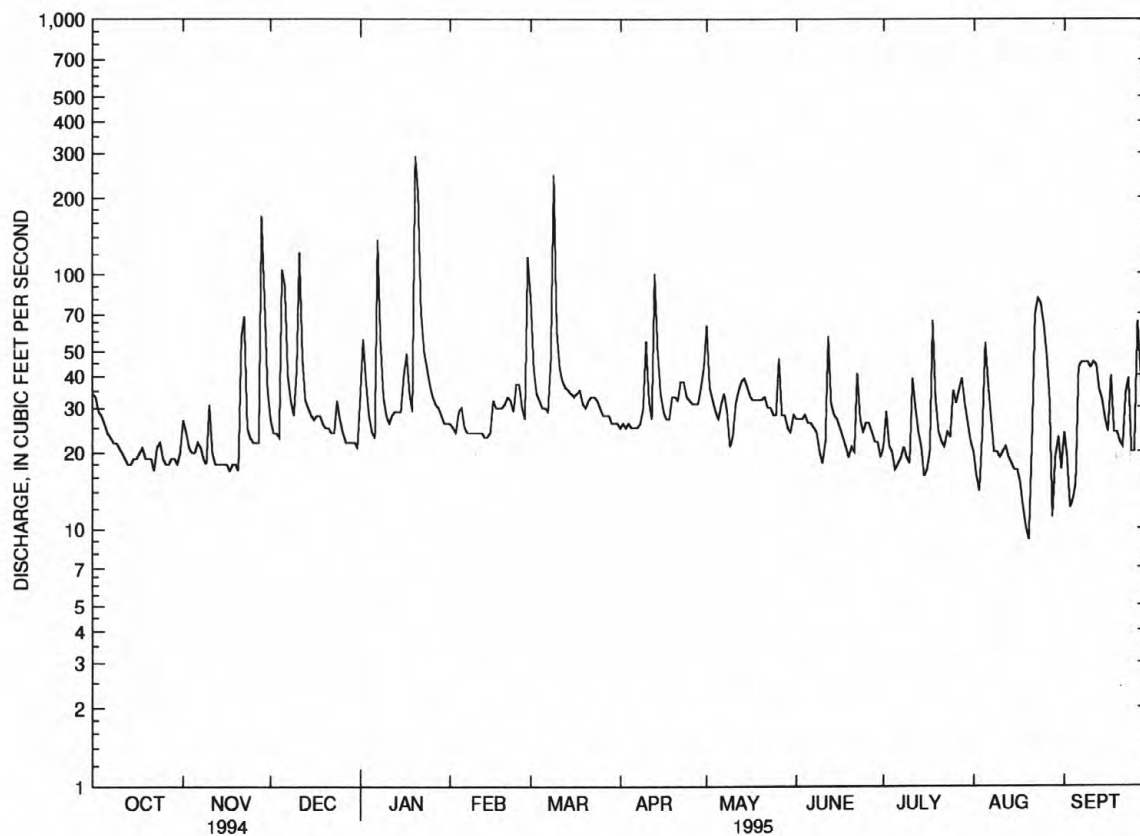
# HACKENSACK RIVER BASIN

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01377500 PASCACK BROOK AT WESTWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1935 - 1995	
ANNUAL TOTAL	17231		11885.0		54.1	
ANNUAL MEAN	47.2		32.6		88.6	
HIGHEST ANNUAL MEAN					27.6	
LOWEST ANNUAL MEAN					1952	
HIGHEST DAILY MEAN	374	Jan 28	293	Jan 20	1770	Aug 28 1971
LOWEST DAILY MEAN	17	Jun 5	9.0	Aug 20	.45	Apr 26 1991
ANNUAL SEVEN-DAY MINIMUM	18	Nov 14	14	Aug 14	6.3	Oct 19 1949
INSTANTANEOUS PEAK FLOW			704	Jan 20	2440	Sep 12 1971
INSTANTANEOUS PEAK STAGE			3.97	Jan 20	7.57	Sep 12 1971
INSTANTANEOUS LOW FLOW			7.5	Aug 20	.05	Apr 23 1991
10 PERCENT EXCEEDS	97		45		95	
50 PERCENT EXCEEDS	29		27		39	
90 PERCENT EXCEEDS	20		19		18	

a Also occurred Sept. 28, 1993.



01377500 PASCACK BROOK AT WESTWOOD, NJ, DAILY MEAN DISCHARGE



## HACKENSACK RIVER BASIN

## 01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

LOCATION.--Lat 40°56'52", long 74°01'34", Bergen County, Hydrologic Unit 02030103, on right bank upstream from two masonry dams and two lift gates at former pumping plant of United Water New Jersey (formerly known as Hackensack Water Co.), New Milford, 4.0 mi downstream from Pascack Brook, 0.6 mi downstream from Oradell Reservoir Dam, and 21.8 mi upstream from mouth.

DRAINAGE AREA.--113 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS: WSP 601: Drainage area. WSP 711: 1927-28(M). WRD-NJ 1970: 1969. WDR-NJ 1977: 1975(M). WDR-NJ 1984: 1983. WDR-NJ 1991: 1990.

GAGE.--Water-stage recorder and crest-stage gage above south dam. Datum of gage is 6.25 ft above sea level. October 1921 to November 23, 1923, nonrecording gage and Nov. 23, 1923, to Sept. 25, 1934, water-stage recorder at same site at datum 0.05 ft lower.

REMARKS.--Records good except those below 20 ft<sup>3</sup>/s, which are fair. Flow regulated by DeForest Lake, Lake Tappan, Woodcliff Lake 9.0 mi upstream from station, and Oradell Reservoir 0.6 mi upstream from station (see Hackensack River basin, reservoirs in). Water pumped into basin above gage from Sparkill Creek (Hudson River basin), Saddle River and Ramapo River (Passaic River basin) by United Water New Jersey for municipal supply (see Hackensack River basin, diversions). Water diverted from Oradell Reservoir at Haworth Plant, De Forest Lake, and West Nyack, NY, for municipal supply (see Hackensack River basin, diversions). Diversion at gage was discontinued on May 30, 1990. Several measurements of water temperature were made during the year. National Weather Service telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with United Water New Jersey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	1.6	1.4	17	2.9	2.8	11	3.2	2.2	1.6	1.6	1.3
2	15	1.4	1.7	17	2.8	7.2	12	1.9	1.8	1.5	1.5	.71
3	16	1.6	1.4	16	2.9	18	12	2.0	1.0	1.4	1.3	.52
4	16	1.3	1.7	16	2.6	17	12	2.1	1.0	1.6	1.8	.42
5	17	1.8	3.2	16	3.0	18	12	2.4	1.1	1.6	2.1	.49
6	17	1.7	1.4	16	2.4	17	12	2.2	.94	1.5	1.6	.44
7	17	1.3	1.5	19	2.8	16	9.9	2.1	.96	1.8	1.8	.48
8	17	1.7	1.3	17	2.7	17	1.8	2.3	.94	1.8	1.7	.42
9	17	1.9	6.5	16	2.7	16	2.4	2.1	1.4	1.6	1.7	.49
10	17	2.5	18	13	2.5	17	3.0	2.4	2.6	1.5	1.6	.68
11	17	1.3	16	2.9	2.7	16	2.0	2.3	5.4	2.1	1.5	.47
12	15	1.5	17	2.9	2.9	16	2.1	2.3	6.3	1.5	1.6	.95
13	16	1.5	17	2.6	2.6	16	3.2	2.2	2.7	1.7	1.7	1.2
14	16	1.3	17	2.5	2.7	14	2.3	2.3	1.3	1.8	1.5	.18
15	17	1.5	17	2.3	2.9	18	2.0	1.9	1.6	1.7	1.5	.00
16	16	1.5	17	3.0	3.0	17	2.1	2.0	1.6	1.7	1.5	.00
17	17	1.5	17	3.3	2.7	16	2.3	2.3	1.7	1.9	1.6	.00
18	16	1.4	17	2.4	2.6	17	2.0	1.7	1.7	3.2	1.8	.00
19	16	1.8	17	2.7	2.8	17	2.2	2.2	1.7	1.8	1.6	.00
20	17	1.7	16	6.4	2.5	17	2.1	1.9	1.5	1.8	1.3	.00
21	16	3.7	18	2.6	2.6	18	2.1	2.2	1.6	1.8	1.5	.00
22	17	1.6	17	2.6	2.6	15	1.9	2.2	3.6	1.8	1.7	.00
23	16	1.4	16	9.4	2.7	12	2.2	2.0	1.6	3.0	1.5	.00
24	18	1.4	17	13	2.7	12	2.1	1.8	1.9	2.0	.89	.00
25	16	1.7	16	14	2.7	13	2.1	1.9	1.5	1.8	.84	.00
26	19	1.7	17	14	2.6	12	2.0	2.5	1.5	3.4	1.0	.00
27	15	1.6	18	14	2.9	12	1.9	1.9	1.6	1.9	1.0	.00
28	8.4	5.7	17	13	4.2	13	2.4	2.1	1.6	2.1	.97	.00
29	1.7	1.5	17	14	---	13	2.1	2.0	1.7	1.5	.99	.00
30	2.0	1.3	18	3.8	---	12	2.8	1.9	1.8	1.5	.71	.00
31	1.6	---	18	2.9	---	11	---	2.0	---	1.4	.44	---
TOTAL	458.7	53.4	395.1	297.3	77.7	453.0	132.0	66.3	57.84	57.3	43.84	8.75
MEAN	14.8	1.78	12.7	9.59	2.77	14.6	4.40	2.14	1.93	1.85	1.41	.29
MAX	19	5.7	18	19	4.2	18	12	3.2	6.3	3.4	2.1	1.3
MIN	1.6	1.3	1.3	2.3	2.4	2.8	1.8	1.7	.94	1.4	.44	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

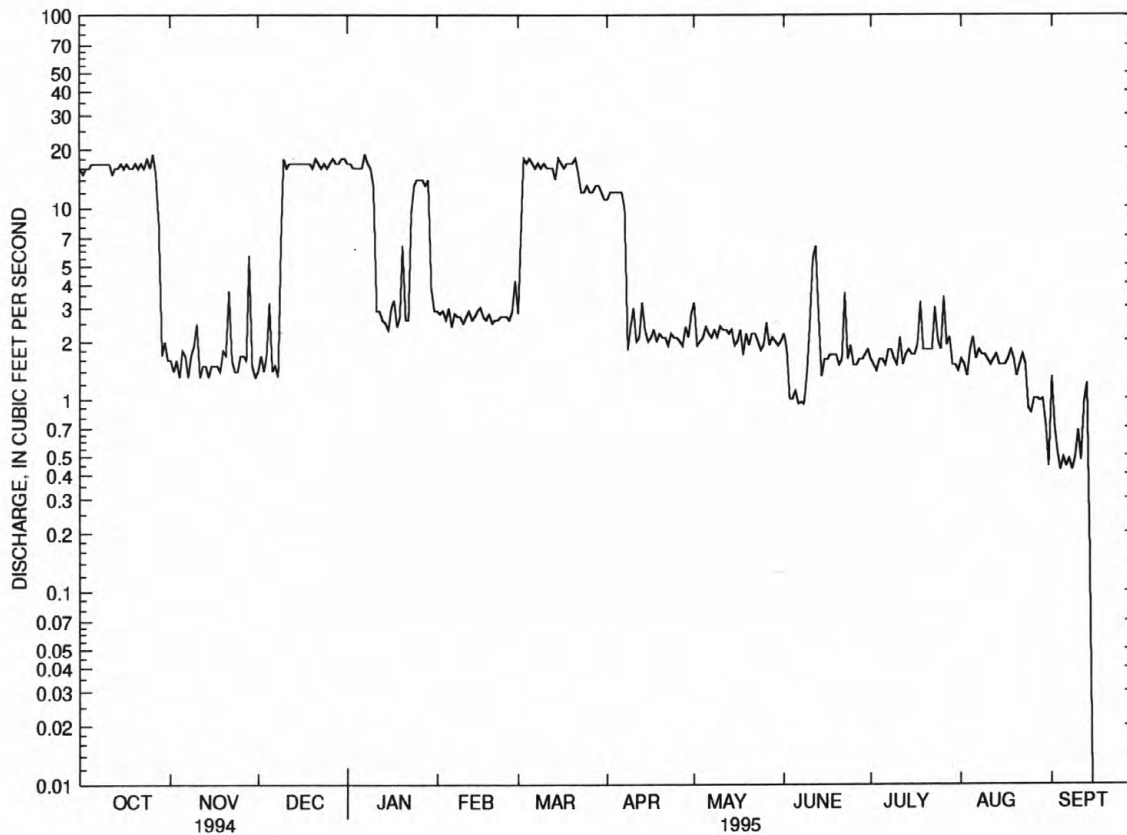
	MEAN	35.4	65.0	85.9	103	126	213	198	124	61.1	45.5	39.8	42.5
MAX	480	356	329	359	396	651	774	528	612	543	373	385	
(WY)	1956	1928	1973	1937	1939	1936	1983	1989	1972	1945	1927	1927	
MIN	.000	.000	.000	.000	.000	.000	.000	.39	.000	.000	.000	.000	.000
(WY)	1922	1924	1932	1971	1977	1981	1981	1985	1977	1954	1924	1923	

# HACKENSACK RIVER BASIN

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01378500 HACKENSACK RIVER AT NEW MILFORD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1922 - 1995
ANNUAL TOTAL	20220.7	2101.23	
ANNUAL MEAN	55.4	5.76	94.6
HIGHEST ANNUAL MEAN			263 1928
LOWEST ANNUAL MEAN			.40 1981
HIGHEST DAILY MEAN	946 Mar 2	919 Oct 26	4230 May 31 1984
LOWEST DAILY MEAN	1.3 Nov 4	.00 Sep 15	.00 Oct 1 1921
ANNUAL SEVEN-DAY MINIMUM	1.4 Nov 11	.00 Sep 15	.00 Oct 1 1921
INSTANTANEOUS PEAK FLOW		81 Jun 11	4630 May 17 1989
INSTANTANEOUS PEAK STAGE		1.84 Jun 11	8.23 May 17 1989
INSTANTANEOUS LOW FLOW		.00 Many days	.00 Many days
10 PERCENT EXCEEDS	162	17	278
50 PERCENT EXCEEDS	14	2.2	16
90 PERCENT EXCEEDS	2.0	.98	.00



01378500 HACKENSACK RIVER AT NEW MILFORD, NJ, DAILY MEAN DISCHARGE

# HACKENSACK RIVER BASIN

## RESERVOIRS IN HACKENSACK RIVER BASIN

01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01, Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.8 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi<sup>2</sup>. PERIOD OF RECORD, February 1956 to current year. REVISED RECORDS.--WDR NJ-84-1: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Crest of dam topped by two 50 ft Bascule Gates, 5 ft high. Capacity 5,670,000,000 gal, elevation, 85.00 ft, top of Bascule gates. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by United Water New Jersey, for municipal water supply.

COOPERATION.--Records provided by United Water New Jersey (formerly Hackensack Water Company).

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi<sup>2</sup>. PERIOD OF RECORD, October 1966 to current year. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1966. Capacity, 3,853,000,000 gal, elevation, 55.00 ft at top of Bascule gates. Flow regulated by four Bascule gates and one sluice gate. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by United Water New Jersey, for municipal water supply.

COOPERATION.--Records provided by United Water New Jersey (formerly Hackensack Water Company).

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi<sup>2</sup>. PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam, completed about 1905. The dam was modified in 1984, which increased capacity, 871,000,000 gal, elevation, 95.00 ft at top of Bascule gates. Flow is regulated by two Bascule gates 85 ft long and 6 ft high each and one 24-inch Ball valve. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth by United Water New Jersey, for municipal supply.

COOPERATION.--Records provided by United Water New Jersey (formerly Hackensack Water Company).

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi<sup>2</sup>. PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS.--WDR NJ-84-1: Spillway elevation, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,507,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Prior to May 1990, water was released for diversion by United Water New Jersey, 1 mi downstream from dam for municipal supply. Water is diverted from reservoir at Haworth by United Water New Jersey, for municipal supply.

COOPERATION.--Records provided by United Water New Jersey (formerly Hackensack Water Company).

### MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	84.55	5,522	--	49.46	2,051	--
Oct. 31.....	83.27	5,115	-18.3	41.76	388	-83.0
Nov. 30.....	83.25	5,110	-2.3	46.87	1,365	+50.4
Dec. 31.....	83.50	5,189	+3.9	48.83	1,871	+25.3
CAL YR 1994			+5.6			+1.6
Jan. 31.....	85.09	5,701	+25.6	52.17	2,879	+50.3
Feb. 28.....	85.20	5,738	+2.0	51.70	2,728	-8.3
Mar. 31.....	85.01	5,674	-3.2	52.41	2,960	+11.6
Apr. 30.....	85.11	5,708	+1.8	49.91	2,178	-40.3
May 31.....	83.86	5,303	-20.2	51.24	2,581	+20.1
June 30.....	81.02	4,402	-46.5	50.36	2,312	-13.9
July 31.....	77.76	3,459	-47.1	48.82	1,869	-22.1
Aug. 31.....	75.31	2,765	-34.6	41.12	305	-78.1
Sept. 30.....	73.71	2,326	-22.6	41.85	400	+4.9
WTR YR 1995	--	--	-13.5	--	--	-6.9
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	91.40	674	--	19.28	2,531	--
Oct. 31.....	88.44	523	-7.5	19.50	2,581	+2.5
Nov. 30.....	91.05	655	+6.8	21.04	2,954	+19.2
Dec. 31.....	90.77	640	-7	18.99	2,464	-24.5
CAL YR 1994			-1			-2.4
Jan. 31.....	91.07	656	.8	20.27	2,766	+15.1
Feb. 28.....	91.46	677	+1.2	19.68	2,625	-7.8
Mar. 31.....	90.87	646	-1.5	19.29	2,533	-4.6
Apr. 30.....	90.77	641	-3	19.79	2,651	+6.1
May 31.....	92.65	741	+5.0	20.24	2,760	+5.4
June 30.....	93.81	805	+3.3	19.74	2,640	-6.2
July 31.....	94.78	859	+2.7	19.86	2,667	+1.3
Aug. 31.....	89.61	581	-13.9	19.34	2,544	-6.1
Sept. 30.....	88.64	531	-2.6	20.02	2,707	+8.4
WTR YR 1995	--	--	-6	--	--	.7

† Elevation at 2400 of the last day of each month.

## DIVERSIONS INTO AND FROM HACKENSACK RIVER BASIN

- 01376272 United Water New Jersey, diverts water from Sparkill Creek (Hudson River basin) at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by United Water New Jersey (formerly Hackensack Water Company).
- 01376699 United Water New York (formerly Spring Valley Water Company), diverts water from De Forest Lake for municipal supply in Rockland County, NY. Records provided by United Water New York (formerly Spring Valley Water Company).
- 01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (station 01376800, measured flow includes diversions) for municipal supply. Records provided by Board of Water Commissioners of Nyack, NY.
- 01378490 United Water New Jersey, diverts water for municipal supply from Oradell Reservoir at Haworth pumping station (station 01378478) 2.0 mi upstream from gaging station on Hackensack River at New Milford and prior to May 1990 from Hackensack River, at New Milford pumping station just upstream of gaging station on Hackensack River at New Milford, NJ (station 01378500). Diversion from the New Milford pumping station was discontinued in May 1990. Records provided by United Water New Jersey (formerly Hackensack Water Company).
- 01378520 United Water New Jersey, diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records provided by United Water New Jersey (formerly Hackensack Water Company).
- 01388981 United Water New Jersey, diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Formerly diversion was from the Ramapo River (see station 01387991). Records provided by United Water New Jersey (formerly Hackensack Water Company).
- 01391210 United Water New Jersey, diverts water from Saddle River (Passaic River basin) just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by United Water New Jersey (formerly Hackensack Water Company).

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

MONTH	01376699 UNITED WATER NEW YORK.	01376810 WEST NYAK, NY	01378490 UNITED WATER NEW JERSEY
October.....	7.10	2.88	156
November.....	7.08	2.87	148
December.....	6.93	2.87	151
CAL YR 1994.....	8.94	2.83	162
January.....	7.20	3.03	147
February.....	7.01	3.01	146
March.....	7.00	2.96	145
April.....	.58	2.93	149
May.....	6.32	2.88	158
June.....	16.31	2.83	184
July.....	17.29	2.77	189
August.....	19.39	2.75	209
September.....	14.06	2.69	130
WTR YR 1995.....	10.43	2.87	159

The following are diversions by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above (station 01378490).

MONTH	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01388981 POMPTON RIVER (PASSAIC RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SUFACE SUPPLY
October.....	0	0	12.04	0	0.30
November.....	0	1.63	63.97	0	.23
December.....	0	.56	4.62	0	.17
CAL YR 1994.....	0	.32	15.20	.68	.28
January.....	0	0	0	0	.15
February.....	0	0	0	0	.19
March.....	0	0	0	0	.25
April.....	0	.50	2.98	3.67	.20
May.....	.77	1.79	61.34	12.54	.41
June.....	.89	1.66	58.53	11.24	2.15
July.....	.97	1.83	66.69	11.45	2.56
August.....	.28	2.59	67.70	6.90	2.53
September.....	.90	2.61	69.80	12.86	3.22
WTR YR 1995.....	.32	1.10	34.0	4.89	1.03



## PASSAIC RIVER BASIN

## 01379000 PASSAIC RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°40'48", long 74°31'45", Somerset County, Hydrologic Unit 02030103, on right bank 200 ft downstream from Davis Bridge on Maple Avenue, 0.7 mi northwest of Millington, and 1.8 mi downstream from Black Brook.

DRAINAGE AREA.--55.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1903 to June 1906 (published as "at Millington"), October 1921 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1905(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete-block control. Datum of gage is 215.60 ft above sea level (levels from New Jersey Geological Survey bench mark). Nov. 25, 1903 to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Nov. 10, 1921 to Sept. 1, 1923, nonrecording gage at site 200 ft downstream at present datum. Oct. 31, 1923 to July 3, 1925, nonrecording gage and concrete control at present site and datum.

REMARKS.--Records good except for the months of October, November, and July, which are fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, was discontinued in April 1979 and the installation dismantled. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1445	*416	*6.48	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	e14	135	49	40	292	35	45	61	18	22	2.9
2	14	e15	66	79	40	235	34	44	49	37	18	3.0
3	14	11	54	74	34	195	34	38	41	29	17	3.1
4	15	10	50	64	24	158	34	34	48	21	15	2.9
5	15	9.9	86	40	30	123	34	33	38	18	19	2.3
6	14	10	198	33	31	98	33	27	32	17	38	1.6
7	12	13	162	128	28	88	33	23	42	e20	26	1.5
8	11	10	130	184	26	99	33	21	56	e40	17	1.5
9	11	10	94	137	23	349	36	20	38	e35	14	1.7
10	11	27	67	108	23	319	62	23	24	e25	12	7.4
11	11	28	141	77	25	257	52	28	22	e46	11	6.5
12	14	19	149	59	28	202	46	38	47	53	11	4.7
13	12	18	129	62	23	153	115	61	63	59	9.7	4.3
14	11	17	91	81	21	94	116	52	36	63	8.3	4.8
15	10	16	75	104	19	79	91	48	30	45	9.4	4.2
16	9.5	15	64	108	28	74	70	45	26	38	8.8	3.6
17	8.8	15	61	111	42	76	56	43	22	37	7.8	12
18	8.5	14	63	102	52	70	48	74	19	76	7.2	15
19	8.0	13	57	89	63	63	44	73	17	86	6.2	9.5
20	e7.7	11	53	116	81	57	43	75	16	66	5.7	7.4
21	e7.5	16	50	218	104	58	39	84	15	46	5.0	6.4
22	e7.4	66	43	201	107	66	37	68	40	36	4.1	8.7
23	e7.3	40	39	173	105	58	34	52	40	31	4.0	25
24	e20	22	46	141	114	59	34	44	33	27	3.8	18
25	e18	22	59	111	106	67	45	38	26	25	3.6	13
26	e15	27	54	84	95	46	24	33	24	24	3.6	32
27	e14	26	44	69	77	41	22	32	24	22	4.0	53
28	e13	123	35	58	153	34	22	26	25	32	3.9	42
29	e13	239	50	48	---	32	21	28	21	32	3.4	29
30	e12	182	33	42	---	31	22	85	18	30	2.8	18
31	e12	---	29	40	---	34	---	78	---	26	2.5	---
TOTAL	365.5	1058.9	2407	2990	1542	3607	1349	1413	993	1160	323.8	345.0
MEAN	11.8	35.3	77.6	96.5	55.1	116	45.0	45.6	33.1	37.4	10.4	11.5
MAX	20	239	198	218	153	349	116	85	63	86	38	53
MIN	7.3	9.9	29	33	19	31	21	20	15	17	2.5	1.5
CFSM	.21	.64	1.40	1.74	.99	2.10	.81	.82	.60	.68	.19	.21
IN.	.25	.71	1.62	2.01	1.04	2.42	.91	.95	.67	.78	.22	.23

## 01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1995, BY WATER YEAR (WY)

MEAN	44.9	85.6	105	112	128	189	144	92.3	57.6	44.9	50.3	51.3
MAX	187	340	335	463	380	439	420	365	292	307	397	380
(WY)	1990	1933	1984	1905	1904	1994	1983	1989	1972	1975	1942	1971
MIN	3.56	7.47	8.18	6.78	26.1	64.2	25.9	20.3	3.95	1.25	1.37	.73
(WY)	1964	1966	1966	1981	1934	1981	1985	1965	1965	1965	1966	1964

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

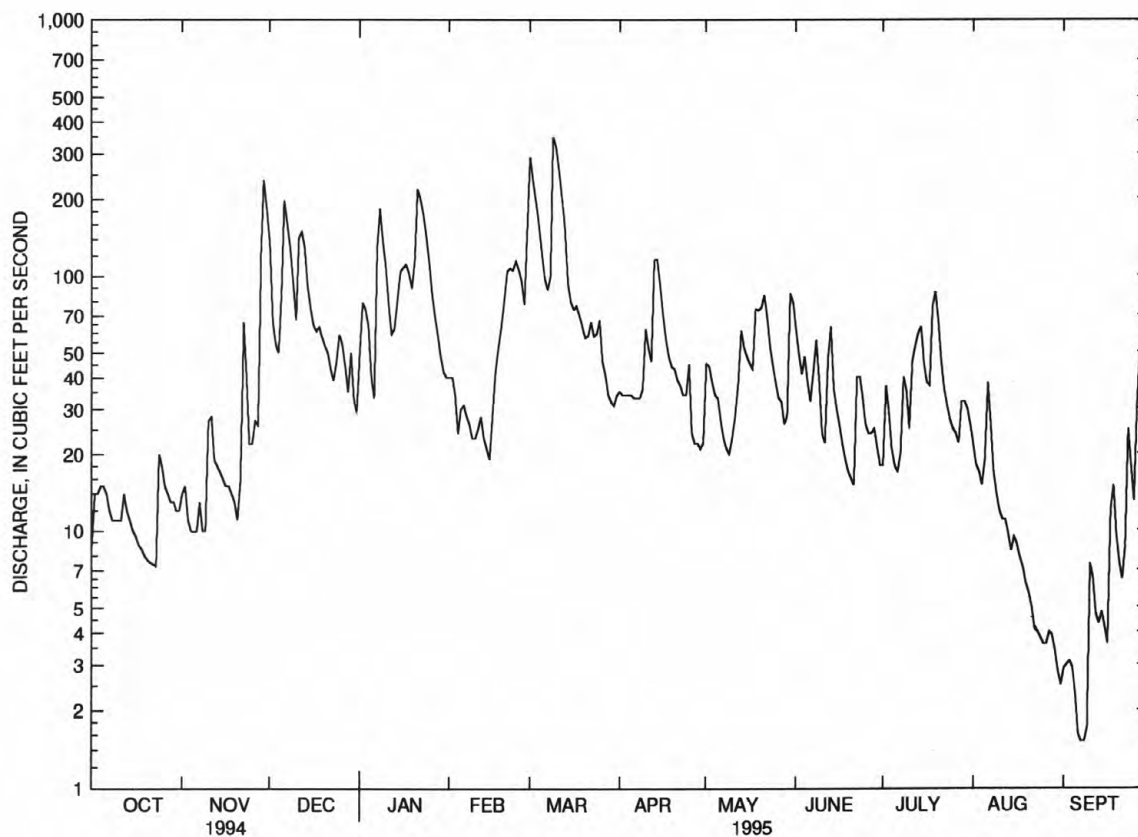
## FOR 1995 WATER YEAR

## WATER YEARS 1904 - 1995

ANNUAL TOTAL	36574.4	17554.2	
ANNUAL MEAN	100	48.1	90.9
HIGHEST ANNUAL MEAN			163
LOWEST ANNUAL MEAN			32.3
HIGHEST DAILY MEAN	871 Mar 24	349 Mar 9	1800 Jan 8
LOWEST DAILY MEAN	7.0 Sep 16	1.5 Sep 7	.30 Sep 13
ANNUAL SEVEN-DAY MINIMUM	7.8 Sep 11	2.1 Sep 3	.47 Sep 11
INSTANTANEOUS PEAK FLOW		416 Mar 9	2000a Jan 9
INSTANTANEOUS PEAK STAGE		6.48 Mar 9	9.73 Aug 29
INSTANTANEOUS LOW FLOW		1.0 Sep 9	.20 Sep 12
ANNUAL RUNOFF (CFSM)	1.81	.87	1.64
ANNUAL RUNOFF (INCHES)	24.56	11.79	22.29
10 PERCENT EXCEEDS	256	107	223
50 PERCENT EXCEEDS	48	33	48
90 PERCENT EXCEEDS	11	7.8	9.0

a From rating curve extended above 1,400 ft<sup>3</sup>/s on basis of velocity-area study.

e Estimated.



01379000 PASSAIC RIVER NEAR MILLINGTON, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1962 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
24...	1020	20	336	7.2	--	755	--	--	2.1	1600	780	95	
JAN 1995													
18...	1045	103	272	7.1	7.0	762	8.5	70	E1.6	27	70	62	
MAR													
15...	0915	79	238	7.1	11.0	760	7.6	69	E1.6	33	10	61	
MAY													
22...	1030	68	297	7.3	18.5	757	5.2	56	2.3	5400	600	84	
JUL													
17...	1250	36	299	7.1	25.5	754	2.3	28	E1.7	280	120	91	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
24...	0.004	<0.05	<0.03	0.05	0.40	0.31	--	--	0.10	0.04	6.2	0.8	
JAN 1995													
18...	0.006	0.20	<0.03	<0.03	0.60	0.37	0.80	0.57	0.06	0.02	7.7	0.7	
MAR													
15...	0.007	0.20	<0.03	0.08	0.60	0.40	0.80	0.60	0.05	0.03	7.6	0.6	
MAY													
22...	0.007	0.10	0.03	0.04	0.70	0.54	0.80	0.64	0.13	0.05	12	0.7	
JUL													
17...	0.017	0.078	0.11	0.10	0.90	0.62	0.98	0.70	0.28	0.09	13	0.4	

## PASSAIC RIVER BASIN

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01379000 PASSAIC RIVER NEAR MILLINGTON, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
------	------	--	--	--	--	--	---	--

MAY 1995 22...	1030	39	1	<10	90	<1	1	2
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DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
------	--	--	--	--	--	---	--

MAY 1995 22...	1600	2	140	<0.1	1	<1	10
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## PASSAIC RIVER BASIN

01379500 PASSAIC RIVER NEAR CHATHAM, NJ

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, Hydrologic Unit 02030103, on left bank 150 ft downstream from Stanley Avenue bridge in Chatham, and 3.0 mi upstream from Canoe Brook.

DRAINAGE AREA.--100 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1903 to December 1911, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NJ-86-1: 1984 (M).

GAGE.--Water-stage recorder. Concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft above sea level. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft upstream at different datum.

REMARKS.--Records good. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, during water years 1903-79. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	1230	*633	*5.10	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	27	223	74	63	496	53	104	98	36	42	13
2	28	26	144	150	60	477	51	107	77	101	36	13
3	27	26	85	166	54	395	51	84	67	91	32	12
4	27	27	69	117	39	295	52	68	78	52	31	11
5	26	28	153	113	46	224	48	63	68	38	45	12
6	26	28	288	169	58	178	46	60	53	36	91	13
7	25	27	265	317	57	152	43	49	49	41	63	13
8	24	30	210	396	55	190	44	43	57	90	44	12
9	23	28	158	296	53	560	49	41	65	80	35	13
10	23	49	129	198	48	618	111	49	48	54	30	24
11	23	49	277	140	43	541	97	54	37	100	29	20
12	23	41	283	105	45	432	75	98	124	123	30	18
13	24	34	207	94	43	315	242	132	100	79	27	17
14	24	33	156	113	37	212	245	97	79	78	24	15
15	23	32	118	155	36	148	169	84	54	74	38	15
16	21	31	99	179	55	130	127	77	45	74	30	15
17	20	31	90	189	80	130	102	77	39	68	25	66
18	20	31	92	163	100	124	87	119	34	176	24	51
19	20	33	88	139	112	108	77	132	31	129	23	31
20	21	30	77	274	141	97	73	124	31	100	20	24
21	21	51	70	417	200	102	68	109	42	77	19	21
22	21	105	66	377	209	118	63	102	269	59	19	37
23	28	90	60	295	182	106	58	86	194	50	17	66
24	39	58	77	229	204	93	54	69	84	45	16	48
25	35	41	137	182	217	95	57	65	54	52	16	35
26	29	38	113	142	169	87	59	72	44	43	16	137
27	27	40	87	113	140	71	44	58	51	40	15	184
28	26	286	70	94	346	63	40	49	49	157	15	107
29	26	364	62	77	---	56	40	56	42	100	15	67
30	27	316	64	84	---	54	44	146	36	59	15	46
31	24	---	46	68	---	52	---	136	---	47	13	---
TOTAL	780	2030	4063	5625	2892	6719	2369	2610	2099	2349	895	1156
MEAN	25.2	67.7	131	181	103	217	79.0	84.2	70.0	75.8	28.9	38.5
MAX	39	364	288	417	346	618	245	146	269	176	91	184
MIN	20	26	46	68	36	52	40	41	31	36	13	11
CFSM	.25	.68	1.31	1.81	1.03	2.17	.79	.84	.70	.76	.29	.39
IN.	.29	.76	1.51	2.09	1.08	2.50	.88	.97	.78	.87	.33	.43

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1995, BY WATER YEAR (WY)

	MEAN	87.2	156	202	223	237	344	264	173	115	82.8	95.8	93.8
MAX	576	590	655	735	493	719	711	637	533	539	664	713	
(WY)	1904	1973	1984	1979	1908	1994	1983	1989	1972	1975	1942	1971	
MIN	8.05	13.6	32.3	21.5	63.2	94.5	54.3	7.52	13.6	7.74	7.35	4.70	
(WY)	1965	1950	1940	1981	1980	1911	1985	1903	1965	1966	1957	1906	

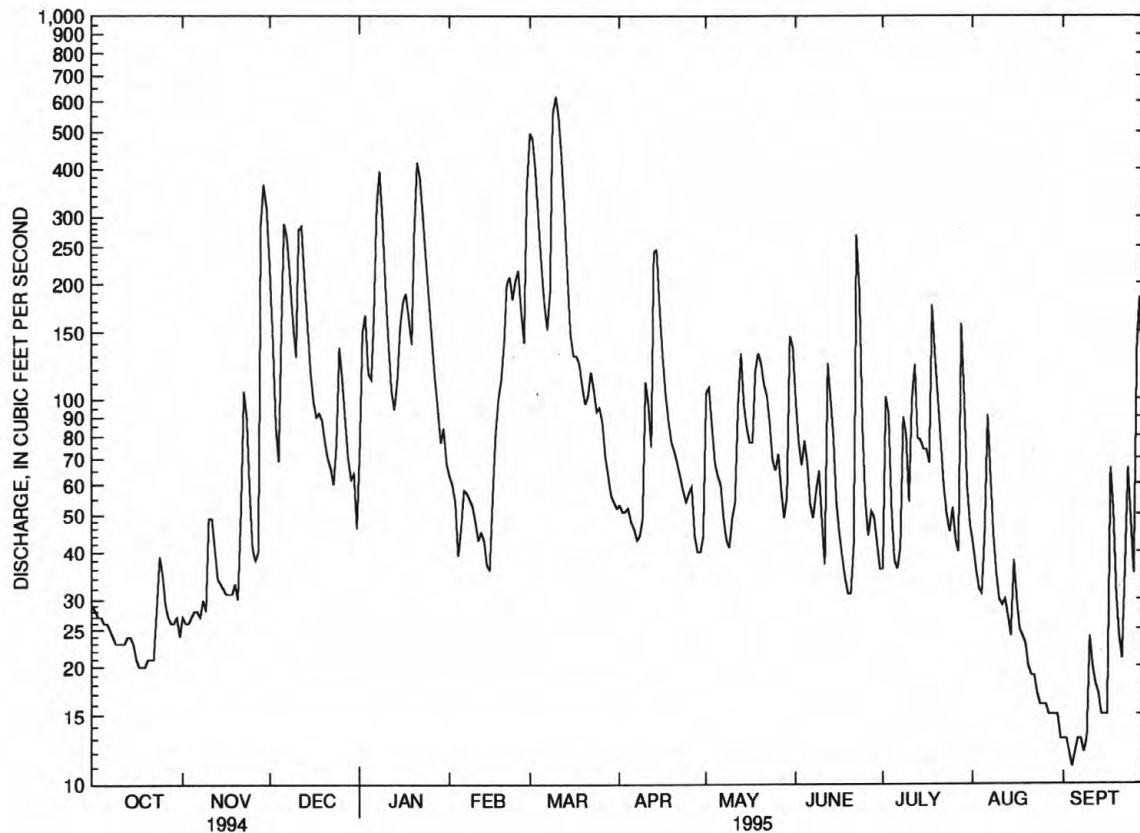
# PASSAIC RIVER BASIN

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01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1903 - 1995	
ANNUAL TOTAL	66830		33587		171	
ANNUAL MEAN	183		92.0		305	
HIGHEST ANNUAL MEAN					67.7	
LOWEST ANNUAL MEAN					2990	
HIGHEST DAILY MEAN	1630	Jan 30	618	Mar 10	2.0	Jan 9 1905
LOWEST DAILY MEAN	19	Sep 16	11	Sep 4	2.0	May 15 1903
ANNUAL SEVEN-DAY MINIMUM	20	Sep 11	12	Sep 2	2.0	May 15 1903
INSTANTANEOUS PEAK FLOW			633	Mar 10	3380	Aug 2 1973
INSTANTANEOUS PEAK STAGE			5.10	Mar 10	9.36a	Aug 2 1973
INSTANTANEOUS LOW FLOW			11	Sep 4	-----	
ANNUAL RUNOFF (CFSM)	1.83		.92		1.71	
ANNUAL RUNOFF (INCHES)	24.86		12.49		23.28	
10 PERCENT EXCEEDS	537		202		457	
50 PERCENT EXCEEDS	80		59		83	
90 PERCENT EXCEEDS	26		23		17	

a From floodmark.



01379500 PASSAIC RIVER NEAR CHATHAM, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1966 to September 1968.

SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1968.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
24...	1030	35	568	7.3	12.5	757	5.2	49	3.5	>2400	3600	120	
JAN 1995													
18...	1015	165	366	7.9	8.0	763	9.7	82	E1.7	790	120	77	
MAR													
15...	1025	148	351	7.5	10.0	760	10.2	91	<1.0	240	80	79	
MAY													
24...	1050	69	502	7.6	19.0	760	5.5	60	2.8	220	100	100	
JUL													
17...	1025	65	413	7.5	25.5	754	4.9	61	3.3	1700	500	100	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
24...	30	10	60	5.4	72	39	88	0.1	12		328	310	20
JAN 1995													
18...	19	7.1	35	2.2	41	22	62	<0.1	11		196	188	30
MAR													
15...	19	7.6	33	2.1	41	25	56	<0.1	8.8		184	181	20
MAY													
24...	25	9.6	54	2.3	75	22	86	0.1	11		290	262	47
JUL													
17...	26	9.2	39	3.2	76	28	54	0.1	16		244	230	32
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
24...	0.035	5.00	0.04	0.06	0.80	0.55	5.8	5.6	0.90	0.76	7.6	0.6	
JAN 1995													
18...	0.008	1.20	0.15	0.12	0.60	0.36	1.8	1.6	0.19	0.10	6.2	0.8	
MAR													
15...	0.012	1.10	0.08	0.08	0.70	0.44	1.8	1.5	0.19	0.13	6.1	0.4	
MAY													
24...	0.038	1.60	0.14	0.16	0.80	0.51	2.4	2.1	0.36	0.21	8.9	1.5	
JUL													
17...	0.040	1.90	0.12	0.13	0.90	0.63	2.8	2.5	0.45	0.31	9.1	1.0	

PASSAIC RIVER BASIN

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01379500 PASSAIC RIVER NEAR CHATHAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 24...	1050	36	1	<10	130	<1	2	5
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 24...	2000		4	240	<0.1	4	<1	10



## PASSAIC RIVER BASIN

01379580 PASSAIC RIVER NEAR HANOVER NECK, NJ

LOCATION.--Lat 40°49'39", long 74°20'07", Morris County, Hydrologic Unit 02030103, on downstream left abutment of bridge on Eagle Rock Avenue, 1.9 mi upstream from Whippany River, and 1.1 mi southeast of Hanover Neck.

DRAINAGE AREA.--132 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.73 ft above sea level.

REMARKS.--Records good. Data is stage-only and is collected in cooperation with the U.S. Army Corps of Engineers. Days of no gage-height record are not estimated and are noted by dashed lines (---). Stilling well was frozen Jan. 4-7, 9-12, and Jan. 29-Feb. 19.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 7.04 ft, Mar. 11, 12; minimum recorded, 1.29 ft, Sept. 3-9.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 9.38 ft, Apr. 2, 1993; minimum recorded, 1.29 ft, many days in September 1995.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of April 5-7, 1984, reached a stage of 11.8 feet, present datum, from floodmarks, discharge not determined.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.97	1.78	1.72	1.57	5.62	5.38	2.99	2.33	---	---	5.95	5.29
2	1.98	1.89	1.80	1.63	5.38	4.67	4.06	2.99	---	---	6.18	5.95
3	1.89	1.80	1.64	1.58	4.67	3.67	4.14	3.98	---	---	6.18	6.09
4	1.80	1.75	1.63	1.57	3.67	3.04	---	---	---	---	6.09	5.76
5	1.75	1.71	1.60	1.57	4.96	2.99	---	---	---	---	5.76	5.23
6	1.73	1.70	1.72	1.57	5.40	4.96	---	---	---	---	5.23	4.63
7	1.72	1.70	1.76	1.71	5.47	5.40	---	---	---	---	4.63	3.94
8	1.71	1.67	1.78	1.73	5.44	5.05	5.92	5.33	---	---	5.17	3.45
9	1.69	1.66	1.81	1.76	5.05	4.29	---	---	---	---	6.26	5.17
10	1.69	1.65	2.66	1.81	4.29	3.70	---	---	---	---	6.91	6.26
11	1.69	1.63	2.65	2.21	5.16	4.26	---	---	---	---	7.04	6.91
12	1.67	1.63	2.21	1.98	5.36	5.16	---	---	---	---	7.04	6.90
13	1.67	1.64	1.98	1.81	5.36	5.16	3.77	3.50	---	---	6.90	6.65
14	1.71	1.67	1.81	1.72	5.16	4.66	3.80	3.52	---	---	6.65	6.30
15	1.71	1.67	1.78	1.68	4.66	3.85	4.10	3.80	---	---	6.30	5.83
16	1.68	1.63	1.73	1.58	3.85	3.25	4.40	4.10	---	---	5.83	5.27
17	1.65	1.61	1.76	1.61	3.25	3.07	4.59	4.40	---	---	5.27	4.51
18	1.62	1.60	1.79	1.75	3.15	3.13	4.57	4.22	---	---	4.51	3.65
19	1.63	1.61	1.82	1.78	3.13	3.01	4.22	3.75	---	---	3.65	3.07
20	1.73	1.61	1.82	1.77	3.01	2.87	5.45	3.62	3.68	3.21	3.07	2.86
21	1.73	1.68	3.26	1.73	2.87	2.70	6.11	5.45	4.13	3.68	3.28	2.94
22	1.68	1.62	4.04	3.26	2.70	2.61	6.38	6.11	4.21	4.13	3.41	3.28
23	1.91	1.62	3.93	3.26	2.61	2.49	6.39	6.28	4.21	4.04	3.40	3.22
24	2.16	1.91	3.26	2.62	3.13	2.48	6.28	5.96	4.10	3.88	3.22	2.97
25	2.11	1.99	2.62	2.19	3.50	3.13	5.96	5.55	4.11	3.97	2.97	2.81
26	1.99	1.85	2.19	2.03	3.48	3.17	5.55	5.03	3.97	3.46	2.82	2.71
27	1.85	1.77	2.20	1.97	3.17	2.89	5.03	4.35	3.46	3.24	2.71	2.47
28	1.77	1.61	5.31	2.20	2.89	2.70	4.35	3.68	5.29	3.31	2.47	2.33
29	1.63	1.58	5.53	5.31	2.70	2.48	---	---	---	---	2.33	2.19
30	1.58	1.57	5.62	5.53	2.48	2.45	---	---	---	---	2.19	2.11
31	1.57	1.57	---	---	2.46	2.44	---	---	---	---	2.12	2.07
MONTH	2.16	1.57	5.62	1.57	5.62	2.44	---	---	---	---	7.04	2.07

PASSAIC RIVER BASIN

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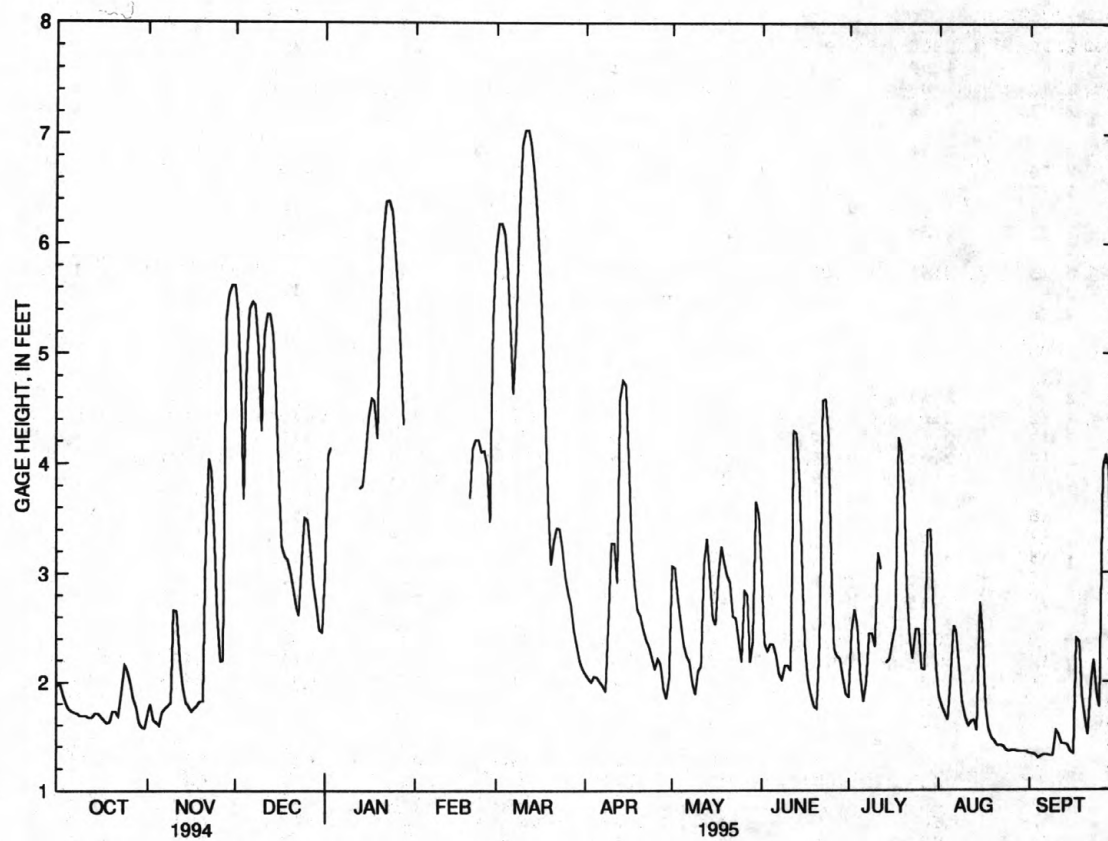
01379580 PASSAIC RIVER NEAR HANOVER NECK, NJ--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.07	2.03	3.06	2.03	2.98	2.35	1.86	1.76	1.87	1.77	1.33	1.31
2	2.03	1.98	3.04	2.75	2.35	2.19	2.48	1.85	1.77	1.71	1.33	1.30
3	2.00	1.97	2.75	2.54	2.28	2.21	2.66	2.48	1.71	1.64	1.32	1.29
4	2.05	1.97	2.54	2.34	2.35	2.25	2.50	2.06	1.64	1.61	1.29	1.29
5	2.04	1.96	2.34	2.22	2.34	2.24	2.06	1.81	2.00	1.58	1.31	1.29
6	2.00	1.95	2.23	2.18	2.24	2.07	1.81	1.74	2.51	2.00	1.32	1.29
7	1.96	1.90	2.18	1.99	2.07	1.97	2.00	1.70	2.46	2.12	1.32	1.29
8	1.91	1.85	1.99	1.88	2.02	1.96	2.44	2.00	2.12	1.82	1.31	1.29
9	2.57	1.90	1.88	1.82	2.15	2.02	2.44	2.32	1.82	1.67	1.31	1.29
10	3.27	2.57	2.10	1.82	2.15	1.99	2.32	2.04	1.67	1.59	1.54	1.31
11	3.27	2.91	2.14	2.08	2.10	1.79	3.18	2.02	1.59	1.55	1.51	1.42
12	2.91	2.64	3.09	2.13	4.29	2.10	3.03	2.77	1.63	1.54	1.42	1.38
13	4.59	2.77	3.31	2.97	4.26	3.83	---	---	1.64	1.54	1.42	1.38
14	4.75	4.59	2.97	2.59	3.83	2.97	2.17	1.89	1.54	1.50	1.41	1.35
15	4.71	4.01	2.59	2.52	2.97	2.31	2.21	2.08	2.73	1.50	1.35	1.32
16	4.01	3.25	2.52	2.40	2.31	2.01	2.39	2.16	2.44	1.76	1.33	1.30
17	3.25	2.90	2.98	2.31	2.01	1.87	2.50	2.22	1.76	1.56	2.40	1.32
18	2.90	2.66	3.24	2.98	1.87	1.77	4.23	2.50	1.56	1.48	2.37	1.87
19	2.66	2.58	3.09	2.97	1.77	1.72	4.13	3.72	1.48	1.44	1.87	1.64
20	2.61	2.49	2.97	2.82	1.75	1.71	3.72	2.86	1.45	1.40	1.64	1.50
21	2.49	2.39	2.91	2.60	2.42	1.69	2.86	2.38	1.40	1.38	1.50	1.43
22	2.39	2.32	2.60	2.53	4.57	2.39	2.38	2.08	1.41	1.37	2.00	1.40
23	2.33	2.22	2.58	2.32	4.58	4.24	2.21	1.96	1.40	1.37	2.20	1.87
24	2.22	2.12	2.38	2.15	4.24	3.04	2.48	2.05	1.37	1.34	1.87	1.53
25	2.12	2.05	2.18	2.09	3.04	2.29	2.48	2.12	1.35	1.32	1.76	1.47
26	2.21	2.06	2.83	2.13	2.29	2.00	2.12	1.93	1.36	1.32	3.95	1.76
27	2.16	1.94	2.79	2.18	2.23	1.99	2.11	1.83	1.36	1.34	4.08	3.94
28	1.94	1.84	2.18	1.86	2.20	2.03	3.38	1.80	1.35	1.31	3.94	2.99
29	1.84	1.78	2.37	1.86	2.03	1.88	3.39	2.77	1.35	1.32	2.99	2.28
30	2.03	1.74	3.65	2.37	1.88	1.80	2.77	2.12	1.35	1.32	2.28	1.90
31	---	---	3.52	2.98	---	---	2.12	1.87	1.35	1.32	---	---
MONTH	4.75	1.74	3.65	1.82	4.58	1.69	---	---	2.73	1.31	4.08	1.29

## PASSAIC RIVER BASIN

01379580 PASSAIC RIVER NEAR HANOVER NECK, NJ--Continued



01379580 PASSAIC RIVER NEAR HANOVER NECK, MAXIMUM DAILY GAGE HEIGHT

## 01379700 ROCKAWAY RIVER AT BERKSHIRE VALLEY, NJ

LOCATION.--Lat 40°55'51", long 74°35'42", Morris County, Hydrologic Unit 02030103, on left bank 60 ft downstream from bridge on Berkshire Valley Road in Berkshire Valley, 2.7 mi upstream from Stephens Brook, and 3.8 mi northwest of Dover.

DRAINAGE AREA.--24.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Low-flow partial-record station water years 1960-72. May 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 682.8 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Some regulation from lakes and reservoirs upstream. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 11, 1936, reached a stage of 6.7 ft, present datum, discharge not determined. Flood of April 5, 1984, reached a stage of 9.05 ft, from floodmarks, discharge 1,290 ft<sup>3</sup>/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	2030	*300	*5.94	No other peak above base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e27	16	91	50	49	58	32	e43	e22	e15	e14	e4.0
2	e28	17	79	72	47	58	37	e39	e20	e34	e13	e4.0
3	e24	18	71	76	45	55	e33	e38	e19	e25	e12	e3.8
4	e20	19	65	66	52	51	e33	e32	e23	e23	e11	e3.7
5	e18	19	76	66	50	48	e33	e33	e20	e16	e13	e3.4
6	e17	18	90	52	57	47	e31	e34	e19	e17	e24	e2.7
7	e16	17	81	78	43	48	e29	e29	e17	e16	e22	e2.8
8	e15	16	72	88	42	66	e29	e26	e17	e16	e19	e3.1
9	e14	15	66	79	41	240	e32	e25	e15	e15	e15	e4.0
10	e15	19	64	70	40	256	e48	e29	e14	e13	e16	e3.7
11	e14	20	87	64	38	190	e40	e29	e15	e22	e13	e3.3
12	e14	16	90	63	43	151	e39	e30	e24	e30	e11	e3.0
13	e13	16	78	63	39	128	e61	e27	e27	e26	e10	e3.7
14	e14	16	70	68	34	108	e55	e27	e28	e22	e8.9	e3.9
15	e13	14	66	71	33	93	e56	e27	e21	e16	e9.2	e3.7
16	e12	13	63	79	36	83	e42	e27	e17	e21	e9.8	e3.1
17	e12	13	62	82	33	75	e40	e24	e18	e20	e9.8	e5.1
18	e17	13	62	75	32	70	e40	e29	e15	e43	e8.8	e8.7
19	e15	14	60	67	31	63	e37	e28	e13	e41	e7.9	e6.2
20	e16	16	57	81	31	58	e36	e28	e13	e39	e7.4	e5.4
21	e19	21	52	121	e39	56	e34	e26	e13	e28	e6.8	e5.2
22	e17	44	50	120	e37	55	e33	e23	e16	e28	e6.3	e6.6
23	e17	41	48	106	e35	54	e32	e22	e13	e26	e6.0	e26
24	e23	30	52	93	e42	51	e30	e21	e13	e29	e5.6	e19
25	e22	26	56	85	e45	48	e30	e20	e15	e24	e5.1	e16
26	e20	21	55	79	38	44	e28	e31	e15	e25	e4.8	e22
27	e18	20	51	72	37	41	e27	e28	e26	e25	e4.7	e34
28	16	76	47	66	53	39	e27	e27	e22	e20	e4.6	e33
29	16	139	45	59	---	38	e26	e25	e18	e21	e4.5	e22
30	16	114	42	55	---	37	e27	e26	e15	e18	e4.2	e15
31	15	---	40	52	---	36	---	e24	---	e17	e4.2	---
TOTAL	533	857	1988	2318	1142	2445	1077	877	543	731	311.6	280.1
MEAN	17.2	28.6	64.1	74.8	40.8	78.9	35.9	28.3	18.1	23.6	10.1	9.34
MAX	28	139	91	121	57	256	61	43	28	43	24	34
MIN	12	13	40	50	31	36	26	20	13	13	4.2	2.7
CFSM	.70	1.17	2.63	3.06	1.67	3.23	1.47	1.16	.74	.97	.41	.38
IN.	.81	1.31	3.03	3.53	1.74	3.73	1.64	1.34	.83	1.11	.48	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1995, BY WATER YEAR (WY)

	MEAN	33.6	53.7	66.8	52.7	50.7	81.7	93.7	66.0	39.2	25.5	21.4	27.9
MAX	95.2	73.0	105	88.2	82.1	125	190	170	85.2	49.9	59.7	100	
(WY)	1990	1986	1991	1993	1990	1994	1993	1989	1992	1990	1990	1987	
MIN	12.2	27.3	25.9	28.1	26.4	46.5	35.9	28.3	16.3	6.58	3.38	9.34	
(WY)	1989	1992	1989	1989	1987	1989	1995	1995	1993	1993	1993	1995	

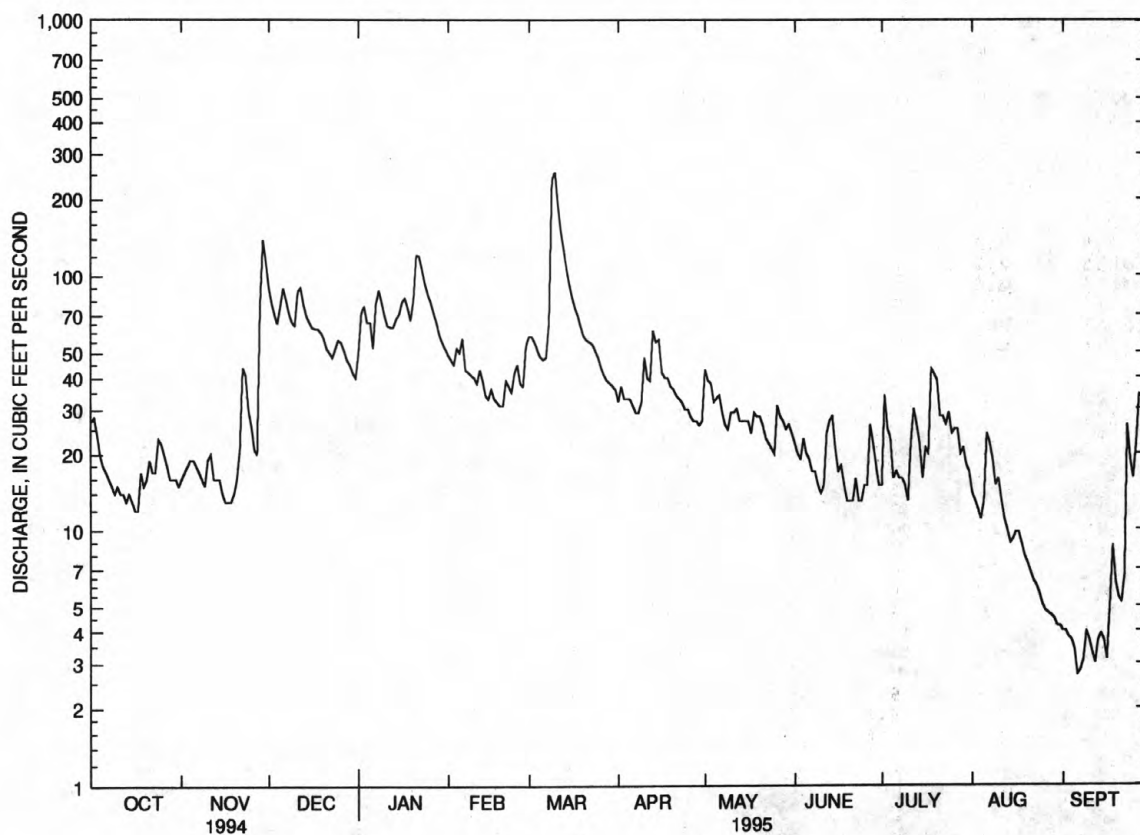


## PASSAIC RIVER BASIN

01379700 ROCKAWAY RIVER AT BERKSHIRE VALLEY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1985 - 1995	
ANNUAL TOTAL	19386.3		13102.7		51.3	
ANNUAL MEAN	53.1		35.9		61.2	1990
HIGHEST ANNUAL MEAN					35.9	1995
LOWEST ANNUAL MEAN					630	Sep 14 1987
HIGHEST DAILY MEAN	305	Mar 29	256	Mar 10	1.8	Aug 16 1993
LOWEST DAILY MEAN	5.7	Sep 16	2.7	Sep 6	2.3	Aug 10 1993
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep 11	3.2	Sep 6	744	Sep 14 1987
INSTANTANEOUS PEAK FLOW			300	Mar 9	7.23	Sep 14 1987
INSTANTANEOUS PEAK STAGE			5.94	Mar 9	1.5	Aug 16 1993
INSTANTANEOUS LOW FLOW			1.7	Aug 19	2.10	
ANNUAL RUNOFF (CFSM)	2.18		1.47		28.59	
ANNUAL RUNOFF (INCHES)	29.56		19.98		99	
10 PERCENT EXCEEDS	115		72		37	
50 PERCENT EXCEEDS	37		27		13	
90 PERCENT EXCEEDS	12		8.9			

e Estimated.



01379700 ROCKAWAY RIVER AT BERKSHIRE VALLEY, NJ, DAILY MEAN DISCHARGE

## 01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°57'34", long 74°32'24", Morris County, Hydrologic Unit 02030103, on left bank at Picatinny Arsenal, 500 ft upstream from Picatinny Lake, and 0.55 mi downstream from Burnt Meadow Brook.

DRAINAGE AREA.--7.65 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 712.54 ft above sea level (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--Records fair except for estimated daily discharges and periods when gates were open, which are poor. Discharges given herein includes flow through sluice gates when open. Some regulation by Lake Denmark and Green Pond. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	2400	*65	*2.31	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	2.4	26	9.7	9.6	16	8.2	8.2	4.9	4.6	4.2	2.3
2	4.0	2.8	23	12	9.3	17	8.0	7.0	4.8	5.8	4.1	2.3
3	3.2	2.6	20	12	8.3	16	7.7	6.6	4.6	5.0	4.2	2.2
4	3.0	2.4	17	11	9.4	15	7.6	6.2	4.4	4.3	4.1	2.2
5	2.8	2.3	23	9.5	9.5	14	7.4	6.1	4.3	4.2	5.5	2.1
6	2.7	2.4	24	8.5	9.2	13	6.5	5.9	4.3	4.2	6.3	2.1
7	2.6	2.3	23	18	8.8	13	6.1	5.6	4.9	4.5	5.5	2.0
8	2.4	2.2	21	18	8.2	23	6.6	5.5	4.4	4.4	4.8	2.0
9	2.5	2.2	18	17	7.8	59	7.4	5.5	4.1	4.2	4.5	2.0
10	2.7	4.0	19	15	7.4	53	8.6	5.9	4.0	4.1	4.3	2.0
11	2.5	3.3	24	14	7.0	45	7.5	6.1	4.2	5.7	4.0	1.9
12	2.4	3.3	23	14	6.7	37	7.4	5.9	5.6	5.7	3.8	1.7
13	2.3	3.3	21	14	6.4	32	10	6.0	5.4	4.7	3.8	1.7
14	2.3	3.3	19	14	6.2	28	8.5	5.7	4.8	4.5	3.7	1.7
15	2.1	3.3	17	18	6.1	25	8.3	5.5	4.7	4.5	3.7	1.7
16	2.1	3.3	16	22	6.6	22	8.1	5.3	4.4	4.4	3.5	1.5
17	2.0	3.3	15	24	6.6	20	7.7	5.5	4.2	4.6	3.4	1.7
18	1.9	3.3	15	22	6.6	18	7.6	5.8	4.1	5.8	3.3	.99
19	1.9	3.3	13	21	6.5	16	8.0	5.8	3.9	4.9	3.2	.85
20	2.1	3.3	11	28	6.7	15	7.6	5.6	3.8	4.5	3.2	.85
21	2.2	5.7	9.7	33	6.7	15	7.2	5.2	3.7	4.5	2.9	.85
22	2.1	9.8	9.1	32	6.7	14	6.9	5.2	3.7	4.4	2.8	2.0
23	2.7	8.1	8.6	29	6.6	13	6.6	5.2	3.7	4.4	2.8	2.1
24	3.1	8.4	11	25	8.1	12	6.6	5.1	3.8	4.3	2.7	1.4
25	2.6	8.3	11	22	8.0	11	6.5	5.3	3.7	4.4	2.7	1.2
26	2.4	7.8	9.4	20	7.6	10	6.2	6.3	4.3	4.4	2.6	2.9
27	2.3	7.7	8.5	17	7.7	9.8	6.1	5.8	4.5	4.3	2.5	2.4
28	2.1	22	7.8	15	14	9.4	5.8	5.4	4.0	4.4	2.5	1.8
29	2.1	28	7.9	13	---	8.8	5.5	5.3	3.9	4.6	2.4	1.4
30	2.0	28	7.2	11	---	8.5	5.9	5.3	3.7	4.5	2.4	1.3
31	2.0	---	6.8	10	---	8.4	---	5.1	---	4.3	2.3	---
TOTAL	77.0	192.4	485.0	548.7	218.3	616.9	218.1	178.9	128.8	143.1	111.7	53.14
MEAN	2.48	6.41	15.6	17.7	7.80	19.9	7.27	5.77	4.29	4.62	3.60	1.77
MAX	4.0	28	26	33	14	59	10	8.2	5.6	5.8	6.3	2.9
MIN	1.9	2.2	6.8	8.5	6.1	8.4	5.5	5.1	3.7	4.1	2.3	.85
CFSM	.32	.84	2.05	2.31	1.02	2.60	.95	.75	.56	.60	.47	.23
IN.	.37	.94	2.36	2.67	1.06	3.00	1.06	.87	.63	.70	.54	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

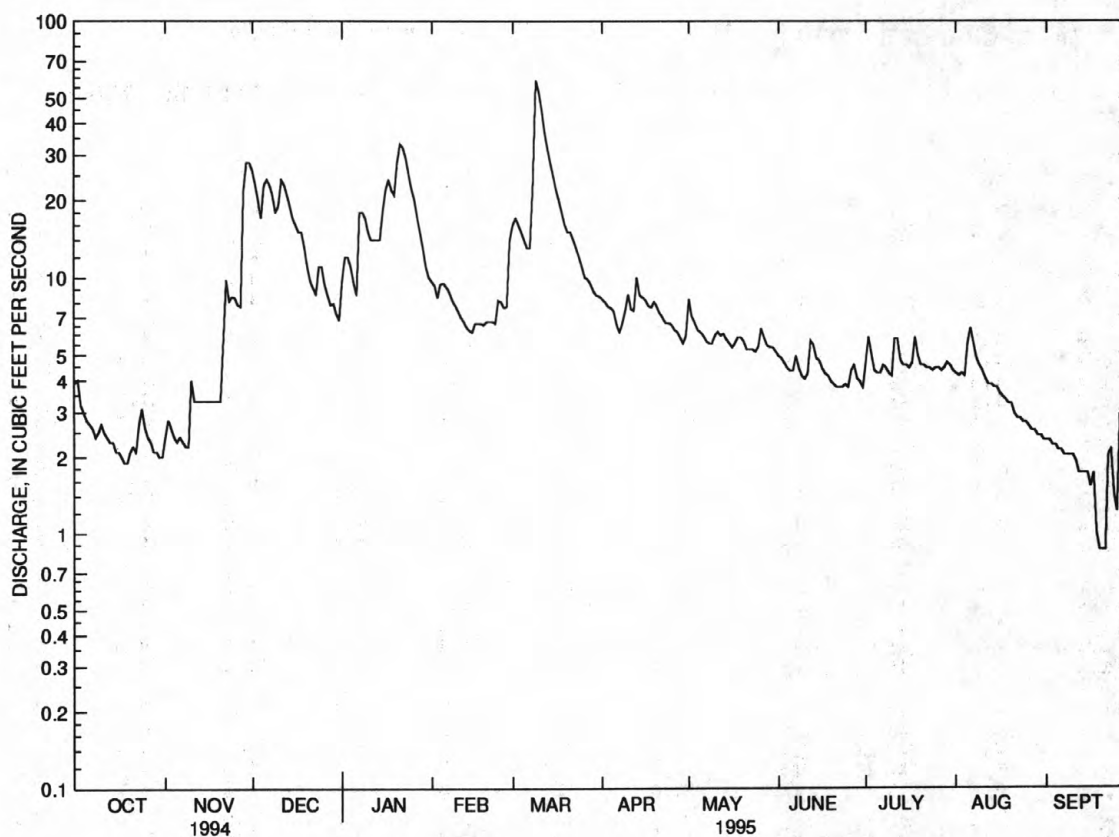
	MEAN	7.14	10.6	17.8	13.6	14.7	23.6	26.4	17.7	10.6	7.85	6.34	6.16
MAX	26.1	19.4	40.8	22.0	22.6	49.5	64.1	50.6	21.8	32.6	20.9	24.7	
(WY)	1990	1990	1984	1993	1986	1983	1983	1989	1992	1984	1990	1987	
MIN	2.31	2.07	5.29	5.85	5.92	10.5	3.84	5.77	3.54	2.65	2.13	1.77	
(WY)	1985	1985	1992	1992	1992	1985	1985	1995	1987	1991	1991	1995	

## PASSAIC RIVER BASIN

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1983 - 1995	
ANNUAL TOTAL	4969.5		2972.04		13.5	
ANNUAL MEAN	13.6		8.14		21.4	
HIGHEST ANNUAL MEAN					6.63	
LOWEST ANNUAL MEAN					248	
HIGHEST DAILY MEAN	82	Mar 29	59	Mar 9	1.85	Apr 5 1984
LOWEST DAILY MEAN	1.9	Oct 18	.85	Sep 19	1.2	Sep 19 1995
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 15	1.2	Sep 15	1.2	Sep 15 1995
INSTANTANEOUS PEAK FLOW			65	Mar 9	333	Apr 5 1984
INSTANTANEOUS PEAK STAGE			2.31	Mar 9	3.51	Apr 5 1984
INSTANTANEOUS LOW FLOW			.85	Sep 18	.85	Sep 18 1995
ANNUAL RUNOFF (CFSM)	1.78		1.06		1.77	
ANNUAL RUNOFF (INCHES)	24.17		14.45		24.04	
10 PERCENT EXCEEDS	31		18		29	
50 PERCENT EXCEEDS	9.4		5.6		8.6	
90 PERCENT EXCEEDS	2.8		2.2		2.8	

e Estimated.



01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ, DAILY MEAN DISCHARGE

## 01379780 GREEN POND BROOK BELOW PICATINNY LAKE, AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°56'56", long 74°33'29", Morris County, Hydrologic Unit 02030103, on left bank 100 ft upstream from bridge on Whitmore Avenue at Picatinny Arsenal, and 200 ft downstream from dam on Picatinny Lake.

DRAINAGE AREA.--9.16 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WDR NJ-90-1: 1987 (M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 694.91 ft above sea level (U.S. Army, Picatinny Arsenal, benchmark).

REMARKS.--Records good. Occasional regulation at Picatinny Lake. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 5, 1984 reached an elevation of 699.0 ft above sea level, 200 ft upstream of bridge on Whitmore Avenue.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	1900	*56	*2.96	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.6	34	9.6	18	13	10	5.7	5.2	4.2	3.8	2.8
2	2.1	1.7	29	13	17	15	9.9	5.5	5.5	4.7	4.2	2.7
3	2.0	1.7	24	19	16	16	9.5	5.6	5.8	4.7	4.2	2.6
4	1.9	1.6	21	22	16	16	9.3	5.8	5.2	4.5	4.2	2.6
5	1.8	1.5	26	21	15	16	8.3	5.9	4.3	4.5	4.6	2.3
6	1.8	1.5	30	20	14	16	8.0	5.9	4.5	4.7	4.8	2.3
7	1.9	1.5	29	20	14	15	7.6	6.0	4.7	4.4	4.0	2.2
8	1.7	1.5	26	20	14	16	7.4	6.1	5.0	4.3	3.9	2.0
9	1.7	1.5	26	20	13	28	6.9	6.0	4.8	4.2	3.9	1.8
10	1.6	1.5	25	20	13	49	6.5	5.9	5.1	4.3	4.2	1.8
11	1.5	1.5	32	20	12	54	6.3	5.5	5.4	4.6	4.8	1.7
12	1.4	1.5	29	19	12	46	6.5	5.5	5.5	4.9	4.8	1.6
13	1.4	1.5	27	19	12	40	6.8	5.4	5.3	4.4	5.0	1.6
14	1.4	1.5	24	18	12	33	7.0	4.9	5.2	4.7	4.8	1.7
15	1.3	1.5	21	18	11	29	6.7	5.0	5.2	4.8	4.9	1.6
16	1.3	1.5	19	19	11	27	6.8	4.8	5.5	4.6	4.8	2.0
17	1.3	1.5	18	20	11	25	6.7	4.8	5.2	4.2	4.4	2.1
18	1.3	1.3	18	20	10	23	6.5	4.7	5.3	4.6	4.0	2.0
19	1.3	1.2	16	21	9.7	21	6.4	4.9	5.5	4.4	4.1	1.7
20	1.3	1.3	15	22	8.8	20	6.6	5.0	5.5	4.3	4.2	1.5
21	1.4	2.7	14	27	7.9	19	6.5	4.8	5.2	4.5	4.3	1.4
22	1.4	10	14	33	7.2	19	6.4	5.0	5.1	4.8	4.2	1.5
23	1.4	8.6	13	33	7.1	19	6.3	5.2	4.8	4.7	3.7	1.7
24	1.5	8.0	13	30	7.6	18	6.5	5.1	4.8	4.2	3.6	1.6
25	1.5	7.9	11	27	8.0	17	5.9	5.0	5.2	4.4	3.4	1.9
26	1.5	7.7	11	25	8.0	15	5.9	5.3	5.2	4.5	3.2	2.0
27	1.5	7.7	9.0	24	8.0	13	5.9	5.4	4.5	4.4	3.0	1.9
28	1.5	26	9.1	23	10	12	5.9	5.0	3.9	3.6	2.9	1.7
29	1.5	36	9.0	22	---	11	5.9	4.9	3.9	3.8	2.8	1.4
30	1.5	36	9.0	21	---	11	5.9	5.2	4.0	4.0	2.6	1.4
31	1.5	---	8.6	19	---	11	---	5.2	---	4.0	2.6	---
TOTAL	48.3	180.5	609.7	664.6	323.3	683	210.8	165.0	150.3	136.9	123.9	57.1
MEAN	1.56	6.02	19.7	21.4	11.5	22.0	7.03	5.32	5.01	4.42	4.00	1.90
MAX	2.1	36	34	33	18	54	10	6.1	5.8	4.9	5.0	2.8
MIN	1.3	1.2	8.6	9.6	7.1	11	5.9	4.7	3.9	3.6	2.6	1.4
CFSM	.17	.66	2.15	2.34	1.26	2.41	.77	.58	.55	.48	.44	.21
IN.	.20	.73	2.48	2.70	1.31	2.77	.86	.67	.61	.56	.50	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1995, BY WATER YEAR (WY)

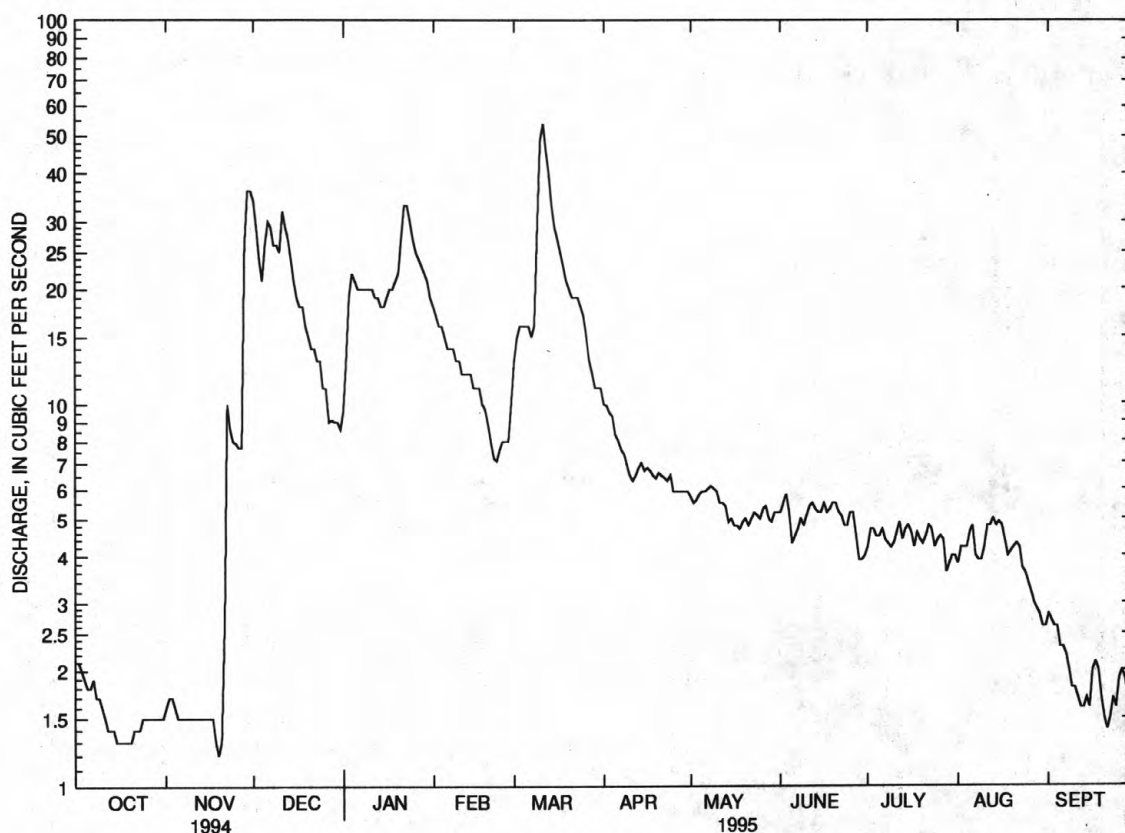
	1985	1985	1985	1985	1985	1985	1985	1985	1985	1985	1985	1985
MEAN	8.16	13.4	20.9	15.7	15.5	23.6	24.4	19.8	11.2	6.15	7.19	8.05
MAX	33.3	24.3	43.1	27.0	27.5	38.8	51.1	66.7	28.8	18.4	28.6	36.7
(WY)	1990	1990	1987	1991	1990	1994	1993	1989	1992	1990	1990	1987
MIN	.71	.28	5.28	6.98	7.08	10.6	2.48	5.32	2.23	1.48	.54	1.90
(WY)	1985	1985	1985	1985	1992	1985	1985	1995	1987	1993	1991	1995



## PASSAIC RIVER BASIN

01379780 GREEN POND BROOK BELOW PICATINNY LAKE, AT PICATINNY ARSENAL, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1985 - 1995	
ANNUAL TOTAL	5294.0		3353.4		14.5	
ANNUAL MEAN	14.5		9.19		22.1	
HIGHEST ANNUAL MEAN					6.35	
LOWEST ANNUAL MEAN					206	
HIGHEST DAILY MEAN	106	Mar 29	54	Mar 11	206	May 17 1990
LOWEST DAILY MEAN	1.2	Nov 19	1.2	Nov 19	.20	Nov 20 1984
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 14	1.3	Oct 14	.20	Nov 17 1984
INSTANTANEOUS PEAK FLOW			56	Mar 10	243	Sep 13 1987
INSTANTANEOUS PEAK STAGE			2.96	Mar 10	3.70	Sep 13 1987
INSTANTANEOUS LOW FLOW			1.2	Oct 17	---	
ANNUAL RUNOFF (CFSM)	1.58		1.00		1.58	
ANNUAL RUNOFF (INCHES)	21.50		13.62		21.51	
10 PERCENT EXCEEDS	31		22		32	
50 PERCENT EXCEEDS	9.5		5.3		9.3	
90 PERCENT EXCEEDS	1.5		1.5		1.7	



01379780 GREEN POND BK BLW PCTNY LK, AT PICATINNY ARSNL, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

79

## 01379790 GREEN POND BROOK AT WHARTON, NJ

LOCATION.--Lat 40°55'04", long 74°35'02", Morris County, Hydrologic Unit 02030103, on left bank 600 ft upstream from bridge on northbound lane of State Route 15, 0.2 mi northwest of Wharton, and 1.7 mi upstream from mouth.

DRAINAGE AREA.--12.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 680.26 ft above sea level (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--Records good. Some regulation from Lake Picatinny, Picatinny Arsenal sewage treatment plant, and flood gates located about 800 ft upstream of gage. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2400	*107	*3.42	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	4.6	42	23	27	33	18	18	8.4	10	5.8	3.2
2	6.2	4.8	37	30	26	29	17	13	8.7	19	5.9	3.2
3	4.8	4.4	32	30	24	28	17	12	9.2	9.1	6.3	3.0
4	4.3	3.9	28	34	24	28	16	12	9.1	7.9	7.3	2.9
5	4.4	3.6	43	31	24	28	15	12	7.4	7.1	12	2.8
6	3.4	3.9	44	29	22	29	15	11	7.1	7.0	11	3.0
7	3.7	3.9	39	46	21	28	14	11	7.0	7.4	7.8	2.8
8	3.6	3.6	35	34	19	46	14	11	7.2	7.7	6.7	2.5
9	3.6	3.6	33	30	18	81	14	10	7.2	6.6	6.1	2.5
10	3.5	7.9	35	29	17	71	20	12	7.1	6.2	6.0	3.7
11	3.4	4.9	49	28	16	76	14	12	7.7	15	6.2	2.7
12	3.5	4.3	40	28	15	68	14	11	14	30	6.5	2.3
13	5.4	4.1	36	28	14	60	27	10	9.9	12	6.6	2.3
14	3.4	5.3	33	29	14	53	17	9.6	7.5	9.4	5.9	2.2
15	2.4	3.8	30	30	13	48	16	9.1	7.8	8.2	6.5	2.2
16	2.2	3.7	28	32	15	45	14	8.8	7.7	8.2	6.1	2.1
17	5.2	3.7	27	31	15	42	14	9.6	7.2	7.9	6.0	4.1
18	2.9	3.6	27	30	14	39	14	10	7.2	20	5.5	3.1
19	2.7	3.4	25	29	14	36	14	14	7.3	12	5.1	2.4
20	3.4	3.2	23	45	15	34	14	10	7.3	9.8	4.9	2.2
21	3.2	11	22	47	16	35	14	9.3	7.0	9.5	5.0	3.5
22	2.9	27	21	48	15	34	13	9.0	6.7	9.5	4.7	5.6
23	5.2	16	21	47	15	32	14	9.1	6.5	9.8	4.2	7.6
24	5.7	14	25	43	19	30	13	8.9	6.4	9.2	3.8	4.0
25	4.2	13	21	40	18	28	12	9.1	12	8.7	3.8	3.0
26	3.8	13	19	37	16	26	12	13	10	8.1	3.5	17
27	3.7	12	17	35	16	23	11	10	12	7.6	3.5	9.0
28	3.4	53	17	33	34	20	11	9.2	7.8	6.7	3.4	4.7
29	3.5	50	16	31	---	19	10	8.8	6.1	7.7	3.3	3.6
30	3.6	45	16	30	---	18	12	9.0	6.0	6.4	3.2	3.3
31	3.5	---	16	28	---	18	---	8.7	---	6.0	3.1	---
TOTAL	120.6	338.2	897	1045	516	1185	440	330.2	242.5	309.7	175.7	116.5
MEAN	3.89	11.3	28.9	33.7	18.4	38.2	14.7	10.7	8.08	9.99	5.67	3.88
MAX	6.2	53	49	48	34	81	27	18	14	30	12	17
MIN	2.2	3.2	16	23	13	18	10	8.7	6.0	6.0	3.1	2.1
CFSM	.31	.89	2.30	2.68	1.46	3.03	1.16	.85	.64	.79	.45	.31
IN.	.36	1.00	2.65	3.09	1.52	3.50	1.30	.97	.72	.91	.52	.34

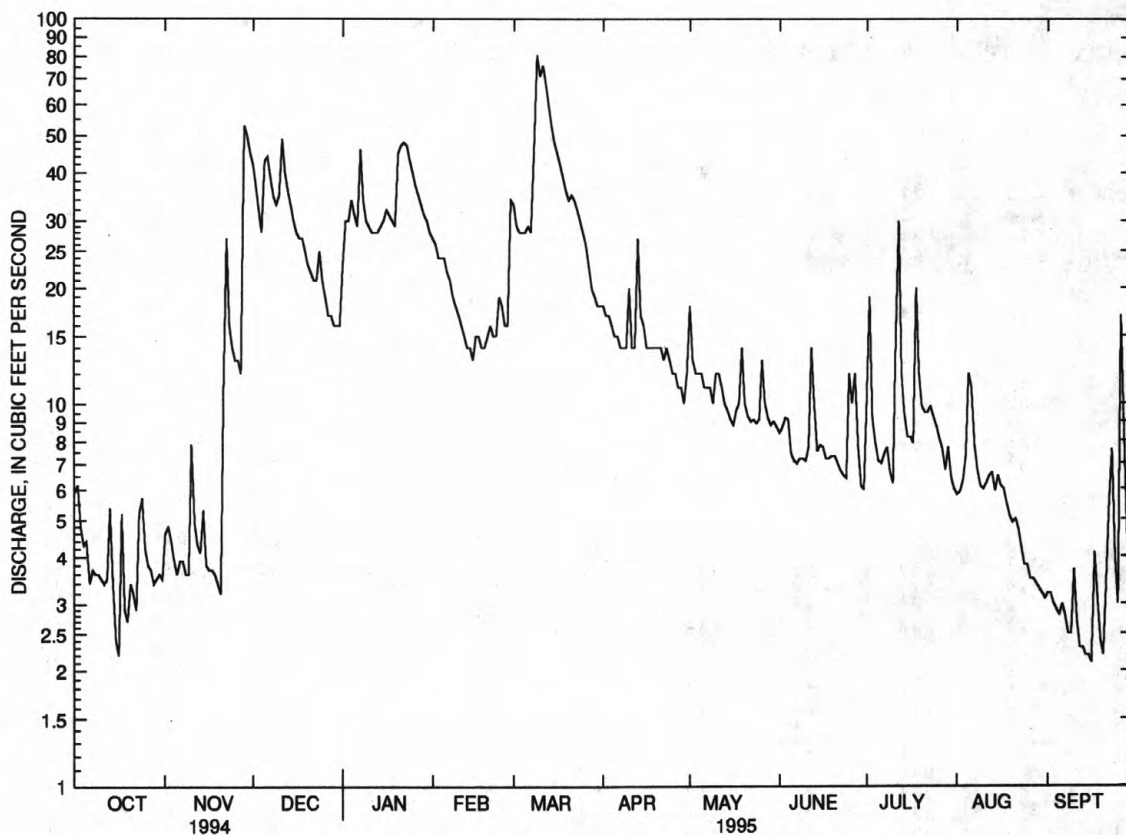
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	12.1	20.0	32.4	24.7	27.0	42.6	48.3	32.4	19.7	14.7	11.2	12.3	
MAX	46.7	34.3	71.2	38.2	41.9	89.2	112	87.0	39.9	61.4	36.4	54.0	
(WY)	1990	1986	1984	1991	1984	1983	1983	1989	1992	1984	1990	1987	
MIN	3.89	4.23	11.7	11.3	13.2	17.8	8.96	10.7	6.65	3.12	3.04	3.88	
(WY)	1995	1985	1985	1985	1992	1985	1985	1995	1987	1993	1993	1995	

## PASSAIC RIVER BASIN

01379790 GREEN POND BROOK AT WHARTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1983 - 1995
ANNUAL TOTAL	8630.8	5716.4	
ANNUAL MEAN	23.6	15.7	24.8
HIGHEST ANNUAL MEAN			40.6
LOWEST ANNUAL MEAN			12.5
HIGHEST DAILY MEAN	136 Mar 30	81 Mar 9	512 Apr 6 1984
LOWEST DAILY MEAN	2.2 Oct 16	2.1 Sep 16	1.6 Sep 3 1991
ANNUAL SEVEN-DAY MINIMUM	3.1 Oct 15	2.5 Sep 10	1.8 Aug 29 1991
INSTANTANEOUS PEAK FLOW		107 Mar 8	572 Apr 5 1984
INSTANTANEOUS PEAK STAGE		3.42 Mar 8	5.11 Apr 5 1984
INSTANTANEOUS LOW FLOW		1.1 Oct 17	1.1 Oct 17 1994
ANNUAL RUNOFF (CFSM)	1.88	1.24	1.97
ANNUAL RUNOFF (INCHES)	25.48	16.88	26.70
10 PERCENT EXCEEDS	57	34	52
50 PERCENT EXCEEDS	16	11	16
90 PERCENT EXCEEDS	4.1	3.4	4.9



01379790 GREEN POND BROOK AT WHARTON, NJ, DAILY MEAN DISCHARGE

## 01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'10", long 74°24'36", Morris County, Hydrologic Unit 02030103, on right bank, under New Jersey Transit railroad bridge, just downstream of bridge on Morris Avenue in Boonton, 1.8 mi upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for October 1937, published in WSP 1302.

REVISED RECORDS.--WRD-NJ 1974: 1938(M). WDR NJ-78-1: 1949(M), 1952(M), 1968(M), 1971(M), 1973(P), 1974(M), 1977(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 364.47 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Splitrock Reservoir on Beaver Brook, 14.5 mi upstream of station (see Passaic River basin, reservoirs in). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook, capacity, 75,000,000 gal and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.55 ft<sup>3</sup>/s. Rockaway Valley trunk sewer bypasses the station (see station 01381000). Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Jersey City, Bureau of Water.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1045	*1,110	*4.02	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	65	296	210	186	446	128	234	74	51	32	11
2	109	87	245	279	182	319	128	189	66	181	30	11
3	83	70	211	260	166	262	119	153	64	102	28	10
4	68	61	183	215	142	237	122	134	82	72	27	9.6
5	58	56	317	143	178	224	130	128	65	59	35	8.6
6	55	54	431	152	160	218	115	125	62	50	89	e6.0
7	49	54	312	505	173	220	108	110	56	49	56	e6.8
8	45	48	256	455	150	270	107	98	52	57	41	e7.7
9	44	45	210	299	141	982	121	92	47	54	35	e12
10	52	107	211	237	139	792	241	112	45	44	33	e12
11	46	88	456	213	143	605	171	125	47	117	31	e9.7
12	42	68	363	209	136	507	148	121	103	183	30	e9.7
13	42	59	274	222	122	439	351	114	123	102	29	e11
14	43	55	234	259	122	381	267	110	85	64	28	e11
15	39	55	210	276	119	339	206	105	79	50	29	e9.7
16	37	51	196	321	158	307	172	110	65	62	33	e7.7
17	38	48	198	327	164	292	150	99	57	60	32	e17
18	64	46	209	285	153	262	138	132	48	265	27	e39
19	54	48	190	249	146	240	141	124	43	141	23	e18
20	64	47	170	401	153	220	143	120	43	83	20	e17
21	81	110	156	620	168	232	134	98	41	60	18	e18
22	59	409	148	482	153	239	132	86	63	50	17	e18
23	64	218	145	395	137	214	125	80	48	47	16	e170
24	108	139	172	343	188	200	115	73	43	76	15	e87
25	87	112	192	314	201	185	110	71	56	65	14	e67
26	73	99	160	287	170	169	104	135	53	72	13	e163
27	66	88	147	266	154	157	101	116	107	78	13	e209
28	61	516	143	240	352	147	99	95	88	48	13	e96
29	50	609	132	213	---	140	97	97	58	53	13	e70
30	50	395	112	198	---	138	105	92	50	45	12	e63
31	48	---	109	194	---	135	---	81	---	36	12	---
TOTAL	1874	3907	6788	9069	4556	9518	4328	3559	1913	2476	844	1205.5
MEAN	60.5	130	219	293	163	307	144	115	63.8	79.9	27.2	40.2
MAX	109	609	456	620	352	982	351	234	123	265	89	209
MIN	37	45	109	143	119	135	97	71	41	36	12	6.0



## PASSAIC RIVER BASIN

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

MEAN	122	221	275	259	273	395	392	276	181	128	118	121
MAX	523	694	706	855	590	798	979	836	847	553	447	484
(WY)	1956	1973	1974	1979	1973	1977	1983	1989	1972	1975	1955	1971
MIN	23.7	63.7	67.2	74.8	107	152	87.0	90.5	35.3	18.1	16.6	16.8
(WY)	1965	1962	1940	1981	1940	1985	1985	1965	1965	1966	1957	1964

## SUMMARY STATISTICS

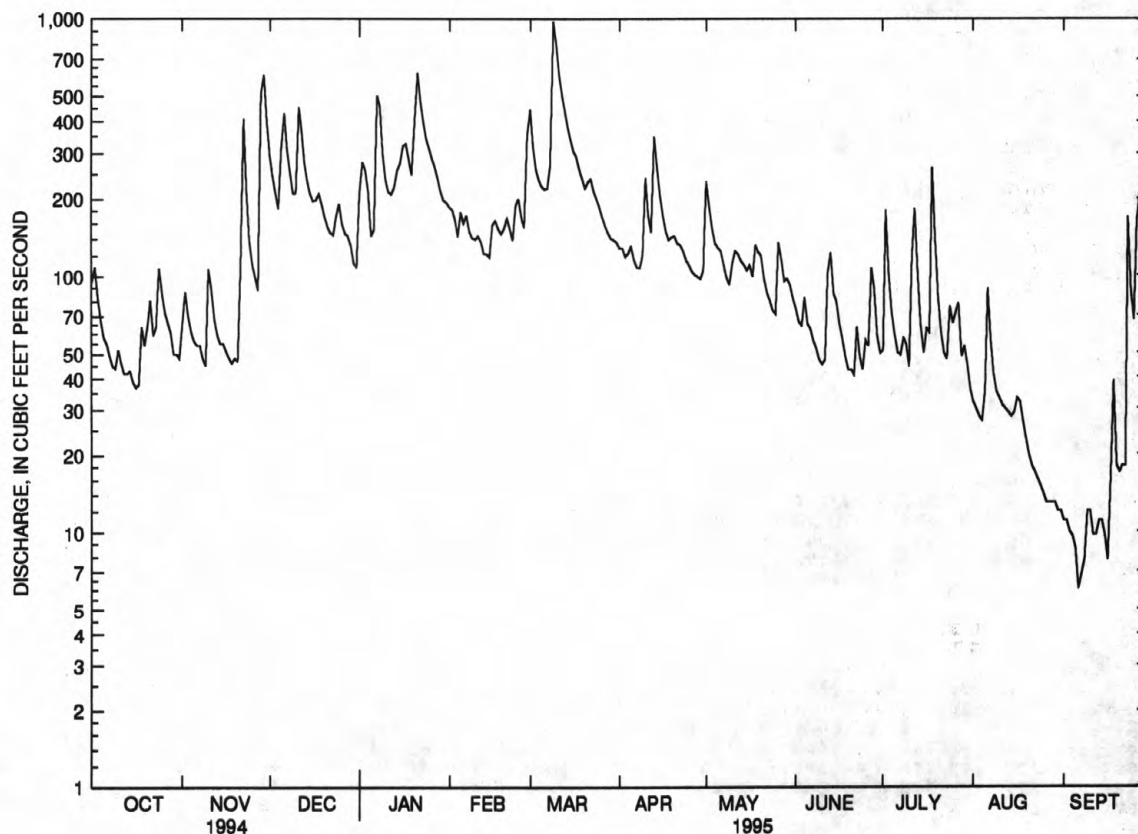
## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

## WATER YEARS 1938 - 1995

ANNUAL TOTAL	82891	50037.5	
ANNUAL MEAN	227	137	230
HIGHEST ANNUAL MEAN			396
LOWEST ANNUAL MEAN			88.3
HIGHEST DAILY MEAN	1310	982	4220
LOWEST DAILY MEAN	33	6.0	6.0
ANNUAL SEVEN-DAY MINIMUM	36	8.5	8.5
INSTANTANEOUS PEAK FLOW		1110	5590
INSTANTANEOUS PEAK STAGE		4.02	7.23
10 PERCENT EXCEEDS	539	281	496
50 PERCENT EXCEEDS	143	107	154
90 PERCENT EXCEEDS	47	28	44

e Estimated.



01380500 ROCKAWAY RIVER ABOVE RESERVOIR AT BOONTON, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-79, 1991 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, EC BROTH (MPN) (31615)
OCT 1994 19...	1100	53	307	7.6	11.5	752	10.8	100	<1.0	130
JAN 1995 24...	1215	337	187	7.4	2.5	742	12.7	96	<1.2	240
MAR 22...	0925	239	275	7.5	9.0	740	11.5	103	<1.0	79
MAY 17...	1010	91	254	7.9	16.5	747	9.4	98	E1.8	110
JUL 27...	1030	78	233	7.6	26.0	749	6.3	79	2.5	>2400

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 1994 19...	40	90	22	8.5	22	1.5	63	15	43	0.1
JAN 1995 24...	30	49	12	4.5	15	0.80	29	11	27	<0.1
MAR 22...	90	59	15	5.2	26	1.0	35	12	49	<0.1
MAY 17...	70	73	18	6.7	19	1.0	48	12	36	<0.1
JUL 27...	300	69	17	6.4	16	1.4	52	9.4	31	0.2

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1994 19...	9.3	162	160	--	0.012	0.26	<0.03	<0.03	0.20
JAN 1995 24...	8.8	110	98	4	0.004	0.33	<0.03	<0.03	0.18
MAR 22...	8.4	146	140	4	0.008	0.44	0.03	<0.03	0.19
MAY 17...	7.1	142	130	--	0.007	0.27	0.03	0.04	0.20
JUL 27...	8.6	132	123	4	0.013	0.37	0.06	0.05	0.30

## PASSAIC RIVER BASIN

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1994									
19...	0.24	0.46	0.50	0.04	0.03	3.2	0.8	14	2.0
JAN 1995									
24...	0.14	0.51	0.47	<0.01	<0.01	3.4	0.4	--	--
MAR									
22...	0.12	0.63	0.56	0.02	0.02	3.0	0.3	--	--
MAY									
17...	0.19	0.47	0.46	0.01	<0.01	3.0	0.3	3	0.74
JUL									
27...	0.20	0.67	0.57	0.02	<0.01	4.0	0.4	--	--

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995								
17...	1010	<10	<1	<10	20	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995							
17...	460	1	70	<0.1	<1	<1	10

MEAN	45.0	97.0	167	155	170	283	299	189	98.8	51.1	43.9	47.2
MAX	408	483	582	692	499	739	978	873	671	445	269	346
(WY)	1956	1973	1984	1979	1973	1994	1983	1989	1972	1984	1990	1960
MIN	.23	.43	.35	.39	1.49	13.9	11.4	18.6	.40	.25	.29	.28
(WY)	1964	1966	1966	1966	1966	1981	1985	1955	1957	1966	1966	1957



## PASSAIC RIVER BASIN

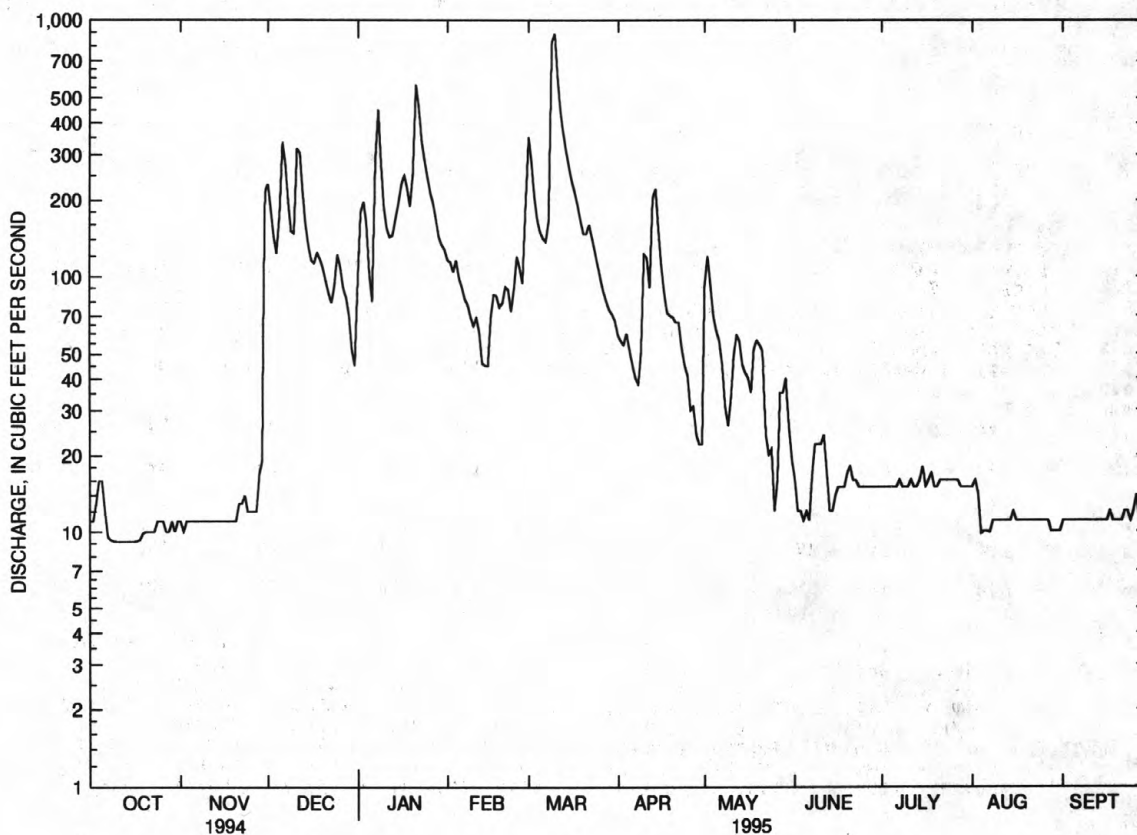
01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1950 - 1995	
ANNUAL TOTAL	65058.7		27422.4		137	
ANNUAL MEAN	178		75.1		296	
HIGHEST ANNUAL MEAN					7.19	
LOWEST ANNUAL MEAN					3850	
HIGHEST DAILY MEAN	1740	Mar 30	891	Mar 10	1952	
LOWEST DAILY MEAN	9.2	Oct 9	9.2	Oct 9	1965	
ANNUAL SEVEN-DAY MINIMUM	9.2	Oct 9	9.2	Oct 9	Apr 6 1984	
INSTANTANEOUS PEAK FLOW			1120	Mar 9	Jan 19 1959	
INSTANTANEOUS PEAK STAGE			4.56	Mar 9	Dec 18 1963	
INSTANTANEOUS LOW FLOW			8.8	Oct 10	Oct 10 1903	
10 PERCENT EXCEEDS	529		196		.00a	
50 PERCENT EXCEEDS	62		21		363	
90 PERCENT EXCEEDS	11		11		37	
					.80	

a Since 1903; see period of record section.

b Maximum daily.

† Sewage effluent, in cubic feet per second, from plant at Rockaway Valley Regional Sewage Authority.



01381000 ROCKAWAY RIVER BELOW RESERVOIR AT BOONTON, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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## 01381200 ROCKAWAY RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'29", long 74°20'53", Morris County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at intersection with New Road in Pine Brook, and 1.1 mi upstream of mouth.

DRAINAGE AREA.--136 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)
OCT 1994										
20...	1040	E30	556	7.5	15.5	755	6.4	65	E1.1	230
JAN 1995										
23...	1245	E185	254	7.6	3.5	753	12.3	94	2.2	130
MAR										
21...	1105	145	279	7.8	8.0	743	10.9	94	E1.2	210
MAY										
17...	1035	42	411	7.6	14.5	751	7.6	76	E2.1	790
JUL										
26...	1127	28	498	7.5	23.5	756	6.1	73	E1.2	790
DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 1994										
20...	20	150	36	14	46	5.5	79	29	74	0.3
JAN 1995										
23...	60	67	17	6.0	21	1.4	41	13	38	<0.1
MAR										
21...	30	68	17	6.1	24	1.5	40	14	43	0.1
MAY										
17...	110	110	27	9.7	35	3.1	63	20	59	0.1
JUL										
26...	300	130	33	12	41	4.6	81	25	69	0.2
DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	
OCT 1994										
20...	13	320	300	12	0.030	7.90	<0.03	0.07	0.50	
JAN 1995										
23...	9.0	142	133	7	0.005	0.57	0.05	0.04	0.23	
MAR										
21...	9.0	150	144	9	0.007	1.20	0.06	0.04	0.30	
MAY										
17...	8.2	230	219	--	0.025	4.30	0.08	0.09	0.40	
JUL										
26...	12	288	270	10	0.028	5.50	0.13	0.08	0.60	

## PASSAIC RIVER BASIN

01381200 ROCKAWAY RIVER AT PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1994									
20...	0.52	8.4	8.4	1.40	1.40	3.8	0.5	--	--
JAN 1995									
23...	0.20	0.8	0.77	0.04	0.03	3.7	0.5	--	--
MAR									
21...	0.18	1.5	1.4	0.14	0.12	3.0	0.7	--	--
MAY									
17...	0.30	4.7	4.6	0.57	0.50	3.3	0.6	9	1.0
JUL									
26...	0.53	6.1	6.0	1.10	1.00	3.4	0.6	--	--

## 01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'26", long 74°27'22", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-disposal plant, 0.8 mi northeast of Morristown, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--29.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1925-27(M) 1928-29, 1930-32(M), 1933-34. WRD-NJ 1974: 1965. WDR NJ-84-1: 1971(M). WDR NJ-88-1: Longitude.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi above station. Diurnal fluctuations from unknown source at low flow. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 12	0130	682	4.41	July 18	0145	*762	*4.61
July 11	2145	518	3.96				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	32	31	58	39	143	38	77	29	26	22	15
2	26	29	27	70	39	70	38	47	29	35	23	14
3	21	21	25	46	36	56	37	40	33	26	22	14
4	20	19	24	34	36	52	38	37	38	24	22	14
5	19	19	110	27	45	50	36	38	29	24	31	14
6	19	22	87	28	43	49	35	37	27	24	34	14
7	18	22	44	197	40	48	35	33	27	39	25	14
8	19	19	34	88	38	99	36	31	26	30	22	14
9	19	19	29	50	37	298	48	31	25	25	21	15
10	21	52	47	40	34	95	82	43	25	24	20	20
11	19	26	116	37	36	70	44	42	45	105	20	15
12	18	21	50	38	34	65	44	53	454	102	20	14
13	18	20	35	40	31	62	127	44	87	32	20	16
14	18	20	32	53	32	60	56	35	45	26	19	16
15	18	19	30	51	33	58	45	35	38	24	27	14
16	18	18	28	57	48	54	40	32	33	49	21	13
17	18	18	31	51	46	61	38	47	30	53	19	52
18	18	19	32	43	44	55	38	55	29	366	19	24
19	20	19	29	41	43	51	43	47	28	57	17	17
20	23	18	28	127	49	52	39	40	27	35	17	16
21	23	67	27	169	54	61	38	34	26	30	17	16
22	19	97	27	77	49	57	38	30	70	28	16	55
23	29	31	27	59	43	50	36	29	32	44	16	54
24	31	24	36	53	59	47	36	28	28	53	16	21
25	21	22	33	49	50	44	35	33	27	32	15	21
26	20	20	28	46	42	41	37	86	28	31	15	126
27	19	23	27	44	40	40	34	40	43	32	15	62
28	20	227	26	42	160	40	35	33	33	32	16	26
29	19	120	26	40	---	39	33	43	28	29	16	20
30	19	41	24	39	---	40	41	48	26	25	16	19
31	19	---	24	39	---	41	---	32	---	23	16	---
TOTAL	635	1124	1174	1833	1280	2048	1300	1280	1445	1485	615	765
MEAN	20.5	37.5	37.9	59.1	45.7	66.1	43.3	41.3	48.2	47.9	19.8	25.5
MAX	31	227	116	197	160	298	127	86	454	366	34	126
MIN	18	18	24	27	31	39	33	28	25	23	15	13
CFSM	.70	1.27	1.29	2.01	1.55	2.25	1.47	1.40	1.64	1.63	.67	.87
IN.	.80	1.42	1.49	2.32	1.62	2.59	1.64	1.62	1.83	1.88	.78	.97



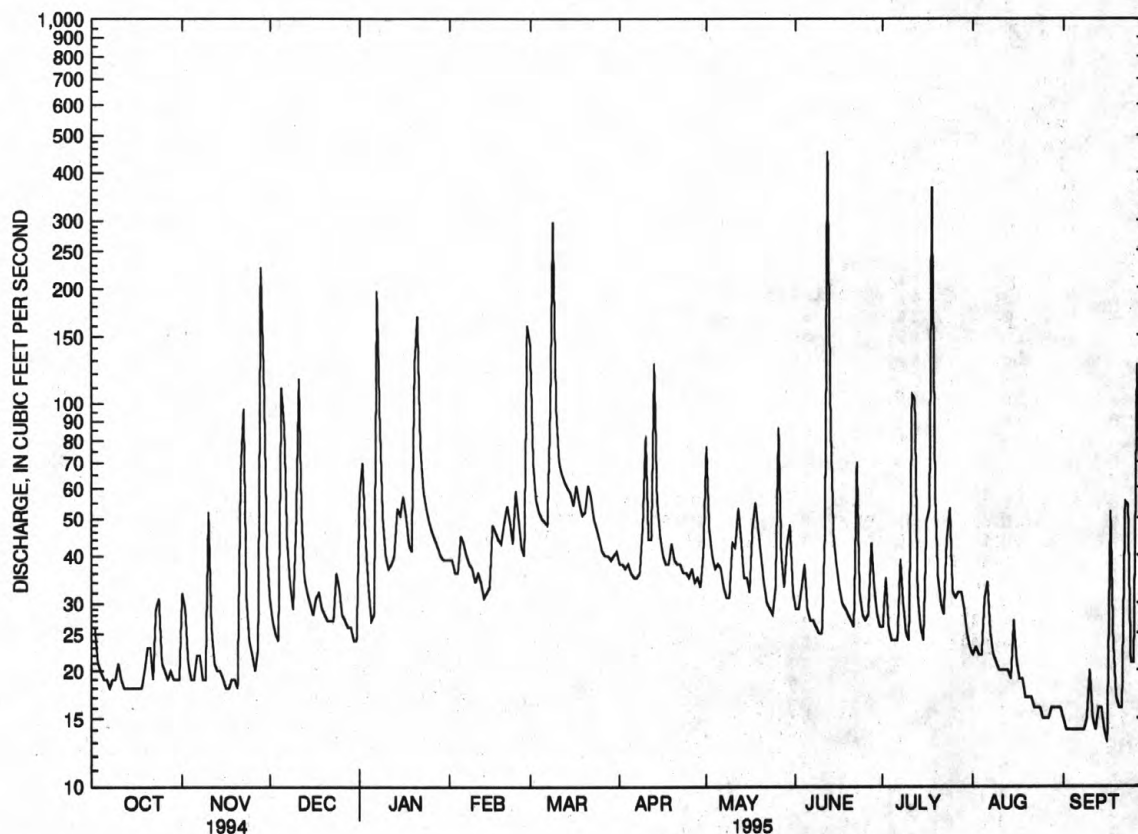
## PASSAIC RIVER BASIN

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	31.2	45.1	53.7	57.4	63.8	87.1	87.1	66.2	46.8	38.3	35.5	34.2
MAX	93.8	132	158	211	147	215	231	237	214	186	158	123
(WY)	1990	1933	1984	1979	1973	1936	1983	1989	1972	1975	1942	1971
MIN	8.72	13.3	14.2	16.9	23.5	28.1	30.2	24.4	14.6	10.3	8.02	7.25
(WY)	1931	1937	1940	1922	1940	1981	1985	1941	1965	1965	1932	1932

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	23596		14984			
ANNUAL MEAN	64.6		41.1		53.8	
HIGHEST ANNUAL MEAN					98.5	
LOWEST ANNUAL MEAN					23.3	
HIGHEST DAILY MEAN	442	Mar 10	454	Jun 12	1510	Aug 28 1971
LOWEST DAILY MEAN	18	Oct 7	13	Sep 16	4.2	Sep 10 1932
ANNUAL SEVEN-DAY MINIMUM	18	Oct 12	14	Sep 2	4.7	Sep 9 1932
INSTANTANEOUS PEAK FLOW			762		2800	Aug 28 1971
INSTANTANEOUS PEAK STAGE			4.61		8.60	Aug 28 1971
INSTANTANEOUS LOW FLOW			12		2.8	Aug 27 1932
ANNUAL RUNOFF (CFSM)	2.20		1.40		1.83	
ANNUAL RUNOFF (INCHES)	29.86		18.96		24.87	
10 PERCENT EXCEEDS	147		60		104	
50 PERCENT EXCEEDS	36		33		36	
90 PERCENT EXCEEDS	2		18		15	



01381500 WHIPPANY RIVER AT MORRISTOWN, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1926, 1962 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)
OCT 1994									
27...	1050	18	424	7.9	10.0	758	11.3	101	330
JAN 1995									
26...	1100	47	347	7.7	3.5	755	15.0	<1.0	240
MAR									
20...	1110	49	352	9.2	10.0	754	15.0	E1.6	130
MAY									
31...	1150	33	326	7.7	18.5	759	9.2	E1.5	800
JUL									
25...	1245	33	292	8.0	26.0	755	8.5	E1.7	1100

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 1994 27...	<10	130	32	11	33	3.6	75	22	65	<0.1
JAN 1995 26...	20	94	24	8.2	26	2.0	51	15	58	<0.1
MAR 20...	60	94	24	8.2	28	1.9	50	14	60	<0.1
MAY 31...	1300	90	23	7.9	21	2.0	61	14	44	<0.1
JUL 25...	220	84	22	7.1	20	2.5	54	13	39	0.1

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1994 27...	18	238	237	4	0.010	1.70	0.08	0.04	0.20
JAN 1995 26...	16	200	187	<1	0.008	1.70	<0.03	<0.03	0.15
MAR 20...	16	190	187	--	0.016	1.20	0.05	0.04	0.20
MAY 31...	16	178	170	7	0.035	1.20	0.18	0.17	0.40
JUL 25...	14	174	156	12	0.032	1.30	0.06	0.07	0.30

## PASSAIC RIVER BASIN

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1994 27...	0.23	1.9	1.9	0.03	0.04	3.1	--	--	--
JAN 1995 26...	0.14	1.9	1.8	0.12	0.10	2.3	0.2	--	--
MAR 20...	0.22	1.4	1.4	0.09	0.04	2.0	0.5	6	0.79
MAY 31...	0.55	1.6	1.7	0.12	0.08	3.7	0.8	--	--
JUL 25...	0.23	1.6	1.5	0.13	0.06	3.9	0.7	--	--
DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	
OCT 1994 27...	1050	10	<1	<10	70	<1	<1	2	
DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)		
OCT 1994 27...	360	<1	50	<0.1	<1	<1	<10		

## PASSAIC RIVER BASIN

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## 01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'51", Morris County, Hydrologic Unit 02030103, on left upstream abutment of bridge on Edwards Road, 0.1 mi northeast of overpass of Interstate 280, 0.3 mi upstream of Rockaway River, and 1.2 mi southwest of Pine Brook.

DRAINAGE AREA.--68.5 mi<sup>2</sup>.

## WATER-STAGE RECORDS

PERIOD OF RECORD.--November 1992 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 164 ft above sea level (from topographic map).

REMARKS.--Records good. Data is stage-only and is collected in cooperation with the U.S. Army Corps of Engineers. Days of no gage-height record are not estimated and are noted by dashed lines (---). Stilling well frozen Jan. 4-7 and Feb. 5-16, 1995. Gage was relocated due to bridge being disassembled, July 20-26, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 6.25 ft, Mar. 10; minimum recorded, 1.46 ft, Sept. 16.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 7.61 ft, Apr. 2, 1993; minimum recorded, 1.40 ft, Aug. 6, 1993.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.24	1.68	2.21	1.78	4.82	4.20	3.14	1.95	2.46	2.35	5.49	4.91
2	2.26	1.89	2.28	2.09	4.20	3.39	3.88	3.07	2.40	2.35	5.49	5.17
3	1.89	1.77	2.09	1.87	3.39	2.75	3.88	3.33	2.37	2.19	5.17	4.61
4	1.77	1.70	1.88	1.81	2.75	2.42	3.33	---	2.97	2.14	4.61	4.16
5	1.73	1.66	1.82	1.78	4.66	2.40	---	---	---	---	4.16	3.71
6	1.69	1.65	1.92	1.78	5.12	4.66	---	---	---	---	3.71	3.34
7	1.70	1.65	1.97	1.88	5.10	4.59	5.16	---	---	---	3.34	3.06
8	1.71	1.67	1.88	1.80	4.59	3.81	5.53	5.16	---	---	4.64	2.92
9	1.71	1.67	1.81	1.77	3.81	3.09	5.47	4.80	---	---	6.15	4.64
10	1.78	1.71	2.99	1.81	3.95	2.75	4.80	3.93	---	---	6.25	6.14
11	1.78	1.72	2.68	2.04	4.93	3.95	3.93	3.23	---	---	6.20	5.99
12	1.74	1.69	2.04	1.89	4.96	4.65	3.23	2.95	---	---	5.99	5.68
13	1.74	1.69	1.89	1.82	4.65	3.84	2.95	2.80	---	---	5.68	5.32
14	1.73	1.70	1.83	1.81	3.84	3.25	3.45	2.92	---	---	5.32	4.97
15	1.73	1.68	1.84	1.80	3.25	2.82	3.66	3.43	---	---	4.97	4.61
16	1.71	1.67	1.82	1.78	2.82	2.51	4.07	3.66	---	2.50	4.61	4.14
17	1.73	1.70	1.78	1.75	2.76	2.41	4.13	3.98	2.71	2.47	4.14	3.72
18	1.73	1.71	1.79	1.74	2.77	2.66	3.98	3.54	2.65	2.48	3.72	3.19
19	1.74	1.71	1.80	1.77	2.66	2.48	3.54	3.16	2.58	2.42	3.19	2.86
20	1.96	1.74	1.79	1.72	2.48	2.35	4.98	3.06	2.84	2.56	2.86	2.69
21	2.01	1.85	3.75	1.71	2.35	2.24	5.72	4.98	3.07	2.84	3.15	2.62
22	1.85	1.74	3.85	3.68	2.25	2.16	5.74	5.57	3.07	2.89	3.16	2.92
23	2.49	1.73	3.68	2.57	2.18	2.11	5.57	5.12	2.89	2.70	2.92	2.70
24	2.56	2.05	2.57	2.13	2.82	2.15	5.12	4.68	3.27	2.69	2.70	2.52
25	2.05	1.86	2.13	1.98	2.81	2.66	4.68	4.23	3.26	3.00	2.52	2.39
26	1.86	1.78	1.98	1.89	2.66	2.41	4.23	3.77	3.00	2.67	2.41	2.26
27	1.79	1.76	1.92	1.81	2.41	2.24	3.77	3.32	2.67	2.47	2.29	2.18
28	1.78	1.75	4.70	1.92	2.26	2.16	3.32	2.91	4.91	2.47	2.22	2.15
29	1.81	1.75	4.91	4.70	2.19	2.09	2.91	2.54	---	---	2.18	2.10
30	1.77	1.72	4.92	4.82	2.10	1.90	2.64	2.42	---	---	2.15	2.06
31	1.79	1.72	---	---	1.95	1.90	2.56	2.46	---	---	2.16	2.09
MONTH	2.56	1.65	4.92	1.71	5.12	1.90	---	---	---	---	6.25	2.06



## PASSAIC RIVER BASIN

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued

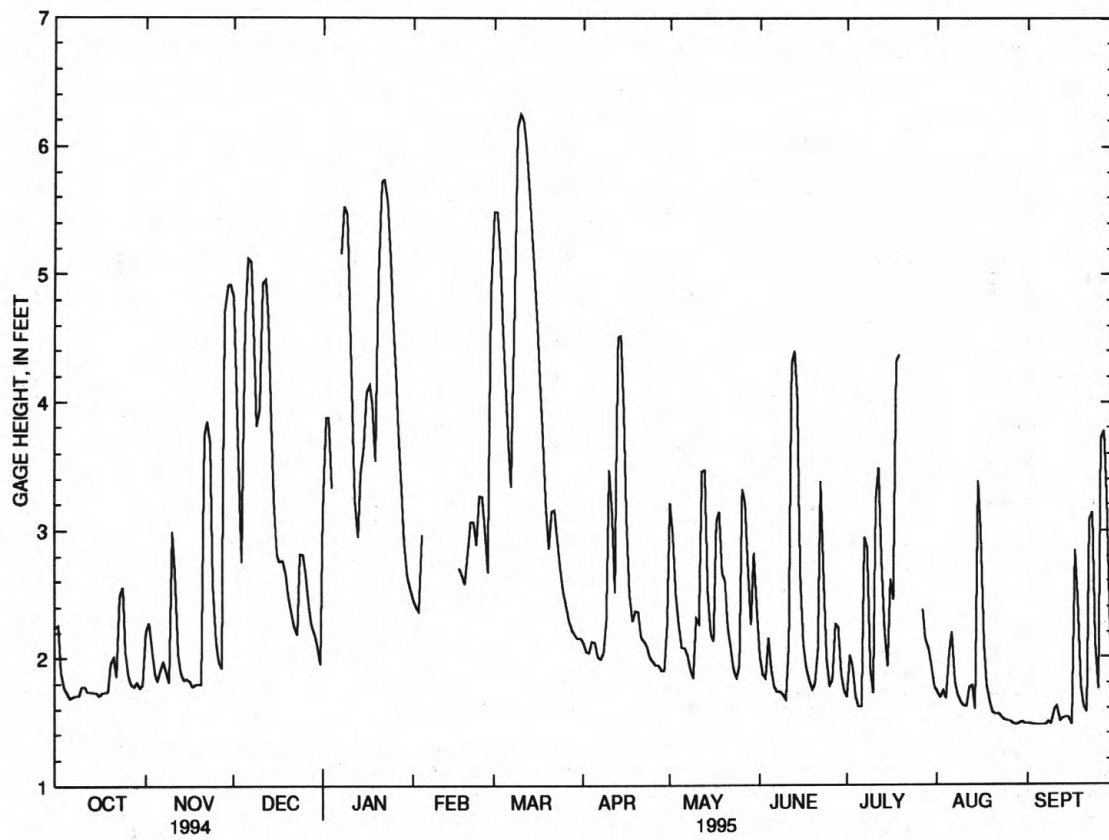
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.12	2.00	3.22	2.26	2.01	1.87	1.69	1.66	1.73	1.68	1.48	1.47
2	2.05	1.96	2.97	2.48	1.87	1.80	2.02	1.69	1.69	1.65	1.48	1.47
3	2.04	1.97	2.48	2.25	1.84	1.78	1.92	1.69	1.74	1.67	1.47	1.47
4	2.13	1.96	2.25	2.07	2.16	1.84	1.69	1.61	1.67	1.62	1.47	1.47
5	2.12	1.96	2.08	2.02	1.90	1.77	1.61	1.59	2.04	1.62	1.47	1.47
6	2.01	1.90	2.08	2.01	1.77	1.72	1.61	1.60	2.20	1.80	1.47	1.46
7	1.99	1.92	2.02	1.87	1.73	1.69	2.95	1.61	1.80	1.70	1.47	1.46
8	2.04	1.87	1.91	1.81	1.73	1.68	2.86	1.91	1.71	1.65	1.49	1.47
9	2.30	2.00	1.84	1.79	1.71	1.65	1.91	1.72	1.65	1.60	1.48	1.47
10	3.47	2.30	2.31	1.83	1.67	1.61	1.72	1.64	1.62	1.58	1.59	1.47
11	3.14	2.51	2.27	2.12	2.12	1.61	3.25	1.64	1.61	1.58	1.61	1.50
12	2.51	2.31	3.46	2.06	4.31	2.12	3.49	2.76	1.76	1.57	1.50	1.46
13	4.51	2.41	3.47	2.51	4.40	4.01	2.76	2.21	1.78	1.59	1.52	1.47
14	4.52	3.92	2.51	2.19	4.01	2.64	2.21	1.93	1.59	1.56	1.53	1.52
15	3.92	3.05	2.19	2.12	2.64	2.11	1.93	1.77	3.39	1.58	1.53	1.47
16	3.05	2.49	2.13	1.99	2.11	1.92	2.62	1.75	3.00	2.10	1.47	1.46
17	2.49	2.29	3.07	1.89	1.92	1.81	2.45	2.05	2.10	1.78	2.85	1.47
18	2.29	2.15	3.15	2.47	1.82	1.72	4.32	2.06	1.78	1.65	2.47	1.77
19	2.37	2.11	2.66	2.44	1.75	1.69	4.37	3.60	1.65	1.56	1.77	1.62
20	2.36	2.16	2.61	2.24	1.79	1.67	---	---	1.57	1.52	1.62	1.56
21	2.16	2.07	2.24	2.02	2.06	1.66	---	---	1.55	1.51	1.57	1.54
22	2.13	2.04	2.07	1.90	3.38	1.98	---	---	1.56	1.52	3.08	1.55
23	2.09	1.94	1.90	1.82	2.65	1.99	---	---	1.53	1.48	3.14	2.11
24	2.00	1.92	1.84	1.78	1.99	1.77	---	---	1.51	1.48	2.11	1.75
25	1.97	1.89	1.94	1.81	1.78	1.75	---	---	1.50	1.47	1.75	1.67
26	1.94	1.89	3.32	1.91	1.82	1.73	---	---	1.50	1.47	3.72	1.72
27	1.94	1.85	3.21	2.70	2.26	1.81	2.38	2.05	1.48	1.47	3.78	3.27
28	1.90	1.85	2.70	2.26	2.24	1.87	2.14	2.04	1.47	1.47	3.27	2.20
29	1.90	1.80	2.26	2.17	1.87	1.74	2.07	1.94	1.48	1.47	2.20	1.90
30	2.26	1.78	2.83	2.19	1.74	1.68	1.95	1.77	1.49	1.48	1.90	1.76
31	---	---	2.37	2.01	---	---	1.77	1.71	1.48	1.47	---	---
MONTH	4.52	1.78	3.47	1.78	4.40	1.61	---	---	3.39	1.47	3.78	1.46

PASSAIC RIVER BASIN

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01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued



—— 01381800 WHIPPANY RIVER NEAR PINE BROOK, MAXIMUM DAILY GAGE HEIGHT

## PASSAIC RIVER BASIN

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued

PERIOD OF RECORD.--Water years 1963 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS (MG/L AS CaCO3) (00900)
NOV 1994												
01...	1045	57	546	7.5	14.5	760	7.5	74	3.8	3500	1900	160
JAN 1995												
25...	1005	85	422	7.3	3.0	758	11.0	82	<1.0	49	30	110
MAR												
22...	1150	140	452	7.5	9.5	745	10.2	91	--	230	<100	110
MAY												
31...	0945	64	444	7.5	17.0	759	6.4	67	E1.6	4900	600	130
JUL												
24...	0930	86	299	7.3	23.5	755	5.1	61	3.3	16000	3100	83

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994												
01...	41	14	37	4.1	98	31	78	<0.1	15	300	294	21
JAN 1995												
25...	29	9.3	35	2.3	61	22	67	<0.1	13	244	223	4
MAR												
22...	28	9.2	39	2.5	63	19	76	<0.1	13	240	233	7
MAY												
31...	33	11	33	2.8	79	22	62	<0.1	14	248	236	49
JUL												
24...	22	6.8	22	2.2	55	14	40	<0.1	12	182	158	72

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994												
01...	0.012	3.30	0.06	0.08	0.40	0.35	3.7	3.7	0.57	0.49	4.3	0.8
JAN 1995												
25...	0.006	2.00	<0.03	0.03	0.40	0.37	2.4	2.4	0.20	0.16	5.1	0.3
MAR												
22...	0.019	1.80	0.11	0.05	0.50	0.44	2.3	2.2	0.23	0.12	3.8	0.8
MAY												
31...	0.045	2.30	0.25	0.23	1.0	0.64	3.3	2.9	0.40	0.17	7.1	2.4
JUL												
24...	0.025	1.40	0.05	0.08	1.1	0.44	2.5	1.8	0.42	0.10	7.8	>4.0

PASSAIC RIVER BASIN

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01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	ARSENIC	BERYL- LIUM, TOTAL	BORON, TOTAL	CADMIUM TOTAL	CHRO- MIUM, TOTAL	COPPER, TOTAL
		TOTAL	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
		AS AS)	AS BE)	AS B)	AS CD)	AS CR)	AS CU)
		(01002)	(01012)	(01022)	(01027)	(01034)	(01042)
NOV 1994							
01...	1045	<1	<10	120	<1	<1	5
DATE		IRON,	MANGA- NESE,	MERCURY	NICKEL,	SELE-	ZINC,
		TOTAL	TOTAL	TOTAL	TOTAL	NIUM,	TOTAL
		RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	TOTAL	RECOV- ERABLE
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L
		AS FE)	AS MN)	AS HG)	AS NI)	AS SE)	AS ZN)
		(01045)	(01051)	(01055)	(71900)	(01067)	(01147)
							(01092)
NOV 1994							
01...	830	4	110	<0.1	2	<1	20



## PASSAIC RIVER BASIN

## 01381900 PASSAIC RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'45", long 74°19'18", Morris County, Hydrologic Unit 02030103, on left bank 20 ft downstream from bridge on U.S. Route 46, 0.5 mi east of Pine Brook, and 1.3 mi downstream from Rockaway River.

DRAINAGE AREA.--349 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963-69, 1973, and annual maximum, water years 1966-75, 1978-79. October 1979 to current year. Feb. 19 to Aug. 24, 1939 in files of U.S. Army Corps of Engineers, New York District.

REVISED RECORDS.--WDR NJ-77-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 149.26 ft above sea level. December 1965 to September 1979, crest-stage gage at same site at datum 10.00 ft higher. Feb. 19 to Aug. 24, 1939, water-stage recorder at present State Route 506 bridge, 1,600 ft upstream from gage, operated by U.S. Army Corps of Engineers, New York District at datum 13.05 ft higher.

REMARKS.--Records good except those above 1,000 ft<sup>3</sup>/s, which are fair. Flow regulated by Boonton and Splitrock Reservoirs (see Passaic River basin, reservoirs in) and many small lakes. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see Passaic River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, according to State Geologist's report for 1904, 23.2 ft, Oct. 10, 1903, present datum, from King Survey of highwater marks at present State Route 506 bridge, 1,600 ft upstream from gage. Floods of Mar. 13, 1936 and Sept. 24, 1938 reached stages of 20.8 ft and 19.4 ft respectively, at present State Route 506 bridge and present datum. Flood of July 23, 1945 reached a stage of 22.3 ft at present site and datum according to U.S. Army Corps of Engineers; minimum observed, 41.1 ft<sup>3</sup>/s, Sept. 22, 1964.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 11	1715	*1,840	*17.67	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	132	892	312	391	1020	258	352	265	164	154	90
2	185	173	780	502	375	1170	245	412	206	213	141	88
3	154	150	601	596	355	1170	239	352	195	249	137	85
4	139	133	454	534	342	1080	239	301	215	217	125	84
5	133	124	519	408	345	968	243	268	204	173	124	86
6	128	119	831	305	348	805	227	254	186	151	205	87
7	121	142	918	623	340	673	220	231	168	161	204	87
8	118	135	854	959	315	592	207	203	168	246	168	87
9	116	130	700	1060	293	1080	224	180	172	222	140	86
10	122	224	557	980	273	1560	425	203	173	192	124	96
11	121	240	742	783	269	1820	448	243	162	324	118	102
12	117	178	874	597	276	1780	370	268	498	399	114	94
13	117	149	852	505	252	1600	584	416	598	297	118	94
14	119	133	733	517	237	1400	750	332	483	207	110	95
15	118	128	601	570	226	1190	677	282	308	189	289	91
16	115	127	480	620	303	1030	519	260	218	216	292	86
17	115	124	410	695	386	855	402	250	175	236	171	186
18	114	130	420	678	418	672	347	388	154	507	124	222
19	115	133	405	596	425	532	322	373	142	605	109	142
20	122	131	378	665	456	457	320	347	141	462	101	115
21	143	158	349	1000	526	452	297	303	180	298	97	102
22	128	500	324	1190	575	502	285	262	416	227	98	121
23	131	455	306	1260	560	485	266	226	520	227	96	279
24	208	299	324	1180	550	445	245	206	423	341	94	173
25	182	210	430	1070	587	403	229	198	288	290	92	121
26	157	166	427	928	542	374	223	331	222	234	91	351
27	142	146	376	763	469	345	210	352	223	248	90	564
28	133	536	337	616	644	317	195	269	239	236	90	453
29	124	814	309	509	---	295	176	223	195	320	89	284
30	117	876	274	438	---	278	173	333	169	248	90	196
31	114	---	241	410	---	272	---	346	---	182	89	---
TOTAL	4115	7095	16698	21869	11078	25622	9565	8964	7706	8281	4084	4747
MEAN	133	236	539	705	396	827	319	289	257	267	132	158
MAX	208	876	918	1260	644	1820	750	416	598	605	292	564
MIN	114	119	241	305	226	272	173	180	141	151	89	84

# PASSAIC RIVER BASIN

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## 01381900 PASSAIC RIVER AT PINE BROOK, NJ--Continued

### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

MEAN	347	532	764	591	743	1018	1203	800	536	355	272	259
MAX	1205	922	2286	1207	1221	2204	2842	2537	1482	1485	1024	849
(WY)	1990	1986	1984	1991	1984	1994	1983	1989	1984	1984	1990	1989
MIN	133	161	107	105	211	272	161	289	188	126	117	91.0
(WY)	1995	1981	1981	1981	1980	1981	1985	1995	1981	1993	1981	1980

### SUMMARY STATISTICS

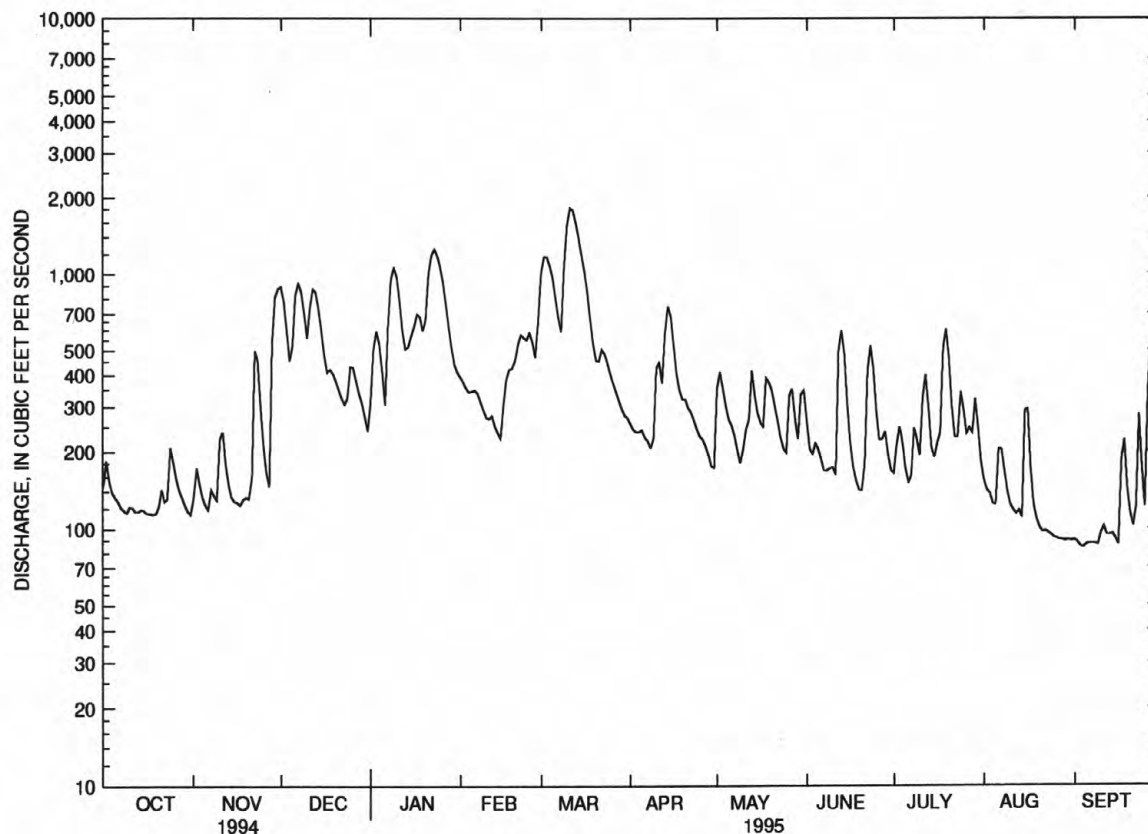
#### FOR 1994 CALENDAR YEAR

#### FOR 1995 WATER YEAR

#### WATER YEARS 1980 - 1995

ANNUAL TOTAL	243072		129824									
ANNUAL MEAN	666		356							617		
HIGHEST ANNUAL MEAN										1125		1984
LOWEST ANNUAL MEAN										276		1981
HIGHEST DAILY MEAN	3390	Mar 30	1820	Mar 11						7910	Apr 7	1984
LOWEST DAILY MEAN	114	Oct 18	84	Sep 4						72	Sep 29	1980
ANNUAL SEVEN-DAY MINIMUM	116	Oct 13	86	Sep 3						78	Oct 12	1980
INSTANTANEOUS PEAK FLOW			1840	Mar 11						8000	Apr 7	1984
INSTANTANEOUS PEAK STAGE			17.67	Mar 11						22.90a	Apr 7	1984
INSTANTANEOUS LOW FLOW			81	Sep 4						70	Sep 29	1980
10 PERCENT EXCEEDS	1960		745							1490		
50 PERCENT EXCEEDS	334		260							350		
90 PERCENT EXCEEDS	130		115							124		

a Affected by backwater.



01381900 PASSAIC RIVER AT PINE BROOK, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

01381950 PASSAIC RIVER AT TOWACO, NJ

LOCATION.--Lat 40°54'03", long 74°20'16", Morris County, Hydrologic Unit 02030103, on left bank at the pump station of the Montville Township Municipal Utilities Authority, just upstream of Willard Lane, 5.0 mi downstream from Rockaway River, 0.9 mi southeast of Towaco, and 6.5 mi upstream from confluence with Pompton River.

DRAINAGE AREA.--355 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 145 ft above sea level (from topographic map).

REMARKS.--Records good. Data is stage-only and is collected in cooperation with the U.S. Army Corps of Engineers. Days of missing records are not estimated and are noted with dash lines (---).

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 10.22 ft, Mar. 12; minimum recorded, 4.06 ft, Sept. 16.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 11.38 ft, Mar. 30, 31, 1994; minimum recorded, 4.06 ft, Sept. 16, 1995.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.86	4.60	4.73	4.40	8.53	8.43	6.29	5.27	6.35	6.23	8.96	8.29
2	5.00	4.86	4.93	4.73	8.43	7.93	7.25	6.29	6.23	6.15	9.23	8.96
3	4.87	4.66	4.87	4.67	7.93	7.05	7.40	7.25	6.15	6.00	9.24	9.17
4	4.66	4.57	4.67	4.59	7.05	6.38	7.33	---	6.02	5.91	9.17	8.90
5	4.57	4.52	4.59	4.53	7.81	6.31	---	---	6.37	5.99	8.90	8.47
6	4.53	4.48	4.53	4.47	8.44	7.81	---	5.71	---	---	8.47	7.94
7	4.48	4.42	4.69	4.52	8.56	8.44	8.22	5.72	---	5.99	7.94	7.45
8	4.44	4.39	4.70	4.63	8.54	8.23	8.84	8.22	---	5.86	7.83	7.09
9	4.41	4.36	4.63	4.59	8.23	7.55	8.99	8.84	---	5.74	9.40	7.83
10	4.44	4.39	5.69	4.62	7.55	7.01	8.98	8.63	5.74	5.60	10.02	9.40
11	4.45	4.39	5.69	5.26	8.23	7.25	8.63	7.90	5.60	5.53	10.21	10.02
12	4.40	4.37	5.26	4.93	8.48	8.23	7.90	7.15	5.61	5.52	10.22	10.18
13	4.41	4.38	4.93	4.75	8.48	8.25	7.15	6.87	---	5.40	10.18	10.02
14	4.42	4.39	4.75	4.66	8.25	7.74	7.16	6.87	---	5.31	10.02	9.77
15	4.42	4.37	4.67	4.64	7.74	7.12	7.38	7.15	---	5.23	9.77	9.43
16	4.39	4.34	4.65	4.61	7.12	6.53	7.70	7.38	6.00	5.33	9.43	8.95
17	4.38	4.35	4.63	4.58	6.53	6.31	7.90	7.70	6.26	6.00	8.95	8.31
18	4.36	4.34	4.66	4.63	6.41	6.36	7.90	7.69	6.37	6.26	8.31	7.57
19	4.38	4.35	4.68	4.65	6.40	6.28	7.69	7.31	6.41	6.34	7.57	6.94
20	4.55	4.38	4.70	4.65	6.28	6.13	8.53	7.19	6.67	6.41	6.94	6.65
21	4.62	4.55	5.68	4.62	6.13	5.96	9.23	8.53	7.06	6.67	6.84	6.62
22	4.56	4.44	7.10	5.68	5.96	5.83	9.59	9.23	7.16	7.06	6.97	6.84
23	4.70	4.42	7.09	6.41	5.83	5.72	9.62	9.56	7.16	7.01	6.96	6.78
24	5.11	4.70	6.41	5.64	6.14	5.70	9.56	9.32	7.15	6.95	6.78	6.55
25	5.05	4.80	5.64	5.17	6.57	6.14	9.32	8.95	7.23	7.15	6.55	6.34
26	4.80	4.67	5.17	4.94	6.57	6.36	8.95	8.42	7.20	6.83	6.34	6.18
27	4.67	4.57	4.94	4.79	6.36	6.08	8.42	7.83	6.83	6.54	6.19	5.99
28	4.58	4.51	8.04	4.85	6.08	5.90	7.83	7.23	8.29	6.54	5.99	5.83
29	4.51	4.46	8.37	8.04	5.90	5.69	7.23	6.72	---	---	5.83	5.70
30	4.47	4.40	8.51	8.37	5.70	5.50	6.72	6.43	---	---	5.70	5.60
31	4.42	4.39	---	---	5.50	5.26	6.43	6.35	---	---	5.62	5.54
MONTH	5.11	4.34	8.51	4.40	8.56	5.26	---	---	---	---	10.22	5.54

## PASSAIC RIVER BASIN

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01381950 PASSAIC RIVER AT TOWACO, NJ--Continued

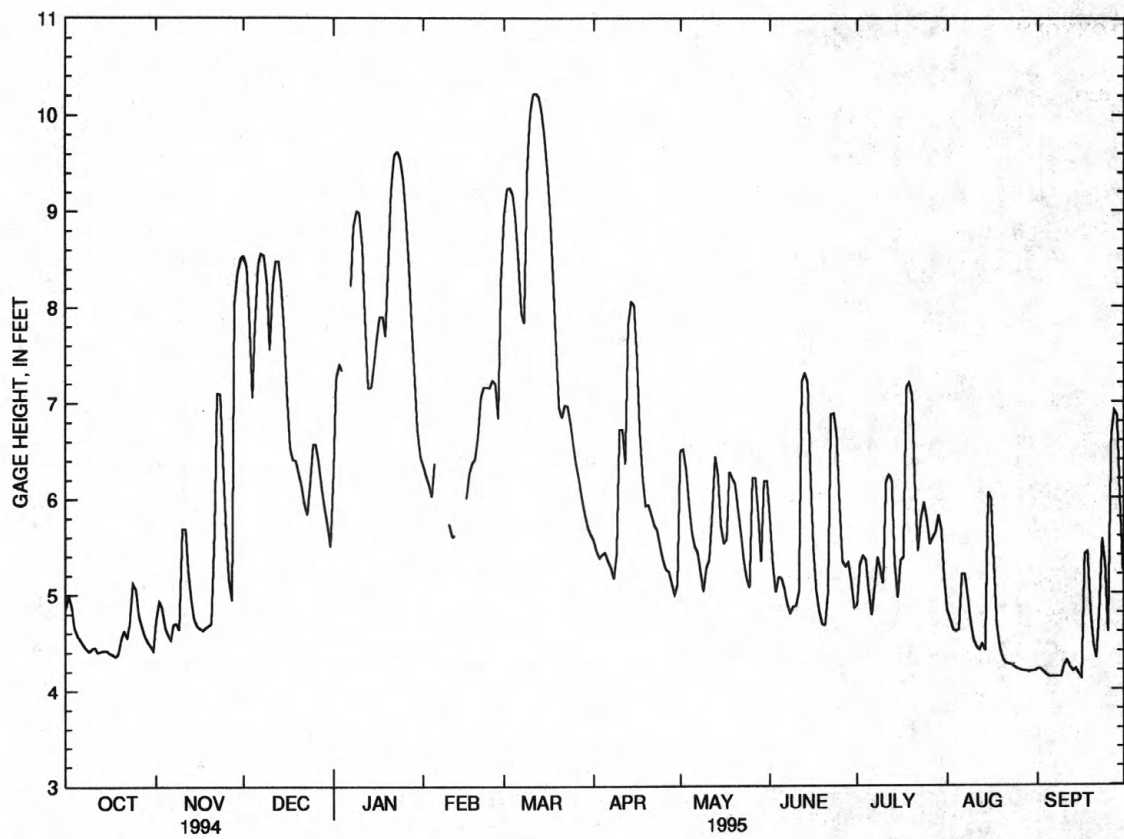
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.56	5.43	6.49	5.09	5.78	5.30	4.87	4.72	4.82	4.69	4.21	4.17
2	5.45	5.35	6.51	6.29	5.30	5.00	5.30	4.87	4.73	4.60	4.21	4.15
3	5.38	5.32	6.29	5.93	5.01	4.97	5.39	5.30	4.62	4.58	4.18	4.12
4	5.41	5.28	5.93	5.64	5.17	5.01	5.35	5.02	4.60	4.46	4.15	4.09
5	5.43	5.31	5.64	5.49	5.16	5.05	5.03	4.77	4.62	4.47	4.13	4.08
6	5.34	5.23	5.49	5.41	5.05	4.88	4.77	4.66	5.20	4.62	4.13	4.10
7	5.27	5.16	5.43	5.22	4.89	4.76	5.06	4.63	5.20	4.97	4.13	4.09
8	5.16	5.06	5.22	5.02	4.80	4.78	5.38	5.06	4.97	4.71	4.13	4.09
9	5.42	5.11	5.02	4.87	4.86	4.80	5.25	5.10	4.71	4.51	4.13	4.08
10	6.72	5.42	5.27	4.87	4.87	4.82	5.10	4.89	4.52	4.42	4.25	4.12
11	6.72	6.36	5.35	5.27	5.02	4.69	6.17	4.88	4.44	4.37	4.30	4.22
12	6.36	6.00	5.85	5.33	7.22	5.02	6.24	6.10	4.41	4.35	4.23	4.16
13	7.81	6.10	6.44	5.85	7.30	7.20	6.18	5.31	4.47	4.38	4.19	4.15
14	8.05	7.81	6.24	5.71	7.20	6.25	5.31	4.91	4.40	4.32	4.21	4.15
15	8.02	7.47	5.71	5.53	6.25	5.47	4.95	4.90	6.05	4.34	4.16	4.11
16	7.47	6.68	5.53	5.37	5.47	5.02	5.34	4.95	5.99	5.28	4.12	4.06
17	6.68	6.21	5.56	5.27	5.02	4.79	5.37	5.15	5.28	4.66	5.41	4.07
18	6.21	5.92	6.28	5.56	4.80	4.67	7.15	5.25	4.66	4.43	5.43	4.82
19	5.92	5.84	6.21	6.09	4.68	4.62	7.20	7.06	4.43	4.30	4.82	4.47
20	5.93	5.83	6.15	5.89	4.67	4.60	7.06	6.08	4.32	4.24	4.47	4.32
21	5.83	5.71	5.89	5.62	5.01	4.65	6.08	5.44	4.27	4.21	4.32	4.22
22	5.72	5.63	5.63	5.34	6.87	5.01	5.44	5.08	4.26	4.20	4.82	4.21
23	5.67	5.48	5.34	5.13	6.88	6.65	5.78	4.92	4.26	4.19	5.57	4.82
24	5.49	5.35	5.15	5.02	6.65	5.94	5.95	5.74	4.23	4.17	5.29	4.59
25	5.35	5.22	5.06	4.98	5.94	5.33	5.77	5.40	4.21	4.15	4.59	4.37
26	5.25	5.19	6.21	5.00	5.33	5.01	5.52	5.16	4.20	4.15	6.64	4.42
27	5.23	5.09	6.21	5.82	5.28	4.98	5.58	5.19	4.19	4.14	6.91	6.64
28	5.11	4.98	5.82	5.33	5.32	5.11	5.64	5.07	4.19	4.15	6.85	5.98
29	4.99	4.89	5.33	5.16	5.12	4.85	5.82	5.64	4.18	4.14	5.98	5.23
30	5.09	4.84	6.18	5.17	4.85	4.72	5.67	5.15	4.19	4.15	5.23	4.82
31	---	---	6.18	5.78	---	---	5.15	4.82	4.19	4.13	---	---
MONTH	8.05	4.84	6.51	4.87	7.30	4.60	7.20	4.63	6.05	4.13	6.91	4.06



## PASSAIC RIVER BASIN

01381950 PASSAIC RIVER AT TOWACO, NJ--Continued



— 01381950 PASSAIC RIVER AT TOWACO, MAXIMUM DAILY GAGE HEIGHT

# PASSAIC RIVER BASIN

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## 01382000 PASSAIC RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'40", long 74°16'23", Passaic County, Hydrologic Unit 02030103, at bridge on Two Bridges Road in Two Bridges, 50 ft upstream from Pompton River.

DRAINAGE AREA.--361 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1962 to current year.

### PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to September 1974.

pH: June 1969 to September 1974.

WATER TEMPERATURES: October 1962 to May 1969 (once daily), June 1969 to September 1974.

DISSOLVED OXYGEN: June 1969 to September 1974.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, and selected BOD's on the following dates were performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories: 10-26-94, 1-19, 3-16, 5-23, and 7-18-95. Other BOD's were performed by the U.S. Geological Survey, New Jersey District Field Laboratory. Beginning October 1994, BOD results from 0 to 1.9 mg/L were reported as estimates (remark code of "E").

### WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)
OCT 1994								
26...	1050	E170	617	7.4	12.5	760	5.8	3.2
NOV								
09...	1245	E135	630	7.7	12.0	753	7.8	E1.6
DEC								
13...	1410	E1000	303	7.3	3.5	769	11.3	E1.7
JAN 1995								
19...	1055	E685	418	8.0	6.0	761	10.1	E2.0
FEB								
17...	1057	E435	740	7.7	2.5	767	12.6	2.0
MAR								
16...	1238	E1220	334	7.3	11.0	759	9.5	E1.8
APR								
12...	1212	E415	426	7.6	10.5	762	8.9	3.4
MAY								
09...	1325	E195	533	7.7	17.0	760	8.5	2.4
23...	1100	E245	472	7.6	19.0	766	5.9	E1.4
JUN								
08...	1005	E180	582	7.7	24.5	749	5.7	2.8
21...	1215	E195	615	8.0	25.5	761	9.8	5.2
JUL								
18...	1030	E580	447	7.6	25.5	750	5.3	2.7
AUG								
14...	1037	E115	669	7.9	26.0	757	7.6	2.6
SEP								
06...	1108	E90	816	8.6	22.5	763	13.8	5.5
26...	1055	E390	553	7.6	16.5	757	7.3	E1.7

## PASSAIC RIVER BASIN

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1994 26...	94	50	150	37	13	57	5.9	85	42
NOV 09...	--	--	160	41	14	55	6.7	99	42
DEC 13...	--	--	79	20	7.1	24	2.4	48	21
JAN 1995 19...	170	70	90	23	7.9	40	2.6	51	22
FEB 17...	--	--	140	36	12	79	4.6	73	34
MAR 16...	63	20	75	19	6.6	31	2.1	42	19
APR 12...	--	--	100	26	8.6	38	2.9	58	27
MAY 09...	--	--	130	34	12	49	4.4	80	35
23...	330	20	120	29	11	43	3.7	73	28
JUN 08...	--	--	150	37	13	54	5.2	88	36
21...	--	--	150	37	13	56	5.4	88	45
JUL 18...	>2400	1000	110	29	10	38	2.9	70	30
AUG 14...	--	--	160	41	15	63	7.4	93	56
SEP 06...	--	--	180	46	17	83	7.2	105	74
26...	--	--	130	32	12	55	5.4	72	43

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994 26...	88	0.1	14	358	336	14	5.3	0.7
NOV 09...	88	0.1	16	364	352	--	4.8	0.6
DEC 13...	40	<0.1	11	174	162	--	6.6	--
JAN 1995 19...	69	<0.1	11	224	215	17	2.0	1.0
FEB 17...	150	0.1	13	404	396	--	3.7	0.5
MAR 16...	56	<0.1	8.9	182	174	14	5.4	0.9
APR 12...	65	0.1	9.0	232	223	--	5.0	1.2
MAY 09...	79	0.1	11	300	290	--	4.6	1.0
23...	69	0.1	12	274	254	40	5.8	1.6
JUN 08...	85	0.2	15	334	320	--	6.3	1.0
21...	87	0.1	16	352	336	--	4.9	1.9
JUL 18...	62	0.1	13	252	242	43	6.0	1.1
AUG 14...	96	0.1	15	380	379	--	4.6	1.8
SEP 06...	120	0.2	12	468	458	--	4.1	3.0
26...	81	<0.1	12	308	308	--	4.3	0.8

## PASSAIC RIVER BASIN

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01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL	ARSENIC	BERYL- LIUM, TOTAL	BORON, TOTAL	CADMIUM TOTAL	CHRO- MIUM, TOTAL	COPPER, TOTAL
		(HIGH LEVEL)	TOTAL	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE
		(MG/L)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	(UG/L AS CR)	(UG/L AS CU)
		(00340)	(01002)	(01012)	(01022)	(01027)	(01034)	(01042)
MAY 1995 23...	1100	24	1	<10	140	<1	16	6
DATE		IRON, TOTAL	LEAD, TOTAL	MANGA- NESE, TOTAL	MERCURY TOTAL	NICKEL, TOTAL	SELE- NIUM, TOTAL	ZINC, TOTAL
		RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE
		(UG/L AS FE)	(UG/L AS PB)	(UG/L AS MN)	(UG/L AS HG)	(UG/L AS NI)	(UG/L AS SE)	(UG/L AS ZN)
		(01045)	(01051)	(01055)	(71900)	(01067)	(01147)	(01092)
MAY 1995 23...	1400	5	200	<0.1	200	<1	10	

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE U.S. GEOLOGICAL SURVEY  
NATIONAL WATER QUALITY LABORATORY

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1994 26...	1050	<0.01	5.80	0.030	0.70	0.48	6.5	6.3	1.00	0.95	0.88
NOV 09...	1245	0.03	6.10	0.080	0.50	0.45	6.6	6.6	1.10	1.00	1.00
DEC 13...	1410	<0.01	1.60	0.110	0.50	0.40	2.1	2.0	0.25	0.22	0.23
JAN 1995 19...	1055	0.01	1.80	0.070	0.52	0.12	2.3	1.9	0.28	0.25	0.23
FEB 17...	1057	0.04	4.90	0.190	0.50	0.51	5.4	5.4	0.70	0.63	0.58
MAR 16...	1238	<0.01	1.20	0.020	0.50	0.35	1.7	1.6	0.20	0.16	0.13
APR 12...	1212	0.03	2.70	0.110	0.70	0.43	3.4	3.1	0.41	0.26	--
MAY 09...	1325	0.04	3.90	0.130	0.60	0.51	4.5	4.4	0.68	0.42	--
23...	1100	--	3.10	0.170	0.60	0.52	3.7	3.6	0.48	0.35	0.30
JUN 08...	1005	0.07	4.60	0.110	0.80	0.56	5.4	5.2	0.70	0.55	0.54
21...	1215	0.05	4.80	<0.015	1.0	0.48	5.8	5.3	0.71	0.69	0.68
JUL 18...	1030	<0.01	3.20	0.060	0.80	0.43	4.0	3.6	0.61	0.49	0.36
AUG 14...	1037	0.03	6.10	<0.015	1.0	0.55	7.1	6.7	1.30	1.10	1.00
SEP 06...	1108	0.03	7.20	0.030	1.1	0.46	8.3	7.7	1.40	1.20	1.20
26...	1055	<0.01	5.00	0.070	0.90	0.82	5.9	5.8	0.89	0.82	0.82



## PASSAIC RIVER BASIN

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE NEW JERSEY DEPARTMENT OF HEALTH,  
PUBLIC HEALTH, AND ENVIRONMENTAL LABORATORIES

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT 1994 26...	1050	0.027	0.05	0.06
JAN 1995 19...	1055	0.012	0.04	0.04
MAR 16...	1238	0.011	<0.03	<0.03
MAY 23...	1100	0.050	0.14	0.13
JUL 18...	1030	0.035	0.05	0.04

## 01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'05", long 74°24'07", Morris County, Hydrologic Unit 02030103, on left bank 15 ft downstream of culvert at crossover between northbound and southbound lanes on State Route 23, 1,000 ft downstream from Macopin Intake Dam, 0.6 mi downstream from Macopin River, and 2.8 mi northwest of Butler.

DRAINAGE AREA.--63.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1898 to March 1990, September 1992 to current year. Monthly discharge only for some periods, published in WSP 1302. Records for January 1892 to December 1897, published in WSP 541, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 549.17 ft above sea level. Prior to May 22, 1970, at site just upstream of Macopin Intake Dam, at datum 36.35 ft higher. May 22, 1970 to March 5, 1990, at site just upstream of Macopin Intake Dam, at datum 20.83 ft higher.

REMARKS.--Records good. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see Passaic River basin, reservoirs in). Water diverted at Charlotteburg Reservoir for municipal supply of city of Newark (see Passaic River basin, diversions). During peak flows, frequent variations in flow due to automatic gate operations upstream. Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with and record of gate openings provided by the Department of Public Affairs, Division of Water Supply, city of Newark. Prior to May 22, 1970, discharge figures provided by city of Newark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.2	17	9.6	56	94	20	37	4.4	5.9	67	2.3
2	3.3	3.7	15	12	59	72	22	50	4.2	32	30	1.8
3	2.5	3.0	14	15	53	59	23	39	4.0	28	11	1.6
4	2.0	2.5	12	25	73	55	26	33	4.1	13	6.4	1.4
5	1.9	2.3	12	23	78	54	30	30	3.9	5.8	11	1.3
6	1.7	2.3	15	18	59	53	31	30	3.6	5.4	8.0	1.3
7	1.5	2.3	14	88	64	61	28	33	3.4	5.4	6.0	1.2
8	1.4	2.3	13	84	60	176	24	29	3.1	5.8	5.5	1.1
9	1.4	2.3	12	52	56	553	21	27	2.9	4.7	5.2	1.3
10	1.8	6.0	11	40	55	302	27	21	2.8	4.3	5.0	2.0
11	1.7	4.8	14	33	55	234	31	14	2.8	5.9	4.8	1.5
12	1.5	3.1	14	37	53	197	31	12	6.6	5.2	4.6	1.4
13	1.4	2.7	13	41	49	154	74	18	7.8	4.3	4.3	1.8
14	1.4	4.7	12	52	46	126	71	14	4.8	3.9	4.3	1.8
15	1.4	5.5	12	68	41	105	55	11	3.6	3.5	13	1.7
16	1.5	3.9	10	104	52	91	42	9.0	3.0	3.3	6.9	1.6
17	1.6	4.1	9.8	99	51	87	40	8.2	2.6	3.5	5.4	3.6
18	1.6	3.2	10	71	47	83	31	9.1	2.2	11	5.0	2.6
19	1.6	3.2	9.8	60	45	65	32	8.9	2.0	5.4	5.0	2.0
20	2.3	3.5	9.0	174	46	64	44	8.9	2.0	3.6	5.0	1.8
21	2.8	5.9	8.0	207	50	63	35	7.3	4.0	3.1	4.9	1.8
22	2.5	17	7.5	162	49	65	36	5.7	3.3	3.0	4.4	6.2
23	3.4	17	7.4	128	44	65	39	5.1	2.5	3.2	5.0	9.1
24	6.2	15	8.3	107	56	62	32	4.8	2.1	3.1	6.2	3.4
25	3.3	13	9.7	90	49	57	29	6.3	2.4	2.9	5.5	2.5
26	2.3	9.9	8.8	53	40	52	26	11	3.6	3.4	5.0	8.8
27	2.0	7.8	7.8	68	34	41	24	12	2.8	4.5	3.5	6.0
28	2.0	16	7.2	73	82	28	22	8.0	2.3	3.3	4.0	3.5
29	1.9	21	6.7	59	---	25	22	6.6	2.0	3.5	3.9	2.7
30	1.9	18	7.2	52	---	17	20	6.3	1.9	2.8	3.3	2.3
31	1.9	---	6.3	53	---	17	---	5.2	---	2.5	2.9	---
TOTAL	66.5	209.2	333.5	2157.6	1502	3177	988	520.4	100.7	195.2	262.0	81.4
MEAN	2.15	6.97	10.8	69.6	53.6	102	32.9	16.8	3.36	6.30	8.45	2.71
MAX	6.2	21	17	207	82	553	74	50	7.8	32	67	9.1
MIN	1.4	2.3	6.3	9.6	34	17	20	4.8	1.9	2.5	2.9	1.1

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, BY WATER YEAR (WY)

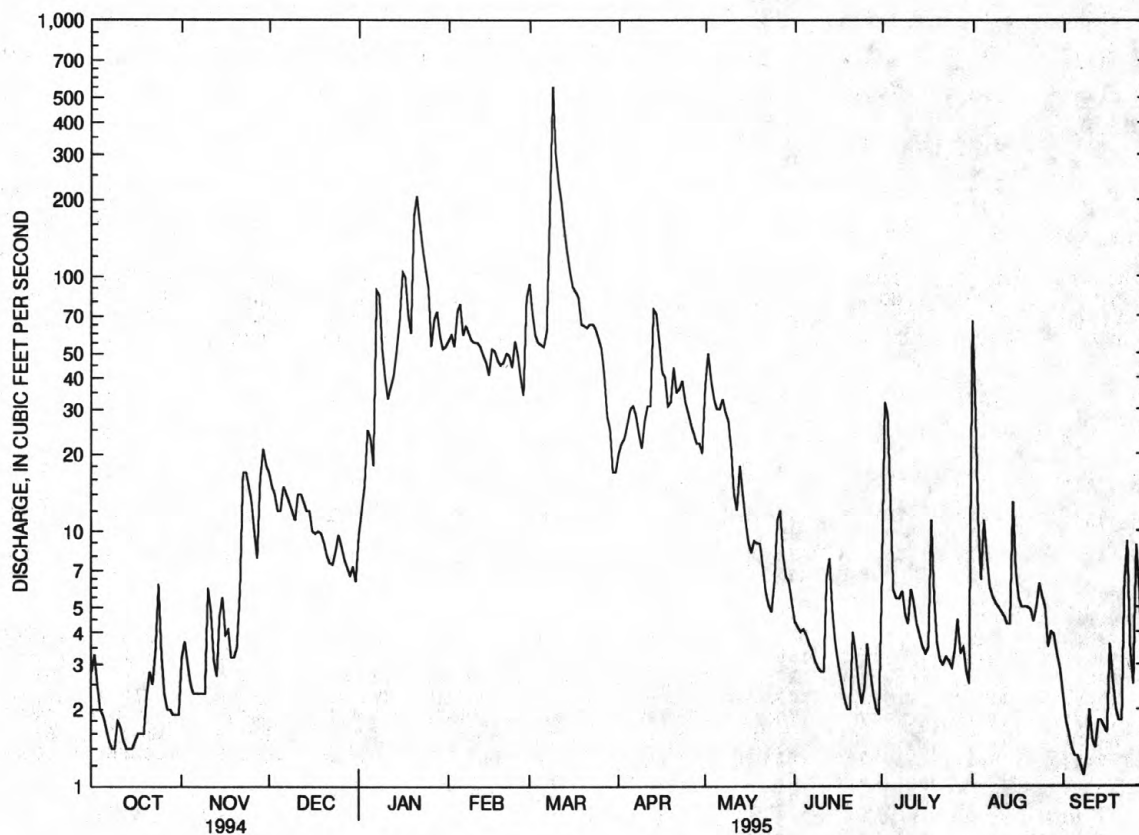
	MEAN	15.3	31.4	38.0	38.8	48.3	99.1	131	64.9	31.6	18.5	15.1	19.2
MAX	288	309	236	208	270	572	506	263	360	238	228	211	
(WY)	1956	1928	1973	1953	1939	1936	1983	1989	1972	1938	1955	1960	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1929	1929	1929	1931	1930	1965	1950	1954	1944	1923	1923	1929	

## PASSAIC RIVER BASIN

## 01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1923 - 1995
ANNUAL TOTAL	27033.97	9593.5	
ANNUAL MEAN	74.1	26.3	45.8
HIGHEST ANNUAL MEAN			109 1952
LOWEST ANNUAL MEAN			.12 1954
HIGHEST DAILY MEAN	809 Mar 29	553 Mar 9	3170 Apr 6 1984
LOWEST DAILY MEAN	.20 Apr 30	1.1 Sep 8	.00 Oct 1 1922
ANNUAL SEVEN-DAY MINIMUM	1.5 Oct 12	1.3 Sep 3	.00 Oct 18 1922
INSTANTANEOUS PEAK FLOW		831 Mar 8	6100 Oct 10 1903
INSTANTANEOUS PEAK STAGE		5.33 Mar 8	17.40a Oct 10 1903
INSTANTANEOUS LOW FLOW		1.1 Sep 7	.00 Many days
10 PERCENT EXCEEDS	252	64	139
50 PERCENT EXCEEDS	13	8.3	4.7
90 PERCENT EXCEEDS	2.4	2.0	.00

a Highest since 1898, site and datum then in use.



01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ, DAILY MEAN DISCHARGE

## 01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1924, 1962-69, 1973-79, 1991 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1994												
25...	1235	3.1	266	7.6	10.5	755	10.0	91	E1.4	5	40	71
JAN 1995												
24...	1000	108	128	7.3	2.5	740	12.8	97	E1.8	4	20	35
MAR												
21...	1110	63	134	7.2	7.0	735	11.3	97	<1.0	<20	<10	32
MAY												
16...	1025	8.9	194	7.6	12.5	744	10.1	97	2.3	17	<10	51
JUL												
20...	1105	3.6	209	7.6	20.5	747	8.1	92	E1.1	49	70	58
DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
OCT 1994												
25...	18	6.4	22	1.5	39	13	45	<0.1	10	158	139	8
JAN 1995												
24...	8.4	3.3	9.5	0.50	21	7.6	19	<0.1	6.3	82	68	1
MAR												
21...	7.9	3.0	11	0.50	18	7.9	20	<0.1	5.6	74	67	3
MAY												
16...	13	4.5	17	0.70	30	9.5	31	<0.1	7.6	114	102	6
JUL												
20...	15	5.0	16	1.0	38	7.4	32	0.1	7.6	122	107	7
DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
25...	0.006	<0.05	0.04	0.08	0.30	0.24	--	--	0.02	0.01	6.6	0.2
JAN 1995												
24...	0.003	0.15	0.03	0.04	0.23	0.16	0.38	0.31	0.02	<0.01	3.6	0.4
MA												
21...	0.004	0.14	0.04	<0.03	0.16	0.12	0.30	0.26	<0.01	<0.01	3.0	--
MAY												
16...	0.003	0.22	0.03	0.03	0.30	0.28	0.52	0.50	0.02	0.02	3.5	0.3
JUL												
20...	<0.003	0.071	<0.03	<0.03	0.30	0.17	0.37	0.24	0.01	<0.01	4.5	0.2

## PASSAIC RIVER BASIN

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 16...	1025	10	<1	<10	20	<1	<1	5
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 16...		440	1	110	<0.1	<1	<1	10



## 01382800 PEQUANNOCK RIVER AT RIVERDALE, NJ

LOCATION.--Lat 40°59'55", long 74°17'54", Passaic County, Hydrologic Unit 02030103, on right bank 5 ft upstream of bridge on Paterson-Hamburg Turnpike in Riverdale, 0.6 mi upstream from Wanaque River, and 2.8 mi upstream from confluence with the Ramapo River.

DRAINAGE AREA.--83.9 mi<sup>2</sup>.

PERIOD OF RECORD.--Crest-stage gage water years 1981-82. October 1993 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 187.90 ft above sea level.

REMARKS.--Records good. Flow regulated by Echo Lake, Canistear, Oak Ridge, Clinton, and Charlotteburg Reservoirs (see Passaic River basin, reservoirs in). Water diverted at Charlotteburg Reservoir for municipal supply for city of Newark (see Passaic River basin, diversions). Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 5, 1984, reached a stage of 13.6 ft, from floodmarks (11.5 ft at downstream side of bridge).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	70	44	82	159	35	80	16	104	55	9.5
2	19	17	57	59	84	128	37	85	15	97	36	7.2
3	16	15	48	51	77	107	37	68	18	58	20	6.4
4	14	14	41	53	98	98	41	57	16	35	35	6.0
5	13	15	86	46	110	94	45	53	13	20	43	5.1
6	12	18	87	41	86	94	44	51	12	17	22	5.1
7	12	20	65	176	91	97	42	51	12	22	15	5.2
8	11	19	57	151	90	221	38	44	11	19	13	5.0
9	11	19	44	106	87	831	44	40	11	16	12	6.3
10	12	31	55	84	80	404	60	41	11	14	11	7.8
11	13	24	104	77	76	291	53	35	12	23	11	6.1
12	14	18	74	78	73	245	58	40	31	16	11	5.8
13	12	15	58	81	70	203	134	50	21	14	11	7.2
14	11	14	53	96	70	169	113	39	17	12	9.8	6.2
15	10	17	50	112	61	147	89	33	14	11	30	5.3
16	10	16	47	155	79	131	72	27	13	11	15	5.8
17	10	17	45	154	77	124	65	28	12	12	12	18
18	11	16	45	128	73	118	53	30	12	28	11	8.7
19	11	16	40	131	71	98	56	32	11	16	11	6.5
20	20	16	34	265	73	95	67	29	13	12	10	6.1
21	17	54	31	291	79	97	58	25	14	11	9.8	6.1
22	15	77	29	227	78	98	57	20	13	10	9.4	37
23	19	57	28	183	72	96	60	17	11	10	9.2	24
24	23	49	36	158	92	99	52	16	11	10	11	12
25	17	40	35	140	86	113	47	18	13	10	11	10
26	14	33	31	102	72	80	43	38	12	20	10	40
27	13	28	26	103	64	65	40	31	12	12	9.0	19
28	12	166	24	105	145	47	38	23	11	11	7.3	12
29	12	132	41	91	---	42	35	24	9.7	10	8.7	9.9
30	11	91	24	83	---	37	42	20	9.8	9.3	8.1	9.0
31	12	---	20	80	---	32	---	17	---	8.1	7.7	---
TOTAL	427	1085	1485	3651	2296	4660	1655	1162	407.5	678.4	495.0	318.3
MEAN	13.8	36.2	47.9	118	82.0	150	55.2	37.5	13.6	21.9	16.0	10.6
MAX	23	166	104	291	145	831	134	85	31	104	55	40
MIN	10	14	20	41	61	32	35	16	9.7	8.1	7.3	5.0

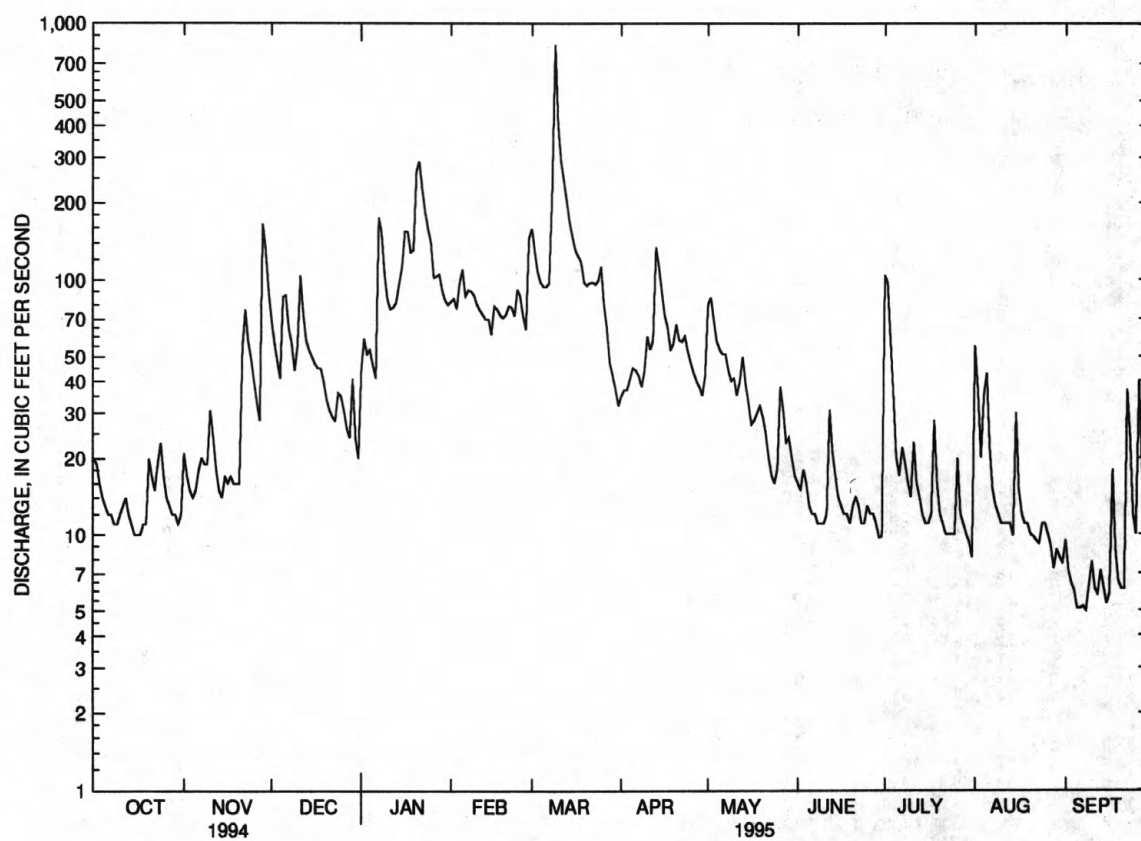
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

	MEAN	15.8	34.3	63.6	95.4	110	302	224	59.7	18.9	22.1	30.0	17.8
MAX	17.8	36.2	79.3	118	138	453	393	81.8	24.1	22.4	44.0	24.9	
(WY)	1994	1995	1994	1995	1994	1994	1994	1994	1994	1994	1994	1994	
MIN	13.8	32.5	47.9	73.1	82.0	150	55.2	37.5	13.6	21.9	16.0	10.6	
(WY)	1995	1994	1995	1994	1995	1995	1995	1995	1995	1995	1995	1995	

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1994 - 1995	
ANNUAL TOTAL	41024.7		18320.2		82.7	
ANNUAL MEAN	112		50.2		115	
HIGHEST ANNUAL MEAN					50.2	
LOWEST ANNUAL MEAN					115	
HIGHEST DAILY MEAN	1320	Mar 29	831	Mar 9	1320	Mar 29 1994
LOWEST DAILY MEAN	8.8	Aug 16	5.0	Sep 8	5.0	Sep 8 1995
ANNUAL SEVEN-DAY MINIMUM	10	Aug 7	5.6	Sep 3	5.6	Sep 3 1995
INSTANTANEOUS PEAK FLOW			1470	Mar 9	1650	Mar 29 1994
INSTANTANEOUS PEAK STAGE			5.93	Mar 9	6.08	Mar 29 1994
INSTANTANEOUS LOW FLOW			3.6	Sep 8	3.6	Sep 8 1995
10 PERCENT EXCEEDS	303		104		220	
50 PERCENT EXCEEDS	39		31		36	
90 PERCENT EXCEEDS	12		10		11	

## PASSAIC RIVER BASIN

01382800 PEQUANNOCK RIVER AT RIVERDALE, NJ--Continued



01382800 PEQUANNOCK RIVER AT RIVERDALE, NJ, DAILY MEAN DISCHARGE

## 01383500 WANAQUE RIVER AT AWOSTING, NJ

LOCATION.--Lat 41°09'31", long 74°20'00", Passaic County, Hydrologic Unit 02030103, on right bank 700 ft downstream from dam at outlet of Greenwood Lake at Awosting.

DRAINAGE AREA.--27.1 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to Apr. 1, 1926, nonrecording gage and Apr. 1, 1926, to Oct. 31, 1938, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Records good. Flow completely regulated by Greenwood Lake (see Passaic River basin, reservoirs in). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	2030	*361	*3.48	No other peak greater than base discharge.			

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	25	89	38	44	59	18	35	16	6.2	8.0	3.5
2	48	41	75	62	41	59	16	36	15	21	7.2	3.5
3	39	38	67	65	36	56	14	34	15	5.0	4.9	3.3
4	31	33	60	61	48	53	17	31	22	3.6	4.1	3.4
5	26	30	71	54	50	51	18	31	16	4.3	4.5	3.5
6	21	28	83	48	41	49	13	33	14	5.4	6.5	3.5
7	18	28	80	74	36	49	14	28	14	5.6	6.6	3.7
8	16	21	74	82	33	73	13	23	13	5.4	5.7	3.7
9	15	21	62	78	29	310	18	18	9.8	5.0	4.8	3.7
10	18	30	62	70	27	320	25	20	5.7	4.8	4.5	3.6
11	14	27	80	64	25	247	19	23	4.6	5.5	4.1	3.7
12	10	19	72	62	24	191	20	23	18	5.5	4.1	3.4
13	8.8	18	63	59	21	154	38	26	21	5.1	3.2	3.5
14	9.1	17	56	59	20	124	47	23	17	4.6	3.3	3.4
15	8.1	18	52	64	19	104	46	24	15	4.7	3.7	3.5
16	8.3	18	48	78	23	87	40	21	12	4.4	3.7	3.4
17	5.7	16	48	91	23	82	34	20	8.9	8.4	3.7	3.4
18	6.1	17	50	82	23	72	32	23	7.5	56	3.7	3.1
19	7.7	18	47	76	22	60	34	26	4.2	54	3.6	3.1
20	8.4	16	43	103	23	52	37	26	5.9	41	3.7	3.6
21	6.8	21	40	182	25	51	34	22	7.4	34	3.7	4.5
22	5.9	44	37	191	25	51	37	21	5.2	24	3.6	4.7
23	5.6	42	42	168	25	48	35	16	4.3	17	3.7	4.8
24	5.6	38	53	143	31	43	31	14	3.0	15	3.7	4.8
25	5.6	32	43	120	33	39	29	22	3.0	24	3.5	4.6
26	5.9	32	40	102	33	30	26	29	3.2	30	3.5	4.5
27	15	29	36	85	32	25	23	29	2.1	26	3.5	4.5
28	20	73	34	75	47	23	24	24	2.7	24	3.5	4.5
29	20	105	39	55	---	20	22	22	3.4	17	3.3	4.5
30	21	101	28	54	---	19	22	25	2.9	14	3.3	4.5
31	21	---	25	48	---	20	---	20	---	11	3.5	---
TOTAL	497.6	996	1699	2593	859	2621	796	768	291.8	491.5	132.4	115.4
MEAN	16.1	33.2	54.8	83.6	30.7	84.5	26.5	24.8	9.73	15.9	4.27	3.85
MAX	48	105	89	191	50	320	47	36	22	56	8.0	4.8
MIN	5.6	16	25	38	19	19	13	14	2.1	3.6	3.2	3.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1995, BY WATER YEAR (WY)

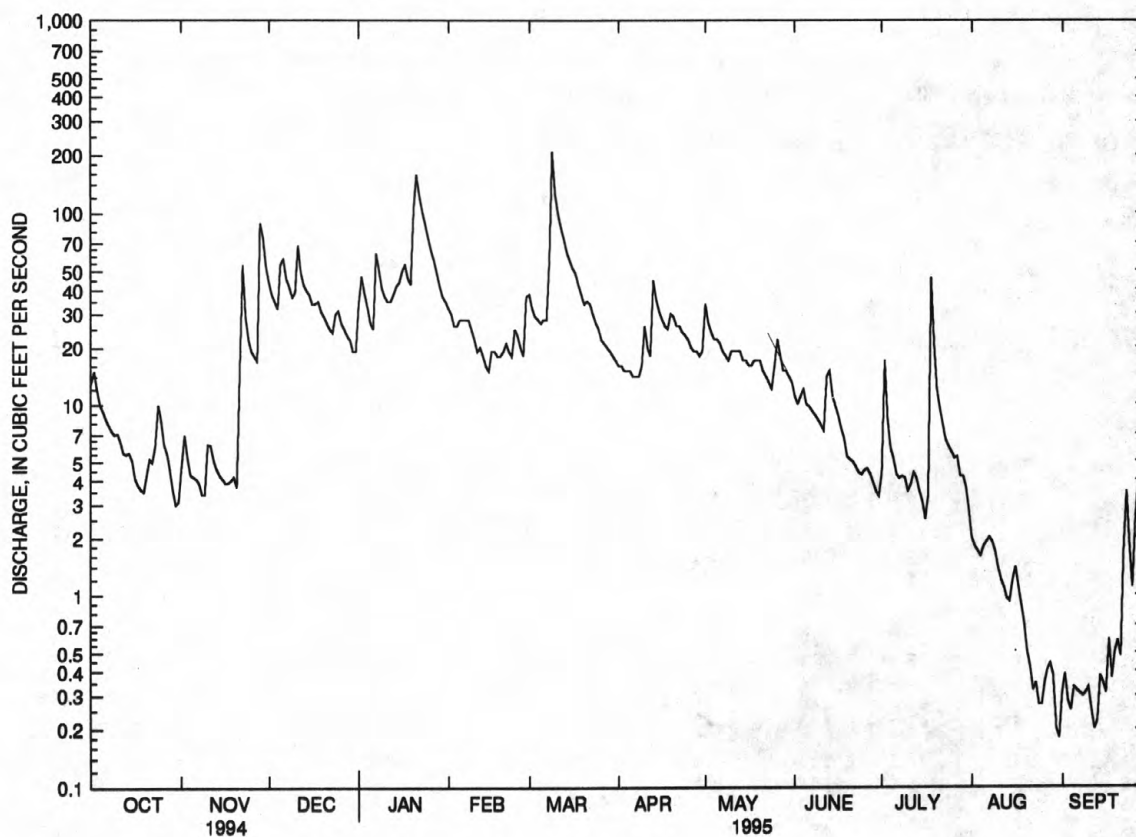
MEAN	27.9	55.2	65.2	61.4	63.3	104	95.9	60.5	36.8	26.3	26.5	28.2
MAX	210	210	197	221	168	271	333	233	178	132	208	231
(WY)	1956	1984	1974	1979	1981	1980	1984	1989	1972	1938	1955	1927
MIN	.20	.18	1.88	3.00	3.04	43.5	24.7	13.4	4.37	2.76	.006	.057
(WY)	1932	1932	1985	1922	1922	1938	1985	1941	1957	1981	1929	1929

## PASSAIC RIVER BASIN

01383500 WANAQUE RIVER AT AWOSTING, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1919 - 1995
ANNUAL TOTAL	14154.3	11860.7	
ANNUAL MEAN	38.8	32.5	54.1
HIGHEST ANNUAL MEAN			105 1984
LOWEST ANNUAL MEAN			19.9 1965
HIGHEST DAILY MEAN	264 Mar 30	320 Mar 10	2350 Apr 6 1984
LOWEST DAILY MEAN	3.4 Sep 16	2.1 Jun 27	.00 Oct 15 1928
ANNUAL SEVEN-DAY MINIMUM	5.3 Sep 14	2.9 Jun 24	.00 Jul 27 1929
INSTANTANEOUS PEAK FLOW		361 Mar 9	2800a Apr 5 1984
INSTANTANEOUS PEAK STAGE		3.48 Mar 9	6.65 Apr 5 1984
INSTANTANEOUS LOW FLOW		1.7 Jun 24	.00 Many Days
10 PERCENT EXCEEDS	81	72	125
50 PERCENT EXCEEDS	26	23	32
90 PERCENT EXCEEDS	7.0	3.7	4.8

a From rating curve extended above 750 ft<sup>3</sup>/s based on theoretical weir formula.



— 01384500 RINGWOOD CREEK NEAR WANAQUE, NJ, DAILY MEAN DISCHARGE

## 01384500 RINGWOOD CREEK NEAR WANAQUE, NJ

LOCATION.--Lat 41°07'36", long 74°15'52", Passaic County, Hydrologic Unit 02030103, on right bank 500 ft upstream from Wanaque Reservoir, 0.7 mi downstream from Ringwood Mill Pond dam, and 6.5 mi north of Wanaque.

DRAINAGE AREA.--19.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1934 to September 1978, October 1985 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NJ-82-1: 1935-77(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 292.67 ft above sea level (levels by New Jersey Geological Survey). Prior to Sept. 30, 1978, at datum 10.0 ft higher.

REMARKS.--Records good except for estimated daily discharges, and those above 40 ft<sup>3</sup>/s, which are fair. Records given herein include flow over spillway and through ports in dam when open or through waste gate in dam. No flow through ports or waste gates this year. Flow slightly regulated by Ringwood Mill Pond, Sterling, and Sterling Forest Lakes, and several smaller lakes above station. Several measurements of water temperature were made during the year.

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0115	*274	*11.65	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	4.7	44	34	32	38	16	34	11	4.4	2.0	.31
2	15	7.0	38	47	30	32	16	27	10	17	1.8	.39
3	12	5.3	35	39	26	29	15	24	11	8.4	1.7	.28
4	10	4.3	32	33	26	28	15	22	12	5.9	1.6	.25
5	9.3	4.2	54	27	e28	27	15	22	10	5.2	1.8	.33
6	8.4	4.1	58	25	e28	28	14	21	9.7	4.3	1.9	.32
7	7.8	3.9	46	62	28	28	14	19	9.2	4.1	2.0	.31
8	7.3	3.4	42	51	28	56	14	18	8.8	4.2	1.9	.30
9	7.0	3.4	37	41	25	209	16	17	8.3	4.1	1.7	.31
10	7.1	6.2	39	37	22	124	26	19	7.8	3.5	1.4	.33
11	6.4	6.1	68	35	19	98	20	19	7.3	3.8	1.2	.25
12	5.6	5.1	50	35	e20	84	18	19	14	4.4	1.1	.20
13	5.5	4.6	43	38	e18	73	45	19	15	4.1	.96	.22
14	5.6	4.3	40	42	e16	63	36	17	11	3.5	.93	.38
15	5.1	4.1	38	44	e15	57	31	17	9.8	3.1	1.2	.35
16	4.1	3.9	34	50	19	52	28	16	8.7	2.5	1.4	.31
17	3.8	3.9	34	54	19	49	26	16	7.5	3.3	1.1	.59
18	3.6	4.0	35	46	18	43	25	17	6.6	46	.89	.37
19	3.5	4.2	31	43	18	38	30	17	5.3	21	.71	.51
20	4.3	3.7	29	107	19	34	29	17	5.1	12	.51	.58
21	5.2	16	27	158	21	35	26	15	5.0	9.5	.42	.48
22	5.0	54	25	123	19	34	26	14	4.7	7.9	.32	1.8
23	6.1	29	24	101	18	30	24	13	4.4	6.5	.35	3.5
24	10	22	30	87	25	27	23	12	4.3	6.0	.27	1.8
25	8.3	19	31	74	23	25	22	16	4.5	5.6	.27	1.1
26	6.2	18	27	64	20	22	20	22	4.6	5.2	.35	2.6
27	5.6	17	25	57	18	21	19	18	4.3	5.3	.41	4.1
28	4.6	89	23	49	37	20	19	15	3.9	4.2	.44	2.2
29	3.6	75	22	42	---	19	18	15	3.5	4.2	.38	1.7
30	3.0	53	19	37	---	18	19	14	3.3	3.7	.20	1.3
31	3.1	---	19	35	---	17	---	13	---	2.8	.18	---
TOTAL	205.1	482.4	1099	1717	635	1458	665	564	230.6	225.7	31.39	27.47
MEAN	6.62	16.1	35.5	55.4	22.7	47.0	22.2	18.2	7.69	7.28	1.01	.92
MAX	15	89	68	158	37	209	45	34	15	46	2.0	4.1
MIN	3.0	3.4	19	25	15	17	14	12	3.3	2.5	.18	.20
CFSM	.35	.84	1.86	2.90	1.19	2.46	1.16	.95	.40	.38	.05	.05
IN.	.40	.94	2.14	3.34	1.24	2.84	1.30	1.10	.45	.44	.06	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1995, BY WATER YEAR (WY)

MEAN	15.6	32.1	42.8	40.5	40.8	66.8	58.9	39.1	22.6	14.4	13.2	11.7
MAX	131	88.8	103	149	109	157	123	131	121	86.1	107	59.0
(WY)	1956	1973	1974	1979	1970	1936	1940	1989	1972	1945	1955	1960
MIN	1.07	2.27	4.06	12.5	14.0	28.5	18.3	10.9	3.78	1.31	.70	.28
(WY)	1945	1950	1940	1940	1940	1938	1966	1941	1957	1966	1966	1964

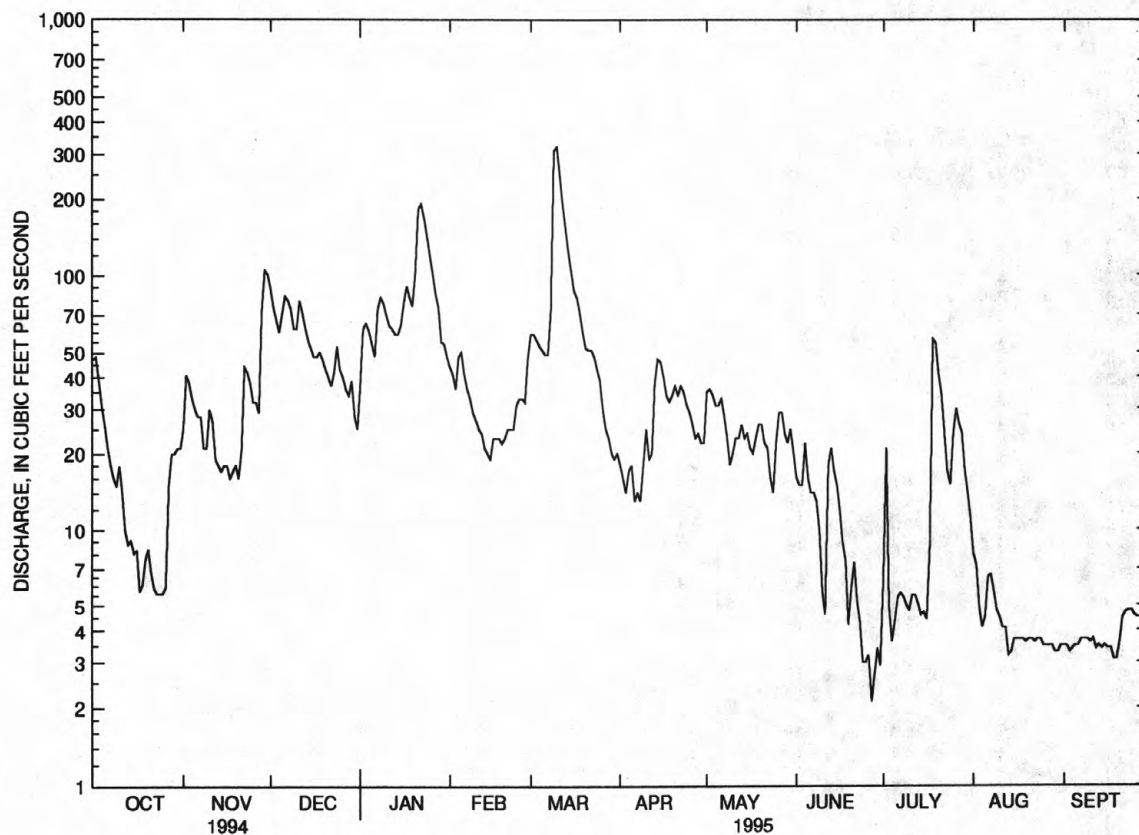


## PASSAIC RIVER BASIN

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1935 - 1995	
ANNUAL TOTAL	11742.7		7340.66		33.1	
ANNUAL MEAN	32.2		20.1		54.4	
HIGHEST ANNUAL MEAN					13.2	
LOWEST ANNUAL MEAN					756	
HIGHEST DAILY MEAN	219	Mar 29	209	Mar 9	.00	Aug 19 1955
LOWEST DAILY MEAN	2.1	Sep 22	.18	Aug 31	.16	Sep 11 1963
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 10	.27	Sep 7	.00	Sep 5 1944
INSTANTANEOUS PEAK FLOW			274	Mar 9	1570	Mar 30 1951
INSTANTANEOUS PEAK STAGE			11.65	Mar 9	13.74	Mar 30 1951
INSTANTANEOUS LOW FLOW			.02	Sep 13	.00	Many days
ANNUAL RUNOFF (CFSM)	1.68		1.05		1.74	
ANNUAL RUNOFF (INCHES)	22.87		14.30		23.58	
10 PERCENT EXCEEDS	88		44		76	
50 PERCENT EXCEEDS	19		15		20	
90 PERCENT EXCEEDS	4.1		.95		2.2	

e Estimated.



01383500 WANAQUE RIVER AT AWOSTING, NJ, DAILY MEAN DISCHARGE

## 01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'39", long 74°17'36", Passaic County, Hydrologic Unit 02030103, on left bank 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 mi<sup>2</sup>, considered as 94 mi<sup>2</sup> Oct. 1, 1928 to Sept. 30, 1934.

PERIOD OF RECORD.--December 1903 to December 1905 (gage heights only), September 1912 to April 1915, May 1919 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 210.00 ft above sea level (levels from New Jersey Geological Survey bench mark). Dec. 16, 1903, to Dec. 31, 1905, nonrecording gage on highway bridge at site 50 ft downstream at different datum. Sept. 15, 1912, to Apr. 1, 1922, nonrecording gage at site 200 ft downstream from present concrete control at different datum. Apr. 1, 1922 to Mar. 14, 1931, water-stage recorder at site 400 ft downstream from present concrete control at present datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Greenwood Lake 11 mi above station, since October 1987 by Monksville Reservoir just upstream of Wanaque Reservoir, and since 1928 by Wanaque Reservoir (see Passaic River basin, reservoirs in). North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir. Water is diverted to Wanaque Reservoir from Posts Brook at Wanaque and from Ramapo River at Pompton Lakes (see Passaic River basin, diversions). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and USGS satellite gage-height telemeters at station.

COOPERATION.--Gage-height record collected in cooperation with North Jersey District Water Supply Commission.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	20	18	e17	17	17	17	17	19	17	17
2	17	17	20	18	e17	17	17	17	17	17	17	17
3	17	17	20	17	17	17	17	17	17	17	18	17
4	18	18	20	17	17	17	17	17	17	17	18	17
5	18	18	21	17	17	17	17	17	17	17	17	17
6	18	18	20	17	17	17	17	17	17	17	16	17
7	18	17	19	19	17	17	19	17	17	17	17	17
8	18	18	18	18	17	19	19	17	17	17	17	13
9	18	19	18	18	17	19	19	17	17	17	17	9.0
10	17	18	18	18	17	18	17	17	17	17	17	9.0
11	19	17	19	18	17	18	17	17	17	18	17	8.1
12	18	18	19	18	17	18	17	18	17	17	17	7.3
13	17	18	18	18	17	18	17	17	17	16	17	7.0
14	17	20	18	18	17	18	17	17	17	17	17	6.8
15	17	18	19	18	17	17	17	17	17	16	18	7.2
16	17	19	18	18	17	17	17	17	17	16	19	7.8
17	18	18	18	18	17	17	17	17	17	16	18	8.0
18	18	18	18	18	17	16	17	17	17	17	18	7.8
19	17	17	18	18	17	17	17	17	18	17	19	7.5
20	18	17	18	20	17	16	17	17	18	17	17	7.3
21	17	21	18	19	17	16	17	17	19	17	17	7.3
22	17	20	19	18	17	17	17	17	19	17	17	8.6
23	18	21	18	18	17	17	17	17	19	17	17	8.3
24	17	19	18	18	17	17	17	17	19	17	17	8.3
25	17	19	18	e17	17	17	17	17	19	17	17	8.4
26	17	19	18	e17	17	17	17	18	19	18	17	8.8
27	17	19	18	e17	17	17	17	17	18	17	17	8.5
28	17	21	18	e17	18	17	17	17	18	17	17	7.4
29	17	20	17	e17	---	17	17	17	17	17	17	7.2
30	17	20	17	e17	---	17	17	17	17	17	17	7.3
31	17	---	17	e17	---	17	---	17	---	18	17	---
TOTAL	541	556	573	551	477	533	516	529	526	528	535	304.9
MEAN	17.5	18.5	18.5	17.8	17.0	17.2	17.2	17.1	17.5	17.0	17.3	10.2
MAX	19	21	21	20	18	19	19	18	19	19	19	17
MIN	17	17	17	17	17	16	17	17	17	16	16	6.8

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1995, BY WATER YEAR (WY)

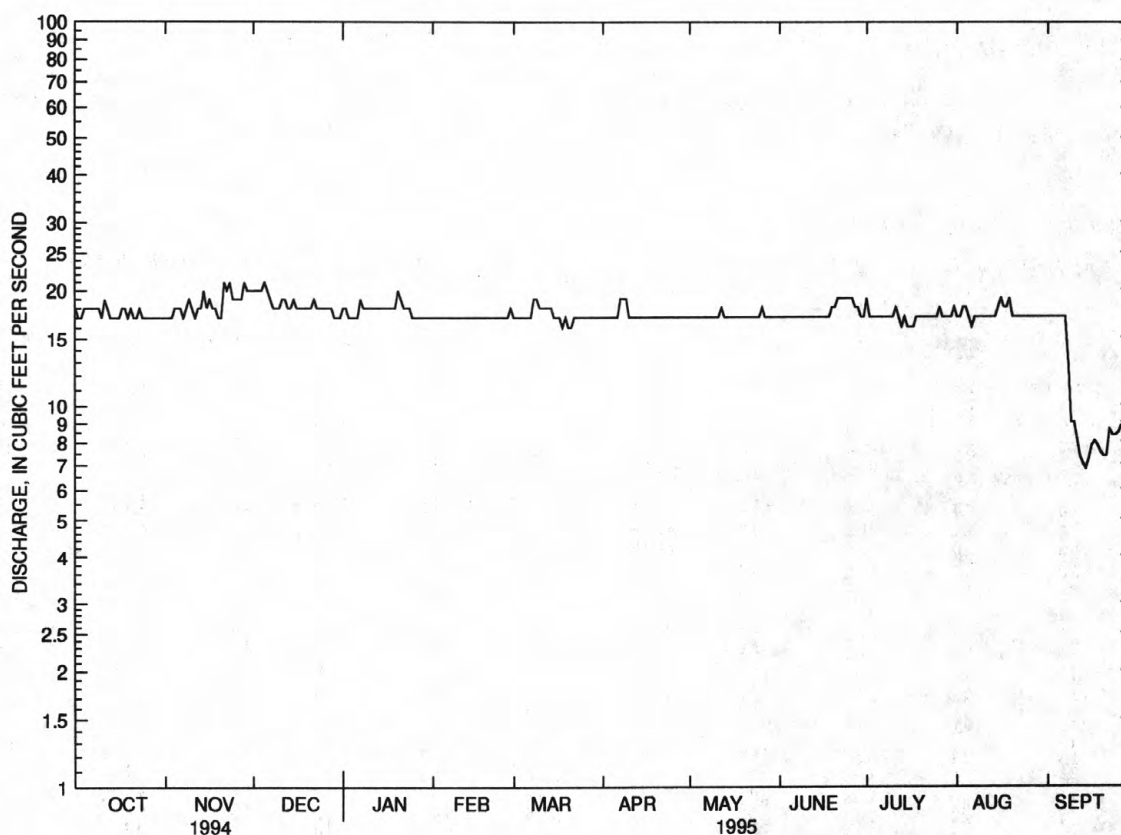
	MEAN	37.0	48.3	63.8	71.1	77.1	163	184	99.8	59.7	40.3	28.8	35.4
MAX	258	435	434	453	471	758	806	545	416	247	258	477	
(WY)	1956	1928	1921	1915	1915	1920	1984	1989	1972	1938	1927	1927	
MIN	1.82	1.70	1.48	.76	2.05	1.91	1.54	1.72	2.17	1.73	1.53	1.51	
(WY)	1966	1966	1950	1950	1966	1966	1966	1966	1966	1965	1965	1965	

## PASSAIC RIVER BASIN

01387000 WANAQUE RIVER AT WANAQUE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1912 - 1995
ANNUAL TOTAL	11025	6169.9	
ANNUAL MEAN	30.2	16.9	74.1
HIGHEST ANNUAL MEAN			231 1920
LOWEST ANNUAL MEAN			1.93 1966
HIGHEST DAILY MEAN	554 Apr 17	21 Nov 21	5470 Apr 6 1984
LOWEST DAILY MEAN	17 Jan 21	6.8 Sep 14	.06 Oct 11 1984
ANNUAL SEVEN-DAY MINIMUM	17 Jan 21	7.4 Sep 12	.50 Dec 14 1949
INSTANTANEOUS PEAK FLOW		52 Jul 1	10500 Apr 5 1984
INSTANTANEOUS PEAK STAGE		1.75 Jul 1	10.82 Apr 5 1984
INSTANTANEOUS LOW FLOW		5.7 Sep 8	
10 PERCENT EXCEEDS	21	19	207
50 PERCENT EXCEEDS	18	17	19
90 PERCENT EXCEEDS	17	17	16

e Estimated



01387000 WANAQUE RIVER AT WANAQUE, NJ, DAILY MEAN DISCHARGE

## 01387420 RAMAPO RIVER AT SUFFERN, NY

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, Hydrologic Unit 02030103, on left bank, 145 ft downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 264.44 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow affected by diversion from United Water New York well field upstream from station and by occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--16 years, 166 ft<sup>3</sup>/s, unadjusted.

COOPERATION.--Figures of pumpage from well field provided by United Water New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft<sup>3</sup>/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft<sup>3</sup>/s; minimum discharge, 1.7 ft<sup>3</sup>/s, Sept. 7, 1995, gage height, 1.04 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,600 ft<sup>3</sup>/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi<sup>2</sup>.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	1200	1,490	6.48	Mar. 9	1615	*1,630	*6.78

Minimum discharge, 1.7 ft<sup>3</sup>/s, Sept. 7, gage height, 1.04 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	41	268	177	167	264	85	148	37	13	13	13
2	68	43	228	277	145	217	78	149	31	15	13	13
3	57	38	202	271	124	180	72	122	29	9.9	12	12
4	43	28	175	215	e130	156	73	105	27	10	12	12
5	36	23	230	179	e145	143	80	99	25	11	18	12
6	30	21	321	162	e120	143	69	107	22	12	36	4.9
7	26	21	253	286	e110	153	65	97	20	12	28	2.3
8	23	20	220	319	e100	250	64	84	19	12	19	3.1
9	20	18	185	247	e94	1430	76	76	20	11	15	3.1
10	21	25	175	212	e90	1030	139	76	16	10	13	3.3
11	23	32	323	189	e88	562	115	86	15	11	14	3.3
12	20	28	291	181	e85	418	107	88	33	11	14	3.1
13	17	24	233	196	e80	345	275	88	46	11	13	3.7
14	15	22	206	216	e76	295	266	80	34	9.2	12	4.2
15	15	22	189	236	e72	262	220	73	25	10	16	3.9
16	14	21	166	265	87	237	188	69	20	9.5	12	3.9
17	13	20	156	286	93	226	144	63	17	11	13	5.8
18	12	20	164	248	88	206	128	67	14	95	12	5.6
19	12	20	154	223	87	180	141	70	13	52	12	4.7
20	13	19	137	499	91	161	154	80	12	26	13	4.1
21	15	72	129	1400	101	163	129	69	11	18	12	3.9
22	16	332	126	1030	99	179	125	56	11	15	12	9.2
23	17	218	120	638	93	161	115	47	12	13	12	18
24	32	142	172	470	118	140	107	40	10	13	12	13
25	33	111	228	381	135	126	99	53	12	13	13	12
26	25	97	184	320	114	115	89	82	11	14	13	14
27	22	84	147	272	99	106	82	76	11	15	13	19
28	24	418	134	247	183	96	83	60	10	13	13	14
29	26	560	125	221	---	90	84	54	7.6	21	12	11
30	38	342	105	198	---	88	81	53	5.9	17	13	10
31	37	---	95	179	---	90	---	45	---	12	13	---
TOTAL	816	2882	5841	10240	3014	8212	3533	2462	576.5	525.6	448	245.1
MEAN	26.3	96.1	188	330	108	265	118	79.4	19.2	17.0	14.5	8.17
MAX	68	560	323	1400	183	1430	275	149	46	95	36	19
MIN	12	18	95	162	72	88	64	40	5.9	9.2	12	2.3
	12	13	15	14	13	13	15	14	11	8.6	9.0	4.2

## PASSAIC RIVER BASIN

01387420 RAMAPO RIVER AT SUFFERN, NY--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	89.3	169	212	168	205	325	356	217	104	50.3	52.3	56.2
MAX	389	323	693	330	475	816	862	777	269	234	305	219
(WY)	1990	1989	1984	1995	1981	1983	1984	1989	1982	1984	1990	1987
MIN	11.0	17.1	29.6	6.84	49.7	128	77.1	79.4	19.2	8.03	7.40	8.17
(WY)	1985	1985	1981	1981	1980	1981	1985	1995	1995	1993	1993	1995

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1979 - 1995			
ANNUAL TOTAL	59656.4				38795.2				166			
ANNUAL MEAN	163				106				78.2			
ANNUAL MEAN (†)	12				12				295			
HIGHEST ANNUAL MEAN									78.2			
LOWEST ANNUAL MEAN									295			
HIGHEST DAILY MEAN	1320				1430				7110			
LOWEST DAILY MEAN	6.9				2.3				2.3			
ANNUAL SEVEN-DAY MINIMUM	8.3				3.1				3.1			
10 PERCENT EXCEEDS	433				247				359			
50 PERCENT EXCEEDS	88				67				85			
90 PERCENT EXCEEDS	13				11				13			

† Diversion, in cubic feet per second, by pumpage from well field upstream of station.



## 01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, Hydrologic Unit 02030103, on left bank 13 ft upstream from bridge on U.S. Highway 202, 2.5 mi northeast of Suffern, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1958 to March 1995 (discontinued).

REVISED RECORDS.--WDR NY-79-1: 1977(P). WDR NY-87-1: 1986.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 321.57 ft above sea level. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft downstream, at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation from unknown source. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--36 years (water years 1959-94), 24.2 ft<sup>3</sup>/s, 26.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft<sup>3</sup>/s, Nov. 8, 1977, gage height, 9.91 ft, from rating curve extended above 850 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 9.91 ft; minimum discharge, 0.05 ft<sup>3</sup>/s, Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT PERIOD.--Oct. 1994 to Mar. 1995: Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 20	1600	*342	*4.36	No other peak greater than base discharge.			

Minimum discharge, 0.30 ft<sup>3</sup>/s, Nov. 9; minimum gage height, 1.41 ft, Oct. 14, 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, OCTOBER 1994 TO MARCH 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.8	28	21	19	39	---	---	---	---	---	---
2	3.7	4.4	22	35	18	29	---	---	---	---	---	---
3	2.8	1.9	19	25	16	25	---	---	---	---	---	---
4	2.2	1.7	16	20	e15	23	---	---	---	---	---	---
5	2.3	1.7	38	17	e14	21	---	---	---	---	---	---
6	2.8	1.3	41	16	e13	22	---	---	---	---	---	---
7	2.6	1.2	28	59	e12	22	---	---	---	---	---	---
8	2.0	1.2	23	39	e12	31	---	---	---	---	---	---
9	1.7	1.2	20	28	e11	123	---	---	---	---	---	---
10	1.6	2.2	20	23	11	58	---	---	---	---	---	---
11	1.4	2.3	51	21	12	44	---	---	---	---	---	---
12	1.4	1.8	31	21	e10	37	---	---	---	---	---	---
13	1.3	1.6	25	22	e9.2	32	---	---	---	---	---	---
14	1.3	1.6	22	25	e8.8	27	---	---	---	---	---	---
15	1.3	1.5	20	26	e8.5	25	---	---	---	---	---	---
16	1.4	1.4	18	28	12	23	---	---	---	---	---	---
17	1.4	1.2	18	30	13	23	---	---	---	---	---	---
18	1.6	1.1	19	25	12	20	---	---	---	---	---	---
19	1.8	1.0	16	23	12	18	---	---	---	---	---	---
20	1.9	1.0	15	124	13	17	---	---	---	---	---	---
21	2.2	23	13	201	15	19	---	---	---	---	---	---
22	2.4	84	13	96	15	18	---	---	---	---	---	---
23	2.8	32	12	65	13	16	---	---	---	---	---	---
24	2.7	19	17	52	20	15	---	---	---	---	---	---
25	2.2	15	18	43	19	14	---	---	---	---	---	---
26	2.0	13	15	36	16	13	---	---	---	---	---	---
27	1.7	11	13	31	14	12	---	---	---	---	---	---
28	1.8	94	13	27	39	11	---	---	---	---	---	---
29	1.4	71	12	24	---	11	---	---	---	---	---	---
30	1.2	40	10	21	---	11	---	---	---	---	---	---
31	1.3	---	9.6	20	---	11	---	---	---	---	---	---
TOTAL	60.5	436.1	635.6	1244	402.5	810	---	---	---	---	---	---
MEAN	1.95	14.5	20.5	40.1	14.4	26.1	---	---	---	---	---	---
MAX	3.7	94	51	201	39	123	---	---	---	---	---	---
MIN	1.2	1.0	9.6	16	8.5	11	---	---	---	---	---	---
CFSM	.16	1.18	1.67	3.26	1.17	2.12	---	---	---	---	---	---
IN.	.18	1.32	1.92	3.76	1.22	2.45	---	---	---	---	---	---

## PASSAIC RIVER BASIN

01387450 MAHWAH RIVER NEAR SUFFERN, NY--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1995, BY WATER YEAR (WY)

MEAN	13.1	25.7	29.3	27.2	31.4	45.1	42.0	30.5	17.6	10.1	8.76	9.49
MAX	43.4	100	88.8	104	76.2	113	115	105	82.7	45.4	37.9	57.3
(WY)	1990	1978	1984	1979	1970	1983	1983	1989	1972	1984	1990	1971
MIN	1.94	2.31	5.72	2.02	7.68	15.0	8.14	12.5	3.92	1.31	.90	.68
(WY)	1981	1965	1981	1981	1980	1985	1985	1965	1991	1977	1993	1980

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## WATER YEARS 1958 - 1995

ANNUAL TOTAL	7503.7		
ANNUAL MEAN	20.6		
HIGHEST ANNUAL MEAN			24.3
LOWEST ANNUAL MEAN			41.4
HIGHEST DAILY MEAN	156	Mar 29	1984
LOWEST DAILY MEAN	1.0	Nov 19	1985
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 16	1985
ANNUAL RUNOFF (CFSM)	1.67		1040
ANNUAL RUNOFF (INCHES)	22.69		.12
10 PERCENT EXCEEDS	57		.48
50 PERCENT EXCEEDS	10		1.97
90 PERCENT EXCEEDS	1.6		26.81
			52
			14
			2.3

e Estimated.

## 01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge, 350 ft upstream from gage, at high flows.

DRAINAGE AREA.--120 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year. October 1902 to February 1905 monthly discharge only, published in WSP 1302. Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used. Gage-height records for 1903-14 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M). WDR NJ-82-1: Drainage area. WDR-NJ-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft above sea level. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--Records fair. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387420). Occasional regulation from lakes and ponds upstream from the station. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	1200	*1,790	*6.89	Mar. 9	1530	1,780	6.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	71	292	211	210	350	108	193	46	26	16	16
2	95	70	243	338	190	272	100	176	40	35	15	14
3	75	57	210	309	164	226	93	141	42	20	15	13
4	57	36	188	232	201	203	92	121	45	17	15	14
5	48	30	311	190	185	189	99	113	38	17	31	14
6	42	28	405	166	222	192	88	126	31	18	41	7.6
7	38	29	283	441	177	201	85	110	29	19	33	2.7
8	36	28	238	416	133	317	86	95	27	19	21	2.8
9	32	24	201	285	122	1580	103	86	30	17	17	3.3
10	34	48	212	232	116	1180	190	91	25	17	14	3.9
11	36	51	429	204	115	670	144	104	23	28	15	3.5
12	30	41	339	203	110	502	129	107	62	19	15	3.3
13	27	34	255	218	108	416	372	107	62	17	14	6.3
14	25	32	222	249	94	357	331	93	46	15	13	5.0
15	24	30	204	269	89	314	261	86	35	17	19	3.8
16	23	29	184	308	124	283	217	80	28	16	13	4.0
17	23	28	180	340	127	268	175	77	25	19	15	18
18	20	26	190	276	120	238	155	83	26	124	13	6.4
19	19	27	173	244	117	212	179	87	23	58	12	5.1
20	26	27	155	701	125	193	191	94	20	29	14	4.3
21	28	186	148	1680	140	200	163	78	19	22	13	3.7
22	27	525	144	1230	136	212	157	65	24	18	12	36
23	37	305	137	780	125	193	143	56	20	15	13	27
24	54	190	190	578	161	173	131	50	19	16	12	14
25	48	142	246	470	180	155	121	74	38	19	15	13
26	36	119	196	393	150	143	109	132	26	27	15	43
27	32	103	166	336	130	133	101	96	22	19	14	27
28	33	631	150	302	276	121	102	73	20	15	13	17
29	34	756	141	267	---	114	100	67	16	25	13	13
30	54	414	121	237	---	112	103	65	13	20	13	11
31	53	---	110	222	---	113	---	56	---	15	13	---
TOTAL	1224	4117	6663	12327	4147	9832	4428	2982	920	758	507	355.7
MEAN	39.5	137	215	398	148	317	148	96.2	30.7	24.5	16.4	11.9
MAX	95	756	429	1680	276	1580	372	193	62	124	41	43
MIN	19	24	110	166	89	112	85	50	13	15	12	2.7
CFSM	.33	1.14	1.79	3.31	1.23	2.64	1.23	.80	.26	.20	.14	.10
IN.	.38	1.28	2.07	3.82	1.29	3.05	1.37	.92	.29	.23	.16	.11

## PASSAIC RIVER BASIN

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1995, BY WATER YEAR (WY)

MEAN	141	222	274	263	278	446	404	257	151	97.0	102	108
MAX	954	736	873	877	701	1151	1055	994	735	602	755	478
(WY)	1904	1978	1984	1979	1970	1936	1984	1989	1972	1945	1955	1927
MIN	13.8	24.4	43.4	16.5	70.8	144	88.4	79.5	30.7	15.8	11.3	11.1
(WY)	1942	1965	1981	1981	1980	1985	1985	1905	1995	1993	1993	1964

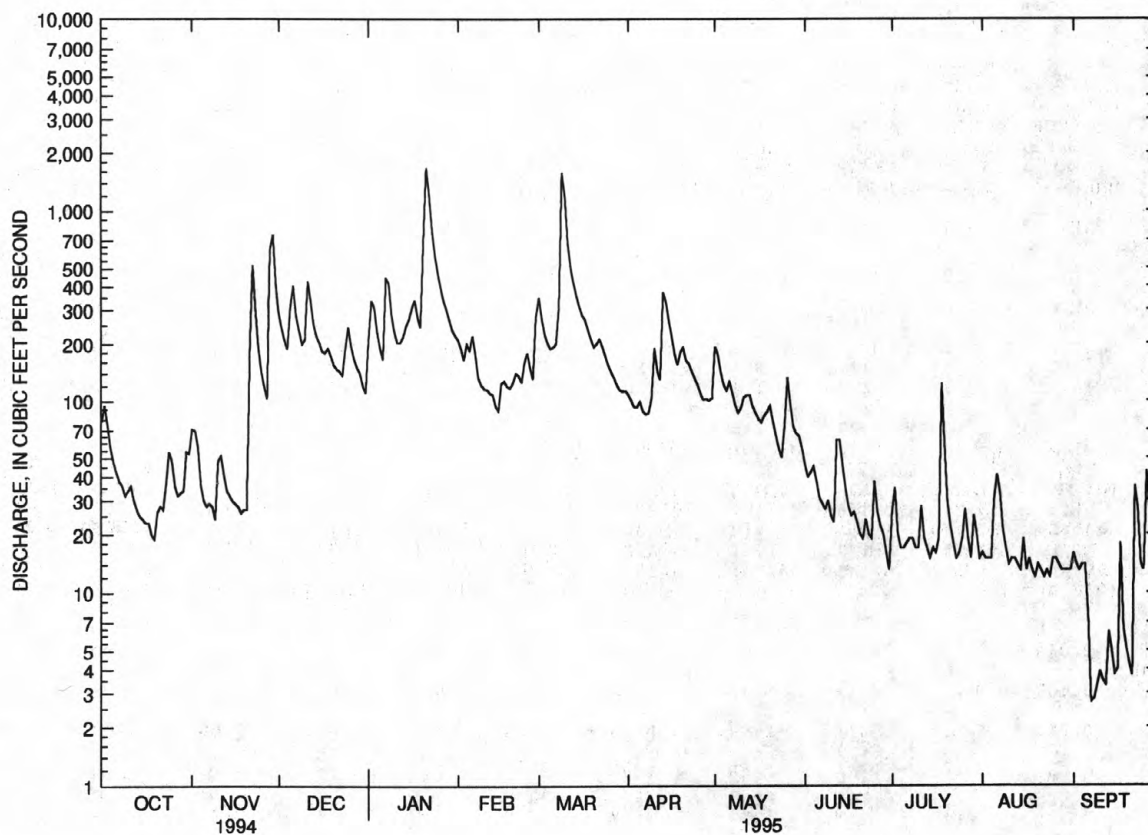
## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

## WATER YEARS 1903 - 1995

ANNUAL TOTAL	80222		48260.7									
ANNUAL MEAN	220		132							228		
HIGHEST ANNUAL MEAN										461		1903
LOWEST ANNUAL MEAN										99.5		1985
HIGHEST DAILY MEAN	1580	Mar 29	1680	Jan 21					8920		Oct 9	1903
LOWEST DAILY MEAN	12	Aug 12	2.7	Sep 7					1.2		Aug 12	1993
ANNUAL SEVEN-DAY MINIMUM	17	Aug 7	3.7	Sep 7					3.7		Sep 7	1995
INSTANTANEOUS PEAK FLOW			1790	Jan 21					15500a		Apr 5	1984
INSTANTANEOUS PEAK STAGE			6.89	Jan 21					13.35		Apr 5	1984
INSTANTANEOUS LOW FLOW			2.2	Sep 7					.20		Aug 11	1993
ANNUAL RUNOFF (CFSM)	1.83		1.10						1.90			
ANNUAL RUNOFF (INCHES)	24.87		14.96						25.84			
10 PERCENT EXCEEDS	585		288						505			
50 PERCENT EXCEEDS	129		83						137			
90 PERCENT EXCEEDS			14						28			

a From rating curve extended above 6,500 ft<sup>3</sup>/s.

01387500 RAMAPO RIVER NEAR MAHWAH, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: February 1964 to June 1965.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1994												
26...	1030	37	578	7.7	10.0	755	8.9	80	E1.6	110	30	130
JAN 1995												
18...	1040	276	281	7.0	6.0	765	12.3	98	<1.0	33	20	58
MAR												
23...	1027	195	339	8.3	7.5	741	13.0	112	<1.0	49	<10	79
JUN												
01...	1048	47	405	7.7	18.5	760	7.8	84	E1.8	1100	80	99
JUL												
20...	1045	30	493	7.7	22.5	755	6.0	70	2.6	5400	700	110

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 1994												
26...	35	9.4	61	3.4	84	22	110	0.1	8.1	308	309	6
JAN 1995												
18...	16	4.3	27	1.0	36	12	50	<0.1	6.4	148	141	8
MAR												
23...	22	5.8	31	1.2	51	13	57	0.1	5.3	168	169	2
JUN												
01...	27	7.7	38	1.8	68	15	64	<0.1	7.0	222	207	5
JUL												
20...	30	7.9	50	3.4	65	21	83	0.2	7.3	262	255	18

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
OCT 1994												
26...	0.014	2.10	0.04	0.07	0.40	0.31	2.5	2.4	0.31	0.28	3.8	0.3
JAN 1995												
18...	0.007	0.54	0.07	0.12	0.22	0.14	0.76	0.68	0.07	0.04	2.7	0.2
MAR												
23...	0.016	0.61	0.08	0.03	0.30	0.22	0.91	0.83	0.06	0.06	2.6	0.3
JUN												
01...	0.037	1.10	0.26	0.28	0.60	--	1.7	--	0.18	<0.01	2.8	0.6
JUL												
20...	0.031	2.90	0.14	0.13	0.70	0.30	3.6	3.2	0.36	0.24	4.1	1.1



## PASSAIC RIVER BASIN

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
JUN 1995 01...	1048	13	<1	<10	50	<1	4	2
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JUN 1995 01...		400	2	120	0.2	2	<1	<10

LOCATION.--Lat 40°59'33", long 74°16'44", Passaic County, Hydrologic Unit 02030103, on right end of dam at pumping station in Pompton Lakes, 700 ft upstream of bridge on Paterson-Hamburg Turnpike, and 2.0 mi upstream from mouth. Water samples collected upstream of dam at water-supply intake, on right bank. Water-quality monitor is 450 ft downstream of dam.

## WATER-DISCHARGE RECORDS

**GAGE.--**Water-stage recorder and concrete dam. Datum of gage is 190.96 ft above sea level. Prior to October 1, 1981, at datum 10.00 ft higher.

REMARKS.--Records good. Diversion by North Jersey District Water Supply Commission to Wanaque Reservoir since December 1953 (see Passaic River basin, diversions) and to Oradell Reservoir by Hackensack Water Company since February 1985 (see Hackensack River basin, diversions) for municipal supply. Slight regulation by Pompton Lake, capacity, 300,000,000 gal. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at auxiliary station 700 ft below station.

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	2200	*1.690	*11.33	No other peak greater than base discharge.			

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	54	208	132	273	331	70	201	56	35	22	12
2	93	77	141	201	258	225	69	214	58	94	20	7.5
3	87	64	95	213	225	155	65	169	56	48	19	7.2
4	69	54	68	121	235	119	67	145	57	34	27	7.2
5	56	48	173	87	249	97	68	127	54	29	72	7.2
6	46	42	327	83	191	90	70	130	48	27	47	9.0
7	42	42	223	321	188	95	75	123	45	31	46	9.4
8	39	38	154	352	178	139	72	94	42	32	36	8.9
9	38	36	98	266	164	1180	73	65	38	27	29	7.5
10	36	45	125	238	163	1330	146	90	40	26	24	9.4
11	33	51	317	188	160	748	132	80	38	37	22	4.8
12	34	49	289	177	155	511	94	84	63	38	20	4.8
13	32	45	189	185	137	406	364	96	60	30	19	6.2
14	31	40	134	223	134	387	402	72	55	26	16	6.9
15	30	38	104	254	129	410	316	62	51	23	62	4.0
16	28	35	79	290	116	375	256	60	46	20	31	2.4
17	27	34	77	358	70	350	213	74	41	20	23	16
18	27	34	76	405	64	324	179	77	38	65	18	8.7
19	27	34	78	358	75	292	187	65	37	100	14	7.3
20	29	34	75	684	68	268	219	67	34	52	13	9.1
21	29	78	84	1480	85	268	190	68	33	36	13	9.9
22	31	505	79	1460	83	291	181	67	35	31	12	25
23	33	239	75	970	76	269	164	59	44	27	10	53
24	44	103	88	717	111	242	151	69	30	27	10	31
25	49	66	107	583	133	221	134	74	31	38	7.5	22
26	47	74	78	494	85	203	121	95	44	58	7.2	46
27	41	62	82	426	76	187	107	61	35	61	8.2	22
28	36	352	112	375	204	173	106	51	29	33	7.0	26
29	34	597	90	337	---	161	104	56	27	29	7.2	25
30	36	357	68	305	---	156	104	54	25	30	6.7	26
31	46	---	80	285	---	113	---	52	---	26	7.1	---
TOTAL	1316	3327	3973	12568	4085	10116	4499	2801	1290	1190	675.9	441.4
MEAN	42.5	111	128	405	146	326	150	90.4	43.0	38.4	21.8	14.7
MAX	93	597	327	1480	273	1330	402	214	63	100	72	53
MIN	27	34	68	83	64	90	65	51	25	20	6.7	2.4

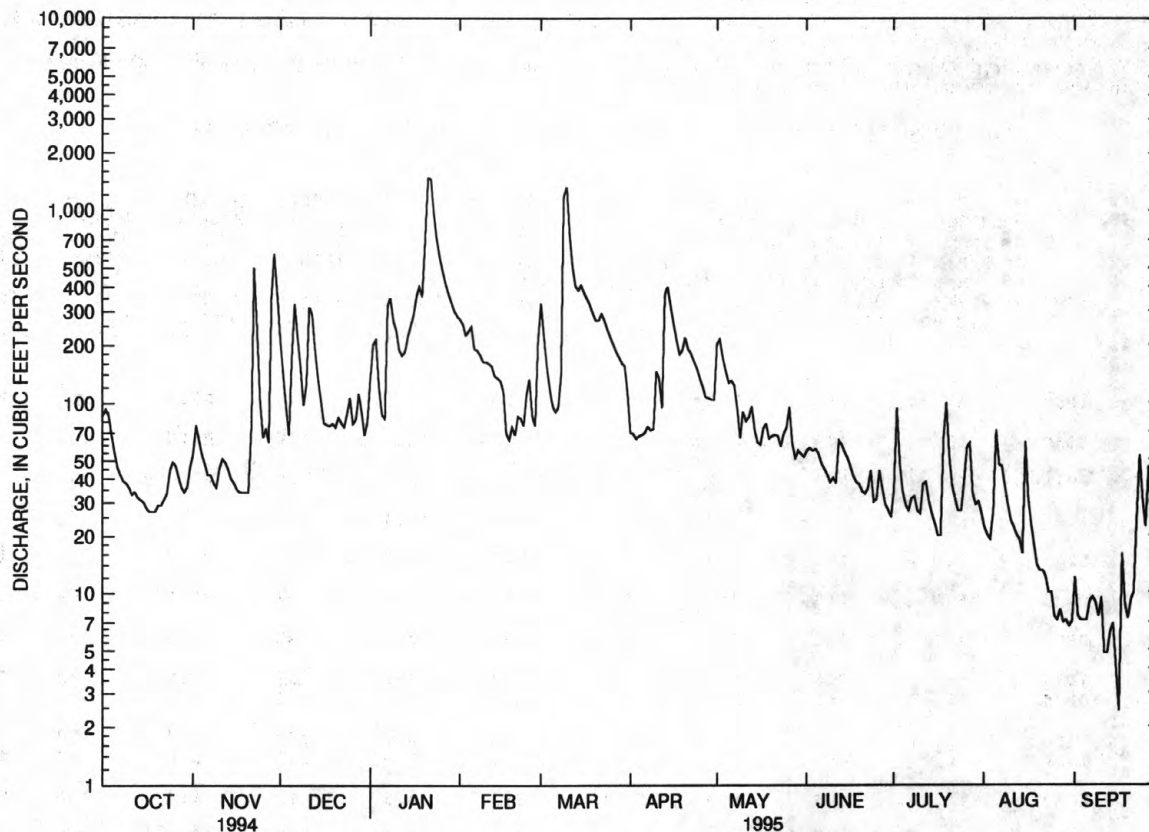
MEAN	146	265	317	315	348	552	515	345	204	134	135	141
MAX	1154	954	1135	1035	838	1670	1465	1195	973	895	889	725
(WY)	1956	1933	1984	1979	1970	1936	1983	1989	1972	1945	1955	1927
MIN	13.6	22.2	12.8	27.5	83.0	67.8	24.8	72.0	39.9	5.89	6.17	10.8
(WY)	1981	1981	1981	1981	1969	1985	1985	1965	1965	1985	1985	1964

## PASSAIC RIVER BASIN

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	97914		46282.3		284	
ANNUAL MEAN	268		127		512	
HIGHEST ANNUAL MEAN					73.1	
LOWEST ANNUAL MEAN					10400	
HIGHEST DAILY MEAN	1930	Mar 29	1480	Jan 21		1984
LOWEST DAILY MEAN	21	Aug 12	2.4	Sep 16		1985
ANNUAL SEVEN-DAY MINIMUM	24	Aug 8	5.5	Sep 10		
INSTANTANEOUS PEAK FLOW			1690	Jan 21		
INSTANTANEOUS PEAK STAGE			11.33	Jan 21		
INSTANTANEOUS LOW FLOW			2.4	Sep 15		
10 PERCENT EXCEEDS	751		297		640	
50 PERCENT EXCEEDS	134		68		160	
90 PERCENT EXCEEDS	33		19		36	

a From gage well, outside high-water marks at 15.33 ft.



01388000 RAMAPO RIVER AT POMPTON LAKES, NJ, DAILY MEAN DISCHARGE

## 01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1962-67, 1982, 1987 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April, 1989 to current year.

WATER TEMPERATURE: April, 1989 to current year.

DISSOLVED OXYGEN: April, 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1989. Data recorded at hourly intervals.

REMARKS.--Discrete water-quality samples were collected upstream of dam at water supply intake, on right bank. Water-quality monitor is 450 ft downstream of dam. Interruptions in the daily record were due to malfunction of the pump or instrument, loss of power to the station Nov. 3-9, and water level of stream dropping below the intake, Aug. 22-Sept. 30. Beginning October 1994, BOD results from 0 to 1.9 mg/L were reported as estimates (remark code of "E").

## EXTREMES FOR PERIOD OF DAILY RECORD.--

FROM WATER-QUALITY MONITOR DOWNSTREAM OF DAM.

SPECIFIC CONDUCTANCE: Maximum, 636 microsiemens, Jan. 29, 1994; minimum, 105 microsiemens, Oct. 21, 1989.

WATER TEMPERATURE: Maximum recorded, 31.0 °C, July 8-11, 1993, Aug. 3, 1995, but may have been higher during period of instrument malfunction and low stream stage July 12-Aug. 13, 1993; minimum, 0.0 °C, on several days during winters.

DISSOLVED OXYGEN: Maximum, 14.7 mg/L, Jan. 20, 1994; minimum, 4.7 mg/L, Aug. 9, 1991.

## EXTREMES FOR CURRENT YEAR.--

FROM WATER-QUALITY MONITOR DOWNSTREAM OF DAM.

SPECIFIC CONDUCTANCE: Maximum, 477 microsiemens, Nov. 9 (day of partial record), Nov. 11; minimum, 180 microsiemens, Jan. 22.

WATER TEMPERATURE: Maximum, 31.0 °C, Aug 3; minimum, 0.5 °C, Jan. 5.

DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Feb. 14, 15; minimum recorded, 5.0 mg/L, July 16, but may have been lower during the period when the water level dropped below the intake, Aug. 22-Sept. 30.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)
OCT 1994											
25...	1030	47	445	7.8	13.5	755	7.1	69	E1.8	120	34
NOV											
08...	0850	38	490	8.7	11.5	760	12.6	116	E1.6	130	37
DEC											
13...	0915	200	237	7.1	3.0	770	12.2	90	E0.8	61	17
JAN 1995											
20...	1400	600	290	7.2	6.5	740	11.4	96	-	65	18
FEB											
17...	1230	72	403	7.6	2.0	768	14.5	104	E0.8	100	28
MAR											
17...	0940	350	262	7.9	10.0	755	11.0	98	E1.0	64	18
APR											
12...	0823	90	393	9.0	10.5	765	13.6	122	3.4	100	29
MAY											
09...	1010	56	324	9.0	15.5	760	12.8	129	3.1	88	24
23...	0905	61	352	9.3	19.0	764	15.9	171	6.1	98	27
JUN											
08...	1420	42	371	9.0	25.0	750	10.2	126	5.0	110	29
21...	1304	34	406	9.2	26.5	760	11.2	140	3.0	110	30
JUL											
19...	0940	111	396	8.8	27.0	753	6.5	83	3.4	100	27
AUG											
14...	1700	16	408	9.4	26.0	757	14.6	182	3.9	110	30
SEP											
06...	1100	10	422	9.6	24.0	762	6.1	73	15	110	30
26...	1025	51	425	8.7	18.0	756	8.9	95	9.9	110	29

## PASSAIC RIVER BASIN

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1994											
25...	8.8	38	2.1	80	17	72	<0.1	3.4	244	226	0.01
NOV											
08...	10	42	2.3	87	20	80	<0.1	2.3	254	249	0.02
DEC											
13...	4.5	19	1.1	38	13	34	<0.1	7.6	134	122	0.01
JAN 1995											
20...	4.8	27	1.1	39	13	52	<0.1	6.7	162	149	<0.01
FEB											
17...	7.7	33	1.3	65	16	68	<0.1	7.2	212	205	0.01
MAR											
17...	4.7	23	0.90	38	12	44	<0.1	5.8	142	133	<0.01
APR											
12...	7.7	33	1.5	68	16	65	<0.1	2.2	210	197	0.02
MAY											
09...	6.7	28	1.3	58	13	51	<0.1	2.9	178	163	<0.01
23...	7.4	29	1.4	65	14	59	<0.1	2.4	198	180	--
JUN											
08...	8.0	31	1.7	69	15	61	0.2	2.3	202	191	0.04
21...	8.2	31	1.8	77	15	66	<0.1	0.60	216	200	0.02
JUL											
19...	8.9	31	2.0	70	12	69	0.1	7.4	216	200	<0.01
AUG											
14...	9.3	36	2.0	77	14	71	0.1	12	248	221	<0.01
SEP											
06...	9.7	37	1.9	80	16	71	0.1	11	236	225	<0.01
26...	9.9	36	1.9	79	15	73	<0.1	11	248	223	<0.01
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
OCT 1994											
25...	0.630	0.290	0.60	0.53	1.2	1.2	0.04	0.01	<0.01	3.1	1.5
NOV											
08...	0.780	<0.015	0.75	0.17	1.5	0.95	0.11	0.02	<0.01	3.1	2.0
DEC											
13...	0.570	0.070	0.21	0.17	0.78	0.74	0.04	0.03	0.05	3.1	<0.1
JAN 1995											
20...	0.560	0.020	0.26	0.12	0.82	0.68	0.03	0.03	0.03	2.4	0.4
FEB											
17...	1.00	<0.015	0.26	0.15	1.3	1.2	0.07	0.04	0.04	2.2	0.5
MAR											
17...	0.350	<0.015	0.20	0.14	0.55	0.49	0.03	0.02	0.01	2.7	0.5
APR											
12...	0.500	<0.015	0.40	0.15	0.90	0.65	0.05	<0.01	<0.01	2.5	0.2
MAY											
09...	0.300	<0.015	0.50	0.21	0.80	0.51	0.06	0.02	0.01	2.8	1.9
23...	0.240	<0.015	0.80	0.17	1.0	0.41	0.07	<0.01	--	3.0	2.3
JUN											
08...	0.340	0.060	0.70	0.46	1.0	0.80	0.08	0.06	0.04	3.4	1.4
21...	0.200	<0.015	0.70	0.35	0.90	0.55	0.07	0.05	<0.01	3.5	1.5
JUL											
19...	<0.050	<0.015	0.60	0.26	--	--	0.09	0.04	0.06	4.1	1.9
AUG											
14...	<0.050	<0.015	1.0	0.65	--	--	0.20	0.14	0.05	4.1	3.4
SEP											
06...	0.065	0.030	2.8	0.30	2.9	0.37	0.26	0.02	0.02	4.8	>4.0
26...	<0.050	0.070	0.30	0.07	--	--	0.28	0.07	0.01	4.6	4.0



## 01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	454	450	452	462	452	459	223	214	218	290	287	289
2	455	449	452	468	462	466	218	214	215	300	290	296
3	456	454	455	---	---	---	218	217	218	299	288	294
4	455	450	453	---	---	---	223	218	220	288	278	283
5	451	446	449	---	---	---	232	222	225	280	277	278
6	446	439	443	---	---	---	235	231	234	283	279	281
7	442	439	441	---	---	---	233	227	229	309	283	292
8	439	433	437	---	---	---	233	231	233	328	309	324
9	433	429	432	---	---	---	234	232	233	326	322	323
10	429	423	425	476	474	475	235	232	234	323	308	317
11	425	423	424	477	471	473	244	233	239	308	292	299
12	429	424	426	471	467	470	242	234	239	292	287	289
13	430	427	428	469	464	467	235	233	234	300	288	294
14	428	423	426	466	462	465	236	234	235	317	300	311
15	424	421	423	463	457	461	238	235	237	318	315	316
16	425	422	423	459	457	458	239	236	238	316	312	314
17	425	424	425	458	454	455	244	239	242	312	303	309
18	426	425	426	454	450	453	251	244	247	303	293	297
19	427	425	426	450	447	448	259	250	254	293	288	291
20	427	421	424	447	444	447	259	257	258	288	275	284
21	425	420	423	447	431	443	265	259	263	275	205	243
22	429	425	427	441	395	423	271	265	268	205	180	188
23	429	427	428	406	332	376	281	271	275	193	181	186
24	433	428	430	342	332	339	283	280	282	206	193	201
25	437	433	435	334	316	326	286	283	285	224	206	216
26	439	437	438	316	291	301	286	284	285	236	220	230
27	442	439	440	293	291	292	285	282	283	246	236	242
28	449	442	444	292	266	279	286	282	283	253	243	249
29	454	449	453	266	236	249	284	283	284	262	253	258
30	454	452	453	236	221	226	284	283	283	270	262	266
31	453	450	452	---	---	---	287	283	285	275	270	271
MONTH	456	420	436	---	---	---	287	214	250	328	180	275
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	276	273	275	449	389	422	349	347	348	329	321	324
2	281	273	277	448	434	441	353	349	352	340	329	334
3	289	281	287	445	433	440	359	353	356	342	338	340
4	292	288	290	433	401	418	366	358	361	343	339	342
5	297	292	295	401	383	390	369	366	367	340	334	337
6	301	296	299	383	366	374	371	369	370	336	333	335
7	313	301	307	366	351	360	374	370	372	334	329	331
8	325	313	320	351	329	343	380	373	376	331	328	330
9	334	325	329	329	238	295	384	380	381	329	326	328
10	345	334	340	238	204	213	387	383	386	328	327	328
11	354	345	350	220	208	214	391	387	390	329	327	328
12	361	354	358	227	220	223	391	387	390	332	328	330
13	367	361	364	235	227	230	387	365	379	338	331	335
14	369	367	368	240	234	238	365	330	348	343	337	340
15	374	369	372	251	240	246	330	298	314	345	343	344
16	381	374	378	258	249	254	303	288	296	347	343	345
17	394	381	388	272	258	263	292	283	288	347	342	344
18	414	394	403	275	271	273	284	277	280	348	343	346
19	425	414	421	283	275	279	283	277	279	352	348	349
20	429	425	428	289	282	285	284	279	281	356	352	354
21	431	427	429	302	288	294	289	283	286	361	354	357
22	431	429	430	306	297	300	296	289	292	361	356	358
23	429	425	428	315	306	309	299	294	295	361	357	359
24	425	417	422	319	314	316	300	297	298	365	359	361
25	417	410	412	324	319	320	302	299	301	362	359	360
26	410	398	403	326	322	324	307	302	304	361	359	360
27	398	387	392	330	326	328	311	307	308	369	361	367
28	389	384	387	333	329	330	313	309	311	375	369	372
29	---	---	---	338	333	335	319	313	315	379	375	377
30	---	---	---	343	338	340	321	317	319	377	368	373
31	---	---	---	348	342	345	---	---	---	372	365	369
MONTH	431	273	363	449	204	314	391	277	331	379	321	347

## PASSAIC RIVER BASIN

## 01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	371	366	367	417	394	405	423	417	419	---	---	---
2	368	364	366	394	384	388	424	423	424	---	---	---
3	372	366	369	388	384	386	424	420	422	---	---	---
4	371	369	370	386	382	384	424	411	421	---	---	---
5	377	371	374	389	383	386	414	405	410	---	---	---
6	378	376	377	393	386	389	410	404	407	---	---	---
7	382	377	379	396	392	394	411	408	409	---	---	---
8	383	379	381	404	389	395	411	409	410	---	---	---
9	385	383	384	392	389	390	413	410	411	---	---	---
10	389	385	387	399	388	393	411	410	410	---	---	---
11	396	389	392	398	381	387	415	411	412	---	---	---
12	394	386	388	382	377	380	418	414	417	---	---	---
13	393	389	391	406	376	387	422	418	420	---	---	---
14	395	392	394	401	393	397	422	411	421	---	---	---
15	403	393	399	395	393	394	420	411	419	---	---	---
16	403	401	402	396	394	395	429	420	424	---	---	---
17	408	402	405	400	396	398	428	422	425	---	---	---
18	410	408	409	419	396	403	428	425	426	---	---	---
19	412	410	411	406	403	404	426	424	425	---	---	---
20	417	412	415	434	403	415	427	425	425	---	---	---
21	418	414	417	429	419	422	425	423	424	---	---	---
22	421	418	419	423	419	421	---	---	---	---	---	---
23	425	421	423	425	419	421	---	---	---	---	---	---
24	424	420	422	430	416	427	---	---	---	---	---	---
25	422	419	420	416	414	416	---	---	---	---	---	---
26	423	419	421	416	398	411	---	---	---	---	---	---
27	426	422	425	417	405	411	---	---	---	---	---	---
28	428	423	426	432	413	421	---	---	---	---	---	---
29	431	420	426	436	423	428	---	---	---	---	---	---
30	420	404	414	433	418	423	---	---	---	---	---	---
31	---	---	---	419	417	418	---	---	---	---	---	---
MONTH	431	364	399	436	376	403	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	17.0	17.0	13.5	12.5	13.0	5.5	5.0	5.5	3.0	2.5	2.5
2	17.5	16.5	16.5	12.5	12.0	12.0	5.0	5.0	5.0	3.0	3.0	3.0
3	16.5	16.0	16.5	---	---	---	5.0	4.5	5.0	3.0	2.0	2.0
4	16.0	15.5	16.0	---	---	---	5.5	5.0	5.0	2.0	1.0	1.5
5	16.0	15.0	15.5	---	---	---	6.0	5.5	5.5	1.0	.5	1.0
6	16.5	14.5	15.5	---	---	---	7.0	6.0	6.5	1.5	1.0	1.0
7	15.5	14.5	15.0	---	---	---	7.5	7.0	7.5	1.5	1.0	1.0
8	14.5	14.0	14.5	---	---	---	7.5	6.0	6.5	1.5	1.0	1.0
9	15.5	14.5	15.0	---	---	---	6.0	5.5	5.5	1.5	1.5	1.5
10	16.0	15.0	15.5	12.0	11.5	12.0	5.5	5.0	5.5	2.0	1.5	1.5
11	15.5	15.0	15.0	11.5	10.0	11.0	5.0	5.0	5.0	1.5	1.5	1.5
12	15.5	14.5	15.0	10.0	9.5	9.5	5.0	3.5	4.0	1.5	1.5	1.5
13	14.5	13.5	14.0	9.5	9.0	9.5	3.5	2.5	3.0	2.0	1.5	1.5
14	14.5	13.5	14.0	9.5	9.5	9.5	3.0	2.5	2.5	3.0	2.0	2.5
15	15.0	14.0	14.5	10.0	9.5	9.5	2.5	2.5	2.5	4.0	3.0	3.5
16	14.5	13.5	14.0	10.0	9.5	9.5	3.0	2.5	3.0	6.0	4.0	5.0
17	14.5	13.5	14.0	9.5	9.0	9.5	3.0	3.0	3.0	7.0	6.0	6.5
18	14.0	13.5	14.0	10.0	9.5	9.5	3.5	3.0	3.0	7.0	6.5	7.0
19	14.0	13.5	14.0	10.0	9.5	10.0	3.5	3.0	3.5	6.5	6.5	6.5
20	15.0	14.0	15.0	9.5	9.5	9.5	3.5	3.0	3.5	6.5	6.0	6.5
21	15.5	14.5	15.0	9.5	9.5	9.5	3.5	3.5	3.5	6.0	5.5	6.0
22	15.5	14.5	15.0	9.5	9.5	9.5	4.0	3.5	3.5	5.5	4.5	5.0
23	15.5	15.0	15.0	9.5	8.0	8.5	4.0	3.5	3.5	4.5	4.0	4.5
24	15.0	14.0	14.5	8.0	6.5	7.0	4.0	3.5	4.0	4.0	3.5	4.0
25	14.5	14.0	14.0	6.5	6.0	6.0	5.0	4.0	4.5	3.5	3.5	3.5
26	14.0	13.5	14.0	6.0	5.5	6.0	5.0	4.5	5.0	3.5	3.0	3.5
27	13.5	13.0	13.5	5.5	5.0	5.0	4.5	4.5	4.5	3.5	3.0	3.0
28	13.0	12.0	12.5	5.0	4.5	5.0	4.5	4.5	4.5	3.0	2.0	2.5
29	12.0	11.5	12.0	6.0	5.0	5.5	4.5	3.5	4.0	2.0	1.5	1.5
30	12.5	11.5	12.0	6.0	5.5	5.5	3.5	2.0	2.5	2.0	1.5	2.0
31	13.0	12.0	12.5	---	---	---	2.5	2.0	2.0	2.5	2.0	2.0
MONTH	17.5	11.5	14.5	---	---	---	7.5	2.0	4.5	7.0	.5	3.0

## 01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	2.0	2.5	2.5	2.5	2.5	10.5	9.5	10.0	16.0	15.0	15.5
2	3.0	2.5	2.5	3.0	2.5	3.0	10.5	9.5	10.0	15.5	14.5	15.0
3	2.5	2.5	2.5	3.0	3.0	3.0	10.0	9.5	9.5	15.5	14.0	14.5
4	3.0	2.5	2.5	3.5	3.0	3.5	10.0	9.5	10.0	14.5	14.0	14.0
5	2.5	1.5	2.0	3.5	3.0	3.5	9.5	8.5	9.0	15.0	14.5	14.5
6	1.5	1.5	1.5	4.0	3.5	4.0	8.5	8.0	8.0	15.0	14.0	14.5
7	1.5	1.0	1.5	4.5	4.0	4.0	10.0	8.0	9.0	16.0	14.0	15.0
8	1.0	1.0	1.0	5.0	4.5	4.5	9.0	9.0	9.0	15.5	14.0	15.0
9	1.5	1.0	1.0	5.5	4.0	5.0	9.5	9.0	9.0	17.5	14.5	15.5
10	1.5	1.0	1.5	4.0	2.5	3.0	10.5	9.0	9.5	15.5	15.0	15.0
11	1.5	1.5	1.5	3.5	3.0	3.0	11.0	9.5	10.0	15.0	15.0	15.0
12	1.5	1.0	1.5	4.5	3.5	4.0	10.5	10.0	10.5	15.5	14.5	15.0
13	2.0	1.5	1.5	6.0	4.5	5.0	11.0	10.5	10.5	16.5	14.5	15.5
14	2.0	1.5	2.0	7.5	6.0	6.5	10.5	10.0	10.5	16.0	15.5	15.5
15	2.0	1.5	2.0	9.5	7.5	8.0	11.0	10.0	10.5	17.0	15.5	16.0
16	2.0	1.5	2.0	10.0	8.5	9.5	11.5	10.5	11.0	19.0	15.5	17.0
17	2.0	1.5	1.5	11.5	10.0	10.5	11.5	11.0	11.0	18.0	17.0	17.5
18	2.0	1.5	2.0	11.0	10.0	10.5	12.5	11.5	12.0	18.0	17.0	17.5
19	2.5	2.0	2.0	11.0	10.5	10.5	14.5	12.5	13.0	17.5	16.5	17.0
20	2.5	2.0	2.5	11.0	10.5	10.5	15.0	13.5	14.5	18.5	16.0	17.5
21	3.0	2.5	2.5	10.5	10.5	10.5	15.0	14.0	14.5	18.5	17.0	17.5
22	3.0	2.5	3.0	10.5	9.5	10.0	15.5	14.0	14.5	20.5	17.5	18.5
23	3.5	3.0	3.5	9.5	9.0	9.5	15.0	14.0	14.5	19.5	19.0	19.0
24	3.5	3.5	3.5	9.0	8.5	9.0	16.5	14.0	15.0	20.0	19.0	19.0
25	3.5	3.5	3.5	8.5	8.0	8.0	16.5	14.5	15.0	21.0	20.0	20.5
26	3.5	3.0	3.5	9.0	8.0	8.5	16.5	14.5	15.5	21.0	20.0	20.5
27	3.0	3.0	3.0	10.0	8.5	9.0	16.0	15.5	15.5	22.5	19.5	21.0
28	3.0	2.5	3.0	10.5	9.0	9.5	18.5	15.5	17.0	21.0	19.5	20.0
29	---	---	---	10.5	9.0	9.5	17.5	16.5	17.0	19.5	18.5	19.0
30	---	---	---	10.0	9.5	10.0	16.5	15.5	16.0	20.0	19.0	19.5
31	---	---	---	10.0	9.5	10.0	---	---	---	22.5	19.0	20.5
MONTH	3.5	1.0	2.0	11.5	2.5	7.0	18.5	8.0	12.0	22.5	14.0	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	22.0	20.0	20.5	24.5	23.0	23.5	29.0	28.0	28.5	---	---	---
2	22.5	21.0	21.5	25.5	24.0	24.5	29.5	28.0	28.5	---	---	---
3	22.5	21.0	22.0	26.5	23.5	25.0	31.0	28.5	29.5	---	---	---
4	24.0	22.0	23.0	26.0	24.5	25.0	30.0	29.0	29.5	---	---	---
5	23.5	23.0	23.0	26.0	24.0	24.5	30.0	28.5	29.5	---	---	---
6	25.0	22.5	23.5	25.0	24.5	24.5	28.5	27.0	28.0	---	---	---
7	26.0	23.5	24.5	24.5	24.5	24.5	27.5	26.0	26.5	---	---	---
8	26.0	24.5	25.5	25.5	24.0	24.5	27.5	25.5	26.5	---	---	---
9	26.5	24.0	25.0	25.0	24.5	25.0	26.5	24.5	25.5	---	---	---
10	24.5	23.0	23.5	25.5	24.0	24.5	25.5	24.5	25.0	---	---	---
11	23.0	22.5	23.0	26.0	23.5	24.5	26.0	25.0	25.5	---	---	---
12	23.0	22.5	23.0	26.5	24.0	25.5	26.5	25.0	26.0	---	---	---
13	23.0	22.0	22.5	25.5	24.5	25.0	29.0	26.5	27.5	---	---	---
14	22.5	22.0	22.0	28.5	25.0	26.5	28.0	27.0	27.5	---	---	---
15	24.0	21.5	22.5	30.5	28.0	29.0	27.0	26.0	26.5	---	---	---
16	24.5	22.0	23.0	30.5	29.0	30.0	30.5	26.5	28.0	---	---	---
17	23.5	22.0	22.5	29.0	28.0	28.5	29.0	27.5	28.5	---	---	---
18	26.5	22.5	24.0	28.0	27.0	27.5	29.0	28.0	28.5	---	---	---
19	26.0	24.5	25.5	29.0	27.0	28.0	28.5	27.5	27.5	---	---	---
20	30.0	25.5	27.5	28.5	26.5	27.5	29.0	26.5	27.5	---	---	---
21	29.0	25.5	27.0	27.5	26.5	27.0	27.5	26.0	26.5	---	---	---
22	25.5	24.0	25.0	29.0	27.0	28.0	---	---	---	---	---	---
23	24.5	23.5	24.0	28.0	27.0	27.5	---	---	---	---	---	---
24	25.0	23.5	24.0	29.0	26.5	27.5	---	---	---	---	---	---
25	26.0	24.0	24.5	29.5	27.5	28.0	---	---	---	---	---	---
26	25.5	24.5	25.0	28.5	27.5	28.0	---	---	---	---	---	---
27	25.0	23.5	24.0	28.5	27.5	28.0	---	---	---	---	---	---
28	25.5	23.0	24.0	28.5	28.0	28.5	---	---	---	---	---	---
29	24.0	22.0	23.0	28.5	27.5	28.0	---	---	---	---	---	---
30	24.0	22.5	23.0	30.0	27.5	29.0	---	---	---	---	---	---
31	---	---	---	30.5	28.5	29.0	---	---	---	---	---	---
MONTH	30.0	20.0	23.5	30.5	23.0	26.5	---	---	---	---	---	---

## 01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.2	9.1	9.2	9.9	9.6	9.7	---	---	---	13.4	12.9	13.1
2	9.5	9.1	9.3	10.2	9.7	9.9	---	---	---	13.5	12.9	13.2
3	9.5	9.2	9.3	---	---	---	---	---	---	13.8	13.5	13.7
4	9.6	9.2	9.4	---	---	---	---	---	---	13.7	13.5	13.6
5	9.8	9.2	9.4	---	---	---	---	---	---	14.2	13.7	14.0
6	9.8	9.3	9.5	---	---	---	---	---	---	14.1	13.6	13.9
7	10.1	9.3	9.6	---	---	---	---	---	---	13.8	13.5	13.6
8	10.2	9.5	9.8	---	---	---	---	---	---	14.0	13.8	13.9
9	10.1	9.4	9.7	---	---	---	---	---	---	13.9	13.8	13.8
10	10.1	9.4	9.6	11.0	10.1	10.5	---	---	---	14.0	13.8	13.9
11	10.1	9.3	9.6	11.2	10.4	10.7	---	---	---	14.0	13.8	13.9
12	10.1	9.4	9.7	11.5	10.7	11.0	---	---	---	13.8	13.6	13.7
13	10.5	9.7	10.0	11.6	10.8	11.1	---	---	---	13.8	13.6	13.7
14	10.2	9.5	9.8	11.6	10.9	11.1	13.6	13.4	13.5	13.6	13.4	13.5
15	10.0	9.3	9.6	11.4	10.8	11.0	13.6	13.4	13.5	13.4	12.8	13.1
16	10.0	9.2	9.5	11.2	10.7	10.9	13.6	13.2	13.4	12.9	12.4	12.7
17	10.0	9.2	9.5	11.6	10.9	11.1	13.2	12.9	13.1	12.4	12.2	12.3
18	10.1	9.2	9.5	11.3	10.7	11.0	13.1	12.7	12.9	12.4	12.3	12.3
19	10.2	9.2	9.5	11.3	10.6	10.9	13.2	12.9	13.0	12.4	12.2	12.3
20	9.6	9.1	9.3	11.5	10.7	11.1	13.4	13.0	13.2	12.2	12.1	12.1
21	9.7	9.0	9.3	11.3	10.9	11.1	13.3	13.0	13.2	12.4	12.1	12.3
22	9.5	8.9	9.1	11.5	10.9	11.2	13.2	12.8	13.0	12.8	12.4	12.6
23	9.1	8.8	9.0	11.1	11.0	11.0	13.0	12.6	12.8	13.1	12.8	13.0
24	9.6	9.0	9.3	---	---	---	12.6	12.4	12.5	13.2	13.1	13.1
25	9.7	9.3	9.4	---	---	---	12.7	12.4	12.5	13.3	13.1	13.2
26	9.8	9.4	9.5	---	---	---	13.0	12.5	12.8	13.3	13.2	13.2
27	9.8	9.4	9.6	---	---	---	13.3	12.6	12.9	13.4	13.2	13.3
28	10.1	9.4	9.7	---	---	---	12.9	12.6	12.7	13.9	13.4	13.7
29	10.4	9.7	9.9	---	---	---	13.4	12.6	13.0	14.2	13.9	14.0
30	10.5	9.7	10.0	---	---	---	14.0	13.4	13.7	14.1	13.5	13.8
31	10.5	9.8	10.1	---	---	---	14.0	13.4	13.8	13.6	13.2	13.4
MONTH	10.5	8.8	9.5	---	---	---	---	---	---	14.2	12.1	13.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.4	13.1	13.2	13.8	13.6	13.7	12.0	11.2	11.5	10.6	10.0	10.3
2	13.5	13.2	13.3	13.8	13.6	13.7	12.0	11.2	11.6	10.1	9.8	9.9
3	13.8	13.5	13.7	13.9	13.5	13.6	12.3	11.3	11.8	10.2	9.8	9.9
4	13.5	12.8	13.0	13.6	13.4	13.5	11.8	11.2	11.4	10.3	9.8	10.0
5	13.6	12.9	13.3	13.7	13.2	13.5	12.5	11.2	11.9	10.1	9.7	9.9
6	13.9	13.6	13.8	13.4	13.0	13.2	12.6	11.8	12.2	10.2	9.6	9.9
7	14.1	13.8	13.9	13.3	12.9	13.0	12.2	11.5	11.8	9.9	9.3	9.7
8	14.1	13.9	13.9	13.0	12.5	12.7	11.9	11.5	11.6	9.9	9.0	9.5
9	14.1	13.8	14.0	13.5	12.9	13.1	12.1	11.5	11.7	10.6	9.0	9.8
10	14.0	13.6	13.8	14.0	13.5	13.9	12.0	11.5	11.7	10.1	9.8	10.0
11	13.8	13.4	13.6	14.0	13.7	13.9	12.0	11.5	11.7	10.1	9.7	9.9
12	14.0	13.5	13.9	13.9	13.5	13.7	11.6	11.3	11.5	10.1	9.7	9.9
13	14.2	13.9	14.0	13.5	12.7	13.2	11.6	11.3	11.4	10.2	9.6	9.9
14	14.3	13.9	14.0	12.9	12.4	12.7	11.4	11.2	11.3	10.3	9.6	9.9
15	14.3	13.7	14.1	12.4	11.6	12.1	11.7	11.1	11.5	10.1	9.3	9.7
16	14.0	13.6	13.8	12.0	11.5	11.8	11.7	11.1	11.4	10.4	8.9	9.6
17	14.2	13.7	13.9	11.5	11.1	11.4	11.6	11.2	11.4	9.8	9.0	9.4
18	14.2	13.6	13.9	11.6	11.3	11.4	11.5	11.0	11.3	9.9	9.0	9.4
19	14.0	13.4	13.6	11.5	11.4	11.4	11.0	10.6	10.8	9.7	8.9	9.2
20	13.6	13.0	13.3	11.5	11.1	11.3	11.0	10.2	10.6	9.9	8.9	9.4
21	13.3	13.0	13.1	11.4	11.1	11.2	10.7	10.2	10.4	10.0	8.9	9.4
22	13.7	13.1	13.4	11.6	11.3	11.5	10.6	10.1	10.3	9.8	8.6	9.3
23	13.5	13.0	13.3	11.8	11.6	11.7	10.7	10.1	10.4	10.0	8.6	9.2
24	13.3	12.9	13.1	12.2	11.8	12.0	10.6	9.8	10.2	9.8	8.7	9.2
25	13.6	13.2	13.4	12.5	12.0	12.2	10.7	9.9	10.3	9.0	8.4	8.7
26	13.8	13.3	13.5	12.4	11.8	12.1	10.8	9.9	10.4	9.2	8.4	8.8
27	13.8	13.5	13.6	12.3	11.6	11.9	10.7	9.8	10.2	9.0	8.3	8.6
28	13.6	13.4	13.5	12.0	11.4	11.7	10.2	9.4	9.8	9.4	8.3	8.8
29	---	---	---	12.1	11.5	11.7	10.2	9.4	9.8	9.1	8.6	8.8
30	---	---	---	11.6	11.4	11.5	10.2	9.7	10.0	9.3	8.6	8.9
31	---	---	---	11.8	11.2	11.5	---	---	---	9.3	8.3	8.8
MONTH	14.3	12.8	13.6	14.0	11.1	12.4	12.6	9.4	11.1	10.6	8.3	9.5



PASSAIC RIVER BASIN

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01388000 RAMAPO RIVER AT POMPTON LAKES, NJ--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.4	8.3	8.8	8.1	6.7	7.4	7.1	5.6	6.3	---	---	---
2	8.8	8.1	8.5	8.0	7.3	7.7	7.1	6.2	6.7	---	---	---
3	8.7	7.9	8.2	8.0	6.8	7.5	7.3	5.7	6.6	---	---	---
4	8.2	7.6	8.0	8.0	6.7	7.2	7.1	5.4	6.2	---	---	---
5	8.0	7.6	7.8	7.6	6.6	7.1	7.1	6.6	6.8	---	---	---
6	7.8	7.2	7.5	7.5	6.5	6.9	7.1	6.5	6.8	---	---	---
7	7.7	6.6	7.3	7.3	6.4	6.9	7.9	6.9	7.3	---	---	---
8	7.5	6.7	7.1	7.7	6.6	7.1	7.8	6.9	7.3	---	---	---
9	7.9	6.7	7.3	7.6	6.5	7.0	7.9	6.8	7.3	---	---	---
10	8.1	7.0	7.6	7.5	6.3	6.8	8.0	6.8	7.4	---	---	---
11	8.4	7.4	7.8	7.7	6.3	7.1	7.9	6.8	7.3	---	---	---
12	8.2	7.6	7.9	7.6	6.7	7.1	7.8	6.6	7.1	---	---	---
13	8.6	7.5	8.1	7.7	6.4	7.0	7.7	6.5	7.0	---	---	---
14	8.7	7.9	8.2	7.2	5.7	6.6	7.8	6.2	7.0	---	---	---
15	8.7	7.8	8.3	6.7	5.2	6.0	7.7	6.6	7.4	---	---	---
16	8.6	7.6	8.0	6.6	5.0	5.6	7.6	6.6	7.1	---	---	---
17	8.5	7.5	8.0	6.9	5.3	6.1	7.6	6.3	6.9	---	---	---
18	8.1	6.8	7.6	7.2	5.9	6.6	7.6	6.1	6.7	---	---	---
19	7.5	6.5	7.1	7.3	6.6	7.0	7.5	5.8	6.6	---	---	---
20	7.1	6.0	6.6	7.2	6.4	6.8	7.4	5.7	6.5	---	---	---
21	6.8	5.9	6.3	7.1	6.3	6.6	7.6	5.4	6.5	---	---	---
22	7.7	6.2	7.1	7.2	6.0	6.5	---	---	---	---	---	---
23	8.0	7.0	7.5	7.2	5.8	6.4	---	---	---	---	---	---
24	7.8	6.8	7.3	7.3	5.8	6.5	---	---	---	---	---	---
25	8.1	6.7	7.2	7.6	6.4	6.9	---	---	---	---	---	---
26	7.9	7.0	7.5	7.2	6.1	6.6	---	---	---	---	---	---
27	7.8	7.1	7.4	7.3	6.3	6.9	---	---	---	---	---	---
28	8.2	7.0	7.5	6.8	5.9	6.4	---	---	---	---	---	---
29	8.6	7.0	7.7	7.0	5.8	6.3	---	---	---	---	---	---
30	8.5	7.0	7.7	7.1	5.7	6.3	---	---	---	---	---	---
31	---	---	---	7.0	5.7	6.3	---	---	---	---	---	---
MONTH	9.4	5.9	7.6	8.1	5.0	6.7	---	---	---	---	---	---



## PASSAIC RIVER BASIN

## 01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'56", Passaic County, Hydrologic Unit 02030103, on left bank in Passaic Valley Water Commission pumping station, 800 ft below confluence of Pequannock and Ramapo Rivers, 100 ft upstream from bridge on Jackson Avenue (Pompton Plains Cross Road), and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1903 to December 1904, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1202: 1945(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 160.00 ft above sea level. March 1903 to December 1904, nonrecording gage on main spillway of dam 2,000 ft upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft upstream at datum 14.46 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir (no diversion this year), and from Ramapo River to Wanaque Reservoir and Oradell Reservoir (from February 1985) for municipal supply (see Hackensack River basin, diversions into and from and Passaic River basin, diversions). Prior to the 1969 water year, published discharge included flow over the weir and pumpage to Point View Reservoir from Jackson Avenue Pumping Station. Since water year 1969, the published discharges have included only flow over the weir. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg and Echo Lake Reservoirs on Pequannock River and by Greenwood Lake, Monksville, and Wanaque Reservoirs on Wanaque River (see Passaic River basin, reservoirs in). Several measurements of water temperature were made during the year. Satellite telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	2230	*2,620	*11.25	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	104	334	225	393	602	142	317	117	142	85	50
2	142	122	266	307	376	424	142	334	118	315	94	39
3	132	104	196	308	331	317	138	284	116	150	67	36
4	112	96	157	226	355	283	147	248	124	111	70	36
5	98	89	320	176	401	256	151	218	109	83	190	e36
6	87	90	499	163	306	240	150	216	99	75	111	e38
7	80	91	343	605	319	250	154	208	92	89	93	e38
8	77	83	274	608	319	389	150	173	88	89	77	e38
9	79	82	193	429	317	2430	153	140	81	74	65	e36
10	78	119	223	368	313	2210	276	165	84	68	60	e38
11	73	113	507	308	305	1370	232	154	83	104	57	e34
12	75	101	429	301	294	990	182	160	147	88	55	32
13	70	92	301	307	255	759	588	190	132	72	53	37
14	69	83	247	359	284	670	601	151	111	64	49	36
15	64	87	202	406	283	660	456	132	109	61	135	29
16	65	82	175	510	252	588	360	122	94	57	76	26
17	62	82	170	603	188	544	308	134	84	58	60	66
18	61	79	170	620	177	503	282	144	78	138	54	40
19	60	78	164	564	183	435	286	132	72	145	51	34
20	72	78	155	1150	178	399	312	134	72	93	48	32
21	72	181	159	2270	200	405	291	125	78	72	47	31
22	66	706	154	2150	199	428	284	121	86	64	46	85
23	75	343	149	1510	185	398	272	107	88	60	43	131
24	101	193	175	1140	243	363	247	116	72	63	45	66
25	95	142	189	914	277	364	217	127	83	78	43	50
26	87	142	156	729	202	306	195	181	97	126	42	137
27	79	125	154	632	181	289	180	141	83	111	42	76
28	72	672	172	566	423	265	177	124	69	71	40	60
29	70	953	168	497	---	240	172	130	65	66	39	54
30	69	544	137	439	---	227	181	124	61	63	40	52
31	81	---	140	412	---	183	---	116	---	57	39	---
TOTAL	2560	5856	7078	19802	7739	17787	7426	5168	2792	2907	2016	1493
MEAN	82.6	195	228	639	276	574	248	167	93.1	93.8	65.0	49.8
MAX	142	953	507	2270	423	2430	601	334	147	315	190	137
MIN	60	78	137	163	177	183	138	107	61	57	39	26

## 01388500 POMPTON RIVER AT POMPTON PLAINS, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1995, BY WATER YEAR (WY)

MEAN	221	395	513	487	577	933	990	669	413	227	188	213
MAX	985	1199	1543	1562	1654	2477	2995	2778	2177	883	690	1057
(WY)	1976	1973	1984	1979	1973	1983	1983	1989	1972	1984	1969	1971
MIN	40.2	52.3	34.8	39.2	149	118	62.7	110	62.9	34.2	34.2	46.7
(WY)	1981	1981	1981	1981	1969	1981	1985	1965	1965	1965	1966	1980

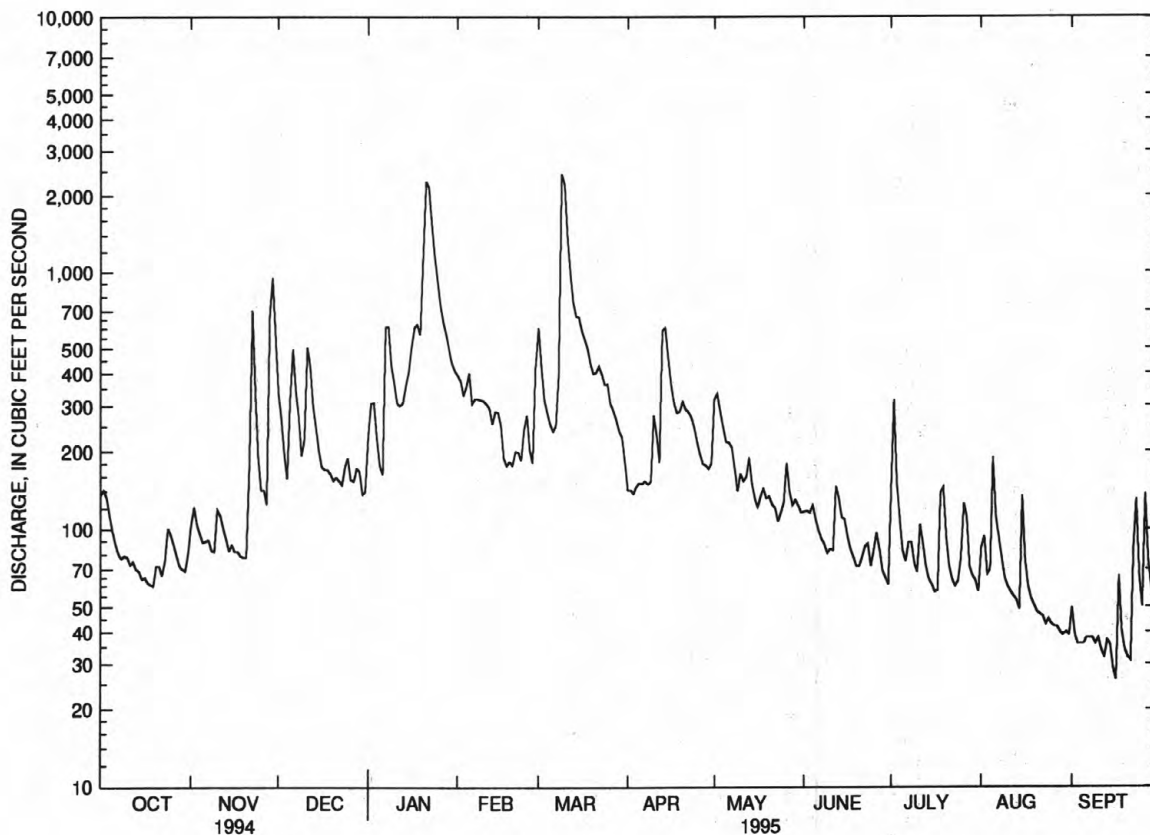
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1903 - 1995	
ANNUAL TOTAL	175161		82624			
ANNUAL MEAN	480		226		485	
HIGHEST ANNUAL MEAN					882	
LOWEST ANNUAL MEAN					117	
HIGHEST DAILY MEAN	3850	Mar 29	2430	Mar 9	19900	Apr 6 1984
LOWEST DAILY MEAN	60	Oct 19	26	Sep 16	18	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	64	Oct 13	33	Sep 10	21	Oct 5 1980
INSTANTANEOUS PEAK FLOW			2620	Mar 9	28300a	Oct 10 1903
INSTANTANEOUS PEAK STAGE			11.25	Mar 9	14.30bc	Oct 10 1903
INSTANTANEOUS LOW FLOW			25	Sep 15	.00	Aug 18 1904
10 PERCENT EXCEEDS	1420		446		1150	
50 PERCENT EXCEEDS	205		138		224	
90 PERCENT EXCEEDS	79		53		66	

a By computation of peak flow over dam, maximum observed.

b Site and datum then in use.

c Maximum stage at present site and datum was 24.47 ft, Apr. 6, 1984.

e Estimated.



01388500 POMPTON RIVER AT POMPTON PLAINS, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

## 01388600 POMPTON RIVER AT PACKANACK LAKE, NJ

LOCATION.--Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge on State Highway 504 in Packanack Lake, and 2.2 mi downstream from confluence of Pequannock and Wanaque Rivers.

DRAINAGE AREA.--361 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, and selected BOD's on the following dates were performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories: 10-25-94, 1-19, 3-16, 5-23, and 7-19-95. Other BOD's were performed by the U.S. Geological Survey, New Jersey District Field Laboratory. Beginning October 1994, BOD results from 0 to 1.9 mg/L were reported as estimates (remark code of "E").

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)
OCT 1994										
25...	1040	95	370	7.3	12.5	755	--	--	2.2	540
NOV										
09...	0945	85	396	7.9	11.0	753	11.0	101	2.5	--
DEC										
13...	1105	310	244	7.1	2.0	770	13.3	95	E1.1	--
JAN 1995										
19...	1120	585	265	7.1	6.0	760	12.4	100	<1.3	170
FEB										
17...	1100	195	345	7.7	2.5	768	14.0	102	E1.1	--
MAR										
16...	1020	600	237	7.9	9.0	759	12.2	106	<1.2	33
APR										
12...	1042	180	336	8.0	9.5	764	10.4	91	2.0	--
MAY										
09...	1045	140	290	8.0	14.5	760	10.7	105	2.4	--
23...	1045	110	330	7.9	17.5	764	9.4	98	3.2	330
JUN										
08...	1145	90	352	7.7	23.0	750	7.6	90	2.3	--
22...	1208	75	357	7.6	22.5	763	7.3	84	2.5	--
JUL										
19...	1030	160	370	7.8	24.5	755	6.8	82	E2.2	920
AUG										
15...	0840	175	351	8.1	24.0	758	7.6	91	2.5	--
SEP										
06...	1242	220	371	8.4	22.5	762	7.4	86	3.8	--
26...	1153	150	379	8.1	16.5	755	9.3	96	4.7	--

## PASSAIC RIVER BASIN

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01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1994									
25...	70	100	28	7.6	32	2.1	65	18	56
NOV									
09...	--	110	30	8.3	32	2.1	71	18	61
DEC									
13...	--	63	17	4.9	19	1.2	40	14	35
JAN 1995									
19...	30	59	16	4.6	24	1.0	36	13	43
FEB									
17...	--	78	21	6.1	32	1.3	46	15	60
MAR									
16...	20	58	16	4.4	20	0.80	34	13	36
APR									
12...	--	88	24	6.7	27	1.4	57	16	52
MAY									
09...	--	78	21	6.2	24	1.3	50	14	43
23...	220	91	25	6.9	27	1.5	57	16	51
JUN									
08...	--	98	27	7.5	29	1.7	62	17	54
22...	--	94	26	7.1	28	1.9	63	17	52
JUL									
19...	130	100	27	8.5	28	1.9	67	15	64
AUG									
15...	--	96	26	7.5	29	1.9	61	19	54
SEP									
06...	--	100	28	8.1	31	1.9	67	21	56
26...	--	100	27	8.4	31	2.7	65	19	58
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1994									
25...	<0.1	5.1	220	191	--	3.3	0.5	28	7.2
NOV									
09...	<0.1	3.6	214	201	--	3.1	1.1	--	--
DEC									
13...	<0.1	8.0	138	126	--	3.1	0.2	--	--
JAN 1995									
19...	<0.1	6.5	150	132	9	2.6	0.4	--	--
FEB									
17...	<0.1	6.8	182	174	--	2.7	0.2	--	--
MAR									
16...	<0.1	5.7	132	118	--	2.9	0.3	4	6.5
APR									
12...	<0.1	3.3	180	167	--	2.4	0.9	--	--
MAY									
09...	<0.1	3.5	162	146	--	2.8	1.0	--	--
23...	<0.1	4.4	180	169	15	2.5	1.6	--	--
JUN									
08...	0.2	4.4	200	182	--	2.8	0.8	--	--
22...	<0.1	4.1	190	178	--	3.2	--	--	--
JUL									
19...	0.1	7.1	202	193	9	3.8	1.5	--	--
AUG									
15...	<0.1	7.6	194	184	--	3.6	1.9	--	--
SEP									
06...	0.1	7.1	214	196	--	3.8	2.5	--	--
26...	<0.1	9.5	220	197	--	4.1	2.2	--	--

## PASSAIC RIVER BASIN

01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 23...	1045	19	<1	<10	40	<1	<1	3

DATE	TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 23...	490	490	4	170	<0.1	<1	<1	20

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE U.S. GEOLOGICAL SURVEY  
NATIONAL WATER QUALITY LABORATORY

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT 1994 25...	1040	<0.01	0.68	0.040	0.40	0.25	1.1	0.93	0.05	0.02	0.02
NOV 09...	0945	0.02	0.70	<0.015	0.50	0.19	1.2	0.89	0.06	<0.01	<0.01
DEC 13...	1105	<0.01	0.62	0.040	0.83	0.16	1.5	0.78	0.07	0.01	0.04
JAN 1995 19...	1120	<0.01	0.52	<0.015	0.22	0.13	0.74	0.65	0.04	<0.01	0.02
FEB 17...	1100	0.02	0.99	<0.015	0.19	0.16	1.2	1.2	0.03	0.03	0.02
MAR 16...	1020	<0.01	0.37	<0.015	0.30	0.16	0.67	0.53	0.02	0.02	0.01
APR 12...	1042	<0.01	0.56	<0.015	0.30	0.16	0.86	0.72	0.03	0.01	<0.01
MAY 09...	1045	0.01	0.65	<0.015	0.30	0.23	0.95	0.88	0.05	0.02	0.01
23...	1045	0.03	0.69	<0.015	0.30	0.14	0.99	0.83	0.03	<0.01	<0.01
JUN 08...	1145	0.03	0.84	0.080	0.40	0.39	1.2	1.2	0.07	0.06	0.04
22...	1208	0.02	0.85	0.070	0.50	0.41	1.3	1.3	0.07	0.05	0.01
JUL 19...	1030	<0.01	0.32	<0.015	1.3	0.23	1.6	0.55	0.16	0.08	0.06
AUG 15...	0840	<0.01	0.60	0.020	0.60	0.35	1.2	0.95	0.14	0.08	0.04
SEP 06...	1242	<0.01	0.49	0.030	0.90	0.27	1.4	0.76	0.10	0.03	0.02
26...	1153	<0.01	0.62	0.040	0.14	0.07	0.76	0.69	0.14	0.07	<0.01



PASSAIC RIVER BASIN

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01388600 POMPTON RIVER AT PACKANACK LAKE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE NEW JERSEY DEPARTMENT OF HEALTH,  
PUBLIC HEALTH, AND ENVIRONMENTAL LABORATORIES

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT 1994 25...	1040	0.026	0.04	<0.03
JAN 1995 19...	1120	0.006	<0.03	0.03
MAR 16...	1020	0.008	<0.03	<0.03
MAY 23...	1045	0.020	<0.03	<0.03
JUL 19...	1030	0.040	<0.03	<0.03

## PASSAIC RIVER BASIN

## 01388910 POMPTON RIVER AT MOUNTAIN VIEW, NJ

LOCATION.--Lat 40°54'52", long 74°16'15", Morris County, Hydrologic Unit 02030103, on right upstream wingwall of bridge on U.S. Route 202 in Mountain View, 0.2 mi downstream from Packanack Brook, and 1.5 mi upstream from confluence with Passaic River.

DRAINAGE AREA.--371 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 156.50 ft above sea level.

REMARKS.--Records good. Data is stage-only and is collected in cooperation with U.S. Army Corps of Engineers. Days of missing record are not estimated and are noted with dash lines (---). Stilling well was frozen Jan. 5-7, 10-12, and Feb. 5-16.

EXTREMES FOR CURRENT WATER YEAR.--Maximum gage height recorded, 6.19 ft, Mar. 10; minimum recorded, 1.25 ft, June 18.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 11.13 ft, Apr. 2, 1993; minimum recorded, 1.25 ft, June 18, 1995.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.00	1.87	1.78	1.49	3.64	3.42	2.63	2.16	3.00	2.94	4.04	3.92
2	2.00	1.97	1.93	1.76	3.42	3.10	3.05	2.63	2.94	2.87	4.01	3.82
3	1.97	1.85	1.79	1.66	3.10	2.68	3.09	3.04	2.88	2.77	3.82	3.66
4	1.85	1.75	1.67	1.64	2.68	2.38	3.04	2.77	2.89	2.77	3.66	3.51
5	1.75	1.69	1.65	1.63	3.41	2.38	---	---	---	2.84	3.51	3.33
6	1.69	1.65	1.68	1.62	3.55	3.41	---	---	---	---	3.33	3.16
7	1.65	1.61	1.69	1.62	3.54	3.35	3.84	---	---	---	3.16	3.02
8	1.61	1.59	1.77	1.63	3.38	3.14	3.92	3.84	---	---	4.08	2.94
9	1.62	1.58	1.66	1.61	3.14	2.84	3.86	---	---	---	6.03	4.08
10	1.63	1.59	1.97	1.66	3.10	2.71	---	---	---	---	6.19	5.88
11	1.60	1.34	2.00	1.89	3.56	3.10	---	---	---	---	5.88	5.28
12	1.65	1.45	1.89	1.76	3.61	3.54	---	3.07	---	---	5.28	4.95
13	1.77	1.57	1.76	1.67	3.55	3.22	3.07	2.98	---	---	4.95	4.68
14	1.59	1.54	1.67	1.62	3.22	2.97	3.15	2.98	---	---	4.68	4.50
15	1.59	1.57	1.85	1.62	2.97	2.71	3.30	3.15	---	---	4.50	4.30
16	1.57	1.55	1.69	1.59	2.71	2.46	3.56	3.29	---	2.83	4.30	4.05
17	1.55	1.31	1.59	1.56	2.46	2.40	3.69	3.56	2.83	2.53	4.05	3.79
18	1.53	1.30	1.60	1.56	2.41	2.39	3.72	3.64	2.55	2.52	3.81	3.50
19	1.55	1.52	1.61	1.58	2.48	2.35	3.64	3.47	2.58	2.50	3.50	3.23
20	1.73	1.55	1.59	1.58	2.48	2.40	5.19	3.41	2.64	2.56	3.23	3.09
21	1.66	1.56	3.01	1.57	2.42	2.36	5.90	5.19	2.78	2.63	3.14	3.06
22	1.56	1.48	3.52	3.01	2.37	2.32	5.99	5.74	2.82	2.78	3.20	3.14
23	1.74	1.47	3.26	2.76	2.32	2.25	5.74	5.13	2.80	2.75	3.18	3.08
24	1.81	1.67	2.76	2.24	2.46	2.24	5.13	4.70	2.93	2.75	3.08	2.97
25	1.67	1.45	2.24	1.98	2.58	2.46	4.70	4.36	2.97	2.89	2.99	2.89
26	1.62	1.35	2.11	1.94	2.57	2.47	4.36	4.01	2.91	2.73	2.89	2.76
27	1.62	1.60	1.94	1.79	2.48	2.38	4.01	3.73	2.77	2.70	2.77	2.66
28	1.64	1.33	4.03	1.89	2.42	2.35	3.74	3.48	3.92	2.70	2.66	2.55
29	1.58	1.33	4.15	4.03	2.41	2.28	3.48	---	---	---	2.55	2.49
30	1.46	1.41	4.04	3.62	2.36	2.18	---	---	---	---	2.49	2.44
31	1.52	1.41	---	---	2.18	2.16	---	3.00	---	---	2.44	2.24
MONTH	2.00	1.30	4.15	1.49	3.64	2.16	---	---	---	---	6.19	2.24

## PASSAIC RIVER BASIN

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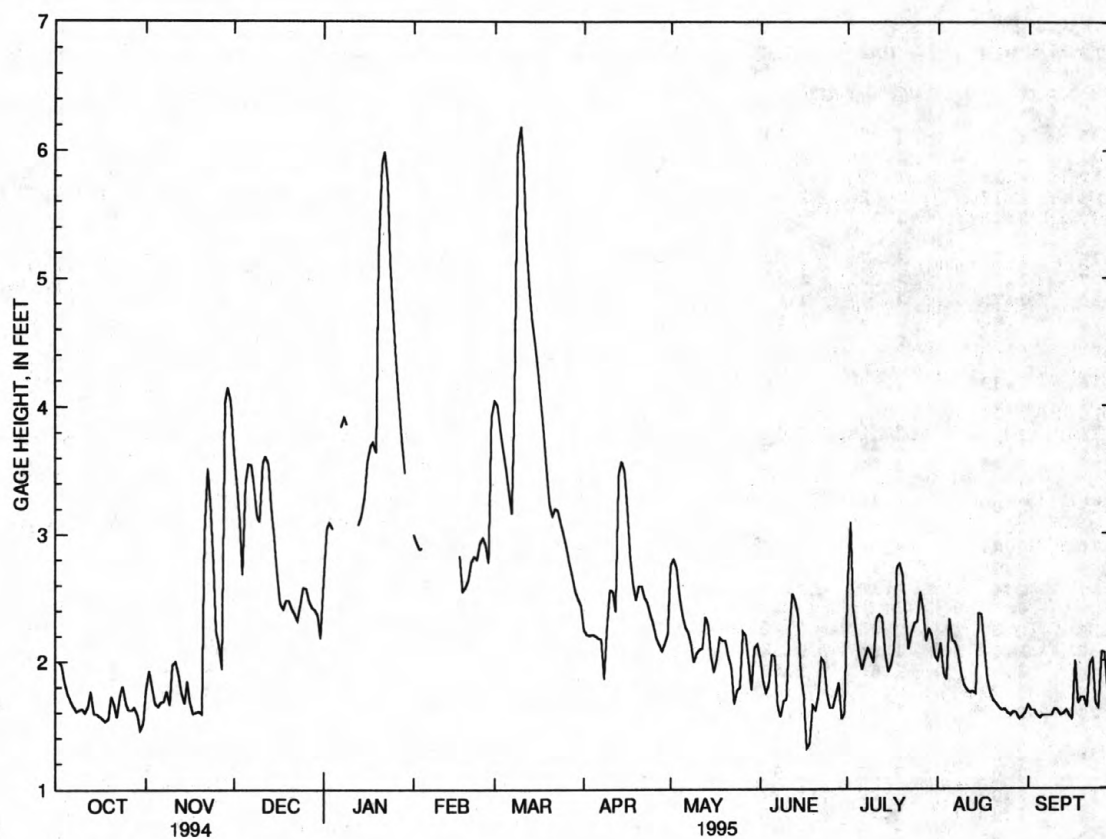
01388910 POMPTON RIVER AT MOUNTAIN VIEW, NJ--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.25	2.18	2.75	2.21	2.02	1.84	2.59	1.59	2.00	1.84	1.65	1.59
2	2.21	2.17	2.80	2.73	1.84	1.75	3.09	2.41	2.14	1.90	1.61	1.57
3	2.20	2.15	2.73	2.52	1.75	1.71	2.41	2.23	1.90	1.85	1.61	1.57
4	2.21	2.12	2.52	2.37	1.82	1.74	2.23	2.05	1.85	1.77	1.57	1.53
5	2.20	2.13	2.37	2.26	2.05	1.77	2.05	1.93	2.33	1.80	1.55	1.52
6	2.18	2.14	2.27	2.20	2.04	1.65	1.93	1.88	2.16	2.09	1.57	1.53
7	2.17	1.86	2.23	2.13	1.65	1.55	2.02	1.86	2.14	2.06	1.57	1.54
8	1.86	1.79	2.14	1.99	1.56	1.48	2.10	2.02	2.06	1.91	1.57	1.53
9	2.26	1.80	1.99	1.88	1.68	1.48	2.05	1.98	1.91	1.81	1.57	1.54
10	2.56	2.26	2.06	1.90	1.70	1.66	1.98	1.90	1.81	1.77	1.62	1.56
11	2.55	2.39	2.09	1.90	2.24	1.65	2.33	1.88	1.77	1.74	1.61	1.57
12	2.39	2.20	2.10	1.89	2.53	2.24	2.36	2.32	1.75	1.73	1.57	1.52
13	3.47	2.33	2.35	2.10	2.47	2.26	2.34	2.07	1.76	1.74	1.58	1.51
14	3.57	3.46	2.29	2.04	2.36	1.90	2.07	1.91	1.74	1.68	1.61	1.55
15	3.49	3.19	2.04	1.91	1.90	1.73	1.91	1.87	2.37	1.68	1.57	1.53
16	3.19	2.82	1.91	1.83	1.73	1.29	1.97	1.88	2.36	2.11	1.54	1.51
17	2.82	2.60	2.02	1.82	1.31	1.26	2.09	1.97	2.11	1.85	2.00	1.50
18	2.60	2.44	2.18	2.02	1.35	1.25	2.73	2.09	1.85	1.75	1.66	1.26
19	2.48	2.40	2.16	2.11	1.65	1.35	2.76	2.67	1.75	1.68	1.71	1.26
20	2.59	2.47	2.16	2.04	1.61	1.55	2.67	2.35	1.69	1.66	1.71	1.63
21	2.59	2.50	2.04	1.92	1.73	1.49	2.35	2.09	1.66	1.62	1.63	1.60
22	2.50	2.43	1.95	1.58	2.02	1.48	2.09	1.97	1.63	1.59	1.97	1.60
23	2.46	2.36	1.66	1.53	1.99	1.74	2.21	1.92	1.61	1.59	2.01	1.42
24	2.36	2.29	1.77	1.65	1.74	1.27	2.29	2.19	1.62	1.57	1.66	1.32
25	2.29	2.18	1.79	1.59	1.63	1.26	2.31	2.10	1.59	1.55	1.63	1.47
26	2.18	2.13	2.23	1.63	1.63	1.43	2.54	2.01	1.57	1.54	2.07	1.57
27	2.13	2.06	2.20	1.99	1.73	1.40	2.41	2.13	1.60	1.55	2.06	1.79
28	2.08	2.03	1.99	1.77	1.83	1.35	2.15	2.06	1.59	1.54	1.79	1.33
29	2.14	1.99	1.77	1.70	1.54	1.28	2.25	2.11	1.54	1.52	1.65	1.26
30	2.21	1.96	2.10	1.70	1.59	1.34	2.20	2.04	1.56	1.52	1.68	1.44
31	---	---	2.13	2.02	---	---	2.04	1.90	1.59	1.54	---	---
MONTH	3.57	1.79	2.80	1.53	2.53	1.25	3.09	1.59	2.37	1.52	2.07	1.26

## PASSAIC RIVER BASIN

01388910 POMPTON RIVER AT MOUNTAIN VIEW, NJ--Continued



01388910 POMPTON RIVER AT MOUNTAIN VIEW, MAXIMUM DAILY GAGE HEIGHT

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'47", long 74°16'10", Passaic County, Hydrologic Unit 02030103, on right bank, in Two Bridges and 400 ft downstream from the Pompton River.

DRAINAGE AREA.--734 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1987 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1989 to current year.

WATER TEMPERATURE: August 1989 to current year.

DISSOLVED OXYGEN: August 1989 to current year. Unpublished fragmentary water-quality records for the period March to July 1989 are available in the files of the district office.

INSTRUMENTATION.--Water-quality monitors since March 1989. Three water-quality monitors are at the site; each measures the characteristics of water pumped from a single intake. Looking downstream, the "Left Intake" is 68 ft from the left bank, the "Middle Intake" is at midstream, and the "Right Intake" is 74 ft from the right bank. The distances are approximate values for low water conditions.

REMARKS.--Interruptions in the daily record were due to malfunction of the pumps or instruments. Beginning October 1994, BOD results from 0 to 1.9 mg/L were reported as estimates (remark code of "E").

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,130 microsiemens from right intake, Jan.11, 1990; minimum, 123 microsiemens from left intake, Sept. 4, 1992.

WATER TEMPERATURE: Maximum, 30.5 °C from right, middle, and left intakes, July 9, 1993, from right and middle intakes, July 10, 1993, from right intake, July 11, 12, 1993; minimum, 0.0 °C from right, middle, and left intakes, on many days during winters.

DISSOLVED OXYGEN: Maximum recorded, 18.7 mg/L from left intake, June 30, 1993, but may have been higher at left intake during period of instrument malfunction, July 21-Aug. 10, 1993; minimum, 1.3 mg/L from right intake, May 29, 1991.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 986 microsiemens from right intake, Feb. 17; minimum, 200 microsiemens from left intake, Jan. 22.

WATER TEMPERATURE: Maximum, 30.0 °C from right intake, Aug. 4; minimum, 0.0°C from right intake, Jan. 6, from right and left intakes, Feb. 6, 7.

DISSOLVED OXYGEN: Maximum, 18.3 mg/L from right intake, Sept. 7; minimum, 3.6 mg/L from right intake, July 25.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)
OCT 1994											
25...	1205	152	671	7.9	14.5	755	7.2	71	E1.1	170	42
NOV											
08...	1205	191	651	7.8	13.0	760	8.6	82	2.8	170	42
DEC											
13...	1210	1180	292	7.0	3.5	770	12.0	89	E1.4	77	20
JAN 1995											
20...	1050	1460	339	7.1	6.5	745	11.2	93	--	79	21
FEB											
17...	1000	560	625	7.5	2.5	768	13.0	95	E1.4	120	32
MAR											
17...	1130	1440	321	7.3	11.0	755	10.0	92	2.1	77	20
APR											
12...	1140	430	423	7.6	10.5	765	8.6	77	3.6	100	26
MAY											
09...	1325	288	509	7.8	17.0	760	9.9	103	2.5	130	33
23...	1210	196	473	7.6	20.5	765	6.9	76	3.6	120	31
JUN											
08...	0910	165	567	7.6	24.5	750	6.4	78	2.8	140	36
21...	1215	230	612	8.3	26.0	760	10.3	128	4.5	150	37
JUL											
19...	1150	722	298	7.2	25.0	756	6.0	73	2.2	75	20
AUG											
14...	1356	209	561	8.6	26.5	757	11.7	147	4.2	140	36
SEP											
07...	0935	E120	640	8.8	23.0	758	13.3	156	5.6	150	39
26...	1335	261	548	7.8	17.0	756	8.1	85	2.2	130	32



## PASSAIC RIVER BASIN

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1994											
25...	15	62	7.6	94	50	100	0.1	15	376	383	0.03
NOV											
08...	15	60	7.7	100	54	92	0.1	16	380	378	0.03
DEC											
13...	6.5	23	2.1	46	19	40	<0.1	9.9	170	155	<0.01
JAN 1995											
20...	6.5	30	2.1	43	18	56	<0.1	9.4	190	176	<0.01
FEB											
17...	10	63	3.8	67	29	120	0.1	11	332	326	0.04
MAR											
17...	6.5	30	2.0	42	19	53	<0.1	8.7	176	169	<0.01
APR											
12...	8.6	38	2.9	49	27	65	0.1	8.9	234	218	0.03
MAY											
09...	12	47	4.2	78	33	78	0.1	10	292	282	<0.01
23...	10	42	3.8	74	28	72	0.1	12	270	258	0.05
JUN											
08...	13	53	5.0	86	33	84	0.2	15	338	313	0.07
21...	13	56	5.3	88	45	87	0.1	15	344	334	0.05
JUL											
19...	6.1	25	3.1	51	17	39	0.1	9.0	170	159	0.03
AUG											
14...	12	51	5.4	82	42	80	0.1	12	326	307	<0.01
SEP											
07...	13	61	4.8	89	53	91	0.2	9.7	372	350	0.02
26...	11	54	5.7	72	43	80	<0.1	12	308	306	<0.01
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
OCT 1994											
25...	7.00	0.080	0.80	0.49	7.8	7.5	1.30	1.30	1.20	4.9	0.7
NOV											
08...	6.30	0.090	0.40	0.41	6.7	6.7	1.00	1.00	1.00	4.5	0.9
DEC											
13...	1.40	0.080	0.40	0.32	1.8	1.7	0.19	0.15	0.18	5.4	0.6
JAN 1995											
20...	1.40	0.070	0.50	0.24	1.9	1.6	0.19	0.13	0.16	3.9	0.6
FEB											
17...	3.60	0.110	0.40	0.36	4.0	4.0	0.53	0.44	0.43	3.6	0.3
MAR											
17...	0.98	0.030	0.50	0.33	1.5	1.3	0.22	0.15	0.13	4.6	0.9
APR											
12...	2.60	0.200	0.70	0.51	3.3	3.1	0.39	0.29	--	5.3	1.0
MAY											
09...	3.60	0.100	0.70	0.51	4.3	4.1	0.64	0.48	0.48	4.3	1.1
23...	3.10	0.160	0.70	0.53	3.8	3.6	0.53	0.34	0.35	5.7	1.0
JUN											
08...	4.60	0.070	0.90	0.59	5.5	5.2	0.70	0.55	0.57	5.9	1.1
21...	4.80	<0.015	0.90	0.47	5.7	5.3	0.78	0.67	0.67	4.8	1.9
JUL											
19...	1.80	0.150	0.70	0.36	2.5	2.2	0.43	0.31	0.29	5.9	1.7
AUG											
14...	4.30	0.040	1.0	0.50	5.3	4.8	0.83	0.72	--	4.5	3.0
SEP											
07...	5.10	0.030	1.2	0.42	6.3	5.5	1.10	0.89	0.90	4.0	2.7
26...	5.10	0.060	0.90	0.87	6.0	6.0	0.95	0.87	0.87	4.4	0.7

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	435	420	429	684	441	604	276	260	267	314	290	304
2	431	410	421	635	440	521	288	264	273	298	282	292
3	436	417	428	620	534	592	315	287	299	306	282	293
4	485	428	449	628	599	613	353	314	328	310	298	305
5	566	465	514	635	610	619	353	246	294	310	298	305
6	612	550	579	655	626	645	265	247	257	310	294	303
7	682	601	639	669	623	651	278	259	269	424	290	360
8	674	633	652	693	629	660	299	276	286	322	278	285
9	674	615	654	683	634	658	322	296	311	294	286	288
10	681	623	654	674	562	640	323	291	311	302	282	291
11	---	---	---	685	535	620	291	245	262	302	290	295
12	---	---	---	539	511	521	275	255	265	400	286	330
13	665	425	509	596	518	566	275	263	269	419	328	393
14	715	620	670	606	556	578	286	271	278	328	303	320
15	714	661	687	638	452	545	310	286	297	322	311	316
16	692	636	673	641	596	620	325	298	308	312	300	307
17	709	464	625	643	618	633	329	302	317	301	290	293
18	625	427	453	642	624	636	365	318	334	295	287	291
19	454	422	437	661	606	633	376	294	330	295	280	286
20	657	425	496	664	619	647	306	286	297	282	243	270
21	723	633	679	662	369	621	314	294	304	269	233	252
22	765	722	743	405	305	360	318	298	307	233	200	210
23	736	501	607	403	381	391	322	298	311	208	201	204
24	735	486	590	388	361	376	325	306	315	218	207	213
25	735	595	680	416	356	383	314	302	307	226	217	222
26	623	557	586	416	340	356	322	302	312	254	224	242
27	611	561	582	539	400	487	325	306	316	258	251	256
28	657	562	614	535	257	318	329	314	320	262	256	258
29	687	573	652	271	263	267	325	310	318	---	---	---
30	673	631	658	272	258	263	329	310	319	---	---	---
31	667	628	641	---	---	---	325	294	307	277	269	274
MONTH	765	410	586	693	257	534	376	245	300	424	200	285
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	282	270	277	485	356	385	361	344	352	328	292	307
2	284	272	279	373	358	368	352	333	344	329	301	312
3	287	278	283	375	362	369	350	333	342	324	302	314
4	312	281	288	374	363	370	343	334	338	331	315	323
5	313	285	294	368	351	358	353	334	344	339	324	332
6	310	285	299	351	330	340	354	329	343	337	326	333
7	307	288	297	334	317	325	567	324	414	338	323	331
8	310	292	303	321	291	312	587	561	571	369	332	343
9	---	---	---	291	235	251	590	552	573	527	369	487
10	---	---	---	243	208	218	552	318	404	460	346	384
11	---	---	---	220	208	215	440	380	414	590	369	504
12	---	---	---	223	212	217	440	412	425	590	535	563
13	---	---	---	229	222	224	434	295	330	567	410	527
14	---	---	---	236	228	233	338	323	328	471	417	444
15	---	---	---	246	228	238	323	306	313	462	449	455
16	---	---	---	253	243	248	312	299	303	489	459	471
17	443	370	405	268	250	259	305	298	302	501	464	479
18	374	346	359	267	257	262	310	294	304	513	474	499
19	351	337	343	273	264	268	311	300	307	474	403	437
20	358	333	346	277	268	273	303	290	295	467	438	453
21	373	341	350	283	272	278	298	284	292	468	448	456
22	367	347	356	289	276	283	306	292	298	481	456	464
23	367	349	357	292	279	285	304	295	299	490	462	475
24	361	347	353	294	284	290	308	293	301	512	490	501
25	359	339	351	294	276	286	318	299	310	542	512	531
26	368	350	356	300	278	288	328	310	319	576	521	556
27	385	358	369	307	297	302	351	321	333	575	396	445
28	485	368	419	318	302	311	350	324	336	486	432	464
29	---	---	---	329	316	322	369	315	335	490	471	478
30	---	---	---	333	320	328	402	328	359	532	490	515
31	---	---	---	351	326	335	---	---	---	532	377	449
MONTH	---	---	---	485	208	292	590	284	351	590	292	440

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	434	370	390	569	401	480	429	405	414	555	405	476
2	465	434	454	401	231	273	441	394	405	536	414	492
3	509	465	495	312	270	297	406	332	376	543	404	467
4	541	499	526	327	308	316	338	301	324	543	398	438
5	559	372	445	341	319	331	344	310	331	634	406	508
6	556	366	452	354	333	345	343	294	317	630	457	578
7	588	533	566	376	353	364	364	343	354	612	472	560
8	609	558	585	391	364	377	388	354	369	565	482	517
9	618	585	606	392	368	377	405	384	394	529	455	507
10	625	579	604	432	367	389	416	390	405	569	425	490
11	617	577	608	460	361	397	422	394	407	634	437	564
12	577	316	507	409	357	377	412	392	403	709	479	615
13	340	262	292	395	361	375	437	391	408	719	655	682
14	333	256	285	412	374	395	418	385	405	702	584	659
15	429	333	373	457	389	424	412	352	374	744	635	702
16	469	429	452	486	401	439	389	354	372	701	601	669
17	504	469	491	507	412	474	398	374	385	850	434	686
18	549	491	529	474	328	376	405	379	393	827	515	699
19	597	530	564	335	316	323	411	384	399	564	483	539
20	626	560	590	382	313	344	413	390	404	509	471	492
21	641	600	625	407	382	396	417	387	404	561	507	527
22	642	495	581	420	407	414	430	395	410	683	510	585
23	495	312	377	449	400	422	501	402	433	696	447	638
24	327	312	320	470	387	433	458	396	421	615	414	468
25	379	325	340	396	369	381	441	397	413	574	436	512
26	437	379	414	397	338	382	560	394	441	609	539	567
27	497	437	477	344	273	315	558	402	462	609	311	390
28	521	481	509	378	335	354	488	393	439	367	284	326
29	528	495	517	404	378	390	495	389	448	400	367	379
30	574	495	546	406	389	397	571	397	472	434	400	421
31	---	---	---	412	398	403	612	409	521	---	---	---
MONTH	642	256	484	569	231	379	612	294	403	850	284	538

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	522	489	502	687	602	640	305	287	301	471	447	459
2	566	511	540	684	601	651	321	302	313	490	380	438
3	568	520	550	659	629	642	345	315	331	380	349	358
4	539	505	517	629	583	601	389	344	359	349	337	341
5	567	533	552	620	591	603	399	387	392	361	337	347
6	609	543	577	640	606	628	398	302	337	392	361	371
7	647	599	615	661	608	637	310	294	301	545	357	407
8	649	587	617	670	615	644	312	298	303	545	353	435
9	637	588	619	662	613	639	330	312	321	353	329	340
10	659	612	648	657	624	640	353	328	342	337	325	332
11	---	---	---	667	521	603	363	308	342	368	337	353
12	---	---	---	526	501	510	310	292	302	394	366	378
13	693	627	661	576	512	556	302	292	296	555	391	444
14	708	675	693	592	543	564	314	294	305	609	522	569
15	731	682	708	622	572	600	349	314	331	531	500	518
16	725	692	711	625	584	606	376	341	356	516	454	478
17	724	639	699	625	601	615	400	373	381	454	423	435
18	702	450	502	628	612	621	427	392	403	424	401	409
19	665	456	546	635	587	613	431	408	416	402	385	395
20	699	660	673	645	606	632	427	412	418	385	247	321
21	727	675	713	660	379	615	427	400	415	268	230	250
22	731	713	722	560	308	414	443	416	431	230	203	213
23	719	646	675	426	349	395	471	439	455	271	212	241
24	712	654	678	423	353	375	471	447	460	295	263	284
25	712	576	657	476	423	455	478	455	466	313	294	303
26	611	568	593	492	476	487	455	396	423	326	312	320
27	667	611	647	530	478	511	400	384	389	339	324	331
28	660	593	642	524	369	442	396	384	390	350	333	341
29	673	626	656	369	252	292	427	396	408	345	334	339
30	670	638	659	287	248	271	439	420	425	354	334	345
31	675	618	649	---	---	---	451	435	443	364	340	352
MONTH	731	450	628	687	248	550	478	287	373	609	203	369

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	375	353	365	809	521	657	543	499	513	594	553	573
2	391	346	369	595	479	510	554	523	533	588	448	480
3	412	387	398	482	461	473	564	539	552	452	419	429
4	406	348	377	467	441	453	555	531	540	459	423	439
5	385	311	337	446	435	439	559	502	525	492	459	476
6	448	382	427	452	436	442	536	502	521	507	482	490
7	524	434	476	452	442	446	572	521	557	512	498	503
8	523	460	497	443	341	433	604	569	579	534	512	528
9	536	451	495	341	241	260	598	563	581	547	527	540
10	474	437	459	248	219	229	588	456	557	570	540	561
11	474	446	461	283	232	266	456	398	435	592	564	579
12	517	460	495	289	282	286	448	416	428	592	536	564
13	541	478	513	299	289	294	437	363	416	571	411	528
14	570	496	530	309	299	305	368	330	352	473	419	447
15	570	500	540	321	309	316	360	344	351	464	451	458
16	604	482	542	338	321	331	374	339	354	491	461	473
17	982	604	760	355	336	347	396	371	382	504	467	482
18	974	828	866	395	355	378	432	396	414	515	476	501
19	848	725	807	413	384	396	448	428	436	476	405	439
20	725	642	698	413	399	404	471	444	456	469	441	455
21	642	560	601	411	395	402	476	459	468	470	450	458
22	563	531	547	424	401	416	484	463	472	483	459	467
23	565	527	538	428	402	414	505	484	493	493	465	478
24	527	499	508	429	415	422	509	487	501	516	493	504
25	533	497	514	429	401	417	523	507	518	546	516	534
26	517	469	480	438	418	429	536	523	530	577	524	557
27	488	452	462	451	433	443	553	518	535	577	398	447
28	532	488	505	468	445	454	572	528	555	488	437	467
29	---	---	---	475	453	463	578	535	557	493	474	480
30	---	---	---	501	472	484	582	543	568	535	493	518
31	---	---	---	532	480	500	---	---	---	534	379	450
MONTH	982	311	520	809	219	404	604	330	489	594	379	494

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	436	372	392	605	410	580	497	418	460	714	627	674
2	468	436	456	495	274	337	529	408	477	745	665	712
3	511	468	497	589	495	553	583	527	547	801	678	736
4	542	500	527	552	543	549	591	544	568	787	694	731
5	578	519	553	550	487	517	571	315	378	738	662	714
6	556	519	541	511	475	488	647	394	511	759	690	728
7	583	532	563	555	486	514	665	580	634	729	682	706
8	606	554	582	600	550	577	580	506	528	752	678	724
9	617	584	604	593	466	510	548	486	518	783	719	748
10	626	577	604	573	480	542	551	511	531	794	731	758
11	618	567	609	557	507	536	559	530	546	811	762	785
12	583	316	507	526	357	414	581	538	559	801	748	782
13	342	263	293	427	334	376	634	557	594	817	762	790
14	334	257	287	431	372	413	677	599	654	807	765	777
15	431	334	374	483	431	465	666	513	607	831	763	801
16	469	431	453	570	473	529	651	392	469	804	755	783
17	508	469	493	586	525	561	398	378	388	852	669	776
18	551	493	531	525	372	478	491	392	455	827	497	688
19	598	532	567	372	246	284	567	491	531	571	503	546
20	628	564	593	359	236	298	622	542	587	618	541	584
21	644	607	628	405	359	384	676	530	628	641	542	593
22	646	496	585	426	405	418	651	593	624	---	---	---
23	496	313	380	473	426	452	712	634	665	---	---	---
24	332	315	323	514	380	457	688	621	655	---	---	---
25	381	327	343	413	352	374	718	630	671	---	---	---
26	437	381	417	433	378	407	718	646	682	---	---	---
27	500	437	480	486	427	462	717	662	695	---	---	---
28	524	483	513	488	424	448	707	662	686	---	---	---
29	535	500	522	512	462	500	742	667	696	---	---	---
30	580	501	550	496	345	395	760	654	708	---	---	---
31	---	---	---	448	408	432	744	651	706	---	---	---
MONTH	646	257	492	605	236	460	760	315	579	---	---	---



## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	554	521	537	688	647	668	302	284	298	471	447	462
2	607	543	572	679	634	655	318	300	311	486	376	436
3	614	555	593	655	626	639	343	312	328	380	345	356
4	585	533	555	626	580	598	386	342	356	349	337	339
5	625	582	598	617	589	600	397	384	389	357	333	344
6	646	596	619	636	603	625	396	299	335	392	357	368
7	691	646	662	650	604	633	307	291	298	557	373	413
8	691	634	661	666	612	641	310	296	300	557	353	436
9	679	642	665	659	611	637	328	310	319	353	325	338
10	703	656	693	654	625	638	351	326	340	337	325	330
11	703	622	684	664	518	600	361	306	340	378	333	358
12	727	693	714	528	498	509	308	290	300	410	377	390
13	719	677	701	577	509	554	298	289	293	570	402	458
14	713	680	701	588	540	563	318	294	303	629	537	588
15	737	699	719	620	586	600	345	310	329	549	515	535
16	721	695	710	621	581	603	380	341	355	531	475	498
17	727	695	712	622	599	614	396	369	382	478	443	455
18	737	704	723	630	609	619	424	388	403	444	420	431
19	744	702	722	632	584	610	435	404	416	432	409	419
20	726	691	712	642	602	628	427	408	417	409	373	395
21	729	690	712	653	561	634	431	396	414	389	312	347
22	727	709	718	662	347	577	451	412	430	337	300	308
23	716	639	670	424	338	392	467	439	454	307	300	304
24	708	650	674	421	350	373	471	447	458	314	305	310
25	708	574	655	473	421	453	475	451	464	326	314	319
26	608	565	589	494	473	489	451	392	421	340	326	333
27	664	608	645	527	475	509	396	380	387	355	337	346
28	656	631	641	522	422	493	392	380	388	376	351	363
29	669	639	656	422	247	300	424	392	406	395	367	375
30	667	635	656	284	244	268	435	416	423	417	384	397
31	673	635	660	---	---	---	451	435	442	425	398	413
MONTH	744	521	662	688	244	557	475	284	371	629	300	392
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	437	417	428	828	530	668	544	504	515	596	558	578
2	469	422	441	600	484	516	547	525	534	591	450	482
3	472	450	463	484	468	479	561	542	554	453	421	431
4	471	446	457	468	447	459	558	534	543	461	425	441
5	475	441	455	447	442	444	562	505	527	494	461	477
6	533	442	468	468	442	452	539	505	523	509	484	492
7	584	533	564	464	447	454	572	524	559	514	500	505
8	611	554	587	456	429	444	592	569	579	537	514	530
9	595	566	577	429	304	379	609	563	584	550	530	542
10	573	555	563	322	297	308	590	460	560	576	542	564
11	576	549	566	297	292	295	460	399	436	597	567	582
12	583	560	572	297	292	295	450	417	430	598	539	570
13	604	567	586	307	297	302	438	365	418	582	413	533
14	638	604	628	317	307	312	368	331	353	485	421	453
15	644	622	633	329	317	324	377	346	355	476	453	462
16	630	599	612	344	329	338	382	341	358	502	464	477
17	986	612	765	363	344	354	404	373	385	506	469	486
18	977	830	869	403	362	386	438	398	417	518	479	504
19	853	730	812	430	392	408	457	430	440	479	407	440
20	731	647	703	430	416	422	477	446	460	472	443	458
21	647	567	607	430	414	420	479	463	472	473	452	461
22	568	537	553	434	412	425	488	466	476	485	461	469
23	570	534	543	436	407	421	508	487	496	494	468	480
24	534	505	515	436	423	430	512	490	504	517	494	506
25	538	502	519	441	427	434	528	510	520	547	517	537
26	521	476	485	448	429	440	549	527	534	580	525	559
27	495	458	469	457	442	452	561	521	540	579	400	449
28	546	495	514	474	452	462	577	529	560	491	436	468
29	---	---	---	480	459	469	599	548	568	494	475	482
30	---	---	---	508	478	492	584	545	572	537	494	519
31	---	---	---	522	488	506	---	---	---	537	381	453
MONTH	986	417	570	828	292	419	609	331	492	598	381	496



## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	438	374	394	610	563	592	496	418	461	798	776	782
2	469	438	458	629	371	574	522	478	499	840	788	812
3	514	469	499	624	552	587	592	522	555	847	827	836
4	545	503	530	555	551	553	603	571	589	851	831	841
5	581	522	556	552	490	520	614	496	596	847	816	832
6	564	522	546	514	477	491	658	600	625	840	772	821
7	589	537	570	560	489	518	669	587	640	828	794	811
8	612	559	586	603	552	580	587	510	533	854	791	809
9	622	588	610	594	467	511	555	490	530	866	808	833
10	631	582	610	574	482	544	580	538	557	838	816	826
11	623	558	614	559	509	538	590	568	579	846	827	838
12	580	321	508	528	359	416	619	581	604	846	821	833
13	343	264	295	428	335	377	660	619	644	863	825	844
14	336	258	288	434	374	415	700	660	678	850	821	832
15	432	336	376	489	434	469	700	577	659	850	825	840
16	472	432	457	562	476	529	660	397	474	835	818	826
17	526	472	498	584	523	559	397	381	389	854	767	804
18	564	496	535	523	376	478	514	394	462	829	518	709
19	604	535	569	376	247	286	599	514	550	570	518	553
20	633	568	597	361	237	298	650	599	623	612	554	592
21	646	611	631	407	361	386	692	650	680	635	561	604
22	647	501	590	429	407	419	715	676	699	695	590	662
23	501	315	387	472	429	454	755	712	735	698	625	673
24	343	316	328	515	382	459	744	713	733	625	417	474
25	381	328	345	413	354	375	753	710	728	576	439	514
26	444	381	419	439	397	416	784	748	762	610	543	565
27	501	437	481	491	432	465	778	748	766	610	316	396
28	535	485	517	495	426	450	789	759	773	367	287	328
29	550	501	530	514	458	501	800	772	787	402	367	381
30	592	501	556	497	346	396	841	782	804	436	402	424
31	---	---	---	443	409	432	844	788	809	---	---	---
MONTH	647	258	496	629	237	471	844	381	630	866	287	696

WATER TEMPERATURE (DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	16.5	15.5	16.0	14.0	12.0	13.0	6.0	5.0	5.5	3.5	2.5	3.0
2	16.0	15.0	15.5	13.5	12.5	13.0	5.5	4.5	5.0	4.5	3.5	4.0
3	16.0	14.5	15.0	13.5	12.0	12.5	6.0	5.0	5.5	3.5	2.0	2.5
4	16.0	14.0	14.5	13.5	12.5	13.0	7.0	5.5	6.0	2.5	1.5	2.0
5	15.0	13.5	14.0	13.5	12.5	13.0	8.0	7.0	7.5	1.5	1.0	1.0
6	14.5	13.0	13.5	14.0	13.0	13.5	8.0	7.5	7.5	1.5	.5	1.0
7	14.5	12.5	13.5	14.0	12.5	13.0	8.5	8.0	8.0	1.5	.5	1.0
8	14.5	13.0	14.0	13.0	12.0	12.5	8.5	6.5	7.5	2.0	1.5	1.5
9	15.0	14.0	14.5	12.5	11.5	12.0	6.5	5.5	5.5	2.0	1.0	1.5
10	16.0	14.5	15.0	12.5	11.5	11.5	6.0	5.5	5.5	2.0	1.0	1.5
11	---	---	---	11.5	10.0	11.0	6.0	5.5	6.0	2.0	1.5	1.5
12	---	---	---	10.0	8.5	9.5	5.5	3.5	4.0	2.5	1.5	2.0
13	14.0	12.0	13.0	9.0	8.0	8.5	3.5	2.5	3.0	3.5	2.0	3.0
14	13.0	12.0	12.5	9.5	8.0	9.0	3.5	3.0	3.0	4.5	3.5	4.0
15	14.0	12.0	13.0	10.5	9.0	10.0	4.5	3.5	4.0	5.5	4.5	5.0
16	14.0	12.0	12.5	10.5	10.0	10.5	4.0	3.5	4.0	6.5	5.5	6.0
17	14.0	11.5	12.5	10.5	10.0	10.5	4.5	4.0	4.0	6.5	6.0	6.5
18	13.5	12.0	13.0	10.5	10.5	10.5	5.5	4.5	5.0	6.5	6.0	6.5
19	14.5	13.0	14.0	11.5	10.5	10.5	5.0	4.5	4.5	6.5	6.0	6.0
20	15.0	14.0	14.5	11.0	10.0	10.5	4.5	3.5	4.0	6.0	6.0	6.0
21	16.0	14.0	15.0	11.0	10.0	10.5	4.5	3.5	4.0	6.0	5.5	6.0
22	16.0	14.5	15.0	10.5	9.5	10.0	4.5	3.5	4.0	5.5	5.0	5.0
23	15.0	14.5	14.5	9.5	7.5	8.5	4.5	4.0	4.5	5.0	4.0	4.5
24	15.0	14.0	14.5	7.5	6.0	6.5	5.5	4.5	5.0	4.5	4.0	4.0
25	14.5	13.0	14.0	6.5	5.5	6.0	6.5	5.5	6.0	4.0	3.5	4.0
26	13.0	12.0	12.5	6.0	5.0	5.5	6.0	5.5	6.0	4.0	3.5	3.5
27	12.5	11.5	12.0	5.0	4.0	4.5	5.5	4.5	5.0	3.5	3.0	3.0
28	12.0	10.5	11.0	6.0	4.5	5.5	5.0	4.5	4.5	3.0	2.0	2.5
29	12.0	10.0	11.0	6.0	5.5	6.0	5.0	4.0	4.5	---	---	---
30	12.0	10.0	11.0	6.0	5.5	6.0	4.0	2.5	3.0	---	---	---
31	12.5	10.5	11.5	---	---	---	2.5	2.0	2.5	3.0	2.0	2.5
MONTH	16.5	10.0	13.5	14.0	4.0	10.0	8.5	2.0	5.0	6.5	.5	3.5

## PASSAIC RIVER BASIN

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	2.5	3.0	3.5	3.0	3.0	11.0	9.5	10.0	14.5	13.0	14.0
2	3.5	3.0	3.0	4.0	3.0	3.5	10.0	9.0	10.0	14.5	13.5	14.0
3	3.0	2.0	2.5	4.0	3.0	3.5	10.0	8.5	9.5	14.5	12.5	13.5
4	2.5	.5	1.0	4.0	3.5	4.0	10.5	9.0	10.0	15.0	14.0	14.5
5	1.5	.5	1.0	5.0	3.5	4.0	9.0	7.5	8.5	15.0	14.0	14.5
6	1.0	.0	.5	6.0	5.0	5.5	8.5	7.5	8.0	15.5	13.5	14.5
7	1.0	.0	.5	6.5	5.5	6.0	10.5	8.0	9.0	15.5	14.0	15.0
8	1.0	.5	.5	7.5	6.0	6.5	10.0	9.5	9.5	15.5	14.0	14.5
9	---	---	---	7.0	4.0	5.0	11.0	9.5	10.0	17.0	14.5	15.5
10	---	---	---	4.5	3.0	3.5	11.0	10.0	10.5	16.0	14.5	15.5
11	---	---	---	4.0	3.0	3.5	11.5	10.0	11.0	15.0	14.0	14.5
12	---	---	---	5.0	3.5	4.5	11.5	10.5	10.5	14.0	14.0	14.0
13	---	---	---	7.0	5.0	5.5	11.0	10.0	10.5	16.0	14.0	15.0
14	---	---	---	8.0	6.5	7.0	11.0	10.0	10.5	16.0	15.0	15.5
15	---	---	---	9.0	7.5	8.0	11.5	9.5	10.5	16.0	15.5	16.0
16	---	---	---	10.0	9.0	9.5	12.0	10.0	11.0	17.5	15.5	16.5
17	3.5	2.5	3.0	11.0	9.5	10.0	12.5	10.5	11.5	17.0	16.5	17.0
18	3.5	3.0	3.5	10.5	9.5	10.0	13.0	11.5	12.5	17.0	16.5	17.0
19	3.5	3.0	3.5	10.5	9.5	10.0	13.5	12.5	13.0	17.0	16.5	16.5
20	4.5	3.5	4.0	10.0	9.0	9.5	15.5	13.0	14.0	17.0	15.5	16.5
21	4.5	4.0	4.5	10.5	10.0	10.0	15.5	14.5	14.5	18.0	16.5	17.0
22	4.5	3.5	4.0	10.0	9.0	9.5	15.0	14.0	14.5	19.5	17.5	18.5
23	4.5	4.0	4.0	9.0	8.5	9.0	15.0	13.5	14.5	20.5	18.5	19.5
24	5.0	4.0	4.5	9.0	8.0	8.5	15.5	13.5	14.5	21.0	19.5	20.0
25	5.0	3.5	4.0	8.5	7.0	7.5	16.0	14.0	15.0	21.5	20.5	20.5
26	3.5	3.0	3.5	9.0	7.5	8.5	16.0	15.0	15.5	20.5	18.5	19.5
27	3.0	2.5	2.5	10.0	8.0	9.0	16.5	15.0	16.0	18.5	17.0	18.0
28	3.0	2.5	2.5	10.5	8.5	9.5	17.5	16.0	17.0	18.5	18.0	18.0
29	---	---	---	10.5	9.0	10.0	17.0	16.0	16.5	19.0	18.0	18.5
30	---	---	---	10.5	9.5	10.0	16.0	14.0	15.5	18.5	18.0	18.5
31	---	---	---	10.0	9.0	9.5	---	---	---	20.0	18.0	19.0
MONTH	---	---	---	11.0	3.0	7.0	17.5	7.5	12.0	21.5	12.5	16.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	21.0	19.0	20.5	23.5	21.5	22.5	28.0	26.0	27.5	25.5	23.0	24.0
2	21.5	21.0	21.5	23.0	21.5	22.0	29.0	26.5	28.0	24.5	23.0	23.5
3	23.0	21.5	22.0	23.0	21.0	22.0	28.5	27.0	28.0	24.5	22.0	23.0
4	23.5	22.0	22.5	23.5	22.0	23.0	29.0	27.5	28.0	24.5	21.5	22.5
5	23.0	22.0	22.5	24.0	22.0	23.0	28.5	26.5	27.5	24.0	22.0	22.5
6	24.0	21.0	22.5	24.0	22.5	23.0	26.5	25.0	26.0	24.5	22.0	23.0
7	25.0	22.5	23.5	23.5	22.5	23.0	25.0	24.0	24.5	24.5	22.5	23.5
8	25.5	23.0	24.0	24.0	22.0	23.0	25.0	23.0	24.0	24.0	23.0	23.5
9	25.5	23.0	24.0	23.5	22.0	22.5	24.5	23.0	24.0	23.0	22.5	22.5
10	23.5	22.0	23.0	23.5	22.0	23.0	24.5	23.0	24.0	23.5	21.0	22.0
11	23.0	21.5	22.0	24.0	22.5	23.0	25.0	23.5	24.5	22.0	20.0	21.0
12	21.5	20.0	21.0	24.0	22.5	23.5	26.0	24.5	25.0	21.0	19.0	20.0
13	20.0	19.5	20.0	25.0	23.5	24.0	27.0	24.5	26.0	20.5	19.5	20.0
14	19.5	19.0	19.0	26.5	24.5	25.5	26.5	24.5	25.5	22.0	20.0	21.0
15	20.5	18.5	19.5	29.0	26.5	27.5	25.5	24.5	25.0	22.0	20.0	21.0
16	22.0	19.5	21.0	29.0	27.5	28.0	26.5	24.5	25.5	21.0	20.0	20.5
17	24.5	20.5	22.0	27.5	26.5	27.0	27.5	25.5	26.0	20.5	19.5	20.0
18	25.5	21.5	23.5	26.5	25.5	26.0	27.5	25.5	26.5	20.0	18.5	19.0
19	26.0	23.0	24.5	26.5	25.0	25.5	27.5	25.5	26.5	20.0	18.0	19.0
20	27.0	24.5	25.5	26.5	24.5	25.5	27.0	24.5	25.5	20.0	18.5	19.0
21	26.0	24.0	25.5	26.0	25.0	25.5	26.0	23.5	24.5	20.0	19.0	19.5
22	24.0	20.5	22.5	26.5	25.5	26.0	25.5	24.0	24.5	20.0	19.0	19.5
23	21.0	19.5	20.5	26.5	25.5	26.0	25.5	23.0	24.5	19.5	18.5	19.0
24	20.5	20.0	20.5	27.0	25.5	26.0	25.5	23.0	24.0	18.5	17.5	18.0
25	22.0	20.0	21.0	27.5	26.0	27.0	24.5	22.5	23.5	17.5	17.0	17.0
26	23.0	22.0	22.5	28.0	26.5	27.0	24.5	22.0	23.0	17.0	16.5	17.0
27	22.5	21.0	22.0	27.5	25.5	26.5	25.0	23.0	23.5	17.5	16.5	17.0
28	22.0	20.5	21.0	28.0	26.5	27.0	24.5	23.0	23.5	17.5	16.5	17.0
29	23.5	20.0	21.0	28.0	26.5	27.5	25.0	22.0	23.5	17.5	16.0	17.0
30	23.5	20.5	22.0	29.0	27.0	28.0	25.0	22.5	23.5	17.5	15.5	16.5
31	---	---	---	29.0	26.5	27.5	24.5	22.0	23.0	---	---	---
MONTH	27.0	18.5	22.0	29.0	21.0	25.0	29.0	22.0	25.0	25.5	15.5	20.5

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.5	15.5	16.0	13.5	12.0	13.0	6.5	5.5	6.0	3.5	2.0	2.5
2	16.0	14.5	15.0	13.5	12.5	13.0	5.5	5.0	5.5	4.5	3.5	4.5
3	15.5	14.0	14.5	13.5	12.5	13.0	6.0	5.0	5.5	4.0	2.5	3.0
4	15.0	13.5	14.0	13.5	12.5	13.0	7.0	5.5	6.0	2.5	2.0	2.5
5	14.5	13.5	13.5	13.5	12.5	13.0	8.5	7.0	7.5	2.0	1.0	1.5
6	14.0	12.5	13.5	14.0	13.0	13.5	9.0	8.0	9.0	1.0	.5	.5
7	14.0	12.5	13.5	14.0	12.5	13.0	9.5	9.0	9.0	2.5	.5	1.5
8	14.5	12.5	13.5	13.0	12.0	12.5	9.0	7.0	8.0	2.5	1.5	2.0
9	15.0	13.5	14.0	12.5	12.0	12.0	7.0	5.5	6.0	1.5	1.0	1.5
10	15.5	14.0	15.0	12.0	11.5	12.0	6.0	5.5	5.5	1.5	1.0	1.0
11	---	---	---	11.5	10.0	11.0	6.5	6.0	6.0	1.5	1.0	1.5
12	---	---	---	10.0	8.5	9.5	6.0	4.0	5.0	2.0	1.5	1.5
13	13.5	12.5	13.0	9.0	8.5	8.5	4.0	3.5	3.5	3.5	2.0	2.5
14	13.0	12.0	12.5	9.5	8.5	9.0	4.0	3.5	3.5	5.0	3.5	4.0
15	13.5	12.0	12.5	10.5	9.5	10.0	4.0	3.5	4.0	6.5	5.0	5.5
16	13.5	12.0	12.5	11.0	10.0	10.5	4.0	3.5	4.0	7.5	6.5	7.0
17	13.5	12.0	12.5	11.0	10.0	10.5	4.5	3.5	4.0	7.5	7.5	7.5
18	13.5	12.0	13.0	11.0	10.5	10.5	5.5	4.5	5.0	7.5	7.0	7.0
19	14.0	13.0	13.5	11.0	10.5	11.0	5.5	5.0	5.0	7.0	6.5	6.5
20	14.5	13.5	14.0	11.0	10.5	10.5	5.0	4.0	4.5	6.5	6.0	6.5
21	15.5	14.0	15.0	11.0	10.0	10.5	4.5	3.5	4.0	6.5	6.0	6.0
22	16.0	15.0	15.5	11.0	10.0	10.5	4.0	3.5	4.0	6.0	5.0	5.5
23	15.0	14.5	15.0	11.0	8.5	9.5	4.5	4.0	4.0	5.0	4.0	4.0
24	15.0	14.5	14.5	8.5	6.0	7.0	5.5	4.5	5.0	4.0	3.5	3.5
25	14.5	13.5	14.0	6.0	5.0	5.5	7.0	5.5	6.5	4.0	3.5	3.5
26	13.5	12.5	13.0	5.5	4.5	5.0	7.0	6.5	6.5	3.5	3.5	3.5
27	12.5	11.5	12.0	5.0	4.5	4.5	6.5	5.0	5.5	3.5	3.0	3.0
28	11.5	10.5	11.0	6.0	4.5	5.0	5.0	4.5	4.5	3.0	2.5	2.5
29	11.5	10.5	11.0	7.0	6.0	6.5	5.0	4.5	4.5	2.5	1.5	2.0
30	12.0	10.5	11.0	6.5	6.0	6.5	4.5	2.5	3.5	2.5	1.0	2.0
31	12.5	10.5	11.5	---	---	---	2.5	2.0	2.0	3.0	2.0	2.5
MONTH	16.5	10.5	13.5	14.0	4.5	10.0	9.5	2.0	5.0	7.5	.5	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	2.5	3.0	3.5	2.5	3.0	10.5	9.5	10.0	15.5	14.5	15.0
2	4.0	3.0	3.5	3.5	3.0	3.0	10.5	9.5	10.0	14.5	13.0	13.5
3	3.5	2.5	3.0	3.5	3.0	3.0	10.5	9.5	10.0	14.0	12.5	13.5
4	3.0	1.0	1.5	3.5	3.5	3.5	11.0	9.5	10.0	14.5	13.5	14.0
5	1.5	.5	1.0	4.5	3.0	4.0	10.0	9.0	9.5	15.0	14.5	14.5
6	.5	.5	.5	6.0	4.5	5.0	9.0	8.0	8.5	15.5	14.5	15.0
7	.5	.5	.5	6.5	5.5	6.0	10.5	8.0	9.5	16.0	14.5	15.5
8	1.0	.5	.5	8.0	6.5	7.0	10.0	9.5	10.0	16.5	15.0	15.5
9	1.0	.5	.5	7.5	4.5	5.5	11.0	9.5	10.0	17.0	15.5	16.0
10	1.0	.5	1.0	4.5	3.0	3.5	11.5	10.0	11.0	16.5	15.5	16.0
11	2.0	.5	1.0	4.5	3.0	3.5	12.0	10.5	11.0	15.5	14.5	15.0
12	1.5	.5	1.0	5.5	4.0	4.5	11.5	10.5	11.0	14.5	14.0	14.0
13	1.0	.5	1.0	8.0	5.0	6.5	11.0	10.5	11.0	16.0	14.0	15.0
14	1.5	.5	1.0	9.5	7.5	8.0	11.5	10.5	11.0	16.0	15.0	15.5
15	1.0	.5	1.0	10.5	9.0	9.5	11.5	10.5	11.0	16.0	15.5	16.0
16	1.5	1.0	1.5	11.5	10.0	11.0	12.5	10.0	11.5	17.0	16.0	16.5
17	3.0	1.5	2.5	12.0	11.0	11.5	13.5	11.0	12.0	17.0	16.5	17.0
18	3.0	2.5	3.0	11.5	10.5	11.5	14.0	12.0	13.0	17.5	16.5	17.0
19	3.5	2.0	3.0	11.0	9.5	10.0	14.5	13.5	14.0	17.0	16.5	16.5
20	4.0	2.5	3.5	10.0	9.0	9.5	16.0	14.5	15.5	17.0	16.0	16.5
21	4.0	3.0	3.5	10.5	9.5	10.0	16.5	15.5	16.0	18.0	16.5	17.5
22	3.5	2.5	3.0	10.5	10.0	10.0	16.0	15.5	15.5	19.5	17.5	18.5
23	3.5	2.5	3.0	10.0	9.0	9.5	16.0	15.0	15.5	20.5	18.5	19.5
24	4.0	3.0	3.5	9.5	8.5	9.0	16.5	15.5	15.5	21.0	19.5	20.0
25	4.0	3.0	3.5	8.5	7.5	8.0	16.5	15.5	16.0	21.5	20.5	21.0
26	3.5	2.5	3.0	9.5	7.5	8.5	17.0	16.0	16.5	20.5	19.0	20.0
27	3.0	2.5	2.5	10.0	8.5	9.5	17.5	16.0	16.5	19.0	17.0	18.0
28	3.0	2.5	2.5	10.5	9.5	10.0	18.0	16.5	17.5	18.5	18.0	18.5
29	---	---	---	10.5	10.0	10.5	18.0	17.5	17.5	19.0	18.5	18.5
30	---	---	---	10.5	10.0	10.5	17.5	15.5	17.0	19.0	18.0	18.5
31	---	---	---	10.5	10.0	10.0	---	---	---	20.0	18.0	19.0
MONTH	4.0	.5	2.0	12.0	2.5	7.5	18.0	8.0	13.0	21.5	12.5	16.5



## PASSAIC RIVER BASIN

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	19.5	20.5	23.5	22.0	22.5	28.5	26.5	27.5	25.0	23.0	24.0
2	22.0	21.0	21.5	23.0	21.5	22.0	29.0	26.5	28.0	24.5	23.0	23.5
3	23.0	21.5	22.0	23.5	22.0	22.5	29.0	27.5	28.0	24.5	22.0	23.0
4	23.5	22.0	22.5	23.5	22.5	23.0	29.5	27.5	28.5	24.5	22.0	23.0
5	23.5	22.5	22.5	24.0	23.0	23.0	28.5	27.0	27.5	24.0	22.0	22.5
6	24.0	22.0	23.0	24.0	23.0	23.5	27.0	26.0	26.5	24.0	22.0	23.0
7	25.0	23.0	23.5	23.5	23.0	23.5	26.0	24.5	25.0	24.5	22.5	23.0
8	25.0	23.0	24.0	24.0	22.5	23.5	25.0	23.5	24.0	23.5	22.5	23.0
9	25.0	23.0	24.0	23.0	22.5	23.0	25.0	23.0	24.0	23.0	22.5	22.5
10	23.5	22.0	23.0	23.5	22.5	23.0	24.5	23.0	23.5	23.0	21.0	22.0
11	23.0	21.5	22.0	24.0	22.5	23.0	24.5	23.5	24.0	21.5	20.0	21.0
12	21.5	20.0	21.0	23.5	22.0	23.0	25.5	24.0	24.5	21.0	19.0	20.0
13	20.0	19.5	19.5	24.5	23.0	23.5	26.5	24.5	25.5	20.5	19.5	20.0
14	19.5	18.5	19.0	26.0	24.0	25.0	27.0	25.0	26.0	22.0	19.5	20.5
15	20.5	18.5	19.5	28.5	26.0	27.5	26.5	25.0	25.5	22.0	20.0	20.5
16	22.0	19.5	20.5	29.0	28.0	28.5	25.5	24.0	24.5	21.0	20.0	20.5
17	24.0	20.5	22.0	28.0	26.5	27.5	26.5	25.0	25.5	20.5	19.0	20.0
18	25.5	21.5	23.5	26.5	25.0	26.0	27.5	25.0	26.0	19.5	18.5	19.0
19	26.5	23.0	24.5	25.5	24.0	25.0	27.5	25.5	26.0	19.5	18.0	18.5
20	27.0	24.5	25.5	25.5	24.0	25.0	27.0	25.0	25.5	19.5	18.0	18.5
21	26.0	24.0	25.0	25.5	24.5	25.0	26.0	24.0	25.0	19.5	18.5	19.0
22	24.0	20.5	22.5	26.0	25.0	25.5	25.5	24.0	25.0	19.5	19.0	19.5
23	21.0	19.5	20.5	26.0	25.5	25.5	25.5	23.5	24.5	19.0	18.5	19.0
24	20.5	20.0	20.0	26.5	25.5	26.0	25.5	23.5	24.0	18.5	17.0	17.5
25	22.0	20.0	21.0	27.0	25.5	26.5	24.5	23.0	23.5	17.5	16.5	17.0
26	22.5	22.0	22.0	28.0	27.0	27.0	24.5	22.0	23.0	17.0	16.5	16.5
27	22.5	21.0	22.0	28.0	26.5	27.5	24.5	22.5	23.5	17.0	16.0	16.5
28	22.0	20.5	21.0	28.0	27.0	27.5	24.5	22.5	23.5	17.5	16.0	17.0
29	23.0	20.0	21.0	28.0	27.0	27.5	24.5	22.0	23.5	17.0	16.0	16.5
30	23.5	20.5	22.0	28.0	26.5	27.5	25.0	22.5	23.5	17.0	15.5	16.0
31	---	---	---	28.5	27.0	27.5	24.5	22.0	23.0	---	---	---
MONTH	27.0	18.5	22.0	29.0	21.5	25.0	29.5	22.0	25.0	25.0	15.5	20.0

WATER TEMPERATURE (DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	15.5	16.0	13.0	12.0	12.5	6.0	5.5	6.0	3.5	2.0	2.5
2	15.5	14.5	15.0	13.0	12.5	13.0	5.5	5.0	5.5	4.5	3.5	4.5
3	15.0	14.0	14.5	13.5	12.5	13.0	6.0	5.0	5.5	4.0	2.5	3.0
4	14.5	13.5	14.0	13.5	12.5	13.0	7.0	5.5	6.0	2.5	2.0	2.5
5	14.0	13.5	13.5	13.5	12.5	13.0	8.5	7.0	7.5	2.0	1.0	1.0
6	13.5	12.5	13.0	14.0	13.0	13.5	9.0	8.0	8.5	1.0	.0	.5
7	14.0	12.5	13.0	13.5	12.5	13.0	9.5	9.0	9.0	2.0	.5	1.0
8	14.0	13.0	13.5	12.5	12.0	12.5	9.0	6.5	8.0	2.0	1.5	2.0
9	14.5	13.5	14.0	12.5	12.0	12.0	6.5	5.5	6.0	1.5	1.0	1.5
10	15.5	14.5	14.5	12.0	11.5	12.0	6.0	5.5	5.5	1.5	1.0	1.0
11	15.0	14.0	14.5	11.5	10.0	11.0	6.5	6.0	6.0	1.5	1.0	1.5
12	14.5	13.5	14.0	10.0	8.5	9.5	6.0	4.0	5.0	2.0	1.5	1.5
13	13.5	12.5	13.0	9.0	8.5	8.5	4.0	3.5	3.5	3.5	2.0	2.5
14	13.0	12.5	12.5	9.5	8.5	9.0	4.0	3.5	3.5	5.0	3.5	4.0
15	13.5	12.5	13.0	10.5	9.0	9.5	4.0	3.5	4.0	6.5	4.5	5.5
16	13.5	12.5	13.0	11.0	10.0	10.5	4.0	3.5	3.5	7.5	6.5	7.0
17	13.5	12.0	12.5	10.5	10.0	10.5	4.5	3.5	4.0	7.5	7.5	7.5
18	13.0	12.0	12.5	11.0	10.5	10.5	5.5	4.5	5.0	7.5	6.5	7.0
19	13.5	12.5	13.0	11.0	10.5	10.5	5.5	5.0	5.0	6.5	6.5	6.5
20	14.5	13.5	14.0	11.0	10.5	10.5	5.0	4.0	4.5	6.5	6.0	6.5
21	15.5	14.0	15.0	11.0	10.0	10.5	4.0	3.5	4.0	6.5	6.0	6.5
22	15.5	15.0	15.5	11.0	10.0	10.5	4.0	3.5	4.0	6.0	4.5	5.0
23	15.0	14.5	15.0	11.0	8.5	9.5	4.5	4.0	4.0	4.5	3.5	4.0
24	14.5	14.5	14.5	8.5	6.0	7.0	5.5	4.5	5.0	3.5	3.5	3.5
25	14.5	13.0	14.0	6.0	5.0	5.5	7.0	5.5	6.5	3.5	3.5	3.5
26	13.5	12.5	13.0	5.0	4.5	5.0	7.0	6.0	6.5	3.5	3.0	3.5
27	12.5	11.5	12.0	5.0	4.0	4.5	6.0	5.0	5.0	3.5	3.0	3.0
28	11.5	10.5	11.0	6.0	4.5	5.0	5.0	4.5	4.5	3.0	2.5	2.5
29	11.5	10.5	11.0	7.0	6.0	6.5	5.0	4.0	4.5	2.5	1.5	2.0
30	11.5	10.5	11.0	6.5	6.0	6.5	4.0	2.5	3.5	2.0	1.0	1.5
31	12.0	10.5	11.5	---	---	---	2.5	2.0	2.0	3.0	1.5	2.0
MONTH	16.5	10.5	13.5	14.0	4.0	10.0	9.5	2.0	5.0	7.5	.0	3.5

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

WATER TEMPERATURE (DEG. C), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	2.5	3.0	3.5	2.5	3.0	10.5	9.5	10.0	16.0	15.0	15.0
2	3.5	3.0	3.5	3.5	2.5	3.0	10.5	9.5	10.0	15.0	13.5	13.5
3	3.5	2.5	3.0	3.5	3.0	3.0	10.5	9.5	10.0	14.0	12.5	13.5
4	3.0	.5	1.5	4.0	3.5	3.5	11.0	9.5	10.0	15.0	13.5	14.0
5	.5	.5	.5	4.5	3.5	4.0	10.0	9.0	9.5	15.0	14.5	14.5
6	.5	.0	.5	6.0	4.5	5.0	9.5	8.5	8.5	15.5	14.5	15.0
7	.5	.0	.5	6.5	5.5	6.5	10.5	8.5	9.5	16.0	15.0	15.5
8	.5	.5	.5	8.0	6.5	7.0	10.0	9.5	10.0	16.5	15.0	15.5
9	.5	.5	.5	8.0	6.0	7.0	11.5	9.5	10.5	17.5	15.5	16.5
10	1.0	.5	.5	6.0	3.5	4.5	12.0	10.5	11.0	16.5	15.5	16.0
11	1.0	.5	.5	4.5	3.5	3.5	12.0	10.5	11.5	15.5	14.5	15.0
12	1.0	.5	.5	5.5	4.0	4.5	11.5	10.5	11.0	14.5	14.0	14.5
13	1.0	.5	.5	8.0	5.5	6.5	11.5	10.5	11.0	16.0	14.0	15.0
14	1.0	.5	.5	9.5	7.5	8.0	12.0	11.0	11.5	16.0	15.0	16.0
15	1.0	.5	.5	10.5	9.0	9.5	12.0	10.5	11.0	16.5	16.0	16.0
16	1.5	.5	1.0	11.5	10.0	11.0	12.5	10.5	11.5	17.5	16.0	17.0
17	3.0	1.5	2.5	12.5	11.5	12.0	13.5	11.0	12.0	17.5	17.0	17.0
18	3.0	2.5	3.0	12.0	11.0	11.5	14.0	12.5	13.0	17.5	16.5	17.0
19	3.5	2.0	3.0	11.0	9.5	10.0	15.0	13.5	14.0	17.0	16.5	17.0
20	4.0	2.5	3.5	10.5	9.0	9.5	16.5	15.0	15.5	17.5	16.0	16.5
21	4.0	3.0	3.5	11.0	10.0	10.5	16.5	16.0	16.0	18.5	16.5	17.5
22	3.5	2.5	3.0	11.0	10.0	10.5	16.0	15.5	16.0	19.5	18.0	18.5
23	3.5	2.5	3.0	10.0	9.5	9.5	16.0	15.0	15.5	21.0	18.5	19.5
24	4.0	3.0	3.5	9.5	8.5	9.0	16.5	15.5	16.0	21.5	19.5	20.5
25	4.0	3.0	4.0	8.5	7.5	8.0	17.0	15.5	16.0	21.5	20.5	21.0
26	4.0	2.5	3.0	9.5	7.5	8.5	17.0	16.0	16.5	20.5	19.0	20.0
27	3.0	2.5	2.5	10.0	9.0	9.5	18.0	16.0	17.0	19.0	17.0	18.0
28	3.0	2.5	2.5	10.5	10.0	10.0	18.5	17.0	17.5	19.0	18.0	18.5
29	---	---	---	11.0	10.5	10.5	18.5	17.5	18.0	19.5	18.5	18.5
30	---	---	---	11.0	10.0	10.5	17.5	16.0	17.0	19.0	18.0	18.5
31	---	---	---	10.5	10.0	10.0	---	---	---	20.5	18.5	19.5
MONTH	4.0	.0	2.0	12.5	2.5	7.5	18.5	8.5	13.0	21.5	12.5	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	21.5	19.5	21.0	23.5	21.5	22.5	29.0	26.5	27.5	25.0	23.5	24.0
2	22.0	21.5	21.5	23.5	22.5	23.0	29.0	27.0	28.0	24.0	23.0	23.5
3	23.5	21.5	22.5	23.5	22.0	23.0	29.5	27.5	28.5	24.5	22.5	23.5
4	24.0	22.5	23.0	23.5	22.5	23.0	30.0	27.5	29.0	24.5	22.0	23.0
5	24.0	22.5	23.0	24.0	23.0	23.0	29.0	28.0	28.5	24.0	22.0	23.0
6	24.0	22.5	23.0	24.0	23.0	23.5	28.5	26.0	27.5	24.0	22.0	23.0
7	24.5	22.5	23.5	23.5	23.0	23.5	26.0	24.5	25.0	24.5	22.5	23.5
8	25.0	23.0	24.0	24.0	22.5	23.5	25.0	23.5	24.5	23.5	23.0	23.5
9	25.0	23.0	24.0	23.0	22.5	23.0	25.0	23.0	24.0	23.0	22.5	23.0
10	23.5	22.0	23.0	23.5	22.5	23.0	25.0	23.0	24.0	23.0	21.5	22.5
11	23.0	21.5	22.0	24.0	22.5	23.0	25.0	23.5	24.0	22.0	20.5	21.0
12	21.5	20.0	21.0	23.5	22.0	23.0	25.5	24.0	24.5	21.5	19.5	20.0
13	20.0	19.5	19.5	24.5	23.0	23.5	27.0	24.5	25.5	20.5	19.5	20.0
14	19.5	18.5	19.0	26.0	24.0	25.0	27.0	25.0	26.0	22.0	20.0	21.0
15	20.5	18.5	19.5	28.5	26.0	27.5	26.5	25.5	26.0	22.0	20.0	21.0
16	22.0	19.5	20.5	29.0	28.0	28.5	25.5	24.0	24.5	21.0	20.0	20.5
17	24.0	20.5	22.0	28.0	26.5	27.5	26.0	25.0	25.5	20.5	19.5	20.0
18	25.5	21.5	23.5	26.5	25.0	26.0	27.5	25.0	26.0	20.0	18.5	19.0
19	26.0	23.0	24.5	25.5	24.0	25.0	27.0	25.5	26.0	19.5	18.5	19.0
20	27.0	24.5	25.5	25.5	24.0	25.0	26.5	25.0	26.0	19.5	18.0	19.0
21	26.0	24.0	25.0	25.5	24.5	25.0	26.5	24.5	25.5	19.5	18.5	19.0
22	24.0	20.5	22.5	26.0	25.0	25.5	26.0	24.0	25.0	19.5	19.0	19.5
23	21.0	19.5	20.5	26.5	25.5	26.0	25.5	23.5	24.5	19.5	18.5	19.0
24	20.5	20.0	20.0	26.5	25.5	26.0	26.0	23.5	24.5	18.5	17.5	18.0
25	21.5	20.0	21.0	27.0	25.5	26.5	25.0	23.0	23.5	17.5	17.0	17.5
26	23.0	21.5	22.0	27.5	27.0	27.0	24.5	22.5	23.5	17.0	17.0	17.0
27	22.0	21.0	22.0	28.0	27.0	27.5	25.0	23.0	23.5	17.5	16.5	17.0
28	22.0	20.5	21.0	28.0	27.0	27.5	24.0	22.5	23.5	17.5	16.5	17.0
29	23.0	20.0	21.0	28.0	27.0	27.5	25.0	22.5	23.5	17.5	16.5	16.5
30	23.5	20.5	22.0	28.0	26.5	27.5	24.5	23.0	23.5	17.0	16.0	16.5
31	---	---	---	28.5	27.0	27.5	24.5	22.5	23.5	---	---	---
MONTH	27.0	18.5	22.0	29.0	21.5	25.0	30.0	22.5	25.5	25.0	16.0	20.5



## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN DISSOLVED (MG/L), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.0	7.7	7.8	---	---	---	12.0	11.6	11.8	14.0	12.6	13.2
2	8.7	7.8	8.3	---	---	---	12.0	11.5	11.8	13.5	11.8	12.3
3	8.9	8.2	8.5	---	---	---	11.5	10.9	11.2	13.8	12.0	12.7
4	9.1	8.4	8.7	---	---	---	11.0	10.2	10.7	13.8	12.6	13.1
5	9.2	8.5	8.9	---	---	---	11.1	10.2	10.6	13.7	13.0	13.3
6	10.0	8.7	9.5	---	---	---	11.4	10.3	11.0	14.0	13.1	13.5
7	10.4	9.2	9.8	---	---	---	11.2	10.5	10.7	13.7	12.2	12.7
8	10.7	9.5	10.1	---	---	---	10.7	10.2	10.5	13.3	12.5	12.9
9	10.5	9.7	10.2	8.6	7.2	7.8	10.7	10.2	10.5	13.4	12.7	13.0
10	10.2	9.5	9.9	10.4	7.8	8.6	11.4	10.3	11.0	13.5	12.7	13.1
11	---	---	---	8.3	7.6	8.0	11.9	11.0	11.4	---	---	---
12	---	---	---	8.1	7.4	7.8	12.7	11.8	12.2	---	---	---
13	---	---	---	9.3	8.0	8.5	12.7	12.4	12.6	---	---	---
14	---	---	---	10.3	8.5	9.2	12.4	12.0	12.2	---	---	---
15	---	---	---	---	---	---	12.0	11.8	11.9	---	---	---
16	---	---	---	9.6	8.2	8.9	12.2	11.6	12.0	---	---	---
17	---	---	---	9.6	7.9	8.5	12.1	11.4	11.7	---	---	---
18	---	---	---	9.3	7.9	8.5	11.7	11.3	11.4	---	---	---
19	---	---	---	10.1	8.1	8.9	12.3	11.1	11.8	---	---	---
20	---	---	---	10.2	8.3	9.0	12.9	12.2	12.6	---	---	---
21	---	---	---	10.6	8.1	8.9	13.1	12.2	12.6	---	---	---
22	---	---	---	11.8	9.0	10.6	12.9	12.2	12.5	---	---	---
23	---	---	---	11.4	10.2	10.9	12.9	11.9	12.4	---	---	---
24	---	---	---	11.7	10.8	11.3	12.2	11.2	11.7	---	---	---
25	---	---	---	11.7	10.5	11.1	11.7	11.3	11.5	---	---	---
26	---	---	---	12.2	10.7	11.8	12.2	11.3	11.8	---	---	---
27	---	---	---	11.5	10.4	10.9	12.9	11.5	12.1	---	---	---
28	---	---	---	11.9	10.6	11.2	13.3	11.9	12.5	---	---	---
29	---	---	---	12.1	11.0	11.6	13.1	12.0	12.5	---	---	---
30	---	---	---	11.9	11.6	11.8	13.3	12.2	12.7	---	---	---
31	---	---	---	---	---	---	14.4	12.5	13.3	---	---	---
MONTH	---	---	---	---	---	---	14.4	10.2	11.8	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	15.2	13.3	14.1	13.2	12.0	12.5	11.1	9.0	10.1
2	---	---	---	15.7	14.0	14.8	13.2	12.3	12.7	10.9	8.4	9.8
3	14.7	14.0	14.4	15.4	14.3	14.9	14.1	12.6	13.3	11.5	9.6	10.6
4	14.0	13.2	13.5	15.4	13.7	14.1	13.6	11.9	12.7	11.6	9.9	10.7
5	15.0	13.8	14.4	15.1	14.0	14.5	13.0	11.8	12.5	10.9	9.3	9.9
6	15.5	15.0	15.3	15.1	13.5	14.1	13.7	12.6	13.2	11.5	9.4	10.3
7	15.0	14.5	14.8	14.8	13.5	14.0	13.8	11.6	12.9	12.3	10.0	11.1
8	14.5	14.2	14.3	14.3	12.6	13.1	12.4	10.2	11.5	12.2	10.2	11.1
9	---	---	---	14.1	11.5	13.1	10.5	9.6	10.0	10.5	8.7	9.5
10	---	---	---	15.0	10.9	13.4	12.3	9.9	11.7	10.0	8.4	9.4
11	---	---	---	14.8	13.7	14.3	11.4	9.9	10.6	8.4	6.7	7.5
12	---	---	---	15.0	13.7	14.3	10.2	8.7	9.1	7.2	6.7	7.0
13	---	---	---	14.4	13.3	13.8	11.0	8.7	10.2	7.9	7.1	7.5
14	---	---	---	13.5	12.4	13.0	12.3	9.7	10.9	7.1	6.7	6.9
15	---	---	---	13.1	11.7	12.3	12.5	10.2	11.4	6.8	6.4	6.6
16	---	---	---	12.7	11.1	11.9	12.6	10.1	11.5	7.3	6.8	7.0
17	---	---	---	12.5	10.8	11.5	12.9	10.3	11.8	7.0	6.5	6.8
18	---	---	---	12.9	10.5	11.7	12.7	10.4	11.8	6.8	6.3	6.6
19	---	---	---	13.3	11.0	12.1	12.4	9.4	10.6	6.4	6.0	6.3
20	14.6	13.5	14.0	13.0	11.1	12.1	12.2	9.5	10.9	6.9	6.2	6.6
21	13.6	12.6	13.1	---	---	---	11.8	9.0	9.7	7.2	6.6	6.9
22	14.7	13.0	14.0	---	---	---	10.9	8.6	9.7	7.1	6.2	6.6
23	14.5	13.4	14.0	---	---	---	11.4	9.5	10.5	7.1	6.1	6.5
24	14.4	13.0	13.6	13.1	10.7	11.9	11.4	9.6	10.6	7.1	6.0	6.4
25	15.2	13.7	14.4	13.8	11.2	12.6	11.2	9.9	10.7	6.3	5.4	5.8
26	15.5	14.6	15.0	13.5	11.5	12.6	11.4	10.3	10.8	5.8	5.4	5.6
27	15.9	14.1	15.1	13.5	11.3	12.4	11.5	10.5	10.9	6.4	5.6	6.1
28	14.4	13.0	13.6	13.1	11.2	12.2	11.2	10.0	10.5	6.0	5.6	5.8
29	---	---	---	13.1	11.3	12.3	11.1	9.7	10.2	5.9	5.5	5.6
30	---	---	---	13.0	11.0	11.7	10.9	9.7	10.1	6.0	5.5	5.8
31	---	---	---	12.3	11.1	11.8	---	---	---	6.1	5.3	5.8
MONTH	---	---	---	15.7	10.5	13.0	14.1	8.6	11.2	12.3	5.3	7.7

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN DISSOLVED (MG/L), AT LEFT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5.4	5.0	5.2	11.3	7.1	9.2	12.9	8.4	10.5	15.1	9.9	11.7
2	5.3	4.7	5.0	9.4	6.7	7.2	12.0	7.8	9.8	14.1	9.5	11.3
3	5.3	4.5	4.9	9.1	7.0	7.9	11.1	7.3	9.2	14.3	9.4	11.1
4	5.4	4.6	4.9	9.8	7.7	8.6	11.3	7.1	9.1	14.6	10.0	11.7
5	8.8	4.6	6.4	10.1	7.5	8.7	9.9	6.5	8.0	16.1	10.4	12.3
6	6.7	5.5	6.1	9.9	7.3	8.4	6.5	5.3	5.8	17.0	10.5	13.2
7	7.1	5.3	6.0	9.1	7.5	8.3	9.2	5.5	7.2	16.8	10.7	12.8
8	7.7	5.2	6.3	9.7	6.7	8.2	11.7	7.3	9.2	15.8	10.8	12.5
9	8.6	5.8	7.0	10.5	7.4	8.7	13.1	8.8	10.7	14.3	9.3	11.0
10	7.5	6.3	6.8	11.2	7.9	9.3	13.4	9.7	11.4	13.2	8.3	10.5
11	8.1	6.2	6.9	10.4	7.8	8.9	14.2	10.0	11.6	12.2	8.8	10.2
12	7.0	4.3	6.1	8.5	6.8	7.7	13.8	9.8	11.6	11.8	9.2	10.3
13	5.2	4.3	4.8	9.5	7.1	8.2	15.4	10.0	12.0	10.6	8.7	9.4
14	4.9	4.5	4.7	10.2	7.7	8.8	14.9	10.1	12.1	11.4	8.2	9.3
15	5.7	4.8	5.2	11.3	8.0	9.1	12.0	8.1	9.7	10.2	8.1	8.9
16	6.2	5.4	5.7	11.7	8.2	9.7	10.0	7.3	8.6	10.5	7.9	9.0
17	7.9	5.5	6.5	10.2	7.1	8.8	12.2	7.5	9.4	10.3	7.8	8.9
18	9.4	6.0	7.4	8.8	6.4	7.6	15.4	8.8	11.1	9.0	6.9	7.8
19	10.7	6.4	8.3	7.9	6.1	6.9	14.0	9.6	11.5	7.9	6.7	7.3
20	12.4	7.1	9.3	7.8	6.0	6.8	14.5	9.8	11.6	9.4	7.2	8.3
21	10.5	7.9	9.1	7.8	6.2	6.9	14.7	9.8	11.3	9.3	7.5	8.4
22	7.9	5.8	6.7	7.4	6.0	6.8	15.1	9.5	11.1	8.8	7.2	8.0
23	6.1	4.9	5.6	8.6	6.4	7.4	14.2	8.9	10.8	8.0	7.1	7.6
24	5.8	5.1	5.5	7.5	6.0	6.9	15.2	9.5	11.3	7.3	7.0	7.1
25	5.6	5.2	5.4	10.2	7.0	8.8	14.7	9.6	11.2	8.1	7.1	7.6
26	5.7	5.0	5.3	10.5	7.1	8.8	15.0	9.6	11.1	8.5	7.7	8.1
27	6.4	5.2	5.7	8.5	5.3	6.7	14.9	9.5	11.3	8.3	8.0	8.2
28	7.2	5.8	6.4	9.9	6.5	8.1	14.1	9.5	11.2	8.1	7.7	7.9
29	8.3	6.2	7.1	11.8	7.3	9.4	14.7	9.2	11.1	8.4	7.7	8.0
30	9.1	6.8	7.8	13.3	8.7	10.7	14.9	9.5	11.3	8.5	7.9	8.1
31	---	---	---	13.3	8.4	10.5	15.0	9.5	11.2	---	---	---
MONTH	12.4	4.3	6.3	13.3	5.3	8.3	15.4	5.3	10.4	17.0	6.7	9.5

OXYGEN DISSOLVED (MG/L), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.2	7.5	8.4	7.2	7.9	10.1	9.5	9.8	---	---	---
2	8.2	7.3	7.8	7.9	6.8	7.3	10.3	9.8	10.1	---	---	---
3	8.7	7.6	8.2	7.2	5.8	6.5	9.8	9.6	9.7	---	---	---
4	9.2	7.6	8.2	6.9	5.7	6.2	10.1	9.6	9.9	---	---	---
5	10.3	8.0	8.9	7.8	6.3	7.0	10.0	9.8	9.9	---	---	---
6	10.4	8.4	9.2	7.5	6.8	7.1	9.9	9.7	9.8	---	---	---
7	10.6	8.4	9.3	7.6	6.7	7.1	9.8	9.3	9.6	---	---	---
8	11.0	8.5	9.6	8.0	6.6	7.2	9.6	9.3	9.4	---	---	---
9	10.5	8.4	9.2	7.9	6.9	7.3	10.0	9.6	9.9	---	---	---
10	10.0	8.0	8.8	8.6	7.4	7.9	10.3	9.9	10.1	---	---	---
11	---	---	---	8.1	7.6	7.9	11.0	10.3	10.5	---	---	---
12	---	---	---	8.2	7.6	7.9	11.5	10.9	11.2	13.9	12.1	13.3
13	10.5	8.7	9.5	9.3	8.2	8.7	---	---	---	14.2	13.7	14.0
14	11.4	9.2	10.2	10.0	8.7	9.2	---	---	---	14.1	13.7	13.9
15	11.5	9.4	10.4	10.5	8.8	9.4	---	---	---	13.8	13.1	13.5
16	11.2	9.3	10.1	9.4	8.1	8.8	---	---	---	13.1	12.2	12.9
17	11.1	9.3	10.0	9.1	7.9	8.3	---	---	---	12.2	11.7	11.9
18	10.5	9.5	10.1	9.1	8.0	8.5	---	---	---	12.1	11.6	11.9
19	10.7	9.4	10.0	9.7	8.3	8.9	---	---	---	12.0	11.7	11.9
20	9.8	8.6	9.2	9.8	8.3	8.8	---	---	---	12.9	11.7	12.3
21	8.8	7.4	8.2	10.8	8.2	9.0	---	---	---	13.3	12.7	13.1
22	8.0	6.6	7.2	10.7	8.2	9.5	---	---	---	13.8	13.3	13.5
23	6.6	5.8	6.2	8.3	8.0	8.1	---	---	---	13.5	12.2	12.9
24	6.9	5.9	6.4	8.9	8.0	8.3	---	---	---	12.5	12.0	12.2
25	6.8	5.7	6.2	10.1	8.9	9.6	---	---	---	12.4	12.1	12.2
26	6.5	5.8	6.0	10.7	10.1	10.5	---	---	---	12.5	12.1	12.4
27	7.8	6.1	6.9	11.2	10.7	10.9	---	---	---	12.8	12.4	12.6
28	8.4	6.9	7.6	11.9	10.9	11.2	---	---	---	13.1	12.5	12.8
29	9.0	7.6	8.2	11.0	10.1	10.7	---	---	---	13.3	12.6	13.0
30	9.2	7.9	8.4	10.1	9.4	9.6	---	---	---	13.2	12.7	12.9
31	9.5	8.0	8.5	---	---	---	---	---	---	13.1	12.7	12.8
MONTH	11.5	5.7	8.5	11.9	5.7	8.5	---	---	---	---	---	---

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN DISSOLVED (MG/L), AT MIDDLE INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.8	12.5	12.6	12.0	11.6	11.8	10.6	9.8	10.1	7.4	6.9	7.1
2	13.3	12.4	12.6	12.0	11.4	11.6	10.9	10.2	10.5	7.7	6.9	7.2
3	13.0	12.5	12.8	11.8	11.3	11.5	11.5	10.2	10.7	8.2	7.3	7.8
4	13.0	12.2	12.5	11.8	11.5	11.7	11.7	10.4	11.0	8.2	7.9	8.1
5	---	---	---	11.6	11.1	11.3	11.7	10.5	11.0	8.2	7.6	7.7
6	---	---	---	11.3	10.9	11.1	11.8	10.7	11.2	7.6	7.4	7.5
7	---	---	---	11.2	10.8	11.0	12.5	11.1	11.7	7.8	7.4	7.6
8	---	---	---	11.3	10.8	10.9	11.8	10.0	11.1	8.1	7.5	7.8
9	---	---	---	11.6	10.9	11.3	10.1	9.4	9.8	8.4	7.7	8.0
10	---	---	---	11.7	10.5	11.0	10.9	9.6	10.4	7.7	7.0	7.4
11	---	---	---	11.6	10.9	11.3	10.4	8.8	9.6	7.0	6.4	6.7
12	---	---	---	11.6	10.9	11.2	9.7	8.7	9.0	6.9	6.4	6.6
13	---	---	---	11.3	10.6	11.1	8.9	8.2	8.6	7.4	6.7	7.1
14	---	---	---	10.9	10.6	10.7	8.8	8.3	8.5	6.8	6.4	6.6
15	---	---	---	10.8	10.3	10.6	8.8	8.2	8.5	6.4	6.0	6.3
16	---	---	---	10.5	10.3	10.4	9.1	8.2	8.6	6.8	6.4	6.6
17	---	---	---	10.4	10.2	10.3	9.5	8.3	8.9	6.7	6.2	6.4
18	13.3	12.5	12.9	10.4	10.2	10.3	9.4	8.4	8.9	6.3	6.0	6.2
19	13.3	12.4	12.8	10.6	10.3	10.4	9.1	7.9	8.4	6.0	5.6	5.9
20	12.9	12.0	12.4	10.7	10.6	10.6	8.3	7.6	7.9	6.4	5.9	6.1
21	12.5	12.2	12.3	---	---	---	7.7	7.0	7.4	6.6	6.2	6.4
22	12.5	12.0	12.2	---	---	---	7.6	7.3	7.4	6.5	6.0	6.2
23	12.4	12.0	12.2	---	---	---	7.9	7.4	7.7	6.6	5.8	6.1
24	12.3	12.0	12.1	10.3	9.0	9.6	8.0	7.6	7.7	6.5	5.6	6.0
25	12.4	11.5	12.0	10.8	9.4	10.0	8.4	7.5	7.9	5.8	5.2	5.5
26	12.4	11.8	12.1	10.7	9.6	10.3	9.2	7.6	8.3	5.6	5.2	5.4
27	12.3	11.9	12.0	10.7	9.9	10.3	9.4	7.9	8.5	6.1	5.4	5.8
28	12.1	11.9	12.0	10.6	9.6	10.0	9.0	7.3	8.1	5.7	5.4	5.5
29	---	---	---	10.4	9.7	10.0	8.4	7.4	7.9	5.5	5.2	5.4
30	---	---	---	10.0	9.5	9.8	7.4	7.0	7.1	5.7	5.2	5.5
31	---	---	---	10.0	9.5	9.8	---	---	---	5.7	5.2	5.5
MONTH	---	---	---	12.0	9.0	10.7	12.5	7.0	9.1	8.4	5.2	6.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	5.2	5.0	5.1	9.5	6.5	7.6	7.7	4.5	5.5	11.9	9.0	10.1
2	5.1	4.7	4.9	9.5	6.4	7.1	10.9	6.6	8.8	11.5	8.6	9.7
3	5.2	4.5	4.8	10.4	7.4	8.7	11.1	7.3	9.0	11.5	8.5	9.6
4	5.3	4.7	4.9	10.0	8.4	9.0	12.0	7.2	9.1	12.1	8.4	10.1
5	5.4	4.7	5.0	9.5	8.0	8.6	8.7	6.6	7.7	14.6	9.1	11.2
6	6.5	4.7	5.4	9.4	7.7	8.4	6.7	5.0	6.0	15.8	10.4	12.6
7	6.9	5.3	5.9	8.5	7.3	7.9	5.4	4.8	5.0	16.3	10.7	12.8
8	7.5	5.3	6.3	8.8	7.4	8.0	6.0	4.8	5.4	15.5	10.9	12.8
9	8.3	6.1	7.1	7.8	6.5	7.1	7.2	4.9	5.9	12.5	8.4	10.5
10	7.4	6.3	6.8	9.0	7.0	7.8	8.0	6.1	6.9	12.2	8.0	9.5
11	7.9	6.2	6.9	8.1	6.8	7.4	8.7	6.2	7.3	10.6	7.9	8.9
12	6.9	4.5	6.1	7.6	5.7	6.2	9.3	6.6	7.8	10.7	8.6	9.4
13	5.2	4.5	4.9	6.6	5.3	6.0	11.0	6.9	8.6	9.9	8.3	8.9
14	5.0	4.7	4.8	7.6	5.7	6.4	12.1	7.1	9.3	10.6	7.8	8.8
15	5.6	4.9	5.3	8.6	5.9	6.9	10.2	8.2	8.9	9.6	7.5	8.3
16	6.1	5.4	5.7	10.5	6.6	8.3	8.3	5.1	5.7	9.6	7.3	8.3
17	7.6	5.5	6.4	8.4	6.0	7.3	7.4	5.0	6.0	10.5	7.7	8.8
18	9.1	5.9	7.1	6.3	5.3	5.7	8.3	5.5	6.7	9.1	6.8	7.7
19	10.5	6.4	8.0	5.5	4.8	5.2	10.3	6.2	7.8	7.1	6.7	6.9
20	---	---	---	5.0	4.5	4.7	10.5	6.9	8.4	7.9	6.7	7.2
21	---	---	---	5.3	4.7	4.9	10.9	7.4	8.8	8.4	6.9	7.5
22	7.4	5.2	6.1	5.6	4.9	5.2	11.0	7.8	9.0	8.0	7.1	7.4
23	5.3	3.9	4.8	6.5	5.0	5.3	11.2	7.8	9.1	7.9	6.9	7.4
24	4.9	4.3	4.7	5.9	4.0	5.1	12.6	8.6	10.2	7.2	6.8	6.9
25	4.7	4.3	4.6	5.3	3.9	4.5	12.8	9.5	10.6	8.0	6.9	7.5
26	4.9	4.3	4.6	10.2	4.7	5.7	12.7	9.5	10.6	8.4	7.6	8.0
27	5.9	4.4	5.1	6.6	4.6	5.4	11.9	9.2	10.4	8.1	7.8	8.0
28	6.3	5.0	5.6	5.8	4.8	5.3	11.3	8.9	10.0	7.8	7.5	7.7
29	7.9	5.3	6.5	6.5	5.2	5.8	11.6	8.5	9.8	7.9	7.3	7.6
30	8.8	6.1	7.3	5.2	4.6	4.9	12.3	8.6	10.0	8.2	7.5	7.8
31	---	---	---	6.1	4.5	5.0	12.4	8.9	10.0	---	---	---
MONTH	10.5	3.9	5.7	10.5	3.9	6.5	12.8	4.5	8.2	16.3	6.7	8.9

## 01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN DISSOLVED (MG/L), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	8.5	7.5	8.0	10.0	9.5	9.8	12.6	12.3	12.4
2	---	---	---	8.0	7.3	7.6	10.1	9.7	9.9	12.3	11.5	11.8
3	---	---	---	7.4	6.1	6.8	9.7	9.4	9.7	12.1	11.5	11.8
4	---	---	---	6.9	5.9	6.4	10.0	9.4	9.7	12.5	12.0	12.3
5	---	---	---	7.9	6.6	7.3	10.0	9.8	9.9	12.7	12.2	12.4
6	---	---	---	7.8	7.1	7.4	9.9	9.7	9.8	12.7	12.5	12.6
7	---	---	---	7.8	7.1	7.4	9.8	9.2	9.5	12.7	12.1	12.5
8	---	---	---	7.9	6.9	7.3	9.5	9.2	9.2	12.2	11.9	12.1
9	---	---	---	7.8	6.9	7.4	9.9	9.5	9.8	12.3	12.2	12.2
10	---	---	---	8.5	7.4	7.9	10.2	9.9	10.1	12.2	12.0	12.1
11	---	---	---	8.2	7.8	8.0	10.8	10.2	10.4	12.0	11.5	11.8
12	---	---	---	8.4	7.7	8.1	11.2	10.7	11.0	11.5	11.2	11.3
13	10.5	8.7	9.6	9.4	8.4	8.8	11.8	11.2	11.5	11.5	11.1	11.3
14	11.6	9.7	10.6	10.0	8.8	9.3	11.6	11.4	11.5	11.7	11.3	11.5
15	11.4	9.9	10.7	10.2	9.0	9.5	11.5	11.4	11.4	11.5	10.9	11.2
16	11.2	9.8	10.5	9.6	8.4	9.0	11.6	11.4	11.5	10.9	10.3	10.6
17	11.3	9.8	10.4	9.5	8.1	8.6	11.5	11.5	11.5	10.5	10.1	10.3
18	11.0	9.7	10.3	9.4	8.3	8.8	11.5	11.3	11.4	10.7	10.3	10.5
19	11.0	9.6	10.2	9.9	8.6	9.1	11.5	11.1	11.3	10.6	10.4	10.5
20	10.1	8.9	9.5	9.9	8.4	9.0	11.8	11.4	11.6	10.7	10.3	10.5
21	9.2	7.7	8.5	9.8	8.3	9.0	12.0	11.8	11.9	10.5	10.1	10.3
22	8.1	6.9	7.4	9.4	8.0	8.9	12.0	11.8	11.9	10.8	10.5	10.7
23	6.9	6.1	6.5	8.4	7.8	8.2	12.0	11.8	11.8	10.7	10.6	10.6
24	7.1	6.4	6.8	9.0	8.0	8.4	11.8	11.4	11.6	10.9	10.7	10.8
25	7.3	6.1	6.7	10.1	9.0	9.6	11.4	10.7	11.0	11.0	10.9	11.0
26	6.8	6.1	6.4	10.5	10.1	10.3	10.9	10.6	10.8	11.3	11.0	11.2
27	8.0	6.5	7.3	11.0	10.5	10.8	11.5	10.8	11.1	11.6	11.3	11.5
28	8.5	7.3	7.9	11.3	10.8	11.1	11.5	11.3	11.4	11.9	11.5	11.7
29	9.0	8.0	8.5	10.9	9.8	10.5	11.6	11.5	11.5	12.3	11.9	12.1
30	9.3	8.4	8.8	9.8	9.4	9.6	11.9	11.6	11.8	12.5	12.1	12.3
31	9.2	8.1	8.6	---	---	---	12.5	11.9	12.3	12.4	12.3	12.3
MONTH	---	---	---	11.3	5.9	8.6	12.5	9.2	10.9	12.7	10.1	11.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.3	12.2	12.2	12.2	12.0	12.1	10.7	9.6	10.2	7.6	7.0	7.2
2	12.3	12.0	12.1	12.2	11.8	12.0	11.1	10.0	10.5	8.0	7.0	7.4
3	12.3	12.0	12.1	12.0	11.7	11.8	11.4	10.2	10.8	8.4	7.5	7.9
4	12.3	12.2	12.2	11.8	11.5	11.7	11.9	10.4	11.1	8.4	8.0	8.2
5	---	---	---	11.7	11.4	11.5	11.3	10.3	10.8	8.4	7.7	7.9
6	---	---	---	11.6	11.0	11.4	11.6	10.3	11.0	7.7	7.6	7.6
7	12.8	12.6	12.7	11.4	10.8	11.1	12.4	11.0	11.6	8.0	7.4	7.7
8	13.0	12.7	12.8	11.5	10.7	11.1	12.1	9.9	11.1	8.4	7.7	8.0
9	13.0	12.6	12.9	10.8	10.3	10.5	10.3	9.2	9.7	8.8	7.8	8.2
10	12.9	12.5	12.8	11.4	10.7	11.2	10.5	9.3	10.0	7.8	7.0	7.4
11	12.6	12.2	12.5	11.4	11.0	11.2	10.0	8.4	9.2	7.0	6.5	6.7
12	12.4	12.1	12.2	11.0	10.6	10.8	9.4	8.4	8.8	7.1	6.5	6.8
13	12.7	12.3	12.5	10.6	10.1	10.4	8.8	8.1	8.5	7.6	6.8	7.3
14	13.0	12.7	12.9	10.1	9.7	9.9	8.9	8.2	8.5	6.9	6.4	6.6
15	13.1	12.9	13.0	9.7	9.4	9.5	9.1	8.4	8.8	6.5	6.1	6.3
16	13.1	12.9	12.9	9.4	8.9	9.2	9.4	8.6	9.0	6.8	6.4	6.6
17	12.9	12.4	12.5	8.9	8.4	8.8	9.7	8.6	9.2	6.6	6.1	6.4
18	12.9	12.4	12.6	8.9	8.3	8.6	9.6	8.7	9.3	6.3	5.8	6.1
19	13.2	12.4	12.8	9.6	8.8	9.3	9.5	8.2	8.7	5.9	5.4	5.7
20	13.2	12.5	12.8	10.2	9.4	9.8	8.6	7.7	8.0	6.3	5.7	6.0
21	12.9	12.0	12.4	10.1	9.4	9.8	7.8	7.0	7.4	6.7	6.2	6.4
22	12.6	11.7	12.2	9.8	9.2	9.6	7.7	7.4	7.5	6.5	5.9	6.2
23	12.7	12.1	12.4	9.8	9.2	9.5	8.0	7.6	7.8	6.8	5.7	6.1
24	12.6	11.9	12.3	10.4	9.2	9.8	8.4	7.8	8.0	6.5	5.5	5.9
25	12.8	11.8	12.4	11.0	9.9	10.4	8.7	7.7	8.2	5.9	5.0	5.5
26	13.4	12.2	12.8	11.0	10.6	10.8	9.5	7.7	8.5	5.5	5.0	5.2
27	13.1	12.3	12.8	10.9	10.4	10.6	10.1	8.1	8.9	6.1	5.2	5.7
28	12.9	12.2	12.5	10.6	9.9	10.1	9.5	7.4	8.4	5.7	5.3	5.4
29	---	---	---	10.2	9.6	9.9	8.7	7.5	8.1	5.5	5.1	5.3
30	---	---	---	10.0	9.5	9.8	7.6	7.0	7.2	5.7	5.1	5.5
31	---	---	---	10.1	9.5	9.8	---	---	---	5.8	5.0	5.5
MONTH	13.4	11.7	12.5	12.2	8.3	10.4	12.4	7.0	9.2	8.8	5.0	6.6



## PASSAIC RIVER BASIN

01389005 PASSAIC RIVER BELOW POMPTON RIVER AT TWO BRIDGES, NJ--Continued

OXYGEN DISSOLVED (MG/L), AT RIGHT INTAKE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5.1	4.7	4.9	9.2	6.8	7.9	6.8	4.1	5.3	11.8	8.8	9.8
2	5.0	4.4	4.7	9.0	6.9	7.9	11.7	5.3	8.1	10.7	8.4	9.4
3	5.0	4.2	4.5	10.9	7.5	8.8	12.7	6.8	9.3	11.5	7.8	9.2
4	5.2	4.3	4.6	10.3	8.2	9.0	13.7	6.9	9.7	12.4	8.0	9.9
5	5.4	4.4	4.8	9.4	7.8	8.5	9.8	7.2	8.3	15.2	9.4	11.9
6	6.6	4.5	5.4	9.3	7.4	8.3	7.5	5.0	6.3	17.1	11.2	13.9
7	7.6	5.2	6.0	8.3	6.8	7.5	5.7	4.8	5.1	18.3	12.4	14.8
8	8.0	5.2	6.4	8.5	6.9	7.6	6.2	4.9	5.5	14.9	10.7	13.0
9	8.6	5.8	7.1	7.4	6.2	6.8	7.0	5.1	5.9	12.4	8.9	10.7
10	7.6	6.3	6.8	8.9	6.8	7.7	7.8	5.6	6.5	11.9	8.0	9.5
11	8.3	6.2	7.0	8.2	6.8	7.4	8.3	5.7	6.9	10.5	7.8	9.0
12	7.0	4.2	6.1	7.6	5.6	6.0	9.7	6.1	7.6	10.7	8.5	9.3
13	5.1	4.2	4.7	6.6	5.2	5.9	11.5	6.4	8.4	9.9	8.0	8.9
14	4.8	4.4	4.6	7.3	5.7	6.4	---	---	---	9.5	7.4	8.4
15	5.3	4.6	5.0	8.7	5.8	6.9	---	---	---	8.9	7.2	8.0
16	6.2	5.2	5.6	12.0	6.5	8.6	---	---	---	9.4	7.1	7.9
17	8.4	5.4	6.6	8.5	5.8	7.3	---	---	---	10.0	7.4	8.5
18	10.1	5.9	7.6	6.1	5.0	5.5	---	---	---	8.9	6.6	7.5
19	11.1	6.4	8.5	5.2	4.5	5.0	---	---	---	6.8	6.5	6.6
20	13.0	7.0	9.6	4.7	4.2	4.4	---	---	---	7.4	6.5	6.8
21	10.8	7.6	9.1	5.0	4.4	4.7	---	---	---	7.9	6.6	7.1
22	7.6	5.4	6.3	5.3	4.7	4.9	---	---	---	7.6	6.7	7.1
23	5.8	4.6	5.3	6.0	4.8	5.1	---	---	---	7.8	7.0	7.4
24	5.6	4.7	5.3	5.7	3.7	4.9	---	---	---	7.2	6.9	7.0
25	5.4	5.0	5.2	5.1	3.6	4.2	---	---	---	8.2	7.0	7.5
26	5.6	4.8	5.1	5.2	4.4	4.7	---	---	---	8.6	7.7	8.1
27	6.6	5.0	5.7	6.5	4.4	5.3	---	---	---	8.4	8.1	8.3
28	7.2	5.6	6.3	5.5	4.5	5.0	---	---	---	8.1	7.7	7.9
29	8.8	6.0	7.1	6.3	4.9	5.6	---	---	---	8.3	7.7	8.0
30	9.6	6.6	7.9	4.9	4.3	4.6	---	---	---	8.4	7.9	8.1
31	---	---	---	5.4	4.2	4.6	11.2	8.6	9.6	---	---	---
MONTH	13.0	4.2	6.1	12.0	3.6	6.4	---	---	---	18.3	6.5	9.0



## PASSAIC RIVER BASIN

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## 01389130 DEEPAVAL BROOK NEAR FAIRFIELD, NJ

LOCATION.--Lat 40°52'07", long 74°17'43", Essex County, Hydrologic Unit 02030103, on right bank at the end of Fairfield Place, 2.4 mi upstream from Passaic River, and 1.6 mi southwest of Fairfield.

DRAINAGE AREA.--1.37 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 162.58 ft above sea level.

REMARKS.--Records good. Record is stage only and is collected in cooperation with the U.S. Army Corps of Engineers. Stage is occasionally affected by backwater from Passaic River and Green Brook.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 6.18 ft, July 23; minimum recorded, 3.45 ft, Sept. 16.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 7.53 ft, Jan. 28, 1994; minimum recorded, 3.02 ft, Aug. 5, 1993.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 5-7, 1984, reached a stage of 8.5 feet, present datum, from floodmarks, affected by backwater from Passaic River, discharge not determined.

## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.31	3.66	3.90	3.70	4.00	3.89	4.53	3.71	3.72	3.72	4.99	4.35
2	4.26	3.80	3.90	3.80	3.89	3.83	4.70	3.97	3.72	3.71	4.35	4.08
3	3.97	3.73	3.80	3.74	3.83	3.78	4.13	3.86	3.71	3.68	4.08	3.96
4	4.00	3.86	3.74	3.72	3.78	3.76	3.86	3.78	3.79	3.68	3.96	3.90
5	3.86	3.72	3.74	3.72	5.55	3.76	3.78	3.72	3.79	3.76	3.90	3.86
6	3.72	3.65	3.89	3.74	4.98	4.23	3.78	3.69	3.76	3.76	3.86	3.85
7	3.66	3.62	3.90	3.81	4.23	4.03	5.82	3.78	3.76	3.75	3.85	3.82
8	3.62	3.61	3.81	3.74	4.03	3.91	4.76	4.16	3.75	3.74	6.03	3.82
9	3.70	3.61	3.78	3.73	3.91	3.86	4.16	3.98	3.74	3.74	6.16	4.87
10	3.79	3.69	4.58	3.78	5.20	3.83	3.98	3.90	3.75	3.74	4.87	4.20
11	3.69	3.61	4.05	3.83	5.14	4.31	3.90	3.84	3.82	3.74	4.20	4.02
12	3.61	3.58	3.83	3.77	4.31	3.99	3.94	3.83	3.82	3.73	4.02	3.94
13	3.59	3.58	3.77	3.73	3.99	3.88	3.96	3.87	3.73	3.70	4.00	3.90
14	3.59	3.59	3.73	3.71	3.88	3.84	4.01	3.94	3.70	3.68	4.00	3.88
15	3.59	3.58	3.71	3.70	3.84	3.82	4.00	3.94	3.81	3.67	3.88	3.85
16	3.58	3.57	3.71	3.70	3.83	3.79	4.26	3.96	4.21	3.81	3.85	3.83
17	3.58	3.57	3.70	3.69	3.94	3.79	4.28	4.05	4.17	4.01	3.85	3.83
18	3.58	3.57	3.73	3.69	3.94	3.84	4.05	3.92	4.07	3.94	3.84	3.80
19	3.60	3.58	3.76	3.72	3.84	3.78	3.92	3.88	3.99	3.90	3.80	3.76
20	3.96	3.59	3.72	3.69	3.79	3.76	6.17	3.87	4.08	3.94	3.76	3.75
21	3.93	3.70	5.73	3.68	3.79	3.75	5.43	4.49	4.09	4.03	4.07	3.75
22	3.70	3.64	5.44	4.27	3.75	3.72	4.49	4.14	4.05	3.93	3.98	3.80
23	4.27	3.64	4.27	3.94	3.72	3.71	4.14	4.00	3.93	3.89	3.80	3.75
24	4.27	3.81	3.94	3.83	4.10	3.72	4.00	3.92	4.15	3.89	3.75	3.72
25	3.81	3.71	3.83	3.77	4.10	3.86	3.92	3.87	4.13	3.91	3.72	3.70
26	3.71	3.69	3.77	3.74	3.86	3.76	3.87	3.83	3.91	3.85	3.70	3.68
27	3.69	3.67	3.83	3.71	3.76	3.73	3.83	3.79	3.85	3.82	3.68	3.66
28	3.68	3.68	5.71	3.83	3.73	3.72	3.79	3.76	5.49	3.82	3.66	3.66
29	3.69	3.68	5.23	4.30	3.73	3.69	3.76	3.73	---	---	3.66	3.65
30	3.69	3.69	4.30	4.00	3.69	3.65	3.73	3.71	---	---	3.66	3.65
31	3.70	3.69	---	---	3.71	3.64	3.72	3.71	---	---	3.66	3.66
MONTH	4.31	3.57	5.73	3.68	5.55	3.64	6.17	3.69	5.49	3.67	6.16	3.65

## PASSAIC RIVER BASIN

01389130 DEEPAVAL BROOK NEAR FAIRFIELD, NJ--Continued

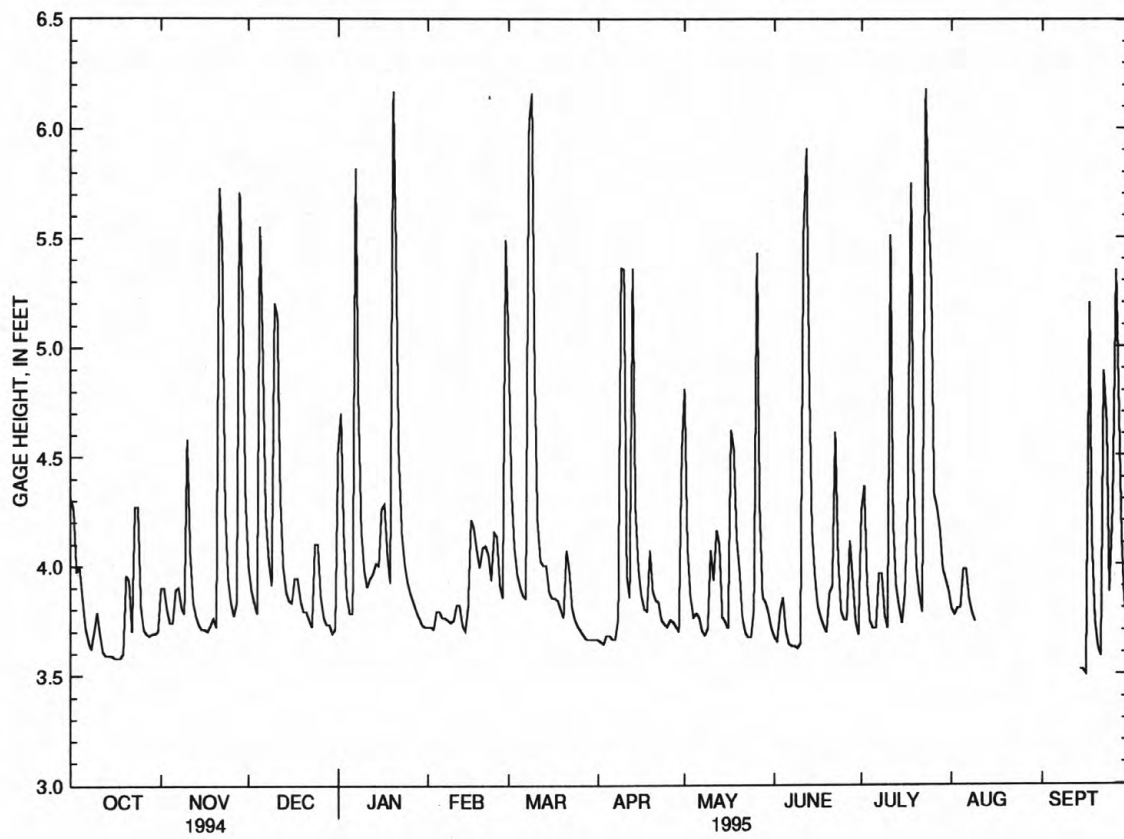
## GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.66	3.65	4.81	4.08	3.67	3.64	4.25	3.67	3.80	3.77	---	---
2	3.65	3.64	4.08	3.85	3.65	3.63	4.36	3.91	3.77	3.76	---	---
3	3.64	3.63	3.85	3.76	3.79	3.64	3.91	3.74	3.80	3.76	---	---
4	3.68	3.64	3.76	3.73	3.85	3.70	3.74	3.68	3.80	3.75	---	---
5	3.68	3.66	3.78	3.73	3.70	3.64	3.71	3.68	3.98	3.76	---	---
6	3.66	3.65	3.76	3.69	3.64	3.62	3.71	3.68	3.98	3.84	---	---
7	3.66	3.65	3.70	3.67	3.63	3.62	3.96	3.68	3.84	3.78	---	---
8	3.76	3.65	3.68	3.67	3.63	3.62	3.96	3.77	3.78	3.74	---	---
9	5.36	3.73	3.71	3.67	3.62	3.60	3.77	3.71	3.74	3.71	---	---
10	5.35	3.95	4.07	3.67	3.64	3.59	3.71	3.68	---	---	---	---
11	3.95	3.76	3.93	3.82	5.53	3.62	5.51	3.68	---	---	---	---
12	3.85	3.76	4.16	3.78	5.91	4.89	4.19	3.90	---	---	---	---
13	5.36	3.85	4.09	3.76	4.89	4.16	3.90	3.81	---	---	---	---
14	4.26	3.98	3.76	3.71	4.16	3.95	3.81	3.73	---	---	3.52	3.48
15	3.98	3.86	3.74	3.70	3.95	3.81	3.73	3.70	---	---	3.52	3.48
16	3.86	3.80	3.71	3.67	3.81	3.76	3.87	3.70	---	---	3.50	3.45
17	3.80	3.77	4.62	3.67	3.76	3.72	4.30	3.75	---	---	5.20	3.45
18	3.79	3.76	4.53	3.85	3.72	3.69	5.75	4.30	---	---	4.12	3.74
19	4.07	3.76	4.12	3.84	3.69	3.68	4.39	3.98	---	---	3.74	3.63
20	3.88	3.76	3.97	3.75	3.87	3.67	3.98	3.86	---	---	3.63	3.58
21	3.84	3.76	3.76	3.69	3.90	3.76	3.86	3.78	---	---	3.58	3.56
22	3.83	3.75	3.69	3.67	4.61	3.81	3.78	3.74	---	---	4.89	3.56
23	3.75	3.72	3.67	3.64	4.04	3.79	6.18	3.73	---	---	4.64	3.87
24	3.73	3.72	3.67	3.63	3.79	3.73	5.62	4.59	---	---	3.87	3.72
25	3.72	3.69	3.80	3.66	3.75	3.73	5.29	4.27	---	---	4.26	3.67
26	3.75	3.69	5.43	3.71	3.75	3.74	4.32	4.14	---	---	5.35	4.26
27	3.74	3.69	4.26	3.85	4.11	3.74	4.26	4.00	---	---	4.82	4.05
28	3.72	3.68	3.85	3.75	3.93	3.74	4.16	3.97	---	---	4.12	3.84
29	3.70	3.67	3.83	3.76	3.74	3.68	3.98	3.92	---	---	3.84	3.73
30	4.52	3.67	3.78	3.71	3.68	3.67	3.93	3.88	---	---	3.73	3.69
31	---	---	3.71	3.67	---	---	3.88	3.80	---	---	---	---
MONTH	5.36	3.63	5.43	3.63	5.91	3.59	6.18	3.67	---	---	---	---

PASSAIC RIVER BASIN

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01389130 DEEPAVAL BROOK NEAR FAIRFIELD, NJ--Continued



— 01389130 DEEPAVAL BROOK NEAR FAIRFIELD, MAXIMUM DAILY GAGE HEIGHT

## PASSAIC RIVER BASIN

## 01389500 PASSAIC RIVER AT LITTLE FALLS, NJ

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, Hydrologic Unit 02030103, on left bank 0.6 mi downstream from Beattie's Dam in Little Falls, and 1.0 mi upstream from Peckman River.

DRAINAGE AREA.--762 mi<sup>2</sup>. Area at site used prior to Oct. 1, 1955, 799 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1897 to current year. Monthly discharge only for September 1897, published in WSP 1302. Published as "at Paterson", September 1897 to September 1955.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 120.00 ft above sea level (levels by Passaic Valley Water Commission). Prior to Jan. 8, 1933, nonrecording gage and Jan. 8, 1933, to Sept. 30, 1955, water-stage recorder, at site 3.7 mi downstream at sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good except in June and September, which are fair. Diurnal fluctuation at medium and low flow caused by hydroelectric plant at Beattie's Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Ramapo River subbasins (see Passaic River basin, reservoirs in). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, Pompton, Ramapo, and Wanaque Rivers (see Passaic River basin, diversions and Hackensack River basin, diversions). In addition, the New Jersey-American Water Company (formerly Commonwealth Water Co.) diverts from Canoe Brook near Summit and from Passaic River (see Passaic River basin, diversions); that company, the city of East Orange, and others also divert water for municipal supply by pumping wells in the basin. Several measurements of water temperature, other than those published, were made during the year. National Weather Service rain-gage and gage-height and USGS satellite telemeters at station.

COOPERATION.--Gage-height record collected in cooperation with the Passaic Valley Water Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	1100	*2,900	*4.64	No peak greater than base discharge.			

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	96	1200	497	749	1540	393	552	213	165	142	68
2	206	171	1060	766	720	1520	384	681	141	536	175	63
3	169	136	792	887	671	1410	365	597	124	385	141	65
4	134	105	570	813	677	1320	370	492	139	308	121	50
5	112	94	750	634	707	1200	374	426	204	225	241	45
6	96	92	1140	489	602	1070	352	391	200	185	249	49
7	83	108	1150	1110	614	944	327	363	81	185	254	47
8	73	110	1050	1420	576	948	174	294	62	277	191	47
9	69	94	876	1400	524	2390	196	218	90	247	149	53
10	80	217	757	1330	522	2850	519	256	99	210	125	67
11	136	253	1100	1160	526	2620	543	263	115	342	117	63
12	84	181	1200	967	517	2390	428	217	509	441	111	49
13	107	137	1140	837	457	2200	907	409	471	372	115	48
14	70	113	945	852	441	2000	1140	364	346	228	103	57
15	73	158	777	942	425	1860	1060	258	173	173	326	55
16	62	109	622	1070	522	1670	827	203	81	193	358	50
17	126	95	525	1230	553	1460	621	202	43	241	196	146
18	104	98	510	1250	572	1240	521	350	42	552	123	75
19	75	105	526	1150	577	1020	465	364	68	680	96	65
20	116	99	533	1580	620	874	520	337	63	557	95	95
21	90	220	506	2450	698	845	521	265	81	367	79	71
22	66	932	477	2720	751	894	493	192	140	251	61	97
23	84	806	450	2480	739	879	458	105	220	279	58	116
24	127	520	482	2140	760	815	419	120	135	384	57	63
25	86	313	583	1870	821	768	378	116	92	370	54	59
26	65	300	590	1600	760	711	329	281	71	321	51	188
27	88	187	539	1360	717	641	298	297	59	376	67	235
28	76	936	499	1180	1090	585	277	184	72	256	53	151
29	57	1460	479	1000	---	537	281	129	53	318	47	50
30	57	1330	423	862	---	507	274	176	49	281	47	70
31	60	---	376	787	---	474	---	290	---	196	51	---
TOTAL	3007	9575	22627	38833	17908	40182	14214	9392	4236	9901	4053	2357
MEAN	97.0	319	730	1253	640	1296	474	303	141	319	131	78.6
MAX	206	1460	1200	2720	1090	2850	1140	681	509	680	358	235
MIN	57	92	376	489	425	474	174	105	42	165	47	45

# PASSAIC RIVER BASIN

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## 01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

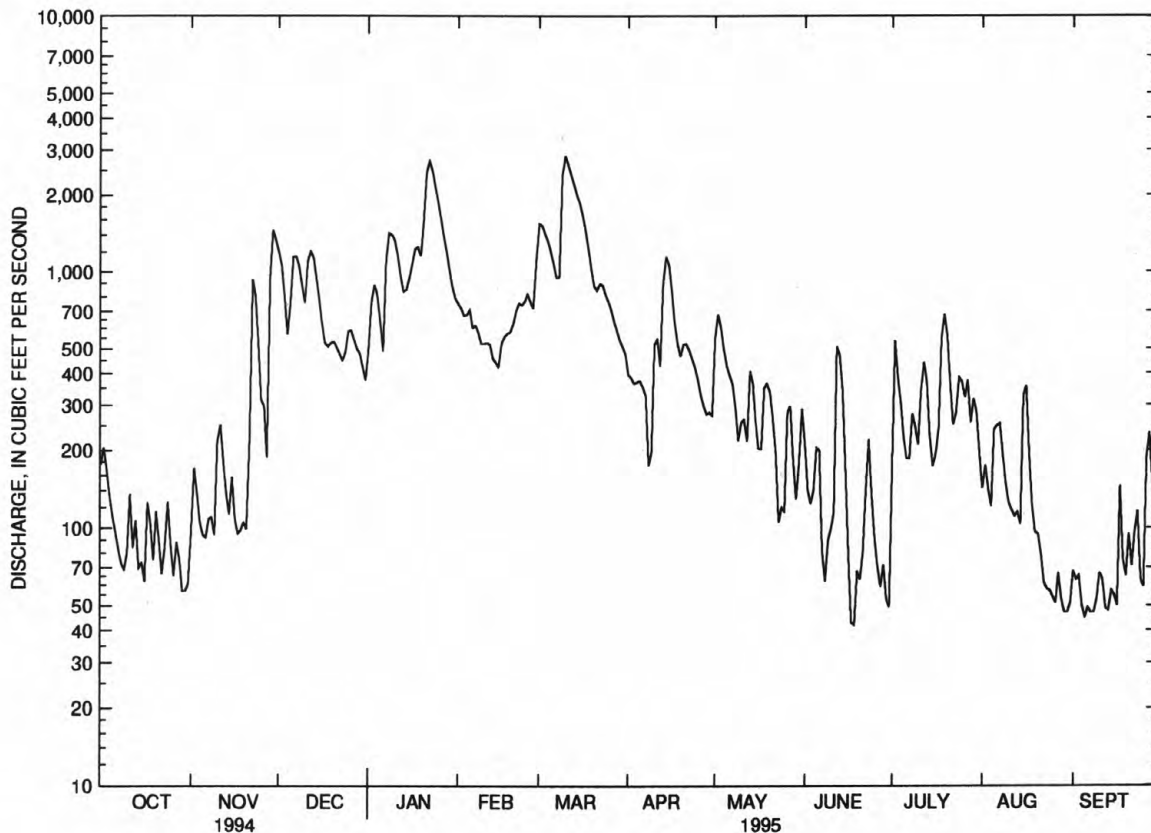
### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1995, BY WATER YEAR (WY)

MEAN	613	934	1257	1332	1426	2380	2084	1308	769	529	546	526
MAX	5613	4757	4497	4039	3787	6755	5760	4554	4290	3124	2859	3561
(WY)	1904	1908	1903	1979	1973	1936	1983	1989	1972	1945	1942	1971
MIN	44.5	79.2	111	104	178	423	228	227	84.6	60.3	30.4	28.9
(WY)	1931	1932	1981	1981	1901	1981	1985	1965	1965	1954	1923	1964

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1898 - 1995		
ANNUAL TOTAL	371006			176285					
ANNUAL MEAN	1016			483			1141		
HIGHEST ANNUAL MEAN							2394		
LOWEST ANNUAL MEAN							269		
HIGHEST DAILY MEAN	5920	Mar 30		2850	Mar 10		28000	Oct 10	1903
LOWEST DAILY MEAN	40	Jun 19		42	Jun 18		.00	Jul 3	1904
ANNUAL SEVEN-DAY MINIMUM	45	Jun 17		51	Sep 3		13	Sep 19	1932
INSTANTANEOUS PEAK FLOW				2900	Mar 10		31700a	Oct 10	1903
INSTANTANEOUS PEAK STAGE				4.64	Mar 10		----	Oct 10	1903
INSTANTANEOUS LOW FLOW				42b	Many days		.00	Jul 3	1904
10 PERCENT EXCEEDS	2990			1140			2770		
50 PERCENT EXCEEDS	533			313			627		
90 PERCENT EXCEEDS	91			64			124		

a Present site.

b Many have been lower at times in June and September.



01389500 PASSAIC RIVER AT LITTLE FALLS, NJ, DAILY MEAN DISCHARGE



## PASSAIC RIVER BASIN

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to November 1986.

WATER TEMPERATURE: Water years 1963 to 1980 (once daily), September 1980 to November 1986.

DISSOLVED OXYGEN: October 1970 to September 1980 (once daily).

SUSPENDED-SEDIMENT DISCHARGE: August 1963 to July 1965.

REMARKS.--Beginning October 1994, BOD results from 0 to 1.9 mg/L were reported as estimates (remark code of "E").

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
OCT 1994												
26...	1135	56	667	8.0	13.0	760	10.6	101	E1.4	170	43	15
NOV												
08...	1325	106	629	8.0	12.5	758	10.6	100	E1.9	170	42	15
DEC												
14...	1200	950	307	7.0	3.5	770	13.0	97	E1.2	82	21	7.1
JAN 1995												
20...	1115	1530	343	7.6	6.0	759	12.6	102	--	79	21	6.5
FEB												
17...	1100	547	564	7.8	1.5	768	13.3	94	E1.1	120	32	10
MAR												
17...	1000	1480	321	7.7	10.5	756	11.0	99	E1.9	76	20	6.3
APR												
12...	1245	415	458	7.4	11.0	765	8.7	79	2.1	110	28	9.0
MAY												
09...	1115	219	495	8.1	16.0	765	10.2	103	2.5	130	32	11
23...	1030	95	483	7.9	18.0	765	6.3	66	2.1	120	29	11
JUN												
08...	1235	68	534	8.2	24.5	752	8.3	101	4.6	140	36	12
21...	1000	102	563	8.5	24.5	761	8.5	102	5.6	140	37	12
JUL												
19...	1115	700	324	7.9	25.0	755	8.2	100	4.8	84	22	7.1
AUG												
14...	1142	108	548	8.4	25.5	758	8.7	107	3.7	140	37	12
SEP												
06...	1100	52	666	8.4	23.0	765	8.5	99	4.1	160	42	14
26...	1020	204	447	7.9	17.0	756	9.1	95	2.1	110	29	10

## PASSAIC RIVER BASIN

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01389500 PASSAIC RIVER AT LITTLE FALLS, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1994											
26...	61	7.3	96	47	97	0.1	15	368	377	10	<0.01
NOV											
08...	53	6.7	99	43	89	0.1	15	353	355	--	0.02
DEC											
14...	23	2.2	48	21	40	<0.1	11	186	162	--	<0.01
JAN 1995											
20...	31	2.0	45	17	57	<0.1	9.0	186	177	25	<0.01
FEB											
17...	53	3.7	67	29	99	0.1	11	304	279	--	0.03
MAR											
17...	29	1.9	42	18	52	<0.1	8.4	176	165	--	<0.01
APR											
12...	41	3.0	61	31	68	0.1	9.2	258	240	--	0.03
MAY											
09...	44	3.9	75	31	73	0.1	9.1	278	266	--	<0.01
23...	42	3.9	75	29	70	0.1	12	286	258	--	<0.01
JUN											
08...	46	4.4	85	31	76	0.2	12	306	288	--	0.06
21...	48	5.0	86	41	74	0.1	12	312	302	--	0.05
JUL											
19...	26	3.3	54	18	43	0.1	9.1	180	173	--	<0.01
AUG											
14...	48	5.4	84	38	79	0.1	13	310	305	--	0.02
SEP											
06...	63	5.5	93	54	98	0.2	9.6	380	369	--	0.03
26...	39	4.6	66	30	62	<0.1	11	246	246	--	<0.01
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
OCT 1994											
26...	7.00	0.070	0.80	0.54	7.8	7.5	1.20	1.20	1.10	4.9	0.6
NOV											
08...	6.50	0.040	0.80	0.37	7.3	6.9	1.20	1.00	1.10	4.7	0.7
DEC											
14...	1.60	0.050	0.40	0.34	2.0	1.9	0.22	0.19	0.20	5.6	0.5
JAN 1995											
20...	1.40	0.060	0.50	0.27	1.9	1.7	0.23	--	0.17	4.0	1.2
FEB											
17...	--	0.110	0.50	0.39	--	--	0.52	0.46	0.41	3.4	0.3
MAR											
17...	0.92	0.030	0.50	0.30	1.4	1.2	0.19	0.13	0.11	4.7	1.0
APR											
12...	3.10	0.200	0.70	0.49	3.8	3.6	0.39	0.27	--	4.2	0.3
MAY											
09...	3.60	0.050	0.70	0.43	4.3	4.0	0.54	0.44	0.30	4.4	1.2
23...	3.40	0.170	0.70	0.45	4.1	3.9	0.48	0.30	0.15	5.8	1.1
JUN											
08...	4.00	<0.015	0.70	0.61	4.7	4.6	0.51	0.49	0.49	5.8	1.6
21...	4.40	<0.015	1.3	0.45	5.7	4.8	0.56	0.48	0.47	5.0	2.4
JUL											
19...	2.50	0.040	0.80	0.37	3.3	2.9	0.50	0.38	0.41	4.8	1.8
AUG											
14...	4.50	0.130	1.2	0.67	5.7	5.2	0.78	0.63	0.60	4.6	2.8
SEP											
06...	5.50	0.040	1.2	0.43	6.7	5.9	0.96	0.81	0.82	4.0	1.6
26...	4.20	0.080	0.70	0.64	4.9	4.8	0.72	0.64	0.63	4.2	1.0

## PASSAIC RIVER BASIN

01389880 PASSAIC RIVER AT ROUTE 46 AT ELMWOOD PARK, NJ

LOCATION.--Lat 40°53'37", long 74°07'46", Passaic County, Hydrologic Unit 02030103, at bridge on U.S. Route 46 at Elmwood Park, and 0.8 mi upstream from Dundee Dam.

DRAINAGE AREA.--803 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1974-81, 1991 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
NOV 1994													
01...	1130	E110	641	7.6	14.5	750	9.2	92	4.0	11000	600	170	
JAN 1995													
23...	1045	E2650	248	7.4	4.0	753	12.9	100	<1.0	350	730	59	
MAR													
16...	1035	E1790	313	7.4	9.5	765	10.6	92	E1.3	330	60	72	
MAY													
22...	1040	E210	464	7.9	19.0	763	7.8	84	3.2	2400	50	120	
JUL													
20...	1020	E610	370	7.9	26.0	761	6.2	77	3.0	4900	500	98	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
01...	43	14	54	6.0	102	44	96	0.1	11	354	352	15	
JAN 1995													
23...	16	4.7	22	1.6	34	11	39	<0.1	8.0	144	126	20	
MAR													
16...	19	6.0	29	1.6	40	18	51	<0.1	8.0	182	161	34	
MAY													
22...	31	10	40	3.6	73	26	68	<0.1	9.7	276	246	22	
JUL													
20...	26	8.1	30	3.6	62	21	51	0.2	9.9	204	199	21	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
01...	0.086	5.10	0.09	0.12	0.70	0.50	5.8	5.6	0.72	0.62	4.3	1.3	
JAN 1995													
23...	0.008	0.79	0.06	0.04	0.50	0.27	1.3	1.1	0.12	0.06	4.2	1.0	
MAR													
16...	0.008	1.00	<0.03	<0.03	0.50	0.30	1.5	1.3	0.23	0.12	4.5	1.3	
MAY													
22...	0.058	3.10	0.07	0.11	0.70	0.59	3.8	3.7	0.37	0.20	5.6	1.0	
JUL													
20...	0.025	2.60	<0.03	0.05	0.70	0.37	3.3	3.0	0.43	0.34	5.0	1.2	

PASSAIC RIVER BASIN

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01389880 PASSAIC RIVER AT ROUTE 46 AT ELMWOOD PARK, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 22...	1040	25	1	<10	120	<1	2	5

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 22...	960	7	210	<0.1	3	<1	20

## PASSAIC RIVER BASIN

## 01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1954 to September 1974, October 1977 to current year. Operated as a maximum-stage gage water years 1975-77.

REVISED RECORDS.--WRD-NJ 1974: 1971.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 71.74 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records poor. The flow past this station is affected by pumpage from wells by Hackensack Water Co. and others. Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 23, 1945, reached a discharge of 6,400 ft<sup>3</sup>/s, at site 1.6 mi upstream, drainage area, 19.1 mi<sup>2</sup>, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 21	2330	502	4.22	Mar. 9	0215	424	3.95
Jan. 20	1500	*574	*4.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e15	18	30	e15	42	14	40	9.7	5.6	2.7	2.5
2	17	e13	17	35	e15	27	14	15	8.9	14	2.5	1.7
3	10	e9.2	17	19	e14	22	13	13	8.6	6.6	2.3	1.5
4	9.2	e7.7	16	16	e17	20	14	12	8.6	4.5	7.3	1.3
5	8.1	8.5	80	16	e18	19	14	11	8.1	4.0	14	1.2
6	7.9	9.5	37	20	e14	19	14	11	7.3	4.1	8.7	1.1
7	7.5	11	20	93	e14	19	14	9.8	7.3	4.3	4.9	.69
8	7.3	10	18	27	e13	47	15	9.4	6.8	4.6	3.1	.67
9	6.8	10	16	19	e12	143	20	9.3	5.8	3.5	2.7	.67
10	7.0	37	28	18	e12	32	47	9.9	5.1	3.3	2.5	.67
11	6.6	e11	72	17	e13	27	18	11	6.2	10	2.3	1.3
12	6.4	e9.0	24	19	e13	24	16	10	49	5.3	2.3	e.70
13	6.3	e8.0	18	19	e12	23	68	10	17	3.9	2.2	e.90
14	6.2	e8.0	17	20	e12	22	24	9.1	10	3.4	2.0	e.60
15	6.0	e7.0	16	20	e12	21	17	9.1	8.5	3.0	2.3	e.50
16	5.9	e7.0	16	23	e24	20	16	9.1	7.6	2.6	2.2	e.60
17	5.9	e7.0	17	26	e17	20	15	10	6.9	3.6	2.0	e11
18	e7.1	e7.0	18	19	e15	19	15	12	6.5	12	1.8	e1.7
19	e7.2	e8.0	15	18	e15	19	19	11	5.9	4.5	1.4	e.60
20	e9.6	e8.0	15	171	e16	18	16	10	5.5	3.2	1.3	e.70
21	e9.4	e55	14	108	e18	22	15	8.4	4.5	2.9	1.2	e.60
22	e7.1	98	14	40	e17	21	15	8.1	7.6	2.8	1.1	e7.9
23	e11	19	14	31	e16	19	13	8.2	5.7	2.8	.97	e9.7
24	e14	15	21	28	e21	18	13	7.9	5.3	3.3	1.2	e2.4
25	e8.9	14	20	24	e20	17	13	8.7	20	8.6	1.2	e1.8
26	e8.0	13	15	22	e16	16	12	36	8.6	10	1.2	e31
27	e7.5	11	14	e20	e14	16	11	18	6.3	7.4	1.2	e7.1
28	e6.8	138	14	e19	92	15	12	13	5.7	6.2	1.2	e3.2
29	e6.6	39	13	e17	---	15	11	12	e4.8	8.8	1.2	e2.2
30	e6.4	21	12	e16	---	15	13	12	e3.5	4.2	1.2	e1.4
31	e6.5	---	12	e16	---	15	---	11	---	3.1	1.2	---
TOTAL	253.2	633.9	658	986	507	792	531	385.0	271.3	166.1	83.37	97.90
MEAN	8.17	21.1	21.2	31.8	18.1	25.5	17.7	12.4	9.04	5.36	2.69	3.26
MAX	17	138	80	171	92	143	68	40	49	14	14	31
MIN	5.9	7.0	12	16	12	15	11	7.9	3.5	2.6	.97	.50
CFSM	.38	.98	.98	1.47	.84	1.18	.82	.57	.42	.25	.12	.15
IN.	.44	1.09	1.13	1.70	.87	1.36	.91	.66	.47	.29	.14	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	MEAN	21.6	34.3	36.3	35.7	40.3	55.3	58.8	42.8	27.5	20.2	19.7	18.1
MAX	104	109	109	115	86.9	104	152	118	121	87.6	77.1	70.6	
(WY)	1956	1978	1973	1979	1961	1983	1983	1989	1972	1984	1955	1971	
MIN	5.79	8.41	7.49	6.43	11.8	15.6	11.0	12.4	7.46	3.23	2.69	2.34	
(WY)	1983	1982	1981	1981	1980	1985	1985	1995	1965	1966	1995	1980	



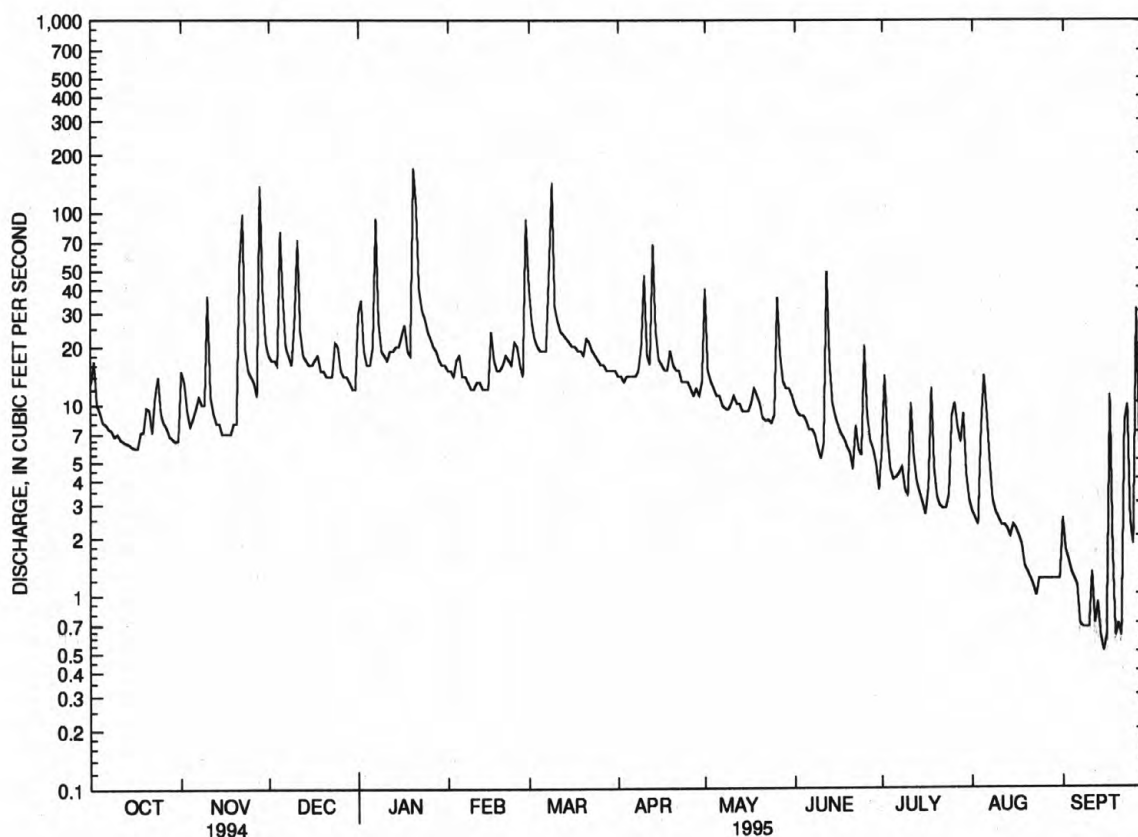
# PASSAIC RIVER BASIN

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## 01390500 SADDLE RIVER AT RIDGEWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1955 - 1995	
ANNUAL TOTAL	11181.4		5364.77		34.2	
ANNUAL MEAN	30.6		14.7		58.7	
HIGHEST ANNUAL MEAN					14.7	
LOWEST ANNUAL MEAN					1250	
HIGHEST DAILY MEAN	253	Mar 10	171	Jan 20	.20	Nov 8 1977
LOWEST DAILY MEAN	5.9	Oct 16	.50	Sep 15	.75	Sep 17 1966
ANNUAL SEVEN-DAY MINIMUM	6.2	Oct 11	.75	Sep 10	.75	Sep 10 1995
INSTANTANEOUS PEAK FLOW			574	Jan 20	4650	Nov 8 1977
INSTANTANEOUS PEAK STAGE			4.45	Jan 20	12.25	Nov 8 1977
INSTANTANEOUS LOW FLOW			.50e	Sep 15	---	
ANNUAL RUNOFF (CFSM)	1.42		.68		1.58	
ANNUAL RUNOFF (INCHES)	19.26		9.24		21.48	
10 PERCENT EXCEEDS	75		24		68	
50 PERCENT EXCEEDS	16		11		22	
90 PERCENT EXCEEDS	7.5		2.0		6.7	

e Estimated.



01390500 SADDLE RIVER AT RIDGEWOOD, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

## 01391000 HOHOKUS BROOK AT HO-HO-KUS, NJ

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, Hydrologic Unit 02030103, on left bank 500 ft upstream from bridge on Maple Avenue in Ho-Ho-Kus, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--16.4 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1954 to September 1973, October 1977 to current year. Operated as a crest-stage partial-record station, water years 1974-77.

REVISED RECORDS.--WDR NJ-77-1: 1955(M), 1968(M), 1976(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 120.09 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good except those above 300 ft<sup>3</sup>/s, which are fair. Some regulation and diurnal fluctuation at low and medium flows caused by unknown sources, possibly sewage treatment plant upstream of gage. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 20	1200	*448	*2.66	No peak greater than base discharge.			

REVISIONS.--Some peak discharges and the annual maximum (\*) for water years 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, and 1994 have been revised as shown in the following table. They supersede figures published in the state reports for 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993 and 1994.

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 13, 1983	1330	1,240	3.19	Oct. 20, 1989	--	710	2.80
Apr. 5, 1984	1600	*3,130	*5.26	Mar. 20, 1990	--	584	2.69
May. 29, 1984	1630	2,070	4.00	May 16, 1990	--	1,480	3.41
May. 30, 1984	1250	1,800	3.73	May 29, 1990	--	1,370	3.30
July 5, 1984	2330	1,440	3.37	Aug. 7, 1990	--	*1,560	*3.49
July 7, 1984	0830	1,690	3.62	Oct. 13, 1990	2115	816	2.87
Sep. 3, 1984	0545	662	2.76	Oct. 23, 1990	2245	754	2.83
Sep. 27, 1985	1315	*1,250	*3.20	Nov. 10, 1990	1600	1,410	3.34
Aug. 17, 1986	1730	*2,020	*3.95	Dec. 4, 1990	0545	617	2.72
Mar. 31, 1987	1430	698	2.79	Mar. 4, 1991	0200	*1,550	*3.48
Apr. 4, 1987	1800	*1,680	*3.61	Sep. 25, 1991	0900	1,520	3.45
Sep. 13, 1987	1700	846	2.89	May 31, 1992	1515	698	2.79
July 26, 1988	--	*639	*2.74	Jun. 5, 1992	2045	848	2.89
Nov. 11, 1988	--	754	2.83	Sep. 3, 1992	1930	*1,480	*3.41
May. 6, 1989	--	564	2.67	Nov. 23, 1992	0430	*909	*2.93
May. 17, 1989	--	1,350	3.28	Nov. 28, 1993	1045	*1,750	*3.68
July 5, 1989	--	674	2.77	Jan. 28, 1994	1545	1,260	3.21
Aug. 12, 1989	--	674	2.77	Mar. 10, 1994	1230	564	2.67
Sep. 20, 1989	--	*1,440	*3.37				

## PASSAIC RIVER BASIN

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01391000 HOHOKUS BROOK AT HO-HO-KUS, NJ--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	25	26	32	26	60	27	58	19	19	13	16
2	27	25	23	36	26	41	27	32	17	32	13	13
3	22	19	22	32	24	35	26	27	18	18	13	11
4	21	17	21	26	30	33	27	24	19	14	26	12
5	20	18	77	22	29	32	26	24	18	14	56	13
6	19	19	54	20	24	31	25	24	17	14	27	15
7	18	19	33	100	24	31	25	22	17	14	19	13
8	17	17	28	41	24	61	26	22	17	14	16	12
9	17	17	25	30	23	145	33	21	17	13	16	12
10	18	36	40	26	23	51	60	23	16	13	15	13
11	17	24	76	25	25	42	31	26	22	29	15	13
12	17	19	36	29	24	38	29	25	64	19	15	12
13	17	18	29	30	23	37	88	25	28	15	14	13
14	17	18	27	31	22	35	44	22	22	13	14	13
15	17	18	26	31	24	34	34	22	19	13	20	12
16	17	17	25	35	34	34	30	21	18	12	18	12
17	17	17	27	38	31	34	29	25	17	13	16	25
18	17	17	29	30	27	33	27	27	16	34	15	16
19	17	19	25	28	29	31	32	26	16	18	14	14
20	23	17	23	157	31	30	30	24	16	14	13	13
21	19	83	22	91	34	36	27	21	14	13	13	13
22	17	96	22	49	30	35	27	21	26	13	13	35
23	25	31	23	40	30	29	24	19	19	12	13	27
24	25	23	29	36	33	30	25	19	16	15	13	16
25	19	20	29	33	31	29	24	21	15	26	12	15
26	18	19	24	31	28	28	23	48	15	48	12	57
27	17	18	23	30	25	28	23	26	15	33	12	28
28	17	132	23	29	93	27	23	20	14	22	12	19
29	17	54	22	27	---	28	23	21	14	22	12	16
30	16	31	20	27	---	27	28	21	14	16	12	16
31	17	---	21	27	---	28	---	20	---	14	13	---
TOTAL	589	903	930	1219	827	1193	923	777	575	579	505	515
MEAN	19.0	30.1	30.0	39.3	29.5	38.5	30.8	25.1	19.2	18.7	16.3	17.2
MAX	27	132	77	157	93	145	88	58	64	48	56	57
MIN	16	17	20	20	22	27	23	19	14	12	12	11
CFSM	1.16	1.84	1.83	2.40	1.80	2.35	1.88	1.53	1.17	1.14	.99	1.05
IN.	1.34	2.05	2.11	2.77	1.88	2.71	2.09	1.76	1.30	1.31	1.15	1.17

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	MEAN	24.5	35.0	35.7	34.2	40.5	51.0	52.6	40.4	30.0	24.5	25.0	22.8
MAX	82.4	102	91.7	80.9	90.0	93.4	130	108	101	85.5	84.9	96.5	
(WY)	1956	1978	1984	1979	1973	1994	1983	1989	1972	1984	1955	1971	
MIN	6.21	7.10	12.3	9.07	15.3	20.8	19.4	13.9	7.58	3.91	5.17	5.78	
(WY)	1965	1965	1981	1981	1980	1981	1985	1955	1965	1966	1966	1964	

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

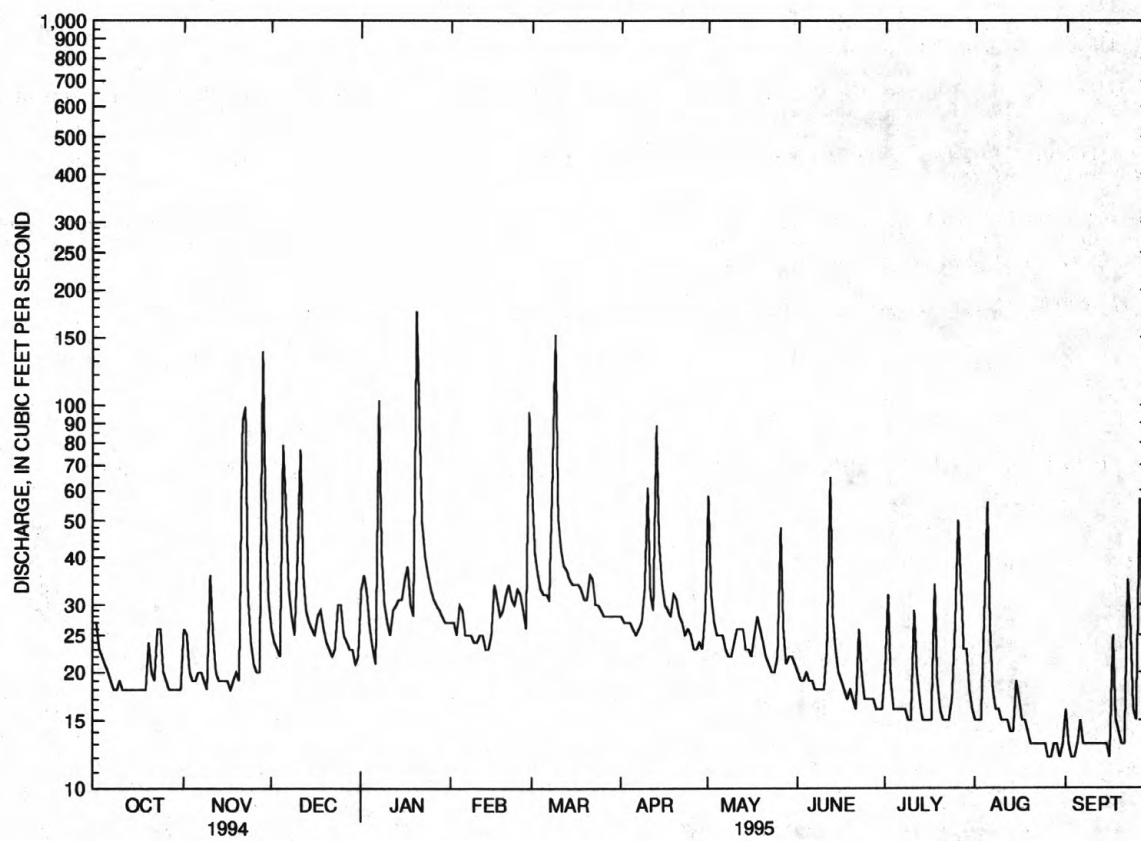
## FOR 1995 WATER YEAR

## WATER YEARS 1955 - 1995

ANNUAL TOTAL	14787	9535	
ANNUAL MEAN	40.5	26.1	34.6
HIGHEST ANNUAL MEAN			61.3
LOWEST ANNUAL MEAN			16.1
HIGHEST DAILY MEAN	248	Jan 28	1220
LOWEST DAILY MEAN	15	Sep 13	2.5
ANNUAL SEVEN-DAY MINIMUM	15	Sep 11	2.8
INSTANTANEOUS PEAK FLOW			3700
INSTANTANEOUS PEAK STAGE		2.66	7.06
INSTANTANEOUS LOW FLOW		5.6	1.9
ANNUAL RUNOFF (CFSM)	2.47	1.59	2.11
ANNUAL RUNOFF (INCHES)	33.54	21.63	28.69
10 PERCENT EXCEEDS	82	36	63
50 PERCENT EXCEEDS	26	23	24
90 PERCENT EXCEEDS	17	13	10

## PASSAIC RIVER BASIN

01391000 HOHOKUS BROOK AT HO-HO-KUS, NJ--Continued



01391000 HOHOKUS BROOK AT HOHOKUS, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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## 01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, Hydrologic Unit 02030103, on left bank 560 ft upstream from bridge on Outwater Lane in Lodi and 3.2 mi upstream from mouth. Water-quality samples collected at bridge on Outwater Lane at high flows.

DRAINAGE AREA.--54.6 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: 1967. WRD-NJ 1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft above sea level. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--Records good. Occasional regulation at low flow. Diversion upstream from station at Arcola by Hackensack Water Company, for municipal supply (records given herein). The flow past this station is affected by pumpage from wells by Hackensack Water Company and others. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 20	1730	*1,020	*4.39	No peak greater than base discharge.			

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	66	66	106	63	159	59	159	25	42	16	25
2	63	58	59	132	62	95	58	75	24	62	18	15
3	47	43	56	79	59	82	57	60	25	34	19	13
4	43	37	53	63	67	76	58	52	29	26	24	11
5	40	37	252	54	72	72	55	48	26	23	106	12
6	39	37	158	52	57	71	53	43	23	23	41	14
7	37	40	87	291	58	68	55	36	23	24	25	11
8	36	35	74	104	55	104	61	40	33	23	19	11
9	38	35	64	72	54	468	122	45	24	21	17	11
10	39	94	111	62	54	135	119	56	23	20	16	12
11	35	53	251	58	59	106	67	45	28	70	14	8.4
12	34	42	99	66	57	96	130	42	237	30	14	5.8
13	33	39	75	67	51	92	181	36	56	21	13	7.4
14	34	37	68	70	50	86	95	29	33	19	12	5.6
15	34	36	64	70	52	85	76	31	27	21	17	4.9
16	33	35	61	82	93	82	67	31	25	19	18	5.3
17	32	34	67	93	72	82	64	28	24	19	15	63
18	32	35	72	68	65	79	58	48	28	116	15	14
19	32	39	61	62	64	75	71	49	24	25	15	5.1
20	44	37	56	410	69	74	58	37	23	20	14	6.0
21	44	188	55	308	73	84	59	26	22	19	14	5.0
22	34	359	54	132	68	85	50	27	96	18	14	43
23	49	82	56	103	62	73	44	25	28	84	13	58
24	64	60	87	92	79	71	47	27	25	31	16	16
25	42	53	79	84	76	68	50	30	33	43	13	12
26	38	50	60	78	63	65	48	129	29	59	14	133
27	36	47	55	74	58	64	46	55	23	59	13	39
28	33	423	54	71	242	62	50	34	23	39	13	17
29	32	157	52	67	---	61	43	36	21	38	13	14
30	31	82	49	65	---	60	46	36	24	22	13	9.1
31	32	---	48	64	---	61	---	29	---	17	13	---
TOTAL	1227	2370	2503	3199	1954	2941	2047	1444	1084	1087	597	606.6
MEAN	39.6	79.0	80.7	103	69.8	94.9	68.2	46.6	36.1	35.1	19.3	20.2
MAX	67	423	252	410	242	468	181	159	237	116	106	133
MIN	31	34	48	52	50	60	43	25	21	17	12	4.9
IN.	.84	1.61	1.71	2.18	1.33	2.00	1.39	.98	.74	.74	.41	.41



## 01391500 SADDLE RIVER AT LODI, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1995, BY WATER YEAR (WY)

MEAN	64.0	88.6	99.9	104	118	156	155	118	84.0	71.2	68.4	68.0
MAX	257	284	301	331	258	333	457	315	336	371	225	256
(WY)	1956	1978	1984	1979	1973	1953	1983	1984	1972	1945	1955	1971
MIN	16.5	25.5	17.0	12.1	38.1	40.1	32.9	44.9	31.8	14.1	15.1	11.4
(WY)	1936	1982	1981	1981	1980	1981	1985	1941	1965	1966	1966	1932
(†)	0	0	0	0	0	0	3.67	12.5	11.2	11.4	6.90	12.9
MEAN*	39.6	79.0	80.7	103	69.8	94.9	71.9	59.1	47.3	46.5	26.2	33.1
IN*	.84	1.61	1.71	2.18	1.33	2.00	1.47	1.25	.97	.98	.55	.68

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

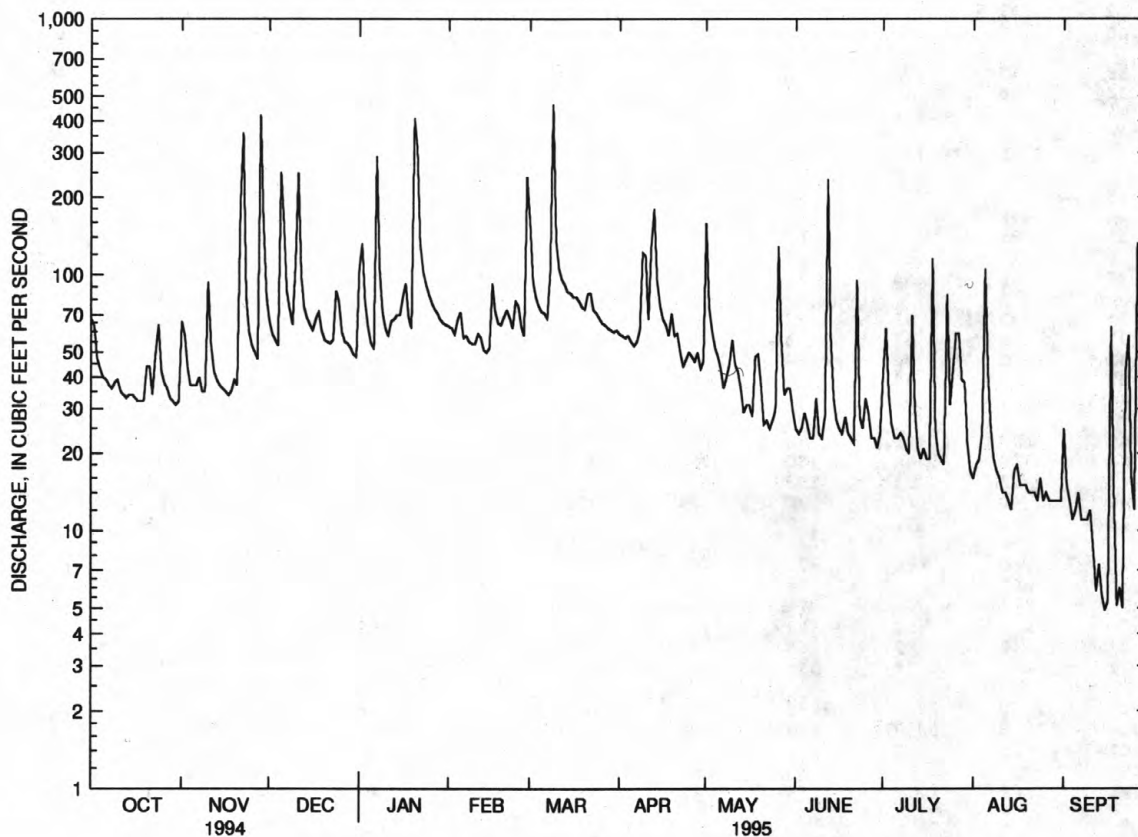
## WATER YEARS 1924 - 1995

ANNUAL TOTAL	39456		21059.6									
ANNUAL MEAN	108		57.7									
HIGHEST ANNUAL MEAN									99.5			
LOWEST ANNUAL MEAN									187			1984
HIGHEST DAILY MEAN	789	Mar 10	468	Mar 9	2970				45.2			1981
LOWEST DAILY MEAN	31	Oct 30	4.9	Sep 15	4.9				7.1			Apr 5 1984
ANNUAL SEVEN-DAY MINIMUM	33	Oct 13	7.1	Sep 10	7.1				4.9			Sep 15 1995
INSTANTANEOUS PEAK FLOW			1020	Jan 20	4500				7.1			Sep 10 1995
INSTANTANEOUS PEAK STAGE			4.39	Jan 20	12.36				1.0			Nov 9 1977
INSTANTANEOUS LOW FLOW			2.5	Sep 15	1.0				24.75			Nov 9 1977
ANNUAL RUNOFF (INCHES)	26.88		14.35						26			May 25 1938
10 PERCENT EXCEEDS	239		95									
50 PERCENT EXCEEDS	66		48									
90 PERCENT EXCEEDS	37		15									

a From high-water mark in gage house.

† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Company for municipal supply. Records provided by Hackensack Water Company.

\* Adjusted for diversion.



— 01391500 SADDLE RIVER AT LODI, NJ, DAILY MEAN DISCHARGE

## PASSAIC RIVER BASIN

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01391500 SADDLE RIVER AT LODI, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
03...	1100	42	665	7.5	10.5	765	6.9	62	3.3	2400	500	200	
JAN 1995													
25...	1040	78	688	7.7	5.0	761	10.7	84	E2.1	230	170	180	
MAR													
27...	1115	53	718	7.8	10.0	762	9.8	87	2.3	>2400	180	210	
MAY													
18...	1235	42	669	7.7	18.0	752	6.2	67	6.1	24000	3500	190	
JUL													
25...	0930	50	621	7.6	24.0	760	4.4	53	2.2	9200	2900	170	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
03...	52	16	47	5.8	125	28	92	<0.1	13	364	355	4	
JAN 1995													
25...	52	13	57	3.3	115	25	110	<0.1	12	384	360	5	
MAR													
27...	59	15	53	4.0	129	27	110	<0.1	9.2	388	379	8	
MAY													
18...	50	15	53	5.5	113	29	98	<0.1	11	382	355	13	
JUL													
25...	43	14	50	5.7	100	26	89	<0.1	11	350	331	11	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
03...	0.299	5.5	1.22	1.13	1.6	1.3	7.1	6.8	0.58	0.55	5.0	0.4	
JAN 1995													
25...	0.061	4.1	0.72	0.75	1.2	1.0	5.3	5.1	0.35	0.30	3.6	0.5	
MAR													
27...	0.220	5.1	1.40	1.40	2.0	1.8	7.1	6.9	0.77	0.73	3.9	0.7	
MAY													
18...	0.540	5.4	1.14	1.15	1.7	1.3	7.1	6.7	0.67	0.58	5.8	1.3	
JUL													
25...	0.199	7.2	0.45	0.42	1.4	0.91	8.6	8.1	1.40	1.20	6.0	0.8	

## PASSAIC RIVER BASIN

01391500 SADDLE RIVER AT LODI, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 18...	1235	22	2	<10	130	<1	5	9
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 18...		470	4	230	<0.1	2	<1	20

## PASSAIC RIVER BASIN

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## 01392210 THIRD RIVER AT PASSAIC, NJ

LOCATION.--Lat 40°49'47", long 74°08'32", Passaic County, Hydrologic Unit 02030103, on right bank 400 ft upstream from bridge on State Highway 3, 0.8 mi south of Passaic, 1.2 mi upstream from Passaic River.

DRAINAGE AREA.--11.8 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 22.15 ft above sea level.

REMARKS.--Records good. Some regulation from ponds upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 21	2015	596	4.33	July 17	2345	*701	*4.58
June 12	0145	646	4.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	9.2	23	9.2	16	7.6	41	7.8	19	5.9	4.8
2	9.9	9.5	8.7	31	9.0	12	7.9	8.8	8.0	16	5.3	4.2
3	7.5	6.5	8.7	10	8.7	11	7.3	7.4	8.3	8.3	5.1	4.1
4	7.6	6.2	8.5	9.3	12	11	7.7	7.1	8.3	7.3	5.0	4.5
5	7.1	6.2	76	10	12	11	8.2	7.2	7.4	7.3	12	4.1
6	7.2	6.1	15	9.8	12	11	7.5	6.9	7.2	7.2	7.5	4.3
7	7.0	6.2	11	106	9.9	12	7.2	7.0	7.1	8.4	6.3	4.5
8	6.8	6.1	11	12	9.3	42	7.9	6.5	6.6	8.2	5.5	4.7
9	6.7	6.3	8.9	10	9.2	67	23	6.8	6.4	6.8	5.2	4.7
10	7.8	36	39	9.8	9.1	14	31	11	5.9	6.7	5.4	4.9
11	6.7	7.5	37	9.4	9.8	14	7.8	8.9	8.0	61	5.1	3.9
12	6.7	6.5	11	10	9.0	15	9.9	11	96	8.5	4.9	4.4
13	6.4	6.4	9.7	9.8	12	12	53	9.3	11	7.7	5.7	4.5
14	6.7	6.4	9.3	11	8.9	12	12	7.2	8.3	7.4	5.2	4.6
15	6.5	6.6	9.1	9.5	12	11	8.5	8.0	8.0	6.9	7.2	4.6
16	6.0	6.2	8.7	15	27	9.9	8.3	6.6	7.4	10	5.2	4.5
17	6.3	6.2	15	14	12	13	8.3	24	7.2	23	4.6	59
18	5.9	6.6	10	9.6	10	9.5	8.0	14	6.8	91	4.4	7.0
19	6.5	6.8	9.1	9.2	9.9	9.3	11	16	6.1	9.0	4.2	5.5
20	12	6.1	8.6	132	10	9.4	7.9	7.9	6.0	8.0	4.0	4.9
21	8.1	95	8.3	19	11	14	8.1	6.7	5.9	7.2	4.4	4.6
22	6.4	29	8.3	13	9.7	9.4	7.8	6.5	52	7.4	34	37
23	14	8.2	8.2	12	9.2	8.7	7.4	6.5	7.9	54	6.9	13
24	10	7.4	26	11	14	8.7	7.5	6.5	7.2	14	4.4	5.7
25	6.7	13	11	10	9.5	10	7.1	7.3	7.6	11	4.1	12
26	6.4	8.4	8.8	10	9.1	9.7	7.1	49	7.1	8.5	4.2	101
27	6.1	9.3	8.4	9.8	9.2	8.4	7.1	10	8.4	9.0	4.2	13
28	6.3	139	8.5	9.6	75	8.2	8.3	8.5	7.1	8.9	4.3	6.8
29	6.3	14	8.3	9.8	---	7.9	7.5	18	6.7	7.9	4.3	6.3
30	6.3	10	8.1	9.4	---	7.8	15	23	6.3	7.1	4.2	5.5
31	6.2	---	8.2	9.3	---	7.9	---	8.0	---	6.6	4.4	---
TOTAL	236.1	507.7	435.6	583.3	367.7	422.8	332.9	372.6	354.0	469.3	193.1	352.6
MEAN	7.62	16.9	14.1	18.8	13.1	13.6	11.1	12.0	11.8	15.1	6.23	11.8
MAX	16	139	76	132	75	67	53	49	96	91	34	101
MIN	5.9	6.1	8.1	9.2	8.7	7.8	7.1	6.5	5.9	6.6	4.0	3.9
CFSM	.65	1.43	1.19	1.59	1.11	1.16	.94	1.02	1.00	1.28	.53	1.00
IN.	.74	1.60	1.37	1.84	1.16	1.33	1.05	1.17	1.12	1.48	.61	1.11

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1995, BY WATER YEAR (WY)

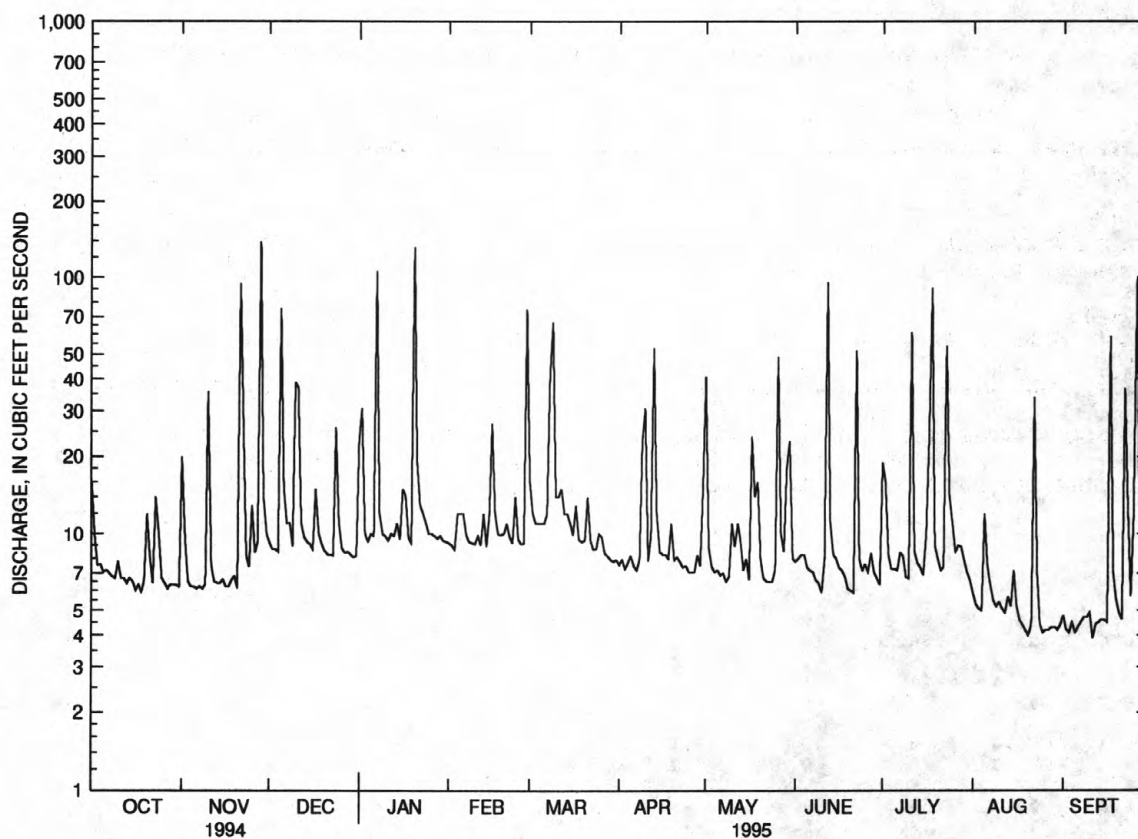
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	15.4	22.0	20.4	22.1	18.8	25.6	27.7	26.4	18.1	17.0	18.2	15.6							
MAX	34.3	66.1	60.2	64.3	31.0	48.1	70.4	56.4	38.8	31.7	44.1	29.3							
(WY)	1990	1978	1984	1979	1984	1983	1983	1989	1992	1984	1978	1989							
MIN	6.00	9.31	7.55	7.25	10.4	9.94	7.56	12.0	9.61	7.23	6.23	8.43							
(WY)	1983	1982	1981	1981	1985	1985	1985	1995	1987	1993	1995	1982							

## PASSAIC RIVER BASIN

01392210 THIRD RIVER AT PASSAIC, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1977 - 1995	
ANNUAL TOTAL	7355.0		4627.7		20.6	
ANNUAL MEAN	20.2		12.7		32.7	1978
HIGHEST ANNUAL MEAN					12.7	1995
LOWEST ANNUAL MEAN					798	Nov 8 1977
HIGHEST DAILY MEAN	314	Jan 28	139	Nov 28	3.9	Sep 16 1980
LOWEST DAILY MEAN	5.9	Oct 18	3.9	Sep 11	4.2	Aug 24 1995
ANNUAL SEVEN-DAY MINIMUM	6.2	Nov 3	4.2	Aug 24	2300a	Nov 8 1977
INSTANTANEOUS PEAK FLOW			701	Jul 17	8.25	Nov 8 1977
INSTANTANEOUS PEAK STAGE			4.58	Jul 17	.84	Jul 3 1981
INSTANTANEOUS LOW FLOW			3.5	Aug 25	1.75	
ANNUAL RUNOFF (CFSM)	1.71		1.07		23.75	
ANNUAL RUNOFF (INCHES)	23.19		14.59		38	
10 PERCENT EXCEEDS	39		18		11	
50 PERCENT EXCEEDS	11		8.3		6.2	
90 PERCENT EXCEEDS	6.8		5.2			

a From rating curve extended above 700 ft<sup>3</sup>/s by culvert computation at bridge on Kingsland Street, 0.2 mi upstream of gage.



— 01392210 THIRD RIVER AT PASSAIC, NJ, DAILY MEAN DISCHARGE



# PASSAIC RIVER BASIN

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## 01392590 PASSAIC RIVER AT NEWARK, NJ

**LOCATION.**--Lat 40°44'00", long 74°09'30", Essex County, Hydrologic Unit 02030103, on right bank in Newark, 800 ft upstream from bridge on South Fourth Street, 0.3 mi downstream from railroad bridges on AMTRAK mainline, and 4.2 mi upstream from Newark Bay.

**DRAINAGE AREA.**--923 mi<sup>2</sup>.

**PERIOD OF RECORD.**--June 1993 to current year.

**GAGE.**--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

**REMARKS.**--No gage-height or doubtful record, Oct. 1-6, and Feb. 6-15, 18-24. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (---) lines.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum elevation recorded, 6.15 ft, Dec. 14, 1994; minimum recorded, -4.77 ft, Nov. 5, 1994.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum elevation known, 10.9 ft, Dec. 11, 1992, from high-water mark.

**EXTREMES FOR CURRENT YEAR.**--Maximum elevation recorded, 5.96 ft, Feb. 4; minimum recorded, -4.77 ft, Nov. 5.

Summaries of tide elevations during the year are as follows:

### TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.04	5.40	5.85	5.49	5.96	4.94	5.14	5.61	5.82	5.48	5.39	5.43
high tide	Date	7	5	5	1	4	19	16	15	13	12	6	26
Minimum	Elevation	-2.92	-4.77	-3.64	-3.78	-4.00	-2.65	-2.87	-2.62	-3.08	-2.93	-2.57	-2.46
low tide	Date	7	2	3	2	5	18	5	16	16	14	10	8
Mean high tide		---	3.63	4.00	3.51	---	3.84	3.66	3.99	3.85	3.98	4.22	4.12
Mean water level		---	.89	1.29	.78	---	1.23	1.00	1.37	1.20	1.28	1.51	1.47
Mean low tide		---	-2.02	-1.60	-2.11	---	-1.62	-1.79	-1.42	-1.60	-1.58	-1.32	-1.57

## RESERVOIRS IN PASSAIC RIVER BASIN

- 01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, Hydrologic Unit 02030103, at dam on Beaver Brook, 2 mi northeast of Hibernia. DRAINAGE AREA, 5.50 mi<sup>2</sup>. PERIOD OF RECORD, September 1925 to September 1931, December 1948 to September 1950, October 1953 to current year. Monthend contents only 1925-31, 1948-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by a concrete gravity dam with earth embankment; present dam constructed 1946-48 and sluice gate first closed Dec. 22, 1948. Prior to 1946, reservoir was formed by earthfill dam with crest about 20 ft lower. Capacity of spillway level, 3,310,000,000 gal, elevation, 835 ft. Flow is regulated by two 30-inch sluice gates. Flow is released for diversion for municipal supply of United Water New Jersey.  
COOPERATION.--Records provided by United Water New Jersey, Bureau of Water.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,652,500,000 gal, Apr. 5, 1973, elevation, 836.75 ft; minimum, 1,522,800,000 gal, Jan. 4, 1954, elevation, 824.20 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,425,000,000 gal, Mar. 9, 10, elevation, 835.60 ft; minimum, 3,108,000,000 gal, Sept. 22, elevation, 834.00 ft.
- 01380900 BOONTON RESERVOIR.--Lat 40°53'45", long 74°23'55", Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton. DRAINAGE AREA, 119 mi<sup>2</sup>. PERIOD OF RECORD, April 1904 to September 1950, October 1953 to current year. Monthend contents only 1904-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. REVISED RECORDS.--WDR NJ-85-1: 1984. GAGE, hook gage. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by a cyclopean masonry dam with earth wings; dam completed and storage began in 1904. Total capacity at spillway level, 7,620,000,000 gal elevation, 305.25 ft of which 7,366,000,000 gal is usable contents above elevation 259.75 ft, sill of lowest outlet gate. Spillway is topped with two Bascule gates, 2 ft high; prior to 1952, flashboards were used. Flow regulated by Bascule gates, three outlets in gatehouse at head of conduit and by two 48-inch pipes (bottom of sluice pipes at elevation 205 ft). Water is diverted from reservoir for municipal supply of United Water New Jersey.  
COOPERATION.--Records provided by United Water New Jersey, Bureau of Water.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,545,600,000 gal, May 31, 1984, elevation, 308.81 ft; minimum, 1,445,000,000 gal, Jan. 31, 1981, elevation 274.71 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,688,000,000 gal, Mar. 10, elevation, 306.08 ft; minimum, 4,087,000,000 gal, Sept. 25, elevation, 290.67 ft.
- 01382100 CANISTEAR RESERVOIR.--Lat 41°06'30", long 74°29'30", Sussex County, Hydrologic Unit 02030103, at dam on Pacock Brook, 1.8 mi north-east of Stockholm. DRAINAGE AREA, 5.6 mi<sup>2</sup>. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by earth-embankment type dam, completed about 1896. Capacity at spillway level, 2,407,000,000 gal, elevation, 1,086.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply for City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.  
COOPERATION.--Records provided by City of Newark, Division of Water Supply.
- 01382200 OAK RIDGE RESERVOIR.--Lat 41°02'30", long 74°30'10", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 0.9 mi southwest of Oak Ridge. DRAINAGE AREA, 27.3 mi<sup>2</sup>. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1924-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by earthfill dam with concrete-core wall and ogee overflow section; dam constructed between 1880-92; dam raised 10 ft during 1917-19. Capacity at spillway level, 3,895,000,000 gal, elevation, 846.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and diversion at Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.  
COOPERATION.--Records provided by City of Newark, Division of Water Supply.
- 01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, Hydrologic Unit 02030103, at dam on Clinton Brook, 2.0 mi north of Newfoundland. DRAINAGE AREA, 10.5 mi<sup>2</sup>. PERIOD OF RECORD, October 1923 to September 1950, October 1953 to current year. Monthend contents only 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by earthfill dam constructed between 1889-92. Capacity at spillway level, 3,518,000,000 gal, elevation, 992.0 ft. Reservoir used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and for diversion at Charlotteburg Reservoir since May 21, 1961, for municipal supply of City of Newark. Outflow is controlled mostly by operation of gates in pipes through dam.  
COOPERATION.--Records provided by City of Newark, Division of Water Supply.
- 01382380 CHARLOTTEBURG RESERVOIR.--Lat 41°01'34", long 74°25'30", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 1.1 mi upstream from Macopin River, and 1.5 mi southeast of Newfoundland, NJ. DRAINAGE AREA, 56.2 mi<sup>2</sup>. PERIOD OF RECORD, May 1961 to current year. REVISED RECORDS.--WRD NJ-74: Station number. GAGE, water-stage recorder. Datum of gage is sea level.  
REMARKS.--Reservoir is formed by concrete-masonry dam and earth embankment, with concrete spillway at elevation 738.00 ft; storage began May 19, 1961. Spillway equipped with automatic Bascule gate 5 ft high. Capacity, 2,964,000,000 gal, elevation, 743.00 ft, top of Bascule gate. No dead storage. Outflow is controlled by sluice and automatic Bascule gates. Water diverted from reservoir since May 21, 1961, for municipal supply of City of Newark.  
COOPERATION.--Records provided by City of Newark, Division of Water Supply. 200
- 01382400 ECHO LAKE.--Lat 41°03'00", long 74°24'30", Passaic County, Hydrologic Unit 02030103, at Echo Lake Dam on Macopin River, 1.6 mi north of Charlotteburg, and 1.9 mi upstream from mouth. DRAINAGE AREA, 4.35 mi<sup>2</sup>. PERIOD OF RECORD, October 1927 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, staff gage. Datum of gage is sea level.  
REMARKS.--Lake is formed by earth-embankment type dam completed about 1925. Capacity at spillway level, 1,583,000,000 gal, elevation, 893.0 ft, with provision for additional storage of 180,000,000 gal at elevation 894.9 ft with flashboards. Usable contents, 1,045,000,000 gal above elevation 880.0 ft. Lake used for storage and water released for diversion at Macopin intake dam on Pequannock River prior to May 21, 1961, and water diverted to Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply of City of Newark. Outflow to Macopin River controlled by operation of gates in gatehouse at dam and water released through pipe and canal to Charlotteburg Reservoir.  
COOPERATION.--Records provided by City of Newark, Division of Water Supply.

## RESERVOIRS IN PASSAIC RIVER BASIN--Continued

01383000 GREENWOOD LAKE.--Lat 41°09'36", long 74°20'03", Passaic County, Hydrologic Unit 02030103, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting. DRAINAGE AREA, 27.1 mi<sup>2</sup>. PERIOD OF RECORD, June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953). GAGE, water-stage recorder. Datum of gage is 608.86 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to Oct. 1, 1931, staff gage on former railroad bridge at site 100 ft upstream at datum 89.75 ft lower.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway; dam completed about 1837 and reconstruction completed in 1928 with crest of spillway 0.25 ft lower. Usable capacity, 6,860,000,000 gal between gage heights -4.00 ft, sill of gate, and 10.00 ft, crest of spillway. Dead storage, 7,140,000,000 gal. Outflow mostly regulated by two gates, 3.5 by 5.0 ft. Records given herein represent usable capacity. Lake used for recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,528,000,000 gal, Oct. 9-14, 1903, gage height, 14.25 ft, present datum; minimum, 3,160,000,000 gal, several days in November 1900, gage height, 3.50 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,449,000,000 gal, Mar. 09, gage height, 10.95 ft; minimum, 6,482,000,000 gal, September 16, gage height, 9.38 ft.

01384002 MONKSVILLE RESERVOIR.--Lat 41°07'20", long 74°17'49", Passaic County, Hydrologic Unit 02030103, at dam on Wanaque River at Monks. DRAINAGE AREA, 40.4 mi<sup>2</sup>. PERIOD OF RECORD, September 1988 to current year. GAGE, measurement from reference point. Datum of gage is sea level.

REMARKS.--Reservoir is formed by a roller compacted concrete dam constructed in 1988. Total capacity at spillway level, 7,000,000,000 gal, elevation 400.0 ft. Reservoir used for storage and water released to Wanaque Reservoir. Outflow is controlled by a 60-inch fixed-cone valve in a 72-inch pipe and 10-inch cone valve which can discharge directly into Wanaque Reservoir or into the 72-inch pipe.

COOPERATION.--Records provided by North Jersey District Water Supply Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,150,000,000 gal, Oct. 20, 1989, elevation 401.1 ft (corrected); minimum, 860,000,000, Sept. 28, 1988 (first filling), elevation 339.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,000,000,000 gal, many days, elevation 400.0 ft; minimum, 7,000,000,000 gal, many days, elevation 400.0 ft.

01386990 WANAQUE RESERVOIR.--Lat 41°02'42", long 74°17'44", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque. DRAINAGE AREA, 90.4 mi<sup>2</sup>. PERIOD OF RECORD, February 1928 to September 1950, October 1953 to current year. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. GAGE, water-stage recorder. Datum of gage is sea level (levels by North Jersey District Water Supply Commission).

REMARKS.--Reservoir is formed by earthfill with concrete-core wall main dam and seven secondary dams; dams completed in 1927 and storage began in March 1928. Total capacity at spillway level, 29,630,000,000 gal, revised, elevation, 302.4 ft, revised, prior to 1986, 300.3 ft. Capacity available by gravity at spillway level, 27,850,000,000 gal, revised. Outflow mostly controlled by sluice gates in intake conduits in gage house. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Posts Brook, Pompton River, and Ramapo River (see Passaic River basin, diversions).

COOPERATION.--Records provided by North Jersey District Water Supply Commission.

REVISED RECORDS.--WDR NJ-85-1: 1984 (M).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,280,000,000 gal, Apr. 5, 1984, elevation, 304.52 ft; minimum, 5,110,000,000 gal, Dec. 26, 1964, elevation, 256.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,040,000,000 gal, May 30, 31, elevation, 301.64 ft; minimum, 12,590,000,000 gal, Sept. 25, elevation, 275.23 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)
<hr/>									
<hr/>									
	01379990 SPLITROCK RESERVOIR			01380900 BOONTON RESERVOIR			01382100 CANISTEAR RESERVOIR		
Sept. 30.....	835.0	3,306	--	303.98	7,157	--	1,086.2	2,427	--
Oct. 31.....	834.85	3,276	-1.5	302.40	6,762	-19.7	1,085.9	2,396	-1.5
Nov. 30.....	835.30	3,365	+4.6	305.58	7,561	+41.2	1,086.2	2,427	+1.6
Dec. 31.....	835.20	3,345	-1.0	305.31	7,492	-3.4	1,085.9	2,396	-1.5
CAL YR 1994	--	--	0	--	--	-1	--	--	-1
Jan. 31.....	835.25	3,355	+5	305.48	7,535	+2.1	1,086.0	2,407	+5
Feb. 28.....	835.35	3,375	+1.1	305.45	7,528	-4	1,086.1	2,417	+6
Mar. 31.....	835.20	3,345	-1.5	305.33	7,497	-1.5	1,086.0	2,407	-5
Apr. 30.....	835.10	3,325	-1.0	305.25	7,477	-1.0	1,086.0	2,407	0
May 31.....	835.15	3,335	+5	305.27	7,482	+2	1,086.0	2,407	0
June 30.....	834.35	3,276	-3.0	303.51	7,052	-22.2	1,086.0	2,407	0
July 31.....	834.90	3,286	+5	302.90	6,887	-8.2	1,086.0	2,407	0
Aug. 31.....	834.40	3,187	-4.9	297.21	5,505	-69.0	1,085.9	2,396	-5
Sept. 30.....	834.15	3,138	0	291.38	4,237	-65.4	1,085.9	2,396	0
WTR YR 1995	--	--	-7	--	--	-12.4	--	--	-1

## PASSAIC RIVER BASIN

## RESERVOIRS IN PASSAIC RIVER BASIN--Continued

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalen t in ft <sup>3</sup> /s)
01382200 OAK RIDGE RESERVOIR				01382300 CLINTON RESERVOIR			01382380 CHARLOTTEBURG RESER- VOIR		
Sept. 30.....	829.70	1,814	--	992.20	3,544	--	740.80	2,708	--
Oct. 31.....	832.20	2,095	+14.0	991.10	3,403	-7.0	732.50	1,881	-41.3
Nov. 30.....	834.00	2,302	+10.7	989.60	3,211	-9.9	735.70	2,177	+15.3
Dec. 31.....	836.80	2,657	+17.7	991.90	3,505	+14.7	742.60	2,918	+37.0
CAL YR 1994	--	--	-5.2	--	--	-1.1	--	--	+1
Jan. 31.....	840.20	3,098	+22.0	992.10	3,531	+1.3	743.15	2,983	+3.2
Feb. 28.....	836.80	2,657	-24.4	992.10	3,531	0	743.20	2,989	+3
Mar. 31.....	839.20	2,966	+15.4	992.00	3,518	-6	743.10	2,977	-6
Apr. 30.....	835.0	2,428	-27.7	992.0	3,518	0	743.5	2,970	-4
May 31.....	837.7	2,772	+17.2	992.0	3,518	0	737.4	2,345	-31.2
June 30.....	838.0	2,810	+2.0	985.5	2,668	43.8	739.85	2,605	+13.4
July 31.....	840.4	3,124	-15.7	979.8	2,037	-31.5	742.45	2,900	+14.7
Aug. 31.....	842.4	3,393	+13.4	973.1	1,371	-33.2	740.05	2,627	-13.6
Sept. 30.....	834.2	2,327	-55.0	973.3	1,390	+1.0	737.6	2,365	-13.5
WTR YR 1995	--	--	+2.2	--	--	-9.1	--	--	-1.5
01382400 ECHO LAKE				01383000 GREENWOOD LAKE			01384002 MONKSVILLE RESERVOIR		
Sept. 30.....	880.90	603	--	10.23	7,003	--	400.0	7,000	--
Oct. 31.....	881.00	611	+4	10.19	5,878	-56.1	400.0	7,000	0
Nov. 30.....	881.30	633	+1.1	10.40	6,008	+6.7	400.0	7,000	0
Dec. 31.....	881.40	640	+3	10.13	5,841	-8.3	400.0	7,000	0
CAL YR 1994	--	--	-4.0	--	--	+13.4	--	--	0
Jan. 31.....	883.20	773	+6.6	10.22	5,896	+2.7	400.0	7,000	0
Feb. 28.....	884.0	835	+3.4	10.26	5,921	+1.4	400.0	7,000	0
Mar. 31.....	885.90	982	+7.3	10.09	5,816	-5.2	400.0	7,000	0
Apr. 30.....	886.40	1,023	+2.1	10.15	5,853	+1.9	400.0	7,000	0
May 31.....	887.90	1,146	+6.1	10.09	5,816	-1.8	400.0	7,000	0
June 30.....	888.40	1,184	+2.0	9.99	5,754	-3.2	400.0	7,000	0
July 31.....	888.60	1,203	+9	10.12	5,843	+4.4	400.0	7,000	--
Aug. 31.....	888.70	1,210	+3	9.64	5,540	-15.1	400.0	7,000	0
Sept. 30.....	888.70	1,210	0	9.47	5,437	-5.3	400.0	7,000	0
WTR YR 1995	--	--	+2.6	--	--	-6.6	--	--	0
01386990 WANAQUE RESERVOIR									
Sept. 30.....	228.18	19,660	--						
Oct. 31.....	284.87	17,660	-99.8						
Nov. 30.....	283.52	16,910	-38.7						
Dec. 31.....	289.83	20,710	+189.6						
CAL YR 1994	--	--	-15.9						
Jan. 31.....	294.97	24,150	+171.7						
Feb. 28.....	294.08	23,540	-33.7						
Mar. 31.....	298.52	26,670	+156.2						
Apr. 30.....	300.37	28,070	+72.2						
May 31.....	301.64	29,040	+48.4						
June 30.....	299.87	27,680	-70.1						
July 31.....	292.70	22,600	-253.5						
Aug. 31.....	282.31	16,220	-318.4						
Sept. 30.....	275.29	12,610	-186.2						
WTR YR 1995	--	--	-29.9						

e Estimated.

\* Elevation at 0900.

\*\*Gage height at 2400.

†Elevation at 0800 on first day of following month.



# PASSAIC RIVER BASIN

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## DIVERSIONS WITHIN PASSAIC RIVER BASIN

- 01368720 North Jersey District Water Supply Commission diverts water from Upper Greenwood Lake (Hudson River basin) near Moe, NJ to the Green Brook, a tributary of Greenwood Lake, for municipal supply. Consult North Jersey District Water Supply Commission for data available.
- 01379510 New Jersey-American Water Company diverts water from Passaic River, 1.2 mi upstream from Canoe Brook for municipal supply. These figures also include water diverted from the Passaic River by the Bernards Division of the Commonwealth Water Company. Records provided by New Jersey-American Water Company.
- 01379530 New Jersey-American Water Company diverts water from Canoe Brook near Summit, 0.5 mi from mouth, for municipal supply. Records provided by New Jersey-American Water Company.
- 01380800 United Water New Jersey diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records provided by United Water New Jersey, Bureau of Water.
- 01382370 City of Newark diverts water from Charlotteburg Reservoir on Pequannock River since May 21, 1961 for municipal supply. Prior to May 21, 1961 water was diverted from reservoir formed by Macopin intake dam on Pequannock River (former diversion 01382490). Records provided by City of Newark, Division of Water Supply. REVISED RECORDS.--WDR NJ-82-1: Station number.
- 01386980 North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir on Wanaque River. Records provided by North Jersey District Water Supply Commission.
- 01387020 North Jersey District Water Supply Commission diverts water from Post Brook near Wanaque into Wanaque Reservoir for municipal supply. Records not available.
- 01387990 North Jersey District Water Supply Commission diverts water from Ramapo River by pumping from Pompton Lakes into Wanaque Reservoir. Records provided by North Jersey District Water Supply Commission.
- 01388490 Passaic Valley Water Commission supplements the dependable yield of its supply at Little Falls by diverting water at high flows at the Jackson Avenue Pumping Station into Point View Reservoir on Haycock Brook for release as required to sustain minimum flow requirements. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream of Pompton Plains gaging station. Records provided by Passaic Valley Water Commission. No diversion or release during the year. REVISED RECORDS.--WDR NJ-82-1: Station number.
- 0138980 North Jersey District Water Supply Commission diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Wanaque Reservoir since January 1987. Record provided by the North Jersey District Water Supply Commission.
- 01388981 United Water New Jersey diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Prior to water year 1989, diversion was from Ramapo River at Pompton Lakes. Records provided by the United Water New Jersey.
- 01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beattie's Dam at Little Falls for municipal supply. Records provided by Passaic Valley Water Commission.

### DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

MONTH	<u>01379510</u> NJ-American Water Co. from Passaic River	<u>01379530</u> NJ-American Water Co. from Canoe Brook	<u>01380800</u> United Water New Jersey	<u>01382370</u> Newark
October .....	2.3	0.07	67.9	71.2
November .....	9.12	3.94	65.4	56.1
December .....	23.6	4.35	69.3	60.2
CAL YR 1994 .....	9.5	7.92	69.4	70.7
January .....	0	0	67.0	76.7
February .....	0	0	70.7	65.2
March .....	0	0	72.0	77.0
April .....	6.04	3.06	69.7	77.3
May .....	14.2	6.49	69.9	76.0
June .....	1.56	4.80	73.2	55.2
July .....	2.68	6.40	76.2	48.8
August .....	0	1.91	82.8	51.7
September .....	3.39	4.31	99.2	60.7
WTR YR 1995 .....	5.24	2.94	73.6	64.7



## PASSAIC RIVER BASIN

## DIVERSIONS WITHIN PASSAIC RIVER BASIN--Continued

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995, Continued

MONTH	01386980 Wanaque Reservoir	01387990 Ramapo River to Wanaque Reservoir	01388980 Pompton River to Wanaque Reservoir	01388981* Pompton River to Oradell Reservoir	01389490 Passaic Valley Water Commission
October.....	180	0	82.2	12.0	75.2
November.....	177	35.1	86.1	64.0	66.0
December.....	168	168	47.9	4.62	65.0
CAL YR 1994 .....	183	16.9	49.9	15.2	72.1
January .....	158	84.9	0	0	63.4
February .....	164	47.5	0	0	70.4
March.....	145	75.4	0	0	67.2
April .....	141	49.9	96.8	1.86	72.2
May .....	145	52.8	152	61.3	71.5
June .....	172	3.07	190	58.5	78.7
July.....	195	0	0	67.4	80.1
August.....	203	0	0	67.9	92.1
September .....	187	2.67	74.0	70.5	89.2
WTR YR 1995 .....	169	43.3	60.8	34.0	74.3

\* Diversion is to the Hackensack River Basin.

## 01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ

LOCATION.--Lat 40°40'30", long 74°13'20", Union County, Hydrologic Unit 02030104, on left bank at Ursino Lake Dam in Elizabeth, 75 ft upstream of bridge on Trotters Lane and 3.8 mi upstream from mouth.

DRAINAGE AREA.--16.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1552: Drainage area, 1922-23, 1927-29(M), 1932, 1933-34(M), 1938(P), 1942(M) 1944(P), 1945(M), 1948(P), 1952-53(M). WDR NJ-84-1: 1974.

GAGE.--Water-stage recorder, two crest-stage gages, and two concrete weirs. The right concrete weir was lowered 5 ft on Dec. 18, 1985. Datum of gage is sea level (levels by Corps of Engineers). Prior to Oct. 1, 1922, nonrecording gage at site 2,800 ft downstream at datum 4.14 ft higher and Oct. 1, 1922 to May 18, 1923, at same site at datum 5.23 ft higher. May 19, 1923 to Dec. 27, 1972, at site 2,800 ft downstream at datum 5.23 ft higher and published as "Elizabeth River at Elizabeth" (station 01393500), drainage area 18.0 mi<sup>2</sup>.

REMARKS.--Records fair. Diversion by pumpage from Hammock Well Field in Union for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 18	0145	*2,630	*20.14	No other peak greater than base discharge.			

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	29	11	35	9.2	28	7.5	68	8.4	33	7.7	5.8
2	8.4	12	8.9	43	8.7	18	7.3	13	6.7	32	8.0	5.6
3	6.9	6.1	7.9	11	8.7	14	7.4	7.7	43	10	7.7	5.3
4	6.9	6.0	7.4	10	15	12	9.0	6.3	18	5.7	7.4	5.0
5	6.8	5.9	158	9.4	15	11	7.8	9.6	7.1	5.3	46	6.4
6	6.6	5.5	24	11	10	11	7.8	5.9	6.0	4.7	13	6.0
7	6.4	5.6	16	121	9.4	11	7.5	4.8	6.7	11	6.9	6.1
8	6.2	6.2	14	23	9.3	74	9.6	5.2	5.2	39	6.5	5.6
9	6.1	6.4	9.1	15	8.8	94	55	5.5	4.8	7.1	6.5	5.6
10	8.7	58	70	12	9.5	17	33	27	4.6	5.3	6.3	16
11	6.3	9.4	40	10	17	12	10	13	4.6	59	6.3	5.4
12	6.7	7.3	14	12	11	11	10	20	68	6.8	6.0	5.6
13	6.1	6.3	11	10	9.3	11	91	8.8	18	5.7	6.6	6.0
14	6.1	6.2	9.7	16	8.6	10	14	6.4	16	6.7	6.4	5.9
15	6.0	6.3	9.1	11	16	11	8.8	8.4	10	9.3	26	5.0
16	6.4	6.3	8.7	33	52	13	7.8	5.8	6.2	23	7.7	4.7
17	6.2	6.2	18	23	16	20	7.9	50	5.4	46	7.1	163
18	6.1	7.5	11	11	12	9.0	8.1	17	5.0	454	7.2	11
19	6.3	9.6	8.8	10	12	8.5	8.5	20	5.9	42	6.0	5.9
20	22	5.7	8.2	127	12	8.9	7.9	6.6	6.6	16	5.1	5.1
21	7.3	64	8.1	33	18	21	9.4	5.1	6.7	11	5.6	4.5
22	6.1	36	8.1	18	12	10	7.9	5.0	69	9.4	5.4	89
23	48	15	8.1	13	10	9.1	7.0	5.1	10	8.3	5.5	18
24	12	8.5	68	12	24	8.7	7.5	4.8	6.6	8.8	5.8	6.4
25	7.9	7.3	14	11	11	7.9	7.3	19	5.9	29	5.5	13
26	6.6	6.9	10	10	10	7.4	7.2	25	5.5	19	5.5	223
27	6.1	12	9.1	9.5	10	8.1	7.3	5.7	21	11	5.5	23
28	6.0	197	8.6	9.2	164	8.4	11	4.9	9.4	62	5.8	8.2
29	5.7	29	8.1	8.8	---	7.9	7.3	52	5.5	11	5.9	6.0
30	5.5	16	7.8	9.2	---	8.0	30	86	4.7	7.7	6.6	5.3
31	5.8	---	7.6	9.2	---	8.1	---	13	---	7.9	5.9	---
TOTAL	277.2	603.2	622.3	696.3	528.5	509.0	427.8	534.6	400.5	1006.7	263.4	681.4
MEAN	8.94	20.1	20.1	22.5	18.9	16.4	14.3	17.2	13.3	32.5	8.50	22.7
MAX	48	197	158	127	164	94	91	86	69	454	46	223
MIN	5.5	5.5	7.4	8.8	8.6	7.4	7.0	4.8	4.6	4.7	5.1	4.5

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

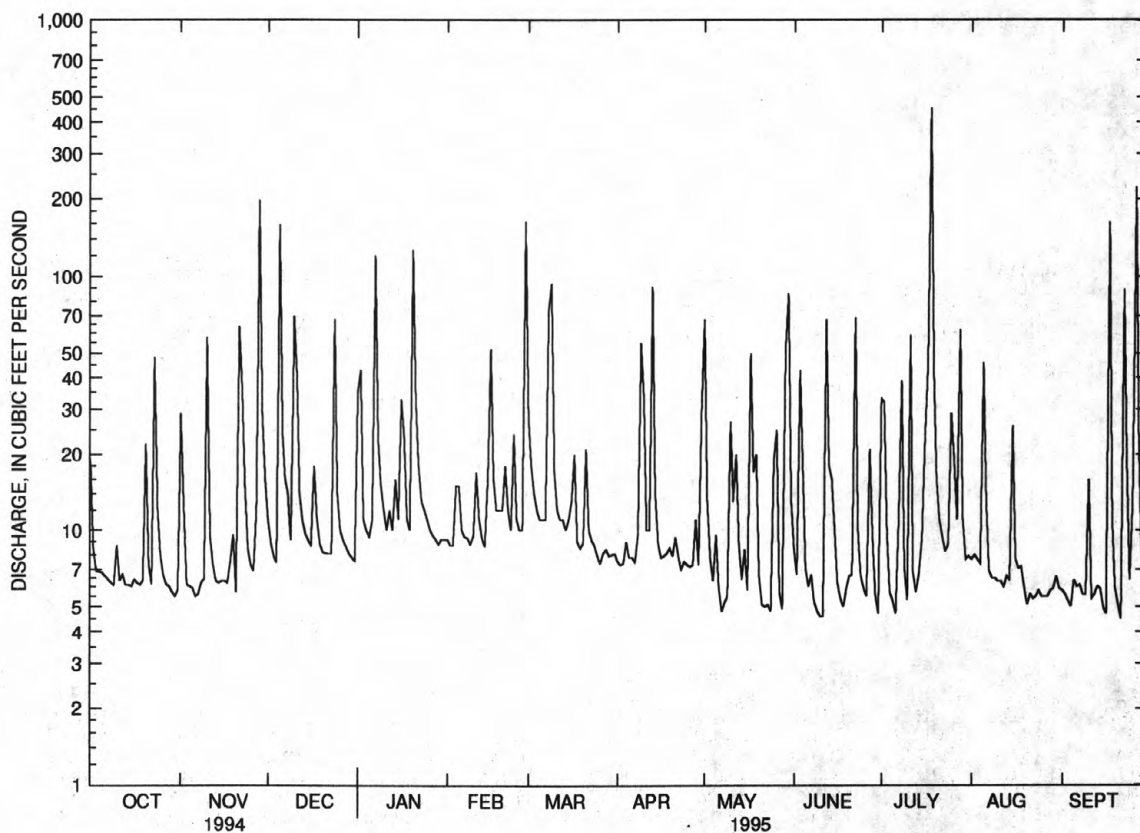
	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
MEAN	20.1	24.6	23.3	23.2	26.2	32.1	29.5	27.0	22.9	27.0	27.9	25.3
MAX	60.1	90.6	85.1	86.3	55.1	75.5	97.0	83.8	57.4	83.1	195	102
(WY)	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
MIN	1.58	5.05	6.25	3.71	6.56	6.03	10.3	5.97	3.94	3.24	.068	1.99
(WY)	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933

## ELIZABETH RIVER BASIN

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	9524.4		6550.9		25.8	
ANNUAL MEAN	26.1		17.9		48.3	
HIGHEST ANNUAL MEAN					10.2	
LOWEST ANNUAL MEAN					1900	
HIGHEST DAILY MEAN	448	Mar 10	454	Jul 18		Aug 28 1971
LOWEST DAILY MEAN	5.5	Oct 30	4.5	Sep 21		Jul 14 1922
ANNUAL SEVEN-DAY MINIMUM	6.0	Nov 3	5.5	Aug 20		Aug 7 1923
INSTANTANEOUS PEAK FLOW			2630	Jul 18	4110	Aug 28 1971
INSTANTANEOUS PEAK STAGE			20.14	Jul 18	18.7a	Aug 28 1971
INSTANTANEOUS LOW FLOW			5.2	Oct 30		
10 PERCENT EXCEEDS	62		34		51	
50 PERCENT EXCEEDS	11		8.7		11	
90 PERCENT EXCEEDS	6.5		5.6		5.5	

a From floodmark, site and datum then in use, from rating curve extended above 1,100 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow. Maximum gage height at current site and datum was 25.77 ft, Aug. 2, 1973.



01393450 ELIZABETH RIVER AT URSINO LAKE, ELIZABETH, NJ, DAILY MEAN DISCHARGE

## ELIZABETH RIVER BASIN

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01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
03...	0930	5.7	512	7.4	11.5	765	7.1	65	5.4	16000	4000	170	
JAN 1995													
25...	1248	11	727	8.0	6.0	761	12.2	98	11.6	490	180	230	
MAR													
22...	0947	10	532	7.8	10.5	748	9.7	89	3.0	>24000	1700	140	
MAY													
18...	0950	13	266	7.3	18.5	752	6.5	70	5.0	35000	<100	75	
JUL													
25...	0939	12	700	8.0	24.5	761	8.9	107	2.6	>24000	3200	220	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
03...	51	9.3	28		4.7	100	40	60	<0.1	12	278	267	4
JAN 1995													
25...	71	12	49		2.2	127	48	100	<0.1	14	418	383	<1
MAR													
22...	45	7.4	46		2.0	81	45	76	0.1	7.5	298	283	5
MAY													
18...	24	3.7	19		2.4	48	18	33	<0.1	4.6	150	138	5
JUL													
25...	70	12	45		2.7	131	55	96	<0.1	13	426	380	9
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
03...	0.006	0.35	0.03		0.09	0.40	0.33	0.75	0.68	0.24	0.21	9.3	0.5
JAN 1995													
25...	0.017	2.40	<0.03		<0.03	0.20	0.20	2.6	2.6	0.04	0.02	2.9	0.2
MAR													
22...	0.089	1.20	0.22		0.21	0.80	0.71	2.0	1.9	0.11	0.06	8.5	0.9
MAY													
18...	0.060	0.89	0.37		0.38	0.90	0.65	1.8	1.5	0.12	0.06	6.8	1.7
JUL													
25...	0.037	1.70	0.03		<0.03	0.50	0.21	2.2	1.9	0.11	0.03	4.8	1.0

## ELIZABETH RIVER BASIN

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 03...	0930	29	1	<10	80	<1	1	6
MAY 1995 18...	0950	26	2	<10	30	<1	2	20

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 03...	340	5	130	<0.1	4	<1	30
MAY 1995 18...	450	17	70	<0.1	4	<1	50



LOCATION.--Lat 40°41'11", long 74°18'44", Union County, Hydrologic Unit 02030104, on left bank 50 ft downstream from bridge on eastbound U.S. Highway 22, 100 ft downstream from Pope Brook, and 1.5 mi south of Springfield.

## WATER-DISCHARGE RECORDS

REMARKS.--Records good except for estimated daily discharges, which are fair. Water for municipal supply diverted from river by city of Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)					
July 18	0130	*1,150	*5.72	No other peak greater than base discharge.								
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	e19	8.0	30	6.6	58	8.5	64	11	28	6.5	e5.7
2	8.9	e11	6.9	45	6.1	25	8.2	11	9.8	23	6.7	e5.4
3	6.4	e6.6	6.6	9.1	6.0	16	8.0	9.6	25	7.5	7.0	e5.3
4	6.4	e5.9	6.2	7.9	8.7	14	9.4	8.3	19	7.3	7.1	e5.1
5	6.5	e5.8	132	6.6	9.3	13	9.4	9.6	8.3	7.6	63	e5.6
6	6.7	e6.8	17	7.3	6.1	12	9.6	8.7	8.6	7.4	13	e5.7
7	6.7	e6.2	9.8	251	6.0	11	10	8.1	9.1	13	7.4	e5.9
8	6.8	e5.7	11	27	6.4	61	11	8.1	8.1	25	6.7	e5.5
9	7.0	e6.0	7.9	13	6.2	200	22	8.6	7.7	7.3	6.3	e6.1
10	9.0	51	52	10	6.3	29	43	23	7.8	7.3	6.2	16
11	6.8	6.7	55	8.6	9.6	19	6.4	11	8.1	59	6.5	5.0
12	e6.6	6.9	13	9.5	7.7	16	7.3	32	170	8.3	6.2	5.0
13	e5.9	5.7	11	8.6	6.1	14	78	13	17	7.9	6.7	5.8
14	e6.3	5.6	8.7	9.9	6.1	13	13	7.8	13	8.1	6.2	6.0
15	e6.3	5.5	7.8	8.5	8.1	12	9.8	9.8	10	7.4	38	5.5
16	e6.1	6.5	7.5	23	35	11	8.5	8.0	8.0	21	6.2	6.1
17	e6.0	5.7	13	19	20	19	8.3	38	7.7	37	6.0	122
18	e5.8	6.6	9.2	11	12	11	8.0	22	8.3	323	6.5	7.0
19	e6.1	8.6	7.2	9.1	11	10	8.0	18	8.4	14	e5.6	6.5
20	22	5.4	7.3	218	11	10	8.1	8.9	7.9	9.3	e5.0	6.0
21	10	136	7.2	52	19	20	8.5	7.6	17	8.5	e5.3	5.3
22	e6.3	52	7.2	19	13	9.9	8.3	8.1	232	7.3	e9.2	65
23	37	7.0	7.3	12	11	9.4	7.4	8.2	18	7.2	e5.9	19
24	12	6.2	54	11	22	8.5	8.4	8.3	11	7.6	e5.5	5.5
25	8.5	6.0	15	9.2	11	8.0	8.2	13	10	11	e5.3	12
26	e6.4	6.0	7.8	8.4	11	7.8	8.2	35	9.2	8.5	e5.3	166
27	e6.1	8.8	7.2	7.8	10	8.0	7.9	8.8	20	7.1	e5.1	20
28	e5.9	260	7.3	7.5	202	7.9	9.7	8.1	11	88	e5.3	7.2
29	e5.7	17	6.9	6.8	---	8.6	7.8	44	8.9	8.0	e5.6	6.4
30	e6.2	8.7	6.1	6.8	---	8.8	22	123	7.9	6.7	e5.9	6.4
31	e6.0	---	6.1	6.6	---	9.2	---	14	---	6.7	e5.6	---
TOTAL	268.4	694.9	529.2	879.2	493.3	680.1	390.9	605.6	717.8	795.0	286.8	554.0
MEAN	8.66	23.2	17.1	28.4	17.6	21.9	13.0	19.5	23.9	25.6	9.25	18.5
MAX	37	260	132	251	202	200	78	123	232	323	63	166
MIN	5.7	5.4	6.1	6.6	6.0	7.8	6.4	7.6	7.7	6.7	5.0	156

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1995, BY WATER YEAR (WY)

MEAN	16.9	27.0	30.1	29.5	33.7	47.5	42.2	34.2	23.6	24.3	23.0	21.0
MAX	65.3	107	129	116	77.7	120	139	112	110	138	112	100
(WY)	1990	1973	1984	1979	1939	1994	1983	1989	1972	1975	1942	1975
MIN	2.17	2.73	4.02	4.26	7.01	8.08	7.37	6.31	4.14	2.23	2.10	2.97
(WY)	1964	1950	1940	1966	1954	1981	1963	1965	1965	1966	1964	1964

## RAHWAY RIVER BASIN

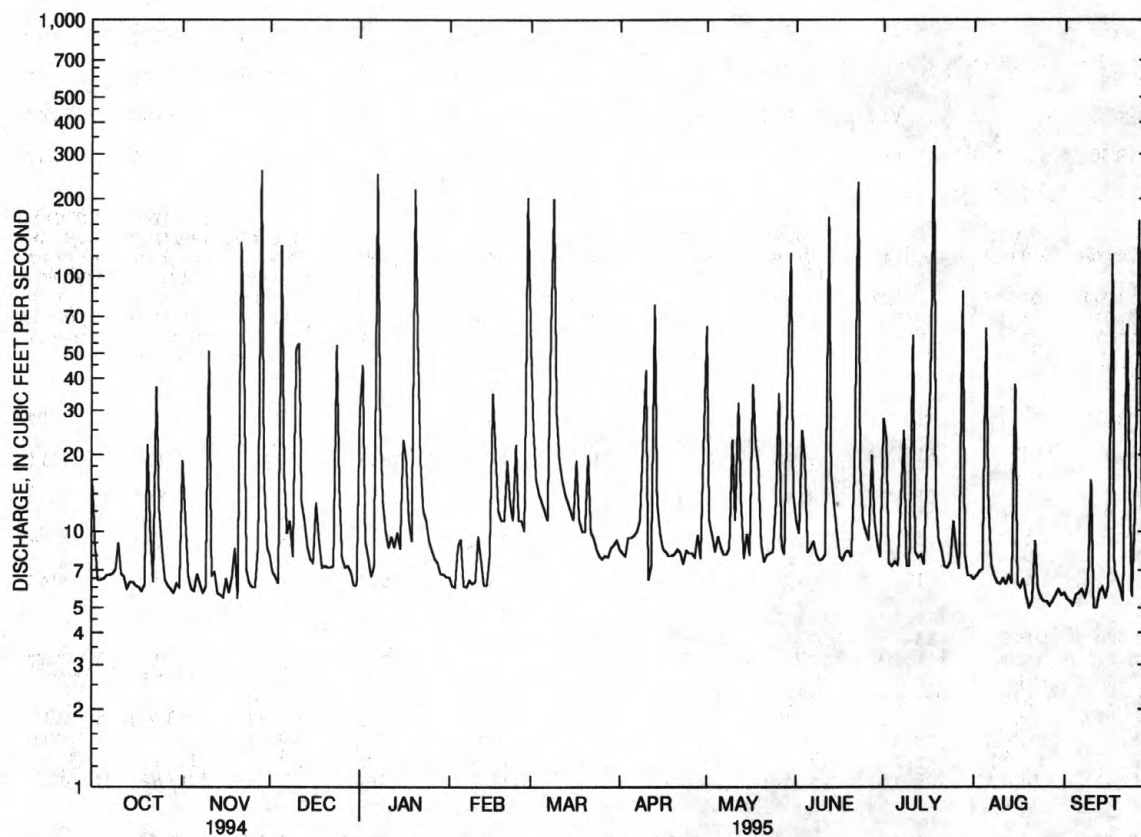
01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1939 - 1995
ANNUAL TOTAL	13114.2	6895.2	
ANNUAL MEAN	35.9	18.9	29.4
HIGHEST ANNUAL MEAN			55.9 1973
LOWEST ANNUAL MEAN			10.0 1965
HIGHEST DAILY MEAN	701 Mar 10	323 Jul 18	1620 Aug 28 1971
LOWEST DAILY MEAN	5.4 Nov 20	5.0 Aug 20	.40 Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	6.1 Oct 13	5.4 Aug 23	.71 Oct 8 1970
INSTANTANEOUS PEAK FLOW		1150 Jul 18	5430a Aug 2 1973
INSTANTANEOUS PEAK STAGE		5.72 Jul 18	9.76b Aug 2 1973
INSTANTANEOUS LOW FLOW		4.9 Sep 10	.10 Sep 11 1966
10 PERCENT EXCEEDS	92	33	59
50 PERCENT EXCEEDS	11	8.3	10
90 PERCENT EXCEEDS	6.5	5.9	3.3

a From rating curve extended above 1,600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

b From floodmark.

c Estimated.



01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ, DAILY MEAN DISCHARGE

## RAHWAY RIVER BASIN

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01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)
NOV 1994												
02...	1030	E11	553	7.4	12.0	751	3.1	29	9.3	>2400	6700	180
JAN 1995												
24...	1035	11	600	7.9	3.5	759	11.3	86	<1.4	1300	490	180
MAR												
21...	1000	10	670	7.7	10.5	747	7.9	72	E1.8	2400	200	200
MAY												
17...	1045	7.8	656	7.6	16.0	755	4.8	49	E1.6	1300	290	220
JUL												
24...	0940	7.2	658	7.5	22.5	758	5.8	68	E1.7	1100	210	220

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
NOV 1994												
02...	54	9.9	33	4.0	110	27	81	<0.1	14	324	291	2
JAN 1995												
24...	55	11	40	1.8	100	30	89	<0.1	16	346	311	3
MAR												
21...	62	12	45	1.9	114	32	110	<0.1	8.5	366	345	6
MAY												
17...	69	12	38	2.3	132	31	92	0.1	14	392	344	7
JUL												
24...	65	13	40	2.2	133	33	96	<0.1	14	378	348	8

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
NOV 1994												
02...	<0.003	0.41	0.11	0.12	0.60	0.32	1.0	0.73	0.17	0.09	8.6	0.9
JAN 1995												
24...	0.009	1.90	0.05	0.06	0.30	0.24	2.2	2.1	0.04	0.02	2.8	0.2
MAR												
21...	0.019	1.10	0.05	0.05	0.20	0.15	1.3	1.2	0.04	<0.01	2.6	0.5
MAY												
17...	0.060	1.30	0.27	0.30	0.50	0.43	1.8	1.7	0.07	0.01	2.9	0.4
JUL												
24...	0.024	1.10	<0.03	<0.03	0.20	0.13	1.3	1.2	0.09	0.02	2.9	0.5

## RAHWAY RIVER BASIN

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
MAY 1995 17...	1045	10	1	<10	90	<1	<1	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
MAY 1995 17...	520	2	210	<0.1	2	<1	20

## 01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, Hydrologic Unit 02030104, on left bank 100 ft upstream from St. Georges Avenue bridge in Rahway and 0.9 mi upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1908 to April 1915 (gage heights and discharge measurements only), October 1921 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1930-31(M), 1937. WDR NJ-79-1: 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.77 ft above sea level. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft downstream from Church Street and 1,500 ft downstream from present site at datum 2.77 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water for municipal supply diverted from river by Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., Springfield station of Elizabethtown Water Co., by storage in the Lenape Park flood control reservoir (since 1980) and by gate operations at Hansel's Dam 5.6 mi upstream of gage in Cranford, and Taylor Park Dam 11.6 mi upstream of gage on the West Branch Rahway River in Millburn. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 28	0845	644	3.27	July 18	0400	*1,360	*4.45

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	41	11	121	11	121	12	e35	6.5	1.1
2	21	22	11	70	11	39	11	19	9.5	e27	5.2	1.2
3	8.5	7.3	9.1	22	9.5	24	11	15	15	e9.2	5.7	1.7
4	7.3	5.2	8.3	15	17	21	13	11	79	e9.0	6.3	1.4
5	7.3	5.2	194	10	21	18	11	11	11	e9.2	40	1.1
6	7.2	5.4	71	10	14	18	8.7	12	8.2	e9.0	69	1.5
7	7.8	4.9	20	364	14	15	10	8.6	9.2	e17	8.3	1.6
8	8.5	6.0	22	59	14	36	12	7.8	e9.3	e28	6.5	1.4
9	9.2	4.2	11	24	14	337	20	8.0	e9.0	e9.2	5.4	1.7
10	9.6	75	31	20	13	48	100	32	e9.2	e9.0	5.3	1.2
11	8.8	13	143	15	12	27	14	21	e9.3	e70	4.6	3.4
12	6.9	6.5	24	15	e24	22	13	34	e180	24	4.9	1.8
13	5.8	6.9	16	15	e14	20	136	46	e19	7.9	4.0	2.1
14	6.9	9.9	13	16	e12	18	23	11	e17	6.6	3.1	2.7
15	7.2	18	11	15	e20	17	15	13	e13	5.6	36	1.7
16	5.2	6.2	10	25	65	16	13	11	e9.2	27	8.0	1.9
17	4.2	6.6	14	45	40	25	13	24	e9.3	15	4.3	186
18	5.9	7.5	20	18	24	15	12	71	e9.5	754	3.4	21
19	6.2	10	10	14	19	13	14	28	e9.8	64	2.3	6.1
20	11	9.9	9.1	260	21	13	11	18	e9.2	5.8	1.5	4.7
21	22	65	9.0	167	27	28	12	10	e23	6.6	2.3	4.0
22	6.5	214	9.3	38	23	22	12	8.2	e240	8.1	2.9	42
23	32	20	34	24	17	14	9.6	8.5	e24	8.3	1.5	77
24	47	15	68	19	34	14	9.0	7.9	e14	8.7	1.2	7.0
25	5.8	9.0	50	16	21	12	9.4	18	e14	17	1.2	6.0
26	5.1	7.6	15	14	16	12	9.3	34	e12	18	1.4	240
27	4.5	7.4	9.5	14	15	12	9.1	12	e24	6.9	1.8	67
28	4.2	400	e7.2	12	295	12	10	8.5	e14	159	1.7	11
29	4.2	72	e6.8	12	---	12	9.1	13	e12	16	2.1	6.2
30	5.4	18	7.9	11	---	13	13	183	e9.8	7.9	1.9	5.6
31	4.5	---	8.9	11	---	12	---	21	---	6.2	3.0	---
TOTAL	306.7	1068.7	885.1	1411	837.5	1026	574.2	846.5	843.5	1404.2	251.3	721.9
MEAN	9.89	35.6	28.6	45.5	29.9	33.1	19.1	27.3	28.1	45.3	8.11	24.1
MAX	47	400	194	364	295	337	136	183	240	754	69	240
MIN	4.2	4.2	6.8	10	9.5	12	8.7	7.8	8.2	5.6	1.2	1.1

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																
1922	26.7	130	1.48	1964	43.0	221	3.05	1966	46.9	255	3.27	1981	49.6	211	1.41	1981	57.7	156	12.5	1954	78.8	190	12.6	1981	68.2	246	7.80	1963	52.4	199	6.20	1965	36.4	173	3.32	1965	40.8	268	.33	1966	39.6	242	.43	1964	35.7	175	2.26	1964



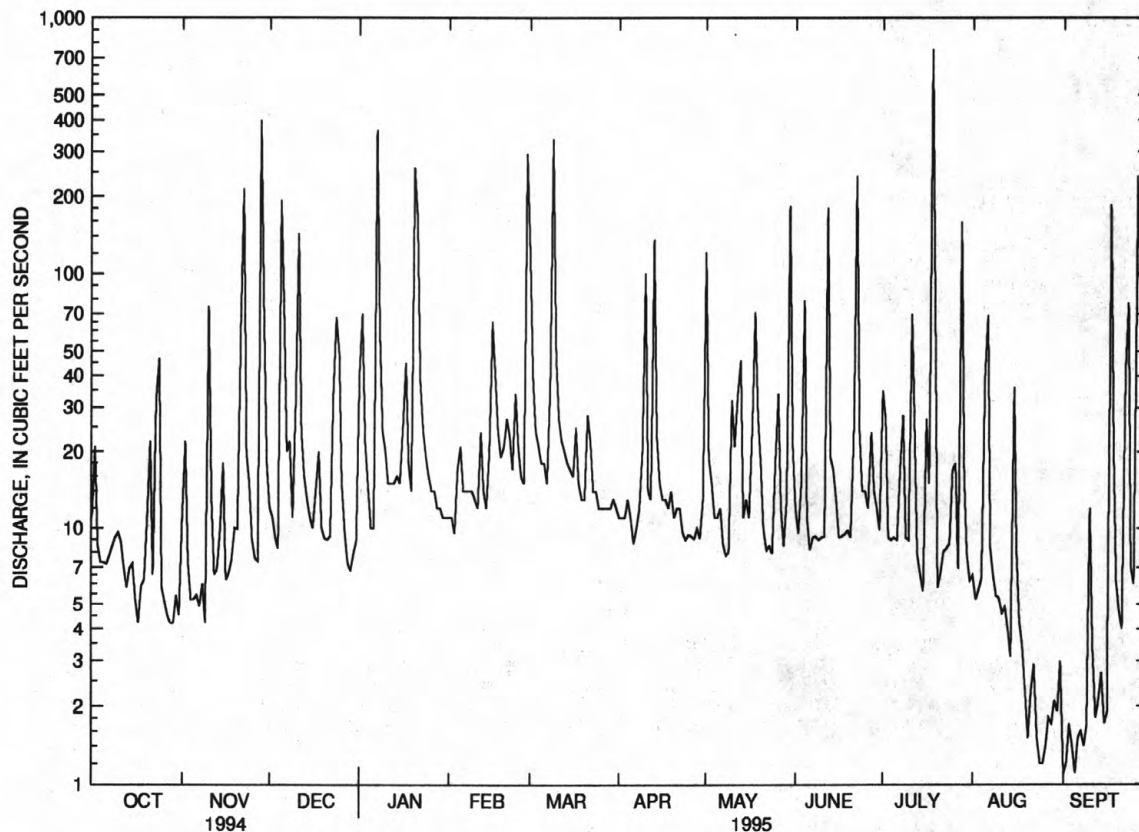
## RAHWAY RIVER BASIN

01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	20033.0		10176.6		47.9	
ANNUAL MEAN	54.9		27.9		105	
HIGHEST ANNUAL MEAN					15.0	
LOWEST ANNUAL MEAN					3450	
HIGHEST DAILY MEAN	995	Jan 29	754	Jul 18	Aug 28	1971
LOWEST DAILY MEAN	4.2	Oct 17	1.1	Sep 1	Oct 9	1964
ANNUAL SEVEN-DAY MINIMUM	4.8	Oct 25	1.4	Sep 1	Jul 10	1981
INSTANTANEOUS PEAK FLOW			1360	Jul 18	Aug 2	1973
INSTANTANEOUS PEAK STAGE			4.45	Jul 18	Aug 2	1973
INSTANTANEOUS LOW FLOW			.95	Sep 1		
10 PERCENT EXCEEDS	128		49		98	
50 PERCENT EXCEEDS	19		12		18	
90 PERCENT EXCEEDS	7.6		4.3		3.2	

a From rating curve extended above 3,000 ft<sup>3</sup>/s.

e Estimated.



01395000 RAHWAY RIVER AT RAHWAY, NJ, DAILY MEAN DISCHARGE

## RAHWAY RIVER BASIN

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01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1952, 1962, 1967-70, 1979 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)
NOV 1994												
02...	0945	29	474	7.9	12.5	753	8.6	82	4.4	3500	2100	180
JAN 1995												
23...	1035	24	431	7.6	4.0	757	12.3	95	<1.0	920	640	110
MAR												
22...	1230	18	587	8.3	11.0	748	12.3	114	3.0	1600	40	180
MAY												
18...	1015	56	463	7.8	17.5	755	8.1	86	3.4	>24000	5800	160
JUL												
24...	1150	7.2	447	7.8	26.0	760	7.3	90	2.6	260	100	150

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS- PENDE (MG/L) (00530)
NOV 1994												
02...	57	9.7	23	3.3	124	34	49	<0.1	14	272	267	--
JAN 1995												
23...	34	6.7	34	1.8	66	22	65	<0.1	10	244	218	11
MAR												
22...	56	9.9	39	1.8	114	36	79	<0.1	7.5	324	302	3
MAY												
18...	49	8.5	26	2.3	104	27	58	0.1	11	276	249	13
JUL												
24...	47	7.8	25	2.3	104	33	47	<0.1	14	268	242	11

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
NOV 1994												
02...	0.005	0.51	<0.03	0.03	0.40	0.32	0.91	0.83	0.13	0.07	5.5	0.5
JAN 1995												
23...	0.010	1.20	0.08	0.05	0.40	0.29	1.6	1.5	0.04	0.02	4.5	0.4
MAR												
22...	0.019	1.10	<0.03	<0.03	0.40	0.18	1.5	1.3	0.06	0.03	3.5	1.2
MAY												
18...	0.059	0.99	0.36	0.35	1.0	0.51	2.0	1.5	0.06	0.02	4.5	1.3
JUL												
24...	0.021	0.90	0.03	<0.03	0.40	0.23	1.3	1.1	0.06	0.04	4.6	0.9

## 01395000 RAHWAY RIVER AT RAHWAY, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH	OXYGEN	NITRO-	NITRO-	PHOS-		ARSENIC	BERYL-		CADMIUM
		SED	DEMAND,	GEN, NH4	GEN, NH4	PHORUS		TOTAL	LIUM,	BORON,	
		BED MAT	CHEM-	IN BOT.	+ ORG.	TOTAL		IN BOT.	TOTAL	TOTAL	
		(STD	ICAL	TOT IN	TOT IN	IN BOT.	ARSENIC	TOM MA-	RECOV-	RECOV-	RECOV-
UNITS)	(HIGH	MAT.	(MG/KG	(MG/KG	(MG/KG	TOTAL	TERIAL	ERABLE	ERABLE	ERABLE	
(70310)	(MG/L)		AS N)	AS N)	AS P)	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L)	
						AS AS)	AS AS)	AS BE)	AS B)	AS CD)	
			(00340)	(00611)	(00626)	(00668)	(01002)	(01003)	(01012)	(01022)	(01027)
NOV 1994											
02...	0945	7.6	--	4.7	288	130	--	4	--	--	--
02...	0945	--	16	--	--	--	1	--	<10	80	<1
MAY 1995											
18...	1015	--	18	--	--	--	2	--	<10	70	<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 1994											
02...	<1	--	20	<5	--	50	--	12000	--	110	--
02...	--	<1	--	--	4	--	650	--	4	--	340
MAY 1995											
18...	--	<1	--	--	6	--	640	--	7	--	250

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	NICKEL, RECOV. TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/G AS SE) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
	NOV 1994										
	02...	950	--	0.05	--	20	--	<1	--	240	<0.1
	02...	--	<0.1	--	2	--	<1	--	<10	--	--
	MAY 1995										
18...	--	<0.1	--	2	--	<1	--	10	--	--	

[illegible][illegible]

## 01396000 ROBINSONS BRANCH AT RAHWAY, NJ

LOCATION.--Lat 40°36'20", long 74°17'57", Union County, Hydrologic Unit 02030104, on right bank of Milton Lake, 2,000 ft upstream from Maple Avenue in Rahway, 3,200 ft downstream from Middlesex Reservoir Dam, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--21.6 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1939 to current year. September 1939 to September 1978, published as "Robinsons Branch Rahway River at Rahway." October 1978 to September 1985, published as "Robinsons Branch Rahway River at Maple Avenue, at Rahway" (station 01396001).

REVISED RECORDS.--WDR NJ-75-1: 1973(P). WDR NJ-87-1: 1986(M).

GAGE.--Water-stage recorder. Datum of gage is 19.99 ft above sea level (levels from New Jersey Geological Survey bench mark). From Sept. 26, 1978 to Sept. 30, 1985, water-stage recorder 2,000 ft downstream at Maple Avenue at datum 8.69 ft lower.

REMARKS.--Records fair except those below 2 ft<sup>3</sup>/s, which are poor. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir, capacity, 89,000,000 gal, 1.0 mi above station. No diversion this year. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 2	0145	514	4.63	July 28	0145	514	4.63
July 18	0145	*850	*4.87				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	5.5	5.1	12	2.4	115	20	72	6.3	83	4.0	.40
2	5.1	14	3.2	18	2.9	36	18	28	4.9	200	3.6	.40
3	3.2	7.8	2.1	9.3	2.4	16	19	16	6.2	50	3.6	.40
4	2.2	6.5	1.8	6.4	8.8	12	23	6.3	30	8.1	6.0	.37
5	2.0	6.5	56	4.0	9.0	9.1	11	5.2	3.5	3.1	51	.35
6	1.4	7.0	34	3.1	3.9	7.5	3.5	6.9	2.0	2.4	53	.35
7	1.1	9.9	9.8	128	2.3	6.7	6.6	3.7	4.0	7.0	12	.35
8	.72	3.4	10	37	2.2	23	6.2	2.8	3.2	20	4.4	.34
9	.73	2.4	5.4	9.9	1.8	178	29	2.4	1.6	3.1	2.5	.34
10	1.7	23	11	5.8	1.7	69	63	31	.90	1.3	1.9	.51
11	1.5	8.5	40	3.6	3.8	45	23	27	.90	41	1.8	.55
12	.86	3.3	11	3.3	6.6	37	12	39	13	59	1.9	.49
13	.68	3.2	6.5	3.4	3.0	32	96	51	33	21	1.9	.48
14	.70	4.0	4.2	4.9	2.2	30	46	15	28	4.7	1.5	.49
15	.91	3.5	2.7	5.1	2.6	27	27	17	31	2.1	13	.44
16	1.2	2.9	2.1	7.9	32	24	17	11	17	13	9.7	.42
17	.66	2.8	3.2	13	31	38	9.5	22	10	16	3.1	111
18	.64	3.2	5.0	6.5	24	27	10	52	2.3	291	1.8	32
19	1.3	8.8	3.7	4.5	21	17	12	42	1.1	85	.92	4.8
20	2.3	5.7	2.4	105	23	14	15	26	.86	26	.64	1.5
21	4.9	33	2.3	73	30	33	12	8.0	1.0	9.8	.55	1.4
22	1.6	59	2.1	36	24	35	18	4.3	55	4.6	.59	25
23	16	12	2.3	17	15	22	6.4	2.8	11	2.6	.58	46
24	22	4.8	18	12	26	19	8.6	3.5	2.5	3.9	.51	7.0
25	6.7	2.8	14	8.5	20	16	16	18	1.5	39	.53	2.7
26	3.2	2.3	6.2	6.6	12	8.4	17	22	1.1	45	.46	115
27	2.4	1.9	3.5	4.5	9.0	11	8.7	13	26	18	.44	68
28	1.7	145	3.2	3.9	190	22	9.8	6.0	13	252	.42	19
29	1.4	47	4.1	2.8	---	18	9.3	7.4	2.7	111	.42	4.3
30	1.5	11	2.4	2.4	---	20	16	51	1.2	43	.41	2.1
31	2.0	---	1.8	2.5	---	24	---	16	---	9.8	.40	---
TOTAL	93.60	450.7	279.1	559.9	512.6	991.7	588.6	628.3	314.76	1475.5	183.57	446.48
MEAN	3.02	15.0	9.00	18.1	18.3	32.0	19.6	20.3	10.5	47.6	5.92	14.9
MAX	22	145	56	128	190	178	96	72	55	291	53	115
MIN	.64	1.9	1.8	2.4	1.7	6.7	3.5	2.4	.86	1.3	.40	.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

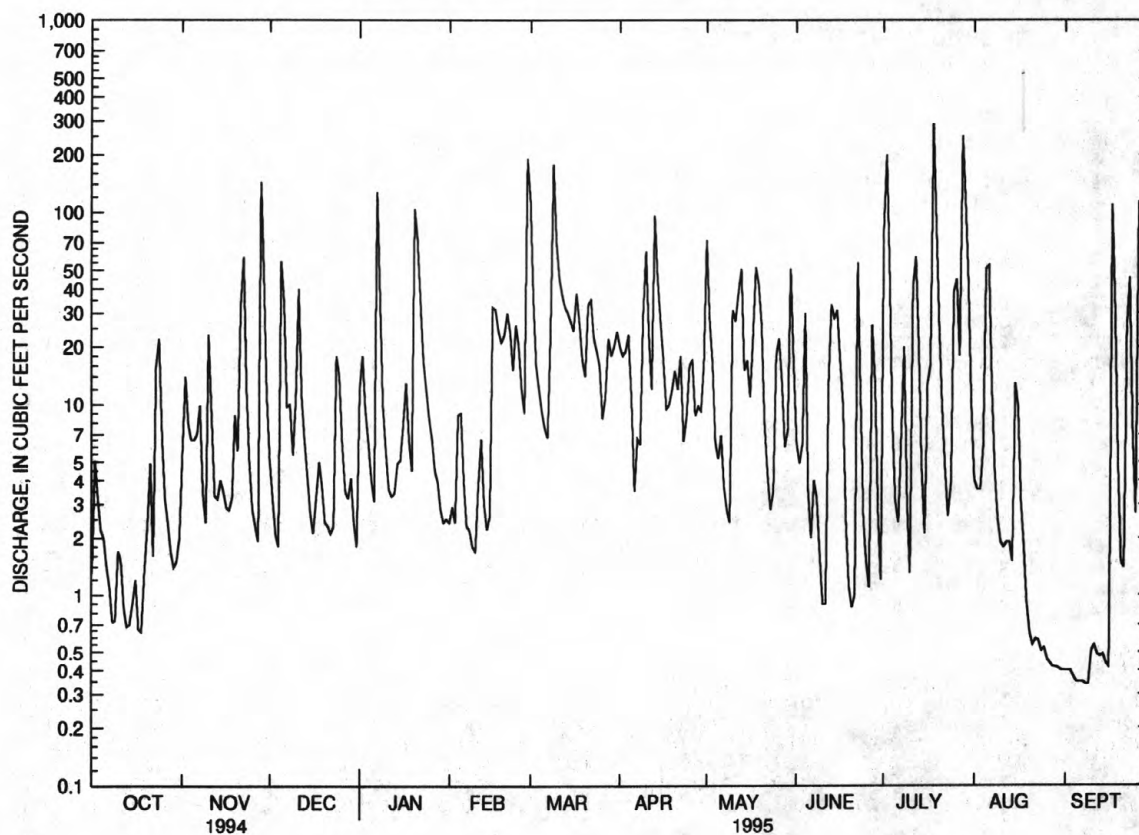
MEAN	12.6	25.5	28.5	30.1	35.1	45.7	37.2	30.4	17.2	18.8	17.6	16.2
MAX	60.3	98.8	142	118	77.0	108	129	116	76.8	143	90.9	118
(WY)	1959	1973	1984	1979	1973	1953	1983	1989	1972	1975	1942	1975
MIN	.22	.48	1.03	.87	7.24	8.49	.45	.27	.15	.000	.13	.020
(WY)	1954	1965	1966	1966	1954	1981	1963	1963	1957	1954	1953	1955

## RAHWAY RIVER BASIN

01396000 ROBINSONS BRANCH AT RAHWAY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1940 - 1995	
ANNUAL TOTAL	10677.12		6524.81		26.2	
ANNUAL MEAN	29.3		17.9		52.2	1984
HIGHEST ANNUAL MEAN					5.79	1965
LOWEST ANNUAL MEAN					1240	Jul 15 1975
HIGHEST DAILY MEAN	612	Mar 10	291	Jul 18	.00	Jan 9 1942
LOWEST DAILY MEAN	.64	Oct 18	.34	Sep 8	.00	Oct 5 1947
ANNUAL SEVEN-DAY MINIMUM	.81	Oct 12	.36	Sep 3	3110a	Jul 15 1975
INSTANTANEOUS PEAK FLOW			850	Jul 18	6.02	Aug 15 1969
INSTANTANEOUS PEAK STAGE			4.87	Jul 18	.00	Many days
INSTANTANEOUS LOW FLOW			.33	Sep 7	58	
10 PERCENT EXCEEDS	68		42		7.7	
50 PERCENT EXCEEDS	11		6.5		.60	
90 PERCENT EXCEEDS	1.8		.88			

a From rating curve extended above 750 ft<sup>3</sup>/s on basis of flow-over-dam computation.



01396000 ROBINSONS BRANCH AT RAHWAY, NJ, DAILY MEAN DISCHARGE



# RARITAN RIVER BASIN

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## 01396280 SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY, NJ

LOCATION.--Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road in Middle Valley, 6.9 mi downstream from Drakes Brook.

DRAINAGE AREA.--47.6 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
20...	1030	39	303	8.1	12.5	745	9.2	88	<1.0	110	30	110	
JAN 1995													
31...	1230	59	243	8.2	1.0	745	14.2	102	<1.4	80	20	80	
MAR													
20...	1030	78	240	8.1	7.5	749	13.0	110	E1.4	50	10	74	
MAY													
30...	1200	42	258	8.1	15.5	747	9.2	94	<1.0	2800	1500	89	
JUL													
26...	1100	44	293	7.9	21.0	748	8.1	93	<1.0	330	290	100	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
20...	24	13	14	1.6	92	11	25	<0.1	10	164	163	7	
JAN 1995													
31...	18	8.5	14	1.2	52	11	29	<0.1	13	138	134	2	
MAR													
20...	17	7.7	16	1.2	48	11	31	<0.1	12	132	130	2	
MAY													
30...	20	9.5	13	1.4	67	9.8	25	<0.1	12	144	139	--	
JUL													
26...	23	11	15	1.7	84	10	27	<0.1	11	166	157	2	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED TOTAL (MG/L AS N)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
20...	0.016	2.10	<0.03	<0.03	0.20	0.18	2.3	2.3	0.09	0.08	1.8	0.5	
JAN 1995													
31...	0.005	1.90	<0.03	<0.03	0.16	0.11	2.1	2.0	0.03	0.02	1.5	0.3	
MAR													
20...	0.008	1.30	<0.03	<0.03	0.15	0.15	1.5	1.5	0.04	0.03	2.0	0.4	
MAY													
30...	0.020	1.80	<0.03	<0.03	0.30	0.17	2.1	2.0	0.07	0.06	2.2	0.7	
JUL													
26...	0.009	1.80	<0.03	<0.03	0.40	0.17	2.2	2.0	0.14	0.11	2.1	0.4	

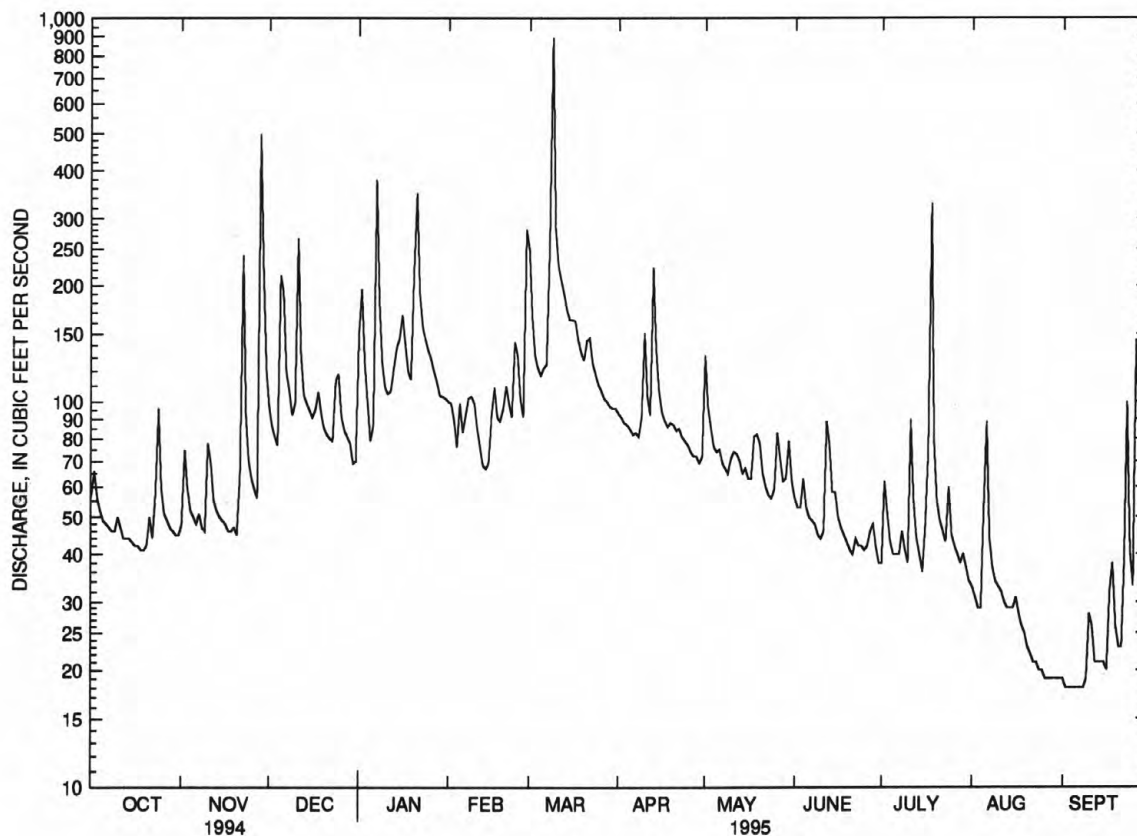


## 01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1919 - 1995	
ANNUAL TOTAL	51918		30394		122	
ANNUAL MEAN	142		83.3		213	
HIGHEST ANNUAL MEAN					46.2	
LOWEST ANNUAL MEAN					13	
HIGHEST DAILY MEAN	1300	Jan 29	892	Mar	3340	Jan 25 1979
LOWEST DAILY MEAN	39	Sep 14	18	Sep 2	13	Aug 11 1966
ANNUAL SEVEN-DAY MINIMUM	40	Sep 11	18	Sep 2	18	Aug 11 1965
INSTANTANEOUS PEAK FLOW			1450	Mar 9	6910	Jan 25 1979
INSTANTANEOUS PEAK STAGE			8.95	Mar 9	14.26a	Jan 28 1994
INSTANTANEOUS LOW FLOW			17	Sep 2	6.6	Oct 11 1930
ANNUAL RUNOFF (CFSM)	2.18		1.28		1.87	
ANNUAL RUNOFF (INCHES)	29.58		17.31		25.47	
10 PERCENT EXCEEDS	306		144		235	
50 PERCENT EXCEEDS	93		69		86	
90 PERCENT EXCEEDS	46		29		36	

a Result of ice jam.

e Estimated.



— 01396500 S B RARITAN RIVER NEAR HIGH BRIDGE, NJ, DAILY MEAN DISCHARGE

## RARITAN RIVER BASIN

01396535 SOUTH BRANCH RARITAN RIVER AT ARCH STREET, AT HIGH BRIDGE, NJ

LOCATION.--Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, 1.0 mi downstream from Lake Solitude dam, and 4.3 mi northeast of Norton.

DRAINAGE AREA.--68.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
20...	1230	E40	291	8.2	12.5	752	10.7	102	E2.2	1700	500	110	
FEB 1995													
01...	1200	E105	241	8.1	2.0	745	14.5	107	<1.1	40	10	82	
MAR													
20...	1330	E140	237	8.4	8.5	755	12.8	110	<1.0	50	<10	79	
MAY													
31...	1145	E60	247	8.2	17.5	759	9.5	100	<1.0	790	40	89	
JUL													
27...	1100	E35	269	8.2	24.0	756	9.6	115	<1.0	790	110	100	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
20...	24	13	12	1.7	94	12	21	<0.1	8.2	156	155	8	
FEB 1995													
01...	18	8.9	13	1.2	58	11	24	<0.1	12	134	131	7	
MAR													
20...	18	8.3	14	1.3	54	11	27	<0.1	12	128	129	<1	
MAY													
31...	20	9.5	12	1.8	70	10	21	<0.1	12	142	135	8	
JUL													
27...	23	11	12	1.7	85	11	22	<0.1	9.9	152	147	5	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
20...	0.013	1.60	<0.03	<0.03	0.20	0.22	1.8	1.8	0.04	0.02	2.2	0.6	
FEB 1995													
01...	0.005	1.80	<0.03	<0.03	0.15	0.14	2.0	1.9	<0.01	<0.01	1.4	0.3	
MAR													
20...	0.008	1.20	0.05	<0.03	0.20	0.29	1.4	1.5	0.04	0.01	1.9	0.4	
MAY													
31...	0.027	1.50	0.08	0.08	0.20	0.20	1.7	1.7	0.06	0.04	2.6	0.6	
JUL													
27...	0.017	1.30	0.10	0.08	0.20	0.12	1.5	1.4	0.06	0.03	2.3	0.4	



## 01396580 SPRUCE RUN AT GLEN GARDNER, NJ

LOCATION.--Lat 40°41'35", long 74°56'25", Hunterdon County, Hydrologic Unit 02030105, on right downstream wingwall of bridge on Sanatorium Road in Glen Gardner, 0.8 mi downstream from Alpaugh Brook, and 2.0 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--11.3 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1978 to September 1988, December 1991 to current year.

REVISED RECORD.--WDR NJ-86-1: 1983-85(P). WDR NJ-93-1: Drainage area, longitude.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 389.10 ft above sea level.

REMARKS.--Records fair except those above 200 ft<sup>3</sup>/s and for estimated daily discharges, which are poor. Some regulation from unknown sources upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2230	639	4.27	July 18	0030	*1,610	*6.62

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	4.7	13	30	e9.5	30	e9.6	20	6.0	4.7	e3.3	e1.5
2	6.6	7.6	12	34	e8.6	19	e9.5	13	5.5	4.7	e3.2	e1.6
3	4.9	5.3	11	19	e7.7	14	e9.0	12	5.6	4.7	e3.1	e1.4
4	4.3	4.6	10	14	e8.8	13	e9.7	9.4	8.2	4.7	e3.0	e1.5
5	4.2	4.3	43	20	e10	13	e9.1	9.2	5.7	4.7	e9.9	e1.6
6	4.2	4.4	24	20	e9.3	13	e9.0	8.5	5.4	4.8	e5.8	e1.5
7	4.2	4.4	16	51	e7.8	13	e9.0	7.6	5.2	4.8	e3.7	e1.4
8	4.0	4.2	17	23	e7.9	142	e8.9	7.2	5.2	5.3	e3.2	e1.5
9	4.7	4.0	13	17	e8.0	84	e15	6.9	5.1	4.7	e2.9	e1.9
10	5.1	17	23	14	e8.7	23	18	8.1	4.9	4.7	e2.9	e2.7
11	4.3	9.0	46	13	e8.7	20	16	8.1	6.0	15	e3.0	e1.8
12	4.0	6.2	18	15	e7.6	19	14	9.0	17	5.3	e2.7	2.8
13	4.0	5.5	15	18	e7.1	18	42	8.5	10	4.9	e2.5	2.9
14	4.0	5.1	14	22	e7.3	17	18	7.2	6.2	4.9	e2.2	2.9
15	4.0	4.8	13	21	e9.2	17	14	8.4	5.7	4.7	e2.0	2.8
16	4.0	4.7	12	21	14	e16	12	7.1	5.2	8.3	e1.9	2.8
17	4.0	4.5	15	17	13	e16	11	7.5	5.2	59	e1.8	4.9
18	4.1	4.2	15	14	12	e15	11	11	5.0	165	e1.7	3.8
19	4.2	4.3	13	14	12	e15	12	13	4.9	33	e1.6	3.1
20	5.3	3.9	11	49	15	e15	11	10	4.9	e10	e1.6	3.0
21	6.3	28	11	47	17	e19	11	7.4	5.1	e5.4	e1.5	3.0
22	5.1	27	10	24	14	e16	11	6.6	4.9	e5.1	e1.5	7.8
23	13	8.2	10	19	13	e15	9.5	6.1	4.9	e4.7	e1.4	5.8
24	10	5.8	19	18	29	e14	9.4	6.0	5.1	e4.2	e1.4	3.3
25	4.9	5.1	16	17	17	e13	8.6	6.6	4.9	e4.2	e1.4	3.2
26	4.0	4.7	12	16	12	e12	8.0	9.8	4.9	e4.3	e1.5	27
27	3.7	4.8	11	14	11	e12	7.8	7.3	4.9	e4.1	e1.6	5.7
28	3.5	131	10	13	66	e11	7.9	6.1	4.9	e4.1	e1.8	3.9
29	3.3	25	10	14	---	e11	7.5	7.3	4.7	e4.9	e1.6	3.4
30	3.3	16	11	14	---	e11	9.6	15	4.7	e4.2	e1.6	3.2
31	3.3	---	12	13	---	e10	---	7.5	---	e3.5	e1.5	---
TOTAL	150.7	368.3	486	655	371.2	676	358.1	277.4	175.9	406.6	78.8	113.7
MEAN	4.86	12.3	15.7	21.1	13.3	21.8	11.9	8.95	5.86	13.1	2.54	3.79
MAX	13	131	46	51	66	142	42	20	17	165	9.9	27
MIN	3.3	3.9	10	13	7.1	10	7.5	6.0	4.7	3.5	1.4	1.4
CFSM	.43	1.09	1.39	1.87	1.17	1.93	1.06	.79	.52	1.16	.22	.34
IN.	.50	1.21	1.60	2.16	1.22	2.23	1.18	.91	.58	1.34	.26	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1995, BY WATER YEAR (WY)

MEAN	9.90	18.6	23.3	25.8	25.5	37.3	36.4	24.4	14.8	11.5	6.62	8.39
MAX	34.1	34.6	49.2	106	44.7	83.5	73.7	61.3	31.4	46.9	11.4	29.5
(WY)	1980	1986	1984	1979	1979	1994	1983	1984	1992	1984	1978	1979
MIN	3.54	5.60	6.96	5.66	9.93	12.8	9.74	8.95	5.76	3.20	2.54	1.88
(WY)	1983	1985	1981	1981	1980	1981	1985	1995	1993	1993	1995	1980



## RARITAN RIVER BASIN

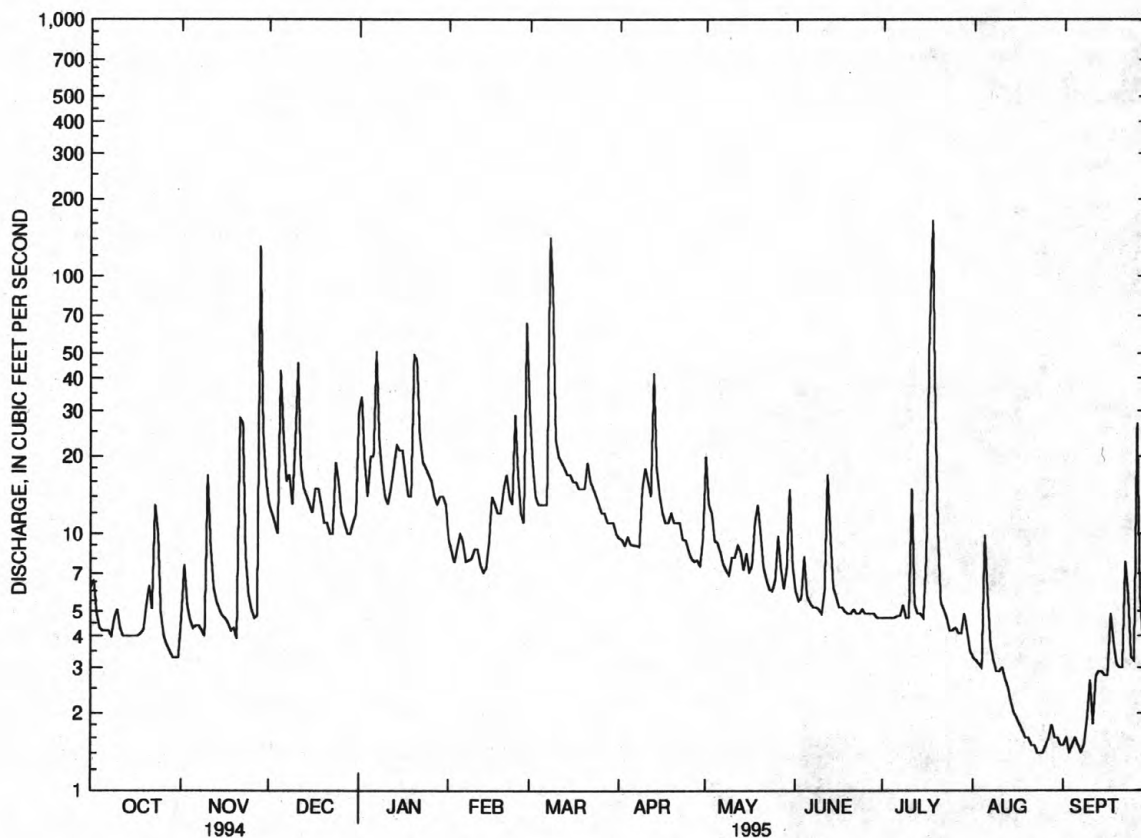
01396580 SPRUCE RUN AT GLEN GARDNER, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1978 - 1995
ANNUAL TOTAL	9039.1	4117.7	
ANNUAL MEAN	24.8	11.3	20.5
HIGHEST ANNUAL MEAN			33.2
LOWEST ANNUAL MEAN			11.3
HIGHEST DAILY MEAN	327 Jan 28	165 Jul 18	570 Jan 21 1979
LOWEST DAILY MEAN	2.9 Sep 12	1.4 Aug 23	1.2 Oct 1 1982
ANNUAL SEVEN-DAY MINIMUM	3.0 Sep 11	1.5 Aug 20	1.5 Oct 1 1982
INSTANTANEOUS PEAK FLOW		1610 Jul 18	1820a Jan 24 1979
INSTANTANEOUS PEAK STAGE		6.62 Jul 18	7.60b Jan 24 1979
INSTANTANEOUS LOW FLOW		1.4 Aug 23	1.1 Oct 1 1982
ANNUAL RUNOFF (CFSM)	2.19	1.00	1.82
ANNUAL RUNOFF (INCHES)	29.76	13.56	24.69
10 PERCENT EXCEEDS	55	19	40
50 PERCENT EXCEEDS	12	7.8	11
90 PERCENT EXCEEDS	4.0	2.9	3.8

a From rating curve extended above 700 ft<sup>3</sup>/s on basis of slope-conveyance computation.

b From high-water mark.

c Estimated.



— 01396580 SPRUCE RUN AT GLEN GARDNER, NJ, DAILY MEAN DISCHARGE

# RARITAN RIVER BASIN

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01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

LOCATION.--Lat 40°40'41", long 74°55'06". Hunterdon County, Hydrologic Unit 02030105, at site 800 ft downstream of Rocky Run, 0.3 mi above Van Syckel Road bridge, 1.5 mi northwest of High Bridge, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
24...	1100	16	169	7.8	11.0	755	10.0	92	E1.9	460	600	55	
FEB 1995													
08...	1330	18	178	7.6	0.0	751	15.1	105	<1.0	20	<10	54	
MAR													
22...	1045	23	176	8.0	9.0	742	11.6	103	E1.6	790	50	49	
JUN													
07...	1100	7.0	187	7.9	18.0	747	9.7	105	<1.0	790	200	62	
AUG													
03...	1145	43	202	8.3	23.5	758	8.9	105	E2.0	60	60	68	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
24...	13	5.4	8.8	2.0	39	16	14	<0.1	17	116	101	3	
FEB 1995													
08...	13	5.2	9.4	1.0	29	17	17	<0.1	17	110	105	<1	
MAR													
22...	12	4.7	12	1.2	26	15	21	<0.1	16	98	102	<1	
JUN													
07...	15	5.9	11	1.4	40	16	18	0.1	17	116	113	1	
AUG													
03...	17	6.1	11	1.6	45	17	19	<0.1	14	120	116	7	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
24...	0.005	0.39	0.03	<0.03	0.20	0.19	0.59	0.58	0.02	0.02	5.0	0.3	
FEB 1995													
08...	<0.003	1.70	0.09	0.05	0.06	0.07	1.8	1.8	0.02	<0.01	1.2	0.2	
MAR													
22...	0.005	1.10	<0.03	<0.03	0.11	0.04	1.2	1.1	0.01	<0.01	1.4	0.2	
JUN													
07...	0.004	1.10	0.04	0.04	0.16	0.20	1.3	1.3	0.03	0.03	1.4	0.2	
AUG													
03...	0.003	0.70	<0.03	<0.03	0.06	<0.03	0.76	--	<0.01	<0.01	1.5	0.2	

## 01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ

LOCATION.--Lat 40°38'51", long 74°58'09", Hunterdon County, Hydrologic Unit 02030105, on left bank downstream side of bridge on Jutland Road, 0.2 mi south of Van Syckel, 0.8 mi north of Perryville, and 0.3 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--11.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1973-77. July 1977 to current year.

REVISED RECORDS.--WDR-NJ 89-1: 1978(P), 1979(P), 1980(P), 1981(P), 1982(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 280.25 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 28	0400	320	2.67	Mar. 8	2300	506	3.28
Jan. 20	1115	326	2.69	July 18	0030	*1,320	*4.92

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	8.3	13	31	e12	37	13	19	6.8	4.9	3.7	1.5
2	6.6	9.0	12	45	e11	23	13	15	6.6	4.9	3.5	1.5
3	5.3	6.6	11	e15	e9.4	19	12	13	6.8	4.7	3.4	1.4
4	4.8	6.2	10	e10	e11	18	13	11	7.0	4.6	3.3	1.4
5	4.7	6.0	56	e9.1	e13	18	12	11	6.3	4.7	10	1.5
6	4.6	6.1	23	9.9	e12	18	12	9.8	6.1	6.0	6.5	1.4
7	4.5	5.6	16	101	e10	17	12	9.1	6.1	8.0	4.6	1.4
8	4.5	5.4	15	25	e9.9	114	12	8.7	5.9	5.5	3.9	1.5
9	4.9	5.8	12	17	e10	101	16	8.5	5.6	4.9	3.5	2.1
10	5.8	17	30	14	e11	35	22	11	5.8	4.8	3.5	3.8
11	4.6	8.5	50	14	e11	30	13	10	6.6	12	3.4	1.9
12	4.6	6.9	18	15	e9.6	26	13	12	11	5.6	3.1	1.9
13	4.7	6.4	14	17	e9.0	24	43	10	7.6	5.0	2.8	2.6
14	4.8	6.1	14	19	e9.1	23	17	9.1	6.4	4.7	2.3	2.6
15	4.7	6.0	13	19	e11	22	14	11	5.9	4.5	2.3	1.9
16	4.6	6.1	12	18	e14	21	13	8.8	5.5	14	2.2	1.9
17	4.6	6.1	13	15	e16	21	12	9.3	5.3	35	2.0	8.7
18	4.6	6.0	13	14	e14	19	12	9.6	5.3	136	1.8	3.6
19	4.7	5.9	12	13	e15	18	13	13	5.1	10	1.7	2.5
20	5.5	5.7	11	86	e17	18	12	10	5.0	6.9	1.7	2.4
21	6.3	29	10	41	e18	26	11	8.4	5.5	6.0	1.6	2.5
22	5.7	23	10	24	e17	20	11	7.7	6.0	5.9	1.6	14
23	23	10	10	19	15	18	11	7.3	5.5	5.3	1.5	7.3
24	11	8.0	15	18	32	17	10	7.1	5.3	4.8	1.5	3.8
25	7.0	7.5	12	16	16	16	10	8.1	5.2	4.8	1.4	4.0
26	6.1	6.9	11	15	14	15	9.7	8.8	5.5	4.9	1.5	38
27	5.7	7.1	10	14	13	14	9.6	7.8	6.1	4.7	1.6	9.0
28	5.4	165	9.9	13	93	14	9.6	7.2	5.2	4.7	1.9	5.3
29	5.1	29	9.5	e11	---	14	9.2	9.1	4.9	6.8	1.7	4.3
30	5.1	16	8.5	e11	---	14	13	12	4.9	4.4	1.6	4.0
31	5.1	---	8.6	e11	---	14	---	7.6	---	3.9	1.5	---
TOTAL	185.5	441.2	482.5	700.0	453.0	804	403.1	310.0	180.8	342.9	86.6	139.7
MEAN	5.98	14.7	15.6	22.6	16.2	25.9	13.4	10.0	6.03	11.1	2.79	4.66
MAX	23	165	56	101	93	114	43	19	11	136	10	38
MIN	4.55	5.4	8.5	9.1	9.0	14	9.2	7.1	4.9	3.9	1.4	1.4
CFSM	.51	1.25	1.32	1.91	1.37	2.20	1.14	.85	.51	.94	.24	.39
IN.	.58	1.39	1.52	2.21	1.43	2.53	1.27	.98	.57	1.08	.27	.44

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1995, BY WATER YEAR (WY)

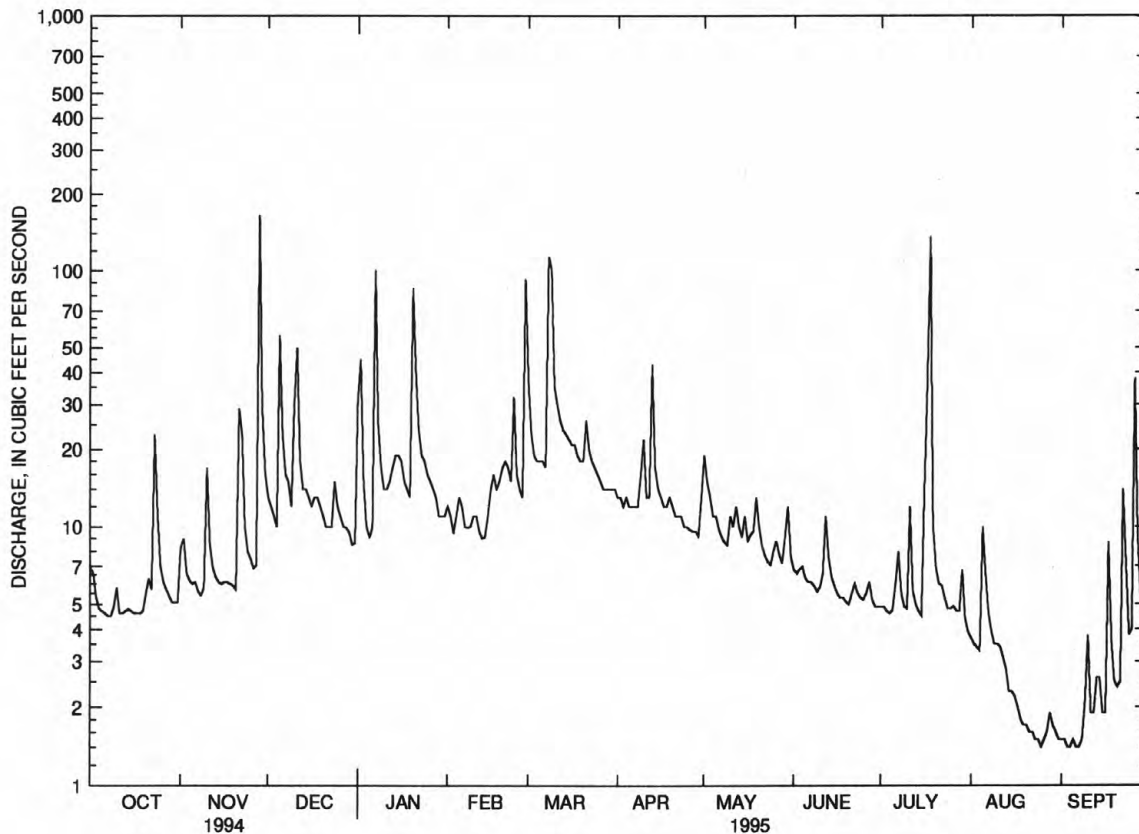
	MEAN	10.8	16.9	20.9	23.2	23.7	32.3	35.4	26.5	17.8	12.3	8.92	8.99
MAX	35.6	32.6	47.9	79.2	40.2	76.8	94.1	59.2	61.1	53.2	25.3	22.8	
(WY)	1990	1986	1984	1979	1979	1994	1984	1984	1989	1984	1990	1989	
MIN	4.55	6.34	5.61	5.01	11.1	10.2	6.88	10.0	6.03	4.83	2.79	2.85	
(WY)	1983	1985	1981	1981	1980	1985	1985	1995	1995	1993	1995	1980	

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1977 - 1995	
ANNUAL TOTAL	8387.6		4529.3		19.8	
ANNUAL MEAN	23.0		12.4		35.2	
HIGHEST ANNUAL MEAN					11.1	
LOWEST ANNUAL MEAN					700	
HIGHEST DAILY MEAN	211	Mar 22	165	Nov 28	1.4	Apr 5 1984
LOWEST DAILY MEAN	3.8	Sep 21	1.4	Aug 25	1.4	Aug 25 1995
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 11	1.4	Sep 1	1.4	Sep 1 1995
INSTANTANEOUS PEAK FLOW			1320a	Jul 18	3590a	Sep 20 1989
INSTANTANEOUS PEAK STAGE			4.92	Jul 18	7.41	Sep 20 1989
INSTANTANEOUS LOW FLOW			1.2	Sep 7	1.1	Sep 23 1980
ANNUAL RUNOFF (CFSM)	1.95		1.05		1.68	
ANNUAL RUNOFF (INCHES)	26.44		14.28		22.83	
10 PERCENT EXCEEDS	55		20		38	
50 PERCENT EXCEEDS	12		9.1		12	
90 PERCENT EXCEEDS	5.1		2.7		4.2	

a From rating curve extended above 200 ft<sup>3</sup>/s.

e Estimated.



01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ, DAILY MEAN DISCHARGE

## RARITAN RIVER BASIN

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
OCT 1994												
24...	1330	10	204	7.8	12.0	752	9.9	93	E1.3	790	1100	73
FEB 1995												
08...	1045	E9.9	208	7.7	1.0	751	13.7	98	<1.0	<20	20	71
MAR												
22...	1330	20	208	8.0	8.5	742	11.4	100	E2.2	40	10	64
JUN												
07...	1300	6.6	219	7.9	20.0	747	8.1	91	<1.0	1700	480	86
AUG												
03...	1230	3.8	252	8.2	20.0	761	9.1	100	2.1	330	150	100

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
24...	19	6.3	9.2	2.1	60	16	14	<0.1	15	128	120	4
FEB 1995												
08...	18	6.3	8.9	1.1	50	16	16	<0.1	16	124	119	<1
MAR												
22...	17	5.3	13	1.1	41	15	23	<0.1	14	118	117	3
JUN												
07...	22	7.5	9.0	1.2	65	14	15	<0.1	15	126	127	3
AUG												
03...	25	9.1	9.9	1.4	82	13	16	<0.1	12	144	140	7

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
24...	0.005	0.54	0.13	<0.03	0.18	0.19	0.72	0.73	0.04	0.03	3.4	0.2
FEB 1995												
08...	0.003	1.50	<0.03	0.08	0.04	0.04	1.5	1.5	0.01	<0.01	1.0	0.3
MAR												
22...	0.005	0.90	<0.03	<0.03	0.1	0.05	1.0	0.95	0.01	<0.01	2.9	0.3
JUN												
07...	0.007	0.98	0.06	0.06	0.19	0.14	1.2	1.1	0.03	0.02	1.3	0.2
AUG												
03...	0.003	0.89	0.04	<0.03	0.1	<0.03	0.99	--	<0.01	<0.01	1.2	0.2



# RARITAN RIVER BASIN

211

## 01396800 SPRUCE RUN AT CLINTON, NJ

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, Hydrologic Unit 02030105, 1,800 ft downstream from dam at Spruce Run Reservoir, 0.2 mi north of Clinton, 0.3 mi upstream from mouth, and 2.2 mi southwest of High Bridge.

DRAINAGE AREA.--41.3 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 15, 1964. Datum of gage is 193.5 ft above sea level. May to Nov. 24, 1959, nonrecording gage; Nov. 25, 1959 to July 23, 1961, water-stage recorder at site 1,800 ft upstream and at datum 1.41 ft lower; July 24, 1961 to Mar. 14, 1964, water-stage recorder at site 1,500 ft upstream at datum 1.41 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Spruce Run Reservoir (see Raritan River basin, reservoirs in). Several measurements of water temperature, other than those published, were made during the year. New Jersey Water Supply Authority gage-height telemeter at station.

### DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	87	7.4	48	98	e12	8.0	63	39	146	180	132
2	38	54	7.4	8.4	98	e12	8.0	57	59	121	176	140
3	50	45	7.4	8.5	127	e11	8.0	53	63	104	191	126
4	59	63	7.4	9.2	165	11	11	36	30	120	198	117
5	68	81	8.6	90	187	11	11	42	15	130	174	110
6	76	87	7.9	140	187	9.2	8.1	60	49	129	75	102
7	89	81	7.9	69	187	7.9	8.0	44	73	129	131	95
8	95	79	7.8	8.0	187	9.7	8.2	29	81	131	141	63
9	95	78	8.5	7.9	187	9.8	8.5	8.5	99	131	146	47
10	95	52	9.0	8.4	187	8.6	8.2	8.4	112	131	157	46
11	95	36	9.0	8.9	187	8.5	8.2	13	114	61	159	39
12	100	51	8.5	8.5	187	8.5	8.5	28	48	68	159	32
13	104	62	8.5	8.5	187	8.5	13	31	13	128	167	32
14	104	67	8.5	8.6	187	8.3	29	26	48	161	184	18
15	104	71	8.5	8.5	187	8.1	47	45	56	182	190	7.6
16	112	71	8.5	8.5	187	8.0	26	30	91	154	187	7.4
17	117	71	8.5	8.5	145	8.1	8.3	22	107	126	187	8.5
18	113	71	8.5	8.5	92	7.3	8.3	36	107	53	187	7.5
19	120	71	8.5	8.5	94	6.9	18	47	124	42	210	6.9
20	120	71	8.5	10	e92	7.2	33	45	193	82	240	5.5
21	112	51	8.3	9.4	e35	8.0	29	34	219	92	244	6.2
22	107	7.5	8.2	9.1	e7.7	7.9	70	27	152	107	237	8.1
23	86	7.4	7.9	9.1	e7.7	7.9	36	31	105	117	222	6.4
24	30	7.4	7.4	9.0	e11	7.7	12	43	118	117	175	4.6
25	39	24	8.2	8.9	e11	7.7	20	44	150	135	160	6.1
26	88	38	8.0	8.8	e11	7.8	30	43	127	146	150	8.7
27	100	38	8.3	44	e11	7.3	20	43	104	146	150	8.5
28	95	22	8.4	99	e12	7.4	37	43	95	139	144	8.5
29	95	7.7	8.0	100	---	7.9	22	44	105	134	131	23
30	95	7.5	36	103	---	8.2	22	29	134	142	123	70
31	98	---	89	99	---	8.3	---	8.5	---	160	120	---
TOTAL	2737	1559.5	362.5	983.7	3261.4	267.7	584.3	1113.4	2830	3764	5295	1292.5
MEAN	88.3	52.0	11.7	31.7	116	8.64	19.5	35.9	94.3	121	171	43.1
MAX	120	87	89	140	187	12	70	63	219	182	244	140
MIN	30	7.4	7.4	7.9	7.7	6.9	8.0	8.4	13	42	75	4.6

### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1995, BY WATER YEAR (WY)

	MEAN	57.8	31.6	44.2	60.8	65.7	80.5	99.8	70.7	60.9	72.0	56.8	74.7
MAX	290	96.2	196	258	162	190	342	225	278	244	171	241	
(WY)	1990	1990	1974	1979	1971	1993	1983	1984	1972	1975	1995	1989	
MIN	.000	.000	.000	.000	.000	.19	.86	.81	2.60	4.24	4.32	.50	
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1981	1964	1963	1963	

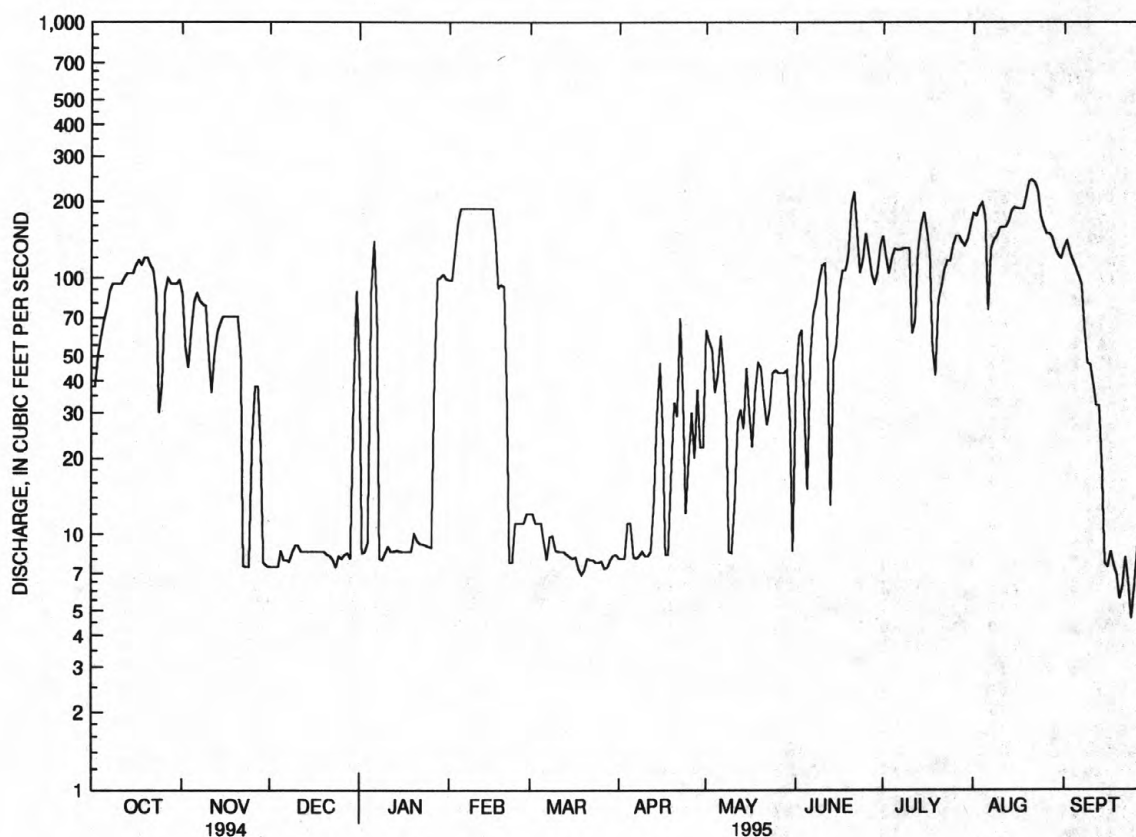
## RARITAN RIVER BASIN

01396800 SPRUCE RUN AT CLINTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1959 - 1995	
ANNUAL TOTAL	26043.7		24051.0		64.6	
ANNUAL MEAN	71.4		65.9		107	
HIGHEST ANNUAL MEAN					3.81	
LOWEST ANNUAL MEAN					2060	
HIGHEST DAILY MEAN	593	Mar 29	244	Aug 21		1983
LOWEST DAILY MEAN	6.0	Feb 27	4.6	Sep 24		1964
ANNUAL SEVEN-DAY MINIMUM	7.2	Mar 15	6.3	Sep 19		1963
INSTANTANEOUS PEAK FLOW			251	Aug 20		1970
INSTANTANEOUS PEAK STAGE			2.22	Aug 20		1970
INSTANTANEOUS LOW FLOW			2.8	Sep 20		1963
10 PERCENT EXCEEDS	151		159			
50 PERCENT EXCEEDS	59		45			
90 PERCENT EXCEEDS	7.8		7.9			

a Result of reservoir filling.

e Estimated



01396800 SPRUCE RUN AT CLINTON, NJ, DAILY MEAN DISCHARGE

## 01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'21", long 74°52'10", Hunterdon County, Hydrologic Unit 02030105, on right bank at downstream side of bridge on Stanton Road at Stanton Station, 0.4 mi upstream from Prescott Brook, and 1.4 mi west of Stanton.

DRAINAGE AREA.--147 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to December 1906, July 1919 to current year. Monthly discharge only for some periods published in WSP 1302.

REVISED RECORDS.--WSP 561: Drainage area. WSP 1552: 1904, 1922-24(M), 1928-29(M), 1933-35(M). WDR NJ-88-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft above sea level. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Spruce Run Reservoir since September 1963 (see Raritan River basin, reservoirs in). Occasional regulation at low flows by ponds above station. Water diverted by Hamden Pumping Station, 4.0 mi upstream, into Round Valley Reservoir since February 1966 (see Raritan River basin, diversions). Water can be released (maximum rate 186 ft<sup>3</sup>/s) from Round Valley Reservoir at Hamden Pumping Station since July 1990. Several measurements of water temperature were made during the year. National Weather Service telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	126	144	227	224	483	63	224	102	182	182	151
2	117	122	126	272	223	291	63	192	127	187	181	161
3	114	107	116	193	228	229	78	167	128	159	194	154
4	115	104	108	146	276	209	79	138	123	157	201	142
5	118	117	262	187	320	194	79	136	83	168	206	140
6	121	123	334	335	321	192	76	152	102	166	189	130
7	126	121	178	715	345	190	74	130	129	170	152	124
8	132	116	155	322	336	332	64	123	137	174	163	128
9	131	115	136	198	327	1450	66	96	144	171	163	125
10	132	128	145	170	333	502	162	102	159	167	173	127
11	131	121	407	157	298	378	151	110	161	187	177	109
12	139	102	213	152	301	330	130	125	167	124	176	95
13	135	110	160	165	308	298	297	127	110	164	181	95
14	134	111	148	189	307	267	218	113	123	192	196	89
15	133	114	141	203	303	239	187	129	150	222	211	68
16	138	112	134	225	311	243	156	116	140	221	211	67
17	149	111	e132	194	294	231	132	103	155	189	208	95
18	143	110	e127	168	212	101	125	134	153	739	208	91
19	148	110	e120	158	208	81	130	149	161	127	226	76
20	150	109	e115	376	223	130	145	150	219	126	269	92
21	151	119	115	596	217	148	137	120	272	127	283	121
22	137	309	112	315	158	160	166	107	237	131	268	96
23	150	136	111	246	144	131	150	100	149	140	266	131
24	144	98	123	223	210	119	116	112	154	150	195	98
25	101	94	170	207	213	67	117	118	188	152	186	122
26	122	109	128	193	164	62	126	136	175	160	171	220
27	137	105	115	196	148	95	111	138	155	157	171	137
28	128	729	110	249	504	89	123	121	145	156	169	81
29	126	412	106	234	---	85	119	122	146	156	157	64
30	126	183	108	235	---	85	118	150	164	154	151	94
31	124	---	184	231	---	83	---	96	---	166	146	---
TOTAL	4063	4583	4783	7677	7456	7494	3758	4036	4558	5641	6030	3423
MEAN	131	153	154	248	266	242	125	130	152	182	195	114
MAX	151	729	407	715	504	1450	297	224	272	739	283	220
MIN	101	94	106	146	144	62	63	96	83	124	146	64

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1995, BY WATER YEAR (WY)

	MEAN	160	205	261	283	317	405	374	266	191	178	164	162
MAX	641	659	767	1099	807	1057	1137	750	967	752	793	554	
(WY)	1904	1952	1974	1979	1925	1936	1983	1989	1972	1975	1955	1989	
MIN	34.1	46.2	65.1	55.0	61.2	61.3	58.5	80.3	60.1	40.7	30.1	31.0	
(WY)	1964	1965	1966	1966	1967	1981	1981	1965	1965	1955	1957	1957	

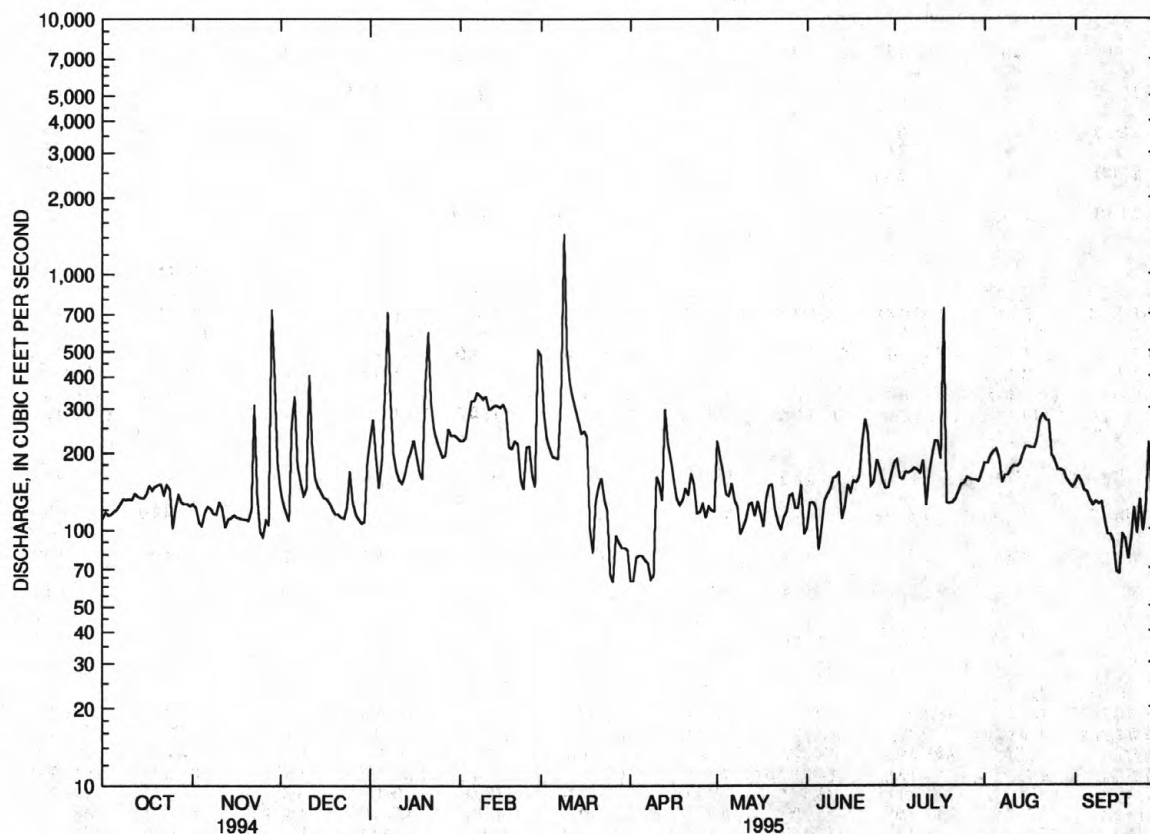
## RARITAN RIVER BASIN

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1904 - 1995	
ANNUAL TOTAL	106481		63502		247	
ANNUAL MEAN	292		174		413	
HIGHEST ANNUAL MEAN					95.0	
LOWEST ANNUAL MEAN					8060	
HIGHEST DAILY MEAN	1890	Mar 29	1450	Mar 9	12	Aug 19 1955
LOWEST DAILY MEAN	88	Jul 31	62	Mar 26	25	Oct 18 1963
ANNUAL SEVEN-DAY MINIMUM	108	Jul 29	73	Apr 1	18000a	Sep 4 1957
INSTANTANEOUS PEAK FLOW			2070	Mar 9	15.22	Aug 19 1955
INSTANTANEOUS PEAK STAGE			6.06	Mar 9	9.0	Nov 7 1931
INSTANTANEOUS LOW FLOW			56	Sep 29	486	
10 PERCENT EXCEEDS	703		279		165	
50 PERCENT EXCEEDS	168		148		62	
90 PERCENT EXCEEDS	111		99			

a From rating curve extended above 6,400 ft<sup>3</sup>/s on basis of computation of flow over Clinton Dam, 6.5 mi upstream, at gage height 10.72 ft, contracted-opening measurement 1.7 mi downstream, and slope-area measurement 0.4 mi downstream at gage height 15.22 ft, adjusted to present site.

e Estimated.



— 01397000 S B RARITAN RIVER AT STANTON, NJ, DAILY MEAN DISCHARGE

## 01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-81, 1991 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1968 to September 1979.

WATER TEMPERATURE: November 1968 to September 1979

SUSPENDED-SEDIMENT DISCHARGE: December 1959 to September 1963.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1994												
19...	1330	149	210	8.5	14.0	760	10.1	98	E1.0	490	10	76
FEB 1995												
02...	1100	223	219	--	3.0	750	13.6	103	<1.2	70	<10	75
MAR												
21...	1030	80	242	7.8	9.0	744	12.0	106	<1.0	40	<10	85
JUN												
01...	1000	85	248	8.8	22.5	763	11.0	127	E1.6	110	40	89
JUL												
27...	1100	158	200	8.0	26.5	758	8.6	108	<1.0	20	60	68

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
19...	18	7.5	11	1.3	57	13	19	<0.1	6.2	126	113	5
FEB 1995												
02...	18	7.4	12	1.3	52	13	22	<0.1	9.8	126	121	4
MAR												
21...	20	8.4	13	1.4	57	13	24	<0.1	10	134	130	1
JUN												
01...	20	9.4	13	1.6	67	13	23	<0.1	9.0	144	135	5
JUL												
27...	16	6.8	11	1.5	50	13	19	0.1	4.2	110	104	5

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
19...	0.013	0.54	<0.03	<0.03	0.30	0.21	0.84	0.75	0.03	0.01	2.4	0.4
FEB 1995												
02...	0.007	1.30	0.08	0.07	0.12	0.33	1.4	1.6	<0.01	<0.01	1.8	0.4
MAR												
21...	0.010	1.40	0.07	0.05	0.19	0.35	1.6	1.7	0.03	0.02	1.9	0.3
JUN												
01...	0.024	1.40	0.11	0.09	0.20	0.16	1.6	1.6	0.04	0.04	2.5	--
JUL												
27...	0.011	0.43	0.05	0.04	0.20	0.18	0.63	0.61	0.04	<0.01	3.3	0.4



## RARITAN RIVER BASIN

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 19...	1330	<10	<1	<10	20	<1	<1	2
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 19...		180	1	40	<0.1	<1	<1	20

# RARITAN RIVER BASIN

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## 01397400 SOUTH BRANCH RARITAN RIVER AT THREE BRIDGES, NJ

LOCATION.--Lat 40°31'01", long 74°48'12", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 0.4 mi northeast of Voorhees Corner, 1.3 mi downstream of Bushkill Brook, and 2.2 mi southeast of Darts Mills.

DRAINAGE AREA.--181 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE OF WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
OCT 1994													
19...	1000	170	300	7.8	14.0	760	9.9	96	<1.0	490	80	91	
FEB 1995													
02...	1330	250	278	8.3	3.5	755	13.7	104	E1.3	20	30	82	
MAR													
21...	1330	115	324	7.9	10.0	745	11.5	104	<1.0	170	30	95	
JUN													
01...	1330	93	329	8.2	23.0	763	10.0	117	E1.5	140	20	100	
JUL													
26...	1030	262	260	7.7	26.5	763	7.8	97	<1.0	330	240	80	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
19...	22	8.8	22	2.3	64	25	29	0.1	6.9	170	161	2	
FEB 1995													
02...	20	7.8	16	1.8	56	19	27	<0.1	10	148	143	6	
MAR													
21...	23	9.0	23	2.2	61	22	39	<0.1	9.9	178	172	4	
JUN													
01...	24	10	20	2.5	72	22	33	<0.1	8.8	170	172	3	
JUL													
26...	19	7.8	16	2.0	56	18	25	0.2	5.1	136	131	3	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
19...	0.013	1.40	<0.03	<0.03	0.30	0.25	1.7	1.7	0.21	0.20	2.7	0.3	
FEB 1995													
02...	0.010	1.70	0.05	0.05	0.20	0.22	1.9	1.9	0.07	0.05	2.2	0.4	
MAR													
21...	0.013	1.70	0.11	0.13	0.40	0.44	2.1	2.1	0.15	0.14	2.4	0.7	
JUN													
01...	0.022	2.00	0.10	0.09	0.30	0.20	2.3	2.2	0.21	0.18	2.8	0.3	
JUL													
26...	0.010	0.92	0.05	<0.03	0.30	0.24	1.2	1.2	0.13	0.10	2.9	0.3	

## RARITAN RIVER BASIN

## 01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, Hydrologic Unit 02030105, on left bank 50 ft downstream from bridge on Everitts Road, 0.6 mi southwest of Reaville, 1.5 mi downstream from Third Neshanic River, and 2.2 mi upstream from Back Brook.

DRAINAGE AREA.--25.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1930 to current year.

REVISED RECORDS.--WSP 1552: 1933, 1934(M), 1936(M), 1938, 1940(M), 1942(M), 1945-46, 1951, 1952(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 26, 1935. Datum of gage is 109.46 ft above sea level.

REMARKS.--Records fair. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0115	*1,680	*7.22	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.6	23	27	15	122	12	24	4.2	.90	.43	.00
2	3.5	3.2	18	43	15	70	11	16	3.8	.96	.30	.00
3	2.6	2.3	15	27	12	52	11	13	4.3	.78	.20	.00
4	2.3	2.0	13	21	9.1	45	11	9.6	7.0	.66	.11	.00
5	2.2	2.1	153	15	17	39	10	9.4	3.6	.63	3.9	.00
6	2.0	2.2	72	14	11	36	9.3	8.4	3.1	.58	4.0	.00
7	2.0	2.2	42	264	11	32	9.0	7.2	2.9	.75	1.5	.00
8	2.0	1.9	31	85	9.7	127	9.2	6.7	2.6	1.2	.86	.00
9	1.9	1.9	24	45	9.5	429	21	6.4	2.1	.80	.56	.00
10	1.9	6.4	35	32	9.9	81	25	13	1.9	.69	.45	.00
11	2.1	3.8	202	27	12	64	12	9.6	2.0	9.1	.45	.00
12	2.1	2.5	56	25	9.8	58	14	9.6	3.4	1.9	.36	.00
13	2.0	2.3	38	26	7.7	55	93	7.6	4.0	.95	.25	.00
14	2.1	2.2	32	40	7.3	48	31	6.6	5.0	.79	.16	.00
15	2.1	2.2	26	46	7.1	41	23	12	5.8	.69	.10	.00
16	2.0	2.2	22	43	18	37	19	7.1	2.3	4.6	.05	.00
17	2.1	2.2	22	37	22	32	16	7.2	1.8	3.3	.04	9.0
18	2.2	2.1	22	29	26	27	15	8.0	1.4	15	.03	2.2
19	2.2	2.4	18	28	33	23	14	9.4	1.3	2.7	.01	.72
20	2.5	2.1	15	311	56	21	12	7.4	1.2	1.6	.00	.40
21	2.8	8.2	13	135	63	31	12	6.0	.99	1.9	.00	.43
22	2.4	19	13	73	46	25	11	5.3	1.2	1.7	.00	4.8
23	7.8	6.0	12	52	39	20	9.8	4.6	1.2	1.3	.00	10
24	6.7	4.4	19	42	65	18	9.4	4.3	1.2	1.2	.00	1.7
25	2.7	4.0	31	35	39	17	8.6	6.6	1.2	1.3	.00	.89
26	2.2	3.6	19	30	32	16	7.7	7.5	1.1	.99	.00	20
27	2.1	3.3	16	26	28	15	7.5	5.4	1.4	.68	.00	32
28	1.9	270	16	22	301	14	7.4	4.6	1.5	.90	.00	5.4
29	2.0	62	15	18	---	13	6.7	6.6	1.1	2.0	.00	2.7
30	1.9	32	11	17	---	12	11	11	.91	.83	.00	1.9
31	1.7	---	10	16	---	12	---	5.4	---	.50	.00	---
TOTAL	79.0	463.3	1054	1651	931.1	1632	468.6	265.5	75.50	61.88	13.76	92.14
MEAN	2.55	15.4	34.0	53.3	33.3	52.6	15.6	8.56	2.52	2.00	.44	3.07
MAX	7.8	270	202	311	301	429	93	24	7.0	15	4.0	32
MIN	1.7	1.9	10	14	7.1	12	6.7	4.3	.91	.50	.00	.00
CFSM	.10	.60	1.32	2.07	1.29	2.05	.61	.33	.10	.08	.02	.12
IN.	.11	.67	1.53	2.39	1.35	2.36	.68	.38	.11	.09	.02	.13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1995, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1931	12.6	78.8	1956	.67	1965
1932	33.9	139	1933	.90	1966
1933	47.8	162	1984	1.59	1966
1934	55.0	280	1994	1.14	1981
1935	58.5	147	1939	3.92	1934
1936	77.3	201	1994	15.2	1985
1937	55.4	200	1983	7.20	1985
1938	32.4	135	1989	3.78	1963
1939	21.2	119	1972	1.11	1965
1940	17.9	138	1938	.37	1966
1941	18.7	216	1971	.44	1964
1942	15.5	135	1989	.47	1965

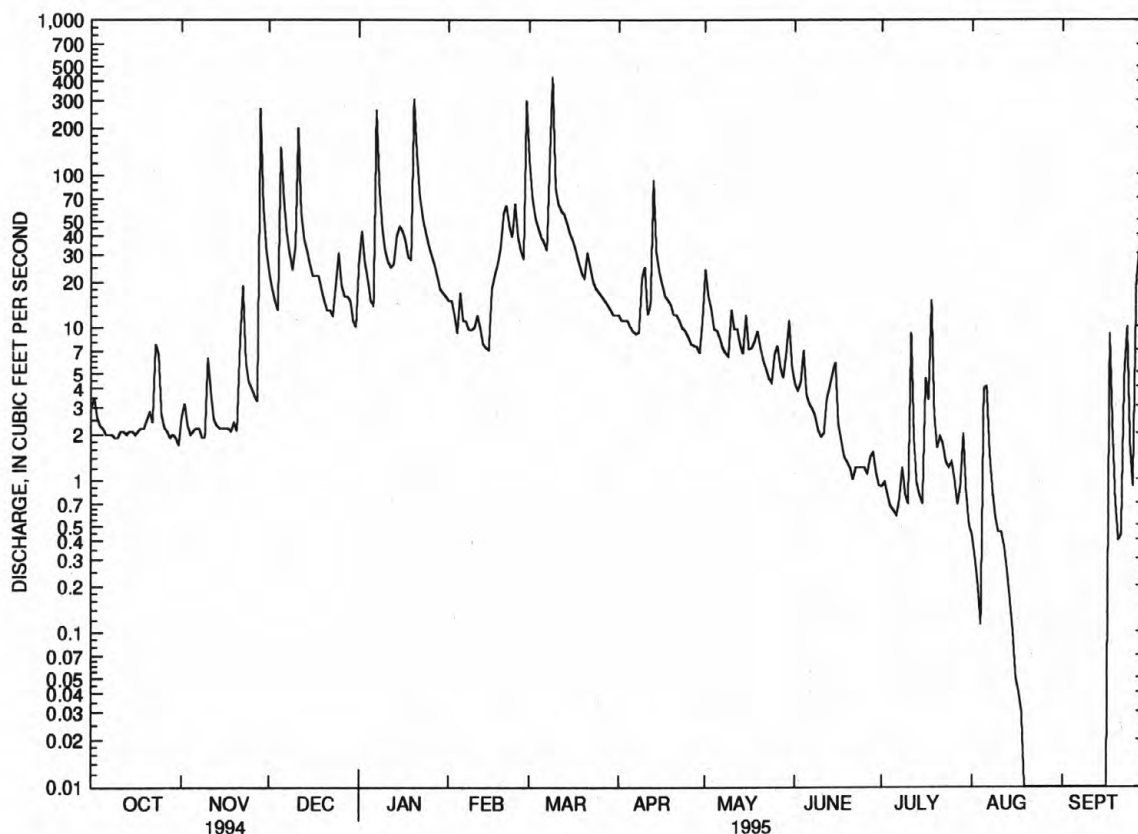
# RARITAN RIVER BASIN

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01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1931 - 1995	
ANNUAL TOTAL	23096.9		6787.78			
ANNUAL MEAN	63.3		18.6		37.1	
HIGHEST ANNUAL MEAN					70.8	
LOWEST ANNUAL MEAN					14.5	
HIGHEST DAILY MEAN	3310	Jan 29	429	Mar 9	4740	Aug 28 1971
LOWEST DAILY MEAN	1.7	Oct 31	.00	Aug 20	.00	Jul 29 1965
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 6	.00	Aug 20	.00	Aug 4 1966
INSTANTANEOUS PEAK FLOW			1680	Mar 9	15900a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			7.22	Mar 9	13.84b	Aug 28 1971
INSTANTANEOUS LOW FLOW			.00	Aug 19	.00	Jul 17 1968
ANNUAL RUNOFF (CFSM)	2.46		.72		1.44	
ANNUAL RUNOFF (INCHES)	33.43		9.83		19.60	
10 PERCENT EXCEEDS	127		40		75	
50 PERCENT EXCEEDS	13		6.7		12	
90 PERCENT EXCEEDS	2.3		.23		1.3	

a From rating curve extended above 1,700 ft<sup>3</sup>/s on basis of slope-area measurement 0.7 mi downstream (adjusted to present site) at gage height 11.90 ft.  
b From high-water mark in gage house.



01398000 NESHANIC RIVER AT REAVILLE, NJ, DAILY MEAN DISCHARGE

## RARITAN RIVER BASIN

01398000 NESHANIC RIVER AT REAVILLE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1994												
25...	1330	2.5	313	8.1	12.0	760	11.6	108	E1.6	1100	300	120
FEB 1995												
02...	1330	15	258	7.8	4.5	752	12.2	96	<1.0	20	40	81
MAR												
22...	1330	25	267	8.9	9.0	746	14.2	126	<1.0	140	50	79
JUN												
01...	1330	4.2	323	8.9	23.0	764	12.5	146	2.4	1700	50	110
JUL												
31...	1130	.50	334	8.6	24.5	764	7.5	90	E1.5	3500	500	130

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
OCT 1994												
25...	30	10	15	3.7	87	30	21	<0.1	9.4	182	173	3
FEB 1995												
02...	20	7.5	13	1.5	46	27	22	<0.1	12	146	142	10
MAR												
22...	20	7.1	17	1.6	44	25	28	<0.1	11	146	144	2
JUN												
01...	28	9.8	16	1.9	78	35	23	<0.1	7.0	188	170	1
JUL												
31...	32	11	16	2.6	95	36	19	0.2	9.6	198	184	1

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
25...	0.013	0.31	0.07	<0.03	0.30	0.29	0.61	0.60	0.03	0.02	5.1	0.2
FEB 1995												
02...	0.006	2.60	0.03	<0.03	0.12	0.14	2.7	2.7	0.02	<0.01	1.5	0.3
MAR												
22...	0.008	1.70	<0.03	<0.03	0.20	0.27	1.9	2.0	0.03	0.03	1.8	0.2
JUN												
01...	0.035	0.56	0.12	0.09	0.30	0.22	0.86	0.78	0.05	0.04	2.9	0.3
JUL												
31...	0.003	0.068	0.09	0.07	0.40	0.30	0.47	0.37	0.10	0.06	6.0	0.3



## 01398107 HOLLAND BROOK AT READINGTON, NJ

LOCATION.--Lat 40°33'30", long 74°43'50", Somerset County, Hydrologic Unit 02030105, on right bank 15 ft downstream from bridge on Old York Road, 0.9 mi southeast of Readington, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--9.00 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1978 to current year.

REVISED RECORDS.--WDR NJ-80-1: 1978, 1979(P). WDR NJ-82-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 77.65 ft above sea level (levels by Somerset County).

REMARKS.--Records fair except for estimated daily discharges and those below 1.0 cfs, which are poor. Several measurements of water temperature were made during the year. Gage-height and rainfall radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0015	*502	*4.79	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.2	e1.4	8.3	8.2	6.5	44	4.5	8.4	2.2	1.5	.91	.56
2	e2.6	e1.8	6.7	12	6.6	26	4.3	6.0	1.8	2.0	.97	.56
3	e1.9	e1.7	5.4	10	5.6	19	4.3	5.5	3.1	1.4	.79	.56
4	e1.6	e2.3	4.6	8.9	5.3	16	4.3	4.9	3.6	1.2	.79	.56
5	e2.2	e2.2	27	6.4	6.5	14	4.0	5.0	2.2	1.2	1.6	.56
6	e1.4	e1.6	22	6.1	4.9	12	4.0	4.6	2.0	1.1	1.5	.56
7	e1.2	e1.1	14	69	4.6	11	4.0	4.2	2.0	1.3	.98	.57
8	e1.3	e1.2	11	20	4.3	48	3.9	3.8	1.8	1.3	.88	.55
9	e1.2	e.90	8.6	14	4.3	116	4.9	3.7	1.6	1.1	.79	.52
10	e1.3	e3.9	12	10	4.3	29	7.1	4.5	1.6	1.1	.83	.53
11	e1.2	e2.4	46	9.5	4.7	21	4.4	4.3	1.6	2.9	.97	.50
12	e1.1	e.82	22	8.8	4.1	17	4.6	4.6	3.1	1.4	.86	.56
13	e1.0	e.89	15	8.1	3.6	14	14	3.9	2.6	1.2	.84	.56
14	e1.0	e1.7	12	9.3	3.5	12	10	3.6	2.2	1.1	.67	.60
15	e.96	e1.8	10	10	3.5	11	8.9	3.7	2.2	1.1	.67	.56
16	e.95	e2.2	9.5	11	5.4	10	7.9	3.1	1.8	2.3	.59	.62
17	e.93	e2.1	9.4	10	6.1	10	6.9	3.2	1.7	1.5	.56	2.6
18	e.95	e1.0	8.9	9.6	7.6	9.1	6.1	3.6	1.6	2.6	.56	1.2
19	e.97	e1.2	7.8	9.0	9.5	8.4	5.8	4.2	1.5	1.3	.52	.68
20	e.95	e1.2	6.8	51	13	8.2	5.0	3.4	1.5	1.1	.50	.67
21	e.97	e4.4	6.3	54	15	9.4	4.7	3.1	1.5	1.1	.55	.67
22	e.95	e8.5	5.9	25	13	8.5	4.5	2.8	5.6	1.1	.50	1.6
23	e3.7	e3.6	5.6	17	13	7.6	4.1	2.5	2.0	.98	.44	2.4
24	e3.8	e2.5	7.1	13	17	6.8	4.1	2.5	1.8	.92	.39	1.1
25	e2.1	e2.0	6.8	11	14	6.1	4.1	2.8	1.7	.92	.43	1.2
26	e1.6	e1.8	6.1	9.7	12	5.6	3.9	3.0	1.6	.88	.56	6.9
27	e1.4	e2.1	5.7	8.6	11	5.5	3.8	2.7	1.7	.79	.55	4.2
28	e1.2	49	5.7	7.7	82	5.2	3.9	2.4	1.6	1.1	.56	1.8
29	e1.2	39	5.4	6.6	---	5.0	3.7	2.7	1.4	.90	.56	1.1
30	e1.1	15	4.6	6.3	---	4.9	4.6	4.5	1.4	.79	.56	1.0
31	e.98	---	4.5	6.1	---	4.7	---	2.5	---	.79	.57	---
TOTAL	45.91	161.31	330.7	465.9	290.9	525.0	160.3	119.7	62.0	39.97	22.45	36.05
MEAN	1.48	5.38	10.7	15.0	10.4	16.9	5.34	3.86	2.07	1.29	.72	1.20
MAX	3.8	49	46	69	82	116	14	8.4	5.6	2.9	1.6	6.9
MIN	.93	.82	4.5	6.1	3.5	4.7	3.7	2.4	1.4	.79	.39	.50
CFSM	.16	.60	1.19	1.67	1.15	1.88	.59	.43	.23	.14	.08	.13
IN.	.19	.67	1.37	1.93	1.20	2.17	.66	.49	.26	.17	.09	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1995, BY WATER YEAR (WY)

	6.81	13.7	18.5	20.8	20.9	26.8	22.6	17.4	8.40	5.99	6.06	5.13
MEAN	6.81	13.7	18.5	20.8	20.9	26.8	22.6	17.4	8.40	5.99	6.06	5.13
MAX	25.4	34.4	56.1	102	56.4	67.4	59.4	53.3	28.1	26.4	27.5	21.8
(WY)	1990	1986	1984	1979	1979	1994	1983	1989	1989	1984	1990	1989
MIN	1.10	2.85	1.93	1.93	4.69	7.05	3.02	3.65	2.07	1.29	.72	1.13
(WY)	1983	1983	1981	1981	1980	1985	1985	1992	1995	1995	1995	1983

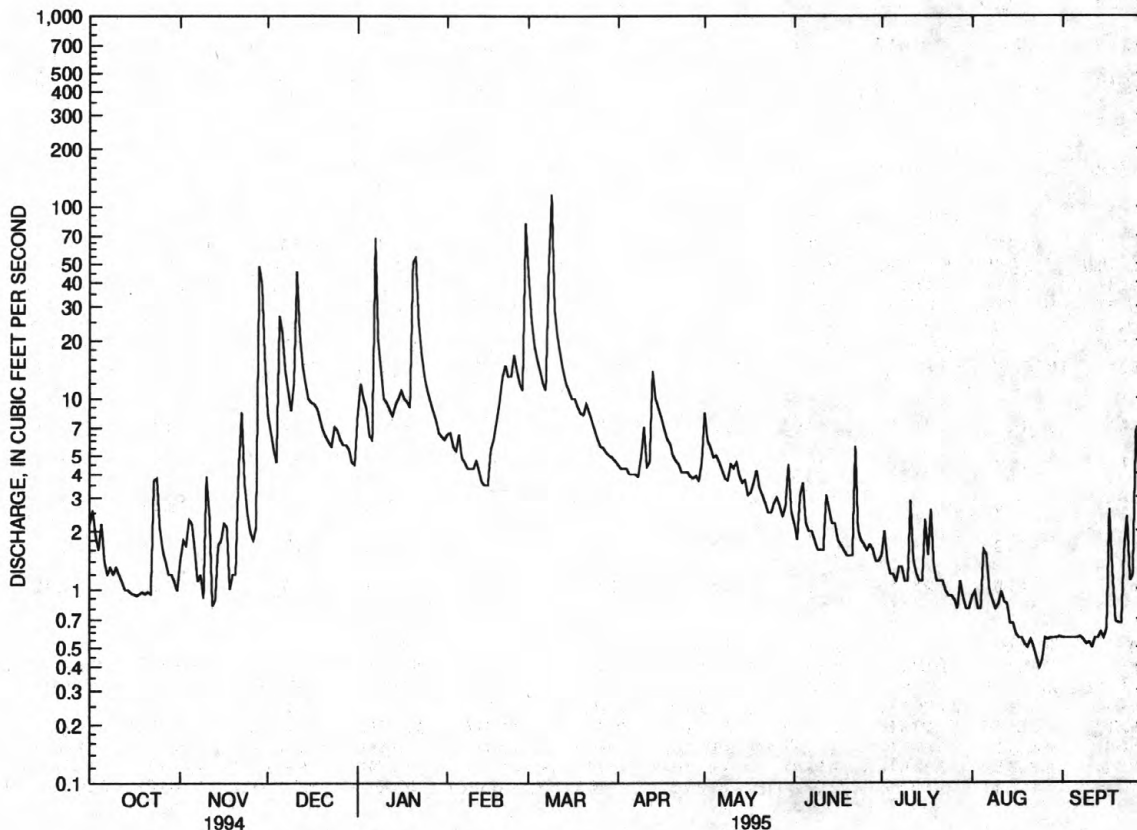
## RARITAN RIVER BASIN

01398107 HOLLAND BROOK AT READINGTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1978 - 1995
ANNUAL TOTAL	5112.57	2260.19	14.3
ANNUAL MEAN	14.0	6.19	25.7
HIGHEST ANNUAL MEAN			6.19
LOWEST ANNUAL MEAN			1979
HIGHEST DAILY MEAN	284 Mar 10	116 Mar 9	504 Jan 21 1979
LOWEST DAILY MEAN	.82 Nov 12	.39 Aug 24	.37 Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	.95 Oct 16	.48 Aug 19	.48 Aug 19 1995
INSTANTANEOUS PEAK FLOW		502 Mar 9	1300a Jul 7 1984
INSTANTANEOUS PEAK STAGE		4.79 Mar 9	8.08 Jul 7 1984
INSTANTANEOUS LOW FLOW		.36 Aug 23	.22 Aug 28 1980
ANNUAL RUNOFF (CFSM)	1.56	.69	1.59
ANNUAL RUNOFF (INCHES)	21.13	9.34	21.59
10 PERCENT EXCEEDS	34	12	30
50 PERCENT EXCEEDS	5.4	3.4	5.9
90 PERCENT EXCEEDS	1.3	.68	1.4

a From rating curve extended above 650 ft<sup>3</sup>/s.

e Estimated.



01398107 HOLLAND BROOK AT READINGTON, NJ, DAILY MEAN DISCHARGE

## 01398260 NORTH BRANCH RARITAN RIVER NEAR CHESTER, NJ

LOCATION.--Lat 40°46'16", long 74°37'34", Morris County, Hydrologic Unit 02030105, at bridge on State Route 24, 0.8 mi upstream from Burnett Brook, and 3.8 mi east of Chester.

DRAINAGE AREA.--7.57 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1964-65, 1967, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
OCT 1994												
26...	1000	5.9	323	7.7	9.0	751	10.9	96	2.4	20	10	96
FEB 1995												
01...	1130	10	252	7.7	3.5	742	12.8	99	<1.0	20	10	70
MAR												
16...	1045	14	246	7.8	10.5	752	11.3	103	<1.2	20	10	65
JUN												
06...	1200	5.9	316	7.8	17.0	756	9.0	94	E1.4	330	120	91
AUG												
08...	1030	4.0	328	8.0	18.5	760	9.6	103	<1.1	490	200	95

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
26...	24	8.8	20	3.0	50	15	46	<0.1	18	192	184	2
FEB 1995												
01...	17	6.7	16	1.6	36	12	37	<0.1	17	142	138	<1
MAR												
16...	16	6.0	17	1.5	33	11	38	<0.1	15	142	133	6
JUN												
06...	23	8.2	18	2.4	48	14	41	0.2	17	186	167	3
AUG												
08...	24	8.6	21	3.1	48	14	46	<0.1	18	204	185	3

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
26...	0.012	4.30	<0.03	<0.03	0.30	0.25	4.6	4.6	0.02	0.02	2.7	0.1
FEB 1995												
01...	0.005	2.00	<0.03	<0.03	0.14	0.13	2.1	2.1	<0.01	<0.01	1.4	0.2
MAR												
16...	0.014	1.90	0.05	<0.03	0.18	0.12	2.1	2.0	<0.01	0.02	1.8	0.4
JUN												
06...	0.064	3.30	0.10	0.11	0.40	0.34	3.7	3.6	0.08	0.06	2.5	0.5
AUG												
08...	0.017	4.90	0.09	<0.03	0.40	0.30	5.3	5.2	0.10	0.07	2.2	0.4

## RARITAN RIVER BASIN

## 01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, Hydrologic Unit 02030105, on left bank 75 ft upstream from Ravine Lake Dam, 1.6 mi north of Far Hills, and 2.3 mi upstream from Peapack Brook.

DRAINAGE AREA.--26.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1921 to September 1975, October 1977 to current year. Operated as crest-stage gage, water years 1976-77. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.

GAGE.--Water-stage recorder and crest-stage gage above masonry dam. Datum of gage is 224.49 ft above sea level (New Jersey Geological Survey bench mark). Prior to June 18, 1925, nonrecording gage in stilling box at left end of dam at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Records given herein include diversion by small turbine at dam (average discharge, 3.0 ft<sup>3</sup>/s) and returned to river 1,000 ft downstream from Ravine Lake Dam. Turbine operating from Apr. 21 to Sept. 30. Flow regulated occasionally by operation of waste gate in dam (no gate openings this year). Recording rain gage, with telemeter, 500 ft downstream of station. Several measurements of water temperature were made during the year. Gage-height and rain-gage radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage of 7.6 ft, from floodmark, occurred July 23, 1919, discharge about 7,000 ft<sup>3</sup>/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0115	*738	*3.41	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	35	66	37	89	39	61	27	14	10	5.6
2	21	21	29	74	37	63	38	44	24	31	12	5.5
3	17	17	27	51	32	55	36	38	25	17	13	5.5
4	15	15	25	42	33	53	36	33	40	14	13	5.7
5	14	14	88	26	41	50	33	32	28	13	22	5.5
6	14	14	67	32	28	51	33	32	24	12	37	5.4
7	13	14	45	175	36	50	34	28	22	13	18	5.5
8	13	14	40	65	34	92	35	26	21	19	13	5.9
9	12	14	34	51	32	250	41	25	19	15	10	7.0
10	13	40	38	46	30	78	66	30	18	13	8.9	11
11	13	23	103	44	33	69	39	35	18	32	9.0	6.9
12	12	17	49	44	30	65	35	35	181	22	8.9	4.9
13	12	16	41	46	24	62	82	32	54	15	8.9	4.7
14	12	15	38	54	24	62	48	29	38	13	7.9	5.2
15	11	15	36	54	25	60	40	29	29	12	7.5	4.8
16	11	14	34	54	40	59	37	28	23	17	7.4	4.5
17	10	14	36	52	42	62	35	31	20	19	7.0	13
18	10	13	41	48	39	52	33	54	19	121	6.8	13
19	10	13	34	51	38	50	35	43	19	30	6.7	6.7
20	12	13	30	101	43	48	34	40	17	19	6.7	5.3
21	16	200	28	90	49	60	34	32	15	16	6.3	5.2
22	13	49	27	57	43	57	34	26	18	15	5.9	15
23	14	34	27	50	40	48	31	23	16	14	5.6	43
24	26	23	38	47	57	45	30	22	15	24	5.6	14
25	18	20	45	44	50	43	29	24	17	17	5.5	8.2
26	14	18	37	43	42	43	28	48	16	14	5.5	52
27	13	17	35	42	39	43	27	35	17	15	5.6	44
28	12	206	33	40	139	42	28	26	18	15	5.4	19
29	12	74	32	36	---	40	27	27	14	16	5.1	12
30	12	47	27	36	---	40	29	44	13	14	5.2	12
31	12	---	28	38	---	42	---	32	---	11	5.4	---
TOTAL	423	1018	1227	1699	1137	1923	1106	1044	825	632	294.8	356.0
MEAN	13.6	33.9	39.6	54.8	40.6	62.0	36.9	33.7	27.5	20.4	9.51	11.9
MAX	26	206	103	175	139	250	82	61	181	121	37	52
MIN	10	13	25	26	24	40	27	22	13	11	5.1	4.5
CFSM	.52	1.30	1.51	2.09	1.55	2.37	1.41	1.29	1.05	.78	.36	.45
IN.	.60	1.45	1.74	2.41	1.61	2.73	1.57	1.48	1.17	.90	.42	.51

## 01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ--Continued

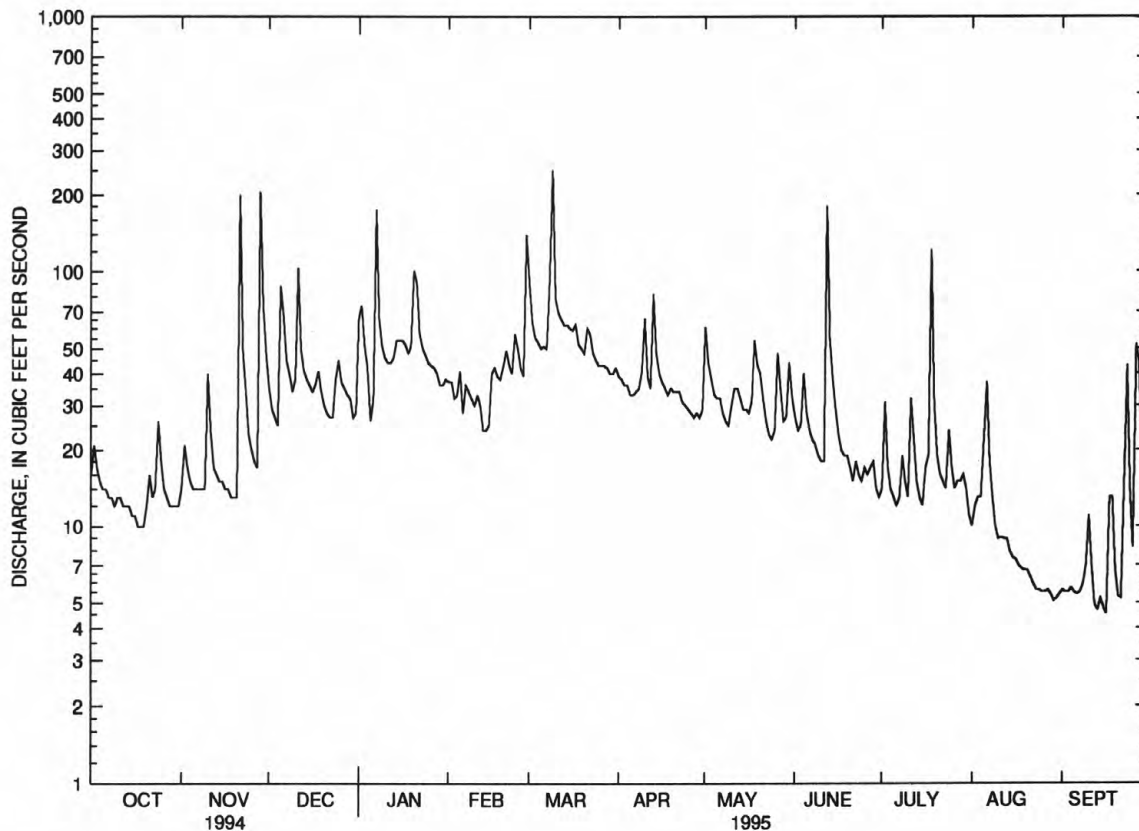
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	25.3	42.5	49.7	53.5	59.3	82.5	82.3	59.2	39.0	30.6	28.2	27.0
MAX	97.4	170	124	182	128	207	226	178	190	132	153	134
(WY)	1956	1928	1974	1979	1973	1936	1983	1989	1972	1984	1942	1971
MIN	6.29	9.22	8.43	6.76	22.1	22.8	26.8	20.0	10.5	4.41	4.55	3.61
(WY)	1954	1965	1981	1981	1934	1981	1985	1965	1965	1966	1965	1964

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	20665		11684.8			
ANNUAL MEAN	56.6		32.0		48.2	
HIGHEST ANNUAL MEAN					89.7	
LOWEST ANNUAL MEAN					17.7	
HIGHEST DAILY MEAN	425	Mar 22	250	Mar 9	1260	Apr 5 1984
LOWEST DAILY MEAN	10	Sep 15	4.5	Sep 16	.20	Oct 22 1953
ANNUAL SEVEN-DAY MINIMUM	11	Oct 13	5.4	Aug 25	.20	Oct 22 1953
INSTANTANEOUS PEAK FLOW			738	Mar 9	6390a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			3.41	Mar 9	7.28	Aug 28 1971
INSTANTANEOUS LOW FLOW			4.4	Sep 16	.00b	
ANNUAL RUNOFF (CFSM)	2.16		1.22		1.84	
ANNUAL RUNOFF (INCHES)	29.34		16.59		24.98	
10 PERCENT EXCEEDS	124		54		96	
50 PERCENT EXCEEDS	34		28		33	
90 PERCENT EXCEEDS	14		8.1		10	

a From rating curve extended above 2,000 ft<sup>3</sup>/s on basis of computation of peak flow over dam.

b Several times when lake was filling.



01398500 N B RARITAN RIVER NEAR FAR HILLS, NJ, DAILY MEAN DISCHARGE



## RARITAN RIVER BASIN

## 01399120 NORTH BRANCH RARITAN RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 0.1 mi upstream from Lamington River, and 4.0 mi southwest of Far Hills.

DRAINAGE AREA.--63.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1964, 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
26...	1300	E30	295	8.0	9.5	760	10.8	95	E1.6	50	40	100	
FEB 1995													
02...	1330	E75	280	8.0	3.0	754	13.6	102	<1.1	20	<10	84	
MAR													
16...	1330	E110	256	8.2	11.5	760	13.5	124	<1.0	<20	<10	76	
JUN													
07...	1345	E40	281	8.4	22.0	749	10.4	121	2.2	1300	190	95	
AUG													
15...	1045	E10	328	8.4	24.5	762	9.7	116	2.8	490	160	100	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
OCT 1994													
26...	25	9.1	17		2.4	66	19	34	0.1	12	162	163	2
FEB 1995													
02...	21	7.7	15		1.5	39	16	33	<0.1	14	144	138	3
MAR													
16...	19	6.9	16		1.4	46	15	33	<0.1	13	142	136	7
JUN													
07...	24	8.4	16		2.0	62	17	32	0.1	13	160	154	3
AUG													
15...	26	9.1	19		2.6	70	22	37	0.1	12	186	172	6
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
26...	0.009	1.10	0.06	<0.03	0.20	0.22	1.3	1.3	0.03	0.04	2.8	0.2	
FEB 1995													
02...	0.010	1.40	0.05	0.04	0.09	0.18	1.5	1.6	<0.01	<0.01	1.6	0.2	
MAR													
16...	0.009	1.00	<0.03	<0.03	0.20	0.13	1.2	1.1	<0.01	<0.01	1.9	0.3	
JUN													
07...	0.018	0.90	0.23	0.07	0.40	0.30	1.3	1.2	0.06	0.04	2.5	0.3	
AUG													
15...	0.008	0.49	0.03	<0.03	0.50	0.29	0.99	0.78	0.09	0.02	2.8	1.3	

## 01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, Hydrologic Unit 02030105, on right bank 1.1 mi upstream from bridge on State Highway 512, 1.2 mi northwest of Pottersville, and 5.5 mi upstream from Cold Brook. Water-quality samples collected at bridge 1.1 mi downstream from gage at high flows.

DRAINAGE AREA.--32.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October and November 1921, published in WSP 1302. Prior to October 1952, published as "Black River near Pottersville".

REVISED RECORDS.--WSP 741: 1932. WSP 781: Drainage area. WSP 1552: 1922, 1924-29(M), 1931(M), 1933-34(M), 1938(P), 1939(M), 1940, 1941(M), 1942-46(P), 1947(M), 1948-49(P), 1951-52(P), 1953(M). WDR-NJ-80-1: Correction 1979(P).

GAGE.--Water-stage recorder. Concrete control since July 1, 1937. Datum of gage is 284.14 ft above sea level (levels from New Jersey Geological Survey bench mark). Prior to July 1, 1922, nonrecording gage on downstream side of highway bridge at Pottersville, 1.1 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated occasionally by pond above station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	1915	*329	*2.94	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	e17	e62	e48	38	91	38	48	23	14	10	3.1
2	28	e24	e51	e65	38	74	38	41	21	22	11	3.1
3	24	e20	e46	e54	e37	76	37	41	20	15	11	3.1
4	21	e20	e38	e50	e32	69	36	38	25	14	9.8	3.2
5	19	e21	e74	e44	e37	61	35	35	19	14	27	3.1
6	18	e20	e71	e46	e32	56	34	32	18	13	27	3.0
7	16	e21	e62	116	e34	54	34	29	16	13	18	2.9
8	15	e20	e63	66	e36	131	34	26	15	16	15	3.0
9	15	e18	e52	65	e34	156	40	25	14	13	13	3.3
10	16	e27	e53	71	e34	128	50	27	14	12	11	6.1
11	15	e25	e95	56	e31	124	43	30	18	39	9.9	4.0
12	14	e23	e60	51	e29	103	47	33	51	20	9.1	3.8
13	14	e23	e58	50	e27	86	77	33	31	17	8.4	4.1
14	14	e22	e58	55	e25	76	57	31	29	15	7.7	4.1
15	13	e21	e55	61	e24	70	56	32	29	14	7.7	3.4
16	13	e20	e46	71	e30	67	51	28	25	20	7.2	3.3
17	13	e19	e44	66	e34	66	45	31	21	19	6.8	9.2
18	13	e18	e47	58	e33	59	40	36	17	53	6.2	6.3
19	14	e18	e43	54	e35	56	40	36	15	25	5.6	5.2
20	19	e17	e41	79	e40	53	38	35	13	22	5.3	4.9
21	21	e24	e40	102	48	60	37	33	13	23	5.0	4.9
22	19	e59	e39	74	46	56	36	30	13	22	4.7	19
23	24	e33	e38	71	45	54	33	26	13	20	4.4	15
24	25	e34	e49	67	60	52	31	24	13	20	4.4	11
25	21	e33	e51	60	55	49	30	23	13	18	4.0	11
26	20	e29	e45	54	50	46	29	35	13	18	3.9	54
27	20	e29	e45	50	47	44	28	30	14	16	3.8	38
28	19	e123	e41	47	89	42	27	28	14	14	3.7	28
29	18	e72	e39	e46	---	41	26	29	13	13	3.6	24
30	17	e66	e41	e45	---	40	28	35	13	12	3.5	23
31	16	---	e37	41	---	39	---	28	---	11	3.2	---
TOTAL	559	916	1584	1883	1100	2179	1175	988	566	577	270.9	310.1
MEAN	18.0	30.5	51.1	60.7	39.3	70.3	39.2	31.9	18.9	18.6	8.74	10.3
MAX	28	123	95	116	89	156	77	48	51	53	27	54
MIN	13	17	37	41	24	39	26	23	13	11	3.2	2.9
CFSM	.55	.93	1.56	1.85	1.20	2.14	1.19	.97	.58	.57	.27	.32
IN.	.63	1.04	1.80	2.14	1.25	2.47	1.33	1.12	.64	.65	.31	.35

## 01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	33.6	49.8	59.2	64.1	69.9	90.4	88.3	66.3	45.8	36.8	33.2	32.8
MAX	116	163	171	225	144	230	239	169	191	165	126	123
(WY)	1956	1928	1974	1979	1973	1936	1984	1989	1972	1984	1928	1971
MIN	5.69	11.2	15.4	11.7	28.0	32.0	25.9	19.0	10.1	5.48	5.61	3.76
(WY)	1931	1965	1981	1981	1934	1981	1985	1965	1965	1965	1966	1964

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

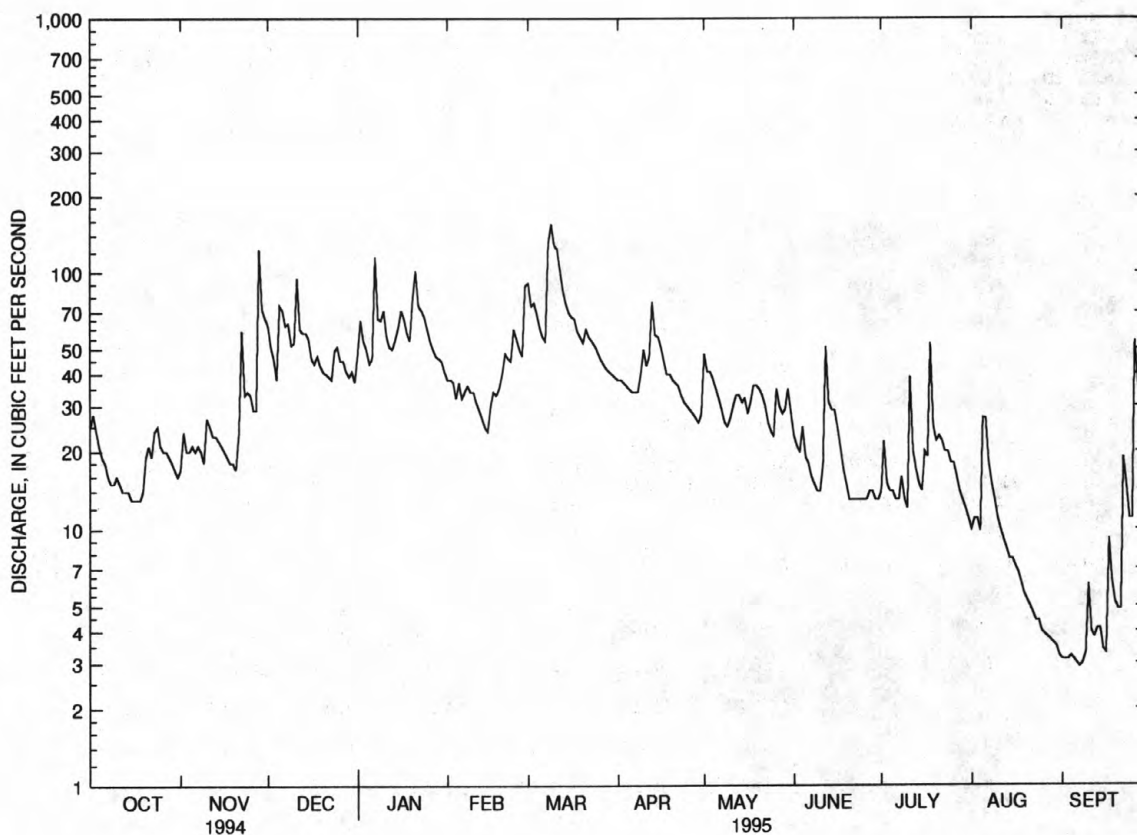
## WATER YEARS 1922 - 1995

ANNUAL TOTAL	21882		12108.0									
ANNUAL MEAN	60.0		33.2							55.8		
HIGHEST ANNUAL MEAN										104		1928
LOWEST ANNUAL MEAN										20.5		1965
HIGHEST DAILY MEAN	337	Mar 29	156	Mar 9						905	Jan 25	1979
LOWEST DAILY MEAN	11	Sep 8	2.9	Sep 7						1.5	Oct 4	1930
ANNUAL SEVEN-DAY MINIMUM	12	Sep 6	3.1	Sep 2						2.4	Sep 22	1964
INSTANTANEOUS PEAK FLOW			329	Mar 8						3460	Jul 7	1984
INSTANTANEOUS PEAK STAGE										5.94	Jul 7	1984
INSTANTANEOUS LOW FLOW				Sep 6						1.3	Oct 4	1930
ANNUAL RUNOFF (CFSM)	1.83		1.01							1.70		
ANNUAL RUNOFF (INCHES)	24.82		13.73							23.10		
10 PERCENT EXCEEDS	136		62							112		
50 PERCENT EXCEEDS	40		29							42		
90 PERCENT EXCEEDS	16		7.5							14		

a From rating curve extended above 380 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.71 ft.

b From floodmark.

c Estimated.



01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ, DAILY MEAN DISCHARGE

# RARITAN RIVER BASIN

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01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MP WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1994												
27...	1000	20	279	7.9	7.5	755	11.4	96	E1.2	40	40	80
JAN 1995												
31...	1130	E40	282	7.6	1.0	751	14.1	101	E1.7	20	<10	80
MAR												
23...	1045	54	252	8.2	8.0	744	11.9	103	<1.0	20	10	66
JUN												
06...	1145	18	269	7.9	19.0	751	9.0	99	E1.1	1100	30	78
AUG												
02...	1145	11	303	8.0	23.5	758	8.5	101	2.4	40	100	89
DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
27...	19	7.9	21	4.1	51	14	42	<0.1	14	162	155	3
JAN 1995												
31...	19	7.8	22	2.0	47	12	41	<0.1	12	154	152	2
MAR												
23...	16	6.4	20	1.8	42	11	38	<0.1	8.1	140	131	3
JUN												
06...	19	7.3	18	1.7	51	11	36	0.1	14	164	142	6
AUG												
02...	22	8.2	22	2.6	58	11	46	<0.1	17	176	166	8
DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
27...	<0.003	0.54	0.08	0.03	0.60	0.24	1.1	0.78	0.12	0.03	4.5	0.2
JAN 1995												
31...	0.004	1.80	<0.03	<0.03	0.26	0.14	2.1	1.9	0.01	<0.01	2.4	0.3
MAR												
23...	0.004	0.91	<0.03	<0.03	0.20	0.18	1.1	1.1	0.03	0.02	3.3	0.2
JUN												
06...	0.006	0.96	0.06	0.04	0.30	0.23	1.3	1.2	0.06	0.04	3.3	0.7
AUG												
02...	0.003	0.59	0.04	0.09	0.20	0.14	0.79	0.73	0.02	0.02	3.4	0.3



## RARITAN RIVER BASIN

01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ

**LOCATION.**--Lat 40°43'16", long 74°45'09", Hunterdon County, Hydrologic Unit 02030105, on right bank along a private dirt road, 400 ft downstream from the former Pottersville Reservoir, and 1.5 mi west of Pottersville.

DRAINAGE AREA.--2.18 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR-NJ-84-1: 1975(P), 1980-83(P). WDR NJ-88-1: 1979.

**GAGE.**--Water-stage recorder and rock outcrop control. Datum of gage is 451.57 ft above sea level.

REMARKS.--Records good except for estimated daily discharges and those above 125 ft<sup>3</sup>/s, which are poor. Flow regulated by Pottersville Reservoir, 400 ft above station, until August 1982 when dam was demolished. Several measurements of water temperature were made during the year.

**PEAK DISCHARGES FOR CURRENT YEAR.--**Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
July 18	0030	*107	*1.49	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.5	2.4	4.3	2.9	6.8	2.5	4.3	1.6	1.1	.94	.68
2	1.5	1.3	2.1	5.2	2.9	5.1	2.5	3.0	1.6	1.1	.88	.68
3	1.3	1.0	1.9	3.1	2.6	4.4	2.5	2.8	1.6	1.1	.88	.68
4	1.2	1.0	1.7	2.6	e2.3	4.4	2.5	2.6	1.8	1.1	.87	.68
5	1.2	.96	8.6	2.3	e3.1	4.1	2.5	2.5	1.6	1.1	2.7	.68
6	1.2	1.0	4.4	2.2	e2.3	4.1	2.5	2.4	1.6	1.1	1.4	.68
7	1.2	1.0	3.0	14	e2.6	3.8	2.5	2.2	1.6	1.1	1.1	.64
8	1.2	.99	2.7	4.6	e2.8	16	2.5	2.1	1.5	1.6	.94	.64
9	1.4	.96	2.3	3.6	e2.6	14	2.9	2.1	1.4	1.1	.94	.73
10	1.1	3.1	4.0	3.0	e2.7	5.9	3.9	2.3	1.3	1.1	.94	.99
11	.77	1.4	6.9	2.9	e2.3	5.1	2.6	2.5	1.8	4.1	.94	.77
12	.77	1.2	3.5	3.0	e2.2	4.7	2.5	2.5	4.9	1.4	.94	.77
13	.77	1.1	2.8	3.4	e2.0	4.4	6.1	2.4	2.1	1.2	.92	.77
14	.79	1.0	2.7	3.9	e1.9	4.1	3.1	2.2	1.6	1.1	.88	.77
15	.77	1.0	2.5	3.9	e2.0	4.0	2.6	2.1	1.5	1.1	.88	.76
16	.77	1.0	2.3	4.1	e2.8	3.7	2.5	2.1	1.4	2.3	.86	.73
17	.77	1.0	2.7	3.5	e3.1	4.1	2.4	2.7	1.3	3.4	.82	1.5
18	.77	1.0	2.5	3.1	e2.6	3.5	2.3	2.9	1.3	11	.81	.91
19	.77	1.0	2.2	2.9	e2.8	3.4	2.3	2.6	1.3	1.9	.77	.82
20	1.1	1.0	2.1	8.4	3.0	3.2	2.3	2.4	1.1	1.4	.77	.82
21	1.0	5.0	2.1	7.7	4.1	4.2	2.3	2.1	1.4	1.2	.77	.82
22	1.1	3.5	2.1	4.9	3.7	3.7	2.3	1.9	1.6	1.2	.76	3.0
23	1.8	1.9	2.1	4.2	3.3	3.3	2.3	1.7	1.4	1.2	.73	1.4
24	1.0	1.6	3.4	4.1	5.3	3.1	2.3	1.6	1.3	1.2	.73	.99
25	.85	1.5	2.5	3.7	3.9	2.9	2.3	1.6	1.3	1.1	.73	.95
26	.82	1.5	2.1	3.5	3.4	2.7	2.3	2.7	1.2	1.4	.73	5.3
27	.79	1.5	2.1	3.2	3.2	2.7	2.3	2.0	1.5	1.3	.73	1.9
28	.77	19	2.1	3.2	12	2.7	2.3	1.7	1.3	1.1	.73	1.2
29	.77	4.1	1.9	3.0	---	2.6	2.3	1.7	1.2	1.2	.72	1.0
30	.77	2.7	1.7	3.2	---	2.5	2.7	2.0	1.1	1.0	.68	1.0
31	.77	---	1.8	2.9	---	2.5	---	1.7	---	.94	.68	---
TOTAL	31.39	65.81	87.2	127.6	90.4	141.7	78.9	71.4	47.2	53.24	28.17	33.26
MEAN	1.01	2.19	2.81	4.12	3.23	4.57	2.63	2.30	1.57	1.72	.91	1.11
MAX	1.8	19	8.6	14	12	16	6.1	4.3	4.9	11	2.7	5.3
MIN	.77	.96	1.7	2.2	1.9	2.5	2.3	1.6	1.1	.94	.68	.64
CFSM	.46	1.01	1.29	1.89	1.48	2.10	1.21	1.06	.72	.79	.42	.51
IN.	.54	1.12	1.49	2.18	1.54	2.42	1.35	1.22	.81	.91	.48	.57

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1995, BY WATER YEAR (WY)

MEAN	1.97	3.16	4.55	4.73	4.79	6.26	6.44	5.07	3.30	2.54	1.64	1.77
MAX	5.55	8.37	10.6	12.4	8.46	16.2	15.0	10.8	6.45	12.1	3.70	4.58
(WY)	1990	1973	1984	1979	1984	1994	1983	1989	1975	1984	1990	1975
MIN	.62	.93	.43	.083	2.03	2.09	1.72	2.30	1.49	.76	.38	.16
(WY)	1981	1981	1981	1981	1980	1985	1985	1985	1985	1993	1980	1980



# RARITAN RIVER BASIN

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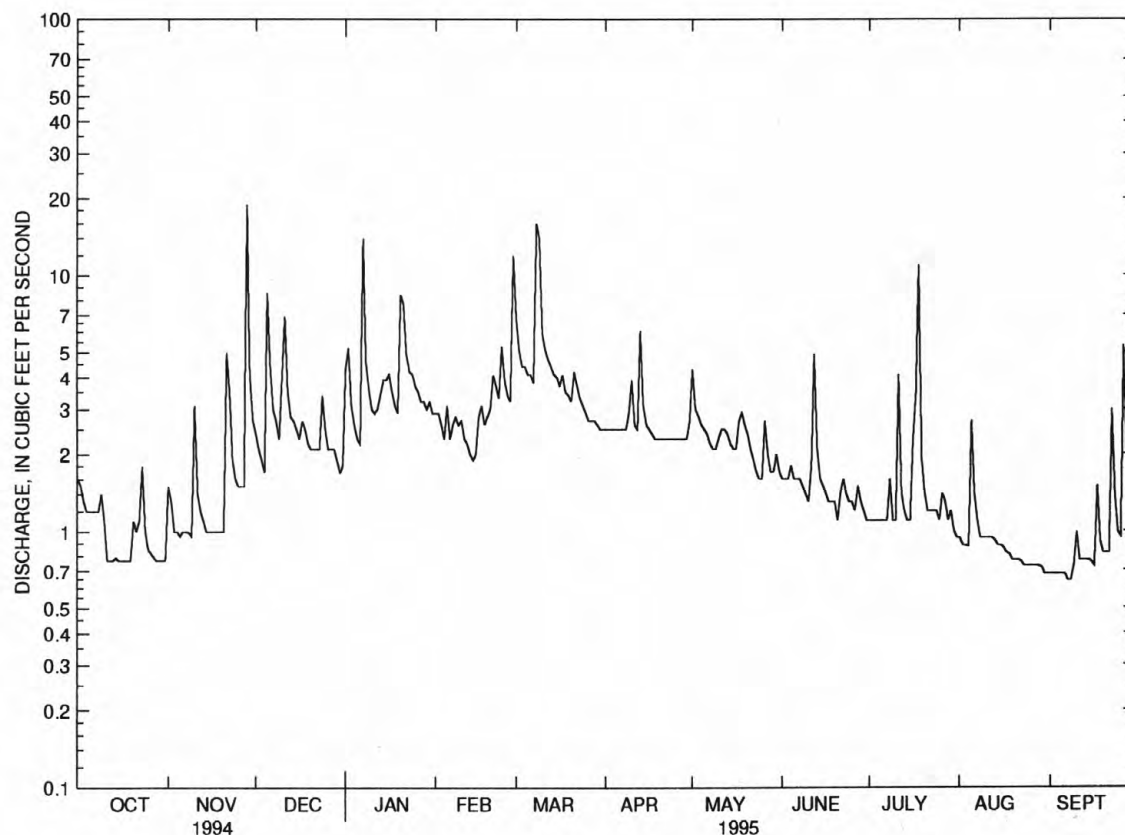
01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1973 - 1995	
ANNUAL TOTAL	1594.50		856.27		3.85	
ANNUAL MEAN	4.37		2.35		7.07	
HIGHEST ANNUAL MEAN					1.74	
LOWEST ANNUAL MEAN					125	
HIGHEST DAILY MEAN	51	Mar 10	19	Nov 28	125	Jul 7 1984
LOWEST DAILY MEAN	.77	Oct 11	.64	Sep 7	.03b	Aug 28 1980
ANNUAL SEVEN-DAY MINIMUM	.77	Oct 11	.67	Sep 2	.06	Aug 28 1980
INSTANTANEOUS PEAK FLOW			107	Jul 18	2000a	Jul 7 1984
INSTANTANEOUS PEAK STAGE			1.49	Jul 18	3.91	Jul 7 1984
INSTANTANEOUS LOW FLOW			.64	Sep 6	.64	Sep 6 1995
ANNUAL RUNOFF (CFSM)	2.00		1.08		1.76	
ANNUAL RUNOFF (INCHES)	27.21		14.61		23.98	
10 PERCENT EXCEEDS	9.2		4.1		7.3	
50 PERCENT EXCEEDS	2.4		2.0		2.6	
90 PERCENT EXCEEDS	1.1		.77		.90	

a From rating curve extended above 125 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 3.91 ft.

b Also occurred Aug. 28. 29. Sept. 3, 8, 1990.

c Estimated.



01399510 UPPER COLD BROOK NEAR POTTERSVILLE, NJ, DAILY MEAN DISCHARGE

## RARITAN RIVER BASIN

## 01399670 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ

LOCATION.--Lat 40°37'10", long 74°46'30", Hunterdon County, Hydrologic Unit 02030105, on right bank 1,700 ft upstream from bridge on U.S. Route 22, 0.4 mi northeast of Whitehouse Station, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1986 to current year. March 1977 to September 1986, water-stage recorder 1,700 ft downstream, at datum 8.07 ft lower (sta. 01399690), drainage area 13.2 mi<sup>2</sup>.

REVISED RECORDS.--WDR NJ-88-1: 1987. WDR NJ-90-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 121.5 ft above sea level.

REMARKS.--Records good except for daily discharges below 5.0 ft<sup>3</sup>/s, which are poor. Releases from Round Valley Reservoir enter stream directly upstream of station (see Raritan River basin, reservoirs in). Several measurements of water temperature were made during the year.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	3.4	9.1	17	8.1	43	8.5	16	5.7	5.0	1.6	140
2	6.0	4.1	8.0	25	8.0	23	8.3	11	5.3	6.3	1.6	167
3	4.7	5.6	7.5	12	8.0	18	8.0	9.2	6.1	4.3	1.6	167
4	4.4	18	6.7	12	15	16	8.3	7.9	7.8	4.0	1.1	167
5	13	17	39	43	16	14	7.6	8.4	5.3	4.0	.10	166
6	4.0	4.6	39	7.3	13	14	7.6	7.6	5.0	4.1	.09	166
7	3.8	2.0	14	87	14	13	7.7	7.1	4.9	4.6	.09	165
8	3.7	6.3	12	20	14	33	8.0	6.7	5.1	4.3	.08	161
9	3.9	2.3	9.6	14	14	135	11	6.7	4.6	3.6	.09	161
10	4.3	11	17	11	14	26	18	9.4	4.9	3.4	.10	164
11	3.9	4.1	56	9.8	15	22	8.9	8.7	5.4	9.5	.10	161
12	3.6	.07	20	10	11	19	8.9	8.9	13	3.5	.10	161
13	4.0	.10	12	11	11	17	34	8.0	8.5	3.1	.10	161
14	4.1	10	11	16	11	16	13	7.1	6.2	2.9	.10	161
15	3.7	9.2	10	17	12	15	11	8.7	6.5	2.7	.10	161
16	3.7	3.7	9.0	16	22	14	9.8	7.2	5.3	6.3	.11	146
17	3.5	3.7	10	13	19	15	9.1	7.6	5.3	6.9	.11	114
18	3.5	3.6	10	11	18	13	9.1	8.7	5.2	57	.18	86
19	3.4	3.6	8.3	11	18	12	9.0	11	44	5.5	.62	84
20	4.6	3.4	7.8	61	18	11	8.8	8.3	57	3.3	.94	83
21	5.6	13	7.5	56	18	16	8.7	7.0	5.5	3.4	1.1	83
22	3.4	18	7.0	22	14	13	8.6	6.0	47	3.0	1.1	89
23	7.5	5.9	7.0	17	13	11	7.8	5.6	7.8	2.9	53	40
24	8.7	4.7	9.3	15	28	11	7.7	5.5	7.5	2.5	130	1.0
25	4.4	4.3	8.2	13	15	10	7.5	6.3	6.4	2.3	136	1.0
26	3.7	3.9	7.0	12	12	9.5	7.4	7.7	12	2.2	132	27
27	3.9	4.3	6.5	11	11	9.2	7.2	6.5	9.0	2.0	129	9.6
28	3.5	78	6.5	10	96	9.0	7.3	5.6	6.2	2.3	155	1.8
29	4.1	58	6.0	12	---	9.0	6.9	8.2	5.2	3.3	154	1.1
30	3.3	12	6.1	11	---	9.0	9.0	14	4.7	2.0	154	.94
31	2.3	---	5.7	8.8	---	8.9	---	6.9	---	1.7	146	---
TOTAL	141.2	317.87	392.8	611.9	486.1	604.6	292.7	253.5	322.4	171.9	1200.11	3196.44
MEAN	4.55	10.6	12.7	19.7	17.4	19.5	9.76	8.18	10.7	5.55	38.7	107
MAX	13	78	56	87	96	135	34	16	57	57	155	167
MIN	2.3	.07	5.7	7.3	8.0	8.9	6.9	5.5	4.6	1.7	.08	.94

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1995, BY WATER YEAR (WY)

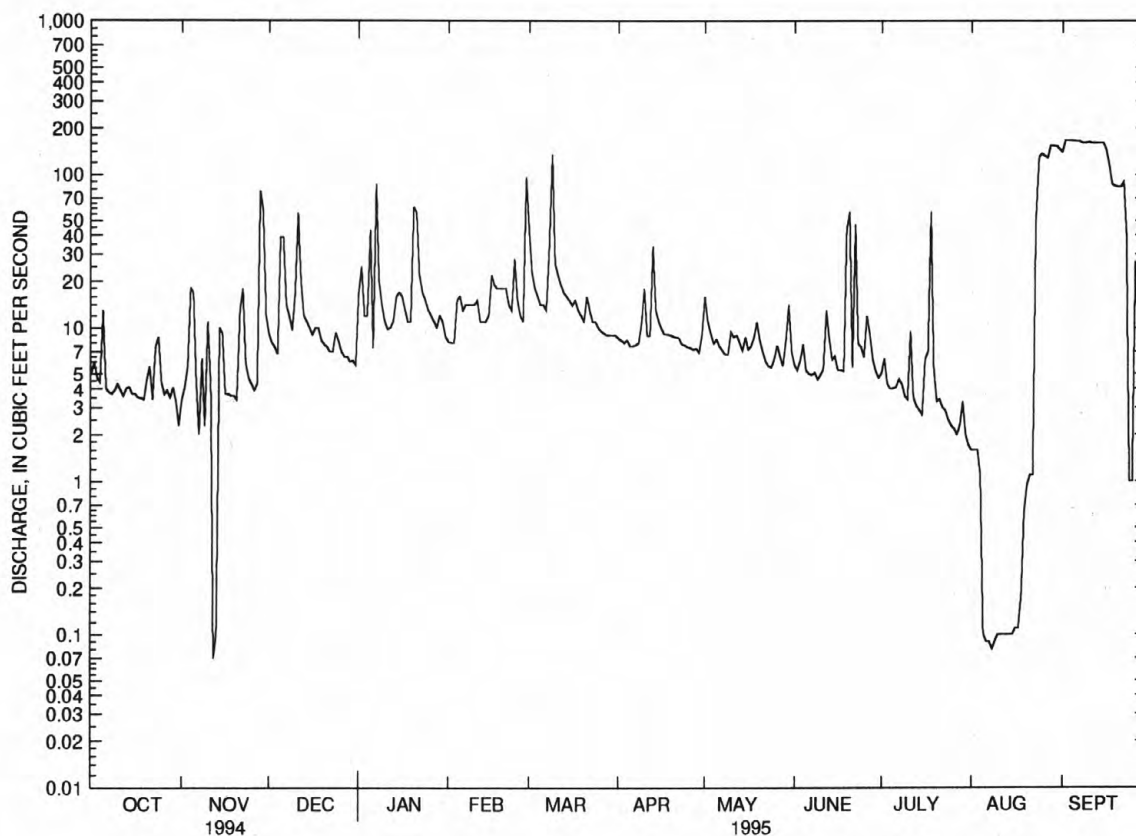
	MEAN	26.8	26.3	32.5	33.1	26.5	33.4	32.1	24.8	19.6	20.8	28.7	32.0
MAX	116	64.0	91.6	93.3	51.1	74.5	85.0	60.5	38.7	80.5	128	146	
(WY)	1981	1981	1981	1981	1979	1994	1983	1989	1989	1984	1980	1980	
MIN	4.55	6.58	12.7	8.31	9.90	10.2	3.80	8.18	8.50	4.78	5.49	4.19	
(WY)	1995	1982	1995	1985	1992	1985	1985	1995	1993	1993	1983	1983	

# RARITAN RIVER BASIN

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01399670 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1977 - 1995	
ANNUAL TOTAL	7799.47		7991.52			
ANNUAL MEAN	21.4		21.9		28.4	
HIGHEST ANNUAL MEAN					55.2	
LOWEST ANNUAL MEAN					11.1	
HIGHEST DAILY MEAN	321	Mar 10	167	Sep 2	600	Jan 26 1978
LOWEST DAILY MEAN	.07	Nov 12	.07	Nov 12	.07	Nov 12 1994
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 11	.09	Aug 5	.09	Aug 5 1995
INSTANTANEOUS PEAK FLOW			352	Mar 9	2190	Jul 7 1984
INSTANTANEOUS PEAK STAGE			4.61	Mar 9	15.89	Jul 7 1984
INSTANTANEOUS LOW FLOW			.04	Nov 9	.00	Feb 2 1993
10 PERCENT EXCEEDS	51		57		65	
50 PERCENT EXCEEDS	10		8.5		14	
90 PERCENT EXCEEDS	3.9		2.3		5.0	



01399670 S B ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ, DAILY MEAN DISCHARGE

## 01399700 ROCKAWAY CREEK AT WHITEHOUSE, NJ

LOCATION.--Lat 40°37'49", long 74°44'11". Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--37.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1977 to September 1978.

WATER TEMPERATURES: April 1977 to September 1978.

SEDIMENT ANALYSES: October 1976 to September 1978.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
OCT 1994												
25...	1030	E20	270	8.0	10.0	760	9.4	84	E1.4	80	110	99
FEB 1995												
02...	1015	29	232	7.7	2.0	753	12.0	88	<1.0	220	40	77
MAR												
22...	1030	E55	209	8.3	8.0	746	12.5	108	E1.1	<20	50	68
JUN												
01...	1100	46	253	8.1	18.0	764	9.4	99	E1.4	1300	1000	89
AUG												
03...	1100	E12	307	8.4	25.0	766	8.5	102	4.9	790	100	110

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
25...	24	9.4	13	2.7	78	20	19	<0.1	14	162	153	4
FEB 1995												
02...	19	7.1	9.5	1.2	53	18	16	<0.1	16	128	125	9
MAR												
22...	17	6.2	12	1.4	46	16	19	<0.1	15	126	119	2
JUN												
01...	22	8.3	12	1.7	70	18	18	0.1	16	150	144	7
AUG												
03...	27	9.8	17	2.9	84	23	24	0.1	13	176	171	9

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
25...	0.011	0.84	0.06	0.04	0.20	0.22	1.0	1.1	0.12	0.12	3.6	0.3
FEB 1995												
02...	0.006	1.50	<0.03	0.03	0.08	0.11	1.6	1.6	0.03	0.01	1.4	0.4
MAR												
22...	0.010	1.20	<0.03	<0.03	0.19	0.17	1.4	1.4	0.07	0.04	2.6	--
JUN												
01...	0.035	1.20	0.14	0.11	0.30	0.21	1.5	1.4	0.12	0.10	2.3	0.3
AUG												
03...	0.012	0.94	0.06	0.05	1.0	0.13	1.9	1.1	0.31	0.25	2.3	0.5

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'04", long 74°41'13", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 1,400 ft upstream from mouth, and 2.4 mi southwest of Greater Cross Roads.

DRAINAGE AREA.--100 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1994												
27...	1300	37	285	7.9	8.0	760	11.8	100	E1.5	170	<10	92
FEB 1995												
02...	1030	78	269	7.8	3.0	754	13.8	104	E2.0	20	<10	78
MAR												
23...	1330	112	232	8.5	9.0	749	13.1	115	E1.7	20	10	73
JUN												
07...	1045	32	271	8.2	22.0	749	9.7	113	E1.5	170	90	94
AUG												
16...	1030	23	338	8.8	25.5	760	10.1	124	E1.8	1700	100	100

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MA) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS KA) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
OCT 1994												
27...	22	9.0	16	3.4	71	18	30	<0.1	12	162	155	2
FEB 1995												
02...	19	7.4	15	1.6	--	--	--	--	--	--	--	8
MAR												
23...	18	6.7	14	1.5	49	14	27	<0.1	11	138	126	3
JUN												
07...	23	8.8	15	1.8	71	16	25	0.1	12	160	148	6
AUG												
16...	25	10	19	2.4	82	19	32	<0.1	11	174	170	2

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
OCT 1994												
27...	<0.003	0.50	0.04	0.06	0.20	0.24	0.70	0.74	0.04	0.04	3.4	--
FEB 1995												
02...	0.006	1.70	0.04	<0.03	0.11	0.14	1.8	1.8	0.03	<0.01	1.7	0.3
MAR												
23...	0.005	0.99	<0.03	<0.03	0.18	0.13	1.2	1.1	0.02	0.01	2.4	0.2
JUN												
07...	0.016	0.74	0.06	0.06	0.30	0.27	1.0	1.0	0.09	0.07	2.7	0.3
AUG												
16...	0.014	0.62	<0.03	<0.03	0.30	0.27	0.92	0.89	0.14	0.12	2.9	0.4



## RARITAN RIVER BASIN

## 01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County. Hydrologic Unit 02030105, on right bank, 400 ft upstream from U.S. Highway 202, 1.4 mi upstream from confluence with South Branch, and 2.7 mi west of Raritan.

DRAINAGE AREA.--190 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1923 to current year. Monthly discharge only for June 1923, published in WSP 1302. Prior to October 1943, published as "at Milltown".

REVISED RECORDS.--WSP 1552: 1924-26, 1928-35. WDR NJ-79-1: 1971-78(P).

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1936. Datum of gage is 50.43 ft above sea level. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharge, which are poor. Releases from Round Valley Reservoir enter basin upstream of gage. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0445	*5,070	*7.89	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	79	227	320	185	831	160	288	119	129	53	e24
2	117	115	206	502	183	483	155	208	106	266	51	e26
3	101	91	186	300	161	383	152	188	112	117	52	e27
4	87	83	168	225	150	343	151	166	171	92	50	e27
5	90	95	752	221	225	310	145	159	116	85	69	e25
6	78	79	598	283	163	295	140	153	103	82	200	e25
7	72	78	296	1640	220	289	142	137	97	90	92	e26
8	69	66	257	532	236	504	140	130	94	112	68	e27
9	67	74	216	325	254	2430	157	125	87	92	59	e32
10	69	134	265	277	238	658	314	144	81	80	52	e52
11	65	134	1010	243	189	533	183	156	83	210	51	e35
12	62	85	390	230	158	451	166	156	400	127	49	e26
13	61	76	269	236	134	387	593	155	208	96	47	e27
14	62	73	242	312	137	344	288	137	137	84	41	e31
15	61	87	221	339	137	312	223	145	128	76	41	e28
16	59	73	201	345	202	292	199	133	110	111	40	e27
17	58	74	203	316	249	308	175	130	98	107	37	e102
18	57	74	222	259	259	266	165	211	90	727	34	e86
19	58	76	192	244	272	240	166	185	90	179	29	e41
20	64	70	175	788	343	231	166	178	162	115	28	e31
21	86	98	164	901	385	287	161	143	80	103	30	e32
22	77	453	159	469	312	287	172	131	805	98	28	e81
23	93	172	156	352	259	233	159	118	143	91	28	274
24	148	131	232	313	433	218	154	110	107	88	e27	84
25	96	128	248	280	330	205	151	113	103	86	e27	64
26	80	127	186	256	258	193	144	160	118	78	e26	319
27	75	117	169	234	235	186	139	147	113	76	e26	292
28	72	1430	164	215	1320	177	138	122	106	107	e26	125
29	71	640	160	197	---	171	133	122	89	87	e25	90
30	69	287	131	199	---	167	141	281	82	71	e25	78
31	68	---	135	215	---	169	---	146	---	60	e26	---
TOTAL	2387	5299	8200	11568	7627	12183	5472	4877	4338	3922	1437	2164
MEAN	77.0	177	265	373	272	393	182	157	145	127	46.4	72.1
MAX	148	1430	1010	1640	1320	2430	593	288	805	727	200	319
MIN	57	66	131	197	134	167	133	110	80	60	25	24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1995, BY WATER YEAR (WY)

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	168	283	351	382	432	524	474	339	225	182	188	169	826	824	994	1416	948	1272	1368	1027	1270	1291	1068	672	1956	1973	1984	1979	1925	1936	1983	1989	1972	1984	1942	1975	26.6	46.1	73.1	79.4	109	163	117	84.1	46.4	25.5	22.3	14.8	1931	1965	1966	1940	1934	1981	1985	1926	1965	1966	1932	1964												
MAX	826	824	994	1416	948	1272	1368	1027	1270	1291	1068	672	1956	1973	1984	1979	1925	1936	1983	1989	1972	1984	1942	1975	26.6	46.1	73.1	79.4	109	163	117	84.1	46.4	25.5	22.3	14.8	1931	1965	1966	1940	1934	1981	1985	1926	1965	1966	1932	1964																								
MIN	26.6	46.1	73.1	79.4	109	163	117	84.1	46.4	25.5	22.3	14.8	1931	1965	1966	1940	1934	1981	1985	1926	1965	1966	1932	1964																																																

# RARITAN RIVER BASIN

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01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ--Continued

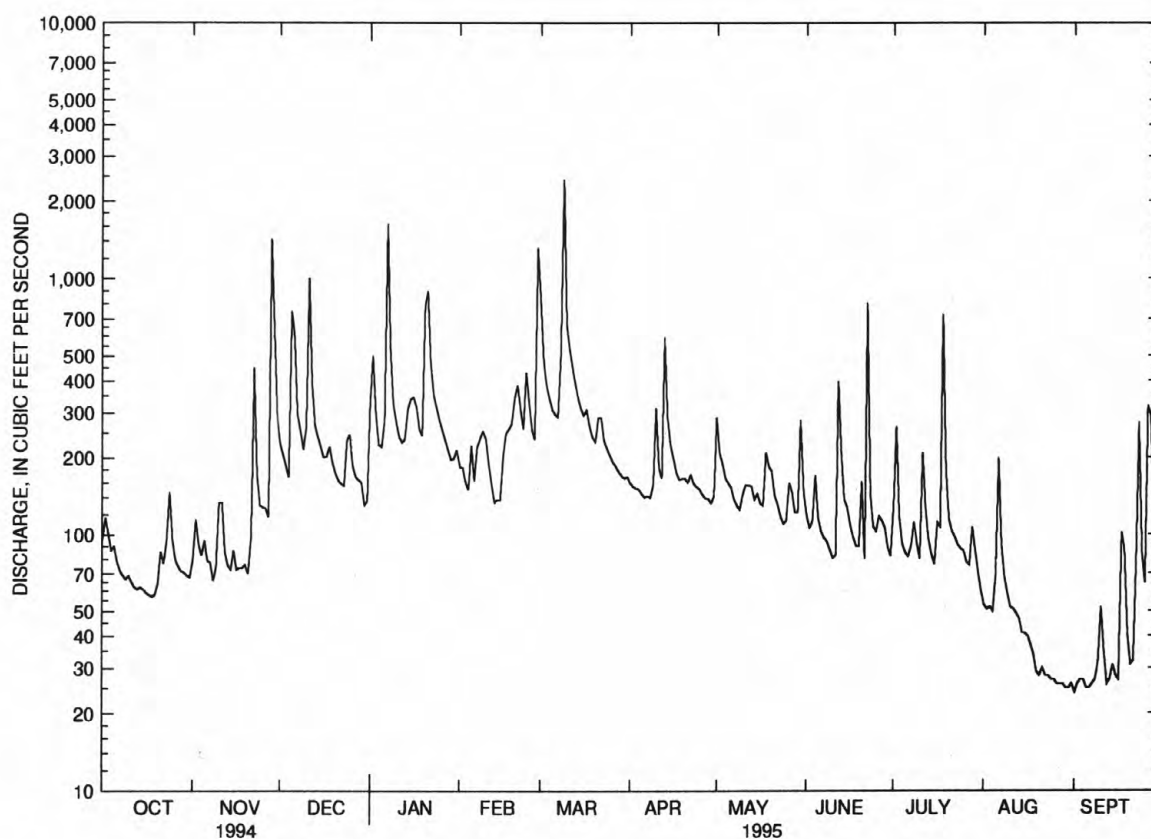
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1924 - 1995	
ANNUAL TOTAL	146322		69474		309	
ANNUAL MEAN	401		190		605	
HIGHEST ANNUAL MEAN					120	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	6250	Jan 29	2430	Mar 9	15300	Jul 7 1984
LOWEST DAILY MEAN	57	Oct 18	24	Sep 1	7.5	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	59	Oct 13	25	Aug 26	8.9	Sep 22 1964
INSTANTANEOUS PEAK FLOW			5070	Mar 9	28600a	Aug 28 1971
INSTANTANEOUS PEAK STAGE			7.89	Mar 9	15.47b	Aug 28 1971
INSTANTANEOUS LOW FLOW			24e	Sep 1	3c	Nov 28 1930
10 PERCENT EXCEEDS	962		327		624	
50 PERCENT EXCEEDS	206		139		184	
90 PERCENT EXCEEDS	74		45		56	

a From rating curve extended above 15,000 ft<sup>3</sup>/s.

b From high-water mark in gage house.

c About, result of freezeup.

e Estimated.



01400000 N B RARITAN RIVER NEAR RARITAN, NJ, DAILY MEAN DISCHARGE



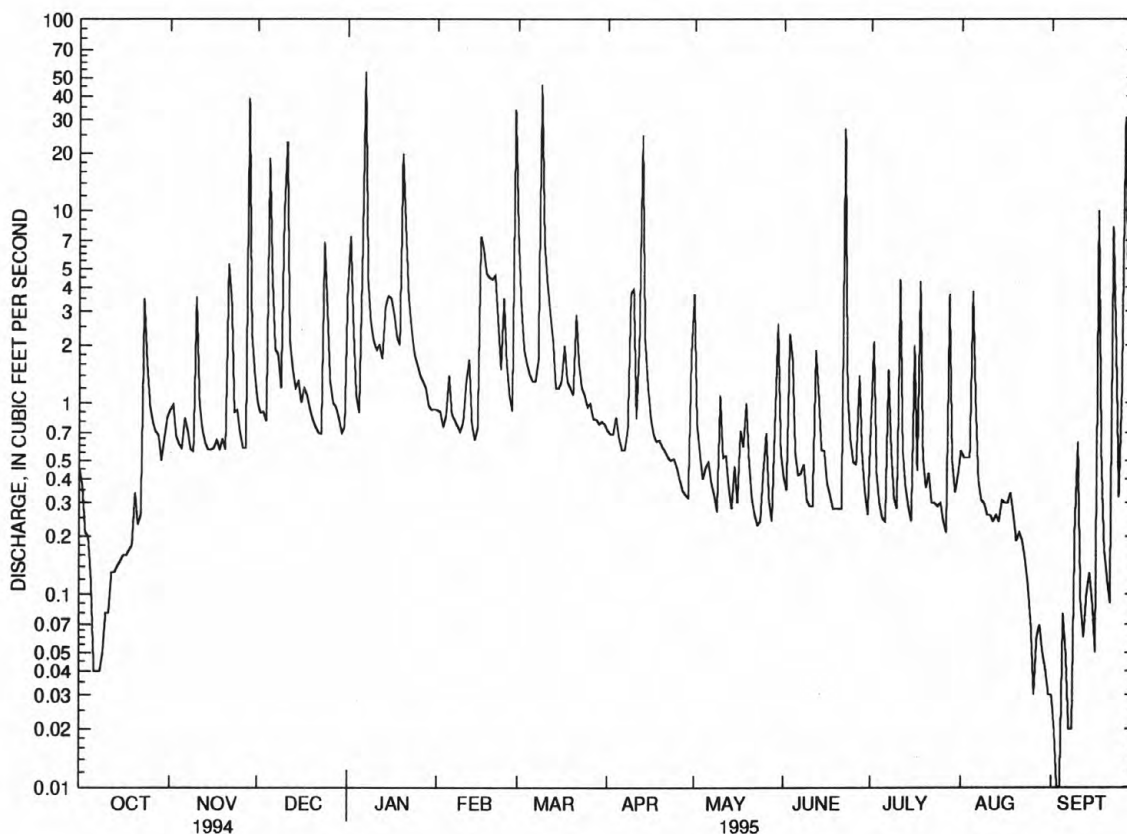
# RARITAN RIVER BASIN

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01400300 PETERS BROOK NEAR RARITAN, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1978 - 1995
ANNUAL TOTAL	2061.42	745.70	
ANNUAL MEAN	5.65	2.04	5.98
HIGHEST ANNUAL MEAN			9.37
LOWEST ANNUAL MEAN			2.04
HIGHEST DAILY MEAN	285 Jan 28	54 Jan 7	400 Jan 24 1979
LOWEST DAILY MEAN	.04 Oct 6	.00 Sep 4	.00 Jul 12 1978
ANNUAL SEVEN-DAY MINIMUM	.06 Oct 5	.03 Aug 29	.00 Nov 1 1978
INSTANTANEOUS PEAK FLOW		1090 Mar 9	1130 Aug 11 1990
INSTANTANEOUS PEAK STAGE		7.66 Mar 9	8.15 Jul 7 1984
INSTANTANEOUS LOW FLOW		.00 Sep 3	.00 Jul 12 1978
ANNUAL RUNOFF (CFSM)	1.35	.49	1.43
ANNUAL RUNOFF (INCHES)	18.30	6.62	19.39
10 PERCENT EXCEEDS	14	3.7	11
50 PERCENT EXCEEDS	1.0	.70	1.3
90 PERCENT EXCEEDS	.24	.16	.22

e Estimated.



— 01400300 PETERS BROOK NEAR RARITAN, NJ, DAILY MEAN DISCHARGE

## RARITAN RIVER BASIN

01400350 MACS BROOK AT SOMERVILLE, NJ

LOCATION.--Lat 40°34'26", long 74°37'06", Somerset County. Hydrologic Unit 02030105, on left upstream wingwall of culvert under access road from U.S. Highway 22 west to U.S. Highways 202 and 206, 1,200 ft upstream from Peters Brook, and 0.4 mi north of Somerville.

DRAINAGE AREA.--0.77 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1982 to September 1995.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 58.37 ft above sea level.

REMARKS.--Records fair except for those below 0.75 ft<sup>3</sup>/s, which are poor. Several measurements of water temperature were made during the year. Some regulation from detention pond directly upstream.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 22	0345	*95	*2.99	No peaks greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.27	.22	2.3	.19	2.5	.18	2.1	.05	.29	.11	.09
2	.23	.29	.16	3.8	.16	1.0	.16	.35	.02	2.6	.11	.09
3	.12	.19	.14	.66	.16	.60	.16	.19	2.3	.21	.11	.08
4	.11	.16	.13	.36	.37	.49	.20	.13	.72	.12	.12	.08
5	.09	.16	7.1	.31	.38	.41	.16	.14	.10	.11	2.7	.08
6	.06	.24	1.4	.72	.25	.38	.16	.12	.04	.11	.99	.09
7	.08	.20	.67	15	.25	.38	.15	.11	.05	1.5	.19	.09
8	.07	.16	.52	1.4	.25	13	.28	.11	.07	.38	.12	.09
9	.06	.17	.26	.54	.25	11	1.9	.09	.04	.15	.11	.37
10	.10	2.4	4.1	.34	.26	1.3	1.4	.77	.04	.11	.09	.45
11	.07	.32	6.5	.25	.45	.72	.28	.22	.04	2.9	.09	.11
12	.06	.15	.80	.31	.57	.53	.96	.25	1.1	.27	.09	.09
13	.06	.12	.37	.39	.57	.46	7.4	.12	.48	.14	.09	.10
14	.06	.11	.29	1.0	.57	.39	.74	.09	.28	.12	.09	.09
15	.06	.11	.22	.79	.62	.38	.34	.20	.19	.14	.09	.06
16	.06	.11	.20	.92	2.7	.53	.23	.09	.12	1.3	.09	.06
17	.06	.12	.56	.66	2.0	.87	.20	.48	.11	.28	.09	5.9
18	.06	.11	.33	.35	1.4	.38	.20	.32	.11	1.5	.09	.59
19	.07	.14	.21	.31	1.3	.31	.23	.49	.11	.20	.09	.14
20	.40	.11	.18	9.5	1.5	.29	.20	.14	.11	.12	.09	.09
21	.22	3.4	.16	2.6	2.7	1.4	.20	.09	.10	.18	.09	.09
22	.15	1.4	.16	.92	1.1	.55	.19	.06	9.1	.13	.09	4.1
23	2.1	.26	.16	.48	.69	.33	.16	.06	.44	.11	.09	1.3
24	.67	.14	4.2	.36	1.6	.26	.16	.06	.17	1.1	.09	.19
25	.19	.12	1.5	.30	.62	.24	.15	.33	.14	.60	.18	1.2
26	.13	.09	.47	.25	.46	.20	.45	.31	.13	.17	.08	13
27	.11	.74	.30	.24	.40	.20	.13	.08	.45	.12	.09	2.7
28	.11	16	.25	.20	17	.20	.17	.06	.16	1.8	.09	1.4
29	.11	1.6	.19	.20	---	.20	.13	.52	.11	.33	.09	.69
30	.11	.42	.16	.20	---	.20	1.1	.74	.11	.15	.08	.57
31	.11	---	.17	.20	---	.20	---	.09	---	.11	.08	---
TOTAL	6.24	29.81	32.08	45.86	38.77	39.90	18.37	8.91	16.99	17.35	6.60	33.98
MEAN	.20	.99	1.03	1.48	1.38	1.29	.61	.29	.57	.56	.21	1.13
MAX	2.1	16	7.1	15	17	13	7.4	2.1	9.1	2.9	2.7	13
MIN	.06	.09	.13	.20	.16	.20	.13	.06	.02	.11	.08	.06
CFSM	.26	1.29	1.34	1.92	1.80	1.67	.80	.37	.74	.73	.28	1.47
IN.	.30	1.44	1.55	2.22	1.87	1.93	.89	.43	.82	.84	.32	1.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1995, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	.67	1.63	1.66	1.70	1.79	2.61	2.42	1.68	1.00	1.22	.84	1.20		
MAX	2.29	4.09	4.33	3.12	2.94	6.84	6.51	4.83	2.90	3.41	2.08	6.38		
(WY)	1990	1986	1984	1986	1984	1994	1983	1989	1989	1987	1987	1989		
MIN	.054	.49	.39	.44	.71	.41	.20	.22	.25	.056	.072	.042		
(WY)	1987	1985	1990	1985	1992	1985	1985	1986	1988	1983	1983	1983		

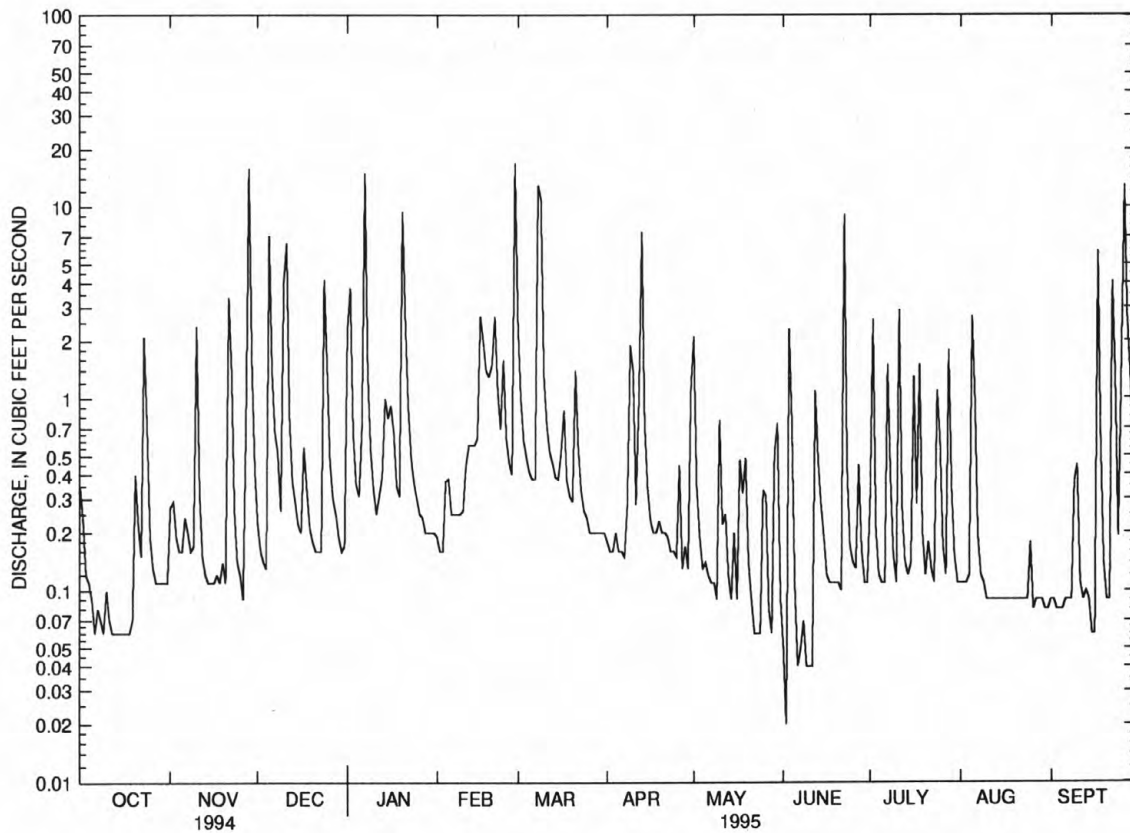


# RARITAN RIVER BASIN

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01400350 MACS BROOK AT SOMERVILLE, NJ

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1982 - 1995	
ANNUAL TOTAL	618.33		294.86		1.55	
ANNUAL MEAN	1.69		.81		2.29	
HIGHEST ANNUAL MEAN					.81	
LOWEST ANNUAL MEAN					97	
HIGHEST DAILY MEAN	45	Jan 28	17	Feb 28	Apr 16 1986	
LOWEST DAILY MEAN	.06	Oct 6	.02	Jun 2	.00 Jul 28 1983	
ANNUAL SEVEN-DAY MINIMUM	.06	Oct 12	.05	Jun 5	.00 Sep 2 1983	
INSTANTANEOUS PEAK FLOW			95	Jun 22	549 Apr 16 1986	
INSTANTANEOUS PEAK STAGE			2.99	Jun 22	5.12 May 16 1990	
INSTANTANEOUS LOW FLOW			.02	Jun 1	.00 Many days	
ANNUAL RUNOFF (CFSM)	2.20		1.05		2.01	
ANNUAL RUNOFF (INCHES)	29.87		14.25		27.29	
10 PERCENT EXCEEDS	4.3		1.5		3.2	
50 PERCENT EXCEEDS	.40		.20		.37	
90 PERCENT EXCEEDS	.11		.09		.09	



01400350 MACS BROOK AT SOMERVILLE, NJ, DAILY MEAN DISCHARGE

## 01400500 RARITAN RIVER AT MANVILLE, NJ

LOCATION.--Lat 40°33'18", long 74°35'02", Somerset County, 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 mi<sup>2</sup>.

## WATER-DISCHARGE 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).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above sea level. Prior to Aug. 15, 1923, nonrecording gage on downstream side of highway bridge at same site and datum. From Oct. 1, 1952 to Sept. 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage is above 5.0 ft. In Oct. 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (station 01403060). Between June 9, 1978 and June 7, 1979, gage temporarily relocated at site 1.4 mi downstream, just upstream of Millstone River, 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 by Spruce Run and Round Valley Reservoirs (see Raritan River basin, reservoirs in). Diversion to Round Valley Reservoir since March 1966 (see Raritan River basin, diversions). Prior to Sept. 1, 1986, water diverted 1,500 ft upstream from station by Johns-Manville Corporation and returned to river, 600 ft downstream from Millstone River. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1015	*8,010	d11.17	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	218	476	562	e554	2740	285	518	214	254	242	268
2	210	244	404	869	e533	1230	258	482	224	455	259	311
3	206	230	352	676	e492	879	251	406	260	279	251	320
4	192	194	316	476	e505	745	265	343	357	226	270	310
5	189	210	1310	415	e653	670	256	311	237	227	301	305
6	200	218	1500	701	e584	619	246	303	192	226	461	302
7	194	214	697	3430	e694	592	245	291	219	254	265	290
8	204	200	549	1620	e694	736	243	265	235	261	237	282
9	207	199	449	776	e685	5650	272	234	226	249	229	289
10	211	285	455	588	e677	2080	489	257	237	228	222	323
11	210	306	2370	528	e638	1210	425	285	243	393	236	298
12	203	217	982	487	e584	995	344	288	521	281	238	271
13	218	198	619	486	e512	861	1140	295	362	214	234	259
14	211	197	523	584	e519	762	722	264	247	237	236	264
15	206	209	466	690	e512	686	524	269	269	260	254	254
16	202	202	416	713	580	650	459	270	249	326	258	233
17	212	199	403	674	683	645	399	242	239	301	255	375
18	214	199	437	559	681	523	364	321	238	1660	248	287
19	211	200	394	512	654	419	356	338	226	465	243	210
20	226	194	348	1920	732	391	363	346	308	250	277	181
21	242	233	321	2930	883	489	344	282	335	237	299	201
22	228	703	307	1320	729	558	341	243	1340	232	296	282
23	246	390	299	900	598	451	358	219	319	239	288	413
24	348	241	391	769	788	412	303	215	249	240	349	222
25	237	207	578	687	794	383	281	241	260	254	340	173
26	186	213	414	615	604	311	277	284	291	250	327	694
27	217	210	354	559	535	300	269	306	263	247	303	884
28	215	2870	333	567	2650	322	258	256	246	347	318	289
29	209	1980	316	e592	---	306	264	246	218	268	318	181
30	206	677	271	e569	---	297	264	453	214	241	304	151
31	207	---	293	e599	---	298	---	287	---	230	296	---
TOTAL	6650	12057	17343	27373	19747	27210	10865	9360	9038	9831	8654	9122
MEAN	215	402	559	883	705	878	362	302	301	317	279	304
MAX	348	2870	2370	3430	2650	5650	1140	518	1340	1660	461	884
MIN	183	194	271	415	492	297	243	215	192	214	222	151

## 01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	443	677	881	973	1068	1368	1158	791	527	467	466	461
MAX	2433	2460	2383	3856	2406	3260	3507	2707	2581	2542	2552	2068
(WY)	1904	1933	1984	1979	1925	1936	1983	1989	1972	1975	1955	1971
MIN	64.8	87.5	148	188	265	354	259	212	88.8	65.1	50.5	51.2
(WY)	1942	1932	1966	1966	1934	1981	1985	1926	1965	1955	1932	1941

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1904 - 1995	
ANNUAL TOTAL	330978		167250			
ANNUAL MEAN	907		458		772	
HIGHEST ANNUAL MEAN					1365	
LOWEST ANNUAL MEAN					309	
HIGHEST DAILY MEAN	10400	Jan 29	5650	Mar 9	21600	Sep 22 1938
LOWEST DAILY MEAN	183	Oct 1	151	Sep 30	17a	Sep 19 1964
ANNUAL SEVEN-DAY MINIMUM	196	Oct 1	196	Oct 1	29	Aug 27 1944
INSTANTANEOUS PEAK FLOW			8010	Mar 9	36300b	Aug 28 1971
INSTANTANEOUS PEAK STAGE			11.17	Mar 9	23.80c	Aug 28 1971
INSTANTANEOUS LOW FLOW			130	Sep 25		
10 PERCENT EXCEEDS	2320		725		1580	
50 PERCENT EXCEEDS	453		299		438	
90 PERCENT EXCEEDS	206		210		137	

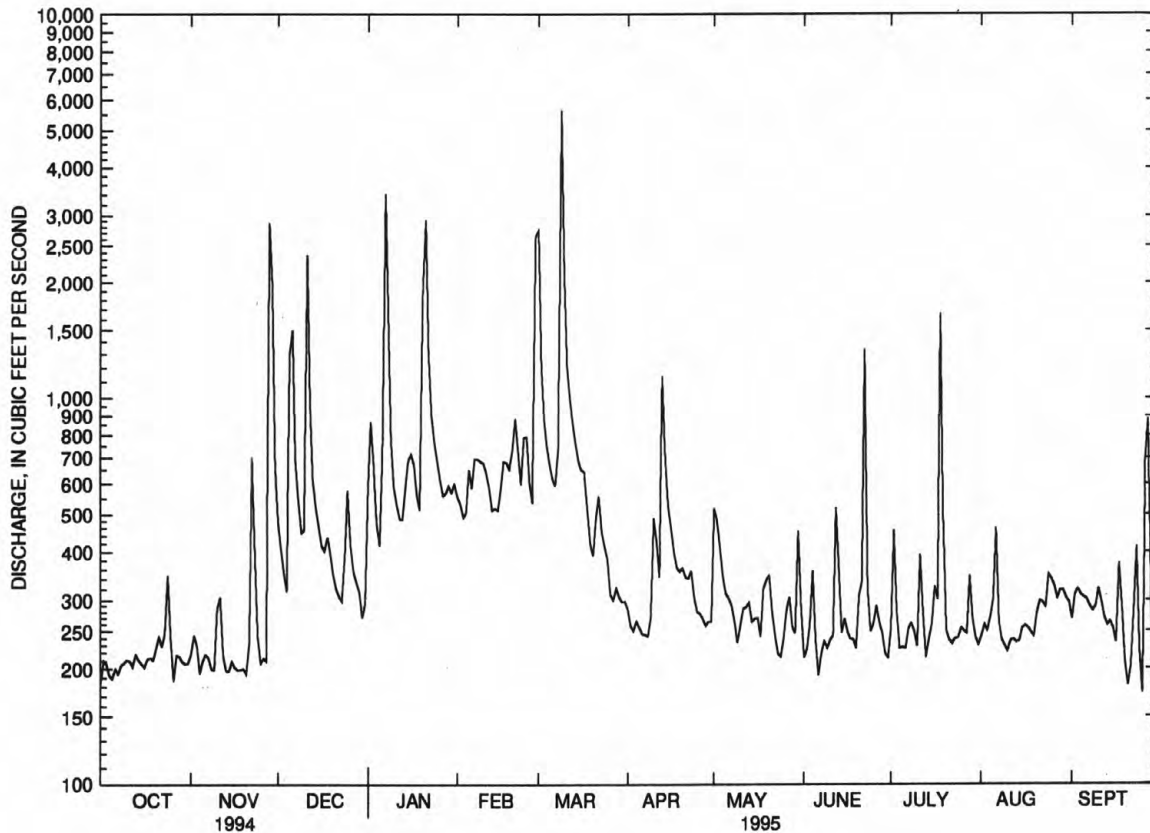
a Does not include water diverted to Johns-Manville plant.

b From rating curve extended above 14,000 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 14.9 and 20.42 ft.

c From floodmark (backwater from Millstone River).

d Maximum gage height did not occur at the same time as maximum discharge.

e Estimated.



## RARITAN RIVER BASIN

01400500 RARITAN RIVER AT MANVILLE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1959, 1962-73, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MP WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
OCT 1994												
25...	1030	230	273	8.1	13.0	760	10.3	98	E1.8	490	140	93
FEB 1995												
09...	1130	E685	288	7.7	0.5	760	15.5	108	3.6	220	10	85
MAR												
23...	1130	445	266	8.3	9.0	750	12.4	109	<1.0	20	<10	77
JUN												
08...	1200	240	295	8.2	25.5	754	8.6	106	E1.3	790	150	100
AUG												
16...	1100	258	231	8.7	25.5	760	8.9	109	E1.6	220	120	75

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
25...	23	8.6	15	2.7	67	23	24	<0.1	7.1	156	146	2
FEB 1995												
09...	21	7.9	16	1.6	56	20	29	<0.1	11	154	147	4
MAR												
23...	19	7.2	17	1.8	51	19	33	<0.1	9.8	146	143	3
JUN												
08...	24	9.8	17	2.0	71	20	29	0.2	6.9	162	155	9
AUG												
16...	18	7.4	13	1.6	58	17	23	<0.1	4.6	126	121	3

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
25...	0.012	0.55	0.03	0.04	0.30	0.29	0.85	0.84	0.08	0.07	3.6	0.4
FEB 1995												
09...	0.007	1.50	0.07	0.05	0.18	0.28	1.7	1.8	0.04	0.02	2.1	0.4
MAR												
23...	0.008	1.20	<0.03	<0.03	0.30	0.19	1.5	1.4	0.04	0.03	2.8	0.3
JUN												
08...	0.016	0.83	0.06	0.06	0.50	0.30	1.3	1.1	0.11	0.08	3.0	0.5
AUG												
16...	0.005	0.34	<0.03	<0.03	0.30	0.20	0.64	0.54	0.06	0.06	2.9	0.4

## 01400540 MILLSTONE RIVER NEAR MANALAPAN, NJ

LOCATION.--Lat 40°15'44", long 74°25'13", Monmouth County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi west of Manalapan, 5.5 mi east of Hightstown, and 8.4 mi above Rocky Brook.

DRAINAGE AREA.--7.37 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1960-64, 1981 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
20...	1030	E2.0	114	6.9	13.5	755	8.0	77	<1.0	40	100	29	
FEB 1995													
01...	1000	E7.0	123	--	1.5	752	13.5	98	E1.3	<20	<10	30	
MAR													
20...	1100	E6.0	115	6.7	7.0	762	11.7	96	<1.0	<20	<10	31	
JUN													
01...	1000	E11	103	6.9	16.5	764	8.7	89	E1.4	460	130	27	
JUL													
24...	1100	E4.0	100	7.0	22.5	760	7.8	90	E1.6	700	570	31	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
20...	6.0	3.5	6.3	2.4	13	9.5	13	0.1	9.6	62	65	5	
FEB 1995													
01...	6.4	3.5	6.6	2.9	5.3	12	15	0.1	9.3	68	67	8	
MAR													
20...	6.7	3.5	6.9	2.1	4.5	14	15	0.1	8.7	64	66	4	
JUN													
01...	5.9	3.0	6.0	2.2	10	11	13	0.1	9.2	74	61	10	
JUL													
24...	6.7	3.5	6.1	2.2	15	8.7	12	0.1	9.2	66	61	6	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
20...	0.009	1.50	<0.03	<0.03	0.17	0.49	1.7	2.0	0.04	<0.01	1.6	0.6	
FEB 1995													
01...	0.009	1.70	0.08	0.09	0.20	0.27	1.9	2.0	0.04	0.02	1.0	0.5	
MAR													
20...	0.008	1.50	0.08	0.05	0.20	0.16	1.7	1.7	0.05	<0.01	1.1	0.5	
JUN													
01...	0.015	0.91	0.17	0.18	0.40	0.24	1.3	1.2	0.13	0.04	2.5	0.8	
JUL													
24...	0.007	0.75	0.03	0.06	0.18	0.14	0.93	0.89	0.06	<0.01	2.6	0.7	



## RARITAN RIVER BASIN

## 01400650 MILLSTONE RIVER AT GROVERS MILL, NJ

LOCATION.--Lat 40°19'19", long 74°36'31", Mercer County, Hydrologic Unit 02030105, at bridge on Millstone Road in Grovers Mill, 0.3 mi upstream from Cranbury Brook, and 2.7 mi north of Dutch Neck.

DRAINAGE AREA.--43.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--The Feb. 2, 1995 sample was collected 1.1 mi upstream on Cranbury Road bridge at station 01400640, Millstone River near Grovers Mill, NJ. Discharge is measured at 01400640.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MP WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
OCT 1994													
20...	1330	E8.0	272	7.2	15.0	755	7.5	75	<1.0	80	30	50	
FEB 1995													
02...	1000	E35	251	--	4.0	754	12.2	94	<1.4	<20	<10	48	
MAR													
20...	1400	E30	243	6.8	12.0	762	10.6	98	2.7	20	10	51	
JUN													
06...	1100	E25	234	7.1	20.5	758	6.6	74	E1.6	330	210	48	
JUL													
27...	1100	E10	300	7.1	25.0	760	6.0	73	<1.0	490	300	51	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
20...	11	5.4	28		4.2	37	23	25	0.2	7.1	162	151	5
FEB 1995													
02...	11	5.1	24		3.5	26	24	26	0.2	9.1	144	140	6
MAR													
20...	12	5.2	26		3.5	27	25	27	0.1	8.4	--	140	5
JUN													
06...	11	5.0	25		3.7	34	20	23	0.3	8.1	142	135	19
JUL													
27...	12	5.1	36		4.5	49	23	24	0.3	8.4	180	171	12
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
20...	0.016	5.60	<0.03	<0.03		0.30	0.35	5.9	6.0	0.05	0.02	2.3	0.4
FEB 1995													
02...	0.011	4.80	0.05	0.09		0.40	0.43	5.2	5.2	0.05	<0.01	2.1	0.5
MAR													
20...	0.127	3.80	0.16	0.16		0.70	0.43	4.5	4.2	0.14	0.04	2.9	0.6
JUN													
06...	0.025	4.10	0.10	0.11		0.60	0.50	4.7	4.6	0.13	0.05	3.4	0.2
JUL													
27...	0.029	6.30	0.10	0.12		0.40	0.45	6.7	6.8	0.12	0.03	3.4	0.7

## 01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, Hydrologic Unit 02030105, on right bank 10 ft downstream of bridge on U.S. Highway 206, 1.6 mi southwest of Princeton, and 4.0 mi upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 62.23 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair except for estimated discharges, which are poor. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0430	*2,100	*7.09	No other peaks greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	4.8	24	40	24	258	15	47	6.7	2.0	e4.0	.49
2	6.1	4.5	19	68	23	123	14	32	5.1	1.8	1.4	.51
3	6.2	4.9	16	48	19	88	13	26	5.0	1.5	1.3	.53
4	5.5	5.5	15	27	14	71	13	18	5.8	1.4	1.3	.52
5	4.9	5.3	246	17	29	64	12	14	4.8	1.3	23	.49
6	4.4	5.0	149	20	22	56	10	13	3.8	1.3	14	.48
7	4.3	4.5	62	494	19	48	11	11	4.0	4.6	6.5	.45
8	4.1	4.7	40	144	16	89	11	9.2	3.7	e3.1	3.4	.50
9	4.0	4.6	29	75	16	825	19	8.0	3.2	e2.0	2.5	.52
10	3.8	8.5	45	49	16	143	49	16	2.9	e1.9	2.0	.94
11	3.9	8.9	289	41	18	99	24	19	2.8	e25	1.9	.58
12	4.0	7.8	85	38	19	77	18	14	4.7	e3.9	1.7	.63
13	3.9	6.4	46	42	14	63	183	12	9.5	e5.2	1.5	.61
14	3.7	5.7	36	53	13	54	58	9.7	7.5	e4.0	1.3	1.2
15	3.5	5.3	30	62	12	46	32	10	8.6	e3.6	1.3	.67
16	3.5	5.1	26	56	27	41	24	9.4	5.8	e3.9	1.1	.53
17	3.0	5.3	27	55	47	36	20	8.4	4.0	e7.4	.96	29
18	3.2	5.8	31	39	61	30	18	9.3	3.0	e168	.81	8.9
19	3.4	6.9	26	34	74	27	17	10	2.7	e8.4	.71	3.9
20	3.6	5.9	21	397	126	25	17	10	2.4	e7.0	.71	2.4
21	3.5	17	19	276	156	40	15	8.1	2.0	e18	.66	1.8
22	3.2	61	18	117	110	49	15	6.4	1.9	e9.0	.64	2.9
23	5.0	16	17	76	76	30	14	5.2	2.0	e9.0	.60	4.9
24	9.1	9.4	55	60	103	25	12	4.5	2.0	e4.9	.60	3.5
25	8.3	8.2	140	50	81	22	12	4.8	2.6	e5.0	.53	3.1
26	6.6	7.8	51	44	53	19	11	5.3	2.6	e3.9	.47	54
27	5.0	7.6	32	38	45	18	9.6	5.5	3.2	e3.6	.50	74
28	4.6	387	28	33	489	17	9.8	5.1	4.1	e26	.52	13
29	4.2	118	25	26	---	16	9.1	5.9	3.3	e10	.50	6.8
30	4.0	39	18	25	---	15	10	16	2.3	e6.5	.55	4.4
31	4.3	---	18	25	---	16	---	11	---	e6.0	.52	---
TOTAL	142.9	786.4	1683	2569	1722	2530	695.5	383.8	122.0	359.2	77.48	222.25
MEAN	4.61	26.2	54.3	82.9	61.5	81.6	23.2	12.4	4.07	11.6	2.50	7.41
MAX	9.1	387	289	494	489	825	183	47	9.5	168	23	74
MIN	3.0	4.5	15	17	12	15	9.1	4.5	1.9	1.3	.47	.45
CFSM	.10	.59	1.22	1.86	1.38	1.83	.52	.28	.09	.26	.06	.17
IN.	.12	.66	1.41	2.15	1.44	2.11	.58	.32	.10	.30	.06	.19

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

	MEAN	24.6	52.5	87.6	91.9	104	132	103	61.1	30.9	30.4	31.3	27.4
MAX	120	212	244	306	203	337	295	216	164	216	240	158	
(WY)	1980	1973	1987	1979	1971	1994	1983	1989	1989	1975	1955	1975	
MIN	1.00	1.50	4.56	3.22	19.7	31.3	20.9	8.95	2.67	.56	.14	1.31	
(WY)	1958	1966	1966	1981	1978	1985	1985	1963	1957	1957	1966	1970	

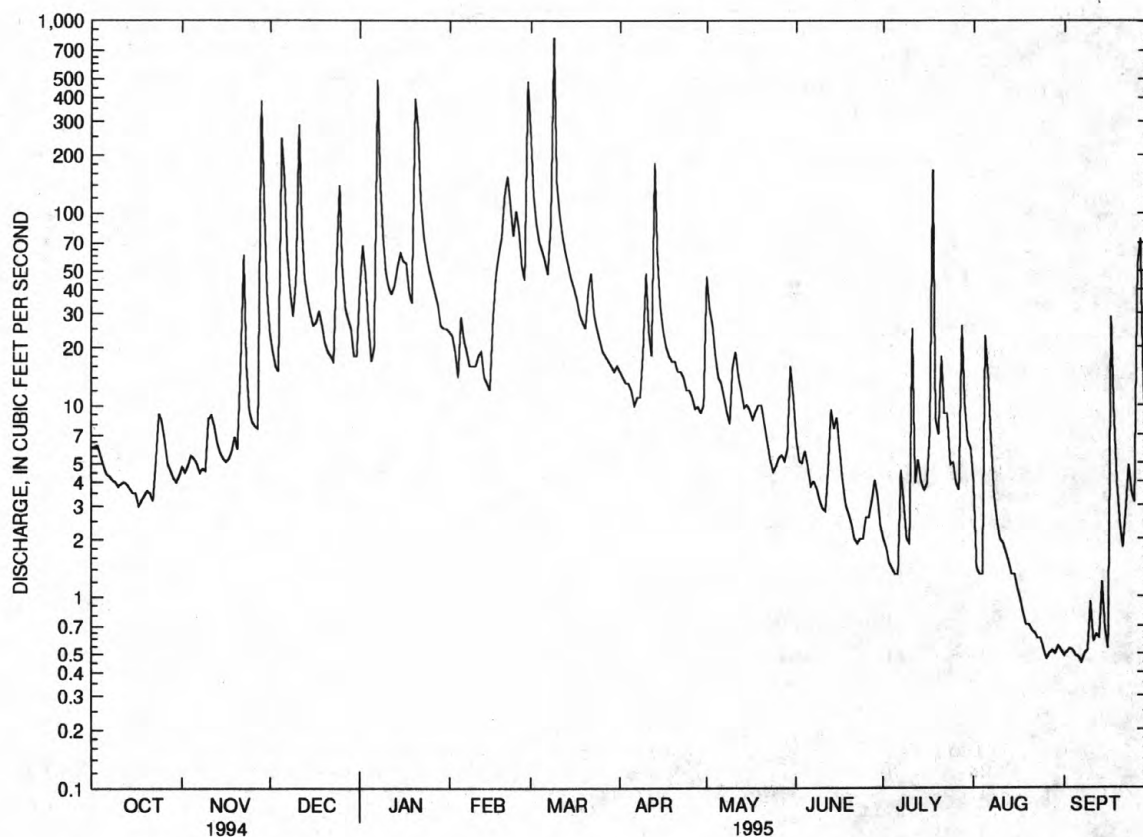
## RARITAN RIVER BASIN

01401000 STONY BROOK AT PRINCETON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1954 - 1995
ANNUAL TOTAL	29972.9	11293.53	
ANNUAL MEAN	82.1	30.9	64.6
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			28.5
HIGHEST DAILY MEAN	2210 Jan 28	825 Mar 9	3410 Aug 27 1971
LOWEST DAILY MEAN	2.2 Jul 13	.45 Sep 7	.00 Aug 5 1966
ANNUAL SEVEN-DAY MINIMUM	3.1 Jul 8	.50 Sep 1	.00 Aug 5 1966
INSTANTANEOUS PEAK FLOW		2100 Mar 9	8960a Aug 28 1971
INSTANTANEOUS PEAK STAGE		7.09 Mar 9	14.26 Aug 28 1971
INSTANTANEOUS LOW FLOW		.45 Aug 25	.00 Jan 1 1966
ANNUAL RUNOFF (CFSM)	1.85	.70	1.45
ANNUAL RUNOFF (INCHES)	25.06	9.44	19.71
10 PERCENT EXCEEDS	195	63	138
50 PERCENT EXCEEDS	19	9.7	22
90 PERCENT EXCEEDS	4.3	1.3	2.0

a From rating extended above 4,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow.

e Estimated.



— 01401000 STONY BROOK AT PRINCETON, NJ, DAILY MEAN DISCHARGE

01401000 STONY BROOK AT PRINCETON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-75, 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1956 to September 1962, October 1963 to September 1964, October 1965 to June 1970.

SUSPENDED-SEDIMENT DISCHARGE: January 1956 to June 1970.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
31...	1400	4.4	348	8.7	14.0	759	13.9	136	E1.8	130	10	100	
FEB 1995													
02...	1300	24	242	8.0	4.0	754	13.6	105	<1.1	<20	<10	69	
MAR													
30...	1030	15	243	8.8	9.0	758	12.0	104	2.1	330	<10	72	
JUN													
01...	1000	7.1	285	7.6	18.0	762	6.7	71	2.2	700	30	82	
AUG													
15...	1100	1.3	364	7.7	23.5	761	7.6	90	E1.6	1100	350	110	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
OCT 1994													
31...	25	10	22	4.2	75	31	39	0.2	2.5	190	181	3	
FEB 1995													
02...	16	7.0	14	2.4	41	22	24	0.1	12	128	128	3	
MAR													
30...	17	7.2	16	2.0	47	24	24	<0.1	5.0	132	126	1	
JUN													
01...	19	8.3	18	3.1	62	21	28	0.1	8.8	150	146	36	
AUG													
15...	27	10	29	3.2	74	31	48	0.2	8.8	218	203	7	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
31...	0.004	0.41	<0.03	<0.03	0.30	0.36	0.71	0.77	0.08	0.06	4.5	0.2	
FEB 1995													
02...	0.007	1.40	0.03	0.07	0.15	0.25	1.6	1.7	0.04	0.03	2.8	0.2	
MAR													
30...	0.009	0.51	<0.03	<0.03	0.20	0.21	0.71	0.72	0.03	<0.01	2.9	0.4	
JUN													
01...	0.017	0.50	0.09	0.07	0.80	0.31	1.3	0.81	0.15	0.08	3.6	0.7	
AUG													
15...	0.007	0.40	0.05	0.04	0.40	0.48	0.80	0.88	0.12	0.10	1.3	0.4	



## RARITAN RIVER BASIN

01401600 BEDEN BROOK NEAR ROCKY HILL, NJ

LOCATION.--Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206 at State Route 533, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton.

DRAINAGE AREA.--27.6 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
OCT 1994													
31...	1045	E5.2	385	7.7	10.0	763	10.3	91	E2.0	490	260	120	
FEB 1995													
07...	1100	E15	271	7.7	0.0	757	14.3	99	<1.0	130	400	83	
MAR													
30...	1300	E12	223	8.0	8.5	760	12.6	108	E1.5	170	80	70	
JUN													
01...	1300	E5.0	320	7.8	19.5	762	7.5	82	E1.5	700	<100	99	
AUG													
15...	1100	E16	376	7.3	22.5	760	5.5	64	2.8	16000	6000	110	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
31...	29	11	25	3.9	78	47	34	0.2	4.2	218	209	1	
FEB 1995													
07...	20	8.1	18	1.9	46	28	29	0.1	16	168	159	1	
MAR													
30...	17	6.8	14	1.6	43	23	21	0.1	8.7	130	123	<1	
JUN													
01...	24	9.4	20	3.0	66	32	29	0.1	9.6	178	173	3	
AUG													
15...	28	10	27	4.1	51	56	38	0.3	8.6	224	216	13	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
31...	0.014	1.70	<0.03	0.03	0.30	0.48	2.0	2.2	0.08	0.06	4.3	0.2	
FEB 1995													
07...	0.006	2.30	<0.03	0.095	0.14	0.17	2.4	2.5	0.09	0.07	2.0	0.2	
MAR													
30...	0.010	1.20	0.03	<0.03	0.19	0.19	1.4	1.4	0.05	0.02	2.1	0.3	
JUN													
01...	0.052	1.40	0.10	0.13	0.30	0.34	1.7	1.7	0.11	0.10	3.6	0.8	
AUG													
15...	0.034	2.90	0.15	0.17	0.70	0.67	3.6	3.6	0.19	0.15	5.7	0.6	



## 01401650 PIKE RUN AT BELLE MEAD, NJ

LOCATION.--Lat 40°28'05", long 74°38'57", Somerset County, Hydrologic Unit 02030105, on right bank 20 ft upstream of bridge on Township Line Road, 0.7 mi east of Belle Mead, 0.8 mi upstream of Cruser Brook, and 1.0 mi downstream of bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 58.85 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Some regulation during summer months, possibly from irrigation. Rain-gage and gage-height radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1810, 13.5 ft, Aug. 28, 1971, from floodmark, present datum.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0115	*391	*6.04	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.48	3.8	8.0	2.4	21	1.9	8.9	.80	.13	.14	.00
2	1.1	.77	2.9	14	2.3	11	1.7	3.8	.64	1.2	.13	.00
3	.66	.81	2.4	6.6	2.1	7.7	1.6	2.8	.63	.26	.12	.00
4	.45	.56	2.1	e4.8	3.7	6.7	1.7	2.2	.83	.15	.12	.00
5	.38	.46	32	e3.2	3.1	6.1	1.5	2.1	.48	.14	7.0	.00
6	.35	.44	14	2.9	2.4	6.0	1.5	1.8	.40	.13	3.3	.00
7	.35	.39	7.3	59	2.2	5.8	1.5	1.6	.43	1.0	.50	.00
8	.31	.40	5.7	14	2.3	35	1.5	1.4	.38	.91	.21	.00
9	.30	.39	4.2	8.2	2.2	84	2.8	1.4	.31	.24	.15	.00
10	.36	3.9	13	5.8	2.1	12	7.6	3.2	.30	.16	.13	.00
11	.36	1.2	33	4.9	2.4	8.7	2.6	2.4	.31	5.8	.12	.00
12	.31	.54	8.9	4.9	3.2	7.3	2.4	2.0	.61	.69	.12	.00
13	.32	.39	5.7	6.0	2.1	6.3	21	1.7	1.1	.28	.12	.00
14	.35	.35	4.9	9.6	1.7	5.6	6.4	1.4	.45	.19	.12	.00
15	.35	.35	4.2	9.0	1.6	5.1	4.3	2.1	.36	.14	.15	.00
16	.35	.32	3.5	8.2	7.8	4.7	3.3	1.6	.27	.46	.12	.00
17	.36	.33	4.6	7.0	11	4.3	2.7	1.5	.23	.28	e.10	9.0
18	.40	.32	5.2	5.2	9.8	3.6	2.5	1.9	.20	2.0	e.08	1.1
19	.37	.37	3.7	4.9	11	3.2	2.4	3.0	.18	.37	e.06	.16
20	.52	.32	2.9	44	13	3.0	2.2	2.2	.17	.19	e.04	.08
21	.55	3.4	2.5	21	12	5.7	2.1	1.4	.16	.39	e.02	.01
22	.42	8.9	2.4	8.9	7.8	5.1	2.2	1.1	.24	.27	e.00	1.4
23	2.2	1.7	2.4	6.3	6.3	3.6	2.0	.95	.26	.17	e.00	3.9
24	2.4	1.1	15	5.3	9.6	3.1	1.9	.87	.19	.13	e.00	.36
25	.57	.86	17	4.6	6.1	2.7	1.8	1.2	.22	2.2	e.00	.61
26	.39	.71	7.1	4.1	4.7	2.4	1.6	1.6	.33	.25	e.00	34
27	.33	.63	5.2	3.7	4.2	2.3	1.5	1.2	.24	.14	.00	14
28	.35	59	4.5	3.1	71	2.3	1.6	.92	.23	17	.00	3.0
29	.39	13	3.7	3.0	---	2.1	1.5	1.1	.15	1.4	.00	1.2
30	.39	5.9	2.7	2.8	---	2.1	2.5	3.3	.14	.31	.00	.73
31	.39	---	2.4	2.4	---	2.0	---	1.1	---	.18	.00	---
TOTAL	17.12	108.29	228.9	295.4	210.1	280.5	91.8	63.74	11.24	37.16	12.85	69.55
MEAN	.55	3.61	7.38	9.53	7.50	9.05	3.06	2.06	.37	1.20	.41	2.32
MAX	2.4	59	33	59	71	84	21	8.9	1.1	17	7.0	34
MIN	.30	.32	2.1	2.4	1.6	2.0	1.5	.87	.14	.13	.00	.00
CFSM	.10	.67	1.38	1.78	1.40	1.69	.57	.38	.07	.22	.08	.43
IN.	.12	.75	1.59	2.05	1.46	1.95	.64	.44	.08	.26	.09	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

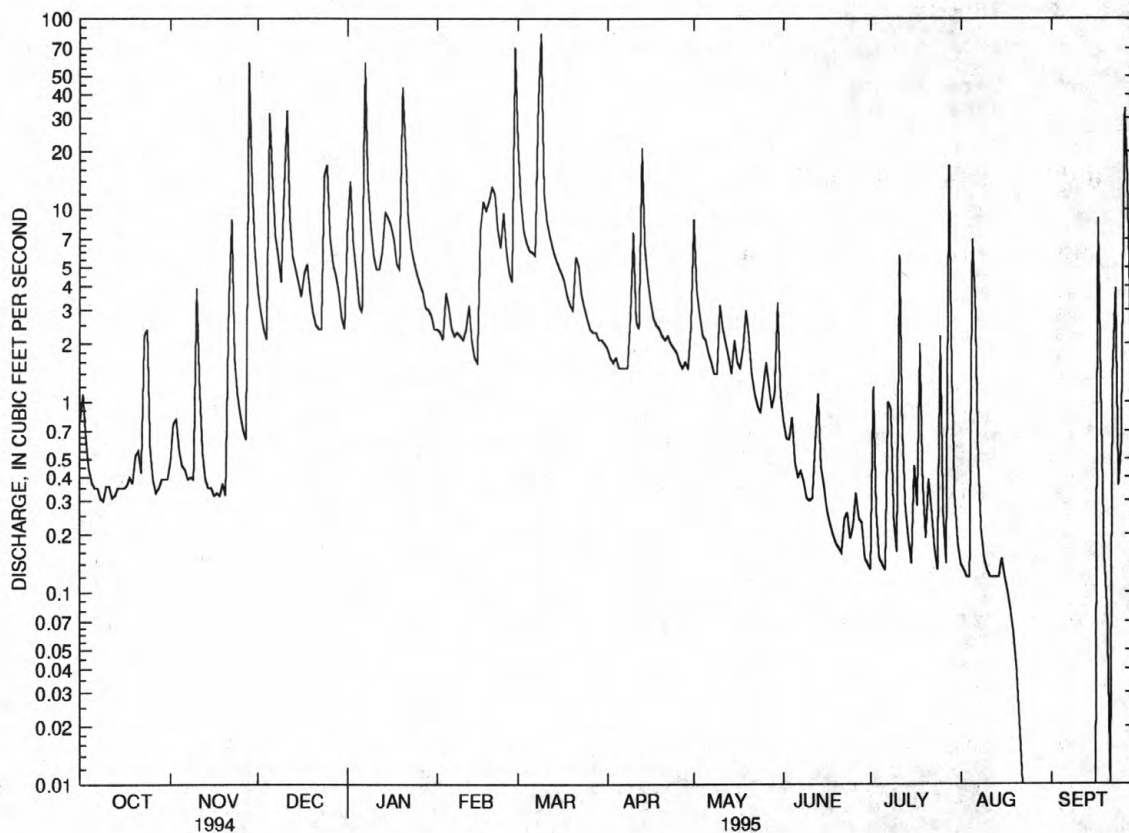
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
MEAN	3.44	8.70	11.0	12.0	12.9	14.2	13.2	8.93	5.01	6.09	3.43	3.11
MAX	13.4	22.3	33.6	34.2	27.5	38.8	43.1	26.2	20.9	26.1	9.94	17.1
(WY)	1990	1989	1984	1994	1994	1994	1983	1989	1989	1984	1990	1989
MIN	.55	2.09	.73	.043	4.74	3.05	2.18	1.89	.37	.36	.17	.51
(WY)	1995	1985	1981	1981	1992	1981	1985	1986	1995	1980	1980	1983

## RARITAN RIVER BASIN

01401650 PIKE RUN AT BELLE MEAD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1980 - 1995
ANNUAL TOTAL	4334.31	1426.65	
ANNUAL MEAN	11.9	3.91	8.54
HIGHEST ANNUAL MEAN			14.3
LOWEST ANNUAL MEAN			3.79
HIGHEST DAILY MEAN	569 Jan 28	84 Mar 9	569 Jan 28 1994
LOWEST DAILY MEAN	.00 Sep 15	.00 Aug 22	.00 Aug 20 1980
ANNUAL SEVEN-DAY MINIMUM	.02 Sep 11	.00 Aug 22	.00 Aug 20 1980
INSTANTANEOUS PEAK FLOW		391 Mar 9	2010 Jul 7 1984
INSTANTANEOUS PEAK STAGE		6.04 Mar 9	11.76 Jul 7 1984
INSTANTANEOUS LOW FLOW		.00 Many days	.00 Many days
ANNUAL RUNOFF (CFSM)	2.22	.73	1.59
ANNUAL RUNOFF (INCHES)	30.08	9.90	21.65
10 PERCENT EXCEEDS	24	8.8	15
50 PERCENT EXCEEDS	2.4 log	1.6	2.6
90 PERCENT EXCEEDS	.37	.12	.31

e Estimated.



01401650 PIKE RUN AT BELLE MEAD, NJ, DAILY MEAN DISCHARGE

## 01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, Hydrologic Unit 02030105, on left bank 30 ft downstream from highway bridge at Blackwells Mills, and 0.3 mi downstream from Six Mile Run.

DRAINAGE AREA.--258 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to December 1904 (gage heights only). August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at Millstone" 1903-04.

REVISED RECORDS.--WSP 1552: 1924-25(M), 1926.

GAGE.--Water-stage recorder. Concrete control since Nov. 18, 1933. Datum of gage is 26.97 ft above sea level. June 27, 1903 to Dec. 31, 1904, nonrecording gage at bridge 2.0 mi downstream at Millstone at different datum. Aug. 4, 1921 to Aug. 16, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Carnegie Lake, capacity, 310,000,000 gal and several smaller reservoirs, combined capacity, 49,800,000 gal. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1930	*2,910	*7.28	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	87	356	240	183	1870	145	265	135	60	70	31
2	107	98	252	332	181	919	140	272	105	78	61	28
3	97	88	202	328	167	579	135	239	89	59	55	28
4	88	85	179	251	172	427	134	191	108	54	50	28
5	84	87	685	190	202	372	123	164	103	51	103	30
6	81	86	1060	167	184	338	120	145	88	50	323	31
7	80	84	511	1490	179	306	119	127	85	61	255	31
8	78	79	365	1430	158	361	116	114	82	95	263	32
9	80	79	278	733	148	2550	148	106	74	69	173	30
10	79	136	273	454	144	1950	272	134	69	59	94	34
11	76	157	1080	331	152	808	225	174	65	125	71	34
12	74	129	733	297	166	506	179	165	72	133	61	34
13	72	120	418	294	153	411	610	143	100	99	54	34
14	71	108	318	317	139	358	523	123	91	75	50	38
15	70	99	264	343	129	323	332	130	92	60	67	41
16	70	90	231	335	196	295	242	127	84	60	52	38
17	70	89	225	369	315	276	198	118	73	91	45	275
18	70	89	246	304	376	247	176	121	66	518	41	263
19	71	111	224	267	395	231	166	124	61	234	38	128
20	74	102	201	835	494	219	156	133	58	132	34	84
21	78	142	180	1640	657	242	151	116	54	121	34	65
22	76	409	169	903	546	296	147	102	61	123	35	63
23	84	219	162	535	404	250	137	90	73	93	32	110
24	154	152	334	394	433	217	130	85	73	80	32	102
25	121	127	666	337	418	195	127	85	69	78	29	88
26	103	106	407	294	329	179	120	92	75	81	29	384
27	94	95	309	263	286	169	116	91	71	65	32	755
28	88	1320	255	235	1140	163	111	88	79	171	29	302
29	82	1220	219	212	---	156	105	90	71	179	30	174
30	79	557	189	193	---	152	106	138	66	124	30	120
31	79	---	166	188	---	151	---	150	---	92	30	---
TOTAL	2632	6350	11157	14501	8446	15516	5509	4242	2392	3370	2302	3435
MEAN	84.9	212	360	468	302	501	184	137	79.7	109	74.3	114
MAX	154	1320	1080	1640	1140	2550	610	272	135	518	323	755
MIN	70	79	162	167	129	151	105	85	54	50	29	28
CFSM	.33	.82	1.39	1.81	1.17	1.94	.71	.53	.31	.42	.29	.44
IN.	.38	.92	1.61	2.09	1.22	2.24	.79	.61	.34	.49	.33	.50

## RARITAN RIVER BASIN

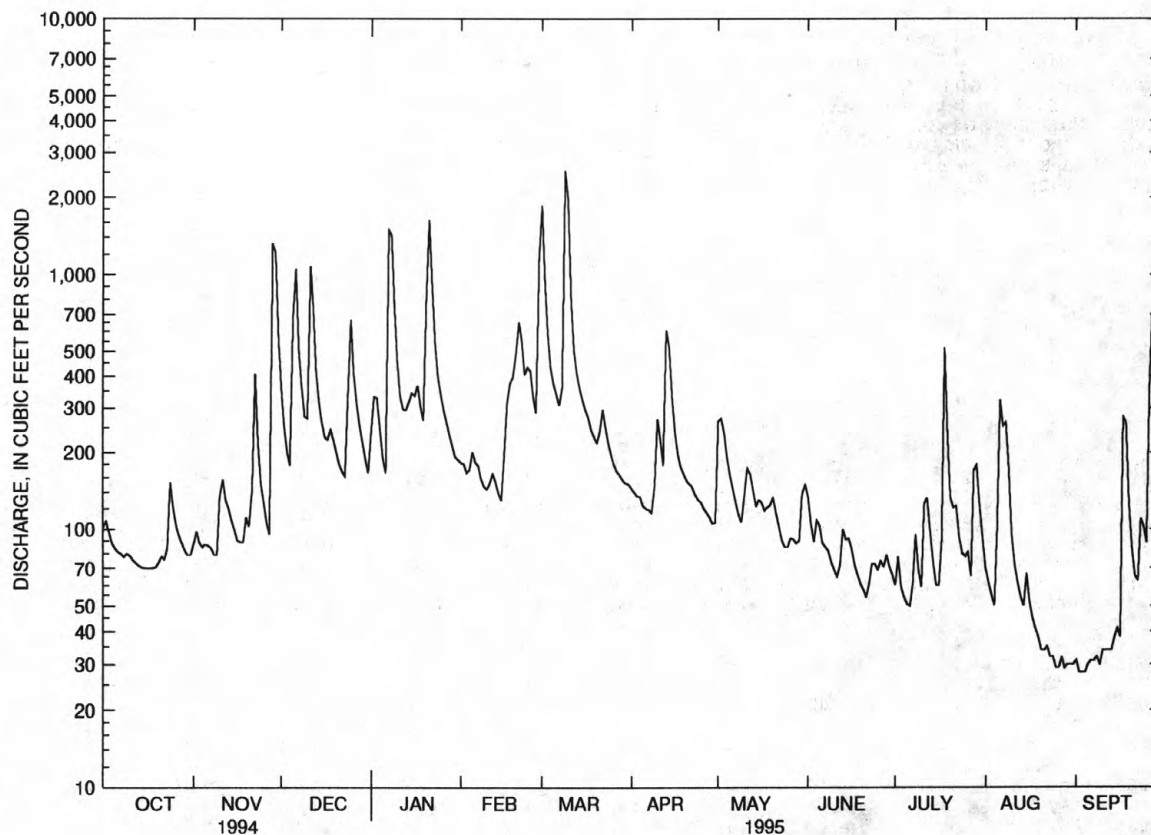
01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	187	332	460	502	568	693	534	355	233	242	218	219
MAX	838	1113	1344	1743	1199	1882	1520	1264	823	1808	1267	1277
(WY)	1928	1973	1984	1979	1925	1994	1983	1989	1989	1975	1971	1938
MIN	42.6	51.2	67.0	62.9	105	158	103	82.8	45.5	19.3	17.3	20.2
(WY)	1942	1966	1966	1981	1934	1985	1985	1963	1963	1966	1981	1980

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	186202		79852			
ANNUAL MEAN	510		219		378	
HIGHEST ANNUAL MEAN					690	
LOWEST ANNUAL MEAN					165	
HIGHEST DAILY MEAN	9430	Jan 29	2550	Mar 9	17400	Aug 28 1971
LOWEST DAILY MEAN	63	Jul 13	28	Sep 2	5.0	Sep 16 1923
ANNUAL SEVEN-DAY MINIMUM	71	Oct 13	29	Aug 29	6.3	Aug 7 1966
INSTANTANEOUS PEAK FLOW			2910	Mar 9	22200	Aug 28 1971
INSTANTANEOUS PEAK STAGE			7.28	Mar 9	18.68a	Aug 28 1971
INSTANTANEOUS LOW FLOW			27	Aug 26	5.0	Sep 16 1923
ANNUAL RUNOFF (CFSM)	1.98		.85		1.46	
ANNUAL RUNOFF (INCHES)	26.85		11.51		19.89	
10 PERCENT EXCEEDS	1300		414		811	
50 PERCENT EXCEEDS	212		129		196	
90 PERCENT EXCEEDS	81		53		58	

a From high-water mark.



01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ, DAILY MEAN DISCHARGE

## 01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-1969, 1973, 1976-1980, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
27...	1130	95	339	7.3	11.5	767	8.5	78	E1.8	230	10	94	
FEB 1995													
08...	1100	156	284	7.5	0.0	757	13.9	96	<1.0	50	10	73	
MAR													
22...	1100	296	232	7.7	11.0	748	9.9	91	2.6	130	80	60	
JUN													
07...	1100	87	302	7.3	22.5	750	5.5	65	3.7	790	290	84	
AUG													
16...	1100	50	273	7.0	25.0	760	4.4	53	<1.0	940	170	72	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
27...	21	10	26	4.9	51	39	30	0.2	5.1	192	184	7	
FEB 1995													
08...	17	7.5	20	3.2	35	28	30	0.2	12	164	157	3	
MAR													
22...	14	6.1	18	2.6	32	24	27	0.2	11	138	132	19	
JUN													
07...	19	8.8	25	4.4	49	32	31	0.3	5.4	180	167	17	
AUG													
16...	16	7.7	19	4.9	39	32	27	0.3	7.2	164	149	9	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
27...	0.016	3.90	0.21	0.05	0.50	0.43	4.4	4.3	0.37	0.30	3.6	--	
FEB 1995													
08...	0.016	4.00	0.11	0.09	0.30	0.37	4.3	4.4	0.24	0.21	2.5	0.4	
MAR													
22...	0.012	2.20	<0.03	<0.03	0.50	0.20	2.7	2.4	0.21	0.14	3.1	1.3	
JUN													
07...	0.029	2.70	0.13	0.12	0.70	0.62	3.4	3.3	0.39	0.30	3.6	1.1	
AUG													
16...	0.035	2.60	0.14	0.12	0.70	0.63	3.3	3.2	0.53	0.54	5.2	0.5	



## RARITAN RIVER BASIN

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 27...	1130	11	<1	<10	90	<1	<1	3
JUN 1995 07...	1100	17	1	<10	80	<1	<1	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 27...	250	<1	50	<0.1	1	<1	20
JUN 1995 07...	530	<1	110	<0.1	2	<1	30

LOCATION.--Lat 40°29'56", long 74°39'05", Somerset County, Hydrologic Unit 02030105, on right bank 25 ft upstream from bridge on State Highway 514 (Amwell Road), 1,200 ft upstream from mouth, and 2.0 mi north of Belle Mead.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 125 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2300	146	3.87	July 28	0130	*177	*4.08

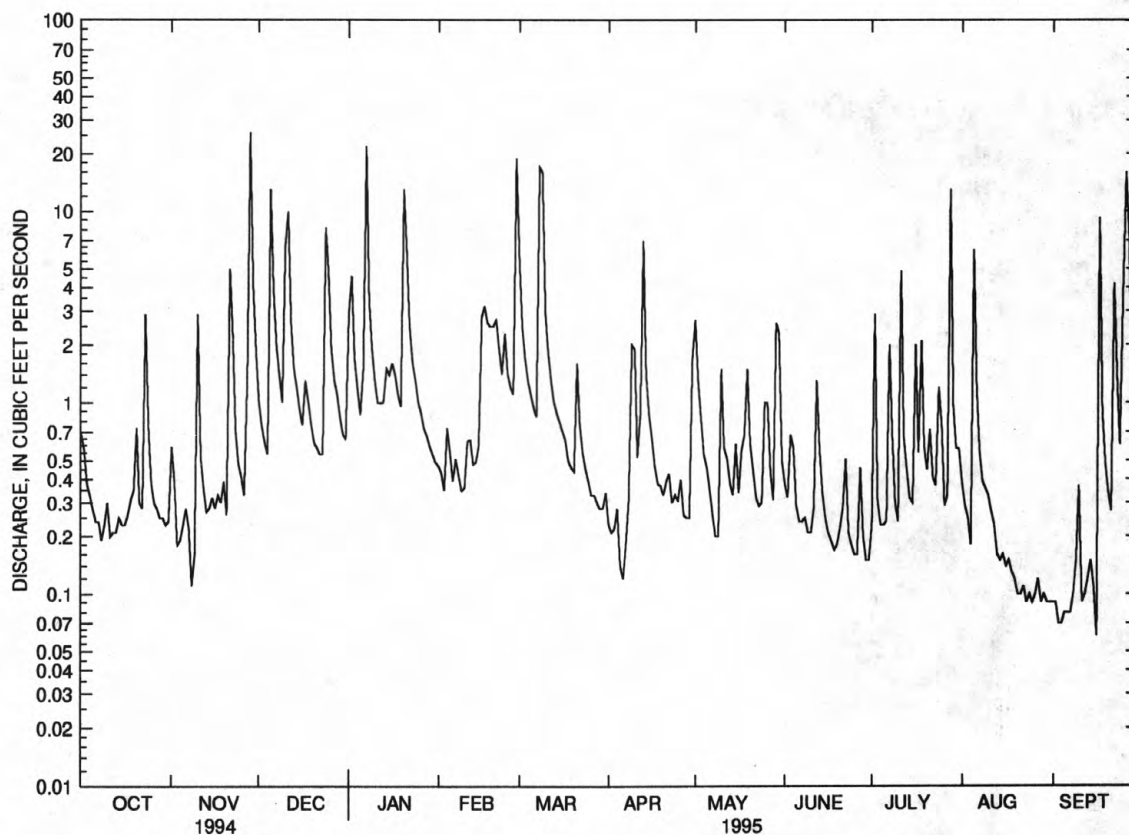
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.59	1.0	2.9	.47	5.7	.23	2.7	.38	.23	.39	.09
2	.57	.38	.75	4.6	.43	2.5	.21	1.3	.32	2.9	.29	.09
3	.38	.18	.62	1.7	.35	1.7	.22	.81	.68	.31	.25	.07
4	.33	.19	.54	1.2	.74	1.3	.28	.53	.58	.23	.18	.07
5	.28	.23	13	.86	.55	1.1	.14	.46	.29	.23	6.3	.08
6	.24	.28	3.9	1.5	.39	.94	.12	.35	.24	.24	1.2	.08
7	.24	.22	2.0	22	.51	.84	.18	.26	.24	2.0	.56	.08
8	.19	.11	1.4	3.4	.42	17	.31	.20	.25	.68	.39	.10
9	.23	.16	1.0	1.9	.35	16	2.0	.20	.21	.30	.36	.15
10	.30	2.9	6.6	1.3	.36	2.9	1.9	1.5	.21	.24	.33	.37
11	.20	.52	10	1.0	.63	1.8	.52	.58	.28	4.9	.27	.09
12	.21	.36	2.6	.99	.64	1.3	.86	.51	1.3	.66	.23	.10
13	.21	.27	1.5	1.0	.48	1.0	7.0	.38	.57	.45	.16	.12
14	.25	.28	1.2	1.5	.49	.88	1.4	.33	.34	.32	.15	.15
15	.23	.32	.92	1.4	.59	.79	.86	.61	.25	.30	.16	.11
16	.23	.28	.76	1.6	2.8	.71	.65	.34	.21	2.0	.14	.06
17	.26	.33	1.3	1.4	3.2	.64	.47	.56	.19	.55	.15	9.2
18	.31	.30	1.0	1.1	2.6	.50	.38	.68	.17	2.1	.13	.89
19	.35	.39	.77	.95	2.5	.46	.37	1.5	.18	.58	.12	.48
20	.74	.26	.62	13	2.5	.44	.33	.61	.22	.45	.10	.34
21	.30	5.0	.58	6.2	2.7	1.6	.39	.45	.28	.72	.10	.27
22	.28	2.2	.54	2.5	1.9	.76	.43	.32	.51	.41	.11	4.2
23	2.9	.71	.54	1.6	1.4	.55	.30	.29	.21	.37	.09	1.4
24	.74	.48	8.2	1.3	2.3	.45	.33	.30	.18	1.2	.10	.60
25	.38	.41	4.8	1.0	1.4	.39	.31	1.0	.16	.76	.09	3.6
26	.30	.33	1.9	.88	1.2	.33	.40	1.0	.16	.29	.10	16
27	.28	1.3	1.3	.73	1.1	.33	.26	.44	.46	.33	.12	7.6
28	.25	26	1.1	.67	19	.30	.25	.31	.20	13	.09	1.6
29	.25	4.1	.84	.59	---	.28	.25	2.6	.15	.96	.10	.97
30	.23	1.8	.68	.54	---	.28	1.7	2.3	.15	.58	.09	.74
31	.24	---	.65	.49	---	.34	---	.50	---	.57	.09	---
TOTAL	12.59	50.88	72.61	81.80	52.00	64.11	23.05	23.92	9.57	38.86	12.94	49.70
MEAN	.41	1.70	2.34	2.64	1.86	2.07	.77	.77	.32	1.25	.42	1.66
MAX	2.9	26	13	22	19	17	7.0	2.7	1.3	13	6.3	16
MIN	.19	.11	.54	.49	.35	.28	.12	.20	.15	.23	.09	.06
CFSM	.34	1.41	1.95	2.20	1.55	1.72	.64	.64	.27	1.04	.35	1.38
IN.	.39	1.58	2.25	2.54	1.61	1.99	.71	.74	.30	1.20	.40	1.54

MEAN	1.40	2.65	3.27	2.68	3.14	3.45	2.82	2.09	1.41	1.96	2.24	1.97
MAX	3.40	7.55	8.85	6.25	7.37	8.56	8.25	6.34	5.00	7.17	9.71	12.5
(WY)	1967	1986	1984	1975	1981	1994	1983	1989	1972	1984	1971	1971
MIN	.20	.57	.22	.031	.69	.98	.41	.42	.070	.015	.008	.000
(WY)	1969	1974	1990	1981	1980	1985	1985	1986	1971	1968	1972	1972

## RARITAN RIVER BASIN

01402600 ROYCE BROOK TRIBUTARY NEAR BELLE MEAD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	997.54		492.03			
ANNUAL MEAN	2.73		1.35		2.42	
HIGHEST ANNUAL MEAN					3.86	
LOWEST ANNUAL MEAN					1.34	
HIGHEST DAILY MEAN	78	Jan 28	26	Nov 28	160	Aug 28 1971
LOWEST DAILY MEAN	.11	Nov 8	.06	Sep 16	.00	Jul 10 1968
ANNUAL SEVEN-DAY MINIMUM	.20	Nov 3	.08	Sep 1	.00	Jul 10 1968
INSTANTANEOUS PEAK FLOW			177	Jul 28	1450	Aug 28 1971
INSTANTANEOUS PEAK STAGE					7.80	Aug 28 1971
INSTANTANEOUS LOW FLOW			.05	Sep 15	.05	Sep 15 1995
ANNUAL RUNOFF (CFSM)	2.28		1.12		2.01	
ANNUAL RUNOFF (INCHES)	30.92		15.25		27.36	
10 PERCENT EXCEEDS	6.7		2.6		5.2	
50 PERCENT EXCEEDS	.76		.47		.69	
90 PERCENT EXCEEDS	.27		.15		.11	



—— 01402600 ROYCE BROOK TRIB NEAR BELLE MEAD, NJ, DAILY MEAN DISCHARGE

## 01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, Hydrologic Unit 02030105, on right bank 1,000 ft downstream from Calco Dam and Cuckold Brook, 1,400 ft upstream of bridge on Interstate 287, 1.2 mi downstream from Millstone River, and 1.2 mi southwest of Bound Brook.

DRAINAGE AREA.--785 mi<sup>2</sup> (includes 11 mi<sup>2</sup> which drains into the Delaware and Raritan Canal).

PERIOD OF RECORD.--September 1903 to March 1909, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1966 published as "Raritan River at Bound Brook" (station 01403000).

REVISED RECORDS.--WSP 1552: 1903-07, 1946(M), 1949, 1952(P).

GAGE.--Water-stage recorder. Datum of gage is sea level. Sept. 12, 1903 to Mar. 31, 1909, nonrecording gages at highway bridge, 1.2 mi downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,000 ft upstream at datum 18.06 ft higher.

REMARKS.--Records good. Water diverted 1.2 mi above station by Elizabethtown Water Co. for municipal supply (see Raritan River basin, diversions). Flow regulated by Spruce Run and Round Valley Reservoirs (see Raritan River basin, reservoirs in). Diversions to and releases from Round Valley Reservoir (see Raritan River basin, diversions and station 01399690). Slight diurnal fluctuations at low flow. Several measurements of water temperature were made during the year. National Weather Service gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1030	*11,200	*25.22	No peaks above base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	186	784	725	602	4470	344	668	230	183	185	111
2	205	231	611	1190	562	2220	318	704	209	456	180	140
3	184	218	491	985	501	1490	301	572	226	241	161	182
4	160	174	424	682	475	1190	309	451	375	169	175	161
5	162	179	1680	371	581	1050	296	388	227	153	269	148
6	155	196	2550	545	531	956	269	363	154	143	727	157
7	133	187	1200	4680	621	890	263	327	171	200	461	156
8	153	167	886	3000	590	1040	265	268	173	253	405	155
9	179	168	694	1490	563	8780	326	228	150	217	314	170
10	175	312	658	1020	574	4070	681	298	167	169	203	225
11	161	344	3130	835	610	2120	601	380	174	397	180	198
12	146	233	1710	746	574	1590	443	368	450	336	174	164
13	159	205	993	731	476	1310	1630	348	390	181	148	155
14	153	202	790	852	472	1140	1260	311	232	160	128	173
15	151	202	685	1010	460	1010	833	304	236	161	204	168
16	140	185	582	1010	638	925	677	300	200	257	175	163
17	149	177	537	1020	906	907	541	266	160	272	155	621
18	153	179	605	836	919	759	457	351	145	1600	125	510
19	153	193	534	740	920	611	442	386	92	690	103	257
20	180	184	453	2450	1120	556	446	397	157	267	107	168
21	202	241	408	4200	1470	668	414	311	268	234	148	159
22	188	1040	382	2230	1240	835	397	237	1160	247	145	259
23	225	610	366	1410	959	679	410	196	305	220	169	483
24	388	317	598	1120	1170	591	348	177	209	188	191	254
25	245	247	1180	955	1200	519	313	215	214	219	176	171
26	169	243	791	837	890	419	300	267	237	201	172	1090
27	190	228	616	741	766	389	278	302	220	175	150	1500
28	191	3500	521	719	3720	403	262	249	202	756	165	572
29	181	3220	459	653	---	382	262	232	162	382	171	342
30	175	1220	382	595	---	372	274	511	141	271	156	169
31	171	---	356	627	---	365	---	335	---	202	151	---
TOTAL	5544	14988	26056	39005	24110	42706	13960	10710	7436	9600	6373	9181
MEAN	179	500	841	1258	861	1378	465	345	248	310	206	306
MAX	388	3500	3130	4680	3720	8780	1630	704	1160	1600	727	1500
MIN	133	167	356	371	460	365	262	177	92	143	103	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1995, BY WATER YEAR (WY)

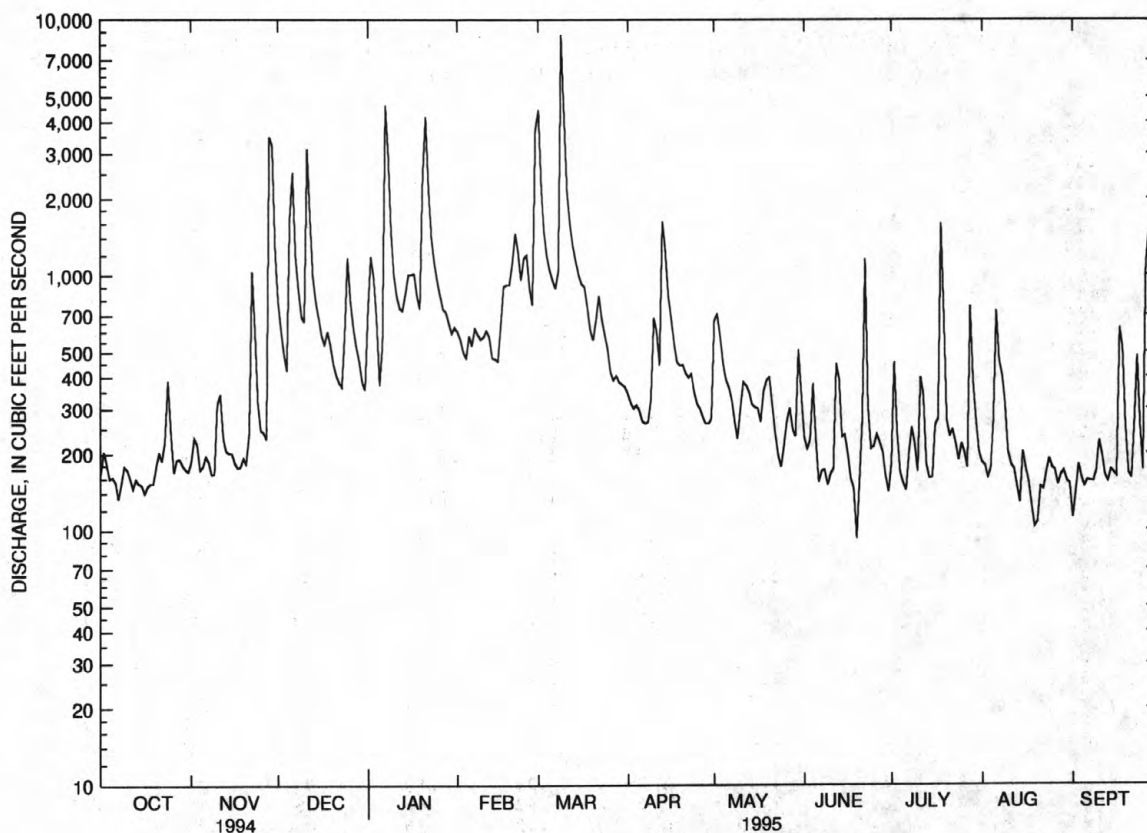
MEAN	641	1043	1466	1577	1691	2166	1762	1254	769	673	671	661
MAX	2953	3684	4172	5825	3232	5093	5326	3862	3883	4624	3576	3158
(WY)	1904	1973	1974	1979	1971	1994	1983	1989	1972	1975	1955	1975
MIN	113	138	178	179	485	454	230	329	117	84.7	69.9	76.1
(WY)	1958	1966	1966	1981	1980	1985	1985	1992	1965	1955	1957	1957

## RARITAN RIVER BASIN

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1903 - 1995	
ANNUAL TOTAL	458969		209669		1194	
ANNUAL MEAN	1257		574		2046	
HIGHEST ANNUAL MEAN					480	
LOWEST ANNUAL MEAN					1975	
HIGHEST DAILY MEAN	19000	Jan 29	8780	Mar 9	34100	Aug 28 1971
LOWEST DAILY MEAN	128	Sep 13	92	Jun 19	37	Sep 6 1964
ANNUAL SEVEN-DAY MINIMUM	141	Sep 11	136	Aug 17	46	Sep 4 1957
INSTANTANEOUS PEAK FLOW			11200	Mar 9	46100	Aug 28 1971
INSTANTANEOUS PEAK STAGE			25.22	Mar 9	37.47a	Aug 28 1971
INSTANTANEOUS LOW FLOW			22	Jun 19		
10 PERCENT EXCEEDS	3390		1150		2580	
50 PERCENT EXCEEDS	547		317		630	
90 PERCENT EXCEEDS	175		158		169	

a From floodmark, highest since 1896.



01403060 RARITAN RIVER BELOW CALCO DAM AT BOUND BROOK, NJ, DAILY MEAN DISCHARGE



## 01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

LOCATION.--Lat 40°36'44", long 74°35'28", Somerset County, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Crim Road, 1.4 mi northwest of Martinsville, and 1.8 mi upstream from confluence with East Branch, Middle Brook.

DRAINAGE AREA.--1.99 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NJ-91-1: 1990.

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above sea level (levels by Somerset County).

REMARKS.--Records fair. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2315	303	4.89	June 22	0400	*402	*5.67

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.53	.69	3.8	.76	7.8	.84	4.7	.50	.71	.46	.25
2	.28	.55	.67	8.9	.73	3.5	.80	1.6	.46	3.4	.41	.25
3	.21	.51	.66	1.7	.68	2.4	.80	1.3	1.7	.56	.41	.24
4	.20	.51	.65	1.2	.80	2.1	.86	1.0	.91	.46	.41	.24
5	.20	.51	17	.80	.74	1.9	.80	1.0	.49	.46	4.2	.24
6	.20	.54	2.2	.79	.69	1.8	.80	.88	.46	.46	.81	.23
7	.19	.56	1.2	51	.68	1.6	.80	.78	.51	1.6	.52	.23
8	.18	.53	1.0	3.2	.67	46	.87	.73	.51	.67	.44	.21
9	.19	.53	.73	1.8	.65	31	3.7	.72	.45	.51	.40	.26
10	.20	2.5	9.4	1.3	.66	3.7	3.8	1.4	.41	.50	.38	.42
11	.20	.57	16	1.1	.73	2.7	1.2	1.0	.41	4.2	.71	.29
12	.20	.45	1.7	1.1	.68	2.1	2.4	.92	1.3	.61	.42	.27
13	.20	.40	1.0	1.3	.58	1.9	26	.78	.68	.51	.37	.29
14	.20	.37	.84	2.4	.56	1.6	3.0	.71	.51	.49	.37	.30
15	.19	.37	.73	2.0	.58	1.5	2.0	.81	.48	.50	.75	.25
16	.18	.35	.73	2.1	1.8	1.4	1.6	.66	.40	2.6	.39	.25
17	.18	.36	.91	1.8	2.5	1.6	1.3	1.0	.36	.68	.36	6.2
18	.18	.37	.83	1.2	2.5	1.2	1.2	.87	.33	2.8	.34	.48
19	.19	.38	.71	1.2	3.3	1.1	1.2	1.3	.33	.61	.32	.34
20	.25	.34	.68	28	5.9	1.1	1.2	.82	.33	.49	.31	.33
21	.27	7.0	.67	7.2	5.7	2.5	1.0	.65	.43	.54	.30	.30
22	.26	1.8	.67	2.8	3.3	1.6	.98	.60	47	.49	.30	5.4
23	2.7	.58	.67	1.9	2.7	1.2	.93	.55	.96	.46	.29	1.1
24	.63	.47	6.5	1.6	5.7	1.2	.93	.51	.69	.52	.27	.43
25	.43	.44	2.8	1.3	2.4	1.0	.85	.70	.64	.44	.26	.86
26	.41	.39	1.2	1.1	1.7	.99	.80	.80	.58	.41	.27	25
27	.41	.92	.89	1.0	1.5	.93	.82	.59	1.4	.38	.26	2.6
28	.41	51	.82	.89	54	.93	.78	.52	.64	7.6	.26	.88
29	.41	2.1	.75	.77	---	.92	.73	.81	.53	.72	.27	.67
30	.41	.85	.72	.76	---	.86	1.7	1.9	.46	.53	.26	.61
31	.42	---	.69	.75	---	.86	---	.54	---	.46	.26	---
TOTAL	10.85	76.78	74.71	136.76	103.19	130.99	64.69	31.15	64.86	35.37	15.78	49.42
MEAN	.35	2.56	2.41	4.41	3.69	4.23	2.16	1.00	2.16	1.14	.51	1.65
MAX	2.7	51	17	51	54	46	26	4.7	47	7.6	4.2	25
MIN	.18	.34	.65	.75	.56	.86	.73	.51	.33	.38	.26	.21
CFSM	.18	1.29	1.21	2.22	1.85	2.12	1.08	.50	1.09	.57	.26	.83
IN.	.20	1.44	1.40	2.56	1.93	2.45	1.21	.58	1.21	.66	.29	.92

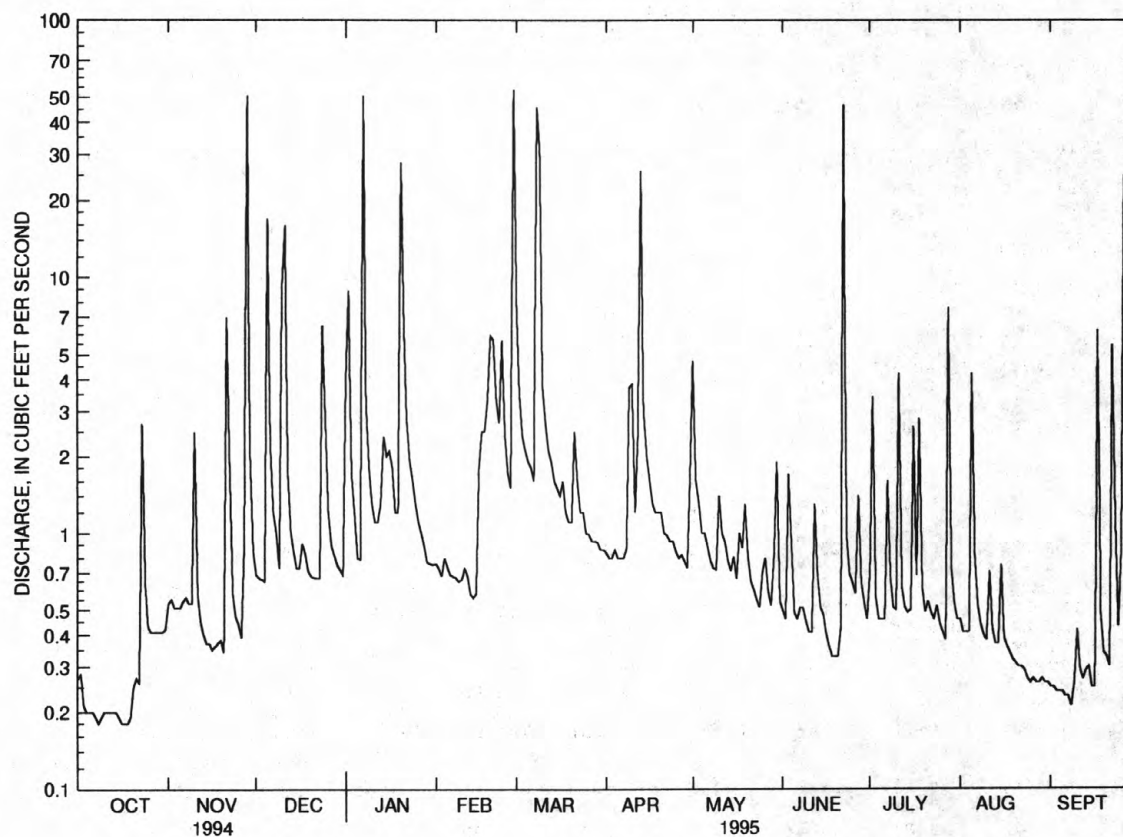
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1995, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	1.99	3.78	4.51	4.29	4.31	6.71	5.96	4.93	2.37	1.97	1.15	1.64					
MAX	9.28	10.5	11.5	9.20	9.02	21.4	11.6	19.4	6.88	6.40	5.85	7.43					
(WY)	1990	1989	1984	1991	1988	1994	1983	1989	1989	1984	1990	1989					
MIN	.22	.67	.18	.12	.92	1.64	.74	.76	.41	.083	.12	.11					
(WY)	1987	1981	1981	1981	1980	1985	1985	1986	1980	1980	1980	1980					

## RARITAN RIVER BASIN

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1979 - 1995	
ANNUAL TOTAL	1526.52		794.55		3.64	
ANNUAL MEAN	4.18		2.18		5.48	
HIGHEST ANNUAL MEAN					1.88	
LOWEST ANNUAL MEAN					181	
HIGHEST DAILY MEAN	150	Jan 28	54	Feb 28		Dec 11 1992
LOWEST DAILY MEAN	.08	Sep 21	.18	Oct 8	.00	Sep 19 1980
ANNUAL SEVEN-DAY MINIMUM	.13	Sep 11	.19	Oct 13	.00	Sep 19 1980
INSTANTANEOUS PEAK FLOW			402	Jun 22	1170a	May 16 1990
INSTANTANEOUS PEAK STAGE			5.67	Jun 22	6.21	May 16 1990
INSTANTANEOUS LOW FLOW			.18	Oct 1	.00	Sep 19 1980
ANNUAL RUNOFF (CFSM)	2.10		1.09		1.83	
ANNUAL RUNOFF (INCHES)	28.54		14.85		24.84	
10 PERCENT EXCEEDS	9.9		2.9		6.3	
50 PERCENT EXCEEDS	.56		.72		.82	
90 PERCENT EXCEEDS	.20		.27		.14	

a From rating curve extended above 200 ft<sup>3</sup>/s on basis of flood insurance study.

01403150 W B MIDDLE BROOK NEAR MARTINSVILLE, NJ, DAILY MEAN DISCHARGE

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ  
(National stream-quality accounting network)

LOCATION.--Lat 40°33'34", long 74°31'41", Somerset County, Hydrologic Unit 02030105, at Queens Bridge on Main street in Bound Brook, 1.7 mi upstream of Fieldsville Dam.

DRAINAGE AREA.--804 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1964-69, 1971-73, 1978, 1981 to current year. Published as "at Bound Brook" (station 01403000) 1964-66, and as "below Calco Dam at Bound Brook" (station 01403060) 1967-69.

REMARKS.--Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (station 01403060).

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 1994 23...	0935	675	273	7.6	8.5	8.8	761	10.1	86	K2100
MAR 1995 09...	1037	11500	146	7.2	5.0	82	762	11.4	89	>2000
JUN 01...	1110	215	335	7.9	21.5	4.0	765	9.7	110	220
AUG 17...	1053	155	331	7.6	26.5	2.3	759	7.3	91	K340
DATE	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L AS CACO3) (99430)		
NOV 1994 23...	>1200	83	21	7.4	17	3.7	62	50		
MAR 1995 09...	6400	37	9.5	3.3	11	2.4	26	22		
JUN 01...	78	96	24	8.8	26	3.5	66	54		
AUG 17...	100	91	23	8.2	26	4.1	54	44		
DATE	ALKA- LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	
NOV 1994 23...	51	27	27	0.1	7.5	154	150	0.01	1.70	
MAR 1995 09...	22	9.8	18	<0.1	8.3	98	81	<0.01	0.88	
JUN 01...	55	35	33	0.2	7.1	194	184	0.03	2.80	
AUG 17...	45	39	35	0.3	5.4	193	182	0.03	2.80	
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	
NOV 1994 23...	0.12	0.50	2.2	0.22	0.16	0.16	18	33	95	
MAR 1995 09...	0.07	1.3	2.2	0.48	0.07	0.06	427	13300	94	
JUN 01...	0.03	0.40	3.2	0.35	0.28	0.29	10	5.8	91	
AUG 17...	0.05	0.60	3.4	0.58	0.54	0.56	4	1.7	88	

## RARITAN RIVER BASIN

01403300 RARITAN RIVER AT QUEENS BRIDGE AT BOUND BROOK, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 1994 23...	0935	60	35	<3	160	<4	87
MAR 1995 09...	1037	1000	26	3	540	<4	78
JUN 01...	1110	30	41	<3	56	<4	25
AUG 17...	1053	<10	33	<3	73	4	38

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
NOV 1994 23...	10	<1	<1	<1.0	140	<6
MAR 1995 09...	<10	1	<1	<1.0	52	<6
JUN 01...	<10	4	<1	<1.0	180	<6
AUG 17...	<6	2	<1	<1.0	180	<6

## 01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'53", long 74°24'10", Somerset County, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft downstream from Blue Brook, 300 ft downstream from bridge on Diamond Hill Road, and 0.5 mi northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969; annual maximum, water years 1969-79, June 1979 to current year. Fragmentary records 1944-53 in the files of the Geological Survey. Crest-stage data 1927-38, 1958-68 in files of Union County Park Commission.

REVISED RECORDS.--WDR-NJ 81-1: 1979(M). WDR-NJ 87-1: 1971(M), 1973(M), 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft above sea level. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft downstream above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft, New Jersey Geological Survey datum, above lower Seeley Mills dam, discharge, 5,840 ft<sup>3</sup>/s, computed by State Water Policy Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2345	*247	*2.76	No peaks greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.8	2.7	7.8	3.9	29	2.4	18	3.3	8.1	2.4	1.5
2	1.4	2.4	2.5	13	e3.6	14	2.4	6.7	3.2	17	2.4	1.6
3	1.1	1.7	2.3	4.8	e3.4	9.7	2.3	5.0	11	3.8	2.3	1.9
4	1.1	1.7	2.2	3.9	e4.6	8.6	2.3	4.3	7.9	3.1	2.3	1.9
5	1.0	1.7	26	3.3	e5.4	7.6	2.1	4.4	3.7	2.9	8.6	2.0
6	1.0	1.8	7.3	3.5	e3.9	7.2	2.2	3.7	3.2	2.8	3.2	2.0
7	1.0	1.8	4.4	52	e4.3	6.7	2.5	3.3	3.3	4.9	2.4	2.0
8	1.0	1.7	3.9	14	e4.7	35	2.6	3.1	2.9	4.5	2.2	2.1
9	1.0	1.9	3.0	7.7	e4.7	69	7.8	3.1	2.8	2.8	2.1	2.2
10	1.2	10	12	5.6	e4.7	19	9.6	6.5	2.8	2.7	2.1	1.9
11	.85	2.3	21	5.1	e5.4	12	3.4	4.2	2.8	19	2.1	1.2
12	.91	1.9	5.5	4.9	e4.7	9.2	4.3	16	23	8.7	2.0	1.2
13	.90	1.8	3.8	5.2	e4.4	7.6	26	9.9	5.9	3.4	2.0	1.3
14	.92	1.8	3.4	6.4	e4.0	6.8	7.8	6.6	4.7	3.0	2.0	1.4
15	.87	1.8	3.1	6.2	e4.8	6.1	5.4	7.0	3.7	2.8	4.7	1.3
16	.73	1.9	2.8	9.3	e14	5.4	4.5	5.5	3.1	4.5	2.1	1.3
17	.60	1.9	3.6	9.2	e9.6	e8.2	4.1	9.5	2.9	10	2.0	14
18	.62	2.0	3.2	6.0	e7.5	e5.3	3.7	9.1	2.9	49	1.9	1.5
19	.63	2.3	2.8	5.5	e7.4	e4.9	3.7	8.0	2.7	6.5	1.8	1.3
20	1.1	1.9	2.6	54	e7.8	e5.0	3.6	6.0	2.9	3.5	1.8	1.3
21	.93	16	2.6	30	e11	e8.9	3.7	4.8	7.4	3.2	1.8	1.3
22	.86	8.9	2.5	13	e7.4	e5.5	3.6	4.0	33	3.0	1.8	9.4
23	4.3	2.7	2.4	8.5	e6.4	e4.5	3.4	3.6	4.1	2.8	1.6	2.6
24	1.8	2.3	13	7.0	13	e4.0	3.4	3.4	3.5	3.2	1.6	1.5
25	1.2	2.3	7.4	6.0	8.3	e3.5	3.3	4.2	3.2	3.4	1.6	2.6
26	1.2	2.2	4.0	5.3	6.9	e3.0	3.2	4.7	3.0	2.8	1.6	28
27	1.3	2.6	3.4	4.9	6.0	2.8	3.3	3.4	6.2	2.5	1.6	4.2
28	1.4	57	3.2	4.4	68	2.7	3.3	3.1	3.2	27	1.5	1.8
29	1.5	6.9	3.0	4.0	---	2.6	3.1	7.0	2.8	3.5	1.5	1.6
30	1.7	3.4	2.6	3.8	---	2.6	5.7	13	2.7	2.8	1.5	1.6
31	1.7	---	2.6	3.9	---	2.6	---	3.8	---	2.5	1.5	---
TOTAL	37.42	152.4	164.8	318.2	239.8	319.0	138.7	194.9	167.8	219.7	70.0	99.5
MEAN	1.21	5.08	5.32	10.3	8.56	10.3	4.62	6.29	5.59	7.09	2.26	3.32
MAX	4.3	57	26	54	68	69	26	18	33	49	8.6	28
MIN	.60	1.7	2.2	3.3	3.4	2.6	2.1	3.1	2.7	2.5	1.5	1.2
CFSM	.19	.82	.85	1.65	1.37	1.65	.74	1.01	.90	1.14	.36	.53
IN.	.22	.91	.98	1.90	1.43	1.90	.83	1.16	1.00	1.31	.42	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1995, BY WATER YEAR (WY)

MEAN	6.38	10.1	12.2	11.2	11.4	17.7	18.6	13.3	7.55	6.79	4.92	5.61
MAX	22.8	22.4	46.9	20.6	20.9	40.9	41.1	42.0	23.3	18.9	16.1	24.6
(WY)	1990	1986	1984	1991	1984	1994	1983	1989	1992	1984	1990	1989
MIN	1.21	2.04	2.57	1.67	2.95	5.11	3.50	4.48	2.74	1.68	1.33	1.68
(WY)	1995	1982	1981	1981	1980	1985	1985	1986	1981	1993	1981	1994



## RARITAN RIVER BASIN

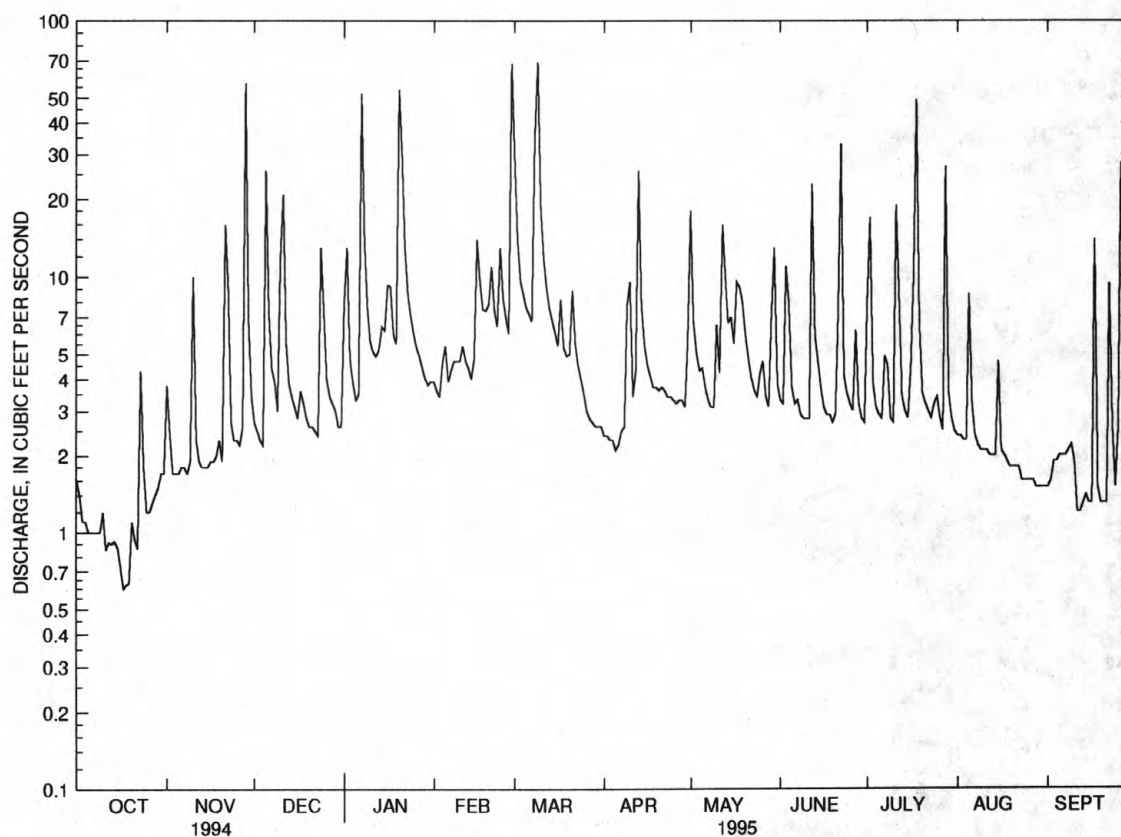
01403400 GREEN BROOK AT SEELEY MILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1979 - 1995
ANNUAL TOTAL	3560.62	2122.22	
ANNUAL MEAN	9.76	5.81	10.5
HIGHEST ANNUAL MEAN			18.2
LOWEST ANNUAL MEAN			5.16
HIGHEST DAILY MEAN	183 Jan 28	69 Mar 9	407 Apr 5 1984
LOWEST DAILY MEAN	.60 Oct 17	.60 Oct 17	.00 Sep 11 1981
ANNUAL SEVEN-DAY MINIMUM	.75 Oct 13	.75 Oct 13	.05 Sep 24 1981
INSTANTANEOUS PEAK FLOW		247 Mar 8	6240a Aug 2 1973
INSTANTANEOUS PEAK STAGE		2.76 Mar 8	16.10b Aug 2 1973
INSTANTANEOUS LOW FLOW		.60 Oct 16	.00 Sep 11 1981
ANNUAL RUNOFF (CFSM)	1.57	.93	1.68
ANNUAL RUNOFF (INCHES)	21.26	12.67	22.84
10 PERCENT EXCEEDS	24	10	20
50 PERCENT EXCEEDS	3.1	3.4	5.1
90 PERCENT EXCEEDS	1.3	1.5	1.6

a From rating curve extended above 600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

b Site and datum then in use.

c Estimated.



01403400 GREEN BROOK AT SEELEY MILLS, NJ, DAILY MEAN DISCHARGE

## 01403535 EAST BRANCH STONY BROOK AT BEST LAKE, AT WATCHUNG, NJ

LOCATION.--Lat 40°38'25", long 74°26'52", Somerset County, Hydrologic Unit 02030105, 700 ft upstream of dam on Best Lake in Watchung, 1,400 ft upstream of mouth, and 0.5 mi northeast of Watchung.

DRAINAGE AREA.--1.57 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 193.87 ft above sea level (levels by Somerset County).

REMARKS.--Records fair except those below 2.0 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Records given herein represent flow over dam and leakage through ports in dam. Several measurements of water temperature were made during the year. Rain-gage and gage-height radio telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Somerset County.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 2, 1973, reached a stage of 5.4 ft, present datum, from floodmarks, discharge, 2,840 ft<sup>3</sup>/s, by computation of flow over dam, embankment, and road.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
June 22	0315	*204	*1.96	Aug. 5	1800	110	1.70

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.13	.59	1.6	e.84	7.0	.79	4.6	.65	1.2	.48	e.46
2	.32	.16	.56	3.6	e.79	4.0	.77	1.9	.61	6.7	.43	e.46
3	.30	.14	.51	1.2	e.73	2.9	.66	1.3	1.7	.99	.38	e.38
4	.27	.12	.48	.78	.98	2.4	.75	1.1	1.3	.66	.32	e1.8
5	.24	.11	6.0	.61	1.0	2.2	.62	1.3	.65	.65	5.9	e.75
6	.22	.10	2.1	.57	e.76	2.4	.61	1.2	.60	.63	1.2	e.44
7	.19	.10	.87	19	e.76	2.9	.62	2.1	.59	1.2	.59	e.43
8	.17	.09	.84	3.0	e.81	12	.66	1.0	.57	.83	.47	e.40
9	.15	.08	.66	1.5	e.78	16	1.7	1.2	.54	.51	.40	e.39
10	.15	.24	2.9	.95	e.79	4.5	2.4	2.0	.53	.48	.36	e.39
11	.13	.28	5.8	.79	e.84	4.1	1.0	1.5	.59	6.6	.33	e.42
12	.11	.27	1.4	.72	e.77	3.6	1.0	7.4	6.0	3.4	.30	e.38
13	.09	.24	.82	.76	1.2	3.2	7.6	3.9	1.8	1.6	.26	e.38
14	.07	.20	.70	1.0	1.3	2.7	2.5	2.2	.94	.89	.23	e.36
15	.05	.17	.61	1.1	e1.7	2.6	1.7	2.2	.68	.65	.35	e.60
16	.03	.14	.61	2.2	e1.9	2.5	1.3	1.6	.51	2.3	.35	e.40
17	.01	.12	.69	2.3	e1.8	2.3	1.3	3.3	.49	3.7	.30	2.7
18	.00	.10	.67	1.2	e1.7	1.6	1.3	3.3	.46	8.0	.26	.48
19	.00	.10	.56	.95	e2.0	1.6	1.3	2.7	.43	1.2	.22	.39
20	.00	.09	.50	14	3.0	1.5	1.1	1.8	.42	.75	.19	.37
21	.02	1.3	.47	7.1	4.1	2.3	1.2	1.3	.60	.62	e.18	.34
22	.03	1.3	.47	3.3	3.1	1.8	.99	1.1	16	.54	e.17	2.2
23	.07	.52	.47	2.1	2.4	1.3	.79	.93	1.1	.44	e.18	1.0
24	.19	.44	2.3	1.5	4.6	1.3	.79	.84	.65	.50	e.20	.46
25	.16	.38	1.9	1.2	2.8	1.1	1.0	1.3	.59	.93	e.19	.50
26	.12	.33	.76	.99	2.0	1.1	1.0	1.1	.60	.43	e.17	7.9
27	.10	.31	.66	e1.1	1.7	1.0	.68	.98	2.0	.38	e.16	1.9
28	.09	14	.62	e.99	21	.94	.66	.74	1.0	12	e.19	.57
29	.09	1.7	.56	e.89	---	.80	.64	.98	.71	.90	e.19	.48
30	.08	.67	.49	e.85	---	.89	1.4	2.5	.61	.59	e.19	.46
31	.08	---	.48	e.84	---	.86	---	.82	---	.52	e.17	---
TOTAL	3.82	23.93	37.05	78.69	66.15	95.39	38.83	60.19	43.92	60.79	15.31	28.19
MEAN	.12	.80	1.20	2.54	2.36	3.08	1.29	1.94	1.46	1.96	.49	.94
MAX	.32	14	6.0	19	21	16	7.6	7.4	16	12	5.9	7.9
MIN	.00	.08	.47	.57	.73	.80	.61	.74	.42	.38	.16	.34
CFSM	.08	.51	.76	1.62	1.50	1.96	.82	1.24	.93	1.25	.31	.60
IN.	.09	.57	.88	1.86	1.57	2.26	.92	1.43	1.04	1.44	.36	.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

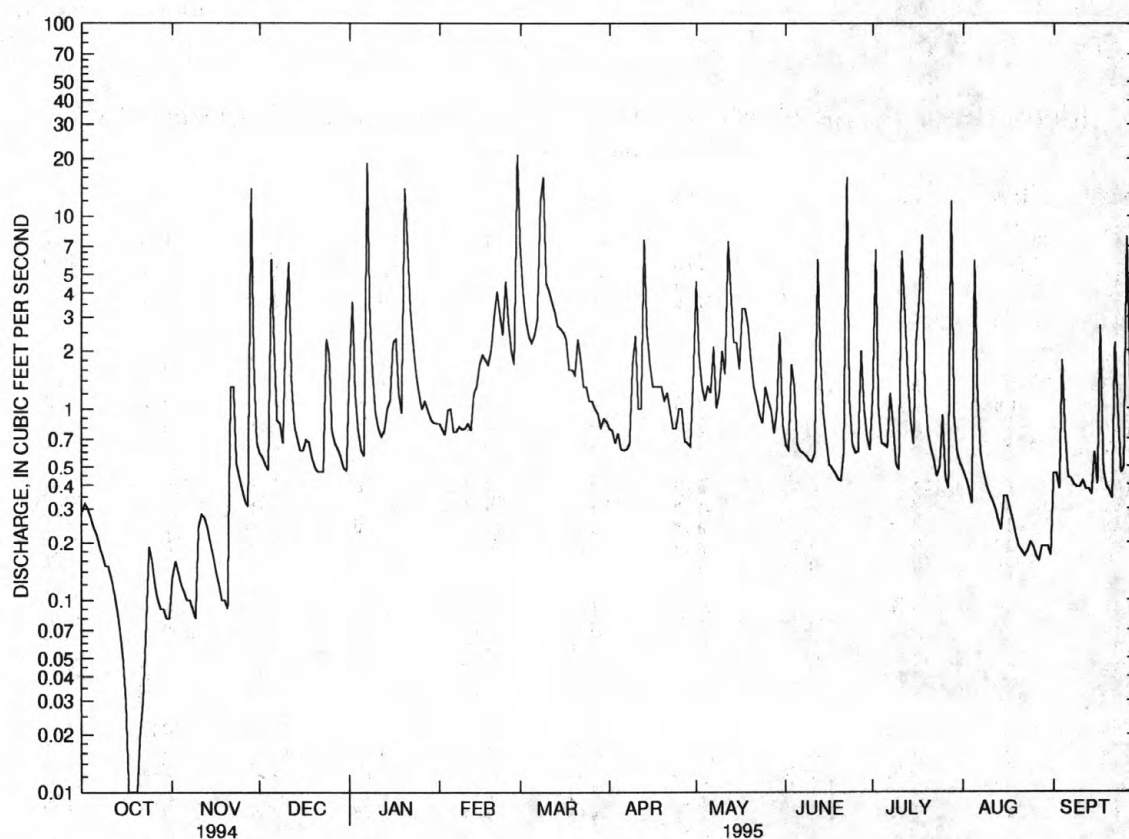
MEAN	1.31	2.71	3.18	2.83	3.16	4.40	4.50	3.53	1.82	1.48	.90	.97
MAX	4.91	5.73	10.1	5.62	5.75	10.7	10.2	10.9	4.97	4.53	2.19	4.65
(WY)	1990	1986	1984	1991	1984	1994	1983	1989	1992	1984	1990	1989
MIN	.12	.80	.52	.068	1.40	1.67	.82	1.25	.56	.36	.095	.24
(WY)	1995	1995	1981	1981	1992	1981	1985	1986	1993	1980	1980	1994

## RARITAN RIVER BASIN

01403535 EAST BRANCH STONY BROOK AT BEST LAKE, AT WATCHUNG, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1980 - 1995	
ANNUAL TOTAL	844.05		552.26		2.58	
ANNUAL MEAN	2.31		1.51		4.47	
HIGHEST ANNUAL MEAN					1.48	
LOWEST ANNUAL MEAN					91	
HIGHEST DAILY MEAN	77	Jan 28	21	Feb 28	Jun 5 1992	
LOWEST DAILY MEAN	.00	Jan 26	.00	Oct 18	Aug 30 1980	
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 16	.01	Oct 16	Sep 3 1980	
INSTANTANEOUS PEAK FLOW			204	Jun 22	Nov 28 1993	
INSTANTANEOUS PEAK STAGE			1.96	Jun 22	Nov 28 1993	
INSTANTANEOUS LOW FLOW			.09	Oct 19	Aug 30 1980	
ANNUAL RUNOFF (CFSM)	1.47		.96		1.64	
ANNUAL RUNOFF (INCHES)	20.00		13.09		22.30	
10 PERCENT EXCEEDS	5.9		3.0		5.2	
50 PERCENT EXCEEDS	.53		.76		1.0	
90 PERCENT EXCEEDS	.11		.16		.25	

e Estimated.



01403535 E B STONY BROOK AT BEST LAKE AT WATCHUNG, NJ, DAILY MEAN DISCHARGE

## 01403540 STONY BROOK AT WATCHUNG, NJ

LOCATION.--Lat 40°38'12", long 74°27'06", Somerset County, Hydrologic Unit 02030105, on right bank at Watchung Borough Administration Building, 150 ft downstream from bridge on Mountain Boulevard, and 2.9 mi upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-86-1: 1973 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 172.24 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges and those below 1.0 ft<sup>3</sup>/s, which are poor. Occasional regulation from Watchung and Best Lakes directly upstream from station and other small lakes. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 14.5 ft, from floodmark, discharge, 10,500 ft<sup>3</sup>/s, from slope-area measurements of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 8	2345	331	2.42	July 28	0245	*552	*2.73
June 22	0345	343	2.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	3.6	7.7	4.2	23	4.0	14	8.8	2.4	2.3	e.40
2	1.7	1.1	3.2	14	4.2	14	3.8	6.7	2.6	18	2.0	e.44
3	.98	.98	2.8	6.6	3.8	11	3.8	5.6	2.9	2.8	1.7	e.45
4	e.85	.90	2.6	5.3	4.9	9.7	3.9	4.7	2.2	2.5	1.6	e.42
5	e.85	.90	21	4.3	4.3	8.9	3.6	4.6	1.7	2.6	7.0	e.42
6	e.80	1.7	8.8	4.3	3.8	8.5	3.4	4.2	1.6	2.3	3.9	e.46
7	e.74	1.2	5.3	55	3.8	8.0	3.3	3.9	1.6	3.1	1.7	e.44
8	e.68	.96	6.0	11	3.8	36	3.6	3.5	1.6	3.2	1.7	e.49
9	e.68	.93	4.4	7.5	3.8	54	5.6	3.4	1.6	2.2	1.6	e.55
10	e.62	3.4	9.9	6.1	3.8	15	10	5.5	1.6	2.0	1.6	2.5
11	e.60	1.6	21	5.5	3.9	12	4.6	4.8	1.6	14	1.7	e.49
12	e.55	1.1	6.7	5.3	3.8	11	4.6	17	6.4	4.6	1.7	e.40
13	e.49	1.1	5.1	5.4	3.6	9.7	22	9.0	3.8	2.5	1.6	e.36
14	e.43	.98	4.4	6.3	3.8	8.8	8.1	5.9	3.2	2.1	1.6	e.35
15	e.37	.98	4.2	6.1	3.8	8.2	6.5	6.1	2.9	2.2	1.6	e.34
16	e.33	.98	4.4	7.8	6.4	7.8	5.7	4.9	1.8	5.7	1.8	e.35
17	e.30	.98	4.2	8.6	7.2	8.2	5.3	8.5	1.8	4.8	1.6	12
18	e.27	.99	4.2	6.6	7.0	7.0	4.9	9.8	1.6	18	1.4	1.4
19	e.26	1.1	3.7	6.5	7.7	6.5	5.1	7.5	1.6	3.8	1.2	.71
20	e.28	.98	3.4	41	10	6.2	4.6	6.1	1.6	2.8	1.1	.64
21	e.35	9.3	3.2	21	12	7.6	4.7	4.7	2.2	2.3	1.1	e.74
22	e.44	6.9	3.0	11	10	6.3	4.6	4.3	45	2.2	1.1	e6.5
23	1.7	1.9	3.0	8.6	8.6	5.4	4.2	3.8	4.3	2.0	1.0	e3.9
24	2.0	1.5	10	7.8	15	5.1	4.1	17	3.3	2.2	1.1	e1.7
25	1.1	1.4	9.2	7.2	9.9	4.9	3.9	7.0	2.8	3.8	1.1	e1.8
26	1.1	1.3	5.2	6.0	8.0	4.7	3.8	3.5	2.3	2.0	1.1	e25
27	.98	1.6	4.3	5.4	7.3	4.6	3.8	3.6	5.4	2.1	1.0	e7.7
28	.91	50	4.2	4.9	66	4.4	3.8	3.4	3.3	57	.98	e2.0
29	.88	8.1	3.9	4.6	---	4.2	3.5	3.4	2.3	4.9	1.1	e1.7
30	1.2	4.4	3.6	4.4	---	4.2	4.8	8.1	1.8	3.5	1.1	e1.5
31	1.0	---	3.4	4.3	---	4.2	---	2.0	---	2.3	1.1	---
TOTAL	25.04	110.46	181.9	306.1	234.4	329.1	157.6	196.5	125.2	185.9	52.18	76.15
MEAN	.81	3.68	5.87	9.87	8.37	10.6	5.25	6.34	4.17	6.00	1.68	2.54
MAX	2.0	50	21	55	66	54	22	17	45	57	7.0	25
MIN	.26	.90	2.6	4.3	3.6	4.2	3.3	2.0	1.6	2.0	.98	.34
CFSM	.15	.67	1.06	1.79	1.52	1.93	.95	1.15	.76	1.09	.31	.46
IN.	.17	.75	1.23	2.07	1.58	2.22	1.06	1.33	.85	1.26	.35	.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1995, BY WATER YEAR (WY)

MEAN	5.26	9.12	12.1	13.3	11.9	17.9	16.3	12.1	6.75	6.20	3.82	4.76
MAX	17.9	22.2	37.1	37.5	20.1	45.0	38.3	37.8	20.1	32.1	11.0	18.6
(WY)	1990	1978	1984	1979	1988	1994	1983	1989	1992	1975	1990	1975
MIN	.81	1.94	1.79	1.08	3.60	5.60	3.89	3.42	2.27	1.27	.81	.87
(WY)	1995	1977	1981	1981	1980	1985	1985	1986	1980	1977	1981	1983

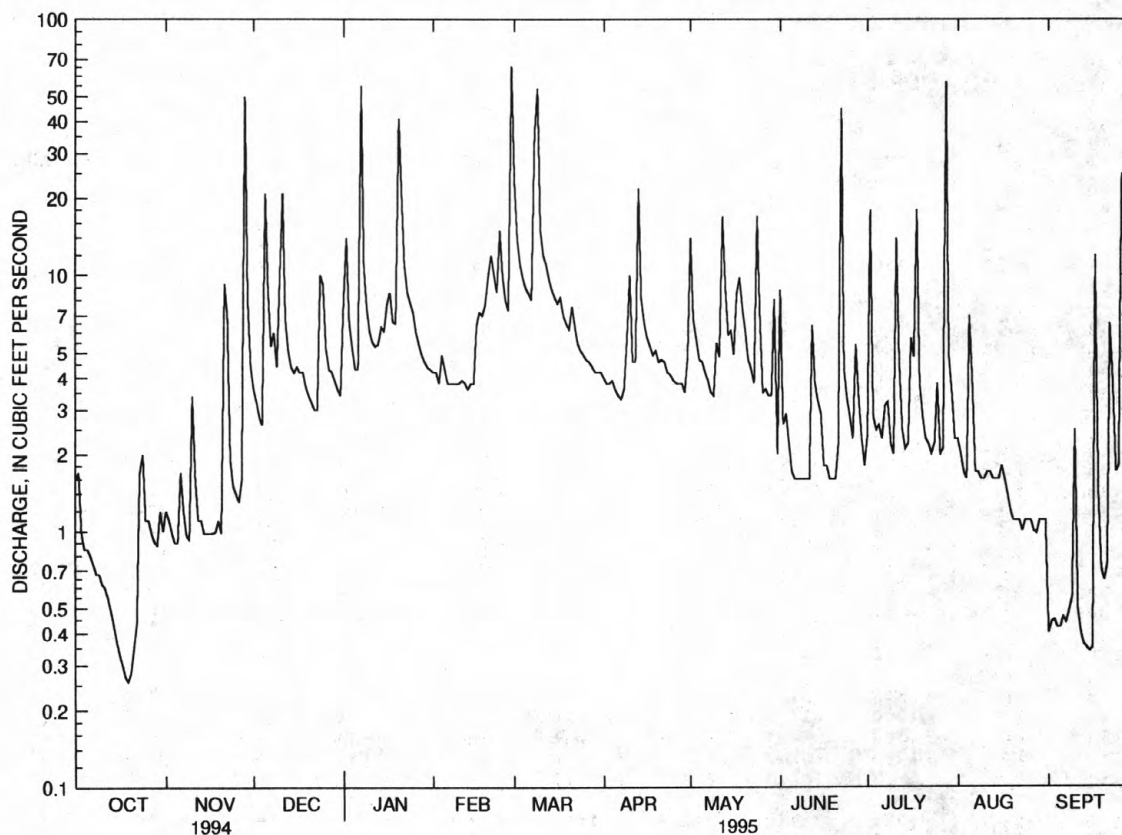
## RARITAN RIVER BASIN

01403540 STONY BROOK AT WATCHUNG, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1975 - 1995	
ANNUAL TOTAL	3638.66		1980.53		9.96	
ANNUAL MEAN	9.97		5.43		16.0	
HIGHEST ANNUAL MEAN					5.43	
LOWEST ANNUAL MEAN					375	
HIGHEST DAILY MEAN	226	Mar 10	66	Feb 28	Nov 28	1993
LOWEST DAILY MEAN	.26	Oct 19	.26	Oct 19	Sep 18	1982
ANNUAL SEVEN-DAY MINIMUM	.31	Oct 15	.31	Oct 15	Sep 13	1982
INSTANTANEOUS PEAK FLOW			552	Jul 28	4420a	Jul 14 1975
INSTANTANEOUS PEAK STAGE			2.73	Jul 28	10.40	Jul 14 1975
INSTANTANEOUS LOW FLOW			---		.00	Sep 13 1982
ANNUAL RUNOFF (CFSM)	1.81		.98		1.81	
ANNUAL RUNOFF (INCHES)	24.57		13.37		24.55	
10 PERCENT EXCEEDS	26		9.9		20	
50 PERCENT EXCEEDS	3.0		3.8		4.6	
90 PERCENT EXCEEDS	.92		.85		1.1	

a From rating curve extended above 500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

e Estimated.



01403540 STONY BROOK AT WATCHUNG, NJ, DAILY MEAN DISCHARGE



## 01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ

LOCATION.--Lat 40°28'59", long 74°24'45". Middlesex County, Hydrologic Unit 02030105, on left bank at dam on Westons Mill Pond at Westons Mills, 200 ft downstream from bridge on State Route 18, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi<sup>2</sup>.

PERIOD OF RECORD.--Water-quality records water years 1976-81. December 1988 to October 1994, July 1995 to current year.

REVISED RECORDS.--WDR NJ-89-1: Drainage area.

GAGE.--Water-stage recorder above masonry dam. Datum of gage is sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Records given herein include flow over dam and through bypass gates. Gates open Nov. 7-14, 16-17, Mar. 16-17, 21-22, 28-29, and April 11-13, 18-20. Flow regulated by Farrington Lake, capacity, 655,250,000 gal. Diversion at gage by New Brunswick Water Department (records given herein). Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of gate openings and diversions provided by employees of City of New Brunswick.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	20	35	30	33	101	24	73	15	12	6.0	.31
2	36	23	30	43	28	75	22	39	16	24	4.7	.15
3	33	16	27	41	16	58	23	26	16	15	1.9	.06
4	36	17	25	58	22	49	23	14	33	9.9	.97	1.0
5	34	16	93	53	20	44	20	16	21	4.5	37	.03
6	32	10	83	51	9.9	38	20	21	16	6.0	81	.16
7	32	e24	41	165	16	33	21	20	24	15	25	.03
8	30	e18	30	48	17	49	22	18	19	23	15	.00
9	31	e18	22	53	17	350	38	17	16	14	10	.00
10	31	e18	33	70	18	90	63	33	14	11	7.5	.00
11	27	e18	108	68	21	56	e28	32	14	51	7.7	.01
12	21	e18	52	66	22	46	e20	25	15	29	7.5	.06
13	20	e10	38	63	19	41	e143	23	25	19	6.3	.00
14	19	e6.6	29	59	19	38	63	22	21	12	3.6	.05
15	18	11	18	54	21	36	42	25	22	7.8	5.1	.00
16	19	e51	28	61	45	e35	33	24	14	22	3.6	.00
17	17	e44	48	60	48	e33	29	22	8.9	23	1.5	155
18	19	11	46	45	45	30	e28	25	7.9	284	.88	77
19	18	25	43	37	46	29	e25	30	6.5	42	.00	23
20	20	17	39	100	46	29	e22	28	5.7	21	.00	16
21	22	39	38	62	58	e40	14	24	4.5	27	.00	12
22	15	43	33	53	63	e35	12	18	42	26	.03	27
23	35	22	21	57	60	32	7.2	16	21	21	.00	46
24	28	21	53	62	66	29	4.5	13	14	19	.00	21
25	17	21	43	56	58	26	5.9	23	12	14	.00	20
26	14	20	37	57	49	25	1.2	27	11	13	.21	110
27	12	14	37	54	31	15	13	19	15	7.6	.00	96
28	12	211	35	50	99	e26	16	18	16	62	.06	34
29	13	106	35	37	---	e26	16	23	14	34	.55	22
30	13	48	48	33	---	26	24	36	12	20	.00	18
31	13	---	24	33	---	25	---	21	---	6.7	.72	---
TOTAL	723	936.6	1272	1779	1012.9	1565	822.8	771	491.5	895.5	226.82	678.86
MEAN	23.3	31.2	41.0	57.4	36.2	50.5	27.4	24.9	16.4	28.9	7.32	22.6
MAX	36	211	108	165	99	350	143	73	42	284	81	155
MIN	12	6.6	18	30	9.9	15	1.2	13	4.5	4.5	.00	.00
(t)	.58	.19	.68	1.56	.14	.05	3.00	1.78	1.25	.71	1.20	.81

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995
MEAN	33.2	36.4	67.7	56.6	44.3	80.9	67.7
MAX	89.4	59.6	174	82.1	62.6	179	116
(WY)	1990	1993	1993	1991	1990	1993	1989
MIN	13.1	14.6	15.3	28.0	21.3	44.7	27.4
(WY)	1993	1992	1990	1992	1992	1992	1995

## RARITAN RIVER BASIN

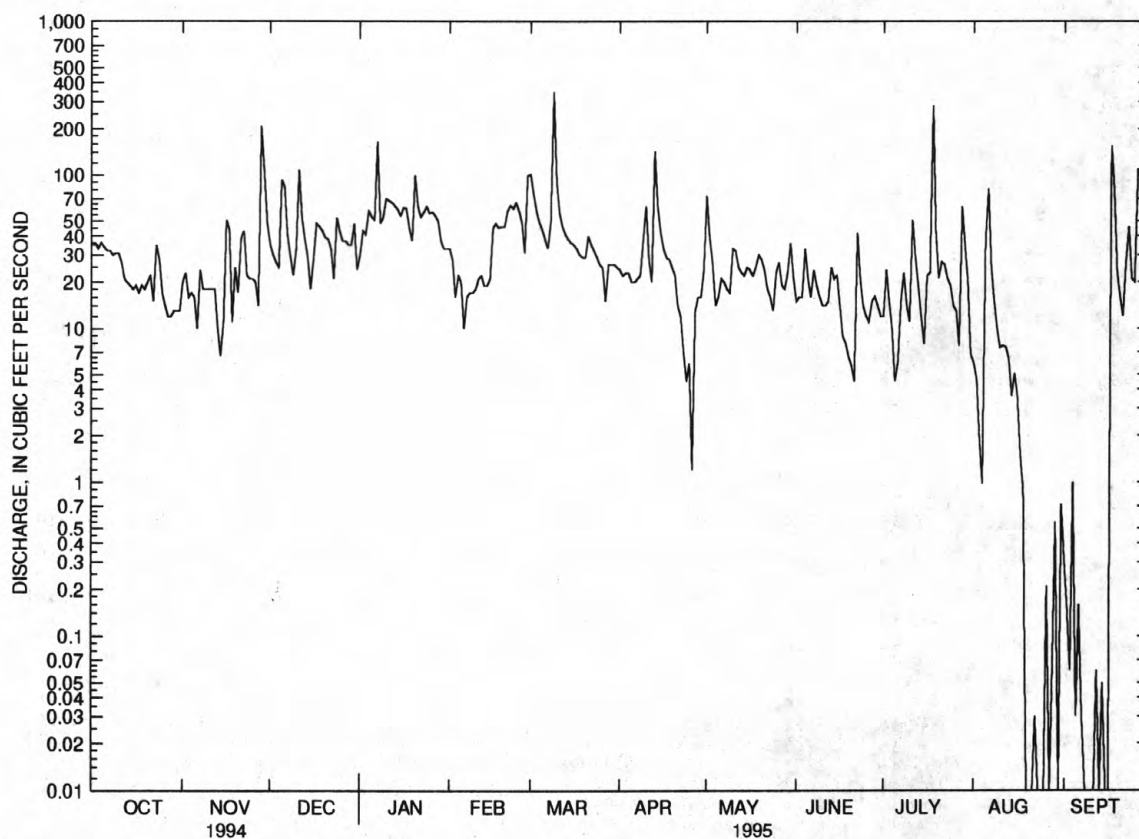
01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ--Continued

SUMMARY STATISTICS	FOR 1995 WATER YEAR	WATER YEARS 1989 - 1995
ANNUAL TOTAL	11174.98	
ANNUAL MEAN	30.6	48.2
HIGHEST ANNUAL MEAN		68.7
LOWEST ANNUAL MEAN		30.6
HIGHEST DAILY MEAN	350 Mar 9	2200 Sep 21 1989
LOWEST DAILY MEAN	.00 Many days	.00 Many days
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 19	.00 Aug 19 1995
INSTANTANEOUS PEAK FLOW	551 Jul 18	4850a Sep 21 1989
INSTANTANEOUS PEAK STAGE	16.62 Jul 18	19.20 Sep 21 1989
INSTANTANEOUS LOW FLOW		.00 Many days
10 PERCENT EXCEEDS	58	99
50 PERCENT EXCEEDS	23	29
90 PERCENT EXCEEDS	4.1	7.6

a From rating curve extended above 1,000 ft<sup>3</sup>/s.

e Estimated.

† Diversion from Lawrence Brook, in cubic feet per second, by City of New Brunswick for municipal supply.



01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ, DAILY MEAN DISCHARGE

## 01405302 MATCHAPONIX BROOK AT MUNDY AVENUE AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°22'55", Middlesex County, Hydrologic Unit 02030105, at bridge on Mundy Avenue in Spotswood, 0.2 mi upstream from mouth, 0.5 mi east of DeVoe Lake dam, and 3.4 mi southeast of Tanners Corners.

DRAINAGE AREA.--44.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
19...	1330	17	339	6.6	12.0	760	8.4	78	E1.1	<20	20	77	
JAN 1995													
31...	1030	48	286	7.4	2.0	758	11.5	84	E1.1	<20	<10	62	
MAR													
21...	1300	66	244	5.4	10.0	750	9.9	89	<1.0	<20	<10	59	
JUN													
01...	1200	36	279	6.3	17.5	767	7.2	75	E1.4	330	40	59	
JUL													
26...	1100	28	378	6.9	24.5	760	6.0	72	<1.0	330	160	86	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
19...	24	4.1	26	6.2	9.0	50	33	0.2	12	214	195	2	
JAN 1995													
31...	18	4.2	19	4.6	2.0	45	29	0.1	11	156	149	4	
MAR													
21...	17	4.0	17	3.6	1.8	45	27	0.1	10	138	141	6	
JUN													
01...	18	3.4	18	4.2	6.0	41	26	0.1	9.3	150	149	<1	
JUL													
26...	28	3.9	31	6.1	20	45	42	0.2	11	236	217	1	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
19...	0.019	7.80	<0.03	<0.03	--	0.83	--	8.6	0.02	<0.01	4.4	0.3	
JAN 1995													
31...	0.066	3.20	1.93	2.02	2.1	2.2	5.3	5.4	0.01	<0.01	2.2	0.3	
MAR													
21...	0.025	3.50	0.19	0.19	0.40	0.35	3.9	3.9	0.03	<0.01	1.8	0.4	
JUN													
01...	0.014	5.70	0.18	0.23	0.40	0.34	6.1	6.0	<0.01	<0.01	3.0	0.2	
JUL													
26...	0.009	8.60	<0.03	<0.03	0.50	0.44	9.1	9.0	0.05	0.04	3.9	0.4	

## 01405340 MANALAPAN BROOK AT FEDERAL ROAD NEAR MANALAPAN, NJ

LOCATION.--Lat 40°17'46", long 74°23'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.6 mi north of Manalapan, 3.1 mi southwest of Matchaponix, 3.3 mi downstream of Still House Brook, and 4.1 mi northeast of Applegarth.

DRAINAGE AREA.--20.9 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
19...	1030	E8.0	162	7.3	11.5	760	9.8	90	<1.0	20	20	39	
FEB 1995													
01...	1300	E16	149	6.5	4.0	755	12.6	97	<1.1	20	<10	35	
MAR													
21...	1100	E17	136	6.0	10.0	750	10.3	93	<1.0	<20	10	35	
MAY													
31...	1000	E14	130	7.0	16.5	760	8.3	85	<1.0	2400	<100	31	
JUL													
25...	1100	E8.0	143	7.1	24.0	760	8.0	95	<1.0	20	270	35	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
19...	9.0	3.9	11	2.7	11	17	23	0.2	9.4	94	86	2	
FEB 1995													
01...	8.2	3.6	9.2	2.5	3.5	19	20	0.2	11	84	81	11	
MAR													
21...	8.3	3.5	9.1	2.8	4.5	20	19	0.2	9.4	84	79	5	
MAY													
31...	7.3	3.1	9.0	2.4	9.3	14	17	0.2	8.7	80	70	19	
JUL													
25...	8.3	3.4	11	2.9	11	15	20	0.2	9.4	94	79	8	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
19...	E0.008	0.75	<0.03	<0.03	0.16	0.32	0.91	1.1	0.03	<0.01	1.7	0.2	
FEB 1995													
01...	0.009	1.10	0.13	0.11	0.30	0.28	1.4	1.4	0.03	<0.01	1.1	0.7	
MAR													
21...	0.007	0.97	0.05	0.05	0.17	0.13	1.1	1.1	0.03	<0.01	1.3	0.5	
MAY													
31...	0.016	0.61	0.21	0.22	0.50	0.45	1.1	1.1	0.16	0.04	3.9	0.9	
JUL													
25...	0.007	0.54	0.06	0.05	0.30	0.28	0.84	0.82	0.11	0.05	3.6	0.6	

## 01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'27", Middlesex County, Hydrologic Unit 02030105, on right bank of DeVoe Lake Dam in Spotswood, 0.1 mi upstream from Cedar Brook, and 0.6 mi upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WSP 1722: 1957-60.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is sea level (levels by Duhermal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge given herein includes flow through sluice gate when open. Gate open Oct. 14-19, Jan. 21-24, Feb. 16-18, 28 to Mar. 1, Mar. 15-17, Apr. 7-12, June 21-23, July 9-13, and 22-28. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	91	41	29	e130	31	33	18	22	14	9.3
2	22	24	81	39	31	78	31	62	20	24	12	9.3
3	21	23	42	36	32	57	31	70	25	22	12	9.9
4	21	23	32	36	37	55	31	65	27	21	11	9.9
5	21	23	38	35	40	53	31	51	25	21	24	11
6	21	23	73	34	37	51	30	21	25	21	131	11
7	21	22	71	79	36	44	e35	20	26	22	133	10
8	21	23	68	114	32	37	e49	19	25	22	67	9.9
9	21	22	61	112	31	88	e81	20	24	e21	20	11
10	19	27	55	99	31	92	e83	31	24	e25	17	12
11	19	26	73	42	32	68	e52	49	21	e55	16	11
12	18	26	78	30	32	60	e39	48	17	e35	17	11
13	17	26	76	37	31	58	71	25	38	e24	17	12
14	e18	25	69	49	31	56	54	23	21	19	16	13
15	e17	25	56	54	46	e54	51	27	20	14	14	9.9
16	e16	23	43	50	e80	e49	49	32	19	16	14	12
17	e17	28	37	47	e60	e43	48	30	19	21	14	60
18	e19	36	36	47	e55	36	38	38	19	29	13	63
19	e22	41	36	51	53	36	25	39	18	32	12	25
20	23	28	34	57	57	37	23	37	18	24	12	22
21	23	25	34	e85	57	55	25	35	e27	27	14	20
22	21	35	34	e88	53	52	34	33	e39	e62	14	24
23	24	36	34	e62	48	35	34	21	e34	e68	8.3	54
24	27	36	51	e47	60	33	34	19	31	e37	8.2	28
25	25	35	55	41	57	32	33	21	29	e16	8.2	28
26	23	33	52	41	55	31	33	22	21	e15	8.2	53
27	23	26	50	41	53	31	31	20	22	e30	8.2	61
28	23	48	49	38	e84	31	30	20	22	e43	7.7	42
29	23	119	47	34	---	31	20	33	21	34	8.2	30
30	23	112	46	32	---	31	22	47	21	22	8.2	28
31	23	---	43	31	---	31	---	19	---	18	9.9	---
TOTAL	654	1022	1645	1629	1280	1575	1179	1030	716	862	689.1	710.2
MEAN	21.1	34.1	53.1	52.5	45.7	50.8	39.3	33.2	23.9	27.8	22.2	23.7
MAX	27	119	91	114	84	130	83	70	39	68	133	63
MIN	16	22	32	30	29	31	20	19	17	14	7.7	9.3
CFSM	.52	.84	1.30	1.29	1.12	1.25	.97	.82	.59	.68	.55	.58
IN.	.60	.93	1.50	1.49	1.17	1.44	1.08	.94	.65	.79	.63	.65

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1995, BY WATER YEAR (WY)

MEAN	40.3	57.7	75.4	77.5	78.8	92.4	84.9	67.3	46.6	44.4	44.2	41.4
MAX	95.2	154	156	186	139	164	154	148	109	141	128	137
(WY)	1990	1978	1984	1978	1979	1958	1983	1984	1968	1975	1990	1989
MIN	13.7	21.7	27.4	21.1	29.8	37.0	31.1	26.5	17.4	4.40	5.56	11.6
(WY)	1983	1966	1981	1981	1992	1985	1985	1977	1966	1966	1966	1965



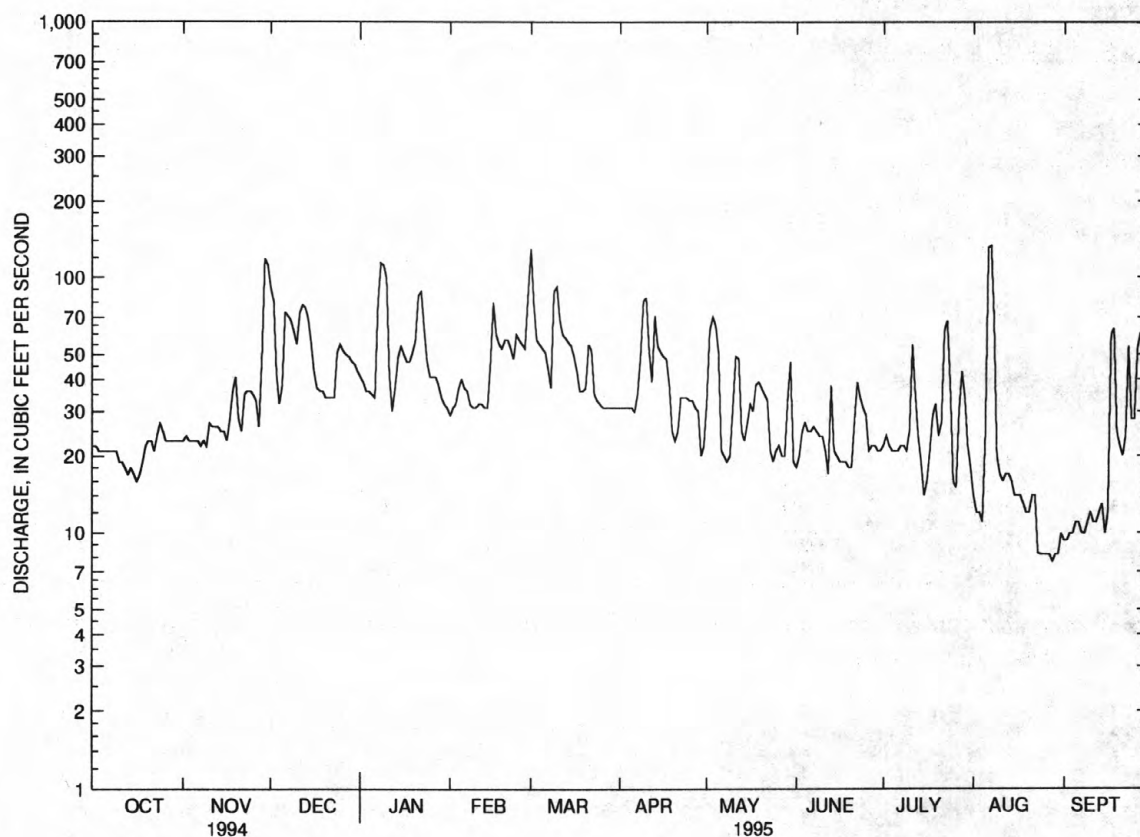
## RARITAN RIVER BASIN

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1957 - 1995	
ANNUAL TOTAL	20703.7		12991.3		62.8	
ANNUAL MEAN	56.7		35.6		101	
HIGHEST ANNUAL MEAN					34.3	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	971	Jan 29	133	Aug 7	1390	May 30 1968
LOWEST DAILY MEAN	8.2	Jul 13	7.7	Aug 28	.00	Jun 16 1957
ANNUAL SEVEN-DAY MINIMUM	10	Jul 8	8.1	Aug 24	2.0	Jul 22 1966
INSTANTANEOUS PEAK FLOW			171	Aug 6	1700a	Sep 20 1989
INSTANTANEOUS PEAK STAGE			18.29	Aug 6	20.50	Sep 20 1989
ANNUAL RUNOFF (CFSM)	1.39		.87		1.54	
ANNUAL RUNOFF (INCHES)	18.92		11.87		20.98	
10 PERCENT EXCEEDS	112		62		118	
50 PERCENT EXCEEDS	37		31		45	
90 PERCENT EXCEEDS	10		14		18	

a Sluice gate open.

e Estimated.



01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ, DAILY MEAN DISCHARGE

# RARITAN RIVER BASIN

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## RESERVOIRS IN RARITAN RIVER BASIN

01396790 SPRUCE RUN RESERVOIR.--Lat 40°38'37", long 74°55'26", Hunterdon County, Hydrologic Unit 02030105, at dam on Spruce Run, 0.5 mi north of Clinton, and 0.6 mi upstream from mouth. DRAINAGE AREA, 41.3 mi<sup>2</sup>. PERIOD OF RECORD, November 1963 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway at elevation 273.00 ft. Usable capacity, 11,000,000,000 gal. Dead storage 300,000 gal. Reservoir used for water supply and recreation. Outflow mostly regulated by gates. Water is released to maintain minimum flow on the South Branch Raritan River and, at times, for municipal supply. Records given herein represent usable capacity.

COOPERATION.--Records provided by New Jersey Water Supply Authority. EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 11,820,000,000 gal, Jan. 24, 1979, elevation, 274.72 ft; minimum observed, 3,100,000,000 gal, Oct. 18, 1983, elevation, 246.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,020,000,000 gal, Apr. 30, elevation, 273.03 ft; minimum observed, 4,490,000,000 gal, Sept. 30, elevation, 252.84 ft.

REVISED RECORDS.--WDR NJ-84-1: (M). WDR NJ-85-1: 1984.

01397050 ROUND VALLEY RESERVOIR.--Lat 40°36'39", long 74°50'42", Hunterdon County, Hydrologic Unit 02030105, at main dam on Prescott Brook, 1.8 mi south of Lebanon, 3.2 mi upstream from mouth, and 4.5 mi west of Whitehouse. DRAINAGE AREA, 5.7 mi<sup>2</sup>. PERIOD OF RECORD, March 1966 to current year. Nonrecording gage read daily. Datum of gage is sea level.

REMARKS.--Reservoir is formed by earthfill dam at main dam on Prescott Brook and two dams on South Branch Rockaway River at Lebanon; storage began in March 1966. Capacity at spillway level, 55,000,000,000 gal, elevation, 385.00 ft. Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see following page). Outflow is controlled by operation of gates in pipe in dams. Water is released into South Branch Rockaway Creek and Prescott Brook.

COOPERATION.--Records provided by New Jersey Water Supply Authority. EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,400,000,000 gal, June 15, 1975, elevation, 385.63 ft; minimum observed (after first filling), 37,100,000,000 gal, Feb. 9, 1981, elevation, 361.30 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 54,670,000,000 gal, June 13, elevation, 384.64 ft; minimum observed, 50,910,000,000 gal, Sept. 30, elevation, 379.51 ft.

REVISED RECORDS.--WDR NJ-85-1: 1984.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01396790 SPRUCE RUN RESERVOIR				01397050 ROUND VALLEY RESERVOIR		
Sept. 30.....	269.86	9,710	--	383.06	53,460	--
Oct. 31.....	266.41	8,420	-64.4	382.78	53,190	-13.5
Nov. 30.....	266.22	8,340	-4.1	382.75	53,180	-5
Dec. 31.....	268.14	9,100	+37.9	382.76	53,180	0
CAL YR 1994			+6.9			+8.3
Jan. 31.....	270.42	9,940	+41.9	382.84	53,240	+3.0
Feb. 28.....	268.15	9,100	-46.4	382.93	53,330	+5.0
Mar. 31.....	272.01	10,610	+75.4	382.98	54,180	+42.4
Apr. 30.....	273.03	11,020	+21.1	384.45	54,550	+19.1
May 31.....	272.82	10,930	-4.5	384.60	54,650	+5.0
June 30.....	269.34	9,500	-73.8	384.44	54,540	-5.7
July 31.....	264.98	7,950	-77.4	384.43	54,530	+5
Aug. 31.....	254.77	4,970	-148.7	382.87	53,270	-62.9
Sept. 30.....	252.84	4,490	-24.8	379.51	50,910	-121.2
WTR YR 1995			-22.3			-10.7

† Elevation at 0900 of the last day of each month.

## RARITAN RIVER BASIN

## DIVERSIONS IN RARITAN RIVER BASIN

01396920 Water is diverted 4.0 mi upstream from the gaging station on South Branch Raritan River at Stanton (see station 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Water can also be released from Round Valley Reservoir into the South Branch Raritan River at Hamden and are noted as negative discharge. Records provided by New Jersey Water Supply Authority. REVISED RECORDS.--WDR NJ-85-1: 1984.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River at Manville. Records given herein represent the total diversion from both rivers. Records provided by the Elizabethtown Water Company. REVISION.--The mean diversion for water year 1991 has been revised to 146 ft<sup>3</sup>/s superceding the figure published in WDR NJ-91-1.

01400836 Water is diverted from Carnegie Lake (Millstone River) at Princeton to the Delaware and Raritan Canal at the aqueduct 4.1 mi downstream from the gaging station on the Delaware and Raritan Canal at Port Mercer (station 01460440). Negative discharge indicates flow from Canal to Carnegie Lake. Records provided by New Jersey Water Supply Authority. REVISED RECORDS.--WDR NJ-85-1: 1984.

01402910 Water is diverted from the Raritan River just below the Millstone River to the Delaware and Raritan Canal at Ten Mile Lock for municipal supply. Negative discharge indicates flow from Canal to Millstone River. Records provided by the New Jersey Water Supply Authority. REVISED RECORDS.--WDR NJ-85-1: 1984.

01460570 Elizabethtown Water Company diverts water from the Delaware and Raritan Canal 1200 ft downstream from Ten Mile Lock at Franklin for municipal supply. Records provided by the Elizabethtown Water Company.

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

MONTH	01396920 Hamden pumping station	01400509 Raritan and Millstone Rivers	01400836 Carnegie Lake	01402910 Ten Mile Lock diversion	01460570 Delaware and Raritan Canals
October.....	0	147	0	-2.4	26.1
November.....	0	136	0	-18.6	28.8
December.....	0	163	0	-19.0	0
CAL YR 1994.....	-4	161	-.83	-15.5	19.0
January.....	0	166	0	-32.4	3.0
February.....	0	170	0	-32.3	.4
March.....	33.5*	164	0	-44.1	3.0
April.....	18.3*	154	0	-23.6	21.1
May.....	0	149	0	-16.4	30.4
June.....	-4.1	160	0	-9.6	36.6
July.....	0	149	0	-1.8	42.0
August.....	-38.0	180	0	0	39.6
September.....	-124	170	0	-1.5	25.2
WTR YR 1995.....	-9.5	159	0	-16.8	21.4

## 01407500 SWIMMING RIVER NEAR RED BANK, NJ

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County. Hydrologic Unit 02030104, on left bank 50 ft upstream from spillway at Swimming River Reservoir, 3.3 mi southwest of Red Bank, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1922 to current year.

REVISED RECORDS.--WSP 891: 1939. WDR NJ-83-1: Drainage area. WDR NJ-90-1: 1989.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 30.00 ft above sea level. Prior to Jan. 19, 1962, at site 800 ft upstream at datum 17.67 ft lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft upstream at datum 13.87 ft lower.

REMARKS.--No estimated daily discharges. Records good for days of no flow good above 200 ft<sup>3</sup>/s, and fair below 200 ft<sup>3</sup>/s. Records given herein represent flow over spillway and flow or leakage through blowoff gates. Diversion above station for municipal supply. Flow regulated by Swimming River Reservoir. Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by and record of diversion furnished by New Jersey-American Water Co.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in July 1919 reached a stage of 7.84 ft (site and datum then in use), from floodmark, discharge about 11,800 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	4.2	39	28	20	107	14	28	11	3.8	.00	.00
2	15	8.0	29	39	20	55	13	50	8.3	3.0	.00	.00
3	12	7.7	22	24	18	39	12	56	7.5	2.3	.00	.00
4	9.9	6.0	22	20	49	37	12	34	13	1.2	.00	.00
5	7.9	5.5	59	16	53	33	10	32	12	.39	.00	.00
6	6.2	5.6	66	14	20	31	9.3	30	9.3	.04	.53	.00
7	5.3	4.8	41	141	18	29	8.8	22	10	.00	1.1	.00
8	4.4	4.2	35	75	18	30	8.2	19	9.5	.00	.68	.00
9	3.6	4.1	27	39	18	192	11	18	6.9	.00	.24	.00
10	3.0	9.2	39	28	17	72	16	30	5.0	.00	.01	.00
11	2.3	14	172	26	19	41	16	41	3.7	.05	.00	.00
12	1.7	13	67	28	20	34	16	38	2.8	.10	.00	.00
13	1.3	13	42	28	18	32	93	58	4.0	.01	.00	.00
14	.99	12	39	25	17	31	50	31	5.3	.00	.00	.00
15	.64	11	35	23	16	30	26	32	5.8	.00	.00	.00
16	.37	11	30	31	39	29	18	27	4.2	.00	.00	.00
17	.16	10	34	44	50	30	16	21	2.5	.00	.00	.00
18	.02	10	39	34	39	24	14	21	1.1	.00	.00	.00
19	.00	13	31	30	37	21	13	23	.20	.00	.00	.00
20	.00	13	25	175	34	20	12	22	.00	.00	.00	.00
21	.00	13	22	149	35	27	11	19	.00	.00	.00	.00
22	.00	33	20	54	34	27	12	15	2.5	.00	.00	.00
23	.13	22	20	34	30	21	10	12	6.0	.00	.00	.00
24	2.1	16	45	35	41	20	9.3	8.5	7.0	.00	.00	.00
25	2.7	14	98	31	30	19	8.7	6.0	7.5	.00	.00	.00
26	3.0	12	51	28	22	17	7.5	9.7	7.0	.00	.00	.00
27	3.1	10	36	24	23	16	6.6	12	6.5	.00	.00	.00
28	3.0	225	30	22	95	15	6.2	9.9	7.9	.10	.00	.00
29	3.0	120	23	21	---	15	5.4	10	7.0	.57	.00	.00
30	3.0	52	19	20	---	15	4.9	14	5.3	.43	.00	.00
31	2.7	---	17	20	---	15	---	14	---	.05	.00	---
TOTAL	113.51	696.3	1274	1306	850	1124	469.9	763.1	178.80	12.04	2.56	0.00
MEAN	3.66	23.2	41.1	42.1	30.4	36.3	15.7	24.6	5.96	.39	.083	.000
MAX	16	225	172	175	95	192	93	58	13	3.8	1.1	.00
MIN	.00	4.1	17	14	16	15	4.9	6.0	.00	.00	.00	.00
(†)	35.3	39.4	33.4	36.5	37.0	31.4	37.2	35.1	37.2	38.5	22.2	30.3
MEAN*	39.0	62.6	74.5	78.6	67.4	67.7	52.9	59.7	43.2	38.9	22.3	30.3

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	39.2	55.3	68.0	79.0	90.5	103	91.1	69.1	47.3	40.7	38.9	38.2
MAX	163	208	196	248	201	216	209	183	135	187	128	210
(WY)	1944	1973	1978	1978	1979	1994	1980	1984	1972	1938	1955	1938
MIN	.000	.000	.000	.000	1.19	18.1	2.93	4.07	.000	.000	.000	.000
(WY)	1971	1981	1981	1981	1989	1985	1962	1985	1985	1966	1957	1980

## NAVESINK RIVER BASIN

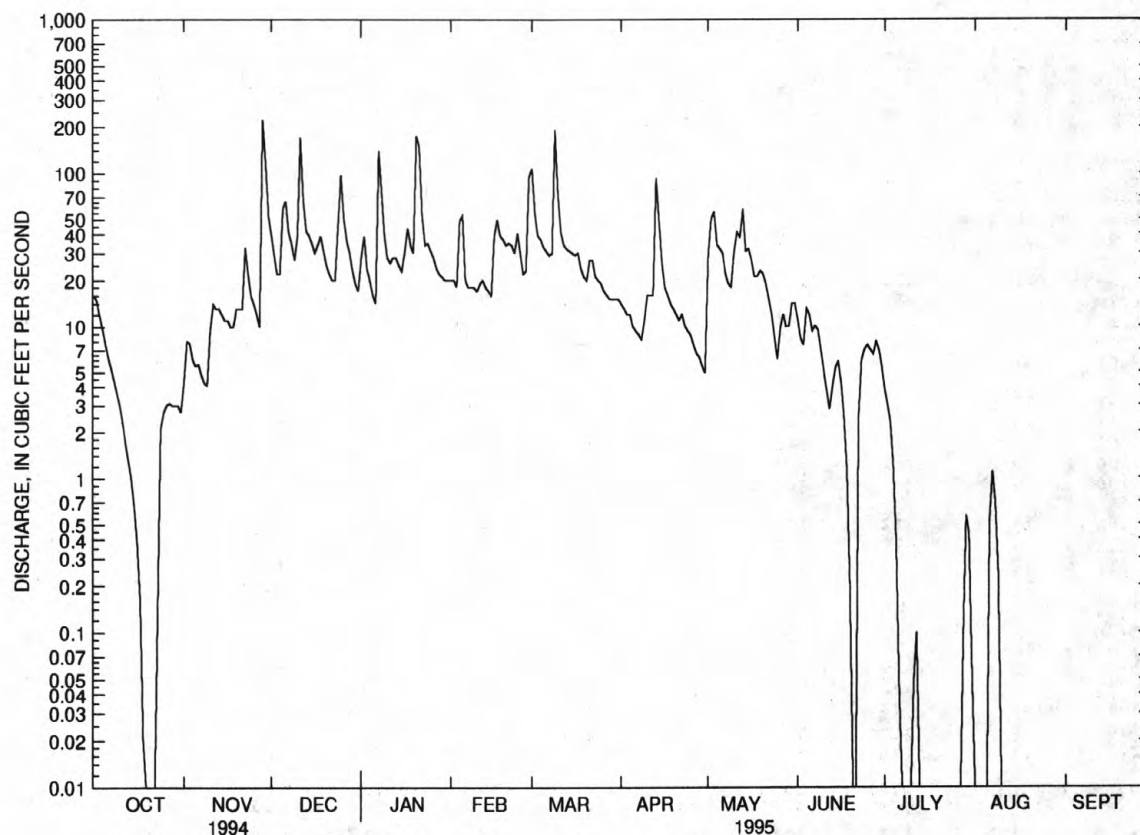
01407500 SWIMMING RIVER NEAR RED BANK, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	22809.54		6790.21			
ANNUAL MEAN	62.5	Unadjusted	18.6	Unadjusted	63.2	Unadjusted
ANNUAL MEAN*	99.2		54.0		80.6	
HIGHEST ANNUAL MEAN					123	1928
LOWEST ANNUAL MEAN					9.76	1985
HIGHEST DAILY MEAN	1360	Jan 28	225	Nov 28	3050	Oct 27 1943
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	Many days
ANNUAL SEVEN-DAY MINIMUM	.04	Oct 17	.00	Jul 14	.00	Many days
INSTANTANEOUS PEAK FLOW			402	Jan 20	8910a	Oct 27 1943
INSTANTANEOUS PEAK STAGE			5.51	Jan 20	8.96	Oct 27 1943
ANNUAL RUNOFF (CFSM)	1.27		.38		1.28	
ANNUAL RUNOFF (CFSM) *	2.02		1.10		1.64	
ANNUAL RUNOFF (INCHES)	17.25	Unadjusted	5.13	Unadjusted	17.46	Unadjusted
ANNUAL RUNOFF (INCHES) *	27.38		14.90		22.57	
10 PERCENT EXCEEDS	124		39		121	
50 PERCENT EXCEEDS	26		12		45	
90 PERCENT EXCEEDS	1.3		.00		.50	

a From rating curve extended above 1,000 ft<sup>3</sup>/s on basis of weir formula, site and datum then in use.

† Diversion and change in contents, in cubic feet per second, from Swimming River Reservoir.

\* Adjusted for diversion and change in contents.



01407500 SWIMMING RIVER NEAR RED BANK, NJ, DAILY MEAN DISCHARGE



LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, Hydrologic Unit 02030104, on left bank 100 ft upstream from bridge on Remsen Mill Road, 0.3 mi downstream from Robins Swamp Brook, and 1.7 mi west of Neptune City.

REMARKS.--No estimated daily discharges. Records fair. Diversion above station by New Jersey-American Water Co. for municipal supply (records given herein) and by farmers for irrigation. Subsequent to November 1962, entire flow from 0.34 mi<sup>2</sup> of drainage area controlled by Glendola Reservoir (capacity 1,000 million gal) on Robins Swamp Brook, 0.6 mi southwest of gage. Water pumped into Glendola Reservoir from Manasquan River or Reservoir subsequent to July 1990 (see station 01408029). Several measurements of water temperature were made during the year.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.9	2.4	15	8.3	28	9.2	28	4.6	3.7	2.6	1.5
2	2.5	3.3	2.7	11	7.5	15	9.2	16	3.1	2.7	2.8	1.4
3	2.5	3.2	3.0	8.8	3.4	9.1	9.3	13	3.2	2.6	2.5	1.2
4	2.8	3.0	3.1	8.1	36	7.5	12	9.3	5.0	2.4	2.3	1.2
5	2.7	2.8	13	6.7	20	5.5	12	8.7	2.1	2.6	27	1.7
6	2.8	2.7	5.5	6.7	12	4.7	13	7.7	1.7	2.9	18	1.3
7	2.5	2.0	3.0	70	9.0	3.9	10	6.2	2.4	5.7	2.4	1.4
8	3.1	2.3	2.6	26	8.1	5.4	3.6	5.8	1.8	4.0	2.2	1.4
9	3.9	2.7	2.3	13	7.5	51	4.7	5.7	2.0	2.6	1.5	1.7
10	3.8	10	17	12	7.7	17	6.7	18	2.1	2.3	1.9	1.3
11	3.0	2.7	33	12	9.2	7.6	3.0	13	2.0	3.8	2.3	1.3
12	2.7	2.3	5.5	12	8.9	5.6	4.0	9.7	2.6	2.7	1.9	1.6
13	2.8	1.9	4.8	10	7.0	4.8	21	8.9	2.8	2.3	1.8	1.5
14	3.0	2.0	12	8.6	6.6	4.2	11	6.9	2.0	2.6	1.7	2.2
15	3.0	2.0	12	8.2	7.5	3.8	8.9	9.1	1.8	3.0	1.8	1.3
16	2.7	1.5	9.5	12	17	3.5	8.1	7.2	1.3	3.1	2.1	1.2
17	2.7	2.6	5.6	13	14	3.7	7.0	6.6	1.2	2.2	1.6	18
18	2.7	3.6	5.4	9.6	12	3.5	6.4	7.3	1.1	6.8	1.4	1.8
19	3.0	4.0	4.3	8.9	11	3.1	6.0	7.9	1.2	3.4	1.3	1.1
20	3.6	1.6	3.9	55	10	2.7	5.6	6.9	4.6	2.5	1.6	1.2
21	2.9	9.5	3.7	42	11	14	5.0	6.2	11	5.0	1.8	1.3
22	3.1	9.1	5.3	15	11	20	4.3	5.7	3.3	2.9	1.7	3.2
23	7.0	1.7	8.0	9.9	6.4	11	3.7	5.2	3.9	2.9	1.6	3.1
24	5.9	2.0	24	12	13	3.2	3.6	4.8	2.7	2.7	1.4	1.2
25	4.9	2.4	24	5.3	11	2.9	2.7	4.7	4.0	4.2	1.2	1.3
26	2.6	1.8	14	8.5	9.6	2.7	2.6	7.0	2.6	2.8	1.3	12
27	3.5	2.1	9.1	8.1	9.4	2.9	2.9	5.1	3.7	2.8	1.4	1.3
28	2.8	70	6.2	7.7	38	6.0	2.8	4.1	3.4	14	1.3	1.3
29	3.2	14	8.2	7.0	---	11	2.5	10	2.5	3.6	1.8	1.4
30	7.2	3.8	7.5	6.7	---	9.7	5.7	23	2.4	3.8	1.1	1.6
31	4.6	---	7.0	6.7	---	9.8	---	6.5	---	2.5	1.2	---
TOTAL	106.5	176.5	267.6	455.5	332.1	282.8	206.5	284.2	88.1	111.1	96.5	73.0
MEAN	3.44	5.88	8.63	14.7	11.9	9.12	6.88	9.17	2.94	3.58	3.11	2.43
MAX	7.2	70	33	70	38	51	21	28	11	14	27	18
MIN	2.5	1.5	2.3	5.3	3.4	2.7	2.5	4.1	1.1	2.2	1.1	1.1
(t)	9.4	13.9	11.0	6.1	6.6	12.0	6.2	7.4	7.6	8.9	3.2	4.8

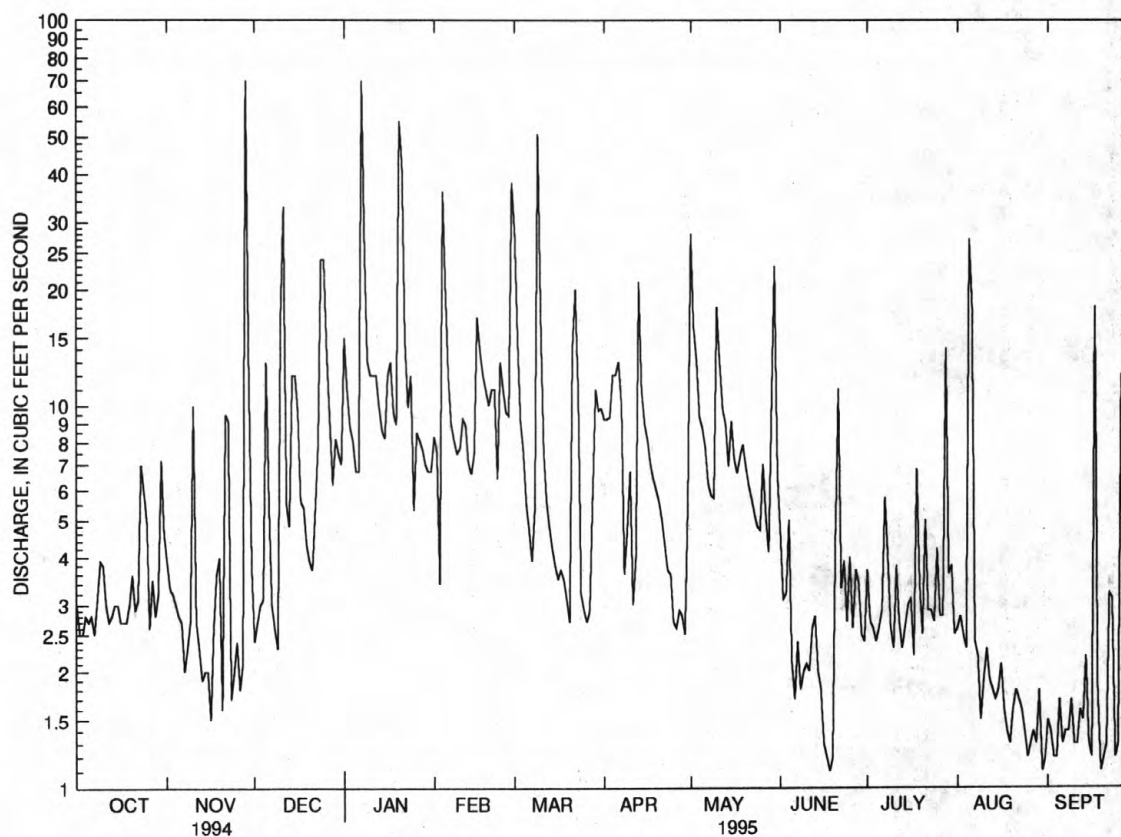
MEAN	10.0	13.2	17.2	17.4	15.6	22.2	19.8	16.4	9.22	9.96	11.4	8.71
MAX	34.0	31.7	44.2	41.1	32.9	56.3	48.3	46.8	21.9	30.1	29.2	22.6
(WY)	1990	1978	1970	1978	1979	1993	1983	1989	1975	1984	1992	1989
MIN	2.81	1.73	4.11	3.57	3.79	6.53	6.39	3.51	2.13	3.47	3.11	1.28
(WY)	1982	1982	1981	1981	1974	1986	1985	1986	1986	1985	1995	1988

## SHARK RIVER BASIN

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	4811.90		2480.4		14.3	
ANNUAL MEAN	13.2		6.80		24.9	
HIGHEST ANNUAL MEAN					6.80	
LOWEST ANNUAL MEAN					560	
HIGHEST DAILY MEAN	169	Jan 28	70	Nov 28		Dec 26 1969
LOWEST DAILY MEAN	.90	Jun 18	1.1	Jun 18	.00	Sep 20 1981
ANNUAL SEVEN-DAY MINIMUM	2.1	Nov 11	1.3	Aug 25	.70	Sep 26 1988
INSTANTANEOUS PEAK FLOW			173	Aug 5	1170	Aug 18 1992
INSTANTANEOUS PEAK STAGE			3.89	Aug 5	6.59	Aug 18 1992
INSTANTANEOUS LOW FLOW			.00	Many days	.00	Many days
10 PERCENT EXCEEDS	32		13		28	
50 PERCENT EXCEEDS	6.1		3.9		8.2	
90 PERCENT EXCEEDS	2.7		1.6		2.5	

† Diversion, equivalent in cubic feet per second, from Shark River by New Jersey-American Water Company, for municipal supply.



01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ, DAILY MEAN DISCHARGE

## SHARK RIVER BASIN

283

## 01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, Hydrologic Unit 02030104, on left bank 60 ft downstream from dam on Jumping Brook Reservoir, 0.8 mi upstream from mouth, and 1.4 mi west of Neptune City. Water-quality samples collected at bridge on Corlies Avenue, 600 ft downstream from gaging station.

DRAINAGE AREA.--6.46 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to current year. Records for water years 1976-83 are unpublished but are available in the files of New Jersey District Office.

REVISED RECORDS.--WDR-84-1: drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 13.76 ft above sea level.

REMARKS.--Records good except those above 300 ft<sup>3</sup>/s, which are fair. Diversion above station by New Jersey-American Water Co. for municipal supply (records given herein) and by farmers for irrigation. Several measurements of water temperature, other than those published, were made during the year.

COOPERATION.--Water-stage recorder inspected by and records of diversion provided by New Jersey-American Water Co.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	6.4	4.9	9.2	3.9	13	3.1	20	2.4	3.1	.97	.85
2	3.0	5.9	4.3	5.9	3.8	7.0	3.1	10	2.1	2.9	.65	.84
3	2.5	3.4	3.9	4.3	3.5	5.6	3.1	7.4	2.5	2.1	.36	1.2
4	2.1	2.9	3.6	3.8	29	5.2	3.1	4.5	6.1	1.8	.95	.89
5	1.9	2.8	16	3.3	14	4.7	2.9	3.9	2.8	1.6	17	.90
6	2.0	2.8	8.6	3.5	6.2	4.5	2.9	3.7	2.5	1.3	18	.86
7	2.0	2.7	5.2	42	5.0	4.3	2.6	3.3	3.5	2.5	5.1	.86
8	2.0	2.6	4.5	9.3	4.4	5.7	2.9	2.7	3.1	6.0	2.4	.89
9	2.0	2.4	3.9	6.0	4.0	30	3.9	2.9	2.4	3.0	1.5	1.0
10	1.9	11	14	5.1	4.0	7.8	6.1	13	2.2	1.9	.86	1.3
11	1.8	5.3	27	4.9	4.4	5.7	3.7	7.3	2.1	8.7	.48	1.1
12	1.5	3.6	7.6	5.4	4.6	5.2	3.3	5.1	2.1	3.3	1.6	.86
13	1.7	3.1	5.5	4.9	3.6	4.9	15	5.4	2.9	2.2	1.2	1.2
14	2.4	2.9	5.3	4.5	3.3	4.6	5.4	3.9	4.0	2.0	.45	3.7
15	2.4	2.8	4.9	4.4	4.6	4.5	4.1	4.3	2.8	1.9	.34	1.4
16	2.4	2.8	4.4	7.0	13	4.3	3.6	3.5	2.1	1.8	1.0	1.0
17	2.0	2.8	5.1	8.5	6.7	4.3	2.9	3.5	1.8	1.6	.35	22
18	2.2	4.3	5.0	5.1	5.2	4.2	2.7	3.7	1.5	13	.35	5.5
19	2.1	6.9	4.1	4.6	4.7	4.1	2.7	4.3	1.6	3.6	.83	2.7
20	2.5	3.7	3.7	41	4.6	3.9	3.0	3.5	3.8	1.9	1.3	1.7
21	2.5	9.1	3.5	16	4.9	6.5	3.1	3.2	7.2	8.1	.68	.85
22	2.4	13	3.5	7.3	4.6	5.6	3.2	2.5	5.0	4.3	.84	5.7
23	7.3	4.6	3.5	5.6	4.4	4.7	3.0	2.3	3.9	2.4	.90	8.9
24	7.0	3.5	13	5.0	8.4	4.2	3.2	2.2	5.0	1.7	.95	3.0
25	3.5	3.2	12	4.6	5.4	3.7	2.6	2.2	8.2	3.6	.91	2.3
26	2.9	3.0	5.3	4.7	4.3	3.5	2.3	4.3	3.4	5.2	.88	17
27	2.7	3.0	4.3	4.6	4.5	3.4	2.3	3.2	2.7	3.5	1.3	5.0
28	2.6	55	4.0	4.3	22	3.3	2.8	2.7	2.9	14	1.6	2.5
29	2.6	11	4.2	4.0	---	3.1	2.6	8.0	2.3	2.8	1.3	1.5
30	2.6	6.1	4.0	3.8	---	3.0	6.1	10	1.8	1.5	1.2	1.5
31	2.6	---	3.7	3.8	---	3.4	---	3.7	---	1.5	.94	---
TOTAL	81.9	192.6	202.5	246.4	191.0	177.9	111.3	160.2	96.7	114.8	67.19	99.00
MEAN	2.64	6.42	6.53	7.95	6.82	5.74	3.71	5.17	3.22	3.70	2.17	3.30
MAX	7.3	55	27	42	29	30	15	20	8.2	14	18	22
MIN	1.5	2.4	3.5	3.3	3.3	3.0	2.3	2.2	1.5	1.3	.34	.84
(†)	0.2	0	0	0	0	0	0	0	0	0	0.3	0.1
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1995, BY WATER YEAR (WY)												
MEAN	6.90	8.92	10.7	12.4	11.5	14.1	14.1	12.3	7.03	6.83	7.60	6.55
MAX	34.5	47.3	30.5	55.5	62.1	47.1	66.5	53.8	23.7	21.5	19.0	24.2
(WY)	1990	1978	1970	1979	1979	1984	1980	1989	1972	1989	1992	1971
MIN	1.97	1.89	2.78	1.94	3.53	3.86	3.29	2.08	2.11	2.44	1.52	1.25
(WY)	1982	1982	1981	1981	1968	1985	1985	1977	1986	1988	1982	1982

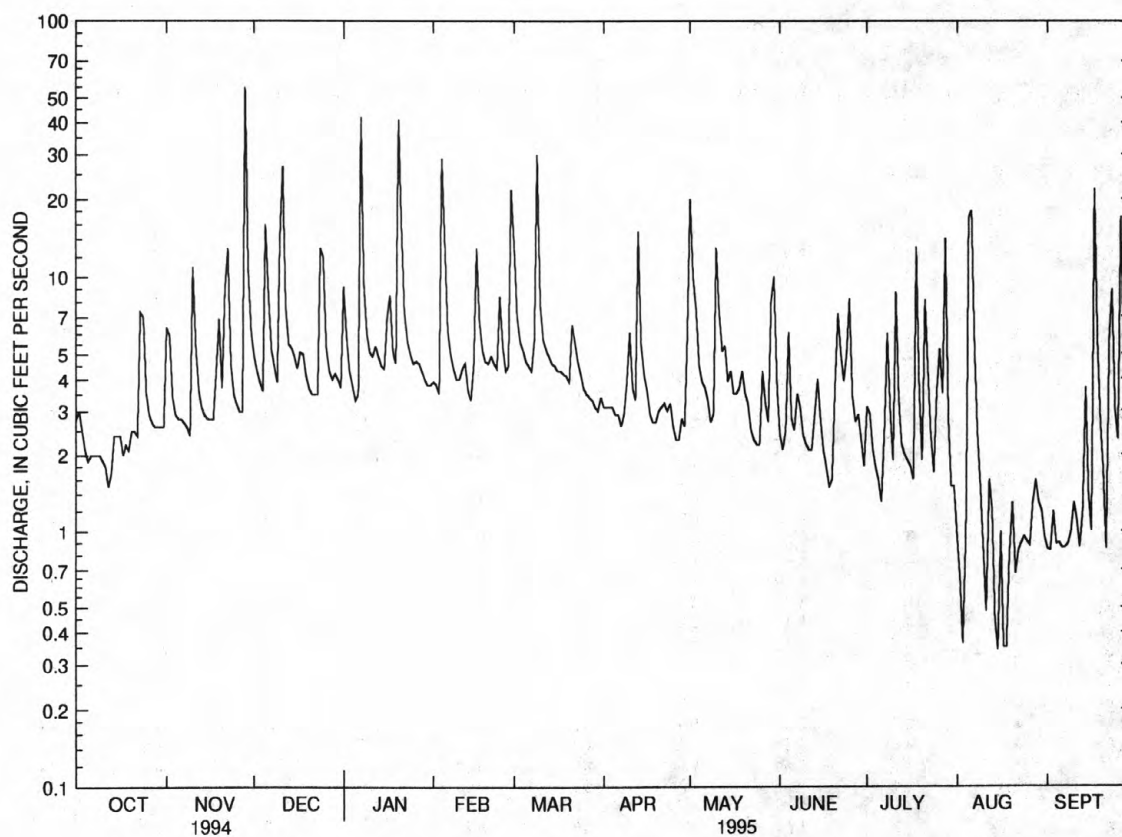
## SHARK RIVER BASIN

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	3498.6		1741.49		9.90	
ANNUAL MEAN	9.59		4.77		20.4	
HIGHEST ANNUAL MEAN					4.05	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	176	Jan 28	55	Nov 28	954	Jan 21 1979
LOWEST DAILY MEAN	1.4	Jul 6	.34	Aug 15	.12	Sep 15 1981
ANNUAL SEVEN-DAY MINIMUM	1.8	Jun 30	.65	Aug 13	.51	Oct 7 1966
INSTANTANEOUS PEAK FLOW			126	Aug 5	1830a	Sep 12 1971
INSTANTANEOUS PEAK STAGE			2.87	Aug 5	7.43	Aug 18 1992
INSTANTANEOUS LOW FLOW			.00	Many days	.00	Many days
10 PERCENT EXCEEDS	21		8.4		18	
50 PERCENT EXCEEDS	4.9		3.5		4.9	
90 PERCENT EXCEEDS	2.1		1.3		1.9	

a From rating curve extended above 150 ft<sup>3</sup>/s.

† Diversion, in cubic feet per second, from Jumping Brook by New Jersey American Water Company, for municipal supply.



01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ, DAILY MEAN DISCHARGE

## 01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'47". Long 74°09'21". Monmouth County, Hydrologic Unit 02040301, on right bank 50 ft upstream from northbound bridge on State Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1931 to current year. Monthly discharge only for July 1931, published in WSP 1302.

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 18.82 ft above sea level. Prior to Aug. 13, 1940, water stage recorder at site 80 ft upstream at same datum.

REMARKS.--Records good except for daily discharges above 300 ft<sup>3</sup>/s, which are fair. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 6	0600	*470	*4.91	No peaks greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	28	46	55	46	106	37	90	33	33	21	13
2	33	52	41	52	45	67	36	54	29	43	20	13
3	29	28	38	45	42	57	35	58	29	27	19	13
4	28	26	37	40	66	53	35	41	38	24	19	13
5	28	26	70	36	83	50	34	39	28	23	71	13
6	28	25	62	34	53	49	33	36	27	23	240	13
7	27	25	46	194	49	47	34	33	30	28	59	13
8	25	24	43	85	46	48	35	31	27	36	35	13
9	25	24	38	63	44	199	36	30	25	23	29	13
10	24	48	48	56	45	83	46	60	24	22	25	13
11	24	36	168	50	49	66	36	48	25	55	24	12
12	24	28	70	51	53	59	35	44	25	28	22	12
13	24	27	54	49	43	55	110	53	31	24	22	12
14	25	26	50	47	43	52	55	36	31	22	20	22
15	24	27	47	45	43	50	45	45	28	20	19	15
16	23	26	43	56	79	51	40	37	24	20	19	14
17	23	26	43	68	64	48	38	34	23	20	19	68
18	23	27	48	51	54	45	37	36	22	63	19	31
19	23	40	42	47	51	45	36	38	20	26	17	20
20	23	30	39	148	51	44	36	34	22	21	17	19
21	23	32	38	123	53	50	34	31	43	63	16	18
22	23	66	37	73	50	50	35	29	27	30	16	23
23	26	35	36	62	47	43	34	27	26	23	15	94
24	57	30	58	56	62	43	34	26	31	22	16	24
25	28	29	94	53	52	40	34	26	37	23	15	21
26	26	28	53	50	46	39	32	41	27	23	15	89
27	25	27	46	49	44	39	31	31	33	26	15	43
28	24	211	43	47	112	39	31	27	34	55	15	26
29	24	93	41	45	---	38	30	31	25	31	15	22
30	23	56	37	44	---	37	33	116	24	43	14	21
31	23	---	35	44	---	37	---	42	---	23	13	---
TOTAL	817	1206	1591	1918	1515	1729	1157	1304	848	943	901	736
MEAN	26.4	40.2	51.3	61.9	54.1	55.8	38.6	42.1	28.3	30.4	29.1	24.5
MAX	57	211	168	194	112	199	110	116	43	63	240	94
MIN	23	24	35	34	42	37	30	26	20	20	13	12
CFSM	.60	.91	1.17	1.41	1.23	1.27	.88	.96	.64	.69	.66	.56
IN.	.69	1.02	1.35	1.62	1.28	1.46	.98	1.10	.72	.80	.76	.62

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

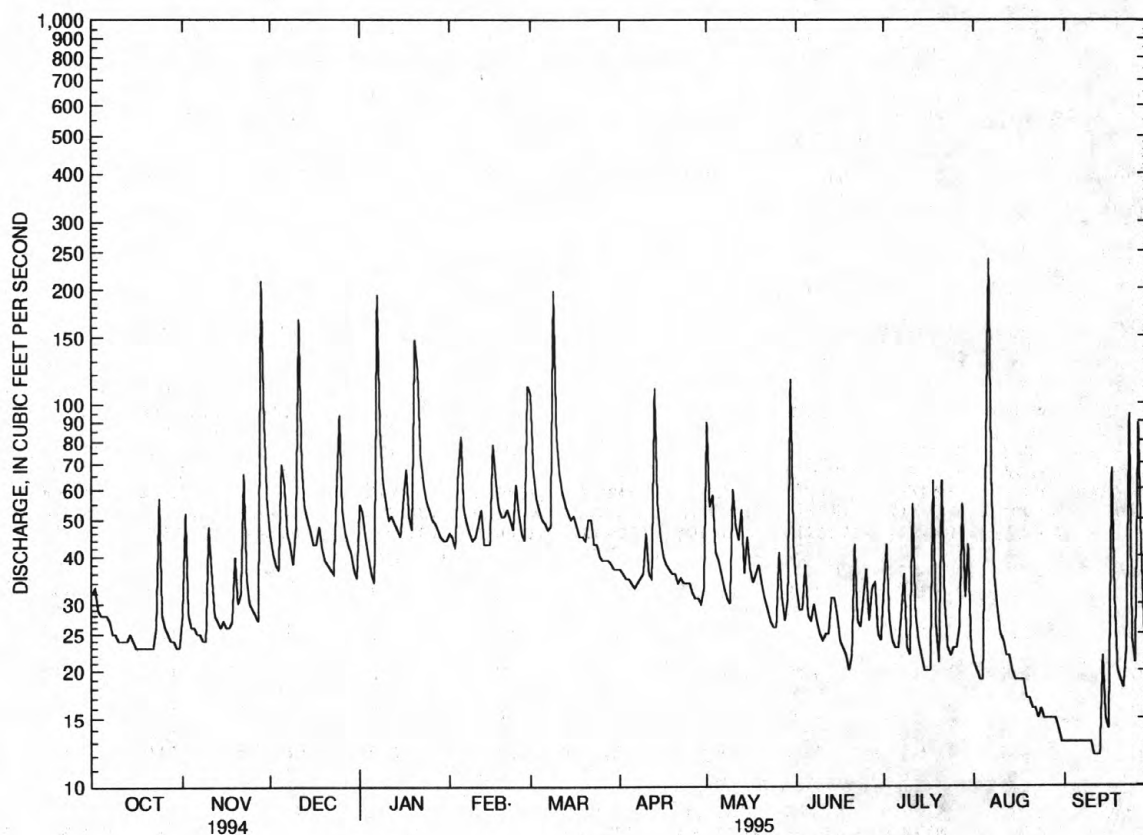
	MEAN	50.8	69.8	81.8	89.4	96.1	113	99.8	78.8	57.2	52.6	51.5	51.4
MAX	130	231	212	218	214	221	218	177	126	200	108	183	
(WY)	1972	1978	1978	1979	1979	1984	1983	1989	1968	1938	1948	1938	
MIN	22.1	22.3	26.4	30.7	37.8	47.2	38.6	38.8	26.6	19.9	16.7	16.7	
(WY)	1964	1966	1966	1981	1992	1985	1995	1955	1957	1966	1932	1932	



## MANASQUAN RIVER BASIN

01408000 MANASQUAN RIVER AT SQUANKUM, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1932 - 1995	
ANNUAL TOTAL	26485		14665			
ANNUAL MEAN	72.6		40.2		74.2	
HIGHEST ANNUAL MEAN					131	
LOWEST ANNUAL MEAN					40.2	
HIGHEST DAILY MEAN	636	Jan 29	240	Aug 6	1720	Nov 8 1977
LOWEST DAILY MEAN	21	Jul 12	12	Sep 11	12	Sep 11 1995
ANNUAL SEVEN-DAY MINIMUM	23	Jul 8	13	Sep 7	13	Sep 7 1995
INSTANTANEOUS PEAK FLOW			470	Aug 6	2940	Sep 21 1938
INSTANTANEOUS PEAK STAGE			4.91	Aug 6	12.45	Sep 21 1938
INSTANTANEOUS LOW FLOW			11	Sep 11	8.1	Aug 6 1981
ANNUAL RUNOFF (CFSM)	1.65		.91		1.69	
ANNUAL RUNOFF (INCHES)	22.39		12.40		22.92	
10 PERCENT EXCEEDS	142		62		130	
50 PERCENT EXCEEDS	50		35		54	
90 PERCENT EXCEEDS	25		20		26	



— 01408000 MANASQUAN RIVER AT SQUANKUM, NJ, DAILY MEAN DISCHARGE

## 01408000 MANASQUAN RIVER AT SQUANKUM, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-1981, 1991 to current year.

## PERIOD OF DAILY RECORD

SPECIFIC CONDUCTANCE: July 1969 to September 1974.

pH: July 1969 to September 1974.

WATER TEMPERATURE: July 1969 to September 1974.

DISSOLVED OXYGEN: August 1969 to September 1974.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
OCT 1994													
26...	1230	25	218	7.3	10.5	765	9.3	83	E1.7	130	30	80	
JAN 1995													
23...	1200	62	180	7.4	4.0	762	11.2	85	3.6	260	40	60	
MAR													
21...	1200	46	194	7.6	10.5	748	10.2	93	<1.0	20	30	68	
MAY													
22...	1100	29	206	7.4	15.5	764	8.7	87	E1.5	130	80	74	
JUL													
19...	1030	25	181	7.4	20.5	760	7.3	81	E1.3	1300	1700	61	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994													
26...	27	3.0	7.1	1.1	45	30	15	0.1	15	132	127	6	
JAN 1995													
23...	19	3.1	7.7	2.8	22	26	16	0.1	14	112	105	7	
MAR													
21...	22	3.1	7.9	2.6	28	30	17	0.2	15	118	116	2	
MAY													
22...	25	2.8	7.4	2.8	40	30	16	0.2	14	132	123	6	
JUL													
19...	21	2.1	6.2	3.0	35	21	13	0.2	12	110	101	6	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
26...	0.003	0.28	<0.03	0.04	0.12	0.10	0.40	0.38	0.04	<0.01	2.2	0.3	
JAN 1995													
23...	0.004	0.63	0.04	0.05	0.15	0.14	0.78	0.77	0.03	<0.01	1.9	0.7	
MAR													
21...	0.003	0.43	<0.03	<0.03	0.12	0.07	0.55	0.50	0.02	<0.01	1.3	0.3	
MAY													
22...	0.007	0.28	0.05	0.03	0.03	0.14	0.31	0.42	0.05	0.02	1.8	0.4	
JUL													
19...	0.010	0.38	<0.03	<0.03	0.30	0.14	0.68	0.52	0.04	<0.01	3.0	0.4	

## 01408000 MANASQUAN RIVER AT SOUANKUM, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH SED BED MAT (STD UNITS) (70310)	OXYGEN	NITRO-	NITRO-	PHOS-	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/L AS AS)	BERYL-	BORON,	CADMIUM
			DEMAND,	GEN,NH4	GEN,NH4	PHORUS		LIIUM,		
			CHEM-	TOTAL	+ ORG.	TOTAL		TOTAL		
			ICAL	IN BOT.	TOT IN	IN BOT.		RECOV-	RECOV-	ERABLE
			(HIGH	MAT.	BOT MAT	MAT.		ERABLE	ERABLE	ERABLE
LEVEL)	(MG/KG	(MG/KG	(MG/KG	UG/L	(UG/G	(UG/L	(UG/L	(UG/L		
(MG/L)	AS N)	AS N)	AS P)	AS AS)	AS AS)	AS BE)	AS B)	AS CD)		
OCT 1994										
26...	1230	7.0	--	1.5	80	640	--	5	--	--
26...	1230	--	<10	--	--	--	<1	--	<10	30
MAY 1995										
22...	1100	--	<10	--	--	--	<1	--	<10	20
										<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, TOTAL RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CO) (01038)	COPPER, RECOV. TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01043)	IRON, RECOV. TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS FE) (01170)	LEAD, RECOV. TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS PB) (01052)
OCT 1994										
26...	<1	--	40	10	--	2	--	53000	--	<10
26...	--	<1	--	--	<1	--	1500	--	<1	--
MAY 1995										
22...	--	<1	--	--	<1	--	1500	--	<1	--

DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71921)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/L AS SE) (01147)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G) (01148)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS ZN) (01093)
OCT 1994										
26...	--	62	--	<0.01	--	20	--	<1	--	120
26...	70	--	0.2	--	4	--	<1	--	<10	--
MAY 1995										
22...	60	--	<0.1	--	4	--	<1	--	20	--

[illegible][illegible]

## MANASQUAN RIVER BASIN

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## 01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ

LOCATION.--Lat 40°08'48", long 74°07'23", Monmouth County, Hydrologic Unit 02040301, on left bank just downstream of pumping station of Manasquan Water Supply System, 1400 ft upstream from Hospital Road near Allenwood, 1.2 mi downstream from Mill Run, and 7.9 mi from mouth.

DRAINAGE AREA.--63.3 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1990 to current year.

REVISED RECORDS.--WDR NJ-92-1: 1991 Diversion.

GAGE.--Water-stage recorder and concrete control. Datum of gage is sea level (New Jersey Water Supply Authority benchmark).

REMARKS.--Records good. Diversion by New Jersey-American Water Company from Manasquan Reservoir since 1990 and by Manasquan Water Supply System at gage to Manasquan Reservoir for municipal supply since March 1990. Records of diversions provided by New Jersey Water Supply Authority. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	22	53	62	43	148	33	102	30	22	16	19
2	25	52	43	62	42	74	32	55	23	43	14	19
3	20	25	39	48	37	52	31	52	22	18	15	19
4	18	21	36	51	52	24	31	35	36	14	15	19
5	18	19	93	53	48	20	29	41	23	14	69	18
6	17	19	111	44	70	36	32	37	20	15	277	18
7	17	18	80	228	51	34	29	32	25	22	59	18
8	16	16	67	58	40	36	30	27	21	39	36	19
9	16	16	59	59	38	268	32	26	16	16	24	19
10	16	44	75	47	42	106	47	58	14	19	18	20
11	15	40	279	40	45	45	35	48	15	51	16	17
12	16	25	123	41	50	33	32	37	13	33	15	17
13	17	22	85	39	41	45	125	62	20	27	14	17
14	21	20	78	14	40	40	51	37	29	21	16	26
15	20	21	72	15	39	42	34	51	27	15	17	22
16	19	20	66	46	68	50	40	41	20	17	17	19
17	19	21	66	66	82	33	34	33	13	16	17	29
18	18	22	74	43	66	45	32	37	14	58	16	19
19	15	42	64	35	60	45	32	37	20	17	14	13
20	15	28	60	161	59	44	35	34	22	14	17	14
21	15	32	57	129	62	47	30	27	54	64	18	15
22	16	83	55	40	59	41	32	23	23	20	14	17
23	21	40	44	57	53	44	30	20	21	17	15	47
24	57	29	57	46	67	44	31	18	23	18	15	17
25	26	25	123	40	25	40	29	17	38	21	18	13
26	20	23	67	36	27	39	26	35	19	19	21	81
27	17	22	50	37	48	33	26	27	20	17	22	31
28	16	309	45	46	134	33	26	20	33	55	23	22
29	15	158	41	43	---	34	24	25	15	27	21	13
30	15	65	35	41	---	35	26	137	15	29	20	13
31	15	---	32	42	---	39	---	36	---	15	20	---
TOTAL	595	1299	2229	1769	1488	1649	1056	1267	684	793	909	650
MEAN	19.2	43.3	71.9	57.1	53.1	53.2	35.2	40.9	22.8	25.6	29.3	21.7
MAX	57	309	279	228	134	268	125	137	54	64	277	81
MIN	15	16	32	14	25	20	24	17	13	14	14	13
(α)	21.4	22.2	21.9	43.5	29.3	35.4	24.0	27.3	23.8	23.6	26.6	34.4
(†)	17.2	17.3	17.4	18.4	18.3	18.3	18.1	18.4	18.9	17.0	17.7	24.7

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

MEAN	42.0	47.4	100	119	78.8	178	93.1	54.7	35.5	36.5	70.1	38.5
MAX	74.3	59.7	201	202	143	319	155	79.6	81.0	66.4	131	80.9
(WY)	1994	1993	1993	1994	1994	1993	1993	1994	1992	1990	1990	1993
MIN	19.2	22.2	48.5	57.1	35.8	44.5	28.0	31.2	21.5	24.9	29.3	21.7
(WY)	1995	1992	1992	1995	1992	1992	1992	1992	1991	1994	1995	1995

## MANASQUAN RIVER BASIN

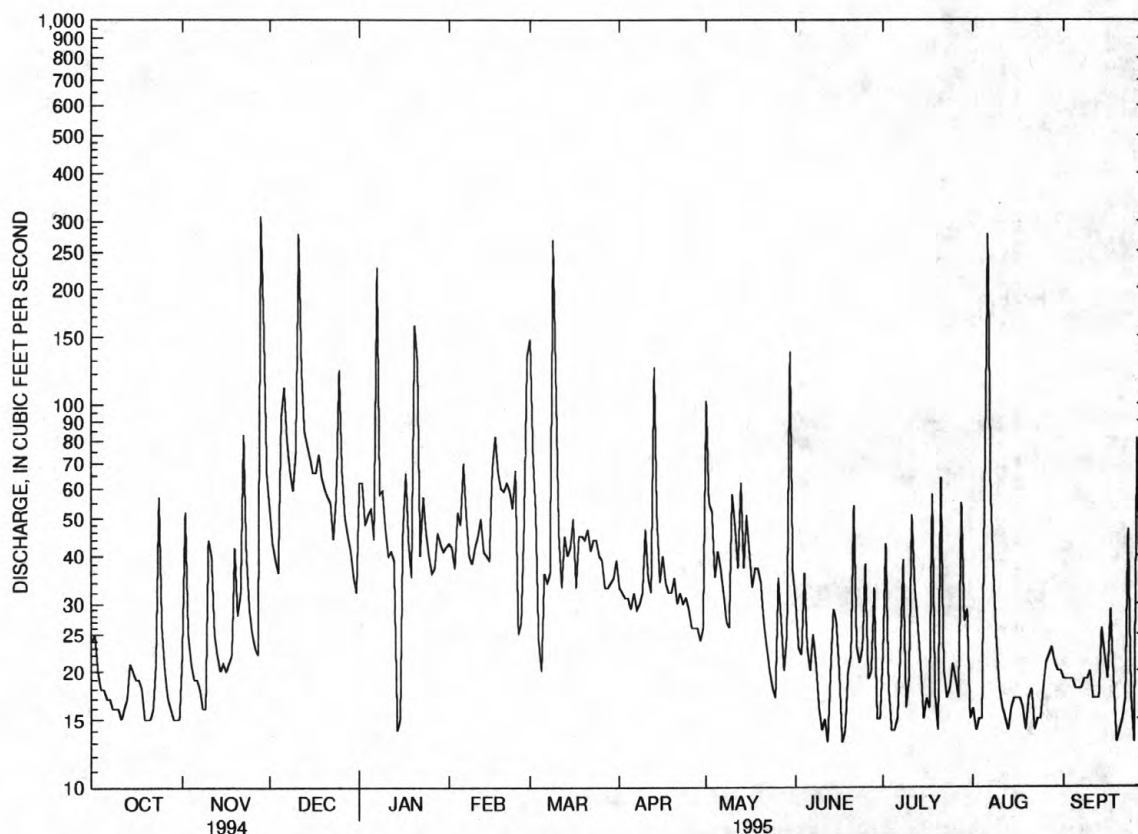
01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1990 - 1995	
ANNUAL TOTAL	33906		14388			
ANNUAL MEAN	92.9		39.4		73.1	
( $\alpha$ )	23.1		27.8			
HIGHEST ANNUAL MEAN					99.2	1994
LOWEST ANNUAL MEAN					39.4	1995
HIGHEST DAILY MEAN	1290	Jan 29	309	Nov 28	1930	Dec 12 1992
LOWEST DAILY MEAN	13	Jul 8	13	Jun 12	12	Jun 23 1990
ANNUAL SEVEN-DAY MINIMUM	14	Jul 2	16	Aug 18	14	Sep 7 1991
INSTANTANEOUS PEAK FLOW			494	Aug 6	2560	Dec 12 1992
INSTANTANEOUS PEAK STAGE			10.48	Aug 6	15.84	Dec 12 1992
INSTANTANEOUS LOW FLOW			4.6a	Jul 13	.00a	Jun 24 1993
10 PERCENT EXCEEDS	200		66		146	
50 PERCENT EXCEEDS	55		31		40	
90 PERCENT EXCEEDS	16		15		16	

a Result of pumping to Manasquan Reservoir.

 $\alpha$  Diversion from Manasquan River by New Jersey Water Supply Authority, equivalent in cubic feet per second. These figures include water pumped to Glendola Reservoir for New Jersey-American Water Company.

† Water pumped to New Jersey-American Company Glendola Reservoir for municipal supply, equivalent in cubic feet per second.



01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ, DAILY MEAN DISCHARGE



# MANASQUAN RIVER BASIN

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## RESERVOIR DATA

01407965 MANASQUAN RESERVOIR.--Lat 40°10'48", long 74°11'40", Monmouth County, Hydrologic Unit 02040301, at dam on Timber Swamp Brook, 1.6 mi southwest of Farmingdale, and 1.2 mi upstream from the Manasquan River. DRAINAGE AREA, 3.18 mi<sup>2</sup> (revised). PERIOD OF RECORD, March 1990 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by an earthfill dam 4,840 ft long, utilizing a soil-bentonite cut-off wall to control water seepage; dam completed in July 1990 with nominal crest elevation 112.0 ft, but filling began earlier. Usable capacity 4,669,700,000 gal (revised) at elevation 103.0 ft, which represents the normal and service spillway elevation; outflow is regulated through an inlet/outlet tower and the reservoir is filled by pumping from the Manasquan River Intake Pumping Station and the Reservoir Pumping Station through 5.25 mi of 66-in. pipeline (see station 01408029). Water is used for municipal supply.

COOPERATION.--Records provided by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,694,000,000 gal, Mar. 26, 1993, elevation, 103.1 ft; minimum (after first filling), 3,531,000,000 gal, Feb. 26, 1992, elevation 97.7 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents 4,504,000,000 gal, May 4, elevation, 102.3 ft; minimum, 3,695,000,000 gal, Sept. 16, elevation, 98.5 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01407965 MANASQUAN RESERVOIR			
Sept. 30.....	100.8	4,178	--
Oct. 31.....	100.2	4,050	-6.4
Nov. 30.....	100.2	4,050	0
Dec. 31.....	99.0	3,798	-12.6
CAL YR 1994			-2.0
Jan. 31.....	100.9	4,200	+20.1
Feb. 28.....	100.1	4,243	+2.4
Mar. 31.....	100.2	4,482	+11.9
Apr. 30.....	102.0	4,438	-2.3
May 31.....	102.3	4,504	+3.3
June 30.....	101.8	4,394	-5.7
July 31.....	101.8	4,394	0
Aug. 31.....	100.6	4,135	-12.9
Sept. 30.....	99.8	3,966	-8.7
WTR YR 1995			-9

† Elevation at 2400 of the last day of each month.

## METEDECONK RIVER BASIN

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'30", long 74°09'10", Ocean County, Hydrologic Unit 02040301, on upstream right bank at bridge on State Route 549, 1.0 mi upstream from confluence with South Branch Metedeconk River, and 2.3 mi east of Lakewood.

DRAINAGE AREA.--34.9 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.89 ft above sea level. Prior to Nov. 17, 1977, gage located on upstream left side of bridge. Nov. 17, 1977 to Dec. 19, 1984, gage located on the downstream side of bridge.

REMARKS.--Records good except for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 8	2245	*272	*6.29	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	30	54	45	35	86	32	71	39	21	20	12
2	30	45	42	50	36	69	31	60	28	39	17	11
3	28	39	38	42	34	51	31	56	25	33	15	11
4	27	31	36	38	62	44	31	42	41	23	15	11
5	26	28	56	36	75	41	30	35	31	20	51	11
6	25	27	65	35	e43	40	29	33	24	20	199	11
7	25	26	51	105	e42	39	29	30	28	25	180	11
8	25	26	43	105	e41	39	30	27	26	55	87	11
9	25	25	39	74	e36	96	31	26	22	30	42	12
10	25	40	49	51	e34	90	37	42	20	20	28	11
11	24	44	105	43	e36	69	36	51	20	44	24	11
12	23	34	88	44	e40	50	33	39	20	37	21	10
13	24	29	62	43	e35	44	58	36	25	23	20	11
14	24	28	48	41	e32	41	59	31	26	19	18	12
15	25	27	43	40	e37	40	45	48	24	17	17	14
16	24	29	40	45	55	39	36	41	21	17	16	11
17	23	29	40	54	54	38	33	33	19	17	16	42
18	24	29	42	48	50	37	31	32	17	43	16	44
19	24	41	40	43	47	36	31	32	16	34	15	21
20	24	34	38	70	46	35	31	31	16	21	14	16
21	25	38	36	102	47	42	30	27	35	44	14	15
22	25	70	35	84	47	46	30	25	25	89	13	19
23	28	49	35	58	43	39	29	23	22	42	13	44
24	51	35	42	46	50	36	30	22	30	24	13	29
25	41	31	62	43	50	35	29	21	65	21	12	20
26	29	29	54	40	44	33	28	30	40	19	12	43
27	26	28	43	39	40	32	27	30	28	19	13	61
28	25	111	39	38	66	32	26	24	30	24	18	41
29	24	122	37	36	---	32	26	31	24	41	13	23
30	24	84	34	35	---	32	28	95	20	30	12	18
31	24	---	33	35	---	33	---	74	---	34	12	---
TOTAL	828	1238	1469	1608	1257	1416	987	1198	807	945	976	617
MEAN	26.7	41.3	47.4	51.9	44.9	45.7	32.9	38.6	26.9	30.5	31.5	20.6
MAX	51	122	105	105	75	96	59	95	65	89	199	61
MIN	23	25	33	35	32	32	26	21	16	17	12	10
CFSM	.77	1.18	1.36	1.49	1.29	1.31	.94	1.11	.77	.87	.90	.59
IN.	.88	1.32	1.57	1.71	1.34	1.51	1.05	1.28	.86	1.01	1.04	.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1995, BY WATER YEAR (WY)

	MEAN	44.0	58.9	71.9	74.8	69.5	83.6	81.7	64.5	47.0	43.4	42.4	38.6
MAX	92.6	141	129	153	153	160	153	139	89.6	107	88.8	80.9	
(WY)	1990	1973	1978	1979	1979	1984	1984	1989	1984	1984	1990	1989	
MIN	24.4	26.1	32.2	25.2	33.0	38.8	32.9	27.1	26.0	21.7	15.2	17.8	
(WY)	1982	1982	1989	1981	1992	1981	1995	1977	1986	1988	1981	1988	

# METEDECONK RIVER BASIN

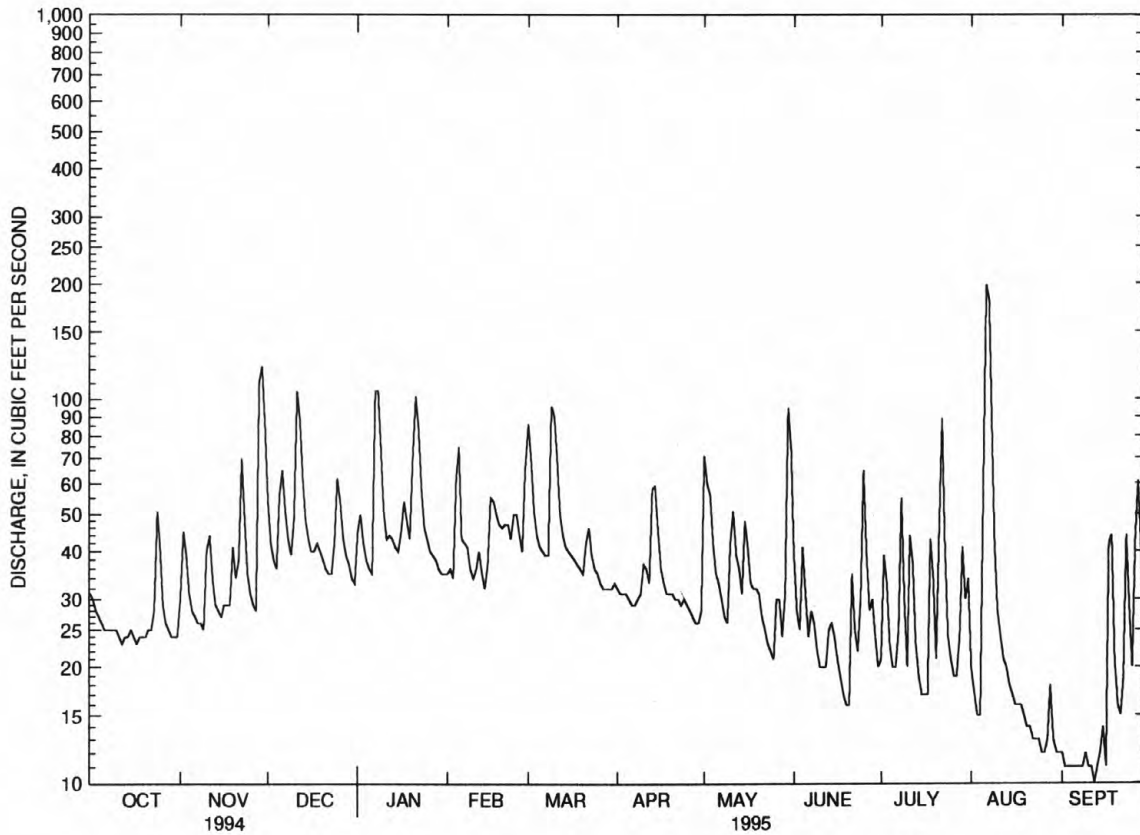
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01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1973 - 1995	
ANNUAL TOTAL	21921		13346			
ANNUAL MEAN	60.1		36.6		60.0	
HIGHEST ANNUAL MEAN					91.5	
LOWEST ANNUAL MEAN					34.7	
HIGHEST DAILY MEAN	403	Jan 29	199	Aug 6	838	Feb 25 1979
LOWEST DAILY MEAN	20	Sep 14	10	Sep 12	10	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	21	Sep 11	11	Sep 2	11	Sep 2 1995
INSTANTANEOUS PEAK FLOW			272	Aug 6	1370a	Nov 8 1977
INSTANTANEOUS PEAK STAGE			6.29	Aug 6	9.28	Nov 8 1977
INSTANTANEOUS LOW FLOW			10	Sep 8	10	Sep 8 1995
ANNUAL RUNOFF (CFSM)	1.72		1.05		1.72	
ANNUAL RUNOFF (INCHES)	23.37		14.23		23.36	
10 PERCENT EXCEEDS	117		57		110	
50 PERCENT EXCEEDS	46		33		45	
90 PERCENT EXCEEDS	25		16		22	

a From rating curve extended above 600 ft<sup>3</sup>/s.

e Estimated.



01408120 N B METEDECONK RIVER NEAR LAKEWOOD, NJ, DAILY MEAN DISCHARGE

## METEDECONK RIVER BASIN

01408150 SOUTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'09", long 74°11'09", Ocean County, Hydrologic Unit 02040301, on right side of dam at Lake Shenandoah, 1.5 mi downstream from Lake Carasaljo, 0.8 mi east of Lakewood, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--27.5 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage above a concrete dam. Datum of gage is 23.0 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Regulation from Lakes Carasaljo, Manetta, and Shenandoah.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 6	2230	*159	*2.36	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	44	61	40	40	47	22	42	64	13	26	12
2	31	41	48	39	40	61	29	57	50	21	21	12
3	29	39	42	40	39	57	29	52	43	33	18	14
4	29	38	40	40	59	49	29	49	22	34	16	14
5	29	38	45	40	e69	41	28	35	21	31	31	14
6	29	38	44	39	e52	35	30	13	26	29	102	14
7	29	29	46	69	e43	35	30	24	30	32	153	14
8	28	18	43	89	e44	39	29	30	30	41	129	14
9	28	17	42	81	e42	61	30	28	29	36	60	14
10	27	25	52	73	e38	73	30	45	28	31	41	14
11	26	29	75	43	37	69	30	48	27	46	35	13
12	26	30	71	42	37	44	30	41	27	54	27	13
13	26	30	60	42	36	43	38	24	27	40	25	14
14	26	30	39	42	36	43	59	27	28	15	24	14
15	26	29	39	42	37	42	55	36	29	16	20	15
16	26	34	39	43	40	38	37	37	30	19	12	15
17	25	42	39	43	39	37	35	44	31	20	13	29
18	24	41	39	44	45	37	35	50	31	40	14	37
19	24	40	38	44	62	35	34	25	31	47	15	34
20	24	39	38	71	50	32	34	21	31	47	17	28
21	24	43	38	85	38	34	34	26	36	37	13	25
22	24	36	38	78	37	32	33	25	34	63	13	29
23	28	21	38	72	38	32	30	24	36	61	13	44
24	35	22	39	41	41	32	31	23	38	45	13	42
25	38	20	39	40	43	34	27	22	53	24	14	36
26	36	18	41	41	53	37	18	27	71	17	14	31
27	32	31	43	41	47	38	20	28	65	18	14	42
28	30	94	42	41	42	37	31	29	62	21	16	44
29	29	114	39	41	--	35	27	39	48	28	14	37
30	28	63	38	40	--	30	25	75	15	25	14	31
31	32	--	38	40	--	20	--	74	--	26	13	--
TOTAL	882	1133	1373	1566	1224	1279	949	1120	1093	1010	950	709
MEAN	28.5	37.8	44.3	50.5	43.7	41.3	31.6	36.1	36.4	32.6	30.6	23.6
MAX	38	114	75	89	69	73	59	75	71	63	153	44
MIN	24	17	38	39	36	20	18	13	15	13	12	12
CFSM	1.03	1.37	1.61	1.84	1.59	1.50	1.15	1.31	1.32	1.18	1.11	.86
IN.	1.19	1.53	1.86	2.12	1.66	1.73	1.28	1.52	1.48	1.37	1.29	.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	39.1	42.2	60.8	57.9	58.0	88.0	58.9	47.2	32.8	36.4	55.1	41.6
MAX	59.8	45.3	87.2	70.2	72.8	120	72.6	61.1	36.4	49.5	76.8	61.4
(WY)	1994	1994	1993	1994	1994	1994	1993	1994	1995	1993	1992	1993
MIN	28.5	37.8	44.3	50.5	43.7	41.3	31.6	36.1	26.7	28.3	30.6	23.6
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1994	1992	1995	1995

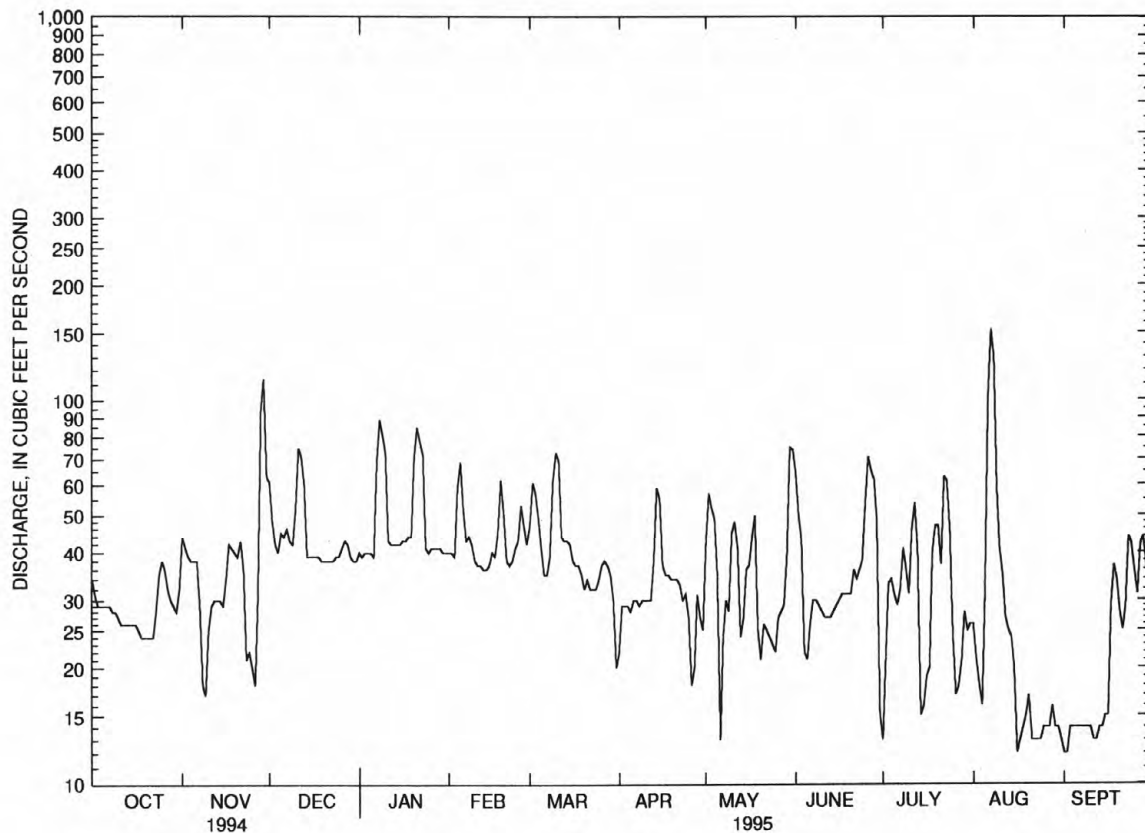
METEDECONK RIVER BASIN

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01408150 SOUTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1992 - 1995	
ANNUAL TOTAL	20403.3		13288		51.3	
ANNUAL MEAN	55.9		36.4		59.7	
HIGHEST ANNUAL MEAN					36.4	
LOWEST ANNUAL MEAN					514	
HIGHEST DAILY MEAN	224	Mar 12	153	Aug 7	514	Dec 12 1992
LOWEST DAILY MEAN	9.4	Jun 2	12	Aug 16	9.4	Jun 2 1994
ANNUAL SEVEN-DAY MINIMUM	23	Jun 10	13	Aug 29	13	Aug 29 1995
INSTANTANEOUS PEAK FLOW			159	Aug 6	652	Dec 12 1992
INSTANTANEOUS PEAK STAGE			2.36	Aug 6	3.38	Dec 12 1992
INSTANTANEOUS LOW FLOW			10	May 6	6.4	Jun 2 1994
ANNUAL RUNOFF (CFSM)	2.03		1.32		1.87	
ANNUAL RUNOFF (INCHES)	27.60		17.98		25.35	
10 PERCENT EXCEEDS	97		57		90	
50 PERCENT EXCEEDS	46		35		40	
90 PERCENT EXCEEDS	26		16		23	

e Estimated.



01408150 S B METEDECONK RIVER NEAR LAKEWOOD, NJ, DAILY MEAN DISCHARGE



## BARNEGAT BAY

## 01408168 BARNEGAT BAY AT MANTOLOKING, NJ

LOCATION.--Lat 40°42'24", long 74°03'25", Ocean County, Hydrologic Unit 02040301, at east end of Downer Avenue in Mantoloking and 0.1 mi south of bridge on State Route 528.

PERIOD OF RECORD.--Tidal crest-stage gage 1979-85, 1993. June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Feb. 6-15, 26-27, and June 1 to July 4. Summaries for months with short periods of no gage-height record have been recalculated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (---) lines.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation known, 4.93 ft, Oct. 11, 1992, from crest-stage gage; minimum recorded, e-0.20 ft, Feb. 4, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 2.84 ft, Jan. 21; minimum recorded, e-0.20 ft, Feb. 4.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	2.37	2.56	2.28	2.84	2.23	1.96	2.27	2.40	e2.10	2.03	2.42	2.39
high tide	Date	19	28	25	21	4	21	19	17	15	18	31	30
Minimum	Elevation	.40	.01	-.01	0	e-.20	-.11	-.10	.29	e.40	.69	.65	.61
low tide	Date	11	24	30	29	13	10	6	8	20	31	5	18
Mean high tide		1.53	1.17	1.24	1.11	---	1.20	1.25	1.62	---	1.57	1.69	1.68
Mean water level		1.30	.96	1.02	.90	---	.99	1.00	1.37	---	1.39	1.45	1.48
Mean low tide		1.05	.78	.79	.68	---	.79	.79	1.14	---	1.18	1.23	1.28

e Estimated.

# BARNEGAT BAY

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01408200 BARNEGAT BAY AT BAY SHORE, NJ

LOCATION.--Lat 39°56'56", long 74°06'52", Ocean County, Hydrologic Unit 02040301, at west end of bridge on State Route 37 over Barnegat Bay at Bay Shore, 2.2 mi west of Seaside Heights, and 4.5 mi east of Toms River.

PERIOD OF RECORD.--Tidal crest-stage gage 1965-86, 1992. August 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Jan. 5-7, and Feb. 6-16. Summaries for months with short periods of no gage-height record have been recalculated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation known, 4.27 ft, Oct. 30, 1991, from crest-stage gage; minimum recorded, 0.11 ft, Apr. 6, 1995

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 2.74 ft, Jan. 21; minimum recorded, 0.11 ft, Apr. 6, but lower elevation could have occurred during the period of missing record.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	2.35	2.45	2.64	2.74	2.22	1.91	2.03	2.37	2.03	2.05	2.50	2.41
high tide	Date	19	28	24	21	4	21	19	18	15	18	19	27
Minimum	Elevation	.50	.14	.14	e.10	e.00	.12	.11	.38	.51	.75	.75	.70
low tide	Date	30	24	30	29	13	10.11	6	8	20	31	5	15
Mean high tide		1.59	1.26	1.37	1.16	---	1.28	1.27	1.66	1.41	1.65	1.80	1.66
Mean water level		1.32	.98	1.11	.93	---	1.04	1.02	1.40	1.17	1.41	1.54	1.49
Mean low tide		1.03	.77	.80	.70	---	.78	.78	1.12	.91	1.15	1.27	1.31

Estimated.

## 01408500 TOMS RIVER NEAR TOMS RIVER, NJ

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, Hydrologic Unit 02040301, on left bank 500 ft downstream of bridge on State Route 527 (Oak Ridge Parkway), 1.9 mi downstream from Union Branch, and 2.6 mi northwest of community of Toms River.

DRAINAGE AREA.--123 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October, November 1928, published in WSP 1302.

REVISED RECORDS.--WSP 1702: 1938. WDR NJ-76-1: 1975(M). WDR NJ-77-1: 1976.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 8.10 ft above sea level.

REMARKS.--Records good. Diversions by Ciba-Geigy Inc. since July 1966, 800 ft. upstream; the effluent is returned by pipeline directly into the Atlantic Ocean, thus bypassing station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 9	1515	*273	*4.72	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	114	263	144	144	213	124	145	248	83	69	47
2	145	137	208	157	143	231	125	164	199	102	64	45
3	136	148	176	159	140	222	120	170	149	101	61	46
4	128	139	161	152	158	195	120	163	137	94	60	45
5	122	132	168	145	178	181	116	150	129	87	84	45
6	118	126	188	136	146	171	114	138	118	83	112	45
7	116	120	193	178	174	164	114	127	113	85	144	45
8	114	115	185	207	167	161	113	118	110	103	146	45
9	112	113	187	254	155	212	121	112	102	97	116	46
10	109	125	189	253	146	231	147	124	97	90	92	46
11	106	136	210	215	145	251	130	144	95	118	83	43
12	105	135	232	198	147	220	124	144	94	132	77	43
13	105	129	245	187	142	189	150	136	95	115	72	44
14	109	123	223	178	136	175	173	127	101	101	68	44
15	112	119	200	169	135	164	182	128	107	90	64	45
16	104	119	183	169	150	157	162	131	99	89	63	45
17	101	123	171	177	166	153	145	122	92	85	62	75
18	101	126	167	179	173	149	133	121	86	118	62	91
19	100	135	163	173	173	143	127	121	82	133	57	79
20	100	133	157	184	174	140	123	120	78	113	58	67
21	99	139	150	211	173	146	120	114	77	103	56	62
22	99	170	146	236	182	154	120	107	79	123	54	67
23	104	170	140	238	142	151	118	101	82	124	52	97
24	118	160	140	217	133	145	118	96	87	103	51	97
25	128	146	155	200	173	140	118	93	97	92	49	84
26	123	136	167	186	172	134	110	100	94	85	49	88
27	116	130	161	174	165	130	111	108	92	79	49	108
28	112	193	156	164	183	127	109	103	94	76	51	99
29	110	226	150	156	---	125	106	102	90	78	49	83
30	109	258	144	150	---	124	108	199	83	75	48	75
31	106	---	140	147	---	125	---	215	---	73	47	---
TOTAL	3523	4275	5518	5693	4415	5223	3801	4043	3206	3030	2169	1891
MEAN	114	142	178	184	158	168	127	130	107	97.7	70.0	63.0
MAX	156	258	263	254	183	251	182	215	248	133	146	108
MIN	99	113	140	136	133	124	106	93	77	73	47	43
CFSM	.92	1.16	1.45	1.49	1.28	1.37	1.03	1.06	.87	.79	.57	.51
IN.	1.07	1.29	1.67	1.72	1.34	1.58	1.15	1.22	.97	.92	.66	.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1995, BY WATER YEAR (WY)

MEAN	156	198	223	243	250	292	280	242	185	157	161	151
MAX	325	475	447	506	455	541	573	461	463	439	359	414
(WY)	1972	1973	1973	1978	1973	1958	1984	1958	1968	1938	1990	1971
MIN	83.3	85.5	96.1	104	128	143	120	118	96.8	77.3	57.9	63.0
(WY)	1942	1966	1966	1981	1992	1985	1985	1992	1977	1988	1966	1995

## TOMS RIVER BASIN

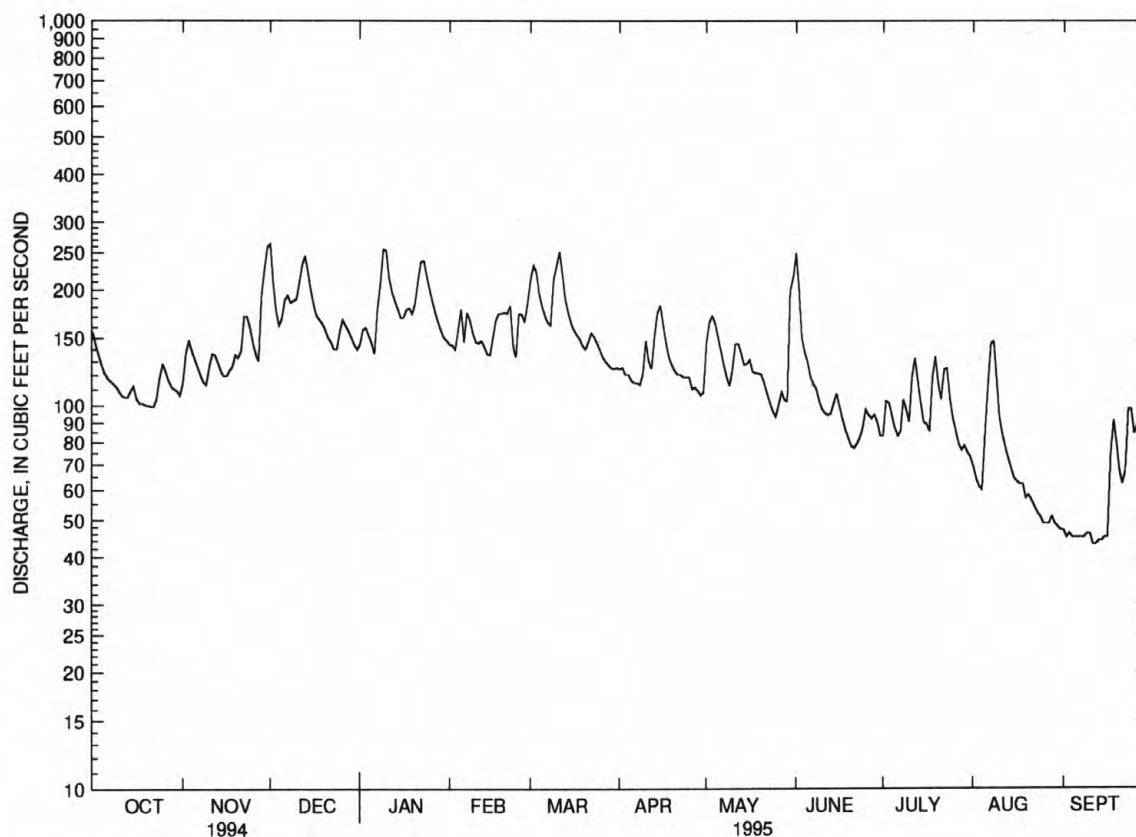
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01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1929 - 1995	
ANNUAL TOTAL	81008		46787			
ANNUAL MEAN	222		128		211	
HIGHEST ANNUAL MEAN					335	
LOWEST ANNUAL MEAN					128	
HIGHEST DAILY MEAN	764	Mar 12	263	Dec 11	910	Sep 23 1938
LOWEST DAILY MEAN	87	Jul 14	43	Sep 11	43	Sep 11 1995
ANNUAL SEVEN-DAY MINIMUM	91	Sep 11	44	Sep 10	44	Sep 10 1995
INSTANTANEOUS PEAK FLOW			273	Jan 9	2000a	Sep 23 1938
INSTANTANEOUS PEAK STAGE			4.72	Jan 9	12.50b	Sep 23 1938
INSTANTANEOUS LOW FLOW			42	Sep 11	42	Sep 11 1995
ANNUAL RUNOFF (CFSM)	1.80		1.04		1.72	
ANNUAL RUNOFF (INCHES)	24.50		14.15		23.34	
10 PERCENT EXCEEDS	402		187		352	
50 PERCENT EXCEEDS	185		124		183	
90 PERCENT EXCEEDS	109		64		97	

a From rating curve extended above 1,500 ft<sup>3</sup>/s.

b From floodmark.



— 01408500 TOMS RIVER NEAR TOMS RIVER, NJ, DAILY MEAN DISCHARGE

## TOMS RIVER BASIN

01408500 TOMS RIVER NEAR TOMS RIVER, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.

SPECIFIC CONDUCTANCE: November 1974 to September 1981.

WATER TEMPERATURE: November 1963 to May 1966, November 1974 to September 1981.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY BROTH (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)
NOV 1994												
21...	1050	127	76	5.9	10.0	765	10.4	92	E1.1	2	50	2
FEB 1995												
01...	0945	144	75	5.9	3.0	755	12.1	91	E1.9	13	10	1
MAR												
15...	1050	165	72	4.9	10.0	765	10.0	88	<1.0	180	10	6
MAY												
18...	1110	121	75	6.0	16.5	753	8.5	88	E1.4	20	20	6
JUL												
26...	1015	86	79	5.8	23.5	760	6.9	81	<1.0	14	170	5

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L) (00556)
NOV 1994											
21...	0.004	0.52	0.23	0.19	0.40	0.29	0.92	0.81	0.02	<0.01	<1
FEB 1995											
01...	0.003	0.64	0.26	0.24	0.40	0.35	1.0	0.99	<0.01	<0.01	--
MAR											
15...	0.005	0.42	0.17	0.16	0.40	0.35	0.82	0.77	<0.01	<0.01	--
MAY											
18...	0.007	0.59	0.17	0.19	0.40	0.25	0.99	0.84	<0.01	<0.01	--
JUL											
26...	0.013	0.73	0.17	0.15	0.40	0.26	1.1	0.99	<0.01	<0.01	--



# BARNEGAT BAY

301

## 01409110 BARNEGAT BAY AT WARETOWN, NJ

LOCATION.--Lat 39°47'29", long 74°10'58", Ocean County, Hydrologic Unit 02040301, on the pier of the Waretown Fishing Station at the end of Bryant Road on west side of Barnegat Bay, 0.7 mi east of Waretown, and 3.2 mi south of Forked River.

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Nov. 28 to Dec. 6, and Feb. 6-8, 13-15. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 3.29 ft, Dec. 24, 1994; minimum recorded, -0.45 ft, Apr. 6, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 3.29 ft, Dec. 24; minimum recorded, -0.45 ft, Apr. 6, but lower elevation could have occurred during the periods of missing record.

Summaries of tide elevations during the year are as follows:

### TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	2.18	2.15	3.29	2.42	2.10	1.78	1.82	2.16	2.05	1.91	2.54	2.39
high tide	Date	18	18	24	20	4	17	20	18	28	18	19	26
Minimum	Elevation	.50	-.23	.12	-.15	-.23	-.17	-.45	.52	.43	.67	.78	.71
low tide	Date	30	24	30	6	13	10	6	24	20	27	5	15
Mean high tide		1.49	1.17	---	1.08	---	1.23	1.18	1.49	1.34	1.48	1.74	1.72
Mean water level		1.29	.96	---	.88	---	1.02	.93	1.27	1.14	1.25	1.51	1.49
Mean low tide		1.06	.73	---	.67	---	.81	.71	1.05	.93	1.02	1.27	1.25

## BARNEGAT BAY

01409135 BARNEGAT BAY AT LOVELADIES, NJ

LOCATION.--Lat 39°43'24", long 74°08'06", Ocean County, Hydrologic Unit 02040301, on the bulkhead at Mathew's Point Park on the east shore of Barnegat Bay in Loveladies on Long Beach Island, 2.0 mi north of Harvey Cedars, and 3.0 mi south of Barnegat Inlet.

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Dec. 20 to Jan. 15, Feb. 16-25, and 28. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 3.90 ft, Mar. 3, 1994; minimum recorded, 0.27 ft, Feb. 5.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 3.89 ft, Dec. 24; minimum recorded, -0.22 ft, Feb. 14, but lower elevation could have occurred during the period of missing record.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	2.73	2.74	3.89	2.90	2.92	2.32	2.37	2.73	2.57	2.44	3.01	2.88
high tide	Date	18	18	24	20	4	17	20	18	13	18	19	26
Minimum	Elevation	.82	.30	.55	.19	-.22	.25	-.10	.81	.75	.90	1.11	1.03
low tide	Date	29	24	30	6	14	11	6	24	1	27	26	16
Mean high tide		2.06	1.75	2.01	---	---	1.80	1.72	2.08	1.84	1.97	2.24	2.21
Mean water level		1.75	1.41	1.66	---	---	1.49	1.38	1.76	1.56	1.66	1.93	1.89
Mean low tide		1.45	1.12	1.42	---	---	1.20	1.12	1.47	1.29	1.36	1.63	1.59

## MULLICA RIVER BASIN

303

01409375 MULLICA RIVER NEAR ATCO, NJ

LOCATION.--Lat 39°47'08", long 74°51'38", Camden County, Hydrologic Unit 02040301, at bridge on Jackson-Medford Road, and 1.8 mi northeast of CONRAIL railroad tracks and Atco Street in Atco.

DRAINAGE AREA.--3.22 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1977-78, 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994										
21...	1245	E1.6	115	6.5	4.5	775	12.6	96	18	4.4
MAR 1995										
14...	1010	2.3	135	6.4	11.5	770	10.3	93	20	5.2
JUN										
14...	0845	0.71	106	7.0	21.0	754	7.3	83	19	5.0
AUG										
16...	1127	0.03	106	5.9	27.5	758	4.6	59	16	3.7

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994										
21...	1.7	11	2.1	7.6	8.3	18	<0.1	2.7	72	55
MAR 1995										
14...	1.7	--	--	--	10	24	--	--	72	--
JUN										
14...	1.7	--	--	--	7.5	17	--	--	63	--
AUG										
16...	1.7	--	--	--	5.6	18	--	--	59	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 1994									
21...	1	<0.01	0.60	<0.015	0.20	0.80	<0.01	<0.01	4.4
MAR 1995									
14...	--	--	0.68	0.02	0.30	0.98	<0.01	<0.01	--
JUN									
14...	--	--	0.12	<0.015	0.40	0.52	0.02	<0.01	--
AUG									
16...	--	--	<0.05	0.11	1.1	--	0.06	<0.01	--

## MULLICA RIVER BASIN

## 01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

LOCATION.--Lat 39°44'25", long 74°43'37". Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi upstream from Wesickaman Creek.

DRAINAGE AREA.--26.7 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1994												
27...	1100	21	33	4.8	12.5	767	9.6	89	<1.0	<20	<10	5
JAN 1995												
19...	1300	54	62	4.5	9.5	765	10.2	89	E1.8	<20	<10	6
MAR												
29...	1100	33	45	4.8	11.5	764	10.9	100	<1.0	<20	<10	6
MAY												
31...	1030	30	37	5.0	20.5	764	8.1	90	<1.0	<20	20	5
JUL												
20...	1030	31	46	5.0	26.5	762	7.0	87	E1.1	<20	20	5
DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1994												
27...	1.1	0.58	2.6	0.60	<1.0	4.4	4.9	<0.1	4.7	24	--	3
JAN 1995												
19...	1.2	0.64	3.3	0.70	--	7.3	5.4	<0.1	4.2	28	--	1
MAR												
29...	1.2	0.63	3.1	0.70	<1.0	8.9	5.3	<0.1	2.7	30	--	3
MAY												
31...	1.2	0.57	3.0	0.60	<1.0	4.0	5.0	<0.1	2.5	28	--	2
JUL												
20...	1.1	0.58	2.0	0.40	1.0	3.5	3.0	<0.1	3.1	24	15	6
DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994												
27...	<0.003	0.43	0.07	0.03	0.30	0.13	0.73	0.56	0.03	0.02	3.6	1.6
JAN 1995												
19...	0.003	0.11	<0.03	<0.03	0.15	0.12	0.26	0.23	0.02	0.02	4.6	0.3
MAR												
29...	0.005	0.10	<0.03	<0.03	0.14	0.13	0.24	0.23	<0.01	<0.01	4.2	0.5
MAY												
31...	<0.003	0.073	0.05	0.06	0.30	0.21	0.37	0.28	<0.01	<0.01	6.0	2.6
JUL												
20...	0.006	0.068	<0.03	<0.03	0.40	0.30	0.47	0.37	<0.01	0.01	7.8	2.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
OCT 1994											
27...	<1	--	2	<5	--	1	--	13000	--	<10	--
27...	--	<1	--	--	<1	--	1200	--	<1	--	30
MAY 1995											
31...	--	<1	--	--	<1	--	2100	--	1	--	20

[illegible][illegible]



## MULLICA RIVER BASIN

01409400 MULLICA RIVER NEAR BATSTO, NJ

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, Hydrologic Unit 02040301, on right bank 2.4 mi upstream from Sleeper Branch, and 2.5 mi north of Batsto.

DRAINAGE AREA.--46.7 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1957 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1958(M), 1960(M), 1967-68(M), WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 11.93 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Some regulation from upstream cranberry bogs and Atsion Lake. Diversions from Sleeper Branch enter river upstream of gage and substantially increase the discharge at the gage. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	37	73	70	70	111	59	75	39	29	23	13
2	64	44	70	69	70	113	57	61	30	34	21	12
3	61	41	68	66	67	111	53	65	32	33	20	12
4	58	39	66	61	77	110	53	64	35	31	18	12
5	53	39	77	51	77	109	52	72	37	29	18	12
6	49	41	80	52	65	107	51	72	36	27	31	22
7	46	41	77	98	69	106	59	66	41	32	38	33
8	45	40	73	113	75	106	58	62	40	35	36	34
9	46	40	69	113	73	113	56	60	38	33	33	20
10	51	46	75	126	74	118	59	82	37	30	30	9.5
11	49	47	92	146	73	119	67	97	36	32	27	6.7
12	50	47	88	145	71	125	67	92	38	29	26	5.9
13	48	48	85	114	68	131	80	85	38	27	25	5.9
14	41	51	84	92	71	120	82	81	40	26	23	5.9
15	47	55	84	91	71	109	83	84	51	26	20	5.6
16	42	60	82	89	82	108	81	80	41	48	17	5.1
17	40	64	89	90	82	102	87	78	31	60	16	12
18	41	63	96	93	80	72	92	83	28	86	15	14
19	41	43	91	95	77	69	84	84	28	76	14	14
20	39	42	70	107	77	68	72	83	29	60	13	15
21	36	47	61	140	80	74	68	79	28	48	13	16
22	35	76	60	148	80	82	67	62	27	38	13	19
23	37	91	61	140	80	93	66	51	29	37	13	32
24	42	78	73	133	86	107	69	51	35	35	15	39
25	45	70	81	124	98	102	69	51	34	34	14	42
26	39	64	77	114	102	94	67	57	33	31	14	29
27	37	60	73	106	98	88	60	66	31	28	14	22
28	36	80	73	92	102	64	57	62	30	26	14	20
29	37	83	70	75	---	57	59	59	28	25	13	20
30	37	78	64	72	---	58	65	57	27	27	13	20
31	32	---	62	71	---	60	---	54	---	24	13	---
TOTAL	1391	1655	2344	3096	2195	3006	1999	2175	1027	1136	613	528.6
MEAN	44.9	55.2	75.6	99.9	78.4	97.0	66.6	70.2	34.2	36.6	19.8	17.6
MAX	67	91	96	148	102	131	92	97	51	86	38	42
MIN	32	37	60	51	65	57	51	51	27	24	13	5.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1995, BY WATER YEAR (WY)

	MEAN	67.5	88.7	119	138	139	159	150	122	77.4	71.2	75.5	61.0
MAX	192	305	305	311	292	312	358	358	273	159	177	253	223
(WY)	1976	1973	1973	1978	1979	1994	1983	1989	1979	1989	1958	1975	1975
MIN	24.1	22.0	29.8	29.3	64.4	59.1	50.3	53.3	32.3	21.9	19.8	17.6	17.6
(WY)	1966	1966	1966	1981	1992	1985	1985	1992	1977	1977	1995	1995	1995

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

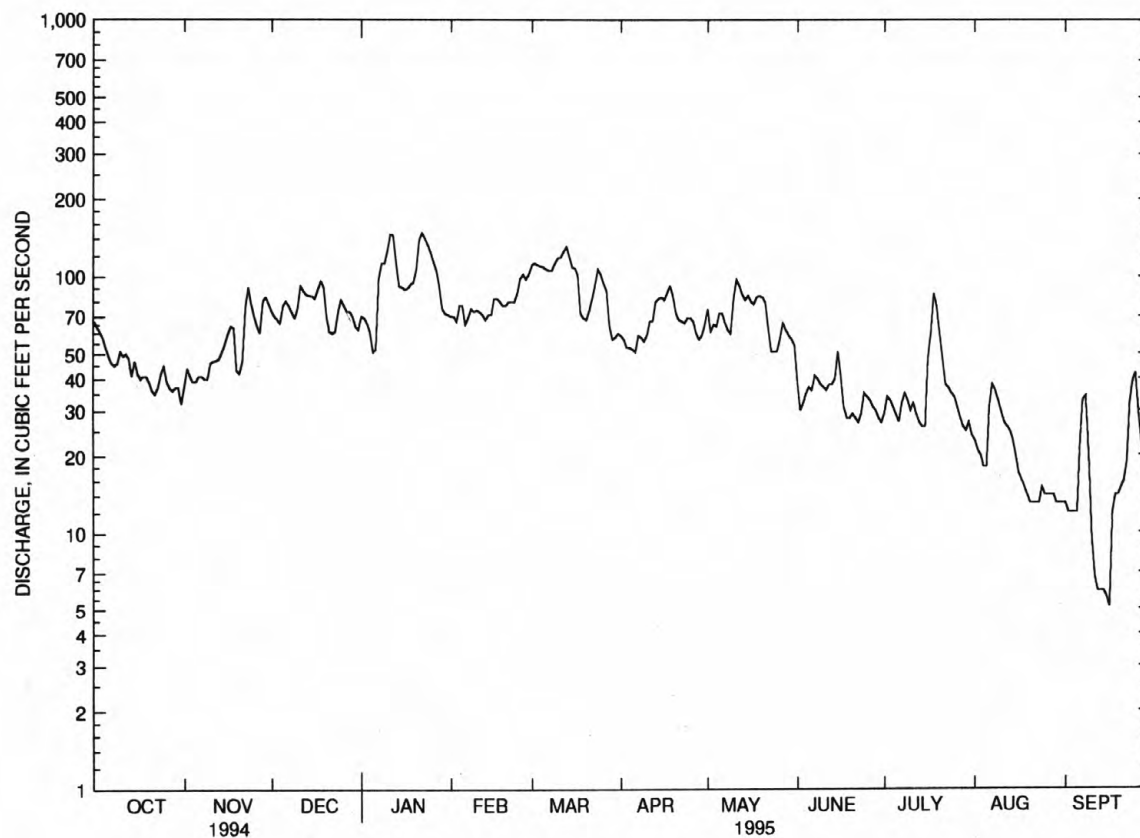
WATER YEARS 1957 - 1995

ANNUAL TOTAL	42571	21165.6	106
ANNUAL MEAN	117	58.0	168
HIGHEST ANNUAL MEAN			50.4
LOWEST ANNUAL MEAN			1973
HIGHEST DAILY MEAN	509	Mar 30	148
LOWEST DAILY MEAN	29	Jul 14	5.1
ANNUAL SEVEN-DAY MINIMUM	34	Jun 21	6.4
INSTANTANEOUS PEAK FLOW			149
INSTANTANEOUS PEAK STAGE			1.88
INSTANTANEOUS LOW FLOW			4.9
10 PERCENT EXCEEDS	231	98	200
50 PERCENT EXCEEDS	90	59	85
90 PERCENT EXCEEDS	41	20	32

MULLICA RIVER BASIN

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01409400 MULLICA RIVER NEAR BATSTO, NJ



—— 01409400 MULLICA RIVER NEAR BATSTO, NJ, DAILY MEAN DISCHARGE

## MULLICA RIVER BASIN

01409401 HAYS MILL CREEK AT ATCO, NJ

LOCATION.--Lat 39°45'32", long 74°53'02", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30, at outlet of Atco Lake in Atco, and 3.3 mi southeast of Berlin.

DRAINAGE AREA.--3.80 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL AS CACO3 (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	1040	2.1	95	6.3	4.0	775	12.0	90	19	4.1
MAR 1995 14...	1045	2.6	92	6.6	12.0	768	10.3	95	19	4.4
JUN 14...	1344	2.2	88	7.0	22.0	756	10.0	115	21	4.6
AUG 16...	1335	1.5	80	6.4	30.0	758	9.8	131	16	2.9
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	2.1	7.2	2.0	6.9	5.5	14	<0.1	3.5	58	48
MAR 1995 14...	2.0	--	--	--	5.5	15	--	--	56	--
JUN 14...	2.2	--	--	--	4.3	13	--	--	56	--
AUG 16...	2.2	--	--	--	5.0	14	--	--	46	--
DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	
DEC 1994 21...	1	<0.01	1.30	<0.015	<0.20	--	<0.01	<0.01	3.4	
MAR 1995 14...	--	--	0.94	<0.015	0.30	1.2	<0.01	<0.01	--	
JUN 14...	--	--	0.19	<0.015	0.30	0.49	0.04	<0.01	--	
AUG 16...	--	--	0.083	0.020	0.30	0.38	<0.01	<0.01	--	

## MULLICA RIVER BASIN

309

## 01409402 HAYS MILL CREEK NEAR CHESILHURST, NJ

LOCATION.--Lat 39°45'02", long 74°50'28", Camden County, Hydrologic Unit 02040301, at bridge on Tremont Avenue in Wharton State Forest, 2 mi northeast of Chesilhurst, and 0.3 mi northeast of Burnt Mill Road.

DRAINAGE AREA.--7.13 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	1405	E7.1	93	6.3	6.5	775	11.7	94	15	3.2
MAR 1995 14...	1355	8.9	96	6.3	12.0	770	10.1	93	16	3.6
JUN 14...	1044	8.0	88	6.6	15.5	756	7.8	79	18	4.0
AUG 16...	0950	4.2	83	5.9	19.5	759	7.5	82	15	3.2

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	1.7	8.2	1.8	5.4	4.5	14	<0.1	5.4	58	49
MAR 1995 14...	1.6	--	--	--	5.4	15	--	--	50	--
JUN 14...	1.9	--	--	--	4.6	13	--	--	52	--
AUG 16...	1.8	--	--	--	4.5	13	--	--	46	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 1994 21...	1	<0.01	1.60	<0.015	<0.20	--	0.01	0.01	2.5
MAR 1995 14...	--	--	1.40	<0.015	0.20	1.6	<0.01	<0.01	--
JUN 14...	--	--	1.10	<0.015	0.30	1.4	0.03	<0.01	--
AUG 16...	--	--	1.00	<0.015	<0.20	--	0.02	<0.01	--

## MULLICA RIVER BASIN

0140940370 SLEEPER BRANCH NEAR ATSION, NJ

LOCATION.--Lat 39°43'42", long 74°46'12", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 500 ft downstream of Saltars Ditch, and 2.3 mi west of Atsion.

DRAINAGE AREA.--16.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	0910	17	62	6.1	3.5	773	12.3	91	15	2.7
MAR 1995 14...	1545	19	63	5.0	11.5	769	9.7	88	9	1.9
JUN 14...	1235	12	60	6.7	16.0	758	8.7	89	12	2.4
AUG 16...	1130	6.7	60	6.7	21.0	760	7.5	84	9	1.8
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	2.1	6.6	1.8	7.6	2.8	13	<0.1	3.5	52	41
MAR 1995 14...	1.1	--	--	--	5.5	9.6	--	--	42	--
JUN 14...	1.4	--	--	--	3.2	9.1	--	--	38	--
AUG 16...	1.2	--	--	--	3.5	9.3	--	--	42	--
DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	
DEC 1994 21...	1	<0.01	0.96	<0.015	<0.20	--	<0.01	<0.01	3.2	
MAR 1995 14...	--	--	0.66	<0.015	0.30	0.96	<0.01	<0.01	--	
JUN 14...	--	--	0.68	<0.015	0.30	0.98	0.02	<0.01	--	
AUG 16...	--	--	0.62	<0.015	<0.20	--	0.01	<0.01	--	



0140940480 CLARK BRANCH NEAR ATSION, NJ

LOCATION.--Lat 39°42'53", long 74°46'25", Camden County, Hydrologic Unit 02040301, at railroad bridge, 0.2 mi downstream of Price Branch tributary, and 2.8 mi west of Afton.

DRAINAGE AREA.--6.42 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible][illegible][illegible]

## MULLICA RIVER BASIN

## 01409408 PUMP BRANCH NEAR WATERFORD WORKS, NJ

LOCATION.--Lat 39°41'59", long 74°50'40", Camden County, Hydrologic Unit 02040301, at bridge on Old White Horse Pike, 0.5 mi downstream from lake at Camp Ha-Lu-Wa-Sa, and 1.6 mi south of Waterford Works.

DRAINAGE AREA.--9.78 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OF (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	0910	8.6	84	6.6	3.0	775	9.8	72	10	2.1
MAR 1995 14...	1310	5.0	87	6.4	13.0	769	9.0	85	17	3.3
JUN 14...	1240	14	72	6.6	21.0	756	6.5	74	18	3.1
AUG 16...	1100	7.1	64	6.5	26.5	760	3.6	45	15	2.3

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	1.2	5.5	1.2	3.1	4.0	9.3	<0.1	5.3	46	36
MAR 1995 14...	2.1	--	--	--	3.2	14	--	--	45	--
JUN 14...	2.4	--	--	--	1.6	11	--	--	45	--
AUG 16...	2.3	--	--	--	1.5	10	--	--	39	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 1994 21...	<1	<0.01	1.20	0.02	<0.20	--	0.03	<0.01	3.6
MAR 1995 14...	--	--	1.30	0.03	0.30	1.6	<0.01	<0.01	--
JUN 14...	--	--	0.82	0.02	0.40	1.2	0.02	<0.01	--
AUG 16...	--	--	0.35	0.03	0.40	0.75	0.01	0.03	--

## MULLICA RIVER BASIN

313

0140940950 BLUE ANCHOR BROOK AT ELM, NJ

LOCATION.--Lat 39°40'11", long 74°50'06", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 at Elm, at outlet of Winslow Lake, and 1.4 mi upstream of confluence with Pump Branch.

DRAINAGE AREA.--4.86 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	1410	2.1	73	6.8	5.5	772	12.5	98	12	2.5
MAR 1995 14...	0915	2.9	73	6.9	11.5	769	11.1	101	13	3.1
JUN 14...	1207	1.5	70	6.8	21.5	756	6.9	79	13	2.8
AUG 16...	0957	0.80	68	6.8	28.0	760	5.2	67	12	2.7

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	1.3	6.9	1.6	8.1	4.6	9.5	<0.1	2.5	52	36
MAR 1995 14...	1.3	--	--	--	5.2	11	--	--	34	--
JUN 14...	1.4	--	--	--	3.7	10	--	--	46	--
AUG 16...	1.3	--	--	--	5.4	9.2	--	--	40	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 1994 21...	1	<0.01	0.51	0.05	0.30	0.81	<0.01	<0.01	3.3
MAR 1995 14...	--	--	0.49	0.04	0.30	0.79	0.02	<0.01	--
JUN 14...	--	--	<0.05	0.06	0.80	--	0.07	<0.01	--
AUG 16...	--	--	<0.05	0.14	0.90	--	0.04	<0.01	--

## MULLICA RIVER BASIN

0140940970 ALBERTSON BRANCH NEAR ELM, NJ

LOCATION.--Lat 39°41'34", long 74°48'24", Camden County, Hydrologic Unit 02040301, at bridge on Fleming Pike, 0.4 mi downstream from confluence of Blue Anchor Brook and Pump Branch, and 1.6 mi northeast of Elm.

DRAINAGE AREA.--17.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1994 21...	1235	14	74	6.3	4.0	772	11.4	86	14	2.8
MAR 1995 14...	1130	19	75	6.3	10.5	770	10.0	89	14	3.0
JUN 14...	0935	18	65	6.5	17.5	755	7.4	78	16	3.2
AUG 16...	0846	13	61	6.6	23.5	760	6.0	71	14	2.2

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1994 21...	1.8	5.6	1.7	5.5	4.5	10	<0.1	4.0	48	39
MAR 1995 14...	1.7	--	--	--	5.1	12	--	--	46	--
JUN 14...	2.0	--	--	--	3.5	9.2	--	--	42	--
AUG 16...	2.0	--	--	--	2.8	9.2	--	--	35	--

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
DEC 1994 21...	4	<0.01	1.10	<0.015	<0.20	--	<0.01	<0.01	2.1
MAR 1995 14...	--	--	0.96	0.02	<0.20	--	<0.01	<0.01	--
JUN 14...	--	--	0.48	0.02	0.30	0.78	0.02	<0.01	--
AUG 16...	--	--	0.24	<0.015	0.90	1.1	0.11	<0.01	--

## MULLICA RIVER BASIN

315

## 01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ

LOCATION.--Lat 39°38'02", long 74°43'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road in Wescoatville, 1.1 mi southwest of Nesco, 1.7 mi upstream from Norton Branch, and 3.8 mi southwest of Batsto.

DRAINAGE AREA.--9.57 mi<sup>2</sup>, revised.

PERIOD OF RECORD.--Water years 1974 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
24...	1200	E5.0	121	6.5	13.5	763	6.8	65	E1.7	270	60	24	
JAN 1995													
19...	1030	E20	121	6.6	9.0	765	8.3	72	<1.6	<20	<10	23	
MAR													
23...	1120	E20	117	6.6	9.0	751	9.6	84	<1.0	<20	10	24	
MAY													
31...	1320	E10	120	6.7	17.0	764	7.8	81	<1.0	20	100	21	
JUL													
25...	1100	E5.0	130	6.7	23.0	760	5.4	63	E1.2	1100	340	22	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
24...	6.4	2.0	13	4.1	13	10	17	<0.1	7.6	74	74	6	
JAN 1995													
19...	5.3	2.3	8.6	3.6	6.2	11	14	<0.1	5.8	62	65	1	
MAR													
23...	5.8	2.3	8.8	3.9	7.5	13	14	<0.1	6.4	72	66	1	
MAY													
31...	5.1	2.1	11	3.9	12	11	14	<0.1	7.3	70	68	7	
JUL													
25...	5.4	2.0	12	4.0	12	11	16	<0.1	6.3	82	69	20	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
24...	0.005	1.30	0.04	<0.03	0.40	0.26	1.7	1.6	0.23	0.20	5.1	0.2	
JAN 1995													
19...	0.008	2.30	0.07	0.06	0.60	0.22	2.9	2.5	0.18	0.11	2.7	0.2	
MAR													
23...	0.003	1.70	<0.03	<0.03	0.20	0.14	1.9	1.8	0.07	0.03	3.0	0.3	
MAY													
31...	0.012	1.40	0.12	0.09	0.30	0.31	1.7	1.7	0.32	0.24	3.4	1.6	
JUL													
25...	0.011	1.10	0.06	0.08	0.60	0.34	1.7	1.4	0.47	0.24	4.9	1.5	



WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CO) (01038)	COPPER, RECOV. TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01043)	IRON, RECOV. TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS FE) (01170)	LEAD, RECOV. TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
OCT 1994											
24...	<1	--	1	<5	--	3	--	810	--	<10	--
24...	--	<1	--	--	6	--	370	--	1	--	10
MAY 1995											
31...	--	<1	--	--	4	--	660	--	2	--	20

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	NICKEL, RECOV. TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01148)	ZINC, RECOV. TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC TOT IN BOT MAT (G/KG AS C) (00686)	
	OCT 1994										
	24...	1	--	0.01	--	<10	--	<1	--	5	<0.1
	24...	--	<0.1	--	3	--	<1	--	30	--	--
	MAY 1995										
31...	--	<0.1	--	2	--	<1	--	30	--	--	

[illegible][illegible]

## MULLICA RIVER BASIN

317

## 01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, Hydrologic Unit 02040301, on right bank 30 ft downstream from bridge on State Highway 542 at Batsto, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for April to September 1939, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1930, 1933, 1936, 1938. WDR NJ-83-1: Drainage area. WDR-87-1: 1939 (M). WDR-94-1: 1993 (M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft downstream. Datum of gage is 1.4 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Considerable regulation at times by sluice gates prior to December 1954 and by automatic Bascule and sluice gates since July 1959 at Batsto Lake, 300 ft upstream; the capacity of Batsto Lake is about 60,000,000 gal. Several measurements of water temperature, other than those published, were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	64	99	81	99	121	83	78	66	51	46	36
2	90	68	93	84	98	138	83	89	64	53	45	38
3	85	68	87	82	96	137	80	92	62	52	44	e36
4	79	69	82	79	101	132	78	92	61	50	44	36
5	76	73	88	76	105	122	75	89	59	49	45	34
6	75	72	96	75	104	115	72	84	59	48	e56	35
7	73	69	102	99	99	109	73	81	65	51	e64	35
8	72	68	99	126	94	106	72	75	62	56	e60	35
9	73	68	93	151	92	120	70	73	59	53	53	e36
10	74	71	95	147	91	132	72	87	58	49	50	e34
11	72	75	106	137	90	141	74	101	58	51	47	35
12	68	73	113	129	90	136	73	107	58	51	e47	35
13	65	72	114	123	89	133	84	102	59	48	46	35
14	64	75	110	120	87	126	89	98	e60	44	44	36
15	64	71	104	120	85	119	86	99	60	46	44	35
16	63	67	99	116	89	113	80	95	56	51	43	36
17	61	72	96	112	96	108	78	91	55	71	e42	46
18	62	74	93	110	103	104	82	90	53	81	e41	49
19	64	71	91	107	103	99	87	92	51	77	e45	46
20	67	70	89	120	102	93	80	94	50	71	e39	40
21	64	73	86	136	104	92	76	93	49	70	38	41
22	61	84	84	165	103	97	74	88	49	68	37	43
23	62	87	83	168	103	98	72	81	50	63	37	53
24	62	82	90	153	103	97	73	76	56	61	38	53
25	67	78	87	132	103	94	73	70	58	62	37	48
26	68	75	89	122	105	90	72	73	55	57	39	49
27	66	73	88	120	99	89	72	73	52	53	38	47
28	64	88	87	112	110	87	73	71	54	50	37	46
29	64	98	85	108	---	86	71	70	51	54	37	43
30	62	103	82	104	---	85	70	69	50	52	37	43
31	61	---	80	101	---	85	---	68	---	45	37	---
TOTAL	2144	2251	2890	3615	2743	3404	2297	2641	1699	1738	1357	1214
MEAN	69.2	75.0	93.2	117	98.0	110	76.6	85.2	56.6	56.1	43.8	40.5
MAX	96	103	114	168	110	141	89	107	66	81	64	53
MIN	61	64	80	75	85	85	70	68	49	44	37	34
CFSM	1.02	1.11	1.38	1.72	1.44	1.62	1.13	1.26	.84	.83	.65	.60
IN.	1.18	1.24	1.59	1.98	1.51	1.87	1.26	1.45	.93	.95	.74	.67

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

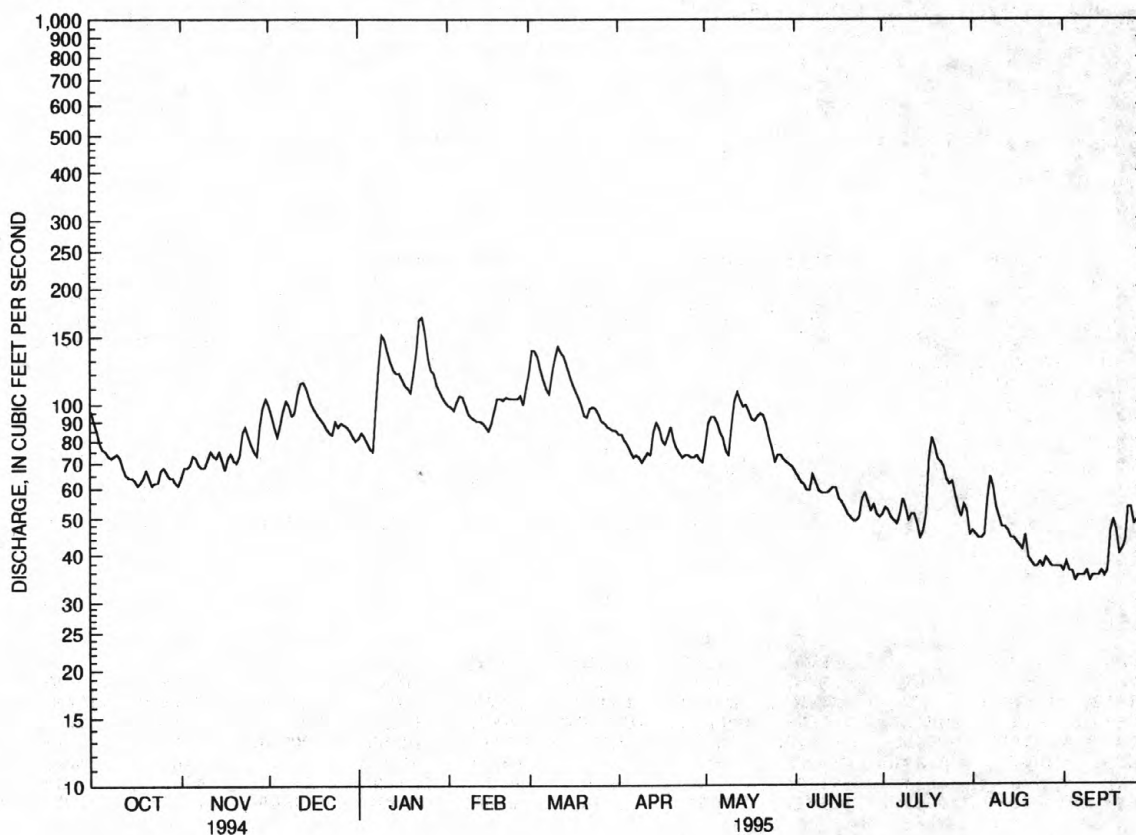
MEAN	87.5	112	124	140	148	171	155	142	103	92.3	103	91.9
MAX	241	307	302	280	361	353	322	279	242	257	332	242
(WY)	1959	1973	1973	1949	1939	1958	1970	1958	1948	1938	1958	1960
MIN	43.9	43.4	48.4	55.6	75.9	79.5	71.8	65.1	50.9	40.6	42.0	40.5
(WY)	1966	1966	1966	1966	1931	1981	1985	1977	1977	1977	1957	1995

## MULLICA RIVER BASIN

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1928 - 1995	
ANNUAL TOTAL	47600		27993		122	
ANNUAL MEAN	130		76.7		193	
HIGHEST ANNUAL MEAN					66.2	
LOWEST ANNUAL MEAN					1958	
HIGHEST DAILY MEAN	552	Mar 30	168	Jan 23	2000	Aug 20 1939
LOWEST DAILY MEAN	54	Jun 27	34	Sep 5	5.7	Oct 4 1959
ANNUAL SEVEN-DAY MINIMUM	58	Jul 8	35	Sep 5	35	Sep 5 1995
INSTANTANEOUS PEAK FLOW			176	Jan 23	---	
INSTANTANEOUS PEAK STAGE			2.63	Jan 23	8.7a	Aug 20 1939
INSTANTANEOUS LOW FLOW			21b	Jul 16	---	
ANNUAL RUNOFF (CFSM)	1.92		1.13		1.80	
ANNUAL RUNOFF (INCHES)	26.12		15.36		24.41	
10 PERCENT EXCEEDS	211		110		205	
50 PERCENT EXCEEDS	115		73		102	
90 PERCENT EXCEEDS	65		44		57	

a From floodmark.  
b Adjusted for tide effect.  
e Estimated.



— 01409500 BATSTO RIVER AT BATSTO, NJ, DAILY MEAN DISCHARGE

## MULLICA RIVER BASIN

319

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1956, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994													
27...	1400	66	38	5.6	10.5	767	9.6	85	<1.0	<20	<10	8	
JAN 1995													
24...	1045	154	47	4.9	3.5	758	11.2	85	<1.2	<20	<10	9	
MAR													
30...	1100	85	45	5.7	11.5	763	9.5	87	<1.2	<20	<10	7	
MAY													
22...	1120	90	55	5.8	20.0	764	7.9	87	E1.5	<20	10	7	
JUL													
20...	1300	72	48	5.4	25.0	762	7.4	90	<1.0	50	10	9	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994													
27...	1.5	0.92	2.8	0.70	2.0	5.6	5.6	<0.1	5.3	26	25	5	
JAN 1995													
24...	1.9	0.99	2.7	0.90	<1.0	6.0	5.5	<0.1	5.1	36	--	4	
MAR													
30...	1.6	0.83	2.8	0.90	1.4	4.8	5.1	<0.1	4.2	30	22	1	
MAY													
22...	1.6	0.81	2.6	0.70	2.1	3.9	4.9	<0.1	3.7	26	20	2	
JUL													
20...	1.8	0.98	2.8	0.80	1.7	5.5	5.6	<0.1	3.5	22	22	4	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994													
27...	<0.003	0.23	0.06	0.07	0.11	0.09	0.34	0.32	<0.01	<0.01	2.5	--	
JAN 1995													
24...	0.003	0.12	0.03	<0.03	0.20	0.28	0.32	0.40	<0.01	<0.01	5.6	0.4	
MAR													
30...	0.003	0.17	<0.03	<0.03	0.09	0.10	0.26	0.27	<0.01	<0.01	2.2	0.5	
MAY													
22...	0.004	0.092	<0.03	<0.03	0.07	0.10	0.16	0.19	<0.01	<0.01	5.8	0.7	
JUL													
20...	<0.003	<0.05	<0.03	<0.03	0.20	0.14	--	--	<0.01	<0.01	3.9	0.6	

## MULLICA RIVER BASIN

01409500 BATSTO RIVER AT BATSTO, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH SED BED MAT (STD UNITS) (70310)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 TOTAL TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/L AS AS) (01002)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/L AS AS) (01003)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
OCT 1994											
27...	1400	6.0		1.0	50	<40	--	2	--	--	--
27...	1400	--	<10	--	--	--	<1	--	<10	10	<1
MAY 1995											
22...	1120	--	17	--	--	--	<1	--	<10	10	<1
DATE		CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
OCT 1994											
27...	<1	--	2	<5	--	<1	--	2700	--	<10	--
27...	--	<1	--	--	<1	--	780	--	<1	--	20
MAY 1995											
22...	--	<1	--	--	<1	--	1000	--	<1	--	10
DATE		MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS HG) (71921)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/L AS SE) (01147)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/L AS SE) (01148)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
OCT 1994											
27...	7	--	<0.01	--	<10	--	<1	--	2	<0.1	
27...	--	0.1	--	<1	--	<1	--	<10	--	--	
MAY 1995											
22...	--	<0.1	--	1	--	<1	--	30	--	--	
DATE		CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)
OCT 1994											
27...	1.2	<1	<1	<0.1	<1	0.1	0.1	0.2	<0.8	<0.8	
27...	--	--	--	--	--	--	--	--	--	--	
MAY 1995											
22...	--	--	--	--	--	--	--	--	--	--	
DATE		ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (81886)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	BED MAT. FALL DIAM. % FINER THAN (80157)	BED MAT. SIEVE DIAM. % FINER THAN (80164)
OCT 1994											
27...	<0.1	<0.1	<0.8	<0.1	<0.8	<0.1	<1	<10	<1	<1	
27...	--	--	--	--	--	--	--	--	--	--	
MAY 1995											
22...	--	--	--	--	--	--	--	--	--	--	



## MULLICA RIVER BASIN

321

## 01409510 BATSTO RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, Hydrologic Unit 02040301, on right bank, 0.4 mi upstream from Mullica River, 0.5 mi southeast of Pleasant Mills, and 0.9 mi downstream of highway bridge on State Highway 542 at Batsto.

DRAINAGE AREA.--73.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1958 to current year. Annual maximum only published for 1958 to 1965.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.6 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Feb. 2-3, 7, 20-21, 25, 28, and Apr. 16-28. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.2 ft, Mar. 7, 1962; minimum recorded (1966-95), -0.67 ft, Jan. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.36 ft, Dec. 24; minimum recorded, 0.05 ft, Apr. 6.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	3.51	3.88	4.36	3.84	3.50	3.22	3.17	3.59	3.33	3.64	3.90	3.60
high tide	Date	15	17	24	20	4	20	18	16	14	11	7	26
Minimum	Elevation	.49	.48	.47	.34	.20	.30	.05	.21	e.10	.62	e.60	e.70
low tide	Date	30	3	31	5	14	26	6	8	17	6	10	8
Mean high tide		2.85	2.54	2.81	2.54	---	2.68	2.57	2.86	---	3.16	---	---
Mean water level		1.76	1.50	1.76	1.54	---	1.59	1.38	1.75	---	1.97	---	---
Mean low tide		.69	.66	.78	.71	---	.54	.31	.54	---	.91	---	---

e Estimated.

## 01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ

LOCATION.--Lat 39°41'17", long 74°32'54", Burlington County, Hydrologic Unit 02040301, on right bank 900 ft downstream from Godfrey Bridge on Washington-Jenkins Road, 2.2 mi downstream from Hospitality Brook, and 1.2 mi southwest of Jenkins.

DRAINAGE AREA.--84.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR NJ-77-1: 1976. WDR NJ-81-1: 1975(P), 1976(P), 1977(P), 1978(P), 1979(P), 1980(P). WDR NJ-90-1: 1989 (M, m).

GAGE.--Water-stage recorder. Datum of gage is 10.17 ft above sea level.

REMARKS.--Records good. Some regulation by cranberry bogs and small ponds. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	0300	*222	*12.02	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	62	70	89	101	158	109	99	57	41	49	23
2	132	93	60	91	99	147	91	101	54	52	41	23
3	112	120	53	84	95	134	86	114	52	54	38	23
4	89	99	48	81	121	126	109	93	50	47	38	22
5	88	79	68	78	138	121	151	84	48	43	39	22
6	94	78	79	76	113	116	139	77	47	41	70	22
7	96	73	71	165	113	111	124	74	57	49	106	19
8	94	67	67	183	107	111	117	71	51	83	68	19
9	86	62	61	161	102	187	145	72	45	74	55	19
10	69	115	71	143	99	180	122	126	43	63	48	19
11	63	95	121	134	99	160	140	163	42	75	44	18
12	61	76	111	125	99	143	147	123	47	74	42	17
13	64	72	97	122	92	133	176	100	52	58	40	17
14	76	67	96	119	88	146	156	85	53	49	38	17
15	72	64	95	116	87	123	129	97	51	42	38	19
16	65	64	98	126	108	115	124	94	46	80	37	18
17	60	73	91	134	112	124	120	82	43	117	35	43
18	77	66	91	126	108	96	104	91	45	143	34	52
19	87	69	88	119	104	93	95	113	52	124	32	42
20	71	66	83	158	104	106	77	123	41	90	30	38
21	68	75	83	218	104	135	69	101	38	83	29	35
22	72	123	80	201	101	161	69	87	39	86	28	40
23	69	94	81	169	101	176	67	74	41	63	27	80
24	76	85	87	148	107	186	71	66	52	59	28	64
25	72	78	102	137	104	207	71	62	51	55	27	52
26	65	70	95	126	99	190	62	68	50	56	27	58
27	57	62	88	119	96	155	63	71	50	51	26	55
28	54	109	86	114	124	117	64	69	52	47	26	49
29	55	105	84	110	---	106	61	68	46	50	25	62
30	64	85	77	105	---	106	67	66	41	87	24	88
31	55	---	75	103	---	101	---	62	---	60	24	---
TOTAL	2404	2446	2557	3980	2925	4270	3125	2776	1436	2096	1213	1075
MEAN	77.5	81.5	82.5	128	104	138	104	89.5	47.9	67.6	39.1	35.8
MAX	141	123	121	218	138	207	176	163	57	143	106	88
MIN	54	62	48	76	87	93	61	62	38	41	24	17
CFSM	.92	.97	.98	1.53	1.24	1.64	1.24	1.06	.57	.80	.47	.43
IN.	1.06	1.08	1.13	1.76	1.29	1.89	1.38	1.23	.64	.93	.54	.48

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1995, BY WATER YEAR (WY)

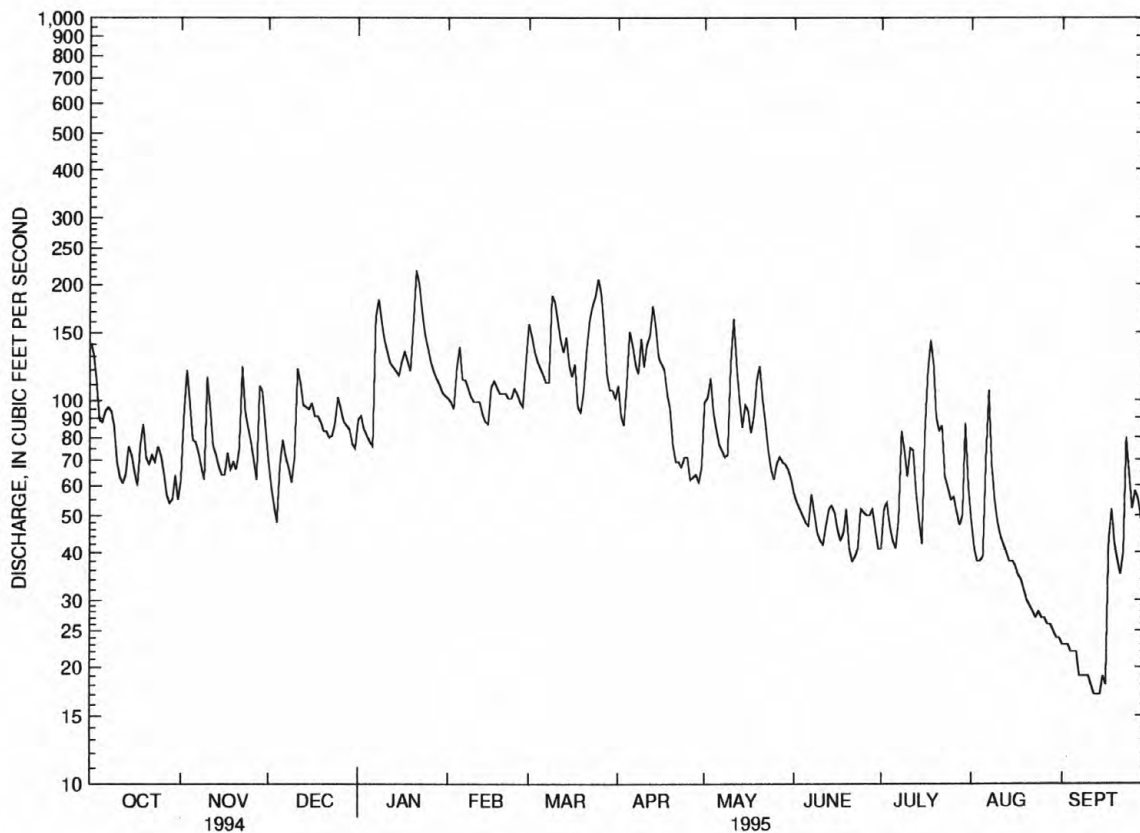
MEAN	100	117	123	184	167	215	206	169	105	101	105	80.4
MAX	237	261	270	379	313	416	418	326	210	250	278	226
(WY)	1976	1978	1978	1979	1979	1994	1983	1979	1984	1989	1978	1989
MIN	50.4	69.3	58.7	54.6	98.7	93.0	98.8	71.5	47.5	29.9	35.6	35.8
(WY)	1983	1979	1981	1981	1992	1985	1985	1992	1986	1977	1977	1995

MULLICA RIVER BASIN

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01409810 WEST BRANCH WADING RIVER NEAR JENKINS, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1975 - 1995	
ANNUAL TOTAL	55146		30303			
ANNUAL MEAN	151		83.0		139	
HIGHEST ANNUAL MEAN					224	
LOWEST ANNUAL MEAN					73.9	
HIGHEST DAILY MEAN	878	Mar 30	218	Jan 21	1260	Feb 27 1979
LOWEST DAILY MEAN	42	Jul 12	17	Sep 12	17	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	45	Jul 8	18	Sep 10	18	Sep 10 1995
INSTANTANEOUS PEAK FLOW			222	Jan 21	1320	Feb 26 1979
INSTANTANEOUS PEAK STAGE			12.02	Jan 21	16.14	Feb 26 1979
INSTANTANEOUS LOW FLOW			12	Sep 14	12	Sep 14 1995
ANNUAL RUNOFF (CFSM)	1.80		.99		1.66	
ANNUAL RUNOFF (INCHES)	24.39		13.40		22.53	
10 PERCENT EXCEEDS	292		134		266	
50 PERCENT EXCEEDS	112		77		104	
90 PERCENT EXCEEDS	54		38		48	



01409810 W B WADING RIVER NEAR JENKINS, NJ, DAILY MEAN DISCHARGE

## MULLICA RIVER BASIN

## 01410000 OSWEGO RIVER AT HARRISVILLE, NJ

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, Hydrologic Unit 02040301, on right bank 50 ft downstream from bridge on State Highway Spur 563 at Harrisville, and 0.3 mi upstream from confluence with West Branch Wading River.

## WATER-DISCHARGE RECORDS

DRAINAGE AREA.--72.5 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1955, published as "East Branch Wading River at Harrisville".

REVISED RECORDS.--WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 23, 1939. Datum of gage is 4.62 ft above sea level.

REMARKS.--Records good. Figures given herein represent flow over main spillway and through bypass channel. Flow regulated by Harrisville Pond 200 ft above station, capacity, about 30,000,000 gal and by ponds and cranberry bogs 5 to 10 mi upstream. Flow probably reduced by ground-water outflow to nearby surface drainage basins, such as Oyster Creek. Several measurements of water temperature, other than those published, were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	67	75	60	65	96	81	64	42	41	34	21
2	63	78	69	61	65	90	83	68	42	53	32	20
3	61	74	66	58	63	84	50	74	42	53	30	17
4	55	71	62	56	81	79	69	68	40	45	28	16
5	55	64	70	52	91	75	69	60	40	39	28	16
6	72	62	74	51	66	73	53	55	37	36	51	15
7	56	57	73	101	81	72	49	51	46	39	61	16
8	49	50	68	108	74	74	46	47	41	42	49	18
9	49	45	62	93	72	108	53	45	38	38	42	16
10	48	53	74	83	69	106	55	75	36	35	38	15
11	47	57	96	78	69	95	50	97	35	56	36	14
12	44	57	97	74	69	85	49	108	39	54	36	15
13	43	56	88	74	65	79	72	110	41	47	30	14
14	54	54	79	72	61	74	70	117	45	42	28	15
15	48	48	74	71	61	84	64	124	46	38	30	16
16	44	46	70	75	71	80	60	103	41	62	28	14
17	42	46	66	80	74	70	57	85	39	64	27	37
18	42	48	63	77	74	71	54	84	35	66	26	30
19	46	53	60	74	72	63	53	82	34	62	24	27
20	51	51	58	96	72	58	51	82	32	54	23	24
21	48	56	56	118	72	60	52	74	31	59	22	25
22	44	74	56	111	71	67	53	68	32	55	23	40
23	47	71	56	99	70	67	51	61	36	56	21	62
24	54	64	61	93	72	63	57	55	45	52	21	47
25	52	60	72	88	72	58	54	52	43	44	19	38
26	48	57	69	83	75	55	51	59	41	40	18	44
27	47	56	63	86	82	52	48	59	40	37	19	42
28	45	91	59	76	81	50	44	56	41	34	19	37
29	44	94	56	71	---	50	43	54	40	34	18	31
30	45	85	53	68	---	49	46	52	40	51	18	28
31	46	---	51	66	---	57	---	49	---	40	18	---
TOTAL	1552	1845	2096	2453	2010	2244	1687	2238	1180	1468	897	770
MEAN	50.1	61.5	67.6	79.1	71.8	72.4	56.2	72.2	39.3	47.4	28.9	25.7
MAX	72	94	97	118	91	108	83	124	46	66	61	62
MIN	42	45	51	51	61	49	43	45	31	34	18	14
CFSM	.69	.85	.93	1.09	.99	1.00	.78	1.00	.54	.65	.40	.35
IN.	.80	.95	1.08	1.26	1.03	1.15	.87	1.15	.61	.75	.46	.40

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1995, BY WATER YEAR (WY)

MEAN	63.4	81.8	83.9	100	103	118	112	96.8	70.6	67.4	75.5	61.3
MAX	176	234	200	242	210	224	253	198	155	201	207	163
(WY)	1959	1973	1973	1979	1939	1994	1970	1989	1984	1938	1933	1938
MIN	28.6	30.8	27.1	33.9	53.2	51.9	41.3	43.9	33.7	24.2	23.9	24.4
(WY)	1966	1966	1966	1966	1931	1985	1985	1942	1966	1977	1957	1951

## MULLICA RIVER BASIN

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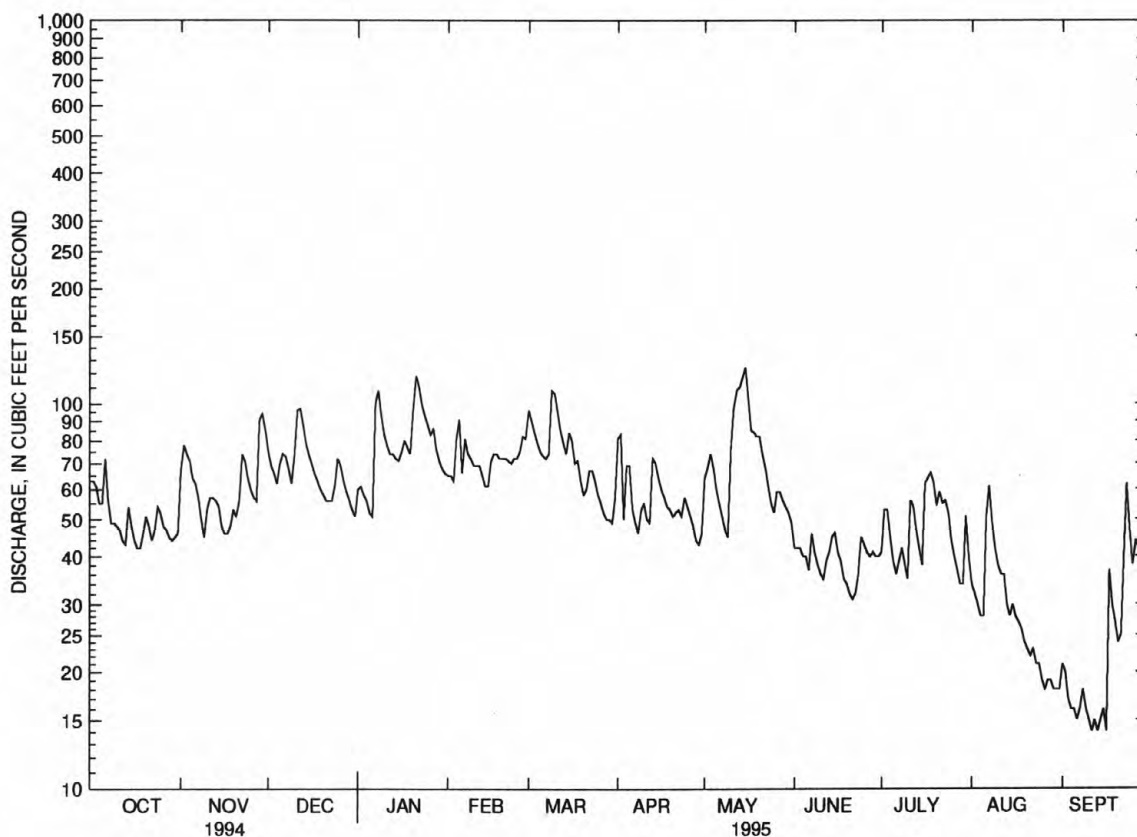
01410000 OSWEGO RIVER AT HARRISVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1931 - 1995	
ANNUAL TOTAL	34625		20440			
ANNUAL MEAN	94.9		56.0		86.1	
HIGHEST ANNUAL MEAN					138	
LOWEST ANNUAL MEAN					41.4	
HIGHEST DAILY MEAN	497	Mar 30	124	May 15	1220	Aug 20 1939
LOWEST DAILY MEAN	33	Jul 14	14	Sep 11	4.0	Jun 23 1967
ANNUAL SEVEN-DAY MINIMUM	37	Jul 11	15	Sep 10	14	Sep 7 1966
INSTANTANEOUS PEAK FLOW			155	Apr 1	1390a	Aug 20 1939
INSTANTANEOUS PEAK STAGE			3.25	Apr 1	9.45b	Aug 20 1939
INSTANTANEOUS LOW FLOW			13	Sep 10	.00c	Oct 26 1932
ANNUAL RUNOFF (CFSM)	1.31		.77		1.19	
ANNUAL RUNOFF (INCHES)	17.77		10.49		16.14	
10 PERCENT EXCEEDS	163		82		149	
50 PERCENT EXCEEDS	75		55		71	
90 PERCENT EXCEEDS	45		28		36	

a From rating curve extended above 640 ft<sup>3</sup>/s.

b From high-water mark in gage house.

c While pond filling.



— 01410000 OSWEGO RIVER AT HARRISVILLE, NJ, DAILY MEAN DISCHARGE



## MULLICA RIVER BASIN

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETN, NJ

LOCATION.--Lat 39°37'23", long 74°26'30", Burlington County, Hydrologic Unit 02040301, on left bank upstream of bridge on Stage Road, 0.7 mi west of Lake Absegami, 2.2 mi north of New Gretna, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--8.11 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1: 1978-80(P). WDR NJ-92-1: 1978, 1979, 1989, 1991 (P).

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some regulation by Lake Absegami. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 65 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 7	1030	*24	*4.36	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	e14	e13	12	13	16	11	15	11	9.3	6.6	5.1
2	11	e15	e12	12	13	14	11	16	11	9.7	6.5	5.1
3	11	e14	e13	11	13	13	11	17	10	9.6	6.4	5.1
4	10	e13	e13	11	18	13	11	14	9.9	9.2	6.2	5.2
5	10	e12	e15	10	19	13	10	13	10	9.0	6.5	5.2
6	10	e13	e15	10	15	12	10	12	9.8	9.0	11	5.2
7	10	e13	e14	22	14	12	10	11	12	8.9	15	5.2
8	10	e12	e13	21	13	13	11	10	12	9.2	11	5.2
9	10	e11	12	17	13	18	11	10	11	8.8	8.5	5.2
10	10	e12	15	15	13	16	11	18	10	8.8	7.3	5.2
11	9.8	e13	22	15	13	14	11	21	9.7	12	6.8	5.1
12	9.8	e12	18	15	13	13	11	17	9.8	12	6.4	5.0
13	9.8	e12	15	14	13	13	17	15	11	10	6.1	5.0
14	9.8	e11	14	14	13	12	15	14	12	8.4	6.1	4.9
15	9.8	e11	13	15	13	12	13	15	12	7.4	5.8	4.8
16	9.7	e11	13	15	15	12	12	14	11	10	5.7	4.8
17	9.6	e11	13	17	14	12	11	14	9.6	11	5.8	12
18	9.6	e12	13	15	13	12	11	16	9.1	9.5	5.8	13
19	9.6	e13	12	15	13	12	11	16	8.8	8.4	5.5	8.9
20	9.6	e12	12	18	13	12	11	15	8.5	7.3	5.4	7.1
21	9.7	e12	12	19	14	13	11	14	8.7	10	5.3	6.4
22	9.7	e15	12	17	13	14	11	12	9.0	14	5.3	7.4
23	11	e14	12	15	13	13	10	12	9.9	12	5.4	12
24	13	e12	13	14	13	12	11	11	12	11	5.3	9.8
25	12	e12	14	14	13	12	12	11	12	9.8	5.2	7.9
26	11	e12	13	14	13	11	11	13	11	9.4	5.1	8.7
27	10	e13	12	14	13	11	10	14	10	8.5	5.1	8.2
28	10	e18	12	13	15	11	10	12	10	7.7	5.4	7.3
29	9.8	e18	11	13	---	11	10	12	9.5	7.4	5.6	6.8
30	9.8	e15	11	13	---	11	11	12	9.2	7.5	5.5	6.4
31	e11	---	11	13	---	11	---	11	---	7.1	5.2	---
TOTAL	317.1	388	413	453	384	394	337	427	309.5	291.9	202.8	203.2
MEAN	10.2	12.9	13.3	14.6	13.7	12.7	11.2	13.8	10.3	9.42	6.54	6.77
MAX	13	18	22	22	19	18	17	21	12	14	15	13
MIN	9.6	11	11	10	13	11	10	10	8.5	7.1	5.1	4.8
CFSM	1.26	1.59	1.64	1.80	1.69	1.57	1.39	1.70	1.27	1.16	.81	.84
IN.	1.45	1.78	1.89	2.08	1.76	1.81	1.55	1.96	1.42	1.34	.93	.93

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1995, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	11.6	13.2	14.8	17.9	17.1	20.2	21.3	18.9	14.7	13.4	13.1	11.4						
MAX	24.2	23.1	23.4	35.0	29.8	36.8	38.6	30.3	27.2	25.8	24.6	21.0						
(WY)	1990	1990	1984	1978	1979	1979	1984	1984	1984	1978	1978	1989						
MIN	8.13	8.75	9.78	9.28	11.2	10.5	9.06	8.95	8.11	7.80	6.54	6.77						
(WY)	1983	1982	1986	1981	1992	1981	1985	1985	1986	1985	1995	1995						

## MULLICA RIVER BASIN

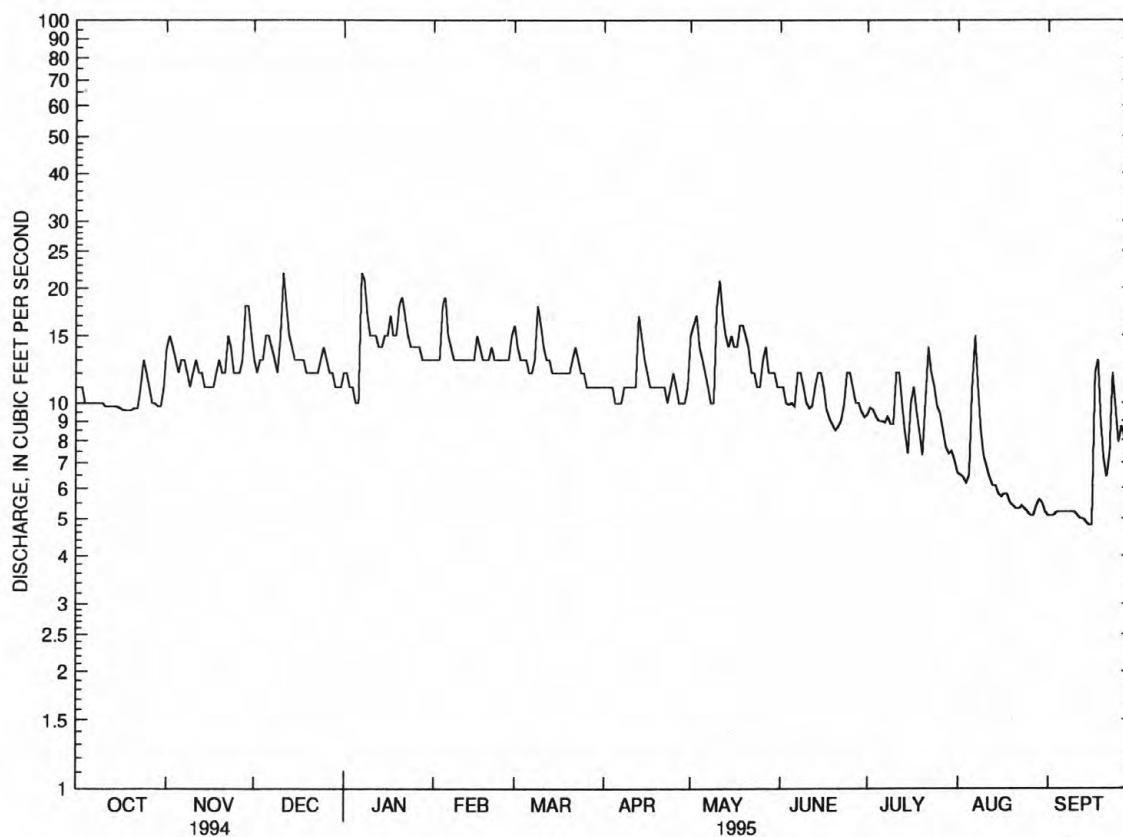
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01410150 EAST BRANCH BASS RIVER NEAR NEW GRETN, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1978 - 1995	
ANNUAL TOTAL	6335.6		4120.5		15.3	
ANNUAL MEAN	17.4		11.3		21.8	
HIGHEST ANNUAL MEAN					9.60	
LOWEST ANNUAL MEAN					131	
HIGHEST DAILY MEAN	69	Mar 29	22	Dec 11	131	Jul 4 1978
LOWEST DAILY MEAN	8.5	Jun 28	4.8	Sep 15	4.8	Sep 15 1995
ANNUAL SEVEN-DAY MINIMUM	8.7	Jun 23	5.0	Sep 10	5.0	Sep 10 1995
INSTANTANEOUS PEAK FLOW			24		198	
INSTANTANEOUS PEAK STAGE			4.36		6.36a	
INSTANTANEOUS LOW FLOW			4.7		4.7	
ANNUAL RUNOFF (CFSM)	2.14		1.39		1.88	
ANNUAL RUNOFF (INCHES)	29.06		18.90		25.55	
10 PERCENT EXCEEDS	29		15		26	
50 PERCENT EXCEEDS	15		11		13	
90 PERCENT EXCEEDS	9.8		6.3		8.4	

a Stage affected by high tide.

e Estimated.



01410150 E B BASS RIVER NEAR NEW GRETN, NJ, DAILY MEAN DISCHARGE

## MULLICA RIVER BASIN

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETN, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1994												
25...	1200	12	38	4.5	10.5	763	7.8	70	<1.0	60	30	3
JAN 1995												
24...	1315	14	69	4.4	4.5	757	9.8	76	<1.3	<20	10	4
MAR												
22...	1100	14	47	4.8	9.0	750	7.8	69	<1.0	<20	<10	3
MAY												
23...	1130	12	40	4.6	15.0	770	6.6	65	<1.0	<20	30	3
JUL												
18...	1130	9.6	40	4.5	21.5	758	5.0	57	E1.2	170	20	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT 1994											
25...	0.44	0.50	2.9	0.60	4.3	5.0	<0.1	8.1	20	<1	0.003
JAN 1995											
24...	0.51	0.56	3.0	0.60	5.3	5.3	<0.1	7.3	32	<1	<0.003
MAR											
22...	0.48	0.50	3.0	0.60	5.5	5.4	<0.1	6.8	22	<1	0.004
MAY											
23...	0.39	0.43	2.8	0.50	4.3	5.0	<0.1	5.4	22	4	0.003
JUL											
18...	--	--	--	--	3.4	4.8	<0.1	7.8	28	<1	0.004

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994											
25...	0.24	0.03	0.04	0.10	0.08	0.34	0.32	<0.01	<0.01	3.5	0.1
JAN 1995											
24...	0.073	0.03	<0.03	0.41	0.07	0.48	0.14	<0.01	<0.01	3.4	0.3
MAR											
22...	0.063	<0.03	<0.03	0.10	0.04	0.16	0.10	<0.01	<0.01	2.5	0.3
MAY											
23...	<0.05	<0.03	<0.03	<0.03	0.04	--	--	<0.01	<0.01	3.9	0.8
JUL											
18...	<0.05	<0.03	<0.03	0.30	0.16	--	--	<0.01	0.02	6.9	0.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

## GREAT EGG HARBOR RIVER BASIN

## 01410784 GREAT EGG HARBOR RIVER NEAR SICKLERVILLE, NJ

LOCATION.--Lat 39°44'02", long 74°57'05", Camden County, Hydrologic Unit 02040302, at bridge on Sicklerville-New Freedom Road (Spur 536), 1.5 mi northeast of Sicklerville, and 2.7 mi upstream of New Brooklyn Lake dam.

DRAINAGE AREA.--15.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1972 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1994	16...	1140	E6.0	65	6.3	10.5	770	7.3	65	<1.0	11	20	14
FEB 1995	09...	1215	7.8	84	5.9	2.5	765	11.7	85	3.6	8	<10	15
MAR	28...	1103	7.2	72	6.3	9.5	757	9.9	87	E2.4	2	10	15
MAY	25...	0950	4.7	65	6.4	16.5	761	7.6	78	E2.2	33	50	15
AUG	07...	1310	12	96	6.4	20.0	765	7.4	81	E1.3	920	470	21
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994	16...	3.4	1.4	4.9	1.5	7.7	5.5	8.8	<0.1	6.7	40	38	8
FEB 1995	09...	3.6	1.5	7.2	1.4	4.4	7.6	12	<0.1	7.1	64	46	4
MAR	28...	3.5	1.4	5.8	1.4	5.2	9.4	9.5	<0.1	5.2	52	42	8
MAY	25...	3.6	1.4	4.7	1.5	8.7	4.0	8.0	<0.1	5.1	40	36	3
AUG	07...	5.2	2.0	7.2	2.3	8.2	14	11	<0.1	5.7	66	54	6
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994	16...	0.005	0.38	0.04	<0.03	0.20	0.21	0.58	0.59	0.03	0.02	5.7	0.2
FEB 1995	09...	0.005	0.73	0.05	0.07	0.29	0.18	1.0	0.91	0.03	<0.01	4.0	0.7
MAR	28...	0.006	0.57	<0.03	<0.03	0.30	0.22	0.87	0.79	0.02	0.02	5.1	0.9
MAY	25...	0.004	0.55	<0.03	<0.03	0.20	0.06	0.75	0.61	0.04	<0.01	4.8	0.4
AUG	07...	0.005	0.36	<0.03	0.04	0.40	0.31	0.76	0.67	0.09	0.02	5.7	0.6



## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH SED BED MAT	OXYGEN DEMAND, CHEM- ICAL	NITRO- GEN, NH4 TOTAL IN BOT.	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT	PHOS- PHORUS TOTAL IN BOT.	ARSENIC TOTAL IN BOT-	ARSENIC TOTAL IN BOT-	BERYL- LIUM, TOTAL RECOV-	BORON, TOTAL RECOV-	CADMIUM TOTAL RECOV-	
		(STD UNITS)	(HIGH LEVEL)	(MG/KG AS N)	(MG/KG AS N)	(MG/KG AS P)	(UG/L AS AS)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	
		(70310)	(00340)	(00611)	(00626)	(00668)	(01002)	(01003)	(01012)	(01022)	(01027)	
NOV 1994												
16...	1140	5.8	--	1.1	60	46	--	<1	--	--	--	
16...	1140	--	18	--	--	--	<1	--	<10	30	<1	
MAY 1995												
25...	0950	--	17	--	--	--	<1	--	<10	20	<1	
DATE		CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS FE)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS FE)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	
		(01028)	(01034)	(01029)	(01038)	(01042)	(01043)	(01045)	(01170)	(01051)	(01052)	(01055)
NOV 1994												
16...	<1	--	2	<5	--	1	--	2000	--	<10	--	
16...	--	<1	--	--	1	--	470	--	<1	--	10	
MAY 1995												
25...	--	<1	--	--	<1	--	630	--	2	--	20	
DATE		MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	
		(01053)	(71900)	(71921)	(01067)	(01068)	(01147)	(01148)	(01092)	(01093)	(00686)	
NOV 1994												
16...	8	--	<0.01	--	<10	--	<1	--	8	<0.1		
16...	--	<0.1	--	<1	--	<1	--	<10	--	--		
MAY 1995												
25...	--	0.1	--	1	--	<1	--	<10	--	--		
DATE		CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
		(00693)	(39519)	(39251)	(39333)	(39351)	(39363)	(39368)	(39373)	(39383)	(39389)	
NOV 1994												
16...	2.8	14	<1	<0.1	2	3.8	1.0	6.8	<0.4	<0.1		
16...	--	--	--	--	--	--	--	--	--	--		
MAY 1995												
25...	--	--	--	--	--	--	--	--	--	--		
DATE		ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	
		(39393)	(39413)	(39423)	(39343)	(39481)	(39758)	(81886)	(39403)	(80157)	(80164)	
NOV 1994												
16...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<10	<1	<1		
16...	--	--	--	--	--	--	--	--	--	--		
MAY 1995												
25...	--	--	--	--	--	--	--	--	--	--		

## GREAT EGG HARBOR RIVER BASIN

## 01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County. Hydrologic Unit 02040302, on left bank 25 ft upstream from bridge on State Highway 54, 1.0 mi south of Folsom, and 2.0 mi upstream from Pennypot Stream.

DRAINAGE AREA.--57.1 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as "Great Egg River at Folsom".

REVISED RECORDS.--WSP 1432: 1928(M), 1933. WDR NJ-83-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 26, 1934. Datum of gage is 53.32 ft above sea level. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft downstream at datum 0.25 ft higher.

REMARKS.--Records good. Several measurements of water temperature were made during the year. Satellite rain-gage and gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	45	85	60	59	90	58	63	46	35	30	18
2	51	47	75	66	59	99	57	71	44	40	28	18
3	50	44	67	66	58	96	56	83	43	40	27	18
4	49	43	63	62	63	83	55	83	43	38	26	18
5	48	43	69	58	72	75	54	72	42	35	25	18
6	47	43	80	56	64	70	53	65	41	33	42	17
7	46	44	85	87	65	67	53	59	48	34	59	17
8	45	43	79	106	60	67	52	54	47	35	52	17
9	45	43	70	125	57	93	52	52	42	36	43	20
10	44	47	69	139	56	114	57	67	40	34	38	21
11	43	52	84	125	57	135	58	93	39	36	34	19
12	43	51	93	100	59	133	56	99	39	34	32	19
13	43	49	96	86	57	109	70	85	40	32	29	18
14	43	48	89	80	55	88	85	72	42	30	28	18
15	42	47	77	76	54	80	84	75	49	29	27	18
16	42	46	71	74	61	76	72	75	53	43	25	18
17	42	47	68	72	73	73	64	70	49	79	25	29
18	41	47	68	69	78	70	60	84	43	95	25	46
19	41	47	67	67	78	67	58	84	40	99	24	40
20	41	47	64	74	76	65	56	82	37	105	23	33
21	41	51	62	93	77	68	54	73	35	94	23	29
22	41	70	61	108	77	82	54	64	34	69	22	30
23	41	79	60	117	73	86	54	58	37	62	21	49
24	43	75	60	105	72	80	56	53	43	57	21	44
25	45	66	67	85	71	72	58	51	43	50	21	40
26	44	59	70	75	68	67	55	53	40	44	20	41
27	43	56	68	70	64	64	53	57	38	40	20	44
28	43	69	63	66	72	62	51	55	37	39	20	41
29	42	82	61	64	---	61	50	52	36	38	19	36
30	42	88	58	61	---	60	50	51	34	36	19	33
31	42	---	56	60	---	59	---	49	---	32	18	---
TOTAL	1366	1618	2205	2552	1835	2511	1745	2104	1244	1503	866	827
MEAN	44.1	53.9	71.1	82.3	65.5	81.0	58.2	67.9	41.5	48.5	27.9	27.6
MAX	53	88	96	139	78	135	85	99	53	105	59	49
MIN	41	43	56	56	54	59	50	49	34	29	18	17
CFSM	.77	.94	1.25	1.44	1.15	1.42	1.02	1.19	.73	.85	.49	.48
IN.	.89	1.05	1.44	1.66	1.20	1.64	1.14	1.37	.81	.98	.56	.54

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1995, BY WATER YEAR (WY)

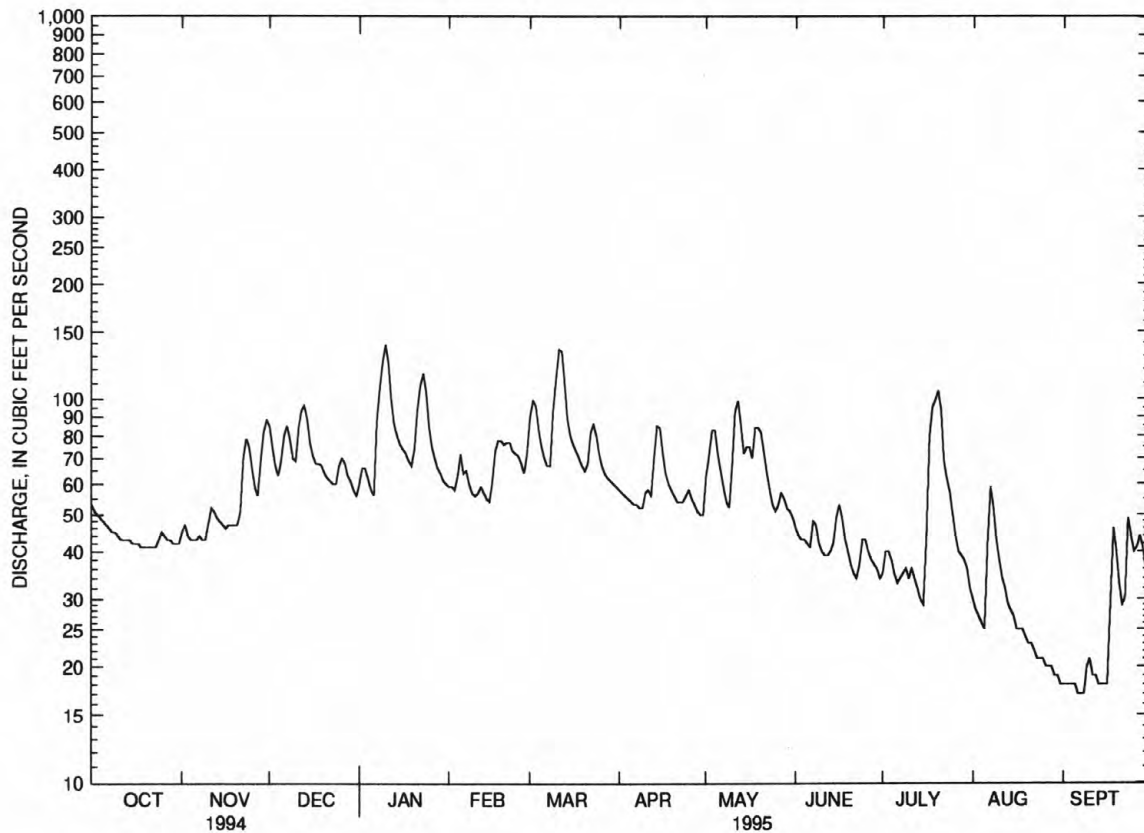
	MEAN	60.2	78.4	92.3	102	106	121	114	95.1	71.6	62.4	64.2	60.6
MAX	148	213	212	203	228	229	234	199	199	149	187	182	215
(WY)	1939	1973	1973	1936	1939	1958	1983	1958	1948	1938	1967	1940	1940
MIN	27.8	30.1	35.1	39.3	50.7	60.1	53.9	47.1	34.4	22.1	19.3	25.6	25.6
(WY)	1931	1966	1966	1981	1931	1981	1985	1955	1977	1966	1966	1964	1964

GREAT EGG HARBOR RIVER BASIN

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01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1925 - 1995	
ANNUAL TOTAL	33895		20376			
ANNUAL MEAN	92.9		55.8		85.5	
HIGHEST ANNUAL MEAN					133	
LOWEST ANNUAL MEAN					44.4	
HIGHEST DAILY MEAN	358	Mar 30	139	Jan 10	1300	Sep 3 1940
LOWEST DAILY MEAN	32	Jun 25	17	Sep 6	15	Aug 29 1966
ANNUAL SEVEN-DAY MINIMUM	34	Jun 21	18	Sep 2	16	Aug 26 1966
INSTANTANEOUS PEAK FLOW			139	Jan 10, Mar 11	1440	Sep 3 1940
INSTANTANEOUS PEAK STAGE			4.22	Jan 10, Mar 11	9.09	Sep 3 1940
INSTANTANEOUS LOW FLOW			16	Sep 6	15	Sep 6 1957
ANNUAL RUNOFF (CFSM)	1.63		.98		1.50	
ANNUAL RUNOFF (INCHES)	22.08		13.27		20.35	
10 PERCENT EXCEEDS	168		84		147	
50 PERCENT EXCEEDS	75		54		73	
90 PERCENT EXCEEDS	43		28		36	



01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ, DAILY MEAN DISCHARGE

## GREAT EGG HARBOR RIVER BASIN

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-80, 1991 to current year.

## PERIOD OF DAILY RECORD

SPECIFIC CONDUCTANCE: April 1969 to April 1975, April 1977 to May 1980.

WATER TEMPERATURE: October 1960 to April 1975, April 1977 to May 1980.

SUSPENDED-SEDIMENT DISCHARGE: December 1965 to September 1970, October 1978 to September 1979.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
16...	1020	46	59	6.3	11.0	769	9.3	84	<1.0	2	30	11	
FEB 1995													
08...	1045	60	66	6.4	1.0	760	12.6	89	<1.0	5	10	12	
MAR													
28...	0930	62	60	5.9	9.0	759	10.0	87	2.0	7	20	11	
MAY													
25...	0900	51	55	6.4	17.0	761	8.0	83	E1.8	4	70	10	
AUG													
08...	1255	51	62	6.4	18.5	765	8.4	89	E1.4	280	280	12	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
16...	2.2	1.3	5.0	1.1	5.3	4.0	8.4	<0.1	6.5	32	34	6	
FEB 1995													
08...	2.4	1.4	5.2	1.1	3.1	5.5	9.2	<0.1	7.0	52	38	4	
MAR													
28...	2.3	1.3	5.1	1.1	3.5	6.7	8.2	<0.1	5.2	46	35	4	
MAY													
25...	2.1	1.2	4.8	1.0	3.4	3.7	7.4	<0.1	5.6	40	31	6	
AUG													
08...	2.5	1.4	5.2	1.2	5.3	6.9	7.1	<0.1	6.8	48	37	11	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
16...	0.006	0.56	0.09	0.14	0.30	0.29	0.86	0.85	<0.01	<0.01	3.8	0.3	
FEB 1995													
08...	0.003	0.79	--	0.37	0.40	0.35	1.2	1.10	0.04	0.01	4.8	0.3	
MAR													
28...	0.008	0.70	0.13	0.13	0.30	0.31	1.0	1.00	<0.01	<0.01	5.1	0.6	
MAY													
25...	0.006	0.61	0.13	0.11	0.30	0.19	0.91	0.80	0.02	<0.01	5.4	0.9	
AUG													
08...	0.007	0.50	0.13	0.10	0.50	0.34	1.0	0.84	0.04	0.01	5.7	0.7	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]



## GREAT EGG HARBOR RIVER BASIN

## 01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

LOCATION.--Lat 39°30'50", long 74°46'47", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream from Deep Run, and 20.9 mi upstream from mouth.

DRAINAGE AREA.--154 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)
NOV 1994										
16...	1025	E130	52	6.2	11.0	770	9.7	87	<1.0	2
FEB 1995										
09...	0945	E165	60	6.0	1.0	765	12.9	90	3.3	<2
MAR										
29...	1040	E175	55	5.9	9.5	763	10.3	90	<1.0	2
MAY										
25...	1100	E145	49	5.9	19.0	764	8.0	86	E1.8	20
AUG										
07...	1010	E170	54	5.6	21.0	765	7.1	79	2.1	>2400
DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
NOV 1994										
16...	60	9	1.9	1.1	4.5	1.2	3.8	4.6	8.2	<0.1
FEB 1995										
09...	<10	10	2.1	1.2	5.0	1.1	2.2	5.6	9.0	<0.1
MAR										
29...	<10	10	2.0	1.1	4.5	1.0	2.3	7.0	7.7	<0.1
MAY										
25...	40	9	1.8	1.1	4.1	1.0	2.8	3.5	7.3	<0.1
AUG										
07...	2100	10	2.1	1.1	4.3	1.2	2.0	7.4	7.1	<0.1
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	
NOV 1994										
16...	6.7	--	32	--	0.003	0.43	<0.03	0.03	0.18	
FEB 1995										
09...	7.4	44	36	2	0.004	0.62	0.12	0.15	0.20	
MAR										
29...	5.5	40	33	6	0.005	0.53	0.04	0.05	0.20	
MAY										
25...	5.5	30	28	--	0.005	0.46	<0.03	0.04	0.20	
AUG										
07...	6.2	46	32	13	0.005	0.34	<0.03	<0.03	0.50	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)			
	NOV 1994											
	16...	0.14	0.61	0.57	0.01	<0.01	2.8	0.6	2			
	FEB 1995											
	09...	0.21	0.82	0.83	0.01	<0.01	3.8	0.6	--			
	MAR 29...	0.15	0.73	0.68	<0.01	<0.01	4.1	0.5	--			
	MAY 25...	0.14	0.66	0.60	<0.01	<0.01	5.5	1.0	7			
	AUG 07...	0.23	0.84	0.57	0.05	0.01	4.7	2.0	--			
DATE	TIME	PH SED BED MAT (STD UNITS) (70310)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 TOTAL BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT. MAT. (UG/L AS AS) (01002)	ARSENIC TOTAL BOT MA- TERIAL (UG/G AS AS) (01003)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	
NOV 1994	16...	--	11	--	--	--	<1	--	<10	40	<1	
NOV 1994	16...	1025	5.8	--	2.3	30	<40	--	<1	--	--	
MAY 1995	25...	1100	--	23	--	--	<1	--	<10	40	<1	
DATE		CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 1994	16...	--	<1	--	--	3	--	550	--	<1	--	20
NOV 1994	16...	<1	--	1	<5	--	1	--	1100	--	<10	--
MAY 1995	25...	--	<1	--	--	3	--	1000	--	<1	--	40
DATE		MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G) (01148)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MA- TERIAL (G/KG AS C) (00686)	
NOV 1994	16...	--	<0.1	--	2	--	<1	--	10	--	--	
NOV 1994	16...	6	--	0.02	--	<10	--	<1	--	1	<0.1	
MAY 1995	25...	--	<0.1	--	2	--	<1	--	<10	--	--	
DATE		CARBON, INORG + ORGANIC TOT. IN BOT MAT (GM/KG AS C) (00693)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	
NOV 1994	16...	--	--	--	--	--	--	--	--	--	--	
NOV 1994	16...	0.9	<1	<1	<0.1	<1	0.2	<0.1	0.1	<0.4	<0.1	
MAY 1995	25...	--	--	--	--	--	--	--	--	--	--	

## GREAT EGG HARBOR RIVER BASIN

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

LOCATION.--Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, on right bank at highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.

REMARKS.--Records fair. Occasional regulation by ponds above station. There is a fish gate in the left control which was not open this year. However, planks were placed on top of the center and right weirs from Mar. 23 to May 2 to raise water level for fish migration. Several measurements of water temperature were made during the year.

MEAN	26.1	33.8	41.5	51.3	53.4	67.3	67.5	53.9	38.7	27.4	25.1	22.2
MAX	58.1	81.4	94.3	101	101	150	174	111	83.7	53.0	55.6	64.7
(WY)	1990	1973	1973	1978	1973	1994	1983	1983	1984	1989	1971	1989
MIN	15.1	16.8	19.4	16.0	24.4	26.4	21.3	20.0	14.8	12.7	10.6	7.04
(WY)	1978	1992	1981	1981	1995	1995	1985	1977	1977	1988	1988	1980

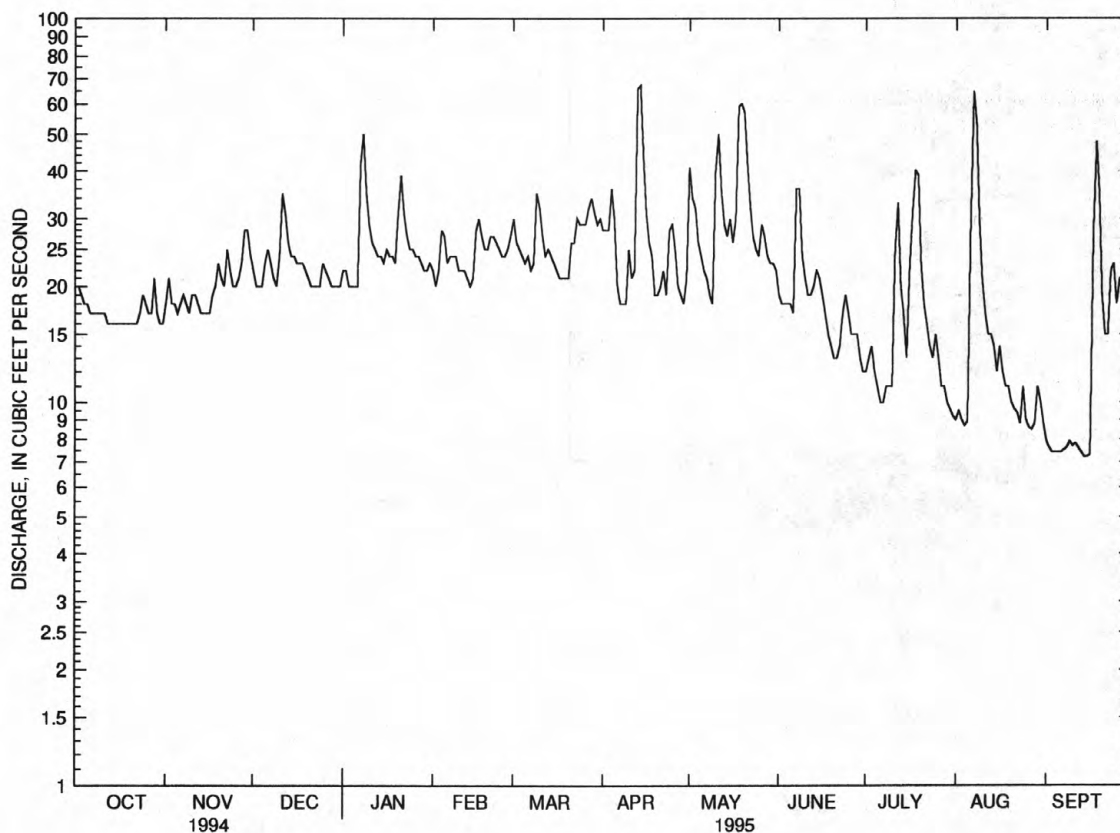
## TUCKAHOE RIVER BASIN

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1970 - 1995	
ANNUAL TOTAL	16772		7908.7		42.2	
ANNUAL MEAN	46.0		21.7		64.3	
HIGHEST ANNUAL MEAN					21.7	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	386	Mar 30	67	Apr 14	464	May 31 1984
LOWEST DAILY MEAN	13	Jul 13	7.2	Sep 14	1.3	Sep 3 1980
ANNUAL SEVEN-DAY MINIMUM	13	Sep 10	7.5	Sep 10	1.9	Sep 9 1980
INSTANTANEOUS PEAK FLOW			91	Apr 13	510	May 31 1984
INSTANTANEOUS PEAK STAGE			4.78	Apr 13	7.01a	Mar 29 1984
INSTANTANEOUS LOW FLOW			7.0	Many days	---	
ANNUAL RUNOFF (CFSM)	1.49		.70		1.37	
ANNUAL RUNOFF (INCHES)	20.26		9.55		18.60	
10 PERCENT EXCEEDS	102		31		81	
50 PERCENT EXCEEDS	25		21		32	
90 PERCENT EXCEEDS	16		11		15	

a Tide affected.

e Estimated.



01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ, DAILY MEAN DISCHARGE



## ATLANTIC OCEAN

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## 01411352 LUDLAM THOROFARE NEAR SEA ISLE CITY, NJ

LOCATION.--Lat 39°08'40", long 74°42'20", Cape May County, Hydrologic Unit 02040302, on the bulkhead at 5918 Sound Avenue on the east side of Ludlam Thorofare, 1.1 mi southwest of Sea Isle City, and 2.0 mi north of Townsends Inlet.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--No gage-height or doubtful record, Feb. 5-15 and Apr. 2-5. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (---) lines.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.28 ft, Mar. 3, 1994; minimum recorded, -2.33 ft, Nov. 12, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.45 ft, Dec. 24; minimum recorded, e-2.20 ft, Feb. 5, but lower elevations probably occurred on Feb. 5-6, during periods of missing record.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.44	4.97	5.45	4.62	4.34	3.87	3.99	4.55	4.91	4.35	5.08	4.34
high tide	Date	15	17	24	20	4	19	17	15	13	11	7	26
Minimum	Elevation	-1.94	-2.12	-2.12	-2.15	e-2.20	-1.95	-2.07	-1.70	-2.02	-2.09	-1.54	-1.45
low tide	Date	8	3	2	2	5	1	15	25	17	14	10	8
Mean high tide		3.27	2.90	3.23	2.76	---	3.00	2.90	3.17	3.04	3.08	3.50	3.40
Mean water level		1.33	.90	1.26	.74	---	1.01	.89	1.23	1.09	1.06	1.57	1.48
Mean low tide		-.79	-1.17	-.87	-1.35	---	-1.12	-1.25	-.87	-1.00	-1.12	-.57	-.62

e Estimated.

## 01411370 GRASSY SOUND CHANNEL AT NUMMY ISLAND NEAR NORTH WILDWOOD, NJ

LOCATION.--Lat 39°01'43", long 74°48'05", Cape May County, Hydrologic Unit 02040302, on pier at Dad's Place Marina at the south end of bridge from Nummy Island, 1.1 mi northwest of North Wildwood, and 1.0 mi west of Hereford Inlet.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below sea level. Gage-height record converted to elevation above or below (-) sea level for publication.

COOPERATION.--Record of stage collected in cooperation with the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 7.64 ft, Mar. 3, 1994; minimum recorded, -3.27 ft, Jan. 10, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.43 ft, Dec. 24; minimum recorded, -3.14 ft, Nov. 2.

Summaries of tide elevations during the year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.37	4.99	5.43	4.73	4.26	3.83	3.99	4.65	4.99	4.47	5.19	4.41
high tide	Date	15	17	24	20	4	1	17	15	13	11	7	9
Minimum	Elevation	-2.17	-3.14	-3.02	-3.00	-3.00	-2.11	-2.36	-1.88	-2.39	-2.22	-1.65	-1.52
low tide	Date	7	2	3	2	5	1	16	25	17	14	10	8
Mean high tide		3.16	2.77	3.13	2.69	2.37	2.97	2.75	3.12	2.98	3.04	3.49	3.39
Mean water level		1.12	.68	1.04	.60	.29	.87	.67	1.06	.95	.93	1.44	1.36
Mean low tide		-1.01	-1.48	-1.13	-1.59	-1.81	-1.31	-1.48	-1.07	-1.17	-1.26	-.71	-.76

e Estimated.

## 01411456 LITTLE EASE RUN NEAR CLAYTON, NJ

LOCATION.--Lat 39°39'32", long 75°04'04", Gloucester County, Hydrologic Unit 02040206, on right bank 30 ft downstream from bridge on Academy Road (County Route 610), 0.9 mi west of Fries Mill, 1.3 mi east of Clayton, and 1.4 mi downstream from Beaverdam Branch.

DRAINAGE AREA.--9.77 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1966, 1976-84, 1987. February 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.94 ft above sea level.

REMARKS.--Records fair. Occasional regulation from unknown sources. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1315	*27	*2.75	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	5.8	6.9	6.3	7.2	19	5.4	7.3	3.1	1.4	1.1	.81
2	2.3	6.6	5.7	6.9	7.2	18	5.3	9.4	2.8	1.5	1.0	.78
3	2.1	6.8	5.0	6.2	6.7	16	5.2	14	3.0	1.4	1.0	.78
4	1.9	7.2	4.4	5.6	7.5	13	5.1	13	2.8	1.3	.96	.78
5	1.9	7.3	7.2	4.8	9.2	11	5.0	11	2.6	1.2	.96	.76
6	1.9	7.9	8.6	4.7	8.2	9.8	4.7	9.6	2.3	1.2	1.7	.76
7	1.8	8.2	7.3	21	7.1	9.0	4.7	9.0	3.5	1.3	2.0	.75
8	1.7	8.3	6.1	23	6.3	10	4.5	8.9	3.3	1.3	1.6	.81
9	1.6	8.8	5.2	21	5.9	25	4.8	9.0	2.7	1.2	1.4	.94
10	1.6	7.2	6.6	17	5.8	25	6.6	13	2.3	1.1	1.4	.87
11	1.6	4.9	14	13	6.2	23	6.1	15	2.3	1.1	1.3	.84
12	1.6	4.5	13	11	6.8	19	5.8	13	2.2	1.1	1.4	.80
13	1.6	4.2	11	9.5	6.1	15	13	9.5	2.6	1.0	1.7	.77
14	1.6	3.8	9.2	8.7	5.6	13	15	7.6	2.6	1.0	1.4	.78
15	1.6	3.1	7.8	8.0	5.5	11	13	9.0	2.3	1.0	1.3	.76
16	1.6	2.9	6.8	7.7	8.2	10	9.4	8.2	2.1	3.9	1.2	.72
17	1.6	2.8	6.5	7.1	11	9.1	7.7	7.7	1.8	3.3	1.1	2.1
18	1.6	2.9	6.4	6.6	13	8.2	6.7	9.2	1.7	3.1	1.1	1.8
19	1.6	3.0	5.9	6.2	14	7.7	6.1	11	1.6	2.7	1.0	1.5
20	1.6	2.9	5.5	15	14	7.3	5.9	9.8	1.4	2.1	.96	1.4
21	1.7	4.7	5.1	24	15	9.2	5.4	7.6	1.4	2.3	.96	1.4
22	1.7	8.5	4.9	22	14	12	5.3	6.1	1.4	2.0	.92	1.6
23	1.9	6.7	4.8	19	13	12	4.9	5.1	1.5	2.2	.86	2.1
24	2.4	5.6	5.5	16	13	10	5.7	4.4	1.8	2.3	.86	1.8
25	2.6	5.0	8.1	13	12	8.6	5.8	4.0	1.7	1.8	.83	1.7
26	2.8	4.4	7.4	11	10	7.5	5.2	5.5	1.5	1.6	.81	2.1
27	3.1	4.0	6.6	9.6	8.9	7.0	4.7	5.4	1.5	1.5	.81	2.0
28	3.6	9.7	6.0	8.7	14	6.6	4.5	4.6	1.5	1.4	.82	1.9
29	4.1	11	5.5	8.0	---	6.2	4.2	4.3	1.4	1.4	.80	1.7
30	4.6	8.5	5.0	7.4	---	5.8	4.2	3.9	1.4	1.3	.80	1.6
31	4.9	---	4.6	7.2	---	5.7	---	3.6	---	1.2	.78	---
TOTAL	68.5	177.2	212.6	355.2	261.4	369.7	189.9	258.7	64.1	52.2	34.83	37.41
MEAN	2.21	5.91	6.86	11.5	9.34	11.9	6.33	8.35	2.14	1.68	1.12	1.25
MAX	4.9	11	14	24	15	25	15	15	3.5	3.9	2.0	2.1
MIN	1.6	2.8	4.4	4.7	5.5	5.7	4.2	3.6	1.4	1.0	.78	.72
CFSM	.23	.60	.70	1.17	.96	1.22	.65	.85	.22	.17	.11	.13
IN.	.26	.67	.81	1.35	1.00	1.41	.72	.99	.24	.20	.13	.14

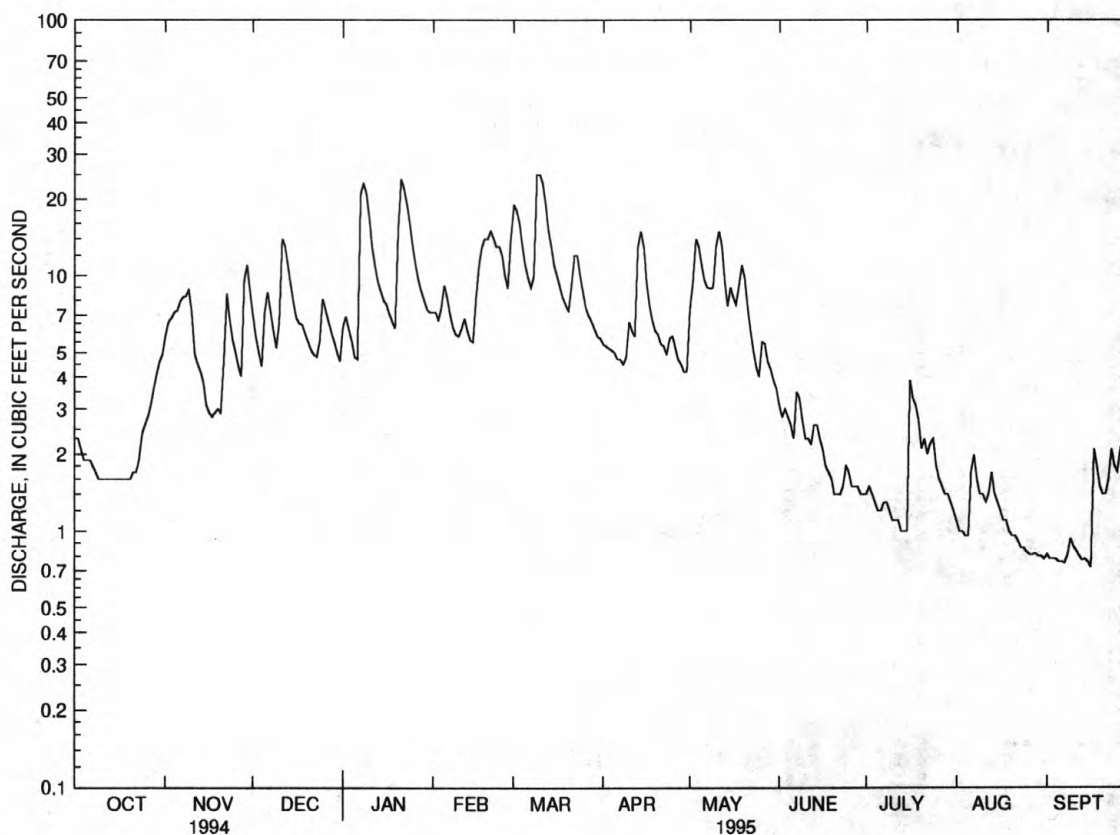
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1995, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	5.69	7.57	11.2	14.3	12.8	19.5	15.9	12.5	6.93	5.03	5.44	4.65
MAX	19.7	15.0	17.6	26.5	21.7	38.7	23.9	29.3	15.4	19.0	15.2	20.4
(WY)	1990	1990	1993	1991	1994	1994	1993	1989	1989	1989	1989	1989
MIN	1.93	4.22	6.86	6.98	6.37	9.91	5.65	4.54	2.14	1.68	1.12	1.25
(WY)	1989	1992	1995	1992	1992	1992	1992	1992	1995	1995	1995	1995

## MAURICE RIVER BASIN

01411456 LITTLE EASE RUN NEAR CLAYTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1988 - 1995
ANNUAL TOTAL	4139.0	2081.74	
ANNUAL MEAN	11.3	5.70	10.4
HIGHEST ANNUAL MEAN			14.3
LOWEST ANNUAL MEAN			5.70
HIGHEST DAILY MEAN	81 Jan 29	25 Mar 9	111 Sep 20 1989
LOWEST DAILY MEAN	1.1 Jul 13	.72 Sep 16	.41 Aug 16 1988
ANNUAL SEVEN-DAY MINIMUM	1.3 Jul 8	.77 Sep 1	.50 Aug 10 1988
INSTANTANEOUS PEAK FLOW		27 Mar 9	124 Sep 20 1989
INSTANTANEOUS PEAK STAGE		2.75 Mar 9	4.27 Sep 20 1989
INSTANTANEOUS LOW FLOW		.69 Sep 5	.35 Aug 15 1988
ANNUAL RUNOFF (CFSM)	1.16	.58	1.06
ANNUAL RUNOFF (INCHES)	15.76	7.93	14.44
10 PERCENT EXCEEDS	27	13	22
50 PERCENT EXCEEDS	6.5	4.8	7.1
90 PERCENT EXCEEDS	1.8	1.1	1.5



— 01411456 LITTLE EASE RUN NEAR CLAYTON, NJ, DAILY MEAN DISCHARGE

## 01411500 MAURICE RIVER AT NORMA, NJ

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from bridge on Almond Road (State Route 540) at Norma, and 0.8 mi downstream from Blackwater Branch.

DRAINAGE AREA.--112 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft above sea level.

REMARKS.--Records excellent. Occasional regulation by ponds above station. Several measurements of water temperature, other than those published, were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 11	1900	*168	*2.91	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	70	107	95	102	129	94	103	82	57	41	31
2	88	72	103	98	100	131	91	112	79	59	40	30
3	84	61	99	96	98	132	89	125	78	54	40	30
4	81	64	96	91	110	129	89	124	77	53	38	25
5	79	66	105	89	114	124	88	123	75	52	41	25
6	77	68	113	89	104	118	87	116	74	51	82	26
7	76	70	114	135	122	113	89	107	79	53	104	27
8	75	67	110	148	107	114	89	99	78	55	88	43
9	75	67	103	155	99	155	89	91	77	51	79	67
10	73	73	104	164	97	161	93	121	74	51	73	54
11	72	76	124	158	99	165	93	136	72	60	68	47
12	71	76	135	148	99	168	92	133	74	57	63	44
13	71	76	122	137	96	162	118	130	74	51	59	42
14	71	74	117	128	93	152	122	124	76	49	50	40
15	71	74	113	123	92	141	122	122	74	46	51	38
16	69	74	108	118	104	131	121	114	71	53	52	36
17	70	76	104	114	110	124	117	115	68	58	51	69
18	71	76	101	110	113	120	110	135	66	70	49	80
19	72	76	97	106	115	115	102	134	63	75	47	76
20	72	74	100	123	117	99	97	135	61	69	45	71
21	74	83	98	147	122	117	93	126	59	66	42	64
22	73	105	92	154	121	131	92	117	58	64	40	69
23	71	110	89	156	119	128	91	106	61	64	38	99
24	70	106	93	151	118	124	94	97	63	66	37	85
25	69	98	100	143	108	119	94	93	63	65	36	81
26	69	92	100	131	98	114	93	94	63	63	35	84
27	69	86	98	121	98	109	91	93	61	59	35	82
28	69	103	96	114	114	104	89	93	61	59	35	78
29	69	113	93	109	---	101	86	93	60	53	34	73
30	68	113	89	105	---	100	87	91	57	49	33	67
31	69	---	86	103	---	98	---	87	---	45	32	---
TOTAL	2278	2439	3209	3859	2989	3928	2902	3489	2078	1777	1558	1683
MEAN	73.5	81.3	104	124	107	127	96.7	113	69.3	57.3	50.3	56.1
MAX	90	113	135	164	122	168	122	136	82	75	104	99
MIN	68	61	86	89	92	98	86	87	57	45	32	25
CFSM	.66	.73	.92	1.11	.95	1.13	.86	1.00	.62	.51	.45	.50
IN.	.76	.81	1.07	1.28	.99	1.30	.96	1.16	.69	.59	.52	.56

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1995, BY WATER YEAR (WY)

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	113	140	166	190	200	230	225	189	147	123	125	122
MAX	266	330	385	380	418	427	437	387	291	333	327	591
(WY)	1990	1973	1973	1936	1939	1979	1984	1958	1979	1975	1958	1940
MIN	48.6	46.7	57.1	64.7	95.7	97.2	90.9	79.5	57.7	35.6	34.6	40.6
(WY)	1966	1966	1966	1966	1981	1981	1966	1977	1966	1966	1966	1965



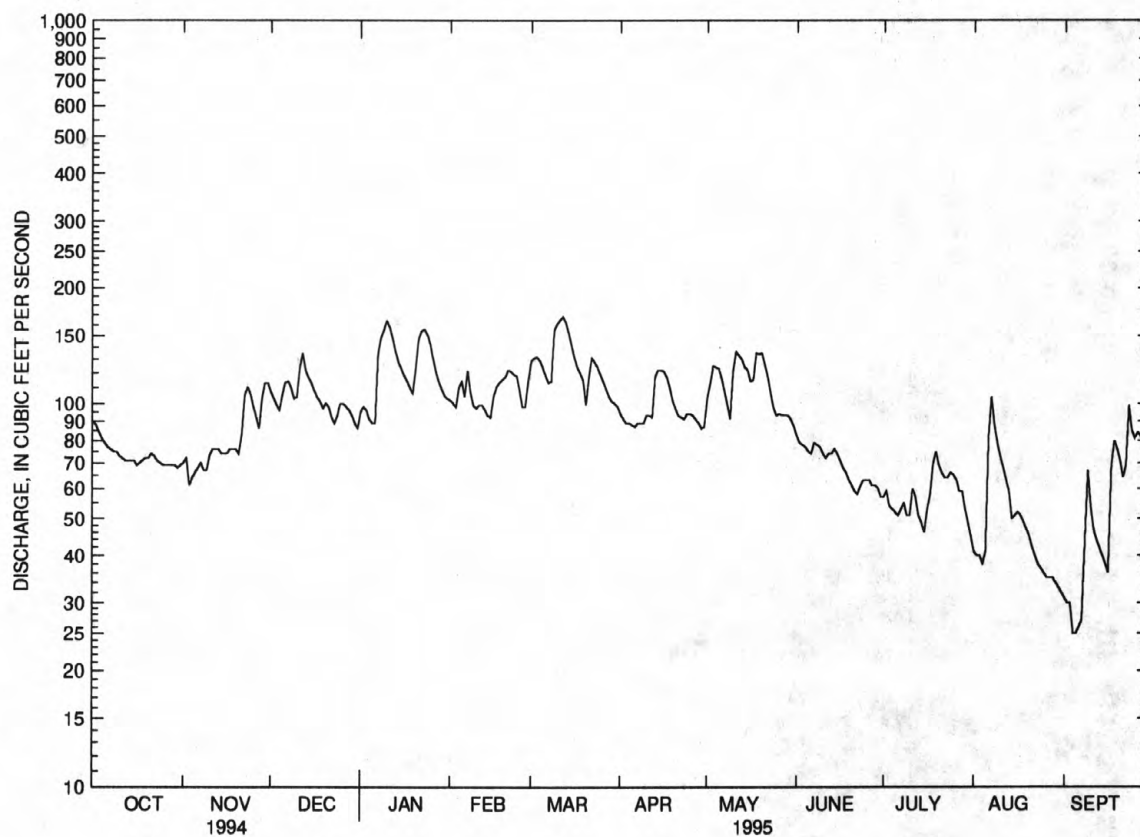
## MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1933 - 1995	
ANNUAL TOTAL	60859		32189			
ANNUAL MEAN	167		88.2		164	
HIGHEST ANNUAL MEAN					253	
LOWEST ANNUAL MEAN					67.4	
HIGHEST DAILY MEAN	625	Mar 31	168	Mar 12	5260	Sep 2 1940
LOWEST DAILY MEAN	61	Nov 3	25	Sep 4	23	Sep 8 1964
ANNUAL SEVEN-DAY MINIMUM	66	Nov 3	28	Sep 1	23	Sep 7 1966
INSTANTANEOUS PEAK FLOW			168	Mar 11	7360	Sep 2 1940
INSTANTANEOUS PEAK STAGE			2.91	Mar 11	8.72	Sep 2 1940
INSTANTANEOUS LOW FLOW			24	Sep 4	23	Sep 8 1964
ANNUAL RUNOFF (CFSM)	1.49		.79		1.46	
ANNUAL RUNOFF (INCHES)	20.21		10.69		19.89	
10 PERCENT EXCEEDS	335		125		282	
50 PERCENT EXCEEDS	126		89		143	
90 PERCENT EXCEEDS	74		49		68	

a From rating curve extended above 3,000 ft<sup>3</sup>/s, highest since 1867.

e Estimated.



— 01411500 MAURICE RIVER AT NORMA, NJ, DAILY MEAN DISCHARGE

## MAURICE RIVER BASIN

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01411500 MAURICE RIVER AT NORMA, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1962-63, 1965 to current year.

PERIOD OF DAILY RECORD:--

SPECIFIC CONDUCTANCE: January 1980 to November 1986, November 1992 to September 1994.

pH: November 1992 to April 1994.

WATER TEMPERATURE: October 1966 to January 1968 (once daily), January 1980 to November 1986, November 1992 to September 1994.

SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 1968.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)
NOV 1994 15...	1035	74	82	6.7	11.0	767	9.5	86	<1.0	9
FEB 1995 14...	1050	93	89	6.5	3.0	770	11.9	87	E1.3	<2
MAR 27...	1120	109	84	6.4	10.5	761	10.4	93	<1.0	<2
MAY 30...	1135	91	78	6.5	19.5	759	7.8	85	<1.0	13
AUG 08...	0945	89	82	6.6	20.5	765	7.0	77	<1.3	94

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
NOV 1994 15...	<10	19	3.9	2.3	5.1	2.1	8.0	6.0	11	<0.1
FEB 1995 14...	<10	21	4.3	2.4	5.4	1.9	4.8	7.4	10	<0.1
MAR 27...	<10	20	4.2	2.3	5.4	1.7	5.9	7.7	10	<0.1
MAY 30...	90	19	3.9	2.2	5.2	1.6	7.3	5.8	10	<0.1
AUG 08...	140	19	3.8	2.3	5.7	1.9	6.7	8.6	9.6	<0.1

## MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)		
NOV 1994 15...	4.8	48	48	<1	<0.003	1.70	<0.03	<0.03	0.16		
FEB 1995 14...	7.2	58	53	3	0.005	2.50	0.06	0.04	0.19		
MAR 27...	4.1	48	46	--	0.005	1.70	<0.03	<0.03	0.20		
MAY 30...	4.2	50	43	--	0.006	1.40	0.08	<0.03	0.30		
AUG 08...	4.4	60	45	5	0.005	0.93	0.05	0.06	0.40		
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)		
NOV 1994 15...	0.13	1.9	1.8	0.02	<0.01	2.3	0.2	--	--		
FEB 1995 14...	0.19	2.7	2.7	0.03	0.02	2.8	0.2	--	--		
MAR 27...	0.18	1.9	1.9	0.02	<0.01	4.2	0.4	3	0.88		
MAY 30...	0.41	1.7	1.8	<0.01	<0.01	5.0	0.3	3	0.74		
AUG 08...	0.34	1.3	1.3	0.02	<0.01	5.2	0.4	--	--		
DATE	TIME	PH SED BED MAT (STD UNITS) (70310)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/L AS AS) (01002)	ARSENIC TOTAL RECOV- ERABLE (UG/L AS AS) (01003)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)
NOV 1994 15...	1035	5.8	--	4.9	80	<40	--	7	--	--	--
15...	1035	--	10	--	--	--	15	--	<10	40	<1
MAY 1995 30...	1135	--	14	--	--	--	28	--	<10	--	<1
DATE	TIME	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)
NOV 1994 15...		<1	--	1	<5	--	<1	--	770	--	<10
15...		--	<1	--	--	<1	--	280	--	<1	--
MAY 1995 30...		--	<1	--	--	<1	--	730	--	<1	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

## COHANSEY RIVER BASIN

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth.

DRAINAGE AREA.--28.0 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
09...	1130	22	233	6.8	12.5	760	9.1	86	<1.0	63	50	58	
FEB 1995													
16...	1122	35	219	6.4	5.0	762	11.3	89	E1.4	>2400	20000	60	
APR													
05...	1045	27	221	7.0	8.0	764	11.4	96	E1.6	7	<10	60	
MAY													
31...	0835	30	208	6.8	17.0	765	6.4	66	<1.0	230	40	54	
JUL													
27...	0955	E15	209	6.7	23.5	761	5.8	68	<1.0	1400	310	54	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
NOV 1994													
09...	11	7.5	15	5.6	20	22	27	<0.1	8.5	136	130	5	
FEB 1995													
16...	12	7.2	9.6	5.3	12	21	22	<0.1	7.6	120	117	21	
APR													
05...	12	7.4	12	3.9	16	22	23	<0.1	6.0	120	118	5	
MAY													
31...	10	7.1	12	4.3	19	19	24	<0.1	6.5	130	111	4	
JUL													
27...	10	7.1	13	5.4	19	20	24	0.1	7.9	128	115	12	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
09...	0.004	4.80	0.06	0.09	0.18	0.15	5.0	5.0	0.03	<0.01	2.0	0.4	
FEB 1995													
16...	0.025	5.50	0.37	0.39	1.1	1.0	6.6	6.5	0.09	0.03	3.6	0.9	
APR													
05...	E0.010	4.90	0.07	<0.03	0.12	0.11	5.0	5.0	<0.01	<0.01	2.0	0.5	
MAY													
31...	0.039	3.80	0.17	0.16	0.30	0.31	4.1	4.1	0.03	<0.01	3.0	--	
JUL													
27...	0.041	3.60	0.12	0.13	0.50	0.30	4.1	3.9	0.04	<0.01	3.3	0.6	



## COHANSEY RIVER BASIN

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01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 09...	1130	12	<1	<10	30	<1	<1	<1
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 09...	330		<1	60	<0.1	1	<1	<10

## 01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River.

DRAINAGE AREA.--3,070 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above sea level. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Service prior to June 20, 1914.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft<sup>3</sup>/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft<sup>3</sup>/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft<sup>3</sup>/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,300 ft<sup>3</sup>/s, Mar. 9, gage height, 7.42 ft; minimum, 1,000 ft<sup>3</sup>/s, Aug. 10, gage height, 1.99 ft; minimum daily, 1,110 ft<sup>3</sup>/s, Aug. 10.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4250	2040	8000	3920	4550	3710	3500	2620	1890	1680	1980	1970
2	3650	3550	6550	5280	e4200	3570	3050	2620	1590	1770	2160	1770
3	3590	4910	5760	5470	e4000	3440	3440	2470	1830	1760	2500	1740
4	3130	3850	4870	4900	e3600	2840	2950	2300	1890	1730	2300	1630
5	2720	3260	5650	4630	e3000	2650	3210	2180	1950	1650	2330	1610
6	2540	2600	13800	4030	e3200	3100	3360	2050	1680	1720	1830	1590
7	2210	2510	11200	3500	e3400	3710	3160	1920	1600	1780	1770	1630
8	2040	2940	9900	3610	e3500	5980	2740	1740	1610	1960	1620	1620
9	2040	2380	8340	4310	e3700	20000	2460	1900	1310	1930	1150	1630
10	1720	2340	6900	3940	4130	16600	3350	1710	1310	1850	1110	1670
11	1930	2460	8800	3620	e2800	12700	4390	1980	1430	1770	1450	1670
12	1970	2280	9210	3530	e2200	10300	4280	2120	1730	1870	1480	1790
13	1800	1820	7540	3730	e2800	10300	6810	2050	1650	1610	1600	1590
14	1660	1770	6740	3800	e3100	11800	9640	1820	1900	1840	1680	1700
15	1540	2050	5760	4580	e3400	12200	7500	1860	1640	1900	2240	1810
16	1590	1970	5240	11000	e3100	12300	6070	1910	1520	1640	1720	1520
17	1460	1890	4590	11600	3030	11700	5820	1590	1700	1530	2350	1550
18	1770	1850	4680	9310	2830	10000	5000	1760	1680	2850	2020	1420
19	1650	1800	4640	7760	2090	8450	4760	1820	1600	4100	1620	1210
20	1860	1510	3940	7640	2050	7590	5450	1720	1600	2810	1620	1320
21	1690	1640	4540	14100	2390	6930	4690	1640	1410	2240	1560	1350
22	1730	2890	4260	13900	2810	7450	4010	1520	1220	1950	1450	1420
23	1690	3010	3730	11400	2730	7420	3840	1470	1300	1270	1530	1630
24	1670	2640	3820	9560	2780	6750	3600	1340	1530	1750	1530	1620
25	1400	2200	5150	8630	2470	6350	3340	1490	1500	2090	1470	1430
26	1290	1940	4540	7830	2540	5260	3600	1940	1770	2140	1630	1370
27	1490	1910	4210	6960	2050	4730	2760	1920	2060	1850	1680	1650
28	1610	5170	4150	5570	2300	4710	2600	1760	1980	3020	1500	1580
29	1810	15200	3840	4390	---	4210	2370	1560	1490	3020	1500	1410
30	1510	11400	3640	5140	---	3810	2320	1710	1560	2040	1670	1410
31	1530	---	3360	4940	---	3940	---	2100	---	1590	1600	---
TOTAL	62540	97780	187350	202580	84750	234500	124070	58590	48930	62710	53650	47310
MEAN	2017	3259	6044	6535	3027	7565	4136	1890	1631	2023	1731	1577
MAX	4250	15200	13800	14100	4550	20000	9640	2620	2060	4100	2500	1970
MIN	1290	1510	3360	3500	2050	2650	2320	1340	1220	1270	1110	1210

DELAWARE RIVER BASIN

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01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

MEAN	2991	4009	5045	4513	5085	7971	9514	5950	3782	2590	2260	2435
MAX	10440	10310	12320	12750	13730	17520	23650	12670	12650	6680	4513	7928
(WY)	1978	1973	1974	1978	1976	1977	1993	1984	1972	1973	1969	1987
MIN	1001	884	1866	1216	1601	2583	2954	1890	993	699	963	1144
(WY)	1965	1965	1965	1981	1980	1981	1985	1995	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1964 - 1995	
ANNUAL TOTAL	1877050		1264760			
ANNUAL MEAN	5143		3465		4673	
HIGHEST ANNUAL MEAN					7216	
LOWEST ANNUAL MEAN					2028	
HIGHEST DAILY MEAN	43600	Apr 14	20000	Mar 9	78300	Jun 30 1973
LOWEST DAILY MEAN	1260	Jun 5	1110	Aug 10	385	Jul 6 1965
ANNUAL SEVEN-DAY MINIMUM	1520	Oct 25	1400	Sep 16	432	Jul 1 1965
10 PERCENT EXCEEDS	11300		7430		9950	
50 PERCENT EXCEEDS	2940		2280		2800	
90 PERCENT EXCEEDS	1690		1520		1490	

e Estimated.

## DELAWARE RIVER BASIN

## 01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'08", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1937 to current year. Gage heights and discharge measurements, August to October 1903 and August 1909 to April 1914, and twice-daily figures of discharge for January 1911 to December 1912 (which do not represent daily mean discharges because of diurnal fluctuation) are published in WSP 97, 261, 321, 351, and 381. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area. WDR NY-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft above sea level (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 92.5 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; minimum discharge observed, no flow July 21, 22, 28, 1911, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,720 ft<sup>3</sup>/s, Mar. 9, gage height, 7.11 ft; minimum, 61 ft<sup>3</sup>/s, Sept. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	479	195	587	e500	e380	509	271	269	240	128	182	e108
2	512	250	536	e650	e340	e370	259	288	217	150	180	105
3	395	246	502	e540	e320	e330	250	270	218	143	172	93
4	e312	232	473	e450	e310	e320	253	251	215	137	164	90
5	e275	235	653	e420	e310	318	266	245	196	134	163	e86
6	e244	224	994	e420	e300	337	246	247	180	135	234	82
7	e224	213	734	e490	e290	372	242	238	168	165	182	e77
8	e212	204	673	e470	e280	1120	241	233	169	165	137	81
9	e220	198	603	466	e300	3070	253	224	165	137	124	78
10	e298	251	571	408	e290	1610	369	231	150	124	118	e75
11	e270	256	751	387	e280	1220	339	248	145	136	130	e71
12	e236	229	701	385	e280	1000	307	244	161	168	146	66
13	e220	217	e550	434	e270	948	468	230	179	160	147	74
14	e212	209	e510	491	e260	975	433	216	161	149	144	e80
15	e208	204	e490	544	e240	872	376	209	158	154	179	71
16	e197	196	e470	682	e230	762	338	206	147	147	170	65
17	e193	188	470	610	e220	677	314	202	141	156	155	90
18	197	183	460	554	e230	599	286	209	147	288	149	116
19	197	184	446	514	e240	522	310	217	148	198	147	88
20	200	178	424	735	e250	470	345	214	153	147	142	80
21	204	205	402	1390	288	466	308	197	160	144	140	78
22	200	348	389	1140	278	517	326	189	154	138	138	88
23	209	301	379	923	269	463	300	181	137	144	128	107
24	242	275	493	801	e250	419	280	175	135	182	98	97
25	233	267	660	702	e240	383	264	238	137	230	94	85
26	219	262	527	619	e230	354	243	233	139	195	e91	97
27	207	245	475	e540	e220	333	238	222	164	226	e86	110
28	200	636	e420	e470	365	307	242	199	156	424	e80	98
29	192	916	e370	e420	---	292	237	204	128	294	e77	88
30	191	667	e350	e370	---	282	229	385	121	197	e77	84
31	185	---	e360	e380	---	279	---	293	---	173	e86	---
TOTAL	7583	8414	16423	17905	7760	20496	8833	7207	4889	5468	4260	2608
MEAN	245	280	530	578	277	661	294	232	163	176	137	86.9
MAX	512	916	994	1390	380	3070	468	385	240	424	234	116
MIN	185	178	350	370	220	279	229	175	121	124	77	65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

MEAN	294	370	437	354	404	684	851	533	368	229	229	212
MAX	2033	1094	1227	1053	981	1370	2080	1392	1722	652	1327	705
(WY)	1956	1956	1974	1979	1976	1977	1993	1989	1972	1972	1955	1960
MIN	94.9	86.3	119	72.6	118	297	248	180	111	54.2	76.0	71.1
(WY)	1985	1966	1981	1981	1980	1981	1985	1962	1957	1966	1968	1972

DELAWARE RIVER BASIN

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01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1954 - 1995	
ANNUAL TOTAL	160145		111846			
ANNUAL MEAN	439		306		413	
HIGHEST ANNUAL MEAN					704	1956
LOWEST ANNUAL MEAN					215	1965
HIGHEST DAILY MEAN	3540	Apr 17	3070	Mar 9	15900	Aug 19 1955
LOWEST DAILY MEAN	121	Sep 20	65	Sep 16	32	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	130	Sep 15	72	Sep 10	38	Aug 11 1965
10 PERCENT EXCEEDS	907		546		867	
50 PERCENT EXCEEDS	240		237		266	
90 PERCENT EXCEEDS	160		109		106	

e Estimated.



## DELAWARE RIVER BASIN

## 01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above sea level. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Records good except for estimated daily discharges and periods of shifting control, Oct. 1-24, and June 12 to Sept. 30, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5780	2360	9410	4770	5710	4480	4290	3190	2610	1930	2140	2030
2	4810	3620	7870	6270	5560	4490	3670	3400	2160	1890	2210	1910
3	4480	5330	6960	6460	5200	4200	3850	3220	2330	1890	2780	1840
4	3840	4320	6010	5900	e4800	3660	3570	2980	2410	1860	2510	1730
5	3320	3790	6350	5530	e4100	3320	3680	2830	2410	1740	2600	1710
6	3060	3060	13200	4920	e4300	3670	3930	2800	2300	1760	2020	1680
7	2670	2870	12300	4540	e4800	4370	3720	2560	1930	1860	2020	1720
8	2450	3310	11000	4590	e4400	6510	3430	2350	2090	2100	1830	1700
9	2440	2840	9750	5100	e4500	21700	2960	2400	1610	2060	1300	1730
10	2220	2740	8200	4940	e4800	19400	3800	2310	1590	1880	1180	1750
11	2320	2900	9680	4360	e4200	15100	5100	2540	1620	1830	1420	1800
12	2350	2770	10500	4230	e3000	12300	4950	2810	1930	1940	1700	1930
13	2150	2190	9020	4420	e3600	11900	7020	2680	1880	1790	1720	1720
14	1960	2080	8070	4830	e4300	13000	10400	2430	2080	1930	1770	1840
15	1880	2410	7150	5260	e4400	13400	8480	2400	1930	1990	2440	1980
16	1870	2310	6440	10500	e3900	13400	6980	2470	1660	1700	1900	1680
17	1610	2220	5840	12100	e3800	12600	6600	2170	1860	1670	2580	1700
18	2020	2160	5730	10300	e3600	11100	5830	2280	1940	2860	2230	1650
19	1820	2140	5600	8850	e2700	9630	5560	2360	1800	4290	1980	1400
20	2040	1730	4740	8550	e2650	8690	6240	2360	1790	3180	1730	1460
21	1930	1900	5260	14700	2820	7980	5670	2220	1690	2440	1690	1520
22	1930	3370	4960	15500	3330	8470	4960	2020	1430	2160	1610	1610
23	1890	3620	4430	12900	3270	8450	4720	1960	1460	1520	1660	1820
24	1940	3280	4490	11100	3430	7640	4350	1860	1690	1820	1660	1880
25	1690	2690	6290	10100	2980	7290	4050	1960	1740	2350	1600	1670
26	1530	2390	5530	9270	3220	6320	4410	2480	1930	2410	1710	1620
27	1680	2280	5030	8340	2550	5410	3490	2530	2160	2130	1750	1870
28	1890	4960	4970	7060	2730	5460	3350	2320	2260	3120	1690	1810
29	2080	14900	4570	5480	---	4930	3190	2100	1750	3560	1600	1770
30	1790	12400	4350	5970	---	4490	3040	2370	1490	2400	1750	1660
31	1770	---	3890	6010	---	4580	---	2720	---	1840	1710	---
TOTAL	75210	108940	217590	232850	108650	267940	145290	77080	57530	67900	58490	52190
MEAN	2426	3631	7019	7511	3880	8643	4843	2486	1918	2190	1887	1740
MAX	5780	14900	13200	15500	5710	21700	10400	3400	2610	4290	2780	2030
MIN	1530	1730	3890	4230	2550	3320	2960	1860	1430	1520	1180	1400

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

MEAN	3306	5059	6126	5669	5929	9999	12040	7322	4354	2994	2615	2653
MAX	15690	11760	14050	15050	15120	24480	31560	16090	15200	11220	14230	9167
(WY)	1956	1952	1974	1949	1976	1945	1940	1943	1972	1945	1955	1960
MIN	807	995	1968	1318	1748	3191	3322	2215	1214	864	715	892
(WY)	1942	1965	1965	1981	1980	1981	1985	1965	1965	1954	1954	1941

DELAWARE RIVER BASIN

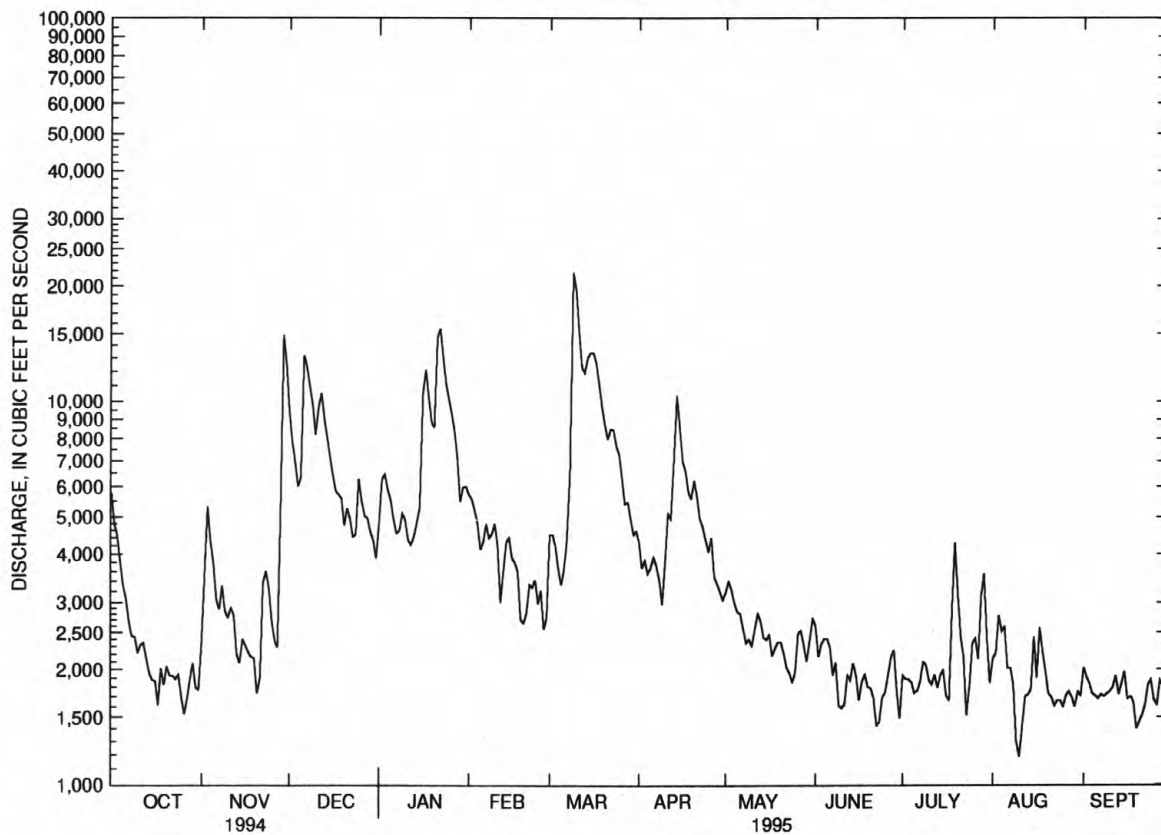
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01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1940 - 1995	
ANNUAL TOTAL	2192200		1469660		5666	
ANNUAL MEAN	6006		4026		8621	
HIGHEST ANNUAL MEAN					2309	
LOWEST ANNUAL MEAN					187000	
HIGHEST DAILY MEAN	47600	Apr 14	21700	Mar 9	412	Aug 19 1955
LOWEST DAILY MEAN	1530	Oct 26	1180	Aug 10	565	Aug 23 1954
ANNUAL SEVEN-DAY MINIMUM	1780	Oct 25	1560	Aug 8	250000	Jul 1 1965
INSTANTANEOUS PEAK FLOW			24500	Mar 9	35.15	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.56	Mar 9	382	Aug 24 1954
INSTANTANEOUS LOW FLOW			1100	Aug 10	12000	
10 PERCENT EXCEEDS	12900		8460		3400	
50 PERCENT EXCEEDS	3570		2740		1580	
90 PERCENT EXCEEDS	1990		1700			

a From rating curve extended above 90,000 ft<sup>3</sup>/s on basis of flood-routing study.

e Estimated.



01438500 DELAWARE RIVER AT MONTAGUE, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1976-78, July 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1994													
09...	1230	2810	83	8.0	10.0	749	11.1	100	<1.0	<200	10	23	
JAN 1995													
23...	1200	12100	64	6.9	2.5	749	12.6	94	4.2	<20	20	18	
MAR													
27...	1130	5160	83	7.1	7.0	751	10.7	89	<1.0	<20	<10	21	
MAY													
15...	1145	2220	94	7.8	14.5	748	9.7	97	E2.0	<20	10	24	
JUL													
31...	1200	1970	89	7.5	26.0	757	7.4	92	E1.6	110	30	23	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
09...	7.0	1.4	5.5	0.90	15	8.1	8.8	<0.1	1.6	46	44	2	
JAN 1995													
23...	5.4	1.1	4.4	0.70	8.5	7.1	7.8	<0.1	3.5	44	37	7	
MAR													
27...	6.3	1.3	5.3	0.70	11	7.9	9.6	<0.1	2.5	62	42	1	
MAY													
15...	7.3	1.5	5.4	0.70	15	7.2	9.4	<0.1	1.4	44	43	3	
JUL													
31...	6.8	1.5	6.6	1.1	15	5.8	12	<0.1	1.6	48	45	1	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
09...	0.010	0.45	0.06	0.04	0.20	0.15	0.65	0.60	<0.01	<0.01	2.9	0.3	
JAN 1995													
23...	0.004	0.42	<0.03	<0.03	0.19	0.16	0.61	0.58	<0.01	<0.01	2.8	0.5	
MAR													
27...	0.004	0.45	<0.03	<0.03	0.18	0.14	0.63	0.59	0.02	0.01	2.1	0.5	
MAY													
15...	0.005	0.34	<0.03	<0.03	0.20	0.19	0.54	0.53	0.02	0.02	2.0	0.7	
JUL													
31...	0.004	0.19	0.06	0.05	0.20	0.17	0.39	0.36	0.02	0.02	3.8	0.3	

## DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 09...	1230	27	<1	<10	20	<1	<1	1
MAY 1995 15...	1145	<10	2	<10	10	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 09...	100	<1	20	0.3	<1	<1	<10
MAY 1995 15...	80	<1	50	<0.1	<1	<1	<10

## 01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi upstream from Flatbrookville, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M). WDR-NJ-80-2: 1970(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft above sea level. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow occasionally regulated by ponds above station. Several measurements of water temperature were made during the year. Satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 28	2230	650	3.73	Mar. 9	0930	*1,200	*4.73

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	49	211	177	111	162	90	108	50	28	14	5.6
2	149	60	173	237	108	136	87	107	45	44	13	5.9
3	118	56	151	191	94	113	83	95	44	38	13	5.8
4	98	51	136	156	93	102	82	84	43	29	12	5.6
5	89	48	205	129	e92	96	83	79	40	27	14	5.5
6	80	46	300	127	e109	103	79	76	38	25	14	5.3
7	75	46	205	182	e104	112	77	71	36	30	13	5.1
8	71	44	181	189	e135	199	77	66	33	44	12	5.0
9	68	43	155	145	e112	938	88	63	31	36	11	5.5
10	81	75	149	125	e73	478	138	67	30	28	11	5.7
11	75	83	307	121	e72	323	117	73	31	28	10	5.3
12	66	66	244	112	e74	277	99	75	54	32	11	5.3
13	62	58	176	123	e78	268	172	78	58	28	10	5.6
14	62	54	160	137	e64	234	155	71	43	26	9.4	6.3
15	57	52	149	155	e60	208	127	66	56	23	9.7	6.0
16	55	50	141	159	e71	191	111	62	46	20	9.3	5.5
17	53	48	142	150	81	189	100	61	37	19	8.7	7.7
18	51	50	158	130	77	169	94	68	33	27	8.4	10
19	50	52	135	119	76	154	109	71	31	28	7.8	8.2
20	51	47	122	181	79	150	135	76	31	22	7.3	7.1
21	55	68	113	451	87	153	114	65	28	19	7.3	6.8
22	53	244	106	356	84	163	114	58	26	20	6.9	8.2
23	53	137	102	265	78	145	103	53	26	18	6.7	16
24	75	104	179	219	89	133	95	49	24	20	6.7	14
25	67	92	249	192	95	125	87	65	24	19	6.3	10
26	59	85	166	171	84	118	85	82	39	18	6.2	14
27	54	79	143	152	74	111	82	78	57	16	6.1	23
28	50	406	135	137	105	104	80	62	38	17	6.1	15
29	48	484	125	123	---	98	76	61	32	21	6.0	11
30	46	282	105	118	---	94	76	65	28	16	5.7	9.5
31	46	---	99	116	---	94	---	57	---	15	5.6	---
TOTAL	2139	3059	5122	5345	2459	5940	3015	2212	1132	781	288.2	249.5
MEAN	69.0	102	165	172	87.8	192	100	71.4	37.7	25.2	9.30	8.32
MAX	149	484	307	451	135	938	172	108	58	44	14	23
MIN	46	43	99	112	60	94	76	49	24	15	5.6	5.0
CFSM	1.08	1.59	2.58	2.69	1.37	2.99	1.57	1.11	.59	.39	.15	.13
IN.	1.24	1.78	2.98	3.11	1.43	3.45	1.75	1.29	.66	.45	.17	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1995, BY WATER YEAR (WY)

MEAN	54.8	97.0	122	120	133	206	206	142	87.7	56.8	51.9	47.3
MAX	306	292	369	367	275	513	570	372	334	333	386	258
(WY)	1956	1928	1974	1979	1951	1936	1983	1989	1972	1928	1955	1933
MIN	9.57	12.2	20.6	24.5	37.3	82.0	65.9	44.0	23.7	13.1	9.30	7.01
(WY)	1964	1965	1947	1981	1940	1985	1946	1941	1965	1966	1995	1964



DELAWARE RIVER BASIN

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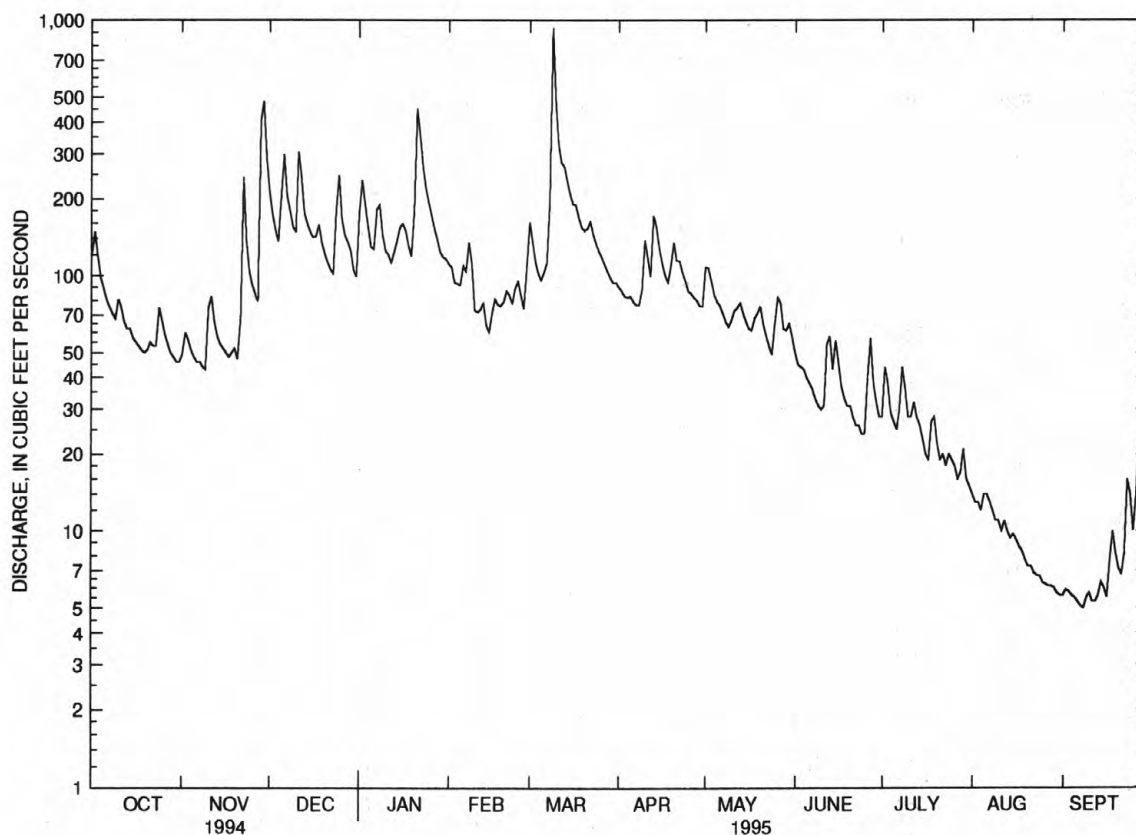
01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1924 - 1995	
ANNUAL TOTAL	54225		31741.7		110	
ANNUAL MEAN	149		87.0		210	
HIGHEST ANNUAL MEAN					43.4	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	815	Mar 25	938	Mar 9	6310	Aug 19 1955
LOWEST DAILY MEAN	21	Aug 11	5.0	Sep 8	4.1	Sep 11 1966
ANNUAL SEVEN-DAY MINIMUM	23	Aug 8	5.3	Sep 6	5.3	Sep 6 1995
INSTANTANEOUS PEAK FLOW			1200	Mar 9	9560a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			4.73	Mar 9	12.58b	Aug 19 1955
INSTANTANEOUS LOW FLOW			4.6	Sep 7	3.6	Sep 25 1964
ANNUAL RUNOFF (CFSM)	2.32		1.36		1.72	
ANNUAL RUNOFF (INCHES)	31.52		18.45		23.37	
10 PERCENT EXCEEDS	354		172		235	
50 PERCENT EXCEEDS	91		71		71	
90 PERCENT EXCEEDS	39		9.1		17	

a From rating curve extended above 2,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

b From high-water mark in gage house.

c Estimated.



01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

## 01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

PERIOD OF RECORD.--Water years 1923-24, 1956-57, 1959-80, alternate years 1993 to current year.

DRAINAGE AREA.--64.0 mi<sup>2</sup>.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994	01...	1145	48	226	7.7	12.0	738	9.6	92	E1.8	<20	<100	86
JAN 1995	18...	1200	130	--	7.7	6.0	760	11.6	--	<1.0	<20	20	54
MAR	28...	1130	105	181	7.5	7.0	752	11.6	97	E2.1	<20	<10	68
MAY	16...	1100	62	189	8.1	13.5	751	10.6	103	E1.3	2	<10	75
JUL	18...	1145	25	245	8.6	24.5	748	10.4	127	2.2	210	10	100
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994	01...	25	5.6	8.9	0.60	71	14	16	<0.1	2.8	114	117	<1
JAN 1995	18...	16	3.4	6.3	0.50	44	11	11	<0.1	4.8	80	80	5
MAR	28...	20	4.3	7.8	0.60	55	14	14	<0.1	4.2	102	100	4
MAY	16...	22	4.8	8.0	0.50	59	12	13	<0.1	3.8	108	100	2
JUL	18...	29	6.9	8.6	0.70	79	16	15	<0.1	2.1	134	126	<1
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994	01...	<0.003	0.42	<0.03	<0.03	0.30	0.15	0.72	0.57	0.04	0.02	2.2	0.2
JAN 1995	18...	<0.003	0.16	<0.03	<0.03	0.24	0.10	0.40	0.26	0.01	<0.01	2.1	0.2
MAR	28...	0.005	0.39	<0.03	<0.03	0.08	0.10	0.47	0.49	<0.01	<0.01	1.6	0.3
MAY	16...	0.004	0.13	0.04	<0.03	0.20	0.22	0.33	0.35	0.01	0.02	2.0	0.2
JUL	18...	0.003	<0.05	<0.03	<0.03	0.16	0.10	--	--	<0.01	<0.01	2.1	0.2

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

## DELAWARE RIVER BASIN

## 01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Route 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Gage height satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 37.4 ft, present datum (discharge about 260,000 ft<sup>3</sup>/s). Information on stage supplied by Harlan Fish, retired caretaker of Worthington State Forest.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7690	1930	11600	4980	6250	4050	4820	3360	2870	1860	1970	1820
2	6200	2620	9270	6720	5890	5280	4140	3950	2310	2070	2120	2020
3	5890	5320	8040	7620	5620	4650	3830	3710	2200	2150	2600	1880
4	5260	5140	7130	7020	5620	4370	4180	3440	2390	2030	2680	1830
5	4500	4150	6950	7470	e4770	3630	3630	3190	2330	1890	2660	1760
6	3940	3350	13800	5910	e3290	3580	4090	3090	2480	1830	2260	1730
7	3500	2980	15100	5640	e4300	4380	4070	2810	1940	2010	2140	1710
8	3100	3330	12300	5300	e4440	5960	3720	2590	2030	2370	2000	1750
9	2870	3170	11100	5740	e4100	23500	3190	2350	1800	2460	1680	1740
10	2970	2760	9400	5850	e4410	24600	3550	2660	1650	2150	1360	1760
11	2680	3060	10200	5080	e4950	18600	5330	2460	1690	2100	1310	1780
12	2760	2970	12200	4980	e3890	14300	5510	2890	2030	2030	1700	1850
13	2590	2410	10600	4770	e2880	13100	5830	2950	2090	2040	1710	1800
14	2390	2120	8970	5500	e3640	13800	11300	2790	2050	1880	1810	1750
15	2160	2300	8260	5330	e3890	14600	9800	2430	2300	2040	2140	1930
16	2010	2310	7270	9510	e4250	14500	8020	2510	1880	1860	2230	1800
17	1960	2220	6850	13800	e4400	14100	7160	2540	1840	1740	2250	1680
18	1960	2110	6300	11800	e4000	12600	6520	2220	2080	2050	2460	1770
19	2100	2100	6160	9990	3370	11000	6090	2490	1860	4050	2180	1570
20	2030	1860	5910	9150	2930	9590	6440	2610	1850	3950	1700	1420
21	2300	1840	5480	15100	2770	8930	6660	2360	1870	2670	1820	1510
22	2020	3320	5670	18500	3530	9010	5660	2170	1530	2280	1740	1570
23	2170	4210	5480	14900	3490	9250	5310	2050	1500	1880	1660	1710
24	2180	3920	4910	12600	3410	8420	4820	1910	1580	1610	1720	1820
25	2080	3050	6700	11300	3170	8190	4560	1890	1730	2170	1690	1730
26	1790	2810	6680	10300	3370	7320	4750	2450	1710	2400	1640	1670
27	1680	2500	5960	9250	2890	5950	4020	2770	2050	2240	1780	1610
28	1880	4240	5970	8360	2560	6010	3670	2500	2400	2360	1830	1800
29	1970	16400	5330	6220	---	5530	3480	2330	2090	4050	1660	1750
30	1980	16300	4970	5970	---	5110	3240	2200	1620	2910	1660	1560
31	1650	---	4440	7110	---	4800	---	2710	---	2060	1780	---
TOTAL	90260	116800	249000	261770	112080	298710	157390	82380	59750	71190	59940	52080
MEAN	2912	3893	8032	8444	4003	9636	5246	2657	1992	2296	1934	1736
MAX	7690	16400	15100	18500	6250	24600	11300	3950	2870	4050	2680	2020
MIN	1650	1840	4440	4770	2560	3580	3190	1890	1500	1610	1310	1420

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

	MEAN	3882	5266	6767	6086	7047	10390	12610	8108	5158	3374	2847	3018
MAX	13030	12870	16730	17960	17320	21490	33860	17970	18150	9455	6242	10310	
(WY)	1978	1973	1974	1979	1976	1977	1993	1989	1972	1973	1969	1987	
MIN	1193	992	1914	1437	1936	3873	3796	2657	1397	950	1101	1283	
(WY)	1965	1965	1965	1981	1980	1981	1985	1995	1965	1965	1965	1965	

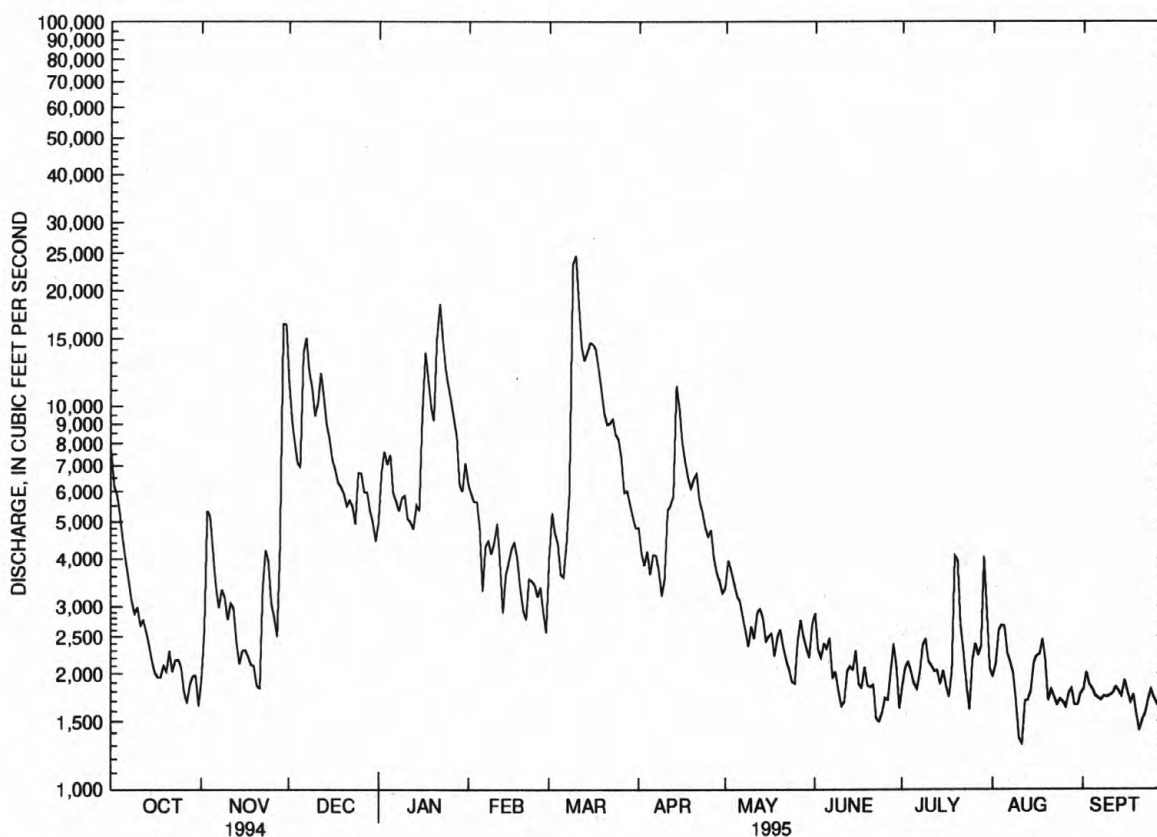
# DELAWARE RIVER BASIN

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01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1964 - 1995	
ANNUAL TOTAL	2628410		1611350		6222	
ANNUAL MEAN	7201		4415		9418	
HIGHEST ANNUAL MEAN					2572	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	53200	Apr 14	24600	Mar 10	96000	Mar 16 1986
LOWEST DAILY MEAN	1650	Oct 31	1310	Aug 11	580	Jul 7 1965
ANNUAL SEVEN-DAY MINIMUM	1840	Oct 26	1600	Sep 17	620	Jul 2 1965
INSTANTANEOUS PEAK FLOW			28700	Mar 10	110000	Mar 16 1986
INSTANTANEOUS PEAK STAGE			11.75	Mar 10	24.00	Mar 16 1986
INSTANTANEOUS LOW FLOW			1240	Aug 11	---	
10 PERCENT EXCEEDS	16400		9260		13000	
50 PERCENT EXCEEDS	4260		2910		3760	
90 PERCENT EXCEEDS	221		1740		1840	

e Estimated.



01440200 DELAWARE RIVER, TOCKS ISLAND, DEL WATER GAP, PA, DAILY MEAN DISCHARGE



## DELAWARE RIVER BASIN

## 01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
09...	1130	3860	84	7.6	10.0	750	8.5	76	<1.0	<20	<10	27	
JAN 1995													
24...	1145	14200	75	7.7	2.5	751	12.9	96	<1.0	20	20	20	
MAR													
27...	1115	6980	84	8.1	7.5	757	11.8	99	<1.0	<20	<10	24	
MAY													
15...	1100	3100	94	7.9	14.5	750	9.7	97	E1.7	<20	<10	28	
AUG													
01...	1100	2710	98	7.7	26.5	758	7.2	90	3.7	50	60	28	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
09...	8.1	1.6	5.2	1.0	18	8.8	8.9	<0.1	2.1	53	49	1	
JAN 1995													
24...	6.0	1.2	4.4	0.60	10	6.8	8.3	<0.1	3.5	48	39	5	
MAR													
27...	7.4	1.4	5.1	0.60	14	8.0	9.4	<0.1	2.5	50	45	2	
MAY													
15...	8.6	1.7	5.6	0.70	19	8.1	9.7	<0.1	1.7	62	49	6	
AUG													
01...	8.4	1.7	6.7	1.2	20	8.6	11	<0.1	2.0	50	52	1	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
09...	0.013	0.54	0.04	0.05	0.20	0.17	0.74	0.71	0.03	0.01	3.1	0.2	
JAN 1995													
24...	0.003	0.42	<0.03	<0.03	0.18	0.30	0.60	0.72	<0.01	0.01	2.7	0.3	
MAR													
27...	0.004	0.42	<0.03	<0.03	0.19	0.10	0.61	0.52	0.02	<0.01	2.0	0.4	
MAY													
15...	0.006	0.25	0.05	0.03	0.30	0.21	0.55	0.46	0.02	0.02	2.2	0.5	
AUG													
01...	0.007	0.16	<0.03	<0.03	0.30	0.22	0.46	0.38	0.08	0.08	3.5	0.3	

## DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 09...	1130	23	<1	<10	10	<1	<1	<1
MAY 1995 15...	1100	<10	1	<10	<10	<1	<1	6

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 09...	110	<1	10	<0.1	<1	<1	<10
MAY 1995 15...	120	4	30	<0.1	1	<1	30

## DELAWARE RIVER BASIN

## 01443280 EAST BRANCH PAULINS KILL NEAR LAFAYETTE, NJ

LOCATION.--Lat 41°04'34", long 74°41'45", Sussex County, Hydrologic Unit 02020007, on right downstream wingwall of bridge on Garrison Road, 1.6 mi south of Lafayette, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--13.0 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 555.40 ft above sea level (levels from American Geodetic Survey Co. benchmark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Possible regulation from ponds and golf courses upstream. A significant portion of the base flow is the result of pumpage from a limestone quarry into a tributary approximately 1.5 mi upstream of gage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1200	*140	*4.48	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.6	17	e21	e19	40	17	24	13	12	e6.4	7.8
2	15	9.8	15	e30	e18	29	16	20	14	32	e6.1	7.4
3	13	9.4	15	e27	e17	24	16	16	15	17	e5.8	7.5
4	11	9.0	14	e20	e15	22	16	15	17	12	e5.7	7.6
5	11	8.7	20	e15	e17	21	16	14	15	9.4	e7.5	7.3
6	10	9.0	26	e16	e16	22	15	14	16	9.7	e11	7.6
7	9.9	8.7	19	e38	e17	23	15	13	16	9.8	e8.7	7.6
8	9.7	8.4	17	e36	e18	36	14	12	15	10	e6.9	8.1
9	10	8.4	15	e25	e19	124	16	11	14	8.9	e6.8	9.0
10	11	11	16	e20	e18	100	28	12	14	8.0	e6.7	9.9
11	10	10	32	e18	e16	67	21	13	15	8.7	6.5	9.0
12	9.9	9.3	23	e21	e15	56	18	13	22	8.1	6.3	8.6
13	9.6	9.6	18	e19	e14	48	35	14	19	7.7	6.4	9.0
14	9.4	9.4	16	e21	e13	41	29	13	13	7.1	6.0	8.7
15	9.6	9.2	16	e22	e13	37	23	12	12	7.1	6.7	8.6
16	9.4	8.7	15	e24	e15	34	19	11	10	8.9	6.5	8.9
17	9.3	8.5	15	e27	e17	33	17	12	10	e11	6.7	10
18	9.4	8.6	e17	e25	16	30	17	13	8.5	e25	6.6	9.3
19	9.3	8.0	e16	e23	16	28	18	12	8.6	e18	6.3	8.6
20	9.4	9.8	e15	e21	18	26	18	15	8.2	e11	6.1	8.4
21	9.6	13	e14	e29	22	27	17	12	8.0	e10	5.9	8.4
22	9.1	16	e13	e43	16	28	17	11	8.6	e9.1	5.7	9.6
23	9.7	12	e13	e39	15	26	15	11	8.6	e9.5	5.5	11
24	11	10	e17	e31	20	23	15	11	8.4	e9.9	5.6	10
25	10	10	e22	28	20	21	14	18	8.8	e8.9	5.7	11
26	9.7	9.8	e18	26	17	20	13	25	9.1	e8.0	6.0	15
27	9.3	37	e17	24	16	20	13	20	8.7	e7.6	6.1	15
28	9.2	43	e16	21	33	18	12	15	8.0	e7.3	6.1	13
29	9.1	23	e15	e20	---	22	12	15	7.5	e7.6	6.1	12
30	9.1	21	e15	e19	---	20	13	14	7.5	e7.2	6.1	11
31	9.3	---	e14	e19	---	18	---	13	---	e6.7	6.6	---
TOTAL	315.0	377.9	531	768	486	1084	525	444	358.5	333.2	201.1	284.9
MEAN	10.2	12.6	17.1	24.8	17.4	35.0	17.5	14.3	11.9	10.7	6.49	9.50
MAX	15	43	32	43	33	124	35	25	22	32	11	15
MIN	9.1	8.0	13	15	13	18	12	11	7.5	6.7	5.5	7.3
CFSM	.78	.97	1.32	1.91	1.34	2.69	1.35	1.10	.92	.83	.50	.73
IN.	.90	1.08	1.52	2.20	1.39	3.10	1.50	1.27	1.03	.95	.58	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	9.72	14.8	25.2	24.4	21.4	49.3	44.6	20.3	14.5	11.6	9.71	9.88
MAX	10.5	17.8	33.6	31.4	25.8	58.5	64.3	23.9	18.4	15.0	14.8	12.0
(WY)	1994	1993	1993	1993	1994	1993	1993	1994	1994	1994	1994	1994
MIN	8.52	12.6	17.1	17.0	17.4	35.0	17.5	14.3	11.9	8.95	6.49	8.58
(WY)	1993	1995	1995	1994	1995	1995	1995	1995	1995	1993	1995	1992

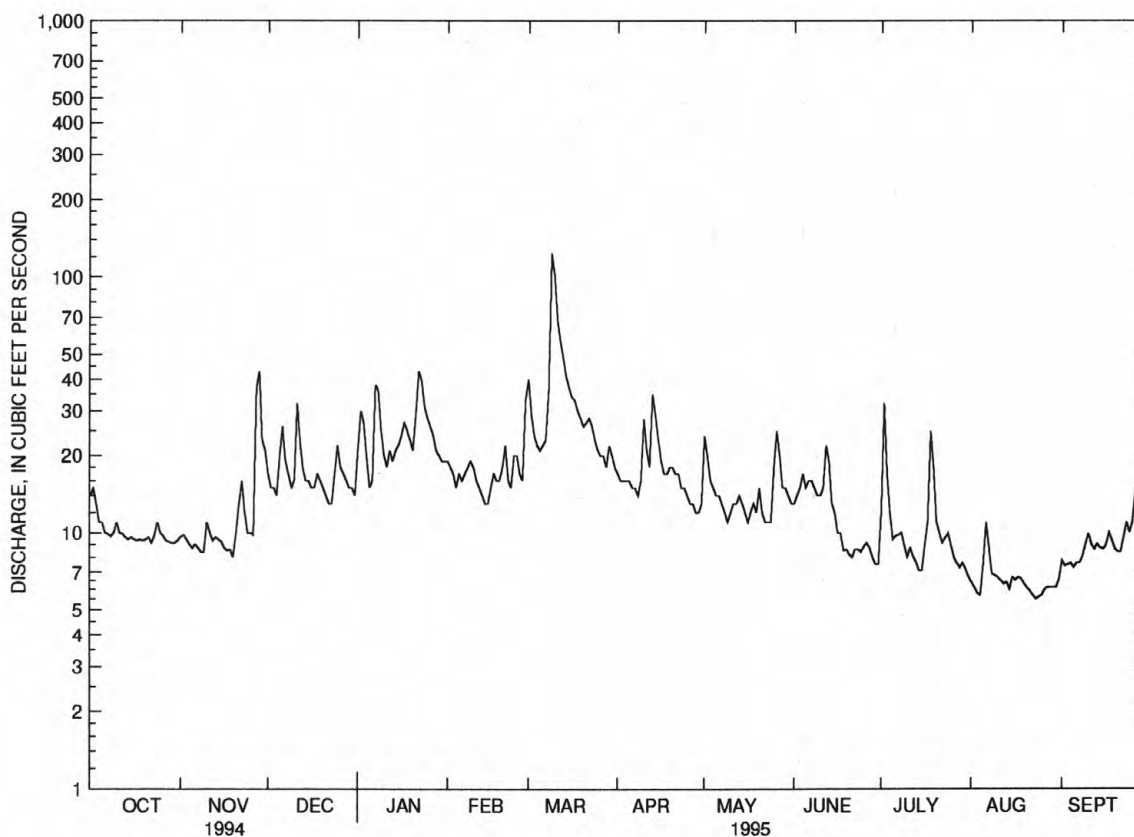
## DELAWARE RIVER BASIN

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01443280 EAST BRANCH PAULINS KILL NEAR LAFAYETTE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1992 - 1995	
ANNUAL TOTAL	8304.2		5708.6			
ANNUAL MEAN	22.8		15.6		21.3	
HIGHEST ANNUAL MEAN					24.8	
LOWEST ANNUAL MEAN					15.6	
HIGHEST DAILY MEAN	109	Apr 14	124	Mar 9	129	Mar 28 1993
LOWEST DAILY MEAN	8.0	Nov 19	5.5	Aug 23	5.5	Aug 23 1995
ANNUAL SEVEN-DAY MINIMUM	8.7	Aug 7	5.8	Aug 20	5.8	Aug 20 1995
INSTANTANEOUS PEAK FLOW			140	Mar 9	141	Apr 1 1993
INSTANTANEOUS PEAK STAGE			4.48	Mar 9	4.49	Apr 1 1993
INSTANTANEOUS LOW FLOW			4.3	Aug 13	4.3	Aug 13 1995
ANNUAL RUNOFF (CFSM)	1.75		1.20		1.64	
ANNUAL RUNOFF (INCHES)	23.78		16.35		22.30	
10 PERCENT EXCEEDS	50		26		43	
50 PERCENT EXCEEDS	15		13		15	
90 PERCENT EXCEEDS	9.4		7.5		8.0	

e Estimated.



01443280 E B PAULINS KILL NEAR LAFAYETTE, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi downstream from Dry Brook, and 3.4 mi north of Newton.

DRAINAGE AREA.--67.1 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
02...	1130	72	403	7.7	11.0	743	9.8	91	2.1	3500	190	140	
JAN 1995													
25...	1145	195	349	8.0	3.0	750	12.9	97	<1.2	80	60	130	
MAR													
29...	1130	88	445	8.2	7.0	752	12.8	107	E2.0	20	20	150	
MAY													
17...	1145	44	521	8.0	14.5	742	8.8	89	E1.0	230	50	200	
JUL													
19...	1145	50	458	8.0	21.0	747	7.8	89	E1.3	330	260	160	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
02...	38	12	25	1.9	119	20	42	<0.1	5.6	240	221		3
JAN 1995													
25...	33	11	19	1.2	98	16	34	<0.1	5.9	192	183		5
MAR													
29...	39	13	23	1.7	127	23	42	<0.1	4.0	246	227		4
MAY													
17...	50	18	29	1.5	161	22	51	0.1	4.5	288	278		3
JUL													
19...	42	14	25	2.1	132	18	45	0.1	7.2	256	235		3
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
02...	0.011	1.20	0.08	0.07	0.40	0.32	1.6	1.5	0.05	0.02	4.8	0.5	
JAN 1995													
25...	0.006	1.00	<0.03	<0.03	0.50	0.24	1.5	1.2	0.02	<0.01	4.0	0.5	
MAR													
29...	0.010	1.10	0.04	0.03	0.40	0.35	1.5	1.4	0.01	<0.01	3.6	--	
MAY													
17...	0.017	1.10	0.06	0.05	0.30	0.21	1.4	1.3	0.02	<0.01	3.4	0.3	
JUL													
19...	0.016	0.59	<0.03	<0.03	0.60	0.45	1.2	1.0	0.07	0.06	5.9	0.4	



## DELAWARE RIVER BASIN

01443440 PAULINS KILL AT BALESVILLE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 02...	1130	16	<1	--	30	--	--	--
MAY 1995 17...	1145	<10	<1	<10	30	<1	1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 02...	--	--	--	<0.1	--	<1	--
MAY 1995 17...	270	<1	70	<0.1	1	<1	10

## DELAWARE RIVER BASIN

## 01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft upstream from bridge on State Highway 94 in Blairstown, 1,400 ft upstream from Blairs Creek, and 10 mi upstream from mouth. Water-quality samples collected at bridge 1,200 ft downstream from gage at high flows.

DRAINAGE AREA.--126 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft, downstream). Datum of gage is 335.86 ft above sea level. Prior to May 24, 1922, nonrecording gage and May 24, 1922 to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--Records fair except for those above 200 ft<sup>3</sup>/s, which are poor. Diurnal fluctuations caused by unknown source and flow regulated slightly by Swartswood Lake. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0830	*1,570	*4.88	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	62	331	245	206	323	150	160	86	72	33	15
2	188	75	278	342	203	282	142	171	81	83	31	17
3	162	75	256	340	186	246	135	148	81	86	30	16
4	133	64	236	290	187	231	136	128	87	68	29	15
5	113	59	313	251	178	218	139	121	79	59	35	14
6	100	120	466	249	206	219	128	113	72	55	36	14
7	93	185	359	372	197	226	123	107	67	66	33	14
8	88	173	311	380	250	359	120	97	62	80	28	12
9	108	156	274	299	215	1380	133	92	58	75	27	16
10	125	75	271	261	156	1120	210	94	52	63	25	22
11	117	102	477	239	150	895	191	99	55	64	26	31
12	102	95	418	228	147	707	166	99	219	68	25	31
13	96	86	328	230	149	576	243	110	202	61	29	36
14	91	68	291	257	126	485	251	98	153	53	24	37
15	84	64	270	290	124	394	212	92	137	49	26	34
16	78	59	253	305	141	317	178	89	114	47	26	29
17	74	46	243	285	147	309	160	87	100	61	25	44
18	71	50	249	257	145	283	149	104	90	138	23	47
19	69	74	236	237	143	259	154	110	81	98	21	39
20	69	60	223	303	153	239	167	120	75	74	19	36
21	72	80	215	739	172	237	150	101	68	63	19	36
22	73	195	209	621	167	244	150	91	61	57	19	40
23	72	187	204	492	158	224	141	81	59	52	18	57
24	85	175	233	417	188	205	133	77	56	51	17	43
25	82	168	288	364	205	188	121	98	54	47	17	38
26	73	151	272	327	182	177	113	132	76	43	16	58
27	75	124	238	304	166	172	108	131	86	41	15	58
28	68	262	223	275	219	171	106	104	73	43	17	49
29	63	389	213	242	---	160	101	106	60	42	15	40
30	60	444	203	223	---	162	105	109	54	39	15	37
31	59	---	200	215	---	158	---	96	---	36	15	---
TOTAL	2926	3923	8581	9879	4866	11166	4515	3365	2598	1934	734	975
MEAN	94.4	131	277	319	174	360	150	109	86.6	62.4	23.7	32.5
MAX	188	444	477	739	250	1380	251	171	219	138	36	58
MIN	59	46	200	215	124	158	101	77	52	36	15	12
CFSM	.75	1.04	2.20	2.53	1.38	2.86	1.19	.86	.69	.50	.19	.26
IN.	.86	1.16	2.53	2.92	1.44	3.30	1.33	.99	.77	.57	.22	.29

## DELAWARE RIVER BASIN

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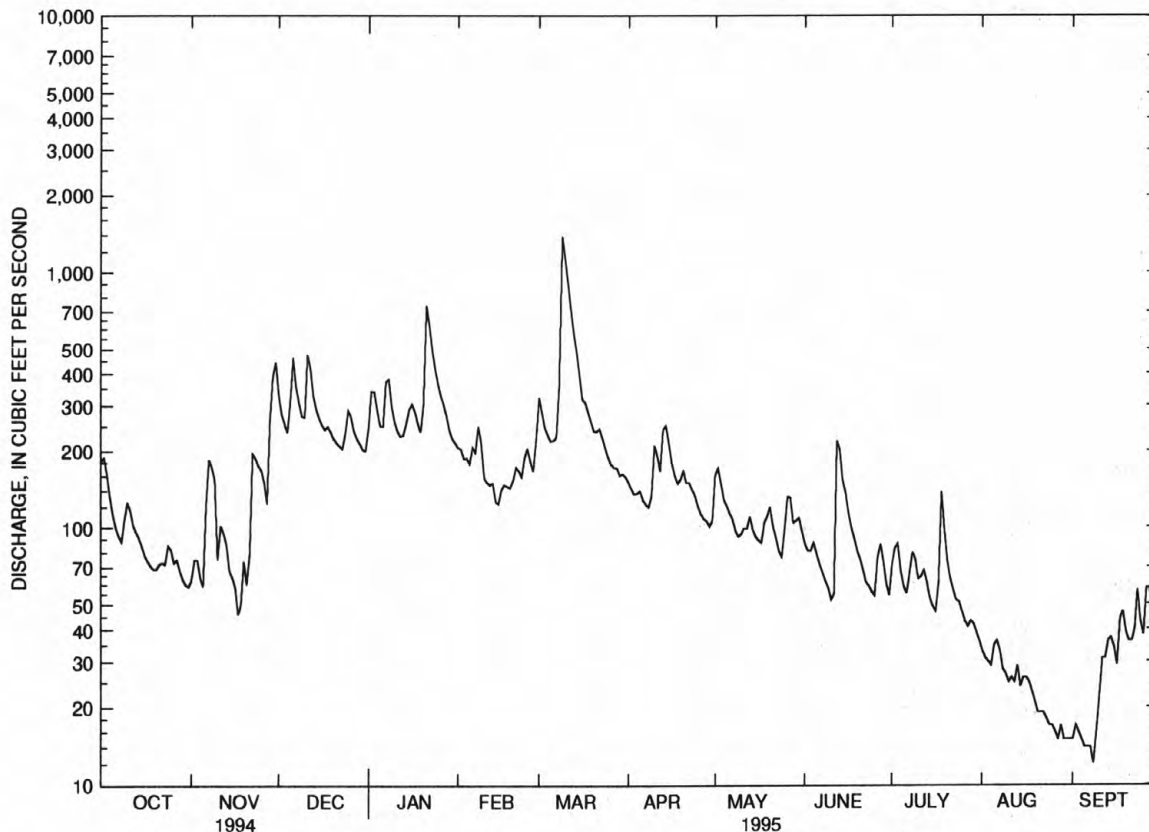
01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	104	164	210	218	247	373	336	221	153	116	106	106
MAX	634	479	588	712	516	963	930	650	690	527	663	626
(WY)	1956	1933	1974	1979	1951	1936	1983	1989	1972	1945	1955	1933
MIN	20.5	22.1	39.5	50.5	67.4	139	106	54.6	41.0	19.4	19.6	18.2
(WY)	1964	1965	1947	1981	1940	1965	1985	1941	1965	1955	1932	1964

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	96032		55462			
ANNUAL MEAN	263		152		196	
HIGHEST ANNUAL MEAN					362	
LOWEST ANNUAL MEAN					67.4	
HIGHEST DAILY MEAN	1480	Mar 29	1380	Mar 9	5950	Aug 19 1955
LOWEST DAILY MEAN	43	Aug 11	12	Sep 8	5.0	Aug 13 1930
ANNUAL SEVEN-DAY MINIMUM	49	Aug 7	14	Sep 3	12	Jul 31 1955
INSTANTANEOUS PEAK FLOW			1570	Mar 9	8750	Aug 19 1955
INSTANTANEOUS PEAK STAGE			4.88	Mar 9	11.12a	Aug 19 1955
INSTANTANEOUS LOW FLOW			12	Sep 8	2.8	Nov 1 1922
ANNUAL RUNOFF (CFSM)	2.09		1.21		1.55	
ANNUAL RUNOFF (INCHES)	28.35		16.37		21.12	
10 PERCENT EXCEEDS	569		290		410	
50 PERCENT EXCEEDS	167		110		131	
90 PERCENT EXCEEDS	68		30		35	

a From high-water mark in gage house.



01443500 PAULINS KILL AT BLAIRSTOWN, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
02...	1330	79	468	8.1	11.5	748	10.7	100	2.1	490	20	200	
JAN 1995													
26...	1145	322	329	8.1	3.0	749	13.0	98	<1.0	50	10	120	
MAR													
29...	1115	161	392	8.2	8.5	756	12.0	103	<1.2	20	<10	150	
MAY													
17...	1100	84	408	8.2	16.0	748	9.5	98	E1.4	130	40	160	
JUL													
19...	1130	99	422	8.2	23.5	750	7.4	89	2.1	790	250	160	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
02...	50	18	25	2.2	163	22	42	<0.1	3.5	264	264	3	
JAN 1995													
26...	30	11	15	1.1	97	14	27	<0.1	5.7	178	165	1	
MAR													
29...	37	14	18	1.2	125	19	33	<0.1	4.2	212	205	7	
MAY													
17...	39	15	19	1.2	138	17	34	<0.1	2.6	226	213	9	
JUL													
19...	40	15	22	1.5	133	16	39	0.1	4.9	224	219	6	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
02...	0.006	0.73	<0.03	0.03	0.40	0.24	1.1	0.97	0.03	<0.01	3.9	0.4	
JAN 1995													
26...	0.005	0.79	<0.03	0.03	0.30	0.22	1.1	1.0	0.01	<0.01	3.3	0.4	
MAR													
29...	0.007	0.86	<0.03	<0.03	0.20	0.22	1.1	1.1	<0.01	<0.01	2.9	0.5	
MAY													
17...	0.011	0.47	0.03	0.06	0.30	0.21	0.77	0.68	0.02	<0.01	3.5	0.5	
JUL													
19...	0.008	0.21	0.04	<0.03	0.50	0.27	0.71	0.48	0.05	0.02	4.3	0.8	

## DELAWARE RIVER BASIN

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 02...	1330	18	<1	<10	30	<1	<1	1
MAY 1995 17...	1100	<10	<1	<10	20	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 02...	110	<1	30	<0.1	<1	<1	<10
MAY 1995 17...	290	<1	70	<0.1	1	<1	20



## 01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft upstream from bridge on Hainesburg-Mount Vernon Road, 1.4 mi downstream of Yards Creek Reservoir, 2.2 mi northeast of Hainesburg, 4.2 mi west of Blairstown, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--5.34 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NJ-77-2: 1976. WDR NJ-79-2: 1977(m). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.8 ft above sea level.

REMARKS.--Records good. Flow regulated by the Jersey Central Power and Light Co., at Yards Creek Reservoir 1.4 mi above station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	4.1	8.0	13	9.7	9.6	5.3	4.7	7.0	3.8	2.4	2.3
2	23	3.9	6.8	17	9.7	9.1	5.1	4.3	6.8	3.8	2.5	2.3
3	23	3.8	6.4	21	12	8.7	4.7	4.2	6.9	3.0	2.6	2.3
4	22	4.0	7.2	20	11	8.5	5.0	4.0	6.4	2.9	2.7	2.1
5	14	3.9	27	29	11	8.0	5.0	4.1	5.9	2.9	3.4	2.1
6	7.7	3.6	46	26	14	7.5	5.2	4.0	6.2	2.9	2.8	2.2
7	6.5	3.5	48	24	16	7.5	5.2	3.8	6.0	4.1	2.5	2.3
8	4.4	3.6	49	19	17	20	5.3	3.5	5.9	6.0	2.4	2.3
9	4.6	3.8	41	18	36	26	5.9	3.6	5.1	3.4	2.5	3.0
10	4.4	5.4	26	20	29	42	6.0	4.0	4.1	3.1	2.6	3.5
11	4.3	4.2	26	18	11	57	5.4	4.2	4.8	3.5	2.6	2.8
12	4.6	4.2	22	19	14	51	5.3	4.1	9.7	3.0	2.6	2.9
13	4.6	3.9	22	20	28	45	7.9	4.0	5.1	2.8	2.5	3.3
14	4.4	3.7	22	20	23	46	6.0	3.8	4.9	2.8	2.3	3.2
15	4.4	3.9	22	19	10	47	5.5	3.6	4.7	2.8	2.4	3.2
16	4.2	4.0	23	17	12	48	5.2	3.6	4.1	3.0	2.5	3.2
17	3.8	4.1	23	18	9.6	32	4.6	4.2	4.0	3.1	2.4	4.1
18	4.0	4.4	20	13	7.5	19	4.6	4.1	3.8	4.0	2.4	2.9
19	4.1	5.0	18	10	7.2	18	5.3	4.9	3.5	2.9	2.4	3.0
20	4.3	3.9	17	14	6.8	17	4.9	4.3	3.7	2.8	2.5	3.0
21	4.3	7.6	17	15	7.0	19	5.0	3.7	3.6	2.9	2.2	3.1
22	4.3	6.3	13	13	7.4	18	4.7	3.4	3.6	2.9	2.3	4.1
23	5.0	5.5	10	11	7.6	18	4.4	3.6	3.5	3.0	2.2	3.3
24	4.0	5.6	12	11	9.1	13	4.1	3.7	3.2	2.8	2.4	2.9
25	3.9	5.1	10	11	8.5	7.3	4.1	4.7	3.0	2.7	2.3	3.2
26	3.9	5.0	9.4	11	7.3	7.1	4.0	5.4	4.5	2.7	2.4	4.8
27	3.9	5.0	9.3	11	6.8	6.1	3.9	4.2	3.8	2.8	2.4	4.0
28	3.9	21	9.5	11	9.8	5.1	4.0	3.9	3.1	3.3	2.2	3.3
29	3.9	12	10	11	---	5.2	4.1	7.1	3.3	2.9	2.3	2.9
30	3.8	9.5	11	10	---	5.5	4.6	7.0	3.1	2.7	2.3	2.8
31	3.5	---	11	9.7	---	5.6	---	7.6	---	2.4	2.3	---
TOTAL	222.7	163.5	602.6	499.7	358.0	636.8	150.3	135.3	143.3	97.7	76.3	90.4
MEAN	7.18	5.45	19.4	16.1	12.8	20.5	5.01	4.36	4.78	3.15	2.46	3.01
MAX	26	21	49	29	36	57	7.9	7.6	9.7	6.0	3.4	4.8
MIN	3.5	3.5	6.4	9.7	6.8	5.1	3.9	3.4	3.0	2.4	2.2	2.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1995, BY WATER YEAR (WY)

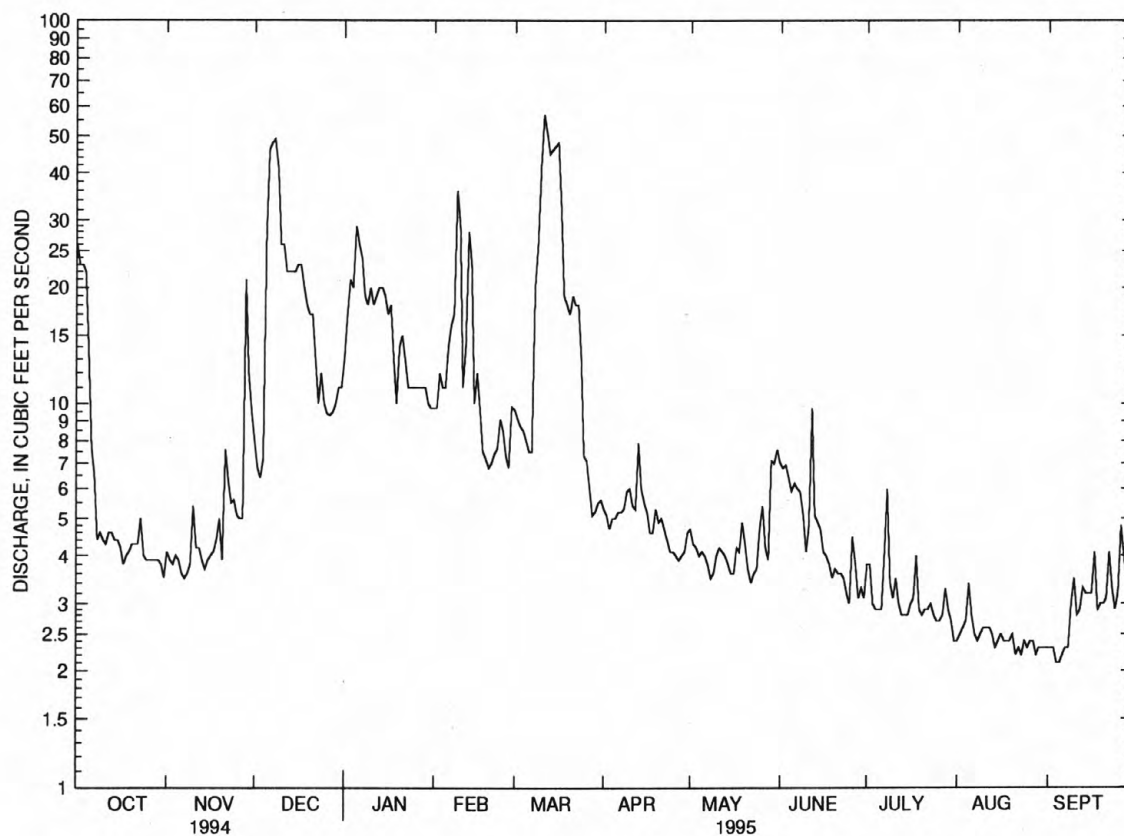
	MEAN	5.16	7.60	13.9	14.3	14.5	17.8	18.2	13.9	9.00	4.81	4.67	4.70
MAX	33.6	22.4	37.7	51.0	36.4	50.1	55.3	33.7	35.2	19.9	21.6	27.0	
(WY)	1990	1976	1974	1979	1979	1977	1983	1989	1972	1984	1969	1987	
MIN	.97	1.20	.91	1.66	2.24	6.99	4.43	1.58	1.00	.89	.65	.58	
(WY)	1981	1967	1981	1981	1985	1973	1981	1970	1980	1980	1980	1980	

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	5520.0		3176.6			
ANNUAL MEAN	15.1		8.70		10.7	
HIGHEST ANNUAL MEAN					14.9	
LOWEST ANNUAL MEAN					3.17	
HIGHEST DAILY MEAN	110	Mar 29	57	Mar 11	225	Jan 18 1977
LOWEST DAILY MEAN	2.6	Sep 19	2.1	Sep 4	.02	Jun 19 1970
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 11	2.2	Aug 31	.46	Oct 7 1980
INSTANTANEOUS PEAK FLOW			62	Dec 4	583	Feb 24 1977
INSTANTANEOUS PEAK STAGE					3.92	Feb 24 1977
INSTANTANEOUS LOW FLOW			1.6	Jun 30	.00	Sep 12 1971
10 PERCENT EXCEEDS	38		20		24	
50 PERCENT EXCEEDS	7.9		4.7		4.8	
90 PERCENT EXCEEDS	3.9		2.6		1.2	

DELAWARE RIVER BASIN

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01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ--Continued



01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'43", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft upstream from abandoned Lehigh and Hudson River Railway bridge, and 300 ft downstream from Furnace Brook.

DRAINAGE AREA.--106 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft above sea level. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--Records good. Several measurements of water temperature were made during the year. Some regulation from unknown sources upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0515	*1,160	*4.25	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	49	151	175	145	314	133	143	72	45	31	23
2	81	53	131	264	143	243	128	139	68	52	30	23
3	71	52	120	217	135	201	122	130	66	48	29	23
4	63	50	111	170	120	185	119	114	68	44	28	22
5	59	51	183	129	133	178	120	108	69	43	37	21
6	57	50	228	124	113	183	113	106	68	42	39	20
7	55	49	171	324	132	184	111	104	62	49	34	20
8	55	48	160	256	124	329	109	99	58	51	35	21
9	54	49	147	205	116	1070	119	91	54	47	33	22
10	60	64	149	174	118	769	171	90	52	42	31	31
11	56	66	322	158	118	596	150	95	54	81	30	26
12	54	58	220	155	110	460	131	96	74	51	29	24
13	53	55	174	165	94	389	229	98	89	44	28	24
14	52	53	153	195	103	338	205	97	85	42	29	25
15	52	51	146	234	97	305	169	94	73	40	28	24
16	50	50	138	242	119	274	147	88	64	39	28	23
17	50	49	138	220	121	256	134	85	58	41	27	27
18	48	49	148	192	118	236	127	98	54	98	26	29
19	48	50	141	180	117	221	127	101	50	58	26	28
20	48	49	129	233	124	208	135	107	48	47	25	26
21	49	62	121	428	136	214	150	93	46	42	24	26
22	48	136	116	310	131	221	133	82	45	41	25	29
23	53	93	113	253	128	204	120	74	45	43	24	34
24	66	74	152	229	172	192	113	71	45	42	24	30
25	59	66	194	215	173	179	108	71	44	39	22	29
26	54	64	162	203	144	167	102	84	52	35	23	48
27	52	61	143	191	129	158	99	92	47	33	23	48
28	51	404	133	178	252	153	96	84	47	34	23	35
29	51	330	126	164	---	149	94	79	44	37	23	30
30	49	204	114	152	---	138	97	81	42	36	23	28
31	49	---	102	147	---	135	---	81	---	33	24	---
TOTAL	1721	2539	4736	6482	3665	8849	3911	2975	1743	1419	861	819
MEAN	55.5	84.6	153	209	131	285	130	96.0	58.1	45.8	27.8	27.3
MAX	81	404	322	428	252	1070	229	143	89	98	39	48
MIN	48	48	102	124	94	135	94	71	42	33	22	20
CFSM	.52	.80	1.44	1.97	1.23	2.69	1.23	.91	.55	.43	.26	.26
IN.	.60	.89	1.66	2.27	1.29	3.11	1.37	1.04	.61	.50	.30	.29

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

	MEAN	85.3	127	160	167	196	279	263	184	129	105	91.5	88.9
MAX	391	409	426	627	371	750	720	430	556	487	409	354	
(WY)	1990	1928	1974	1979	1939	1936	1983	1989	1972	1945	1928	1989	
MIN	18.0	21.4	27.0	33.9	60.8	93.8	76.9	55.7	35.0	19.0	15.1	16.6	
(WY)	1965	1966	1966	1966	1940	1965	1985	1965	1965	1965	1965	1964	

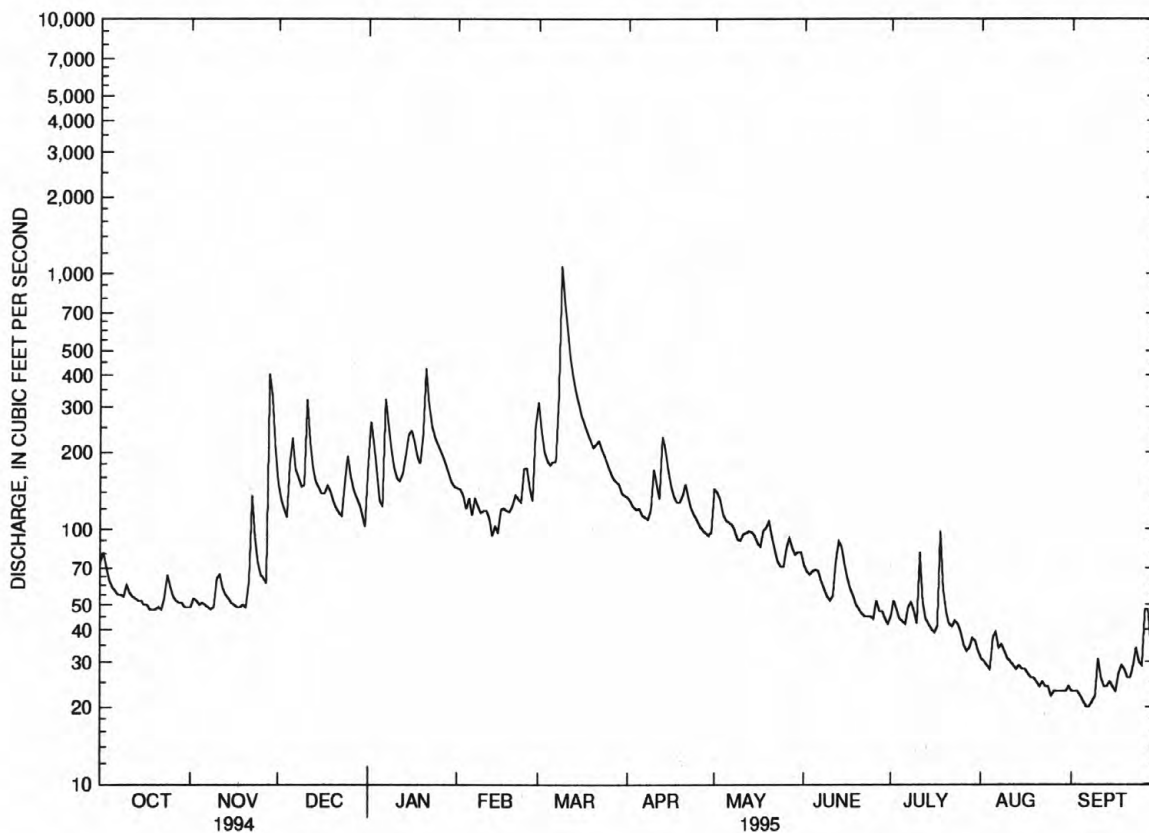
DELAWARE RIVER BASIN

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01445500 PEQUEST RIVER AT PEQUEST, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	70082		39720		156	
ANNUAL MEAN	192		109		285	1952
HIGHEST ANNUAL MEAN					45.8	1965
LOWEST ANNUAL MEAN					2040	Jan 25 1979
HIGHEST DAILY MEAN	1210	Mar 29	1070	Mar 9	12	Aug 18 1965
LOWEST DAILY MEAN	42	Aug 11	20	Sep 6	13	Aug 15 1965
ANNUAL SEVEN-DAY MINIMUM	46	Aug 7	21	Sep 3	2130	Jan 25 1979
INSTANTANEOUS PEAK FLOW			1160	Mar 9	5.97a	Jan 25 1979
INSTANTANEOUS PEAK STAGE			4.25	Mar 9	12	Aug 17 1965
INSTANTANEOUS LOW FLOW			20	Sep 6	1.47	
ANNUAL RUNOFF (CFSM)	1.81		1.03		19.99	
ANNUAL RUNOFF (INCHES)	24.59		13.94		328	
10 PERCENT EXCEEDS	478		210		111	
50 PERCENT EXCEEDS	110		84		36	
90 PERCENT EXCEEDS	51		28			

a From high-water mark.



— 01445500 PEQUEST RIVER AT PEQUEST, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

## 01445500 PEQUEST RIVER AT PEQUEST, NJ--Continued

PERIOD OF RECORD.--Water years 1958-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
NOV 1994												
03...	1100	52	583	7.9	9.5	757	11.2	99	E1.8	60	80	240
JAN 1995												
24...	1100	229	435	8.3	3.0	745	12.1	92	<1.0	330	150	210
MAR												
29...	1000	150	462	8.5	9.0	750	11.4	100	<1.3	50	10	210
MAY												
18...	1100	98	474	8.3	14.5	744	9.8	99	<1.0	790	150	230
JUL												
20...	1100	47	560	8.4	18.0	750	9.0	97	E1.2	230	190	230

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994												
03...	54	25	26	2.2	209	28	45	<0.1	7.8	336	321	6
JAN 1995												
24...	48	21	13	1.5	171	20	24	<0.1	7.3	254	243	4
MAR												
29...	48	22	15	1.4	182	23	29	<0.1	5.1	268	258	6
MAY												
18...	51	24	14	1.3	201	21	26	<0.1	5.8	276	269	5
JUL												
20...	51	24	24	2.4	197	23	42	0.1	8.8	304	299	7

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994												
03...	0.045	1.60	0.25	0.23	0.50	0.50	2.1	2.1	0.09	0.07	4.3	0.2
JAN 1995												
24...	0.007	1.20	0.07	0.07	0.50	0.37	1.7	1.6	0.06	0.02	4.0	0.7
MAR												
29...	0.010	1.20	0.07	0.05	0.30	0.22	1.5	1.4	0.01	0.02	2.8	0.5
MAY												
18...	0.025	1.10	0.09	0.11	0.30	0.29	1.4	1.4	0.07	0.04	3.3	0.6
JUL												
20...	0.042	1.20	0.11	0.14	0.60	0.51	1.8	1.7	0.09	0.16	3.3	0.1



## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CO) (01038)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01043)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS FE) (01170)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 1994											
03...	<1	--	7	<5	--	4	--	10000	--	<10	--
03...	--	--	--	--	--	--	--	--	--	--	--
MAY 1995											
18...	--	<1	--	--	1	--	230	--	<1	--	40

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/L (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/L AS SE) (01147)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G) AS ZN) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
	NOV 1994										
	03...	380	--	<0.01	--	10	--	<1	--	50	7.1
	03...	--	<0.1	--	--	--	<1	--	--	--	--
	MAY 1995										
18...	--	<0.1	--	1	--	<1	--	20	--	--	

[illegible][illegible]

## DELAWARE RIVER BASIN

## 01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at river mile 197.7.

DRAINAGE AREA.--4,535 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft above sea level. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Satellite telemeter and National Weather Service gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft<sup>3</sup>/s, from rating curve extended above 170,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9520	2680	15200	6760	7990	5950	6330	4720	3800	2270	2370	2040
2	8160	3560	12200	8850	7530	7430	5670	5200	3390	2930	2650	2410
3	7430	5640	10500	9890	7260	6640	5230	5020	3100	3030	2890	2250
4	6680	6190	9470	8950	7080	6260	5650	4650	3410	2740	3190	2180
5	5820	5130	10000	7480	6110	5450	5030	4380	3320	2590	3170	2070
6	5130	4440	16000	6220	4220	5310	5330	4200	3300	2470	3140	2040
7	4720	4030	18800	7940	5510	6010	5350	3940	2940	2870	2650	2010
8	4200	4050	15500	7900	5690	8060	5090	3700	2740	3520	2550	2030
9	3960	4250	14000	7490	5260	28600	4630	3430	2730	3440	2320	2080
10	4190	3860	12300	7330	5660	31200	5130	3620	2340	3050	1760	2250
11	3850	4100	13800	6910	6340	23900	6500	3490	2330	3110	1600	2140
12	3790	4010	15400	6450	4990	18800	6930	3850	3170	2800	1870	2170
13	3670	3650	13700	6450	3690	16800	7720	4030	3420	2790	2130	2340
14	3410	3160	11800	7290	4670	17000	12600	3860	3100	2510	2160	2130
15	3160	3090	10900	7380	4990	17800	12200	3510	3210	2620	2260	2230
16	2990	3290	9610	11800	5450	17400	10000	3480	2860	2640	2850	2330
17	2960	3160	9130	16700	5640	17000	8720	3500	2590	2350	2370	2150
18	2760	3040	8450	14900	5120	15600	8180	3350	2730	2660	2940	2190
19	3040	3020	8190	12700	4620	13800	7580	3550	2650	4020	2610	2030
20	2920	2910	7850	12200	4170	12100	7820	3700	2530	4790	2270	1730
21	3170	2830	7070	17600	4290	11500	8200	3430	2490	3480	2090	1760
22	2950	4770	7370	22000	4740	11400	7200	3200	2260	2970	2050	1910
23	3050	5650	7110	18600	4870	11600	6680	2960	2010	2700	1950	2220
24	3200	5310	6620	15900	5000	10800	6220	2810	2060	2060	2010	2260
25	3130	4550	8280	14400	5020	10300	5860	2830	2270	2490	1980	2260
26	2750	4110	8680	13100	4790	9320	5780	3360	2380	2930	1910	2260
27	2540	3750	7760	11800	4500	7830	5410	3840	2790	2880	2040	2130
28	2650	8110	7490	10700	4450	7690	4830	3600	3010	2770	2120	2310
29	2750	19100	6940	8420	---	7260	4590	3400	2840	4330	2000	2180
30	2920	20500	6420	7370	---	6720	4380	3430	2310	3790	1920	2030
31	2610	---	5830	8220	---	6320	---	3630	---	2840	2070	---
TOTAL	124080	155940	322370	329700	149650	381850	200840	115670	84080	92440	71890	64120
MEAN	4003	5198	10400	10640	5345	12320	6695	3731	2803	2982	2319	2137
MAX	9520	20500	18800	22000	7990	31200	12600	5200	3800	4790	3190	2410
MIN	2540	2680	5830	6220	3690	5310	4380	2810	2010	2060	1600	1730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, BY WATER YEAR (WY)

MEAN	4590	7127	8362	7860	8289	13990	15940	9801	5900		3677	3780
MAX	19570	21140	20590	20890	19930	42520	40720	21470	22280	16840	19260	13940
(WY)	1956	1928	1974	1949	1976	1936	1940	1989	1972	1928	1955	1938
MIN	1055	1226	1481	1683	2452	5243	4512	3261	1590	1017	881	1199
(WY)	1942	1965	1923	1981	1980	1981	1985	1965	1965	1965	1954	1941

## DELAWARE RIVER BASIN

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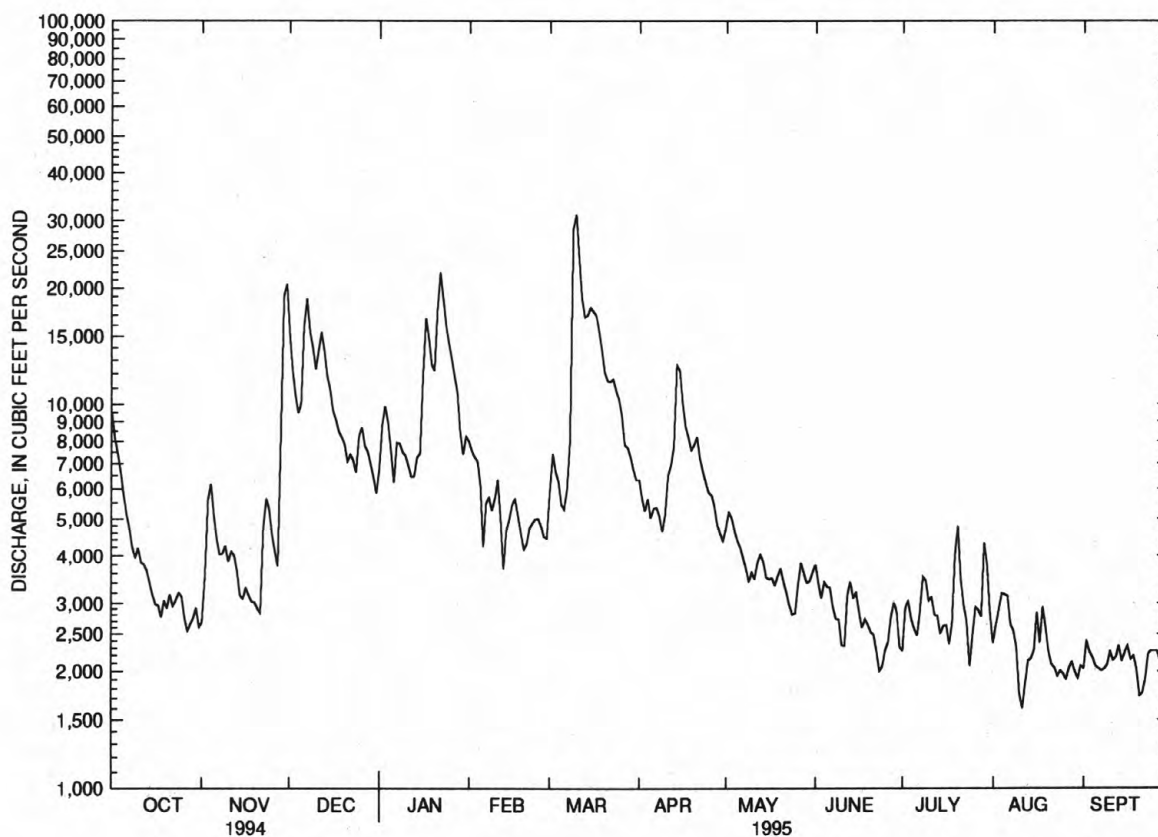
01446500 DELAWARE RIVER AT BELVIDERE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1923 - 1995	
ANNUAL TOTAL	3248780		2092630			
ANNUAL MEAN	8901		5733		7791	
HIGHEST ANNUAL MEAN					14130	1928
LOWEST ANNUAL MEAN					2990	1965
HIGHEST DAILY MEAN	55200	Apr 14	31200	Mar 10	184000	Aug 19 1955
LOWEST DAILY MEAN	2210	Aug 12	1600	Aug 11	610	Aug 25 1954
ANNUAL SEVEN-DAY MINIMUM	2440	Aug 8	2000	Aug 24	782	Aug 14 1954
INSTANTANEOUS PEAK FLOW			35400	Mar 9	273000a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			10.84	Mar 9	30.21b	Aug 19 1955
INSTANTANEOUS LOW FLOW			1540	Aug 11	609	Sep 28 1943
10 PERCENT EXCEEDS	19500		11900		16500	
50 PERCENT EXCEEDS	5330		4030		4980	
90 PERCENT EXCEEDS	2960		2180		1920	

a From rating curve extended above 170,000 ft<sup>3</sup>/s on basis of flood-routing study.

b From high-water mark in gage house.

e Estimated.



01446500 DELAWARE RIVER AT BELVIDERE, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

## 01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1994													
15...	1230	3260	148	8.1	9.0	766	13.0	112	<1.0	<20	<10	51	
JAN 1995													
25...	1230	15600	103	7.6	2.5	755	13.1	97	<1.3	<20	10	32	
MAR													
28...	1230	7570	131	7.7	8.0	754	11.0	94	E2.5	<20	<10	40	
MAY													
15...	1130	4130	148	8.0	16.0	753	9.5	97	<1.0	50	40	51	
AUG													
01...	1200	3050	138	7.8	28.5	760	7.0	91	E1.8	490	100	40	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
15...	14	3.9	7.3	1.1	37	14	11	<0.1	1.8	80	81	<1	
JAN 1995													
25...	8.9	2.3	5.3	0.7	20	8.0	8.9	<0.1	3.8	66	52	2	
MAR													
28...	11	3.0	6.8	0.7	28	12	11	<0.1	2.7	74	67	5	
MAY													
15...	14	3.9	7.9	0.9	36	12	12	<0.1	2.1	74	77	2	
AUG													
01...	11	3.0	8.4	1.3	29	12	12	<0.1	2.2	76	69	4	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
15...	0.005	1.20	0.06	0.06	0.06	0.20	0.22	1.4	1.4	0.05	0.04	2.7	0.2
JAN 1995													
25...	0.004	0.48	<0.03	<0.03	<0.03	0.14	0.14	0.62	0.62	0.01	<0.01	2.5	0.3
MAR													
28...	0.007	0.69	0.03	<0.03	<0.03	0.20	0.13	0.89	0.82	<0.01	<0.01	2.0	0.5
MAY													
15...	0.007	0.57	0.03	<0.03	<0.03	0.30	0.26	0.87	0.83	0.05	0.04	2.2	0.3
AUG													
01...	0.005	0.43	<0.03	<0.03	<0.03	0.30	0.13	0.73	0.56	0.04	0.03	2.9	0.2

## DELAWARE RIVER BASIN

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01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 15...	1230	<10	<1	<10	20	<1	<1	<1
MAY 1995 15...	1130	<10	1	<10	10	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 15...	60	<1	<10	0.3	1	<1	<10
MAY 1995 15...	70	<1	20	<0.1	<1	<1	<10



## LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek, and 5.0 mi northeast of White Haven. DRAINAGE AREA, 289 mi<sup>2</sup>. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft. Storage began Feb. 17, 1961; reservoir first reached conservation pool in June 1961. Total capacity (elevation 1,450.0 ft) is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft, (conservation pool). Dead storage is 2,000 acre-ft. Flow regulated by three gates and low-flow by-pass system. Reservoir is used for flood control and recreation. Satellite telemetry at station.

COOPERATION.--Records provided by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,100 acre-ft, Sept. 28, 1985, elevation, 1,417.08 ft; minimum contents (after establishment of conservation pool), 980 acre-ft, July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,380 acre-ft, Oct. 2, elevation, 1,355.95 ft; minimum contents, 1,720 acre-ft, Jan. 20, elevation, 1,297.39 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi upstream from hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10.0 mi northeast of Palmerton. DRAINAGE AREA, 16.5 mi<sup>2</sup>. PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by an earthfill dam with ungated concrete spillway at elevation 1,000.00 ft (capacity, 19,980 acre-ft). Storage began October 1958. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent total contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum contents, 176 acre-ft, Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,660 acre-ft, Oct. 3, elevation, 997.07 ft; minimum contents, 1,880 acre-ft, Aug. 21, elevation, 932.15 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi upstream from mouth, 2.4 mi south of hatchery, and 7.5 mi northeast of Palmerton. DRAINAGE AREA, 22.2 mi<sup>2</sup>. PERIOD OF RECORD, January 1941 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by earthfill dam with concrete ungated spillway at elevation 820.00 ft. Storage began January 27, 1941; reservoir first reached minimum contents pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent usable contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum contents (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,360 acre-ft, Dec. 8, elevation, 821.20 ft; minimum contents 8,800 acre-ft, Sept. 30, elevation 807.72 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.4 mi upstream from gaging station on Pohopoco Creek, 0.6 mi upstream from Sawmill Run, and 2.3 mi northeast of Parryville. DRAINAGE AREA, 96.3 mi<sup>2</sup>. PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by an earth and rockfill dam with ungated, partially lined spillway at an elevation of 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum contents (conservation) pool elevation is 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Lake is used for recreation, flood control, low-flow augmentation, and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,730 acre-ft, Jan. 29, 1976, elevation, 636.30 ft; minimum contents, 15,110 acre-ft, Mar. 31, 1983, elevation, 588.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,280 acre-ft, July 10, elevation, 629.08 ft; minimum contents, 31,640 acre-ft, Sept. 15, elevation, 616.72 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01447780 FRANCIS E. WALTER RESERVOIR				01449400 PENN FOREST RESERVOIR		
Sept. 30.....	1,355.21	14,070	--	996.88	18,570	--
Oct. 31.....	1,302.36	2,240	-192	994.54	17,540	- 16.8
Nov. 30.....	1,308.99	2,960	+ 12.1	994.98	17,720	+ 3.0
Dec. 31.....	1,300.46	2,050	- 14.8	975.10	10,370	-120
CAL YR 1994	--	--	- 0.2	--	--	- 10.8
Jan. 31.....	1,300.38	2,040	- 0.2	969.78	8,840	-24.9
Feb. 28.....	1,301.10	2,110	+ 1.3	954.95	5,340	- 63.0
Mar. 31.....	1,304.72	2,480	+ 6.0	950.00	4,400	- 15.3
Apr. 30.....	1,300.57	2,060	- 7.1	950.00	4,400	0
May 31.....	1,305.83	2,600	+ 8.8	950.28	4,460	+ 1.0
June 30.....	1,301.99	2,200	- 6.7	945.99	3,730	- 12.3
July 31.....	1,299.51	1,950	- 4.1	940.92	2,950	- 12.7
Aug. 31.....	1,300.15	2,020	+ 1.1	932.66	1,940	- 16.4
Sept. 30.....	1,300.81	2,080	+ 1.0	934.58	2,140	+ 3.4
WTR YR 1995	--	--	- 16.6	--	--	- 22.7

† Elevation at 2400 of the last day of each month.

## LEHIGH RIVER BASIN

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## LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN--Continued

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01449700 WILD CREEK RESERVOIR				01449790 BELTZVILLE LAKE		
Sept. 30.....	818.58	11,690	--	627.97	41,220	--
Oct. 31.....	818.01	11,530	- 2.6	627.56	40,830	- 6.3
Nov. 30.....	819.31	11,860	+ 5.5	628.40	41,630	+13.4
Dec. 31.....	819.77	11,950	+ 1.5	627.40	40,680	-15.5
CAL YR 1994	--	--	+ 0.6	--	--	- 0.7
Jan. 31.....	817.79	11,470	- 7.8	627.22	40,510	- 2.8
Feb. 28.....	817.46	11,380	- 1.6	627.30	40,580	+ 1.3
Mar. 31.....	819.96	11,990	+ 9.9	627.94	41,190	+ 9.9
Apr. 30.....	819.71	11,940	- 0.8	628.11	41,350	+ 2.7
May 31.....	817.96	11,520	- 6.8	627.98	41,230	- 2.0
June 30.....	818.01	11,530	+ 0.2	627.84	41,100	- 2.2
July 31.....	817.88	11,500	- 0.5	627.94	41,190	+ 1.5
Aug. 31.....	815.12	10,730	-12.5	623.84	37,410	-61.5
Sept. 30.....	807.72	8,800	-32.4	617.17	31,980	-91.3
WTR YR 1995	--	--	- 4.0	--	--	-12.8

† Elevation at 2400 of the last day of each month.

## 01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft upstream from bridge on New Street at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

**DRAINAGE AREA.**--1,279 mi<sup>2</sup> (includes that of Monocacy Creek). At site used prior to Oct. 1, 1928, 1,229 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1902 to January 1905, May 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.  
Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft above sea level. Prior to October 1928, nonrecording gage at New Street bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902 reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2420	1360	5650	2280	2510	2830	1740	1560	1210	935	1030	722
2	2400	2830	4410	2530	2420	2590	1770	1650	1150	1310	786	715
3	2280	3110	3420	2560	2250	2430	1730	1740	1250	1210	741	711
4	2320	2810	3020	2670	e2140	2190	1610	1620	1730	1070	747	709
5	2290	2350	4950	2270	e2000	2020	1520	1460	1630	973	995	703
6	1810	1900	7020	2160	e1600	1990	1470	1450	1420	1050	1130	610
7	1190	1770	6550	2860	e1400	2110	1400	1490	1260	1940	850	614
8	1810	1690	5270	2490	e1300	3490	1410	1360	1210	2140	873	640
9	2480	1620	4320	2200	e1200	9460	1570	1220	1160	1930	800	689
10	2560	1840	3970	2270	e1200	7740	1880	1280	1160	1900	697	749
11	2410	1920	5130	2280	e1300	6090	1750	1260	1460	4120	673	749
12	2490	1670	4440	2140	e1100	5430	1740	1330	2060	3010	602	653
13	2120	1610	4820	2040	e1100	4170	2700	1350	1860	2270	599	577
14	1660	1590	4010	2160	e1200	4230	2700	1320	1540	1800	630	553
15	1630	1680	3420	2750	e1300	4180	2440	1280	1480	1540	1050	476
16	1600	1640	3140	4860	e1600	4260	2180	1300	1320	1840	772	381
17	1370	1450	3030	6250	1760	4120	2190	1260	1150	1750	673	530
18	1280	1350	2930	5690	1720	3380	2000	1450	1060	2330	640	479
19	1140	1310	2780	4630	1670	3030	1840	1500	983	1630	579	437
20	904	1310	2630	5610	1680	2920	1840	1460	933	1410	531	388
21	892	1580	2470	7560	1790	3090	1800	1440	888	1260	513	416
22	875	2490	2330	6420	1770	2820	1880	1360	998	1210	503	537
23	968	2200	2250	5530	1660	e2700	1860	1200	901	1190	555	588
24	1290	2080	2330	5630	1850	e2500	1720	1080	896	1150	603	536
25	1510	2000	2350	4370	1920	e2400	1580	1130	1350	1040	585	497
26	1350	1860	2210	3640	1790	e2300	1460	1230	1180	1030	647	731
27	1140	1690	2100	3450	1720	e2200	1360	1330	1320	1000	693	629
28	989	6420	1980	3130	2300	e2000	1350	1360	1270	986	688	561
29	924	8720	1940	2870	---	1810	1360	1520	1170	1130	721	495
30	925	6760	1830	2740	---	1750	1420	1840	1010	1210	738	463
31	925	---	1700	2660	---	1740	---	1480	---	1210	741	---
TOTAL	49952	72610	108400	110700	47250	103970	53270	43310	38009	48574	22385	17538
MEAN	1611	2420	3497	3571	1687	3354	1776	1397	1267	1567	722	585
MAX	2560	8720	7020	7560	2510	9460	2700	1840	2060	4120	1130	749
MIN	875	1310	1700	2040	1100	1740	1350	1080	888	935	503	381

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY) (SINCE REGULATION)

MEAN	1547	2325	2878	2586	2739	3841	3943	3087	2074	1634	1342	1380
MAX	5778	5294	6991	7898	5820	7708	10180	7041	7272	6362	6192	6907
(WY)	1956	1952	1984	1979	1951	1977	1993	1989	1972	1945	1955	1987
MIN	406	474	514	286	1132	1632	1428	1053	681	366	405	334
(WY)	1964	1965	1981	1981	1980	1981	1985	1941	1965	1965	1964	1964

# LEHIGH RIVER BASIN

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01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued

## SUMMARY STATISTICS

## FOR 1995 WATER YEAR

## WATER YEARS 1941 - 1995

ANNUAL TOTAL	715968			2446	
ANNUAL MEAN	1962			3973	1952
HIGHEST ANNUAL MEAN				1165	1965
LOWEST ANNUAL MEAN				70400	Aug 19 1955
HIGHEST DAILY MEAN	9460	Mar 9		210	Jan 31 1981
LOWEST DAILY MEAN	381	Sep 16		216	Jan 26 1981
ANNUAL SEVEN-DAY MINIMUM	444	Sep 15		92000a	May 23 1942
INSTANTANEOUS PEAK FLOW	10700	Mar 9		25.90b	May 23 1942
INSTANTANEOUS PEAK STAGE	6.22	Mar 9		125	Jun 28 1965
INSTANTANEOUS LOW FLOW	359	Sep 16, 17		4840	
10 PERCENT EXCEEDS	3550			1760	
50 PERCENT EXCEEDS	1620			682	
90 PERCENT EXCEEDS	689				

a From rating curve extended above 48,000 ft<sup>3</sup>/s.

b From floodmark, present site and datum.

e Estimated.

## DELAWARE RIVER BASIN

## 01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek.

DRAINAGE AREA.--33.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1959, 1962, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD- NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
03...	1315	14	234	8.4	11.0	758	11.6	106	E1.6	490	250	92	
JAN 1995													
24...	1300	31	217	7.9	3.0	750	13.1	99	<1.1	170	50	71	
MAR													
29...	1300	29	193	9.2	9.5	755	14.1	125	<1.0	90	<10	72	
MAY													
18...	1115	23	221	7.9	16.5	745	9.5	100	2.1	490	1800	75	
JUL													
20...	1130	E10	229	8.1	22.0	754	9.0	104	<1.0	3500	570	87	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS- PENDE TOTAL (MG/L) (00530)
NOV 1994													
03...	21	9.6	11	2.4	66	16	17	<0.1	14	146	140	6	
JAN 1995													
24...	17	6.9	9.6	1.7	45	13	16	<0.1	14	122	113	<1	
MAR													
29...	17	7.1	8.8	1.5	47	18	16	<0.1	10	124	114	7	
MAY													
18...	18	7.2	10	1.7	53	15	15	<0.1	13	128	121	11	
JUL													
20...	21	8.4	9.9	2.4	61	14	17	0.1	13	130	132	9	
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)
NOV 1994													
03...	0.035	2.20	0.15	0.12	0.50	0.33	2.7	2.5	0.22	0.19	2.8	0.3	
JAN 1995													
24...	0.014	1.80	0.24	0.24	0.60	0.47	2.4	2.3	0.07	0.06	2.0	0.3	
MAR													
29...	0.021	1.70	0.05	0.05	0.40	0.59	2.1	2.3	0.08	0.04	1.5	0.6	
MAY													
18...	0.086	2.10	0.23	0.25	0.50	0.41	2.6	2.5	0.15	0.09	3.0	1.0	
JUL													
20...	0.053	2.10	0.08	0.03	0.50	0.26	2.6	2.4	0.19	0.16	3.3	0.7	



## DELAWARE RIVER BASIN

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 03...	1315	10	<1	<10	30	<1	<1	2
MAY 1995 18...	1115	<10	2	<10	10	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 03...	220	<1	20	<0.1	<1	<1	<10
MAY 1995 18...	390	1	40	<0.1	<1	<1	<10

## DELAWARE RIVER BASIN

## 01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beattystown, 1.6 mi upstream of Hanes Brook, 2.1 mi northeast of Stephensburg, and 3.5 mi northeast of Scrappy Corner.

DRAINAGE AREA.--90.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
OCT 1994	31...	1030	75	416	8.2	11.0	750	11.0	101	E1.7	490	20	150
JAN 1995	24...	1130	310	324	8.6	3.5	745	12.3	95	<1.0	20	40	85
APR	03...	1130	96	413	8.4	7.0	756	14.2	118	E1.1	50	<10	140
MAY	22...	1200	96	424	8.3	16.0	753	9.5	98	E1.8	330	100	140
JUL	24...	1145	52	468	8.3	23.5	749	9.1	109	E1.5	2400	240	160
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
OCT 1994	31...	33	16	23	2.1	117	16	45	<0.1	7.3	238	224	4
JAN 1995	24...	21	8.0	25	1.3	55	15	49	<0.1	5.5	170	161	5
APR	03...	31	14	25	1.6	100	18	52	<0.1	6.7	234	218	3
MAY	22...	30	16	26	1.6	104	15	51	<0.1	7.0	222	217	5
JUL	24...	32	20	27	1.9	126	15	51	<0.1	8.1	258	240	3
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
OCT 1994	31...	0.008	2.60	<0.03	0.03	0.20	0.23	2.8	2.8	0.02	<0.01	3.0	0.3
JAN 1995	24...	0.004	0.84	<0.03	<0.03	0.30	0.45	1.1	1.3	0.06	0.05	2.7	0.4
APR	03...	0.005	2.10	<0.03	<0.03	0.20	0.22	2.3	2.3	0.04	0.02	2.2	0.3
MAY	22...	0.012	1.90	<0.03	<0.03	0.20	0.23	2.1	2.1	0.03	0.02	3.2	0.5
JUL	24...	0.011	2.10	<0.03	<0.03	0.20	0.21	2.3	2.3	0.03	0.01	3.2	0.4

## DELAWARE RIVER BASIN

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ--Continued

WATER QUALITY DATA, WATER OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1994 31...	1030	<10	<1	<10	50	<1	<1	2
MAY 1995 22...	1200	14	<1	<10	50	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 1994 31...	90	<1	10	<0.1	<1	<1	<10
MAY 1995 22...	220	<1	40	<0.1	<1	<1	<10

## 01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from bridge on Limekiln Road (Person Road), 1.5 mi southwest of Bloomsbury, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--141 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944- 45(M), 1951-52(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft above sea level. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--Records good. Flow occasionally regulated by Lake Hopatcong (see Delaware River basin, reservoirs in). Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0045	*1,420	*4.26	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	106	384	246	256	377	163	187	111	89	73	57
2	194	123	352	327	218	312	158	189	107	125	71	59
3	162	110	325	294	197	266	153	171	106	154	70	52
4	141	153	305	247	201	249	153	153	115	110	69	58
5	116	185	371	225	223	241	154	148	104	95	87	60
6	105	183	381	266	187	233	153	144	100	95	131	61
7	99	177	336	482	221	234	151	138	97	102	105	60
8	100	177	310	417	215	415	145	135	96	99	86	60
9	98	169	280	342	215	1120	155	129	92	93	76	57
10	105	205	278	301	177	794	214	129	90	88	71	85
11	100	209	410	280	174	583	198	134	90	143	69	65
12	97	193	371	275	167	495	174	138	131	107	69	66
13	103	182	353	285	159	436	265	137	128	96	69	66
14	111	173	371	300	162	383	251	136	117	87	68	67
15	113	172	344	310	159	342	210	138	107	81	67	65
16	113	171	295	326	175	309	185	129	98	92	67	65
17	106	174	286	328	179	298	171	127	94	104	67	79
18	105	178	288	323	175	267	163	141	95	400	64	82
19	105	177	275	321	192	249	164	151	91	157	62	78
20	102	174	265	432	208	245	167	149	88	116	61	71
21	107	198	252	539	223	261	166	136	87	98	60	67
22	110	298	244	482	217	255	163	131	86	90	59	77
23	136	236	222	418	208	239	153	129	84	86	58	112
24	171	202	227	409	236	223	157	125	84	99	58	95
25	143	188	246	394	223	218	154	121	84	88	57	83
26	130	178	218	378	198	202	146	145	89	82	56	178
27	124	171	195	359	186	190	141	137	89	80	57	194
28	115	517	190	340	339	184	139	129	93	79	57	190
29	120	520	191	303	---	184	139	128	91	82	57	150
30	120	428	179	279	---	176	141	135	83	77	57	107
31	105	---	169	277	---	169	---	117	---	75	57	---
TOTAL	3740	6327	8913	10505	5690	10149	5046	4336	2927	3369	2135	2566
MEAN	121	211	288	339	203	327	168	140	97.6	109	68.9	85.5
MAX	194	520	410	539	339	1120	265	189	131	400	131	194
MIN	97	106	169	225	159	169	139	117	83	75	56	52

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1995, BY WATER YEAR (WY)

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
MEAN	172	227	265	262	275	347	353	272	197	161	151	158
MAX	770	701	686	924	582	935	1027	680	843	659	583	454
(WY)	1904	1928	1974	1979	1973	1936	1983	1989	1972	1975	1928	1960
MIN	41.2	61.2	57.3	73.7	99.4	127	103	98.1	56.8	38.1	38.5	37.3
(WY)	1264	1966	1966	1977	1923	1965	1985	1965	1965	1965	1965	1965

## DELAWARE RIVER BASIN

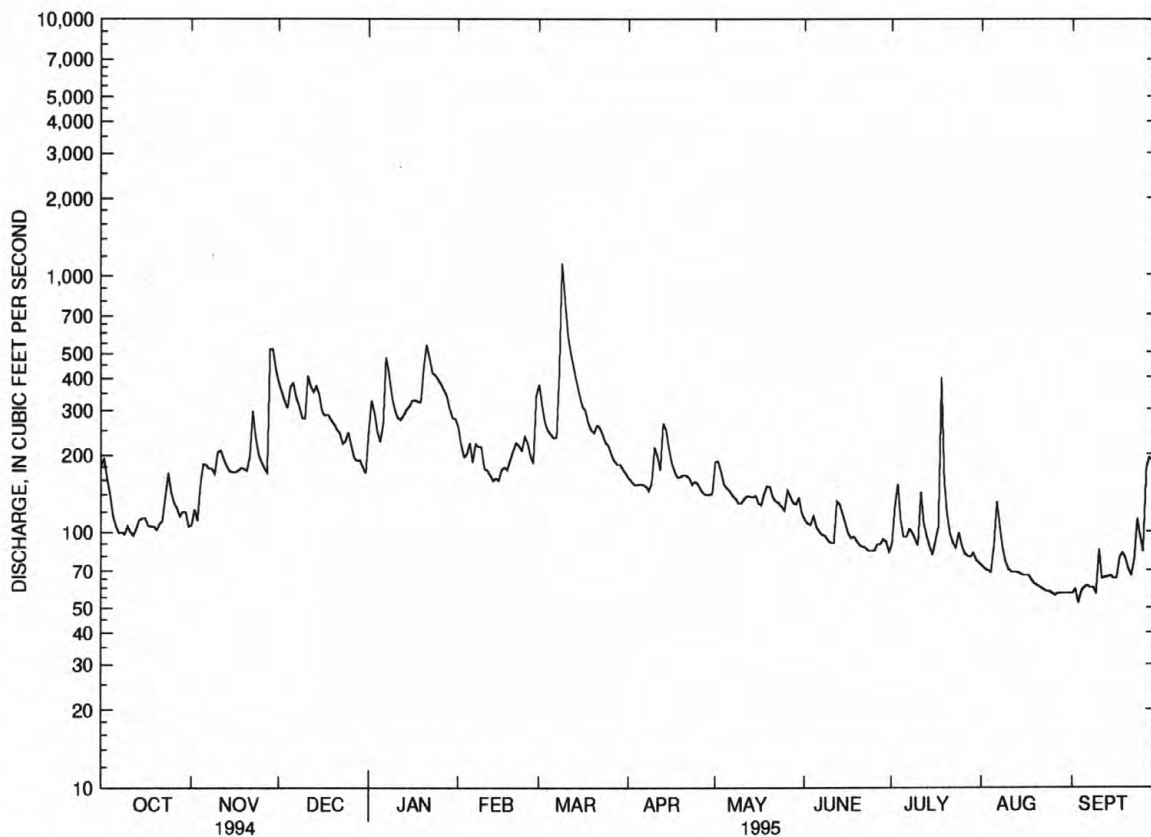
395

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1904 - 1995	
ANNUAL TOTAL	107926		65703		237	
ANNUAL MEAN	296		180		425	
HIGHEST ANNUAL MEAN					82.6	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	1450	Mar 29	1120	Mar 9	5850	Oct 10 1903
LOWEST DAILY MEAN	90	Sep 13	52	Sep 3	27	Sep 8 1966
ANNUAL SEVEN-DAY MINIMUM	91	Sep 11	57	Aug 28	32	Aug 28 1966
INSTANTANEOUS PEAK FLOW			1420	Mar 9	7200a	Jan 25 1979
INSTANTANEOUS PEAK STAGE			4.26	Mar 9	8.50b	Jan 25 1979
INSTANTANEOUS LOW FLOW			44	Sep 3	8.1	Aug 2 1955
10 PERCENT EXCEEDS	659		331		455	
50 PERCENT EXCEEDS	189		153		180	
90 PERCENT EXCEEDS	105		69		77	

a From rating curve extended above 1,800 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 6.95 ft.

b From floodmark.



— 01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ, DAILY MEAN DISCHARGE



## DELAWARE RIVER BASIN

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ--Continued

PERIOD OF RECORD.--Water years 1963-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
OCT 1994													
31...	1300	103	388	8.5	11.0	755	11.1	102	E2.2	700	40	150	
JAN 1995													
25...	1000	392	330	8.4	3.0	758	13.0	97	<1.0	170	100	97	
MAR													
30...	1030	173	360	8.2	9.5	756	11.4	101	E1.1	490	110	130	
MAY													
23...	1200	124	395	8.7	16.0	762	10.9	111	<1.0	700	40	140	
JUL													
25...	1130	90	385	8.4	22.5	754	9.9	116	<1.0	2400	150	150	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
OCT 1994													
31...	34	17	17	1.6	123	17	35	<0.1	7.2	220	212	5	
JAN 1995													
25...	23	9.7	20	2.6	66	15	41	<0.1	7.3	172	165	7	
MAR													
30...	30	14	17	1.4	103	17	33	<0.1	8.0	198	193	3	
MAY													
23...	31	16	17	1.3	115	15	36	<0.1	7.0	202	202	6	
JUL													
25...	32	17	16	1.6	124	15	29	<0.1	8.4	222	202	9	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 1994													
31...	0.011	2.20	<0.03	<0.03	0.16	0.15	2.4	2.4	<0.01	<0.01	2.5	0.2	
JAN 1995													
25...	0.004	1.60	<0.03	<0.03	0.22	0.14	1.8	1.7	0.03	0.01	2.2	0.7	
MAR													
30...	0.008	2.40	0.03	0.03	0.14	0.13	2.5	2.5	<0.01	<0.01	1.6	0.4	
MAY													
23...	0.015	2.20	<0.03	<0.03	0.30	0.05	2.5	2.3	0.01	<0.01	2.1	0.3	
JUL													
25...	0.010	2.00	<0.03	<0.03	0.18	0.12	2.2	2.1	<0.01	<0.01	2.0	0.3	

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

## DELAWARE RIVER BASIN

## 01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--156 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

REMARKS.--Water-quality samples do not include Riegelsville Paper Company bypass.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
01...	1130	112	390	8.2	13.0	745	9.8	95	2.9	110	80	160	
JAN 1995													
25...	1230	440	335	8.2	3.5	760	13.2	100	<1.0	80	40	100	
MAR													
30...	1330	195	362	8.3	10.0	756	11.9	106	E1.3	50	50	140	
MAY													
22...	1130	143	403	8.2	17.0	761	10.1	105	E1.5	170	40	150	
JUL													
26...	1130	93	393	8.1	24.5	756	8.4	102	<1.0	790	150	160	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
NOV 1994													
01...	35	18	16	1.8	124	20	32	<0.1	7.1	216	217	1	
JAN 1995													
25...	24	10	20	1.3	71	15	38	<0.1	7.6	172	166	9	
MAR													
30...	31	15	16	1.4	105	19	30	0.1	8.1	200	194	6	
MAY													
22...	33	16	17	1.5	116	17	33	<0.1	6.8	220	203	8	
JUL													
26...	34	18	15	1.7	125	18	30	0.1	7.6	222	209	5	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
01...	0.017	2.90	0.09	0.05	0.40	0.32	3.3	3.2	0.03	<0.01	2.8	0.4	
JAN 1995													
25...	0.004	1.60	<0.03	<0.03	0.50	0.61	2.1	2.2	0.01	<0.01	2.1	0.7	
MAR													
30...	0.011	2.30	<0.03	<0.03	0.50	0.44	2.8	2.7	0.02	<0.01	1.5	0.5	
MAY													
22...	0.023	2.00	<0.03	<0.03	0.20	0.25	2.2	2.3	0.01	<0.01	2.3	0.7	
JUL													
26...	0.067	2.10	0.06	0.04	0.50	0.44	2.6	2.5	0.01	0.02	2.2	0.3	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]



## DELAWARE RIVER BASIN

## 01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft. National Geodetic Vertical Datum of 1929. Water-quality samples are collected from the bridge and do not include flow of the Musconetcong River.

DRAINAGE AREA.--6,328 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1934, 1943, 1950, 1960-79, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
14...	1100	5370	173	8.3	9.0	766	12.2	105	<1.0	20	100	62	
JAN 1995													
26...	1130	18900	134	9.2	3.0	760	13.2	98	E1.7	110	20	41	
MAR													
28...	1045	10100	153	8.2	9.0	757	12.0	104	E2.5	80	10	53	
MAY													
16...	1030	5250	206	8.0	16.5	757	8.7	90	E2.0	<20	20	70	
AUG													
02...	1200	3920	197	8.1	27.5	762	8.3	105	9.1	20	50	66	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
NOV 1994													
14...	16	5.3	8.7	1.5	42	17	13	<0.1	3.1	102	93	<1	
JAN 1995													
26...	11	3.3	6.2	1.0	25	12	11	<0.1	4.3	74	69	<1	
MAR													
28...	14	4.3	7.9	1.0	35	16	13	<0.1	3.3	88	85	2	
MAY													
16...	18	6.1	10	1.4	47	18	15	<0.1	3.0	110	105	5	
AUG													
02...	17	5.8	11	1.7	46	19	15	<0.1	2.8	110	104	7	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
14...	0.008	0.80	0.05	0.05	0.20	0.18	1.0	0.98	0.12	0.10	2.7	0.2	
JAN 1995													
26...	0.005	1.10	0.03	<0.03	0.16	0.17	1.3	1.3	0.04	0.02	2.3	0.3	
MAR													
28...	0.010	1.10	<0.03	<0.03	0.18	0.16	1.3	1.3	0.03	0.03	2.0	0.4	
MAY													
16...	0.011	1.10	0.03	<0.03	0.30	0.27	1.4	1.4	0.06	0.06	2.3	0.6	
AUG													
02...	0.009	0.89	<0.03	<0.03	0.20	0.16	1.1	1.0	0.06	0.04	2.7	0.5	



DELAWARE RIVER BASIN

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01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 14...	1100	<10	<1	<10	20	<1	<1	2
MAY 1995 16...	1030	<10	2	<10	10	<1	1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 14...	100	<1	20	<0.1	2	<1	30
MAY 1995 16...	130	<1	40	<0.1	2	<1	20

## DELAWARE RIVER BASIN

## 01460440 DELAWARE AND RARITAN CANAL AT PORT MERCER, NJ

LOCATION.--Lat 40°18'16", long 74°41'08", Mercer County, Hydrologic Unit 02040105, on right bank, 300 ft upstream from bridge on Province Line (Quaker Bridge) Road at Port Mercer.

PERIOD OF RECORD.--August 1990 to current year. Miscellaneous measurements made 1923, 1937-38, 1942-43, 1945, 1981, 1987-90.

GAGE.--Water-stage recorder and ultrasonic velocity meter. Datum of gage is sea level.

REMARKS.--Records fair. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Reverse flow can occur during periods of heavy precipitation due to waste gate operation upstream and inflow into canal downstream of gage. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e125	135	128	137	140	141	147	146	149	149	151	141
2	e130	112	128	136	140	137	147	140	148	148	148	143
3	e132	121	130	135	140	137	145	146	141	150	146	143
4	e138	133	131	132	148	144	145	146	147	148	147	144
5	139	138	113	135	144	144	145	149	147	151	149	145
6	140	139	113	138	144	143	146	146	149	147	142	145
7	139	141	111	99	159	145	148	146	149	154	150	143
8	134	139	105	129	157	143	147	149	147	151	152	144
9	131	142	101	128	150	91	148	148	147	146	153	140
10	132	142	114	133	148	139	148	150	146	148	154	143
11	114	138	115	137	151	137	147	153	152	e137	153	143
12	114	140	115	136	147	142	149	149	149	e153	148	143
13	135	144	114	134	150	142	128	150	153	152	144	145
14	132	143	113	135	148	140	144	145	149	153	144	143
15	131	143	120	135	149	136	142	150	152	151	147	140
16	128	144	129	138	152	143	143	148	150	149	154	131
17	134	147	119	138	149	143	144	148	151	149	153	113
18	134	149	117	139	147	145	147	150	151	130	159	124
19	123	142	115	140	145	145	146	148	151	156	160	129
20	133	140	118	117	140	143	147	151	152	155	161	132
21	137	141	129	113	138	145	146	148	148	150	159	129
22	134	128	134	124	134	142	145	148	150	152	153	127
23	140	140	143	128	134	144	146	144	150	154	147	124
24	138	141	137	129	135	144	147	146	156	151	146	130
25	124	142	136	129	136	144	145	157	157	155	143	133
26	134	143	135	131	141	145	144	157	150	150	140	119
27	142	145	135	132	144	147	142	151	149	154	143	109
28	142	101	136	143	106	146	143	149	152	149	142	124
29	135	111	136	147	---	145	142	153	150	148	144	129
30	134	130	138	146	---	144	142	134	150	151	145	129
31	135	---	138	144	---	146	---	154	---	151	142	---
TOTAL	4113	4094	3846	4117	4016	4372	4345	4599	4492	4642	4619	4027
MEAN	133	136	124	133	143	141	145	148	150	150	149	134
MAX	142	149	143	147	159	147	149	157	157	156	161	145
MIN	114	101	101	99	106	91	128	134	141	130	140	109

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	135	135	124	127	129	118	130	142	145	149	146	144
MAX	155	151	133	137	143	141	145	150	156	154	152	155
(WY)	1991	1991	1991	1993	1995	1995	1995	1993	1993	1992	1992	1992
MIN	115	107	103	103	99.5	91.4	95.8	133	135	143	131	134
(WY)	1992	1992	1992	1992	1992	1992	1992	1994	1992	1994	1994	1995

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

## WATER YEARS 1990 - 1995

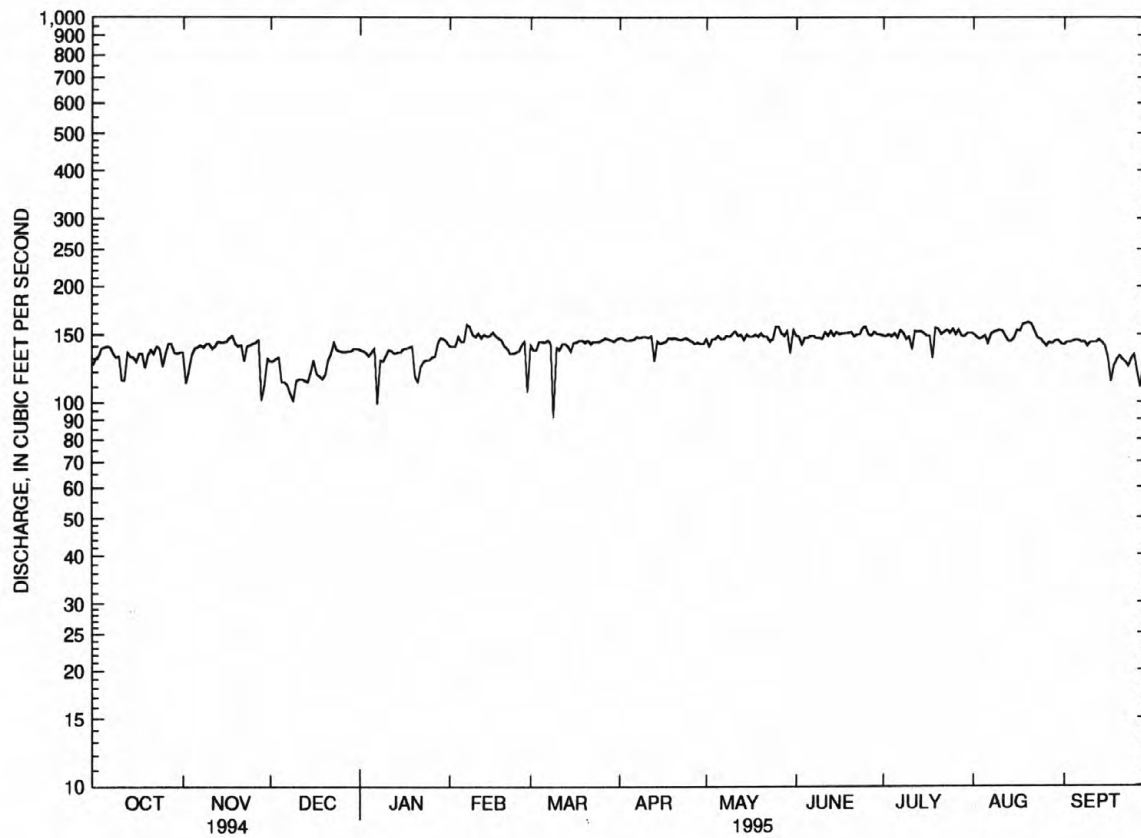
ANNUAL TOTAL	48154.48	51282	135
ANNUAL MEAN	132	140	143
HIGHEST ANNUAL MEAN			1991
LOWEST ANNUAL MEAN			1992
HIGHEST DAILY MEAN	159	Jan 17	222
LOWEST DAILY MEAN	-57	Mar 10	91
ANNUAL SEVEN-DAY MINIMUM	75	Mar 8	110
10 PERCENT EXCEEDS	147		151
50 PERCENT EXCEEDS	136		143
90 PERCENT EXCEEDS	114		126

e Estimated.

DELAWARE RIVER BASIN

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01460440 DELAWARE AND RARITAN CANAL AT PORT MERCER, NJ--Continued



—— 01460440 D&R CANAL AT PORT MERCER, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

## 01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, EC BROTH (MPN)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994	14...	1130	5130	180	7.9	9.0	760	11.0	95	<1.0	20	180	62
JAN 1995	26...	1230	18000	136	8.0	3.0	760	12.8	95	<1.0	20	30	45
MAR	28...	1330	9620	--	8.2	10.0	758	12.3	--	E2.2	<20	<10	54
MAY	16...	1330	4440	208	8.3	18.0	757	10.6	113	E1.3	40	<10	67
AUG	02...	1030	3870	204	7.8	28.5	764	6.6	85	14	170	30	68
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994	14...	16	5.3	9.2	1.5	44	16	14	<0.1	2.5	106	93	<1
JAN 1995	26...	12	3.6	6.8	0.90	26	12	12	<0.1	4.5	78	71	3
MAR	28...	14	4.6	8.0	1.1	36	18	13	<0.1	3.3	90	88	7
MAY	16...	17	5.9	9.8	1.4	--	17	15	<0.1	3.1	106	--	5
AUG	02...	17	6.2	11	1.7	46	21	16	<0.1	2.9	110	107	6
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994	14...	0.007	0.52	0.04	0.03	0.16	0.14	0.68	0.66	0.02	<0.01	2.7	0.2
JAN 1995	26...	0.006	0.90	<0.03	<0.03	0.19	0.19	1.1	1.1	0.02	0.02	2.2	0.4
MAR	28...	0.011	1.10	<0.03	<0.03	0.19	0.14	1.3	1.2	<0.01	0.01	2.0	--
MAY	16...	0.011	1.10	0.05	0.03	0.30	0.27	1.4	1.4	0.06	0.06	2.0	0.5
AUG	02...	0.019	0.81	0.06	0.08	0.40	0.27	1.2	1.1	0.05	0.03	3.7	0.7

## DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 14...	1130	12	<1	<10	30	<1	<1	1
MAY 1995 16...	1330	<10	2	--	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 14...	90	<1	10	<0.1	1	<1	20
MAY 1995 16...	--	--	--	0.3	--	<1	--



## DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ  
(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913 to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 450 ft downstream.

REMARKS.--Records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, Wild Creek, and Merrill Creek Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Diversion to Bradshaw and Merrill Creek Reservoirs and to Delaware and Raritan Canal (see Delaware River basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River basin, diversions). Satellite gage height and water-quality parameter telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above sea level, discharge estimated, 295,000 ft<sup>3</sup>/s. Maximum elevation since 1957, 30.6 ft above sea level, Mar. 8, 1904, from floodmark, due to ice jam.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	0200	*49,300	*14.20	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13700	4070	25600	8700	11800	12400	8010	5970	5140	3540	4500	2710
2	12800	4860	20100	11800	11200	11900	8010	6480	4990	3320	3780	2730
3	11200	7110	16800	13600	10600	11500	7260	7130	4620	4530	3800	2990
4	10500	9770	14400	13400	10300	10300	6840	6670	4580	4540	3980	3000
5	9640	9400	15000	11900	10100	9480	6970	6100	5300	4060	4500	2940
6	8740	8060	22400	10700	9040	8550	6330	5630	4960	3810	4970	2860
7	7320	6850	28600	13600	e8700	8490	6640	5410	4700	4260	4880	2690
8	6480	6180	24700	14200	e8400	9880	6550	5100	4170	5700	3940	2680
9	6870	6320	21200	11800	e8400	40400	6440	4700	3920	6360	3810	2730
10	7220	6490	18900	11100	8560	46700	6620	4510	3830	5890	3500	2850
11	7440	6460	21300	10700	8360	36000	7310	4780	3500	6990	2760	3060
12	6860	6470	22400	10100	8570	28900	8470	4660	4400	9180	2490	2910
13	6870	6110	21400	9660	6710	24500	10600	5130	5800	6720	2480	2880
14	6270	5640	19000	9900	5900	22500	13100	5190	5530	5720	2890	3070
15	5590	5190	16700	11400	7060	23500	16800	5010	4930	4820	2840	2780
16	5380	5300	14900	14700	7220	23200	13900	4570	4820	4800	3400	2790
17	5060	5310	13700	21800	8030	22800	12000	4540	4270	5430	3770	3510
18	4840	5060	13100	23900	8040	21400	11100	4670	3810	9570	3100	3150
19	4590	4830	12400	20300	7630	18700	9950	4810	3870	7160	3630	2860
20	4660	4750	11800	21600	7150	16900	9450	5000	3720	7230	3220	2770
21	4350	4750	11100	26700	7400	15900	9780	5010	3510	7270	2970	2420
22	4520	6300	10600	31400	7520	15700	9820	4620	3520	5530	2590	2490
23	4400	8390	10400	28700	7680	15300	8770	4330	3460	4890	2560	2840
24	4950	8460	10200	24700	8080	14900	8300	3920	3060	4550	2550	3120
25	5250	7860	10600	21600	8580	13700	7540	3750	3150	3830	2590	3020
26	5120	6940	12100	19100	7840	13000	7050	3870	3820	3930	2610	3760
27	4570	6430	11300	17400	7540	11600	6990	4580	3810	4440	2630	4100
28	4140	11400	10400	15800	9860	9950	6280	5040	4360	4410	2700	3290
29	4080	27300	10100	14100	---	9630	5840	4920	4530	4420	2800	3150
30	4150	32400	9350	11800	---	8950	5690	5720	4260	6270	2810	2960
31	4320	---	8770	11200	---	8440	---	5480	---	5550	2660	---
TOTAL	201880	244460	489320	497360	236270	545070	258410	157300	128340	168720	101710	89110
MEAN	6512	8149	15780	16040	8438	17580	8614	5074	4278	5443	3281	2970
MAX	13700	32400	28600	31400	11800	46700	16800	7130	5800	9570	4970	4100
MIN	4080	4070	8770	8700	5900	8440	5690	3750	3060	3320	2480	2420

# DELAWARE RIVER BASIN

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## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1995, BY WATER YEAR (WY)

MEAN	6768	10430	12520	12190	12720	20660	22420	14040	9022	7026	5958	5765
MAX	28710	27340	31070	34950	27550	60840	52680	31690	33460	25720	30290	22490
(WY)	1956	1928	1974	1979	1951	1936	1940	1989	1972	1928	1955	1933
MIN	1632	1868	2037	2539	3500	7715	6828	5074	2572	1548	1808	1762
(WY)	1942	1915	1923	1981	1920	1981	1985	1995	1965	1965	1965	1932

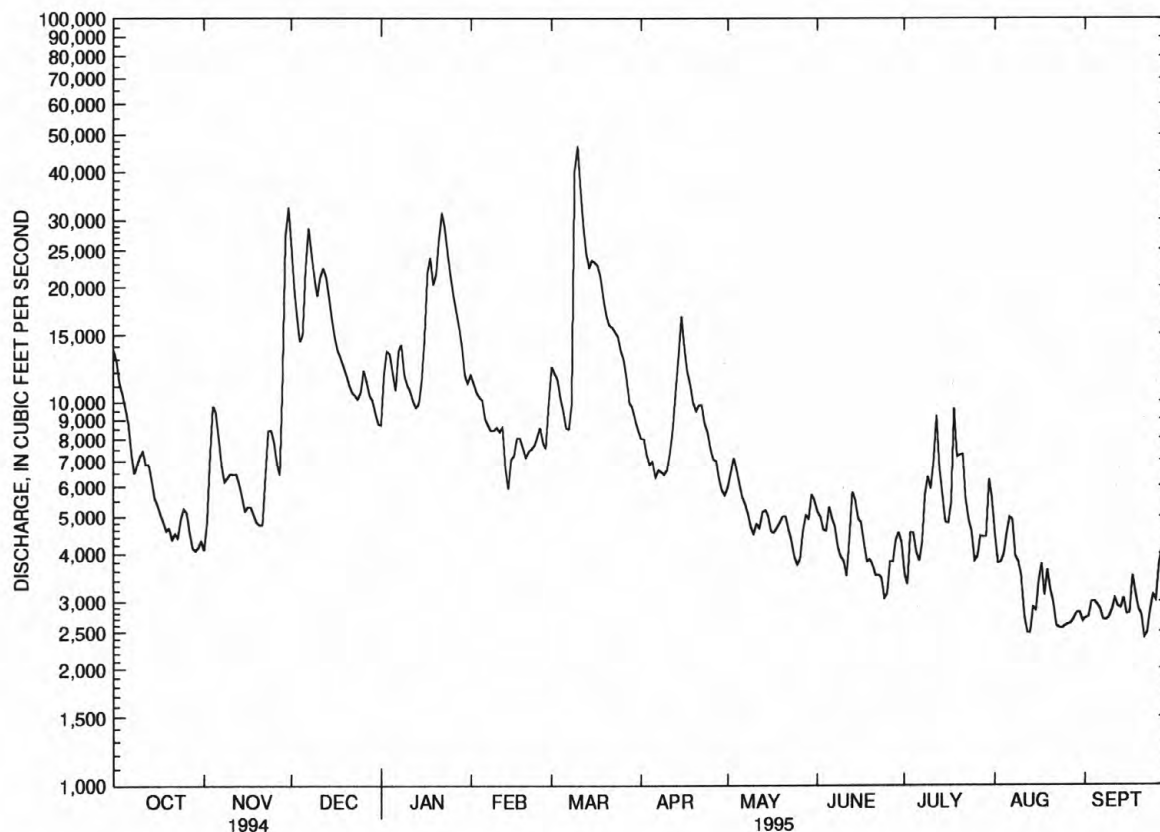
### SUMMARY STATISTICS FOR 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1913 - 1995

ANNUAL TOTAL	4955850	3117950	
ANNUAL MEAN	13580	8542	11620
HIGHEST ANNUAL MEAN			19810
LOWEST ANNUAL MEAN			4708
HIGHEST DAILY MEAN	71600	Apr 15	46700
LOWEST DAILY MEAN	3370	Aug 13	2420
ANNUAL SEVEN-DAY MINIMUM	3750	Aug 8	2600
INSTANTANEOUS PEAK FLOW			49300
INSTANTANEOUS PEAK STAGE			14.20
INSTANTANEOUS LOW FLOW			2340
10 PERCENT EXCEEDS	32200		16800
50 PERCENT EXCEEDS	8460		6460
90 PERCENT EXCEEDS	4800		3010

a From rating curve extended above 230,000 ft<sup>3</sup>/s, maximum flow since 1692.

b From high-water mark in gage house.

c Estimated.



01463500 DELAWARE RIVER AT TRENTON, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.

PH: June 1968 to September 1978, May to September 1979, February 1980 to August 1982, April 1983 to current year.

WATER TEMPERATURE: October 1944 to September 1978, May 1979 to current year.

DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962. Monitor probes are located within raw water intake of the Trenton Water Filtration Plant.

REMARKS.--Missing continuous water-quality records are the result of malfunctions of the instrument, or interruptions of flow through the filtration plant. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 377 microsiemens, Feb. 12, 1985; minimum, 63 microsiemens, July 7, 1984.

PH: Maximum, 10.3, Aug. 9, 10, 1983; minimum, 5.3, June 22, 1972.

WATER TEMPERATURE: Maximum, 34.0 °C, June 18, 1957; minimum, 0.0 °C, on many days during winters.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Feb. 11, 1989; minimum recorded, 4.0 mg/L, Nov. 9, 1972, Sept. 9, 1995, but may have been lower during instrument malfunction, July 29-Aug. 21, 1995.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 254 microsiemens, Feb. 28; minimum, 83 microsiemens, July 11.

PH: Maximum, 9.2, Nov. 20, Apr. 6, 7, 8, 10; minimum, 5.6, July 18.

WATER TEMPERATURE: Maximum, 32.0 °C, Aug. 4, 5; minimum, 0.0 °C, on several days during February.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, and BOD, were performed by the New Jersey Department of Health, Public Health and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 1994												
22...	1115	6300	202	8.2	10.5	1.2	760	11.9	107	E1.3	280	K140
JAN 1995												
26...	1250	18500	128	7.6	4.0	2.4	761	13.3	102	<1.0	2	19
MAR												
28...	1030	10000	160	8.1	9.0	--	761	12.9	112	2.8	5	--
MAY												
16...	1230	4610	203	8.1	18.0	1.7	761	9.9	105	E2.0	14	K12
AUG												
03...	1133	3950	201	8.4	30.0	0.60	769	8.0	105	6.1	8	<66

DATE	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L AS CACO3) (99430)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
NOV 1994											
22...	50	34	69	18	5.9	10	1.4	56	46	49	48
JAN 1995											
26...	10	K8	41	11	3.2	6.2	0.90	31	26	25	26
MAR											
28...	50	--	53	14	4.3	7.8	1.1	--	--	35	--
MAY											
16...	10	220	70	18	6.1	10	1.4	58	48	49	48
AUG											
03...	<10	72	65	16	6.1	12	1.7	51	42	46	42

## DELAWARE RIVER BASIN

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01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1994											
22...	19	16	<0.1	1.6	112	104	2.3	0.4	9	153	63
JAN 1995											
26...	12	11	<0.1	4.4	74	68	2.3	0.4	9	450	84
MAR											
28...	16	13	<0.1	2.9	86	83	1.9	0.4	4	108	--
MAY											
16...	16	15	<0.1	2.8	110	102	2.1	0.5	5	62	87
AUG											
03...	21	16	<0.1	2.9	117	104	3.1	0.4	4	43	93

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994											
22...	1115	<10	30	<1	23	<10	20	<1	<1	<3	1
JAN 1995											
26...	1250	--	40	--	23	--	--	--	--	<3	--
MAY											
16...	1230	<10	20	2	25	<10	20	<1	<1	<3	3
AUG											
03...	1133	--	30	--	24	--	--	--	--	<3	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1994										
22...	90	27	<1	<4	20	4	<0.1	<10	1	<1
JAN 1995										
26...	--	34	--	<4	--	13	--	<10	--	<1
MAY										
16...	120	33	<1	<4	30	8	<0.1	<10	1	<1
AUG										
03...	--	33	--	4	--	10	--	<10	--	1

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
NOV 1994										
22...	<1	<1	<1.0	67	<6	10	--	--	--	--
JAN 1995										
26...	--	<1	<1.0	44	<6	--	0.14	0.03	0.05	<1.0
MAY										
16...	<1	<1	<1.0	71	<6	10	--	--	--	--
AUG										
03...	--	<2	<1.0	72	<6	--	0.05	0.01	0.11	0.0

## DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE U.S. GEOLOGICAL SURVEY  
NATIONAL WATER QUALITY LABORATORY

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
NOV 1994 22...	1115	<0.01	0.91	<0.015	0.20	0.17	1.1	1.1	0.06	0.05	0.05
JAN 1995 26...	1250	<0.01	0.77	0.030	0.17	0.14	0.94	0.91	0.03	0.02	0.02
MAR 28...	1030	--	0.76	--	0.15	0.12	0.91	0.88	0.04	<0.01	--
MAY 16...	1230	0.01	0.86	0.040	0.40	0.27	1.3	1.1	0.08	0.06	0.05
AUG 03...	1133	0.01	0.75	0.020	0.30	0.15	1.0	0.90	0.07	0.04	0.05

WATER COLUMN NUTRIENT ANALYSES PERFORMED BY THE NEW JERSEY DEPARTMENT OF HEALTH,  
PUBLIC HEALTH, AND ENVIRONMENTAL LABORATORIES

DATE	TIME	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 1994 22...	1115	0.005	<0.03	<0.03
JAN 1995 26...	1250	0.005	<0.03	0.04
MAR 28...	1030	0.008	<0.03	<0.03
MAY 16...	1230	0.012	0.03	<0.03
AUG 03...	1133	0.009	<0.03	0.04



## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	133	121	127	220	215	218	116	114	115	165	163	164
2	142	133	138	225	220	222	123	116	119	178	165	171
3	148	141	145	234	216	230	130	123	126	173	157	166
4	152	148	150	216	158	182	136	130	132	157	153	156
5	156	151	153	158	145	148	144	136	140	156	151	154
6	159	153	155	156	146	151	149	141	145	163	151	157
7	164	158	161	163	156	158	141	114	125	168	151	157
8	166	163	164	172	163	166	117	112	115	197	168	187
9	187	166	176	182	172	176	121	117	119	193	183	186
10	207	187	199	185	182	183	129	121	123	184	180	182
11	188	172	177	186	180	182	139	129	131	180	175	178
12	176	170	172	195	186	192	141	131	136	180	177	178
13	180	175	177	---	---	---	132	127	129	184	178	180
14	---	---	---	184	181	183	133	130	132	195	183	188
15	184	176	178	188	181	185	139	133	136	192	182	187
16	191	184	188	195	188	192	146	139	143	183	177	180
17	204	191	199	199	194	197	152	146	150	182	140	161
18	207	202	204	194	189	192	154	152	153	140	124	129
19	210	202	205	201	189	196	160	154	158	129	122	124
20	217	209	215	204	198	201	161	158	159	137	124	130
21	217	215	216	204	190	201	161	158	160	142	124	137
22	219	216	217	208	199	204	168	159	163	139	121	128
23	223	216	220	215	194	207	165	163	164	121	118	119
24	227	221	224	194	176	183	168	162	165	125	119	122
25	231	224	228	176	168	170	171	166	168	126	120	123
26	233	229	231	170	166	167	171	160	168	132	126	128
27	231	219	224	173	168	171	160	152	154	136	131	132
28	219	213	215	178	151	168	158	153	156	140	136	138
29	220	214	216	180	143	165	159	155	157	143	140	141
30	223	220	221	143	115	123	---	---	---	153	142	148
31	224	217	221	---	---	---	165	159	162	161	153	158
MONTH	233	121	191	234	115	183	171	112	143	197	118	154
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	161	155	159	237	180	202	184	176	179	197	193	195
2	158	155	157	246	222	237	183	180	181	196	192	194
3	163	156	159	222	200	210	184	179	180	198	195	197
4	161	156	159	200	197	199	187	184	185	198	192	194
5	168	160	164	200	196	198	188	186	187	196	190	193
6	---	---	---	200	196	197	194	183	186	196	193	194
7	---	---	---	203	200	201	195	193	194	199	195	196
8	197	178	190	203	189	200	194	189	191	203	199	201
9	185	175	181	---	---	---	192	188	190	203	200	202
10	---	---	---	151	125	137	198	191	194	---	---	---
11	185	182	183	126	123	124	201	197	199	216	203	210
12	183	178	180	132	125	127	199	185	193	216	212	214
13	182	164	172	136	131	133	185	170	176	216	212	214
14	---	---	---	139	134	136	180	170	176	219	209	214
15	---	---	---	142	133	137	171	139	152	209	206	207
16	201	193	197	133	130	131	141	133	138	207	203	205
17	---	---	---	132	127	129	145	133	140	---	---	---
18	218	210	215	129	125	127	146	143	144	215	211	213
19	217	201	207	131	125	127	148	145	147	214	210	212
20	205	196	200	134	131	132	158	148	154	218	214	216
21	202	196	199	140	134	137	162	158	160	219	213	216
22	202	199	200	150	140	145	160	157	158	213	209	211
23	208	202	205	150	146	148	165	159	162	211	208	209
24	208	197	201	149	144	146	167	164	165	212	208	209
25	203	192	197	149	144	146	167	163	165	215	212	214
26	204	200	202	152	148	150	172	167	170	224	215	219
27	207	199	201	155	148	153	178	172	174	227	224	225
28	254	189	213	162	151	157	183	172	177	228	218	223
29	---	---	---	166	161	163	189	181	184	218	193	212
30	---	---	---	173	162	168	195	189	191	206	173	200
31	---	---	---	178	171	174	---	---	---	216	203	206
MONTH	---	---	---	246	123	159	201	133	173	228	173	207

## DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	209	200	204	212	208	209	---	---	---	224	220	222
2	204	195	200	213	209	210	---	---	---	226	223	225
3	198	177	191	219	213	217	201	196	199	---	---	---
4	207	193	202	220	216	218	201	194	199	222	215	219
5	215	207	213	216	203	208	198	177	190	216	208	211
6	214	198	209	203	197	199	194	186	192	214	208	210
7	198	196	197	199	153	190	209	193	199	210	207	208
8	198	196	197	214	194	205	211	204	207	210	185	203
9	209	196	200	220	202	214	204	198	200	206	191	204
10	214	209	211	202	187	194	204	198	201	213	202	206
11	214	210	212	187	83	162	212	204	209	216	211	213
12	---	---	---	191	179	185	217	212	213	213	209	211
13	228	214	223	190	175	179	226	215	221	211	208	210
14	214	197	204	177	172	175	236	226	232	208	196	204
15	207	199	204	185	177	181	238	228	234	---	---	---
16	210	201	204	195	185	190	---	---	---	200	197	199
17	211	207	209	199	195	197	237	228	231	200	147	176
18	212	207	209	197	151	176	238	217	229	195	183	192
19	215	212	213	204	183	194	217	209	211	203	195	197
20	216	213	215	212	204	207	212	205	209	215	203	210
21	213	206	209	212	187	198	---	---	---	217	214	215
22	215	209	212	190	186	188	210	207	209	216	208	214
23	217	215	216	203	177	193	218	208	213	---	---	---
24	223	216	219	209	203	206	222	218	221	---	---	---
25	229	223	226	217	204	211	225	222	224	232	223	229
26	234	227	230	229	217	223	232	224	228	---	---	---
27	235	233	234	231	225	228	236	231	234	227	199	207
28	233	215	223	225	199	211	233	229	231	225	208	217
29	218	211	215	---	---	---	233	229	232	227	224	225
30	218	212	215	---	---	---	233	226	229	228	225	227
31	---	---	---	---	---	---	227	219	222	---	---	---
MONTH	235	177	211	231	83	199	238	177	216	232	147	210

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.8	7.7	7.7	8.5	8.0	8.2	7.6	7.3	7.4	7.8	7.6	7.7
2	8.0	7.8	7.9	8.6	7.9	8.2	7.5	7.4	7.5	7.8	7.6	7.7
3	8.1	7.8	8.0	8.4	7.9	8.1	7.6	7.4	7.5	7.7	7.6	7.7
4	8.3	7.9	8.1	---	---	---	7.7	7.4	7.5	7.8	7.6	7.7
5	8.2	7.9	8.0	---	---	---	7.6	7.5	7.5	7.8	7.6	7.7
6	8.4	7.9	8.1	---	---	---	7.6	7.4	7.5	7.7	7.5	7.7
7	8.5	7.9	8.1	---	---	---	7.5	7.3	7.4	7.6	7.4	7.5
8	8.6	7.9	8.2	---	---	---	7.5	7.3	7.4	7.7	7.5	7.6
9	8.5	7.9	8.1	---	---	---	7.5	7.4	7.5	7.7	7.6	7.7
10	8.6	7.9	8.2	---	---	---	7.5	7.4	7.5	7.8	7.6	7.7
11	8.5	7.9	8.1	---	---	---	7.5	7.3	7.4	7.7	7.6	7.7
12	8.6	7.8	8.1	---	---	---	7.5	7.4	7.5	7.7	7.6	7.7
13	8.6	7.9	8.1	---	---	---	7.6	7.3	7.5	7.8	7.6	7.7
14	---	---	---	---	---	---	7.5	7.3	7.5	7.9	7.7	7.7
15	8.7	7.9	8.2	9.1	8.0	8.5	7.7	7.4	7.6	7.8	7.7	7.7
16	8.6	7.8	8.2	8.5	7.9	8.2	7.7	7.5	7.6	7.7	7.7	7.7
17	8.6	7.9	8.2	8.8	7.7	8.2	7.6	7.5	7.6	7.7	7.5	7.6
18	8.8	7.7	8.2	8.8	7.8	8.2	7.7	7.6	7.6	7.5	7.4	7.5
19	8.7	7.8	8.1	9.1	7.7	8.4	7.8	7.6	7.7	7.5	7.4	7.5
20	8.2	7.7	8.0	9.2	8.0	8.6	7.8	7.6	7.7	7.5	7.2	7.4
21	8.5	7.8	8.1	8.9	7.7	8.3	7.8	7.6	7.7	7.6	7.4	7.6
22	8.4	7.8	8.1	8.9	7.6	8.2	7.8	7.6	7.7	7.6	7.5	7.5
23	8.1	7.7	7.9	8.6	7.9	8.2	7.8	7.6	7.7	7.5	7.5	7.5
24	8.2	7.7	7.9	8.6	7.9	8.2	7.8	7.7	7.7	7.5	7.4	7.5
25	8.2	7.9	8.0	8.7	7.8	8.2	7.9	7.7	7.7	7.6	7.5	7.5
26	8.5	7.9	8.3	9.0	7.8	8.3	7.9	7.7	7.8	7.6	7.5	7.6
27	9.0	8.3	8.6	8.7	7.9	8.2	7.9	7.7	7.8	7.7	7.6	7.6
28	8.8	8.4	8.6	7.9	7.5	7.7	7.9	7.7	7.8	7.7	7.6	7.7
29	8.7	8.4	8.5	7.6	7.4	7.5	7.8	7.6	7.7	7.7	7.6	7.7
30	8.6	8.4	8.5	7.4	7.2	7.4	7.8	7.6	7.7	7.7	7.6	7.7
31	8.9	8.1	8.5	---	---	---	7.8	7.6	7.7	7.8	7.6	7.7
MONTH	9.0	7.7	8.2	---	---	---	7.9	7.3	7.6	7.9	7.2	7.6

## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.8	7.7	7.8	7.8	7.4	7.6	8.9	8.3	8.6	8.4	7.4	7.8
2	7.9	7.7	7.8	8.3	7.7	7.9	9.0	8.4	8.7	8.1	7.5	7.7
3	7.9	7.7	7.8	8.5	7.8	8.1	9.1	8.4	8.8	8.3	7.5	7.9
4	7.8	7.7	7.8	8.1	7.7	8.0	9.0	8.4	8.8	8.4	7.5	7.9
5	8.0	7.7	7.8	8.7	7.7	8.2	9.1	8.3	8.7	8.3	7.5	7.8
6	7.8	7.7	7.7	8.9	8.0	8.4	9.2	8.6	8.9	8.5	7.4	7.9
7	7.9	7.7	7.8	8.8	8.1	8.5	9.2	8.8	9.0	8.5	7.5	8.0
8	7.9	7.8	7.9	8.6	7.7	8.2	9.2	8.5	8.9	8.5	7.5	8.0
9	7.9	7.8	7.8	---	---	---	9.1	8.1	8.6	8.5	7.5	7.9
10	---	---	---	7.3	7.2	7.2	9.2	8.5	8.8	---	---	---
11	7.9	7.8	7.8	7.2	7.2	7.2	9.1	8.4	8.8	8.0	7.3	7.6
12	8.0	7.8	7.9	7.4	7.2	7.3	8.8	8.1	8.6	8.1	7.4	7.7
13	8.0	7.7	7.8	7.5	7.3	7.4	8.1	7.6	7.8	8.2	7.4	7.7
14	---	---	---	7.6	7.3	7.5	8.3	7.6	7.9	7.8	7.4	7.6
15	8.0	7.8	7.9	7.6	7.4	7.5	8.4	7.5	7.9	8.0	7.3	7.6
16	8.0	7.7	7.8	7.6	7.4	7.5	8.7	7.6	8.1	8.1	7.3	7.7
17	---	---	---	7.6	7.4	7.5	8.8	7.7	8.2	---	---	---
18	8.1	7.7	8.0	7.7	7.4	7.6	8.8	7.8	8.3	7.9	7.2	7.5
19	8.2	7.7	7.9	7.8	7.4	7.6	8.8	7.7	8.2	7.7	7.2	7.4
20	8.4	7.7	8.0	8.0	7.5	7.7	8.9	7.7	8.2	8.1	7.3	7.7
21	8.2	7.8	8.0	7.9	7.5	7.7	8.1	7.6	7.9	8.0	7.3	7.6
22	8.5	7.8	8.1	7.9	7.6	7.7	8.5	7.4	7.9	8.1	7.2	7.6
23	8.3	7.9	8.1	8.4	7.6	7.8	8.6	7.6	8.1	8.2	7.3	7.7
24	8.5	7.9	8.2	8.2	7.6	7.9	8.6	7.6	8.0	8.4	7.4	7.9
25	8.6	7.9	8.2	8.3	7.7	8.0	8.6	7.6	8.1	8.2	7.3	7.8
26	8.5	8.0	8.2	8.4	7.7	8.1	8.6	7.7	8.2	8.1	7.3	7.6
27	8.2	7.8	8.0	8.6	7.8	8.1	8.7	7.7	8.2	8.4	7.3	7.8
28	7.8	7.4	7.6	8.7	7.8	8.2	8.9	7.8	8.3	8.3	7.4	7.8
29	---	---	---	8.8	8.0	8.4	8.9	7.8	8.3	8.1	7.3	7.6
30	---	---	---	8.4	7.8	8.1	8.2	7.5	7.8	8.0	7.1	7.5
31	---	---	---	8.8	7.8	8.3	---	---	---	9.0	7.3	7.9
MONTH	8.6	7.4	7.9	8.9	7.2	7.8	9.2	7.4	8.4	9.0	7.1	7.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	8.8	7.4	8.1	---	---	---	8.8	7.4	8.2
2	---	---	---	9.0	7.3	8.1	---	---	---	8.8	7.2	8.1
3	---	---	---	9.0	7.5	8.3	8.9	7.2	8.1	8.9	7.2	8.1
4	---	---	---	9.0	7.5	8.3	9.0	7.2	8.1	8.9	7.2	8.1
5	---	---	---	9.0	7.4	8.3	8.9	7.2	7.9	9.0	7.3	8.2
6	---	---	---	9.0	7.4	8.2	7.3	7.1	7.2	9.0	7.3	8.2
7	---	---	---	8.1	7.3	7.6	8.6	7.0	7.7	9.1	7.3	8.2
8	---	---	---	8.9	7.4	8.1	9.0	7.1	8.0	9.0	7.3	8.0
9	---	---	---	8.5	7.4	8.0	9.0	7.2	8.1	8.7	7.1	7.8
10	---	---	---	8.9	7.4	8.1	9.1	7.2	8.2	8.9	7.2	8.0
11	---	---	---	8.8	7.2	7.9	9.1	7.3	8.3	8.6	7.3	7.9
12	---	---	---	8.3	7.5	7.8	9.0	7.3	8.2	8.8	7.2	8.0
13	---	---	---	8.4	7.3	7.8	9.0	7.2	8.2	8.5	7.3	7.9
14	---	---	---	8.7	7.3	7.9	9.0	7.2	8.2	8.8	7.2	7.9
15	---	---	---	8.8	7.1	7.9	9.0	7.2	8.2	8.9	7.3	8.0
16	---	---	---	8.8	7.1	7.9	---	---	---	8.6	7.2	7.8
17	---	---	---	8.8	7.2	7.9	8.9	7.2	8.1	8.2	7.2	7.5
18	---	---	---	7.3	5.6	7.0	9.0	7.2	8.1	8.8	7.2	7.9
19	---	---	---	8.0	7.1	7.4	8.9	7.2	8.1	8.6	7.2	7.9
20	9.0	7.5	8.4	8.2	7.2	7.6	9.0	7.2	8.1	8.9	7.3	8.0
21	8.9	7.4	8.2	8.0	7.2	7.5	---	---	---	8.7	7.4	7.9
22	8.5	7.4	7.8	8.6	7.1	7.8	9.1	7.1	8.2	7.8	7.3	7.5
23	8.4	7.4	7.8	8.7	7.2	7.8	9.1	7.3	8.2	8.5	7.3	7.8
24	8.8	7.4	8.1	8.7	7.2	7.9	9.1	7.3	8.3	8.6	7.4	8.0
25	9.0	7.5	8.2	8.6	7.0	7.8	9.1	7.3	8.3	8.1	7.4	7.8
26	8.8	7.5	8.1	8.4	6.6	7.5	9.1	7.4	8.4	8.2	6.8	7.6
27	8.2	7.5	7.8	8.7	7.1	8.0	9.1	7.5	8.3	8.6	7.3	7.9
28	9.0	7.5	8.2	8.8	7.2	8.0	9.1	7.4	8.2	8.7	7.4	8.0
29	8.8	7.5	8.2	---	---	---	9.1	7.4	8.4	8.7	7.5	8.1
30	8.9	7.4	8.2	---	---	---	9.1	7.5	8.3	8.8	7.5	8.1
31	---	---	---	---	---	---	9.1	7.5	8.3	---	---	---
MONTH	---	---	---	9.0	5.6	7.9	9.1	7.0	8.1	9.1	6.8	7.9

## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	15.0	15.5	14.5	13.0	13.5	4.5	4.0	4.5	3.5	2.0	3.0
2	16.0	14.5	15.5	13.0	11.5	12.0	4.5	3.5	4.0	3.5	2.0	3.0
3	15.5	14.5	15.0	13.0	11.0	12.0	4.5	4.0	4.0	2.0	2.0	2.0
4	15.0	14.0	14.5	13.5	12.0	12.5	4.5	4.0	4.5	2.5	1.5	2.0
5	14.5	13.5	14.0	13.0	12.5	12.5	6.0	4.5	5.5	1.5	.5	1.0
6	14.5	12.5	13.5	13.5	12.5	13.0	7.5	6.0	7.0	.5	.5	.5
7	15.5	13.0	14.5	13.0	11.5	12.0	7.5	7.5	7.5	1.5	.5	1.0
8	16.5	14.0	15.0	12.0	10.5	11.5	7.5	6.5	7.0	2.0	1.5	2.0
9	17.0	15.0	16.0	13.0	11.5	12.0	6.5	5.5	6.0	2.0	1.5	1.5
10	17.0	15.0	16.0	12.5	10.5	12.0	5.5	5.0	5.0	1.5	1.0	1.5
11	16.0	14.0	15.0	11.0	9.5	10.0	5.0	5.0	5.0	2.0	1.5	1.5
12	16.0	13.5	14.5	10.0	9.0	9.5	5.0	3.5	4.0	2.5	1.5	2.0
13	15.0	13.5	14.0	10.5	9.0	9.5	3.5	3.0	3.0	3.5	2.0	3.0
14	---	---	---	11.0	9.5	10.5	3.0	2.5	3.0	4.5	3.0	4.0
15	15.5	13.0	14.0	11.0	9.5	10.0	3.0	2.5	2.5	7.0	4.5	5.5
16	15.5	12.5	14.0	10.0	9.5	10.0	---	---	---	7.5	7.0	7.0
17	15.0	12.0	13.5	10.0	9.0	9.5	---	---	---	8.0	7.5	8.0
18	14.5	12.5	13.5	11.0	10.0	10.5	---	---	---	7.5	6.0	6.5
19	15.0	13.0	14.0	12.0	10.5	11.0	---	---	---	6.0	5.5	6.0
20	14.5	14.0	14.0	10.5	9.0	10.0	---	---	---	6.5	6.0	6.5
21	16.0	13.5	14.5	10.5	8.5	9.5	4.0	2.5	3.5	6.5	6.0	6.0
22	16.5	14.0	15.0	10.5	8.5	9.5	3.5	3.0	3.5	6.0	5.0	5.5
23	15.0	14.5	15.0	8.5	7.0	8.0	3.0	3.0	3.0	5.0	4.0	4.5
24	16.0	14.0	15.0	7.0	5.5	6.5	4.0	3.0	3.5	4.5	3.5	4.0
25	15.0	13.5	14.0	6.5	5.5	5.5	5.0	4.0	4.5	3.5	3.0	3.5
26	13.5	12.0	12.5	6.0	4.5	5.0	---	---	---	3.5	3.0	3.5
27	12.5	11.0	12.0	4.5	4.0	4.0	---	---	---	3.0	2.5	3.0
28	13.0	10.5	11.5	6.0	4.0	5.0	---	---	---	3.0	2.5	2.5
29	13.0	10.5	11.5	5.5	5.0	5.5	---	---	---	2.5	1.5	2.0
30	13.5	11.0	12.0	5.5	4.5	5.0	3.0	2.0	2.5	2.0	1.5	1.5
31	13.5	11.5	12.5	---	---	---	2.5	1.5	2.0	2.0	1.0	1.5
MONTH	17.0	10.5	14.0	14.5	4.0	9.5	---	---	---	8.0	.5	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	1.5	2.0	4.0	3.0	3.5	11.0	9.0	10.0	16.0	14.5	15.5
2	3.0	2.0	2.5	4.5	3.5	4.0	10.5	9.5	10.0	15.5	13.5	14.5
3	2.5	1.5	2.0	5.0	3.5	4.0	11.0	8.5	9.5	15.5	13.0	14.5
4	2.0	.5	1.0	4.5	4.0	4.5	11.0	9.0	10.0	16.5	14.5	15.5
5	.5	.0	.5	5.5	3.5	4.5	9.5	7.5	8.5	16.5	15.0	15.5
6	.0	.0	.0	6.0	5.0	5.5	10.5	8.0	9.0	17.0	14.5	15.5
7	.5	.0	.0	7.0	5.5	6.0	12.0	9.5	10.5	17.5	14.5	16.0
8	.5	.0	.0	9.0	7.0	8.0	10.5	9.5	10.0	18.0	14.5	16.0
9	.5	.0	.0	---	---	---	12.0	9.5	10.5	18.5	15.0	16.5
10	---	---	---	5.0	2.5	3.5	11.5	10.0	10.5	---	---	---
11	2.5	.5	1.5	3.5	2.5	3.0	11.0	9.5	10.0	16.5	15.0	15.5
12	1.5	.0	1.0	5.0	3.0	4.0	11.0	10.0	10.5	17.5	15.5	16.5
13	.5	.0	.5	6.5	4.5	5.5	11.0	10.5	11.0	19.0	15.5	17.5
14	---	---	---	8.0	6.0	7.0	11.0	10.0	10.5	17.5	16.0	17.0
15	1.0	.0	.5	9.5	7.5	8.5	11.0	9.5	10.5	18.5	16.0	17.0
16	2.5	1.0	2.0	10.0	8.5	9.5	11.5	9.5	10.5	20.5	16.5	18.5
17	4.0	2.5	3.0	10.5	9.5	10.0	12.0	10.0	11.0	---	---	---
18	4.0	3.0	3.0	10.5	9.0	10.0	13.0	11.0	12.0	20.5	18.0	19.0
19	4.0	2.5	3.0	10.0	9.0	9.5	14.5	12.5	13.5	19.5	17.5	18.5
20	4.5	2.5	3.5	10.0	8.5	9.0	15.5	14.0	14.5	20.5	16.5	18.5
21	4.0	3.5	3.5	10.0	9.0	9.5	15.0	14.5	14.5	21.5	18.5	20.0
22	4.5	2.5	3.5	9.5	8.5	9.0	16.0	14.0	15.0	22.5	19.0	20.5
23	4.5	3.5	4.0	9.0	8.5	8.5	15.5	14.0	15.0	23.0	19.0	21.0
24	5.5	4.0	4.5	8.5	7.5	8.0	16.0	14.0	15.0	24.5	19.5	22.0
25	4.5	3.0	3.5	8.5	7.0	7.5	16.5	14.0	15.0	24.0	22.0	23.0
26	4.0	3.0	3.5	9.0	7.0	8.0	17.5	15.0	16.0	22.0	20.5	21.5
27	3.0	2.5	3.0	9.5	7.5	8.5	18.0	15.0	16.5	23.5	19.5	21.0
28	3.5	2.5	3.0	10.5	8.5	9.5	19.0	16.5	17.5	21.5	20.0	21.0
29	---	---	---	11.0	9.0	10.0	19.0	16.5	17.5	21.5	19.5	20.0
30	---	---	---	10.5	9.5	10.0	17.0	15.0	16.0	21.0	19.5	20.5
31	---	---	---	10.5	9.0	10.0	---	---	---	23.5	19.0	21.0
MONTH	5.5	.0	2.0	11.0	2.5	7.5	19.0	7.5	12.5	24.5	13.0	18.0



## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.5	21.0	22.5	26.0	23.5	25.0	---	---	---	27.5	25.0	26.0
2	23.5	21.0	22.0	26.5	24.5	25.5	---	---	---	27.0	24.5	25.5
3	24.0	21.5	22.5	27.0	23.5	25.0	31.5	29.0	30.5	26.5	23.5	25.0
4	24.5	22.0	23.0	26.5	24.0	25.0	32.0	29.0	30.5	26.5	23.0	24.5
5	25.0	22.0	23.5	27.0	24.0	25.5	32.0	29.0	30.5	26.5	23.0	24.5
6	24.0	22.0	23.0	27.0	25.0	25.5	30.0	27.0	28.5	26.5	23.5	25.0
7	26.0	22.5	24.0	25.5	24.0	24.5	27.5	26.0	27.0	27.0	24.0	25.5
8	---	---	---	27.0	24.0	25.0	28.0	24.5	26.0	26.0	24.0	25.0
9	---	---	---	25.5	23.0	24.0	27.5	24.5	26.0	25.5	23.5	24.5
10	---	---	---	25.0	22.0	23.5	27.5	24.5	26.0	25.0	22.5	23.5
11	---	---	---	26.0	22.5	24.0	29.0	25.0	27.0	24.0	20.5	22.5
12	---	---	---	25.5	24.0	24.5	29.5	26.0	28.0	23.5	20.5	22.0
13	---	---	---	26.5	24.0	25.5	30.0	26.5	28.5	23.0	21.5	22.5
14	---	---	---	29.0	25.5	27.0	30.0	27.0	28.5	24.5	22.0	23.5
15	---	---	---	31.5	27.5	29.5	29.5	27.0	28.0	24.5	21.0	23.0
16	---	---	---	30.5	28.5	29.5	---	---	---	23.0	20.5	21.5
17	---	---	---	30.0	28.0	29.0	30.5	28.5	29.5	20.5	19.5	20.0
18	---	---	---	28.0	26.0	27.0	30.5	27.5	29.0	23.0	19.0	21.0
19	---	---	---	28.5	26.0	27.5	29.5	27.0	28.0	21.5	19.5	20.5
20	29.0	25.5	27.5	28.5	26.0	27.5	29.0	25.5	27.0	22.5	19.5	21.0
21	28.0	25.5	26.5	27.5	26.5	27.0	---	---	---	22.5	20.5	21.5
22	25.5	24.0	24.5	28.5	26.0	27.5	28.5	26.0	27.5	22.0	20.5	21.5
23	24.0	23.0	23.0	29.0	27.0	28.0	28.0	24.5	26.0	20.5	18.5	19.5
24	24.5	22.5	23.5	29.5	27.0	28.5	27.5	24.5	26.0	19.5	17.0	18.5
25	27.0	23.5	25.0	30.5	27.0	29.0	27.5	24.0	25.5	18.5	18.0	18.0
26	26.5	25.0	26.0	31.0	28.5	29.5	27.0	24.0	25.5	18.5	17.5	18.0
27	25.5	22.5	24.0	31.0	28.5	30.0	27.5	24.5	26.0	20.0	17.0	18.5
28	25.0	21.5	23.0	31.0	28.5	30.0	26.5	25.0	25.5	21.0	17.5	19.5
29	26.0	22.5	24.0	---	---	---	27.0	23.5	25.0	20.5	17.5	19.0
30	26.0	23.5	24.5	---	---	---	27.5	24.0	25.5	20.5	17.0	18.5
31	---	---	---	---	---	---	27.5	24.0	26.0	---	---	---
MONTH	---	---	---	31.5	22.0	26.5	32.0	23.5	27.5	27.5	17.0	22.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.6	9.2	9.4	10.9	9.4	10.1	12.6	12.3	12.4	13.7	13.0	13.3
2	10.0	9.3	9.6	11.1	9.4	10.1	12.5	12.3	12.4	13.5	12.9	13.2
3	10.3	9.4	9.8	11.3	9.8	10.4	12.7	12.3	12.5	---	---	---
4	10.6	9.7	10.0	10.2	9.4	9.8	12.8	12.4	12.5	---	---	---
5	10.5	9.6	10.0	10.6	9.4	9.9	12.5	11.7	12.1	---	---	---
6	11.0	9.9	10.3	10.3	9.4	9.8	11.7	11.3	11.5	---	---	---
7	11.2	9.9	10.4	11.1	9.4	10.1	11.4	11.3	11.3	12.8	12.3	12.4
8	11.3	9.8	10.4	11.4	9.8	10.4	11.7	11.3	11.5	12.5	12.2	12.3
9	10.9	9.6	10.1	11.2	9.7	10.2	12.3	11.7	12.0	13.0	12.3	12.6
10	11.0	9.4	10.0	11.2	9.4	10.1	12.8	12.3	12.6	13.1	12.6	12.8
11	11.1	9.7	10.3	11.8	9.9	10.7	12.7	12.5	12.6	12.9	12.6	12.7
12	11.4	9.9	10.5	12.1	10.3	11.1	13.2	12.6	12.9	12.9	12.5	12.7
13	11.5	10.0	10.6	12.3	10.5	11.1	13.4	12.9	13.2	13.1	12.4	12.7
14	---	---	---	13.2	10.4	11.5	13.7	13.3	13.5	13.0	12.3	12.6
15	11.6	9.9	10.6	13.0	10.8	11.6	13.7	13.4	13.5	12.3	11.7	12.1
16	11.8	10.0	10.7	11.4	10.4	10.9	13.6	12.9	13.3	12.5	11.9	12.3
17	12.0	10.1	10.9	12.5	10.2	11.2	12.9	12.4	12.7	---	---	---
18	11.8	10.1	10.8	12.0	10.5	11.0	12.8	12.4	12.5	---	---	---
19	11.7	9.7	10.4	14.1	10.1	11.6	13.1	12.5	12.7	---	---	---
20	10.6	9.3	9.9	13.3	10.7	11.7	13.2	12.4	12.8	---	---	---
21	11.4	9.1	10.0	12.4	10.1	11.1	13.5	12.6	13.1	---	---	---
22	11.4	9.2	10.1	12.6	10.1	11.2	14.7	12.6	13.2	---	---	---
23	10.2	8.9	9.5	11.9	10.8	11.3	13.4	12.6	12.9	---	---	---
24	11.2	8.7	9.7	12.8	11.1	11.8	13.3	12.3	12.7	---	---	---
25	11.1	9.2	10.0	13.2	11.8	12.3	13.2	12.1	12.6	---	---	---
26	11.1	9.6	10.2	14.0	12.1	12.9	13.4	12.3	12.9	---	---	---
27	11.8	9.8	10.6	14.0	12.6	13.1	13.6	12.4	12.9	---	---	---
28	12.2	9.9	10.9	12.7	11.7	12.0	13.9	12.7	13.1	---	---	---
29	12.3	10.1	11.0	12.0	11.5	11.8	13.3	12.3	12.8	---	---	---
30	12.2	10.0	10.9	13.2	12.0	12.5	13.3	12.3	12.7	---	---	---
31	12.3	9.9	10.8	---	---	---	13.5	12.8	13.1	---	---	---
MONTH	12.3	8.7	10.3	14.1	9.4	11.1	14.7	11.3	12.7	---	---	---



## 01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	13.4	13.0	13.2	14.2	11.5	12.7	11.2	8.6	9.8
2	---	---	---	14.3	13.0	13.5	14.4	11.4	12.8	10.7	9.0	9.7
3	---	---	---	14.8	13.3	13.9	15.1	11.8	13.3	11.5	9.3	10.3
4	---	---	---	13.8	13.1	13.4	14.0	11.5	12.7	11.4	9.3	10.3
5	---	---	---	15.3	13.0	14.0	14.8	11.3	12.9	11.0	9.1	10.0
6	---	---	---	15.2	13.1	14.0	15.8	12.3	13.9	11.5	9.1	10.2
7	---	---	---	14.8	12.8	13.7	15.7	12.1	13.8	11.6	9.1	10.3
8	---	---	---	13.7	11.4	12.5	14.9	11.9	13.1	11.6	9.0	10.2
9	---	---	---	---	---	---	15.2	11.1	12.9	11.4	8.8	9.9
10	---	---	---	13.5	12.1	12.8	15.0	11.4	13.2	---	---	---
11	---	---	---	13.5	13.3	13.5	15.5	11.7	13.4	10.4	8.3	9.2
12	---	---	---	13.3	12.9	13.2	13.6	11.5	12.4	10.6	8.5	9.5
13	---	---	---	12.9	12.5	12.7	11.9	10.7	11.1	10.8	8.5	9.6
14	---	---	---	12.5	12.0	12.3	12.5	10.6	11.5	9.9	8.4	9.2
15	---	---	---	12.0	11.6	11.8	12.6	10.9	11.7	10.4	8.4	9.4
16	---	---	---	11.8	11.3	11.5	13.2	11.1	12.1	10.8	8.3	9.5
17	---	---	---	11.6	11.0	11.3	13.5	11.1	12.2	---	---	---
18	14.5	13.4	13.9	11.7	11.0	11.3	13.4	11.0	12.1	9.8	7.7	8.7
19	14.6	13.6	14.1	11.8	11.0	11.4	13.0	10.6	11.4	9.4	7.8	8.4
20	14.6	13.5	14.0	12.2	11.2	11.6	13.2	10.1	11.5	10.8	8.2	9.4
21	13.9	13.1	13.4	11.8	11.1	11.4	11.0	9.9	10.5	10.8	8.1	9.4
22	14.7	13.0	13.8	11.8	10.9	11.4	12.0	9.5	10.7	11.0	8.0	9.4
23	14.2	13.1	13.6	11.9	11.1	11.5	12.9	9.8	11.2	11.1	8.0	9.5
24	14.1	12.8	13.4	12.5	11.4	11.9	12.8	9.9	11.1	11.3	7.8	9.4
25	14.7	13.1	13.8	12.8	11.7	12.2	13.2	10.0	11.5	10.3	7.4	8.8
26	14.7	13.2	13.9	13.0	11.7	12.3	13.1	9.9	11.4	10.1	7.2	8.5
27	14.3	13.6	13.9	13.3	11.7	12.4	12.9	9.9	11.3	11.2	7.5	9.2
28	13.6	13.2	13.4	13.3	11.5	12.3	12.3	9.4	10.7	10.5	7.7	9.0
29	---	---	---	13.5	11.3	12.3	12.1	8.9	10.3	10.2	7.7	8.7
30	---	---	---	12.6	11.1	11.6	9.8	8.8	9.3	9.7	7.5	8.6
31	---	---	---	13.7	11.0	12.2	---	---	---	11.1	7.8	9.3
MONTH	---	---	---	15.3	10.9	12.4	15.8	8.8	12.0	11.6	7.2	9.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	11.5	7.6	9.3	10.6	6.3	8.4	---	---	---	11.4	5.3	8.6
2	10.5	7.5	8.8	10.9	5.9	8.2	---	---	---	11.0	5.1	8.0
3	10.2	7.2	8.3	11.3	6.3	8.7	---	---	---	11.4	5.5	8.2
4	10.7	7.0	8.7	11.1	6.4	8.6	---	---	---	11.5	5.7	8.5
5	11.3	7.2	9.1	11.0	6.1	8.4	---	---	---	12.0	5.5	8.5
6	10.6	7.2	8.8	10.7	6.0	8.2	---	---	---	11.3	5.5	8.2
7	11.3	7.0	8.9	7.4	5.9	6.8	---	---	---	11.8	5.2	8.2
8	11.3	6.8	9.0	9.8	5.8	7.7	---	---	---	11.1	5.0	7.4
9	11.8	6.7	9.2	8.9	6.0	7.5	---	---	---	10.4	4.0	7.0
10	9.4	6.6	7.9	10.2	6.2	8.0	---	---	---	11.0	4.9	7.8
11	11.6	6.6	8.9	9.4	6.4	7.8	---	---	---	---	---	---
12	---	---	---	8.7	6.6	7.6	---	---	---	---	---	---
13	10.8	6.9	8.6	8.9	6.0	7.4	---	---	---	---	---	---
14	11.3	7.3	9.0	10.7	5.7	7.9	---	---	---	---	---	---
15	11.6	7.3	9.4	10.7	5.6	8.0	---	---	---	---	---	---
16	11.7	7.4	9.5	10.3	5.2	7.5	---	---	---	---	---	---
17	12.1	7.3	9.6	10.2	5.4	7.6	---	---	---	---	---	---
18	13.3	7.0	9.7	7.4	5.4	6.2	---	---	---	---	---	---
19	11.7	6.9	9.3	8.2	5.3	6.5	---	---	---	---	---	---
20	11.5	6.3	8.9	8.9	5.5	7.1	---	---	---	---	---	---
21	10.4	5.9	8.1	8.3	5.8	6.8	---	---	---	---	---	---
22	9.4	6.0	7.5	9.6	5.8	7.7	11.8	5.1	8.3	---	---	---
23	9.7	6.3	7.9	9.7	5.7	7.4	12.4	5.3	8.7	---	---	---
24	10.7	6.5	8.6	10.0	5.7	7.6	11.8	5.5	8.7	---	---	---
25	11.5	6.4	8.7	10.5	5.3	7.8	12.5	5.6	8.8	---	---	---
26	10.1	6.2	8.1	10.5	5.3	7.7	12.6	5.8	9.0	---	---	---
27	8.7	5.9	7.3	10.6	5.6	7.9	12.5	5.6	8.7	---	---	---
28	11.1	6.4	8.7	10.2	5.3	7.6	12.5	5.2	8.5	---	---	---
29	11.3	6.6	8.9	---	---	---	13.0	5.9	9.1	---	---	---
30	11.1	6.6	8.9	---	---	---	12.2	5.8	8.8	---	---	---
31	---	---	---	---	---	---	12.2	5.5	8.7	---	---	---
MONTH	13.3	5.9	8.7	11.3	5.2	7.7	---	---	---	---	---	---

## 01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 250 ft upstream from bridge on Quaker Bridge Road, 0.7 downstream of dam at Lake Mercer, 1.9 mi south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements water years 1963-67. October 1972 to September 1981, March 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Regulation from flood-control dams and ponds upstream. Diversions for irrigation upstream of station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971, reached a stage of 10.9 ft, discharge, 1,500 ft<sup>3</sup>/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 10	0145	*140	*5.22	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	61	33	32	68	22	20	21	7.7	9.1	1.6
2	19	12	50	33	31	73	22	22	21	6.8	8.0	1.4
3	19	12	44	34	30	64	22	e23	21	5.3	7.2	1.3
4	18	12	39	33	35	55	21	25	21	4.4	6.0	1.1
5	17	12	44	32	34	48	20	25	20	3.9	9.0	1.1
6	16	12	52	31	34	43	20	24	18	3.6	17	1.0
7	16	12	50	65	34	41	20	23	17	3.6	24	1.1
8	15	12	46	95	34	42	20	19	16	4.0	28	1.7
9	15	12	43	96	34	116	20	18	13	3.4	29	2.0
10	15	14	41	e82	31	134	23	19	12	3.2	28	1.7
11	14	14	55	e67	28	108	22	20	11	5.6	26	1.5
12	13	14	59	57	27	82	22	20	10	6.1	22	1.5
13	13	14	57	51	27	66	36	19	11	5.4	19	1.4
14	12	14	51	47	26	57	41	18	11	4.6	16	1.9
15	12	14	45	46	25	48	40	19	12	4.0	15	1.9
16	12	14	41	46	28	45	36	19	12	4.0	13	1.9
17	12	14	39	45	33	42	33	19	10	3.7	12	7.4
18	12	15	39	44	40	38	30	19	9.1	6.5	9.7	11
19	12	15	37	43	43	35	28	18	8.4	7.6	6.9	10
20	12	15	35	57	44	33	26	18	7.8	8.0	5.7	9.6
21	12	17	34	95	45	32	24	19	7.1	8.5	4.6	8.9
22	12	20	33	98	45	33	22	18	5.6	8.6	3.7	9.6
23	12	19	32	85	43	33	21	17	5.5	8.4	3.0	14
24	12	18	34	70	42	31	20	15	6.8	9.2	2.5	13
25	12	20	40	57	41	29	19	15	7.7	8.8	2.3	12
26	12	20	41	48	40	27	18	14	8.4	7.9	1.7	22
27	12	20	42	44	37	26	17	13	9.2	6.0	1.5	33
28	12	45	41	41	49	24	16	13	8.3	11	3.2	29
29	11	65	38	38	---	23	16	13	8.2	12	2.7	23
30	11	66	35	35	---	23	15	20	8.4	11	2.3	19
31	11	---	34	33	---	23	---	20	---	9.8	1.9	---
TOTAL	423	575	1332	1681	992	1542	712	584	357.5	202.6	340.0	245.6
MEAN	13.6	19.2	43.0	54.2	35.4	49.7	23.7	18.8	11.9	6.54	11.0	8.19
MAX	20	66	61	98	49	134	41	25	21	12	29	33
MIN	11	12	32	31	25	23	15	13	5.5	3.2	1.5	1.0

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1995, BY WATER YEAR (WY)

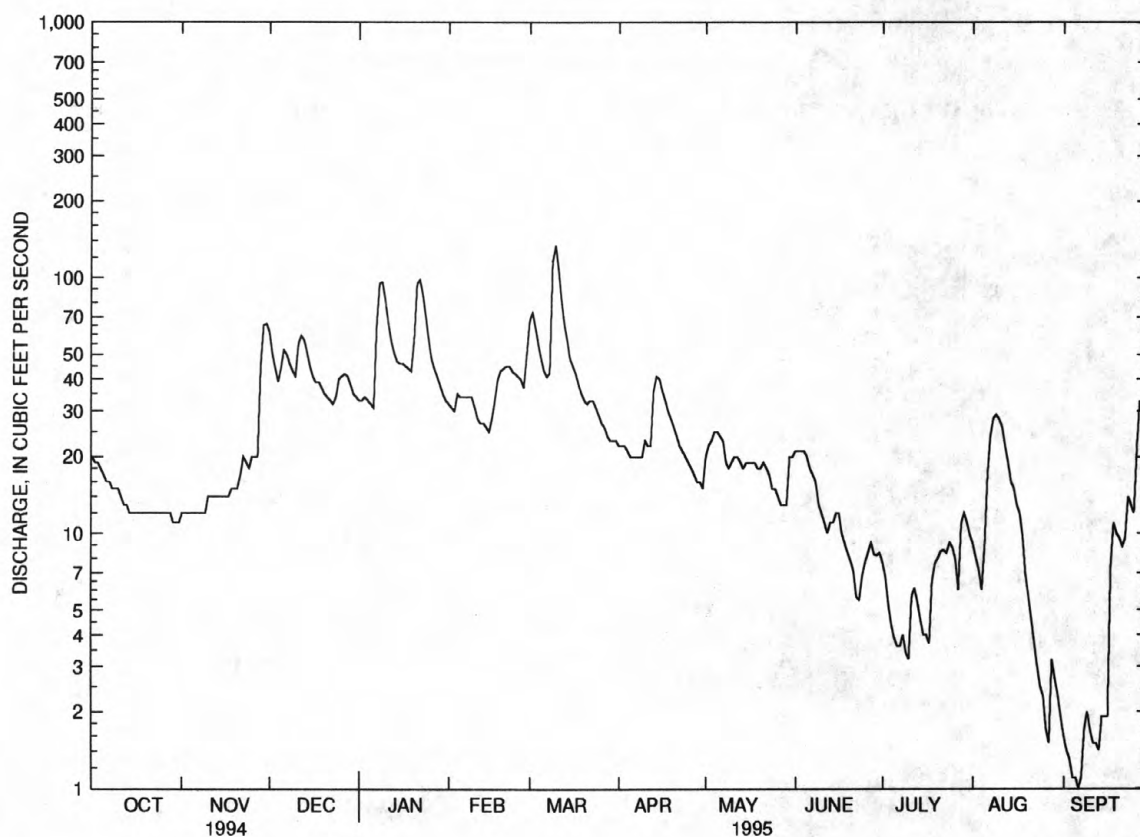
	MEAN	36.3	43.0	74.1	79.4	69.8	85.9	64.5	44.4	37.5	31.8	30.0	31.3
MAX	87.1	112	142	151	136	204	115	72.2	76.2	142	77.4	96.9	
(WY)	1976	1973	1993	1979	1994	1994	1973	1979	1975	1975	1994	1975	
MIN	11.4	19.2	20.9	12.9	30.7	33.8	23.7	16.0	11.9	6.54	11.0	8.08	
(WY)	1993	1995	1981	1981	1980	1981	1995	1992	1995	1995	1995	1992	

## DELAWARE RIVER BASIN

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1973 - 1995	
ANNUAL TOTAL	24549.1		8986.7			
ANNUAL MEAN	67.3		24.6		51.9	
HIGHEST ANNUAL MEAN					74.7	
LOWEST ANNUAL MEAN					24.6	
HIGHEST DAILY MEAN	582	Jan 29	134	Mar 10	832	Feb 26 1979
LOWEST DAILY MEAN	8.5	Jul 13	1.0	Sep 6	1.0	Sep 6 1995
ANNUAL SEVEN-DAY MINIMUM	11	Jul 10	1.2	Sep 1	1.2	Sep 1 1995
INSTANTANEOUS PEAK FLOW			140	Mar 10	1050	Jul 21 1975
INSTANTANEOUS PEAK STAGE			5.22	Mar 10	9.36	Jul 21 1975
INSTANTANEOUS LOW FLOW			1.0	Sep 6	1.0	Sep 6 1995
10 PERCENT EXCEEDS	176		48		104	
50 PERCENT EXCEEDS	39		19		36	
90 PERCENT EXCEEDS	13		4.5		13	

e Estimated.



01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ, DAILY MEAN DISCHARGE

## 01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 250 ft upstream from bridge on Quaker Bridge Road, 1.9 south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1963, 1965, 1967, 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CAC03)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
02...	1100	12	117	6.8	13.0	752	8.6	83	3.2	170	30	35	
JAN 1995													
19...	1000	43	136	7.6	6.0	766	12.4	99	22.1	70	10	36	
APR													
03...	1030	22	139	6.9	9.5	763	11.5	101	2.4	<20	<10	36	
MAY													
18...	1300	19	136	7.0	18.5	753	8.7	94	2.5	<20	<10	38	
JUL													
24...	1000	9.5	141	7.0	26.5	759	6.8	85	3.5	120	150	40	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS CAC03	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
02...	7.7	3.9	6.5	2.5	13	16	13	<0.1	6.2	88	66	3	
JAN 1995													
19...	8.0	3.8	7.1	2.9	8.7	18	15	<0.1	5.5	80	70	7	
APR													
03...	7.9	3.9	7.8	2.3	7.6	19	16	0.1	4.6	76	71	6	
MAY													
18...	8.3	4.3	8.0	2.3	12	19	16	<0.1	2.5	80	71	9	
JUL													
24...	8.8	4.3	7.6	2.3	20	14	15	0.1	2.7	78	68	12	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
02...	0.009	0.43	0.10	0.07	0.50	0.33	0.93	0.76	0.03	<0.01	3.8	1.0	
JAN 1995													
19...	0.006	0.95	0.05	0.05	0.40	0.37	1.3	1.3	0.03	<0.01	3.2	1.0	
APR													
03...	0.009	1.10	<0.03	<0.03	0.30	0.23	1.4	1.3	0.03	<0.01	2.6	0.9	
MAY													
18...	0.011	0.67	0.08	0.10	0.40	0.25	1.1	0.92	0.02	<0.01	4.0	1.2	
JUL													
24...	0.007	0.25	0.09	0.10	0.90	0.44	1.2	0.69	0.07	<0.01	4.7	1.6	

## DELAWARE RIVER BASIN

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 02...	1100	12	<1	<10	20	<1	<1	<1
MAY 1995 18...	1300	13	1	<10	<10	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 02...	400	<1	80	<0.1	2	<1	<10
MAY 1995 18...	600	<1	120	<0.1	2	<1	<10



MEAN	77.3	113	145	163	184	210	179	129	96.1	99.4	91.4	89.3
MAX	257	331	386	498	395	554	494	340	267	545	355	327
(WY)	1928	1973	1984	1979	1939	1994	1983	1989	1989	1975	1971	1938
MIN	19.1	27.6	42.1	44.2	52.0	76.7	65.2	40.0	25.9	17.2	17.3	15.8
(WY)	1931	1932	1944	1981	1934	1985	1963	1941	1942	1955	1966	1943

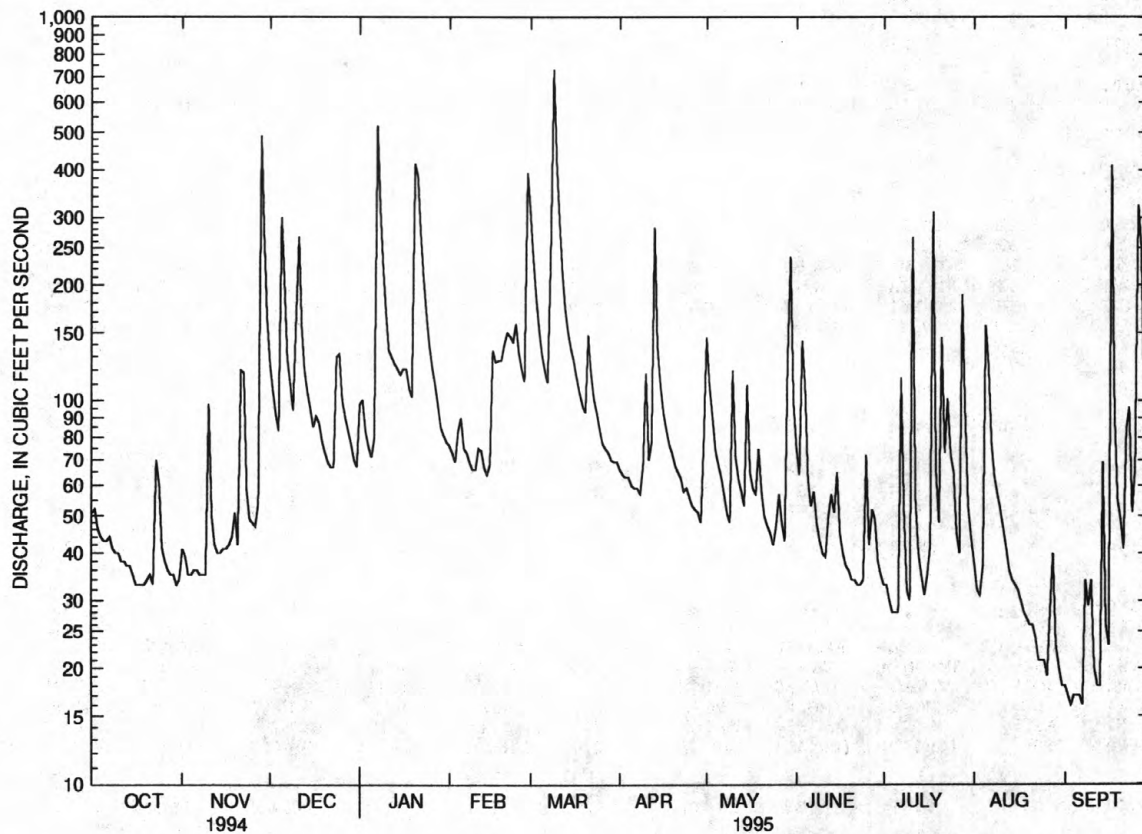
## DELAWARE RIVER BASIN

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1924 - 1995	
ANNUAL TOTAL	70963		32153			
ANNUAL MEAN	194		88.1		131	
HIGHEST ANNUAL MEAN					233	1984
LOWEST ANNUAL MEAN					69.2	1931
HIGHEST DAILY MEAN	1910	Jan 28	731	Mar 9	4050	Jul 21 1975
LOWEST DAILY MEAN	32	Jul 13	16	Sep 3	4.0	Jul 21 1929
ANNUAL SEVEN-DAY MINIMUM	33	Oct 16	17	Sep 1	9.6	Aug 25 1944
INSTANTANEOUS PEAK FLOW			1260	Mar 9	5450	Jul 21 1975
INSTANTANEOUS PEAK STAGE			6.70	Mar 9	14.61a	Jul 21 1975
INSTANTANEOUS LOW FLOW			12	Many days	1.0	Aug 21 1931
10 PERCENT EXCEEDS	463		155		269	
50 PERCENT EXCEEDS	109		65		86	
90 PERCENT EXCEEDS	40		32		33	

a From high-water mark in gage house.

† Inflow from outside basin, equivalent in cubic feet per second, 2.4 mi upstream of station through plant of Ewing-Lawrence Sewerage Authority.



01464000 ASSUNPINK CREEK AT TRENTON, NJ, DAILY MEAN DISCHARGE

## 01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-75, 1977-80, 1991 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1994													
02...	1400	42	417	7.4	14.0	755	9.2	90	3.5	16000	2500	99	
JAN 1995													
19...	1330	105	263	7.7	8.0	764	10.6	89	2.7	130	350	67	
APR													
03...	1330	67	329	7.6	10.5	763	12.8	115	2.4	3500	60	79	
MAY													
18...	1000	56	339	7.4	17.5	754	8.1	86	E1.5	5400	600	93	
AUG													
17...	1130	31	471	7.7	24.5	759	6.9	83	E1.6	5400	200	120	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
02...	23	10	36	5.7	58	45	48	0.3	9.0	230	232	5	
JAN 1995													
19...	16	6.5	18	3.6	32	26	29	0.2	8.4	142	139	4	
APR													
03...	20	7.1	23	3.5	40	28	37	0.2	6.8	176	166	4	
MAY													
18...	21	9.8	26	4.3	49	32	36	0.3	6.9	200	186	7	
AUG													
17...	25	14	39	6.2	77	42	54	0.4	7.8	272	260	4	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
02...	0.014	4.60	0.37	0.28	0.70	0.91	5.3	5.5	0.83	0.70	4.5	0.4	
JAN 1995													
19...	0.013	2.80	0.04	0.06	0.50	0.53	3.3	3.3	0.27	0.18	3.8	0.8	
APR													
03...	0.022	3.60	0.06	0.04	0.60	0.51	4.2	4.1	0.47	0.40	3.3	0.8	
MAY													
18...	0.043	4.50	0.12	0.15	0.50	0.46	5.0	5.0	0.26	0.26	4.1	1.3	
AUG													
17...	0.029	5.70	0.06	0.05	0.60	0.62	6.3	6.3	0.95	0.94	4.1	0.4	

01464000 ASSUNPINK CREEK AT TRENTON, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH	OXYGEN	NITRO-	NITRO-	PHOS-		ARSENIC	BERYL-	BORON,	CADMIUM	
		SED	DEMAND,	GEN, NH4	GEN, NH4	PHORUS		TOTAL	LIUM,	TOTAL		
			CHEM-	TOTAL	+ ORG.	TOTAL		IN BOT.	TOTAL	RECOV-	RECOV-	RECOV-
		BED MAT	ICAL	IN BOT.	TOT IN	IN BOT.	ARSENIC	TOM MA-	ERABLE	ERABLE	ERABLE	
		(HIGH	(MG/L	(MG/KG	(MG/KG	(MG/KG	(UG/L	(UG/G	(UG/L	(UG/L	(UG/L	
		(STD	LEVEL)	(MG/KG	(MG/KG	(MG/KG	(UG/L	(UG/G	(UG/L	(UG/L	(UG/L	
		UNITS)	(MG/L	AS N)	AS N)	AS P)	AS AS)	AS AS)	AS BE)	AS B)	AS CD)	
		(70310)	(00340)	(00611)	(00626)	(00668)	(01002)	(01003)	(01012)	(01022)	(01027)	
NOV 1994												
02...	1400	7.2	--	1.8	100	270	--	4	--	--	--	
02...	1400	--	13	--	--	--	<1	--	<10	130	<1	
MAY 1995												
18...	1000	--	13	--	--	--	2	--	<10	180	<1	

DATE	CADMIUM	CHRO-	CHRO-	COBALT,		COPPER,		IRON,		LEAD,		MANGA-
	RECOV.	MIUM,	MIUM,	RECOV.		RECOV.		RECOV.		RECOV.		NESE,
	FM BOT-	TOTAL	RECOV.	FM BOT-		TOTAL		FM BOT-		TOTAL		FM BOT-
	TOM MA-	RECOV-	FM BOT-	TOM MA-		RECOV-		TOM MA-		RECOV-		TOM MA-
	TERIAL	ERABLE	TOM MA-	TERIAL		ERABLE		TERIAL		ERABLE		TERIAL
	(UG/G	(UG/L	TERIAL	(UG/G		(UG/L		(UG/G		(UG/L		(UG/L
	AS CD)	AS CR)	(UG/G)	AS CO)		AS CU)		AS FE)		AS PB)		AS MN)
	(01028)	(01034)	(01029)	(01038)		(01042)		(01045)		(01051)		(01055)
NOV 1994												
02...	<1	--	20	<5	--	100	--	17000	--	710	--	
02...	--	1	--	--	7	--	390	--	1	--	--	80
MAY 1995												
18...	--	1	--	--	5	--	720	--	3	--	--	140

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI) (01068)	SELE- NIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS SE) (01147)	SELE- NIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
	NOV 1994										
	02...	330	--	0.08	--	10	--	<1	--	220	0.4
	02...	--	<0.1	--	7	--	<1	--	30	--	--
	MAY 1995										
18...	--	<0.1	--	6	--	<1	--	30	--	--	

[illegible][illegible]



## 01464500 CROSSWICKS CREEK AT EXTENVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge in Extontville, 0.5 mi upstream from Pleasant Run, and 0.7 mi downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--81.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

REVISED RECORDS.--WDR NJ-79-2: 1971(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 24.94 ft above sea level.

REMARKS.--Records fair. Flow regulated occasionally by lakes above station. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 30	2330	*606	*6.33	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	41	109	86	73	223	58	102	114	29	21	13
2	48	67	84	114	74	160	55	90	75	40	20	13
3	44	52	75	87	69	124	55	107	65	36	18	11
4	38	45	71	76	77	104	55	82	87	34	18	12
5	36	45	103	79	110	95	53	73	74	33	66	12
6	34	43	164	76	135	87	51	67	57	30	83	12
7	33	44	109	315	99	81	51	58	52	30	74	12
8	33	40	87	334	79	85	51	50	47	67	48	12
9	34	39	76	168	79	373	56	45	44	42	37	12
10	34	60	79	126	77	277	75	63	38	31	29	14
11	30	90	222	101	77	166	69	88	37	63	29	13
12	29	60	183	99	83	130	60	73	39	75	26	12
13	29	53	125	98	101	105	188	66	43	47	24	12
14	31	49	100	92	83	94	181	59	46	36	22	16
15	30	48	87	88	74	85	119	62	54	29	21	18
16	29	54	80	89	114	81	84	63	44	26	20	15
17	29	76	79	109	157	78	74	58	35	25	20	44
18	28	62	86	96	129	75	67	57	31	106	20	68
19	28	66	80	86	114	71	63	67	29	88	18	33
20	28	63	74	164	112	67	61	70	27	51	16	24
21	30	68	70	375	110	76	59	56	27	99	16	20
22	30	167	68	208	101	95	60	44	28	105	16	23
23	34	107	68	160	91	77	56	40	29	57	16	93
24	59	73	84	127	105	72	56	40	31	45	14	56
25	52	64	152	104	108	68	59	36	37	37	13	34
26	44	59	101	92	88	65	53	55	36	32	13	57
27	40	56	81	85	83	62	50	61	32	34	14	75
28	38	216	76	81	141	60	47	45	33	38	15	50
29	35	264	73	76	---	59	42	60	30	41	14	34
30	36	157	67	73	---	58	45	453	26	30	15	28
31	37	---	62	73	---	60	---	329	---	24	13	---
TOTAL	1108	2328	2975	3937	2743	3313	2053	2629	1347	1460	789	848
MEAN	35.7	77.6	96.0	127	98.0	107	68.4	84.8	44.9	47.1	25.5	28.3
MAX	59	264	222	375	157	373	188	453	114	106	83	93
MIN	28	39	62	73	69	58	42	36	26	24	13	11
CFSM	.44	.95	1.18	1.56	1.20	1.31	.84	1.04	.55	.58	.31	.35
IN.	.51	1.06	1.36	1.80	1.25	1.51	.94	1.20	.61	.67	.36	.39

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

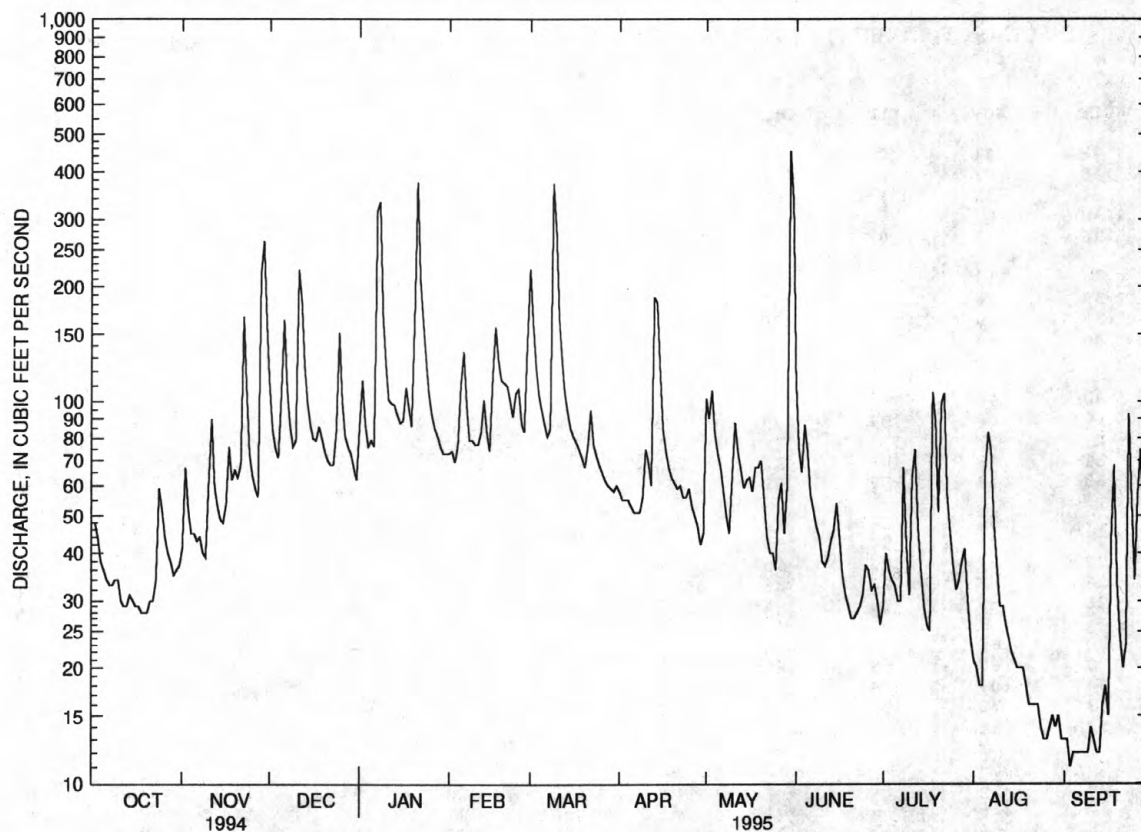
	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
MEAN	88.1	128	159	172	179	201	172	131	96.1	100	94.1	89.0
MAX	207	406	356	452	416	476	388	319	251	390	299	284
(WY)	1972	1973	1973	1978	1979	1994	1983	1984	1968	1989	1971	1971
MIN	32.9	36.7	46.2	62.1	82.9	86.1	68.3	60.8	39.8	25.8	25.4	28.3
(WY)	1966	1966	1966	1981	1992	1985	1985	1955	1965	1955	1966	1995



## DELAWARE RIVER BASIN

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1940 - 1995	
ANNUAL TOTAL	60115		25530		134	
ANNUAL MEAN	165		69.9		225	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					1995	
HIGHEST DAILY MEAN	2340	Jan 29	453	May 30	3930	Aug 28 1971
LOWEST DAILY MEAN	25	Jul 13	11	Sep 3	11	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	28	Jul 8	12	Sep 3	12	Sep 3 1995
INSTANTANEOUS PEAK FLOW			606		4860	
INSTANTANEOUS PEAK STAGE			6.33		14.18	
INSTANTANEOUS LOW FLOW			10		10	
ANNUAL RUNOFF (CFSM)	2.02		.86		1.64	
ANNUAL RUNOFF (INCHES)	27.44		11.65		22.31	
10 PERCENT EXCEEDS	308		114		250	
50 PERCENT EXCEEDS	89		60		93	
90 PERCENT EXCEEDS	34		21		41	



01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ, DAILY MEAN DISCHARGE

## 01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1966 to June 1970.

SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00310)	(31615)	(31649)	(00900)	
NOV 1994													
03...	1400	50	182	7.5	11.0	762	8.8	80	E1.7	230	120	60	
JAN 1995													
19...	1330	85	156	7.0	8.0	760	10.1	85	<1.3	130	50	51	
APR													
04...	1030	55	173	7.9	9.5	753	10.3	91	E1.7	130	<10	60	
MAY													
17...	1330	57	163	7.3	17.0	754	7.9	83	E1.2	110	100	53	
JUL													
25...	1300	38	148	7.2	25.5	761	6.8	83	E1.5	170	440	47	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L)
		(00915)	(00925)	(00930)	(00935)	(90410)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00530)
NOV 1994													
03...	19	3.1	7.3	3.5	37	19	15	0.2	10	116	101	3	
JAN 1995													
19...	16	2.7	6.3	2.4	23	20	13	0.2	9.1	98	86	4	
APR													
04...	19	3.0	6.4	2.4	28	23	14	0.2	8.6	96	98	12	
MAY													
17...	17	2.6	6.6	2.3	29	18	13	0.2	8.9	104	88	10	
JUL													
25...	15	2.3	6.4	2.7	31	15	12	0.2	9.8	102	84	11	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
		(00613)	(00631)	(00610)	(00608)	(00625)	(00623)	(00600)	(00602)	(00665)	(00666)	(00681)	(00689)
NOV 1994													
03...	0.004	0.45	0.08	0.05	0.21	0.20	0.66	0.65	0.07	0.02	4.0	0.5	
JAN 1995													
19...	0.007	0.50	0.04	0.05	0.30	0.21	0.80	0.71	0.06	0.02	3.1	0.6	
APR													
04...	0.003	1.10	<0.03	<0.03	0.40	0.30	1.5	1.4	0.06	<0.01	2.5	0.9	
MAY													
17...	0.011	0.34	0.04	0.05	0.18	0.14	0.52	0.48	0.07	0.01	4.0	0.4	
JUL													
25...	0.010	0.41	0.06	0.06	0.30	0.37	0.71	0.78	0.06	--	6.4	0.8	

## DELAWARE RIVER BASIN

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 03...	1400	<10	<1	<10	40	<1	<1	1
MAY 1995 17...	1330	11	<1	<10	30	<1	3	2

DATE	TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 03...	1300	<1		40	<0.1	2	<1	<10
MAY 1995 17...	2200	2		40	<0.1	3	<1	30

## DELAWARE RIVER BASIN

429

## 01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam.

DRAINAGE AREA.--17.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses provided by staff of the New Jersey Department of Environmental Protection. Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
03...	1030	30	182	7.7	11.0	762	9.1	83	5.8	790	360	58	
JAN 1995													
19...	1100	33	165	7.3	8.0	760	9.4	80	E1.7	20	10	49	
APR													
04...	1330	14	176	7.7	10.5	753	11.0	100	E2.3	50	100	53	
MAY													
17...	1015	19	183	7.2	17.5	754	7.6	80	2.4	130	200	52	
JUL													
25...	1000	E5.0	152	7.0	26.0	759	5.2	64	<1.0	80	110	47	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG.C, SUS-PENDED (MG/L) (00530)
NOV 1994													
03...	15	5.1	8.6	4.4	28	19	20	0.2	9.3	112	102	7	
JAN 1995													
19...	12	4.6	7.8	3.5	16	21	18	0.2	9.1	90	91	6	
APR													
04...	13	4.9	7.7	2.9	17	22	19	0.2	6.6	98	89	<1	
MAY													
17...	13	4.8	7.8	2.9	24	18	18	0.2	6.5	96	90	7	
JUL													
25...	12	4.1	7.0	3.6	28	12	14	0.3	8.2	96	82	8	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
03...	0.067	0.77	0.26	0.32	0.80	0.34	1.6	1.1	0.11	0.01	3.4	1.3	
JAN 1995													
19...	0.021	1.20	0.15	0.12	0.40	0.40	1.6	1.6	0.07	<0.01	5.1	0.5	
APR													
04...	0.017	0.49	0.14	0.11	0.40	0.34	0.89	0.83	0.06	<0.01	2.5	0.5	
MAY													
17...	0.024	0.90	0.08	0.14	0.40	0.30	1.3	1.2	0.04	0.02	3.3	0.8	
JUL													
25...	0.032	0.82	0.31	0.29	0.60	0.54	1.4	1.4	0.06	0.01	5.1	0.3	

## DELAWARE RIVER BASIN

01464515 DOCTORS CREEK AT ALLENTOWN, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 03...	1030	15	<1	<10	40	<1	<1	<1
MAY 1995 17...	1015	13	<1	<10	30	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 03...	960	<1	100	<0.1	3	<1	<10
MAY 1995 17...	1100	<1	110	<0.1	6	<1	10



## DELAWARE RIVER BASIN

431

## 01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at river mile 117.54.

DRAINAGE AREA.--7,160 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is 12.90 ft below sea level. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) sea level for publication.

REMARKS.--Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (---) lines. Gage height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 8.78 ft, Dec. 11, 1992; minimum recorded, -6.86 ft, Nov. 21, 1989.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft, Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft, Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.07 ft, Jan. 20; minimum recorded, -4.03 ft, Dec. 30, lower elevation probably occurred during the period of missing record.

Summaries of tide elevations during current year are as follows:

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.08	6.12	6.47	7.07	5.59	6.09	6.08	6.44	6.67	6.41	6.89	6.05
high tide	Date	15	6	5	20	28	21	19	15	14	11	7	8.26
Minimum	Elevation	-2.95	-2.09	-4.03	-3.99	-3.95	-2.92	-3.80	-3.34	-3.36	-3.30	-2.96	-3.22
low tide	Date	11	24	30	5	25	23	6	25	18	30	5	23
Mean high tide		5.15	4.71	5.12	4.87	4.12	5.08	4.90	5.26	5.13	5.27	5.46	5.21
Mean water level		1.61	1.26	1.64	1.39	1.24	1.63	1.28	1.63	1.48	1.59	1.85	1.70
Mean low tide		-2.01	-1.96	-2.07	-2.31	-1.48	-2.16	-2.61	-2.33	-2.51	-2.42	-2.16	-2.17

## DELAWARE RIVER BASIN

## 01465850 SOUTH BRANCH RANOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch.

DRAINAGE AREA.--64.5 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1925, 1959-62, 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
15...	0910	48	80	6.4	10.5	766	8.9	79	E1.7	17	30	19	
FEB 1995													
02...	1240	60	85	6.0	4.0	755	11.5	89	<1.0	23	10	22	
MAR													
30...	0947	50	89	5.8	10.5	761	9.2	83	E2.1	5	20	23	
MAY													
24...	0920	35	82	6.4	18.5	766	6.4	68	2.2	<20	120	19	
AUG													
03...	1300	16	84	6.6	26.5	765	5.8	72	E1.9	49	170	20	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
15...	5.1	1.6	5.3	2.2	6.0	11	9.8	<0.1	7.7	56	48	<1	
FEB 1995													
02...	6.2	1.7	4.5	1.3	4.1	14	9.8	<0.1	6.1	68	48	10	
MAR													
30...	6.5	1.6	5.0	1.6	5.3	12	9.0	<0.1	4.2	64	46	12	
MAY													
24...	5.4	1.4	5.1	2.1	4.7	11	8.3	<0.1	4.2	72	42	12	
AUG													
03...	5.5	1.5	5.5	2.3	7.3	12	8.3	<0.1	3.1	60	45	10	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
15...	0.003	0.45	0.04	0.08	0.40	0.27	0.85	0.72	0.10	0.06	6.7	0.9	
FEB 1995													
02...	0.005	0.45	0.03	0.03	0.30	0.34	0.75	0.79	0.02	0.02	8.8	0.4	
MAR													
30...	0.007	0.55	0.04	0.03	0.40	0.29	0.95	0.84	0.10	0.02	7.5	1.0	
MAY													
24...	0.009	0.44	0.08	0.09	0.50	0.41	0.94	0.85	0.13	0.08	10	2.3	
AUG													
03...	0.008	0.61	0.10	0.10	0.70	0.40	1.3	1.0	0.20	0.11	6.4	1.3	

## DELAWARE RIVER BASIN

01465850 SOUTH BRANCH RANOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 15...	0910	22	<1	<10	20	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 15...	980	1	40	<0.1	1	<1	20

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ  
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft upstream from Butterworth Road Bridge, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is measured at site 785 ft downstream. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7.0 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 13	0245	*3.8	*1.54	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.2	1.2	1.3	1.6	1.3	1.3	1.1	1.0	.96	.71
2	1.2	1.2	1.1	1.2	1.3	1.5	1.3	1.3	1.1	1.0	.96	.68
3	1.1	1.1	1.1	1.2	1.3	1.6	1.3	1.2	1.1	.99	.96	.67
4	1.1	1.1	1.1	1.2	1.4	1.5	1.3	1.2	1.1	.99	.96	.66
5	1.1	1.1	1.3	1.1	1.4	1.5	1.3	1.2	1.1	.99	.96	.65
6	1.1	1.1	1.2	1.2	1.4	1.5	1.3	1.2	1.1	.99	1.0	.65
7	1.1	1.1	1.2	1.5	1.3	1.5	1.3	1.1	1.1	1.2	.99	.65
8	1.1	1.1	1.2	1.4	1.3	1.5	1.3	1.1	1.1	1.1	.97	.64
9	1.1	1.1	1.1	1.4	1.3	1.9	1.7	1.1	1.1	1.0	.96	.63
10	1.1	1.2	1.3	1.3	1.3	1.6	3.2	1.3	1.1	1.0	.95	.62
11	1.1	1.1	1.3	1.3	1.3	1.6	3.0	1.2	1.1	1.1	.95	.61
12	1.1	1.1	1.3	1.4	1.3	1.6	3.1	1.2	1.1	1.0	.95	.60
13	1.1	1.1	1.2	1.4	1.3	1.6	3.5	1.2	1.1	.99	.94	.60
14	1.1	1.1	1.2	1.4	1.3	1.5	2.2	1.2	1.1	.98	.94	.59
15	1.1	1.1	1.2	1.4	1.3	1.5	1.3	1.2	1.1	.98	.93	.59
16	1.1	1.1	1.2	1.4	1.3	1.5	1.3	1.1	1.0	1.3	.94	.59
17	1.1	1.1	1.2	1.4	1.3	1.5	1.3	1.2	1.0	1.2	.94	.83
18	1.1	1.1	1.2	1.4	1.3	1.4	1.3	1.2	1.0	1.2	.92	.90
19	1.1	1.1	1.2	1.3	1.3	1.4	1.2	1.2	1.0	1.1	.92	.85
20	1.1	1.1	1.2	1.6	1.3	1.4	1.2	1.2	1.0	1.1	.91	.78
21	1.1	1.2	1.2	1.6	1.3	1.5	1.2	1.1	1.0	1.2	.90	.73
22	1.1	1.2	1.2	1.6	1.3	1.4	1.2	1.1	1.0	1.1	.89	.76
23	1.1	1.1	1.2	1.7	1.3	1.4	1.2	1.1	1.0	1.1	.87	.84
24	1.1	1.1	1.2	1.6	1.4	1.4	1.2	1.1	1.0	1.1	.87	.78
25	1.1	1.1	1.2	1.5	1.3	1.4	1.2	1.1	1.0	1.0	.84	.78
26	1.1	1.1	1.2	1.5	1.3	1.4	1.2	1.2	1.0	1.0	.82	.80
27	1.1	1.1	1.2	1.4	1.3	1.3	1.2	1.2	1.0	.99	.82	.79
28	1.1	1.3	1.2	1.4	1.5	1.3	1.2	1.1	1.0	.99	.80	.78
29	1.1	1.2	1.2	1.4	---	1.3	1.2	1.1	1.0	.98	.78	.77
30	1.1	1.2	1.2	1.3	---	1.3	1.2	1.1	.99	.97	.75	.76
31	1.1	---	1.2	1.3	---	1.3	---	1.1	---	.97	.73	---
TOTAL	34.3	33.9	37.2	43.0	37.0	45.7	46.7	36.2	31.49	32.61	28.08	21.29
MEAN	1.11	1.13	1.20	1.39	1.32	1.47	1.56	1.17	1.05	1.05	.91	.71
MAX	1.2	1.3	1.3	1.7	1.5	1.9	3.5	1.3	1.1	1.3	1.0	.90
MIN	1.1	1.1	1.1	1.1	1.3	1.3	1.2	1.1	.99	.97	.73	.59
CFSM	.47	.48	.51	.59	.56	.63	.66	.50	.45	.45	.39	.30
IN.	.54	.54	.59	.68	.59	.72	.74	.57	.50	.52	.44	.34

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

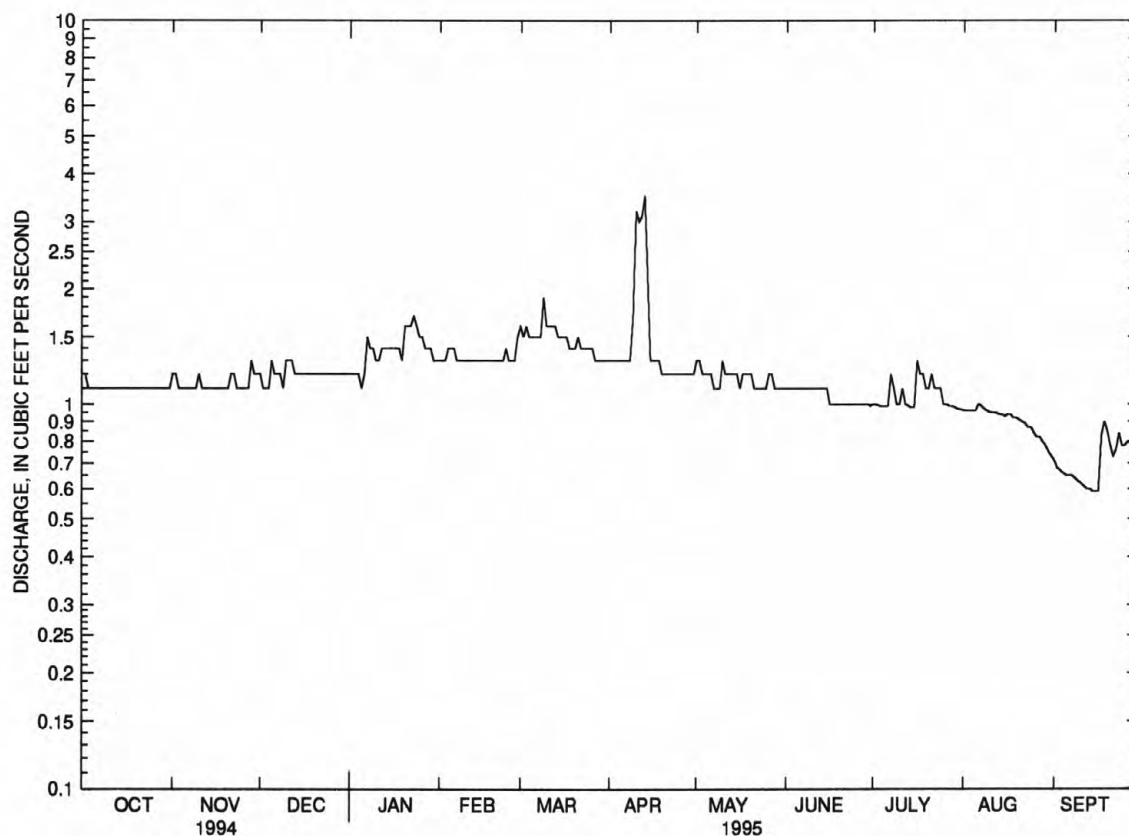
MEAN	1.60	1.76	2.09	2.31	2.42	2.91	2.94	2.62	2.19	1.88	1.86	1.67
MAX	4.45	4.82	5.75	4.78	5.69	5.67	5.74	5.65	5.35	4.15	5.65	4.31
(WY)	1959	1973	1973	1973	1973	1979	1984	1958	1979	1958	1958	1958
MIN	.87	.95	1.00	.98	1.13	1.25	1.24	1.17	1.05	1.00	.91	.71
(WY)	1989	1986	1966	1981	1989	1966	1985	1995	1995	1977	1995	1995

# DELAWARE RIVER BASIN

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01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1954 - 1995	
ANNUAL TOTAL	776.8		427.47			
ANNUAL MEAN	2.13		1.17		2.19	
HIGHEST ANNUAL MEAN					3.85	
LOWEST ANNUAL MEAN					1.17	
HIGHEST DAILY MEAN	9.1	Mar 29	3.5	Apr 13	20	Feb 28 1958
LOWEST DAILY MEAN	1.0	Sep 17	.59	Sep 14	.59	Sep 14 1995
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 15	.60	Sep 10	.60	Sep 10 1995
INSTANTANEOUS PEAK FLOW			3.8	Apr 13	35	Aug 25 1958
INSTANTANEOUS PEAK STAGE			1.54	Apr 13	2.33	Aug 25 1958
INSTANTANEOUS LOW FLOW			.59	Sep 13	.59	Sep 13 1995
ANNUAL RUNOFF (CFSM)	.91		.50		.93	
ANNUAL RUNOFF (INCHES)	12.30		6.77		12.64	
10 PERCENT EXCEEDS	4.0		1.4		3.7	
50 PERCENT EXCEEDS	1.6		1.1		1.8	
90 PERCENT EXCEEDS	1.1		.86		1.1	



01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ, DAILY MEAN DISCHARGE



## 01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to September 1992.

pH: October 1984 to September 1992.

WATER TEMPERATURE: October 1960 to September 1992.

DISSOLVED OXYGEN: October 1984 to September 1992.

REMARKS.--Chemical analyses are from samples collected as water flows over the weir at the gaging station. The Sept. 14, 1995, sample was collected 785 ft downstream; there was no flow at the weir. All discharge record represents flow at a point 785 ft downstream of the gaging station. Discharges at the weir may be about 1 ft<sup>3</sup>/s less than published discharges. Field analysis of alkalinity was not attempted if the pH of the sample water was 4.5 or less.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL AS CAC03 (00900)
NOV 1994												
29...	1040	1.2	47	4.0	8.5	0.60	762	3.5	30	K1	K1	3
JAN 1995												
27...	1030	1.4	62	4.0	4.5	0.30	760	6.1	47	<1	<1	5
MAR												
09...	1045	2.0	73	3.6	4.5	0.50	759	7.0	54	20	10	5
MAR												
31...	0920	1.2	34	4.4	13.0	0.20	761	2.4	23	7	79	2
JUL												
13...	1050	1.0	36	4.3	16.0	0.40	764	2.3	23	10	10	2
SEP												
14...	1430	0.60	32	4.7	13.5	1.5	758	4.6	44	K2	40	4

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY, CARBON- ATE TOT (MG/L - CAC03) (99430)	ALKA- LINITY, WAT WH TOT FET (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
NOV 1994												
29...	0.42	0.50	2.0	0.30	--	--	5.3	3.8	<0.1	4.4	16	<0.01
JAN 1995												
27...	0.67	0.71	2.2	0.30	--	--	8.5	3.7	<0.1	4.0	25	<0.01
MAR												
09...	0.85	0.74	2.3	1.2	--	--	11	3.8	<0.1	3.3	34	<0.01
MAY												
31...	0.31	0.34	1.7	0.20	--	--	3.4	3.7	<0.1	4.0	15	<0.01
JUL												
13...	0.33	0.34	1.7	0.30	--	--	4.7	3.4	<0.1	4.1	17	<0.01
SEP												
14...	0.84	0.43	1.9	0.40	<1.0	<1	2.5	4.3	<0.1	5.5	16	<0.01

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER 0.62 MM (70331)
NOV 1994										
29...	<0.05	<0.015	0.05	0.01	0.01	<0.01	3.1	2	0.01	60
JAN 1995										
27...	<0.05	<0.015	0.04	<0.01	<0.01	<0.01	4.3	5	0.02	58
MAR										
09...	<0.05	<0.015	0.16	<0.01	<0.01	<0.01	7.8	12	0.06	71
MAY										
31...	<0.05	0.020	<0.20	<0.01	0.02	<0.01	2.4	1	0.00	50
JUL										
13...	<0.05	0.030	<0.20	<0.01	<0.01	<0.01	2.7	3	0.01	64
SEP										
14...	<0.05	<0.015	<0.20	0.02	<0.01	<0.01	0.50	9	0.02	81

## DELAWARE RIVER BASIN

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
JAN 1995									
27...	1030	140	15	<3	95	<4	21	<10	<1
MAR									
09...	1045	230	18	<3	170	<4	26	<10	1
JUL									
13...	1050	60	8	4	140	<4	7	<10	<1
SEP									
14...	1430	30	16	<3	140	<4	14	<10	<1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
JAN 1995								
27...	<1	<1.0	9	<6	0.38	0.07	<0.01	<1.0
MAR								
09...	<1	<1.0	9	<6	--	--	--	--
JUL								
13...	<1	<1.0	5	<6	0.17	0.03	<0.01	0.0
SEP								
14...	<1	<1.0	8	<6	--	--	--	--

## 01467000 NORTH BRANCH RANOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street in Pemberton, 12 mi upstream from confluence with South Branch Rancocas Creek.

DRAINAGE AREA.--118 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933. WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft above sea level. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft downstream at datum 6.54 ft lower.

REMARKS.--Records good. Flow regulated occasionally by cranberry bogs and ponds above station. Water diverted for water supply at Fort Dix army base upstream of gage. Several measurements of water temperature, other than those published, were made during the year. Gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0530	*264	*1.95	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	91	148	102	113	195	112	104	76	52	38	32
2	106	114	133	110	110	205	102	114	70	60	37	31
3	105	103	134	105	105	190	99	123	69	53	37	30
4	101	88	131	100	122	169	95	116	66	49	39	30
5	88	81	149	93	137	152	92	107	63	46	40	30
6	79	80	153	90	124	144	88	98	62	44	48	30
7	77	80	137	187	116	138	88	91	62	57	53	30
8	82	76	120	191	118	145	88	85	59	72	46	30
9	89	75	109	191	109	243	89	79	56	59	43	32
10	101	91	118	182	103	243	92	101	52	51	39	31
11	86	96	157	167	105	226	66	122	46	89	39	30
12	75	91	151	157	107	198	69	142	48	79	38	29
13	69	86	141	150	106	179	170	135	51	60	37	29
14	67	84	128	140	99	167	160	106	54	52	36	32
15	66	84	117	136	97	153	132	103	59	49	34	32
16	62	89	109	143	126	142	112	98	53	52	35	31
17	61	92	105	140	139	135	104	97	49	62	37	53
18	64	90	107	139	143	130	96	104	48	94	34	52
19	63	91	103	134	141	124	92	100	46	92	32	41
20	64	88	92	188	139	118	89	96	46	74	33	36
21	64	94	89	240	139	126	86	68	46	74	30	34
22	61	120	95	245	134	142	90	75	47	76	30	41
23	66	117	101	224	133	136	97	73	50	71	30	59
24	80	110	110	198	141	130	102	74	52	72	30	43
25	73	105	119	172	143	139	95	78	53	63	30	39
26	66	101	117	153	137	148	86	86	50	58	29	45
27	61	103	111	144	132	145	78	86	51	54	29	49
28	58	151	101	135	162	131	74	78	50	58	31	42
29	58	169	87	128	---	124	70	77	45	51	30	37
30	63	164	92	123	---	129	73	85	44	46	30	35
31	72	---	90	117	---	125	---	83	---	42	31	---
TOTAL	2339	3004	3654	4724	3480	4871	2886	2984	1623	1911	1105	1095
MEAN	75.5	100	118	152	124	157	96.2	96.3	54.1	61.6	35.6	36.5
MAX	112	169	157	245	162	243	170	142	76	94	53	59
MIN	58	75	87	90	97	118	66	68	44	42	29	29
CFSM	.64	.85	1.00	1.29	1.05	1.33	.82	.82	.46	.52	.30	.31
IN.	.74	.95	1.15	1.49	1.10	1.54	.91	.94	.51	.60	.35	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

MEAN	118	151	172	198	214	247	237	194	142	122	132	116
MAX	365	430	434	479	445	472	475	397	297	401	426	341
(WY)	1928	1973	1973	1979	1939	1994	1984	1958	1968	1938	1958	1971
MIN	38.7	45.7	54.4	62.1	92.2	105	85.4	72.0	54.1	44.1	35.6	36.5
(WY)	1923	1923	1966	1981	1931	1985	1985	1992	1995	1957	1995	1995

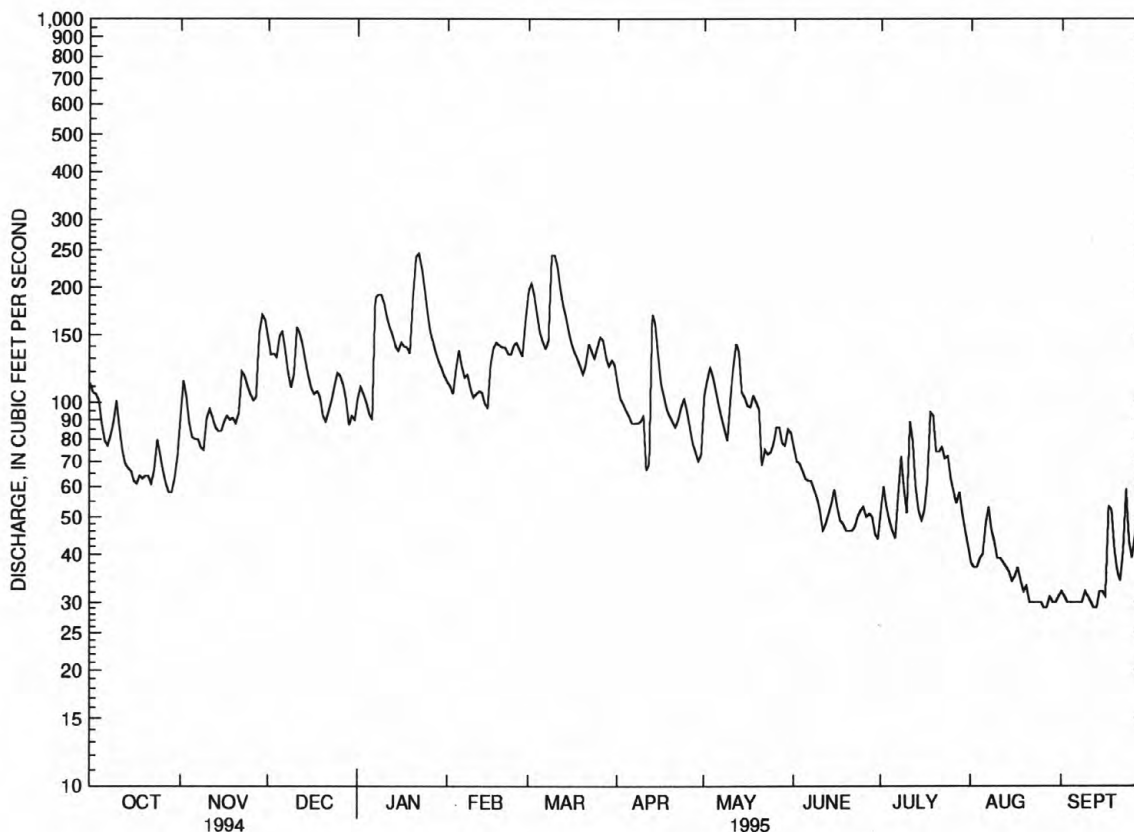
## DELAWARE RIVER BASIN

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01467000 NORTH BRANCH RANOCAS CREEK AT PEMBERTON, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1922 - 1995	
ANNUAL TOTAL	69680		33676		170	
ANNUAL MEAN	191		92.3		286	
HIGHEST ANNUAL MEAN					92.3	
LOWEST ANNUAL MEAN					1690	
HIGHEST DAILY MEAN	750	Mar 30	245	Jan 22	1690	Aug 21 1939
LOWEST DAILY MEAN	46	Jul 13	29	Aug 26	9.0	Sep 29 1932
ANNUAL SEVEN-DAY MINIMUM	51	Jul 7	30	Aug 21	27	Oct 2 1922
INSTANTANEOUS PEAK FLOW			264	Mar 9	1730	Aug 21 1939
INSTANTANEOUS PEAK STAGE			1.95	Mar 9	10.77 <sup>a</sup>	Aug 21 1939
INSTANTANEOUS LOW FLOW			28	Aug 26	9.0	Aug 26 1995
ANNUAL RUNOFF (CFSM)	1.62		.78		1.44	
ANNUAL RUNOFF (INCHES)	21.97		10.62		19.60	
10 PERCENT EXCEEDS	380		148		310	
50 PERCENT EXCEEDS	142		89		140	
90 PERCENT EXCEEDS	67		37		62	

<sup>a</sup> From high-water mark, site and datum then in use.



— 01467000 N B RANOCAS CREEK AT PEMBERTON, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01467000 NORTH BRANCH RANOCAS CREEK AT PEMBERTON, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
NOV 1994												
15...	1115	84	49	5.6	10.5	765	10.0	89	E1.2	5	20	9
FEB 1995												
02...	1005	111	56	5.0	4.0	755	11.8	91	E1.3	<2	<10	9
MAR												
29...	1010	124	55	4.7	10.0	761	10.3	91	E1.4	2	10	9
MAY												
24...	1100	73	53	5.5	18.5	766	7.7	82	E1.9	7	10	9
AUG												
03...	0915	36	61	6.2	25.0	765	6.9	83	E2.0	49	50	10

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994												
15...	2.0	0.95	3.9	1.1	2.3	6.8	7.5	<0.1	5.0	36	29	<1
FEB 1995												
02...	2.0	0.86	3.7	0.70	<1.0	10	7.0	<0.1	4.9	34	--	4
MAR												
29...	2.1	0.84	3.9	0.80	<1.0	11	6.7	<0.1	3.3	36	--	3
MAY												
24...	2.3	0.90	--	--	--	7.8	6.7	--	2.9	--	--	<1
AUG												
03...	2.5	0.98	5.6	1.2	3.1	8.7	8.6	<0.1	4.2	38	34	7

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994												
15...	<0.003	0.11	<0.03	0.03	0.24	0.16	0.35	0.27	0.03	0.01	4.4	1.3
FEB 1995												
02...	0.004	0.098	<0.03	<0.03	0.24	0.19	0.34	0.29	<0.01	<0.01	5.7	0.4
MAR												
29...	0.004	0.068	<0.03	<0.03	0.13	0.18	0.20	0.25	<0.01	<0.01	5.0	0.5
MAY												
24...	0.003	0.068	<0.03	<0.03	0.20	0.09	0.27	0.16	0.01	<0.01	5.8	0.9
AUG												
03...	0.004	0.12	0.05	0.05	0.50	0.08	0.62	0.20	0.06	<0.01	6.4	1.1



DELAWARE RIVER BASIN

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01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL	ARSENIC	BERYL- LIUM, TOTAL	BORON, TOTAL	CADMIUM TOTAL	CHRO- MIUM, TOTAL	COPPER, TOTAL
		(HIGH LEVEL)	TOTAL	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	TOTAL
		(UG/L (MG/L)	(UG/L AS AS)	(UG/L AS BE)	(UG/L AS B)	(UG/L AS CD)	(UG/L AS CR)	(UG/L AS CU)
		(00340)	(01002)	(01012)	(01022)	(01027)	(01034)	(01042)
NOV 1994 15...	1115	19	<1	<10	10	<1	1	<1
DATE		IRON, TOTAL	LEAD, TOTAL	MANGA- NESE, TOTAL	MERCURY TOTAL	NICKEL, TOTAL	SELE- NIUM, TOTAL	ZINC, TOTAL
		RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE	RECOV- ERABLE
		(UG/L AS FE)	(UG/L AS PB)	(UG/L AS MN)	(UG/L AS HG)	(UG/L AS NI)	(UG/L AS SE)	(UG/L AS ZN)
		(01045)	(01051)	(01055)	(71900)	(01067)	(01147)	(01092)
NOV 1994 15...	1300	3	30	<0.1	4	<1	30	

## DELAWARE RIVER BASIN

## 01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft downstream from outlet of Strawbridge Lake, 0.6 mi northwest of Moorestown Mall, 0.8 mi southeast of Lenola, and 1.8 mi southwest of Moorestown.

DRAINAGE AREA.--12.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO- COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
NOV 1994												
21...	0945	5.7	290	7.1	10.0	770	10.4	91	10	130	200	81
FEB 1995												
14...	1115	5.9	596	6.7	4.0	770	12.4	94	E1.3	50	<10	98
MAR												
23...	0940	8.2	304	6.9	9.5	755	9.3	82	E1.2	210	80	76
JUN												
01...	0935	3.8	281	7.0	22.0	766	6.7	76	3.0	80	200	80
JUL												
31...	1034	2.7	263	7.4	29.5	764	6.4	84	4.6	70	80	86

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
NOV 1994												
21...	22	6.3	16	6.0	25	49	32	0.2	7.8	162	155	24
FEB 1995												
14...	27	7.5	63	4.7	16	58	120	0.2	11	318	304	8
MAR												
23...	21	5.8	20	3.9	14	50	39	0.2	9.5	166	160	23
JUN												
01...	22	6.1	16	4.6	23	47	29	0.2	9.1	164	150	14
JUL												
31...	24	6.3	11	5.5	31	47	22	0.3	8.5	156	144	50

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
NOV 1994												
21...	0.005	0.10	0.03	<0.03	1.0	0.21	1.1	0.31	0.21	0.01	3.4	3.2
FEB 1995												
14...	0.013	0.62	0.20	0.19	0.30	0.34	0.92	0.96	0.04	<0.01	2.0	0.7
MAR												
23...	0.012	0.44	<0.03	0.08	0.60	0.30	1.0	0.74	0.18	<0.01	3.0	1.5
JUN												
01...	0.028	0.28	0.53	0.50	0.90	0.58	1.2	0.86	0.09	<0.01	3.7	1.1
JUL												
31...	0.015	0.14	0.22	0.23	1.1	0.45	1.2	0.59	0.32	<0.01	5.0	3.3

DELAWARE RIVER BASIN

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01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 21...	0945	30	1	<10	40	<1	1	2
DATE		IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 21...		4000	5	170	<0.1	7	<1	10

## 01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi south of Maple Shade and 3.8 mi upstream from confluence with the North Branch Pennsauken Creek.

DRAINAGE AREA.--8.98 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area. WDR NJ-90-1: 1968 (P), 1970 (P), 1971 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.12 ft above sea level.

REMARKS.--Records fair. Diurnal fluctuations from unknown source. Several measurements of water temperature, other than those published, were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 7	0345	312	6.37	Mar. 9	0030	*395	*7.21
Jan. 20	1100	381	7.07				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	6.9	5.9	17	7.5	21	7.4	27	4.5	43	2.8	2.6
2	6.5	6.7	5.5	9.7	7.5	12	7.1	30	4.5	46	2.7	2.5
3	5.2	5.3	5.3	6.7	6.7	9.9	7.7	11	6.6	5.5	2.8	2.5
4	4.9	5.1	5.3	6.1	14	9.3	7.2	6.2	4.8	4.3	2.8	2.4
5	4.8	5.9	6.9	6.0	14	9.0	7.3	5.7	4.6	3.8	9.5	2.6
6	5.1	6.3	12	15	11	8.4	8.2	5.3	4.7	4.0	28	2.8
7	5.3	6.2	7.5	16.9	8.0	8.2	8.8	4.8	5.4	20	6.1	2.6
8	6.3	5.8	6.7	16	7.4	58	8.9	4.8	4.8	6.0	3.5	2.7
9	5.0	6.2	5.9	10	7.2	174	14	4.6	4.7	3.7	3.1	4.4
10	4.7	4.2	5.1	8.4	7.4	16	23	4.6	4.8	3.4	2.9	2.7
11	4.8	7.9	54	7.8	12	12	8.5	8.7	4.8	90	3.0	2.6
12	4.7	6.0	10	7.8	11	11	8.8	6.3	11	7.4	2.9	2.9
13	4.8	5.5	7.3	7.5	8.7	10	51	5.5	9.6	4.8	2.7	3.3
14	4.8	5.1	6.7	7.4	6.9	9.5	9.6	6.0	26	4.2	2.5	4.8
15	5.1	5.3	6.2	7.5	11	9.1	7.5	16	26	3.9	2.7	2.9
16	5.0	17	6.1	8.9	73	8.9	6.8	5.6	5.0	5.0	2.6	2.7
17	5.0	7.1	8.3	8.9	21	8.6	6.6	7.1	4.3	3.7	2.8	87
18	5.3	5.4	7.2	7.8	14	8.2	6.7	7.3	3.8	84	2.7	8.1
19	4.9	7.6	6.1	7.7	12	8.0	6.6	16	3.7	6.4	2.6	4.5
20	5.1	5.2	5.8	196	11	7.9	5.8	8.0	3.5	4.3	2.6	3.8
21	5.2	41	5.5	49	11	30	6.0	5.0	3.3	12	2.7	3.5
22	5.3	24	5.7	14	9.1	14	6.3	4.3	3.3	6.1	2.9	34
23	19	6.8	5.6	11	11	9.3	5.4	4.2	5.0	8.8	2.9	25
24	11	5.5	30	9.7	21	8.4	12	5.0	12	6.3	3.0	5.1
25	5.6	5.2	26	8.8	9.7	7.9	6.2	5.3	5.0	3.8	3.0	13
26	5.2	5.1	7.9	8.2	8.8	7.9	5.4	43	4.0	3.4	3.1	36
27	5.0	6.7	6.7	7.9	8.5	8.0	5.0	6.9	4.5	3.3	5.7	12
28	5.2	92	6.4	7.6	85	7.6	4.7	5.3	3.6	4.9	6.8	5.2
29	5.4	14	6.1	7.4	---	7.5	4.8	6.2	3.4	3.3	2.7	4.2
30	5.5	7.1	5.7	7.4	---	7.6	23	4.9	3.7	3.2	2.6	4.0
31	5.4	---	5.8	6.9	---	8.0	---	4.7	---	2.9	2.6	---
TOTAL	180.6	375.9	403.2	669.1	435.4	535.2	296.3	326.7	194.9	411.4	129.3	292.4
MEAN	5.83	12.5	13.0	21.6	15.5	17.3	9.88	10.5	6.50	13.3	4.17	9.75
MAX	19	92	69	196	85	174	51	46	26	90	28	87
MIN	4.7	5.1	5.3	6.0	6.7	7.5	4.7	4.2	3.3	2.9	2.5	2.4
CFSM	.65	1.40	1.45	2.40	1.73	1.92	1.10	1.17	.72	1.48	.46	1.09
IN.	.75	1.56	1.67	2.77	1.80	2.22	1.23	1.35	.81	1.70	.54	1.21

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

MEAN	12.9	17.4	21.9	22.0	20.1	23.6	22.1	19.5	15.0	17.8	16.3	14.0
MAX	26.0	48.8	40.8	50.5	44.7	46.5	49.8	47.0	33.4	46.5	58.2	38.8
(WY)	1990	1973	1978	1979	1979	1994	1983	1989	1989	1989	1978	1975
MIN	5.83	6.99	7.05	6.55	9.19	9.29	8.08	8.24	6.50	6.92	4.17	4.71
(WY)	1995	1977	1981	1981	1968	1985	1985	1993	1995	1982	1995	1968

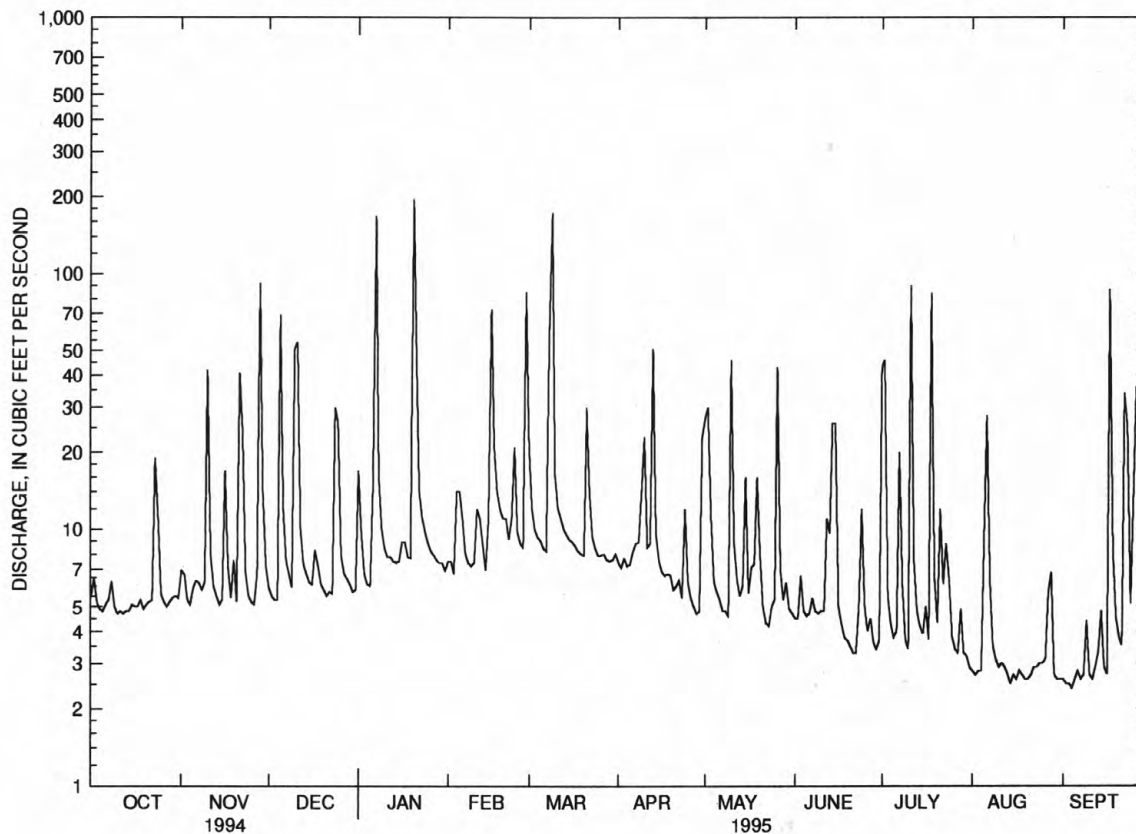
DELAWARE RIVER BASIN

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01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1968 - 1995	
ANNUAL TOTAL	8129.8		4250.4			
ANNUAL MEAN	22.3		11.6		18.6	
HIGHEST ANNUAL MEAN					27.3	
LOWEST ANNUAL MEAN					11.6	
HIGHEST DAILY MEAN	344	Jan 28	196	Jan 20	551	Jul 5 1989
LOWEST DAILY MEAN	4.0	Jul 11	2.4	Sep 4	2.3	Jul 12 1991
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 2	2.5	Aug 30	2.5	Aug 30 1995
INSTANTANEOUS PEAK FLOW			395	Mar 9	1500	Jul 14 1994
INSTANTANEOUS PEAK STAGE			7.21	Mar 9	11.63a	Jul 14 1994
INSTANTANEOUS LOW FLOW			1.8	Sep 3	1.8	Oct 22 1992
ANNUAL RUNOFF (CFSM)	2.48		1.30		2.07	
ANNUAL RUNOFF (INCHES)	33.68		17.61		28.18	
10 PERCENT EXCEEDS	54		21		35	
50 PERCENT EXCEEDS	8.3		6.3		9.7	
90 PERCENT EXCEEDS	5.1		3.0		5.0	

a From high-water marks.



01467081 S B PENNSAUKEN CREEK AT CHERRY HILL, NJ, DAILY MEAN DISCHARGE



## DELAWARE RIVER BASIN

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
NOV 1994												
22...	1030	15	189	7.1	12.0	762	7.6	71	5.1	5400	9600	52
FEB 1995												
14...	0925	8.2	442	7.3	0.0	770	12.2	83	2.5	2400	2700	95
MAR												
23...	1215	8.7	325	7.2	9.0	755	9.7	85	11.1	1100	300	81
MAY												
31...	1025	4.8	346	7.4	17.5	764	6.3	66	3.4	7000	700	88
JUL												
31...	1225	2.9	391	7.4	24.5	764	5.1	61	6.2	9200	2000	95

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994												
22...	14	4.1	9.5	5.7	27	26	16	0.2	6.9	126	102	9
FEB 1995												
14...	26	7.4	38	7.9	43	47	59	0.2	12	248	232	7
MAR												
23...	22	6.4	22	6.0	35	39	35	0.2	11	176	169	6
MAY												
31...	24	6.9	27	8.4	57	38	32	0.2	12	206	193	24
JUL												
31...	26	7.4	30	10	61	38	36	0.2	11	224	215	19

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994												
22...	0.033	0.66	0.23	0.24	0.70	0.49	1.4	1.2	0.26	0.09	6.4	1.4
FEB 1995												
14...	0.038	1.60	1.49	1.52	2.0	2.1	3.6	3.7	0.45	0.13	4.1	--
MAR												
23...	0.057	1.20	1.10	1.10	1.6	1.5	2.8	2.7	0.18	<0.01	4.5	0.6
MAY												
31...	0.208	2.10	0.78	0.81	1.3	1.1	3.4	3.2	0.34	0.12	4.7	0.5
JUL												
31...	0.780	4.10	0.95	0.96	1.4	1.3	5.5	5.4	0.61	0.32	5.3	0.3

## DELAWARE RIVER BASIN

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 22...	1030	25	1	<10	60	<1	1	3

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 22...	1900	3	80	<0.1	3	<1	20

## 01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi upstream from North Branch Cooper River, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--17.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft above sea level.

REMARKS.--Records good. Bypass gates were installed on both ends of the dam in August 1987. No gate openings this year. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants (prior to summer 1987). Several measurements of water temperature were made during the year. Gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	0215	*541	*2.78	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	15	26	14	43	14	39	11	41	7.5	6.0
2	15	13	14	18	14	23	14	48	12	24	6.7	5.6
3	12	12	13	14	13	18	14	28	15	11	6.4	5.6
4	11	12	13	13	25	18	14	17	13	9.0	7.1	6.0
5	11	12	67	12	26	17	13	15	12	8.5	7.1	5.8
6	10	14	29	19	16	17	13	14	12	8.2	42	6.0
7	10	12	19	205	14	16	13	12	12	36	12	6.6
8	10	12	15	38	14	60	13	12	11	13	7.7	6.4
9	11	12	14	23	13	226	19	11	9.8	8.6	7.7	6.5
10	11	42	58	19	14	37	34	63	9.3	7.8	6.8	6.3
11	10	18	68	16	19	25	16	26	9.7	60	6.3	6.7
12	10	13	25	16	19	21	18	16	16	11	6.2	7.6
13	10	12	17	15	14	19	79	14	18	9.0	6.2	8.6
14	10	12	15	15	13	18	25	14	41	8.1	5.9	8.1
15	10	12	14	15	17	17	17	38	67	7.7	7.1	6.7
16	9.7	22	14	16	76	17	16	17	13	9.6	7.1	6.0
17	10	15	17	16	37	19	16	16	11	8.9	6.4	96
18	10	13	15	14	26	18	14	17	9.3	106	5.8	14
19	10	14	14	14	22	15	15	31	8.8	17	5.6	9.4
20	10	12	13	191	22	15	14	19	8.2	8.9	5.4	8.7
21	10	50	13	63	21	42	15	14	7.6	31	5.5	8.1
22	11	38	13	26	17	30	14	13	7.7	20	6.0	34
23	24	18	13	19	21	20	13	12	11	14	5.8	44
24	19	12	35	17	30	17	24	12	23	9.0	5.9	13
25	13	12	44	15	18	15	16	13	12	7.7	5.6	17
26	12	12	20	15	16	14	13	76	12	7.2	5.7	43
27	12	14	15	14	15	14	12	19	9.7	6.9	9.2	20
28	11	90	14	14	86	14	12	14	9.3	8.2	16	11
29	12	33	14	14	---	14	12	14	8.7	8.4	6.2	8.9
30	12	19	13	14	---	17	32	12	9.0	9.9	5.7	8.4
31	12	---	14	14	---	16	---	11	---	6.6	5.8	---
TOTAL	361.7	595	677	940	652	872	554	677	429.1	542.2	250.4	440.0
MEAN	11.7	19.8	21.8	30.3	23.3	28.1	18.5	21.8	14.3	17.5	8.08	14.7
MAX	24	90	68	205	86	226	79	76	67	106	42	96
MIN	9.7	12	13	12	13	14	12	11	7.6	6.6	5.4	5.6
CFSM	.69	1.17	1.28	1.78	1.37	1.65	1.09	1.28	.84	1.03	.48	.86
IN.	.79	1.30	1.48	2.06	1.43	1.91	1.21	1.48	.94	1.19	.55	.96

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1964	26.5	46.8	1976	9.26	1966
1965	32.0	79.6	1973	11.0	1992
1966	38.0	74.6	1973	14.3	1966
1967	38.6	97.8	1978	14.6	1992
1968	37.3	76.1	1979	18.9	1992
1969	42.5	78.9	1984	23.2	1981
1970	41.4	99.4	1983	15.1	1992
1971	36.9	66.7	1983	14.2	1965
1972	29.1	54.9	1972	10.9	1988
1973	31.9	66.8	1975	12.9	1993
1974	30.0	97.6	1971	7.79	1966
1975	26.5	65.8	1975	13.0	1965

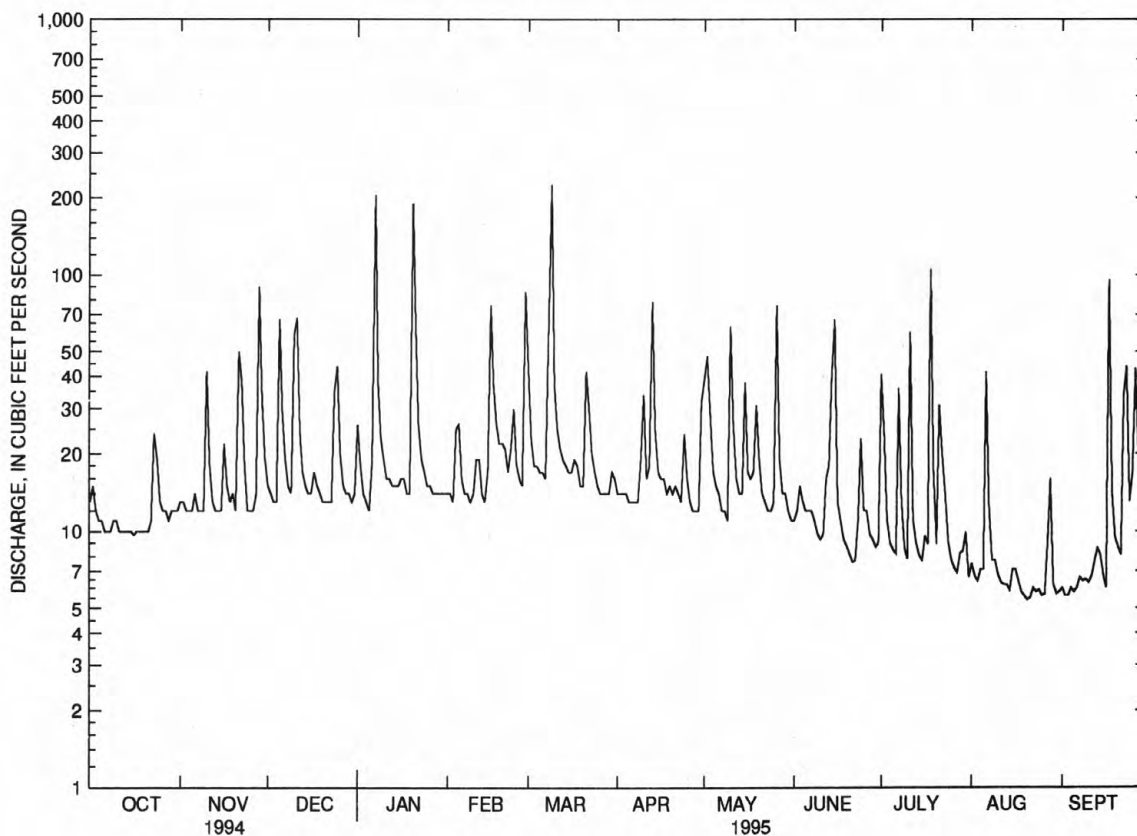
## DELAWARE RIVER BASIN

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01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1964 - 1995	
ANNUAL TOTAL	13724.2		6990.4		34.2	
ANNUAL MEAN	37.6		19.2		50.6	
HIGHEST ANNUAL MEAN					19.2	
LOWEST ANNUAL MEAN					19.2	
HIGHEST DAILY MEAN	479	Jan 28	226	Mar 9	1510	Aug 28 1971
LOWEST DAILY MEAN	8.3	Jun 27	5.4	Aug 20	1.2	Jun 27 1964
ANNUAL SEVEN-DAY MINIMUM	9.1	Jun 23	5.7	Aug 19	5.6	Aug 24 1966
INSTANTANEOUS PEAK FLOW			541	Mar 9	3300	Aug 28 1971
INSTANTANEOUS PEAK STAGE			2.78	Mar 9	5.46	Aug 28 1971
INSTANTANEOUS LOW FLOW			5.4	Aug 18	.80a	Nov 13 1972
ANNUAL RUNOFF (CFSM)	2.21		1.13		2.01	
ANNUAL RUNOFF (INCHES)	30.03		15.30		27.36	
10 PERCENT EXCEEDS	86		35		58	
50 PERCENT EXCEEDS	18		14		23	
90 PERCENT EXCEEDS	11		7.1		12	

a Regulation from unknown source.



01467150 COOPER RIVER AT HADDONFIELD, NJ, DAILY MEAN DISCHARGE

## DELAWARE RIVER BASIN

01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

## WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-79, 1991 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1968 to August 1969.

SUSPENDED SEDIMENT DISCHARGE: March 1968 to September 1969.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1994													
14...	1305	12	200	7.1	12.0	770	9.7	89	<1.0	490	140	56	
FEB 1995													
02...	1030	13	209	7.0	4.5	753	11.6	91	2.1	170	50	58	
APR													
03...	1045	13	214	7.2	9.0	767	10.6	91	E1.5	80	30	58	
MAY													
25...	1010	12	206	7.2	21.5	765	7.0	79	2.8	1700	130	61	
AUG													
01...	0954	8.0	194	7.0	26.0	765	6.5	80	4.5	1700	260	58	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
14...	15	4.5	11	4.6	32	21	21	0.2	12	118	110	2	
FEB 1995													
02...	16	4.4	11	3.4	25	27	22	0.2	12	124	113	18	
APR													
03...	16	4.4	12	3.4	28	26	24	0.2	10	120	114	13	
MAY													
25...	17	4.4	11	3.8	29	19	23	0.2	12	116	109	17	
AUG													
01...	16	4.3	9.6	4.6	29	21	20	0.2	12	118	107	23	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
14...	0.006	0.19	0.10	0.14	0.30	0.29	0.49	0.48	0.20	<0.01	3.1	1.0	
FEB 1995													
02...	0.007	0.37	0.18	0.19	0.40	0.33	0.77	0.70	0.13	<0.01	2.5	1.2	
APR													
03...	0.006	0.21	0.07	0.07	0.30	0.21	0.51	0.42	0.19	<0.01	2.4	1.0	
MAY													
25...	0.024	0.31	0.19	0.22	0.50	0.33	0.81	0.64	0.22	<0.01	3.4	1.0	
AUG													
01...	0.025	0.25	0.34	0.31	0.80	0.45	1.0	0.70	0.27	<0.01	4.1	2.3	



01467150 COOPER RIVER AT HADDONFIELD, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	PH	OXYGEN	NITRO-	NITRO-	PHOS-		ARSENIC	BERYL-	BORON,	CADMIUM
		SED	DEMAND,	GEN, NH4	GEN, NH4	PHORUS		TOTAL	LIUM,	TOTAL	
		BED MAT	CHEM-	IN BOT.	+ ORG.	TOTAL		IN BOT.	TOTAL	TOTAL	
		(STD	ICAL	MAT.	TOT IN	MAT.		ARSENIC	TOM MA-	RECOV-	RECOV-
		(HIGH	(MG/L	(MG/KG	(MG/KG	(MG/KG	TOTAL	TERIAL	ERABLE	ERABLE	ERABLE
		UNITS)		AS N)	AS N)	AS P)	AS AS)	AS AS)	AS BE)	AS B)	AS CD)
		(70310)	(00340)	(00611)	(00626)	(00668)	(01002)	(01003)	(01012)	(01022)	(01027)
NOV 1994											
14...	1305	6.6	--	6.8	90	79	--	2	--	--	--
14...	1305	--	15	--	--	--	2	--	<10	50	<1
MAY 1995											
25...	1010	--	15	--	--	--	3	--	<10	60	<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CO) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01038)	COPPER, RECOV. TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU) (01043)	IRON, RECOV. TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS FE) (01170)	LEAD, RECOV. TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
NOV 1994											
14...	<1	--	6	<5	--	2	--	6800	--	50	--
14...	--	<1	--	--	<1	--	4400	--	5	--	140
MAY 1995											
25...	--	1	--	--	1	--	4700	--	5	--	110

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/L (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG) (71921)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS NI) (01067)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS NI) (01068)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/L AS SE) (01147)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G) AS ZN) (01148)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C) (00686)	
	NOV 1994										
	14...	25	--	<0.01	--	<10	--	<1	--	20	<0.1
	14...	--	<0.1	--	5	--	<1	--	20	--	--
	MAY 1995										
25...	--	<0.1	--	4	--	<1	--	20	--	--	

[illegible][illegible]

## DELAWARE RIVER BASIN

## 01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood Terrace, 1,000 ft upstream from Bull Run, and 2.0 mi northeast of Fairview.

DRAINAGE AREA.--19.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)
NOV 1994										
14...	0930	19	179	7.0	9.5	770	9.8	85	<1.0	790
FEB 1995										
01...	1055	21	167	7.3	4.0	752	12.4	96	E1.9	49
APR										
04...	1115	20	169	7.4	10.0	754	10.4	93	2.2	49
MAY										
30...	0950	15	155	7.3	20.0	760	7.8	86	E1.4	790
JUL										
31...	0955	8.6	142	6.9	25.0	767	7.1	85	E1.5	490

DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 1994										
14...	80	43	12	3.1	13	3.8	27	12	22	<0.1
FEB 1995										
01...	30	45	13	3.0	11	2.5	24	13	18	<0.1
APR										
04...	30	44	13	2.9	11	2.2	26	14	17	<0.1
MAY										
30...	190	42	12	2.8	10	2.5	27	11	16	<0.1
JUL										
31...	190	37	10	2.8	9.6	2.8	26	9.7	17	<0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV 1994									
14...	7.0	100	94	5	0.026	0.90	0.41	0.43	0.70
FEB 1995									
01...	6.9	88	88	--	0.011	1.30	0.33	0.31	0.50
APR									
04...	4.2	94	87	4	0.019	1.50	0.10	0.10	0.60
MAY									
30...	6.1	84	81	16	0.046	0.99	0.07	0.10	0.40
JUL									
31...	6.1	82	76	6	0.009	0.61	0.07	0.05	0.30

## DELAWARE RIVER BASIN

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01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 1994 14...	0.67	1.6	1.6	0.07	0.01	3.4	0.4	--	--
FEB 1995 01...	0.47	1.8	1.8	0.01	<0.01	2.0	0.6	28	1.6
APR 04...	0.55	2.1	2.1	0.11	0.02	2.2	0.5	--	--
MAY 30...	0.37	1.4	1.4	0.07	0.02	3.4	0.7	--	--
JUL 31...	0.16	0.91	0.77	0.08	<0.01	3.4	0.4	--	--

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 14...	0930	<10	<1	<10	100	<1	<1	1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 14...	1400	2	40	<0.1	1	<1	10

## DELAWARE RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA  
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, PA, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth. Water- quality sampling site 1.6 mi upstream.

DRAINAGE AREA.--1,893 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, and 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee. Records of discharge do not include diversion above station by city of Philadelphia for municipal water supply. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869 reached a stage of 17.0 ft, discharge, 135,000 ft<sup>3</sup>/s, from rating extended above 46,000 ft<sup>3</sup>/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, 98,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	978	5150	1600	2270	7460	1650	1850	2290	1270	892	597
2	1660	1250	3800	2870	2210	4730	1610	1980	1570	1160	928	559
3	1650	2950	3130	3100	2190	3810	1560	2520	1490	1200	860	581
4	1520	2510	2680	2700	2350	3390	1530	2000	1720	961	752	582
5	1500	1850	4400	2470	e2100	3060	1590	1590	1910	1070	786	621
6	1430	1490	9380	1820	e1700	2810	1430	1470	1480	1020	978	570
7	1360	1400	7120	7100	e1600	2720	1330	1400	1500	1150	951	542
8	1340	1320	5200	5280	e1400	4040	1270	1290	1460	1960	893	577
9	1300	1230	4200	3370	e1300	30300	1360	1170	1160	1700	820	782
10	1350	1420	3810	3030	e1400	11900	1920	1520	1110	1350	797	617
11	1410	1640	7980	2850	e1400	8170	1880	1660	1100	1720	701	688
12	1300	1740	5900	2310	e1300	6590	1630	1690	1190	2390	658	709
13	1280	1580	4670	2210	e1200	5650	2630	1560	1820	2110	705	649
14	1260	1490	4090	2240	e1100	4920	3180	1450	2030	1670	728	689
15	1200	1410	3450	2540	e1200	4230	2580	1510	1630	1460	794	492
16	1060	1380	3020	4050	e1300	3830	2190	1570	1350	1740	936	487
17	999	1480	2910	4210	e1800	3550	2020	1480	1250	2520	771	2330
18	990	1670	2890	3910	2060	3330	1850	1330	1210	3330	658	1310
19	949	1540	2700	3690	2090	3050	1640	1440	1170	2290	572	776
20	940	1320	2400	7940	2160	2820	1580	1480	1020	1840	614	598
21	969	1370	2130	12600	2500	2910	1600	1420	1020	2940	749	496
22	909	2410	2050	10100	2540	3180	1870	1300	990	2130	730	645
23	1040	2820	1980	7840	2360	2760	1650	1160	1000	1480	678	1010
24	2270	2330	2000	5700	2600	2380	1640	1100	1030	1290	667	784
25	1470	1970	2170	4700	2890	2220	1580	1120	1070	1170	571	728
26	1190	1850	2130	4120	2320	2130	1610	1310	1150	1120	527	1610
27	1060	1710	1940	3670	2100	2070	1450	1520	1650	1030	577	1530
28	968	5880	1760	3350	6090	1960	1380	1290	2290	950	628	884
29	910	10600	1620	3050	---	1940	1310	1250	1930	1070	645	688
30	894	7470	1470	2710	---	1870	1410	3010	1520	1510	636	581
31	894	---	1400	2550	---	1760	---	2900	---	1050	638	---
TOTAL	38622	70058	109530	129680	57530	145540	51930	49340	43110	49651	22840	23712
MEAN	1246	2335	3533	4183	2055	4695	1731	1592	1437	1602	737	790
MAX	2270	10600	9380	12600	6090	30300	3180	3010	2290	3330	978	2330
MIN	894	978	1400	1600	1100	1760	1270	1100	990	950	527	487

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

MEAN	1313	2299	3132	3252	3590	4851	4253	3113	2101	1630	1388	1390
MAX	4771	6272	9569	11400	8136	13320	11620	9943	11640	6434	7980	4863
(WY)	1956	1973	1984	1979	1939	1936	1983	1989	1972	1984	1933	1960
MIN	89.4	223	444	340	647	1552	1237	693	261	116	140	117
(WY)	1942	1932	1981	1981	1934	1981	1985	1965	1965	1966	1966	1932

DELAWARE RIVER BASIN

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01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued  
(National stream-quality accounting network station)

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1932 - 1995	
ANNUAL TOTAL	1276054		791543		2688	
ANNUAL MEAN	3496		2169		4791	1984
HIGHEST ANNUAL MEAN					1014	1965
LOWEST ANNUAL MEAN					93400	Jun 23 1972
HIGHEST DAILY MEAN	25100	Mar 29	30300	Mar 9		
LOWEST DAILY MEAN	752	Jul 13	487	Sep 16	.60	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	870	Sep 11	576	Sep 2	24	Sep 28 1941
INSTANTANEOUS PEAK FLOW			45100	Mar 9	103000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			11.23	Mar 9	14.65	Jun 23 1972
INSTANTANEOUS LOW FLOW					.00	Sep 2 1966
10 PERCENT EXCEEDS	8470		3860		5820	
50 PERCENT EXCEEDS	1850		1570		1640	
90 PERCENT EXCEEDS	988		728		418	

e Estimated.



01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft downstream from County Bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

**DRAINAGE AREA.--**26.9 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is sea level. Prior to July 28, 1969, at datum 7.96 ft higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher.

REMARKS.--Records poor. Several measurements of water temperature, other than those published, were made during the year.

**PEAK DISCHARGES FOR CURRENT YEAR.--**Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 9	1415	*441	*11.32b	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	20	29	26	24	58	23	35	16	21	12	7.9
2	e19	20	27	28	24	36	23	36	15	19	11	7.8
3	e18	19	25	27	23	31	23	39	16	14	11	7.7
4	e17	20	24	26	42	30	23	31	16	13	10	7.7
5	e16	19	30	24	33	30	23	29	16	13	10	7.8
6	e15	19	36	23	34	28	23	28	15	12	36	7.6
7	e15	19	32	147	30	27	23	29	20	14	20	7.5
8	e16	19	27	107	28	48	23	30	17	15	14	7.7
9	e16	19	25	71	26	257	24	28	15	13	12	8.0
10	e17	27	26	54	24	85	29	46	15	13	12	8.2
11	e17	26	40	45	26	52	24	34	15	13	11	7.6
12	17	22	41	41	26	41	23	25	16	12	11	7.6
13	18	21	36	38	25	37	63	23	17	11	12	7.9
14	18	20	31	36	23	34	38	22	17	11	10	8.5
15	19	20	28	33	23	31	30	28	16	11	10	8.8
16	18	23	27	31	50	27	29	22	14	79	10	8.9
17	18	24	26	28	43	26	27	21	13	23	9.6	29
18	19	22	26	26	36	29	26	23	13	36	9.3	16
19	19	21	25	23	33	26	25	29	13	16	8.9	11
20	19	20	24	102	32	31	24	25	13	14	8.5	11
21	19	30	23	100	32	34	23	20	12	15	8.1	10
22	19	43	23	42	28	33	23	18	13	44	8.0	19
23	21	27	23	33	27	28	22	17	15	64	8.1	28
24	28	24	24	28	29	25	24	16	17	20	8.1	13
25	22	22	33	26	30	25	27	16	15	17	8.0	13
26	21	22	32	27	28	24	25	28	14	16	7.8	20
27	21	21	28	26	28	23	24	21	13	16	8.0	15
28	20	51	26	26	62	23	23	19	14	15	8.1	e14
29	20	44	25	25	---	23	22	19	13	14	8.1	e13
30	20	33	24	24	---	23	26	18	13	13	7.9	e12
31	20	---	23	24	---	23	---	17	---	12	7.9	---
TOTAL	582	737	869	1317	869	1248	785	792	447	619	336.4	351.2
MEAN	18.8	24.6	28.0	42.5	31.0	40.3	26.2	25.5	14.9	20.0	10.9	11.7
MAX	28	51	41	147	62	257	63	46	20	79	36	29
MIN	15	19	23	23	23	23	22	16	12	11	7.8	7.5
CFSM	.70	.91	1.04	1.58	1.15	1.50	.97	.95	.55	.74	.40	.44
IN.	.80	1.02	1.20	1.82	1.20	1.73	1.09	1.10	.62	.86	.47	.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1995, BY WATER YEAR (WY)

MEAN	27.9	34.6	44.4	50.2	49.5	55.1	52.9	42.0	34.6	31.9	29.9	25.5
MAX	65.2	93.9	107	123	115	132	134	72.6	77.7	112	121	71.9
(WY)	1990	1973	1973	1978	1979	1994	1983	1989	1975	1975	1967	1971
MIN	13.0	18.0	18.8	20.7	23.6	22.7	21.3	15.9	10.7	6.01	5.89	11.7
(WY)	1993	1975	1981	1981	1992	1981	1985	1977	1966	1966	1966	1968

DELAWARE RIVER BASIN

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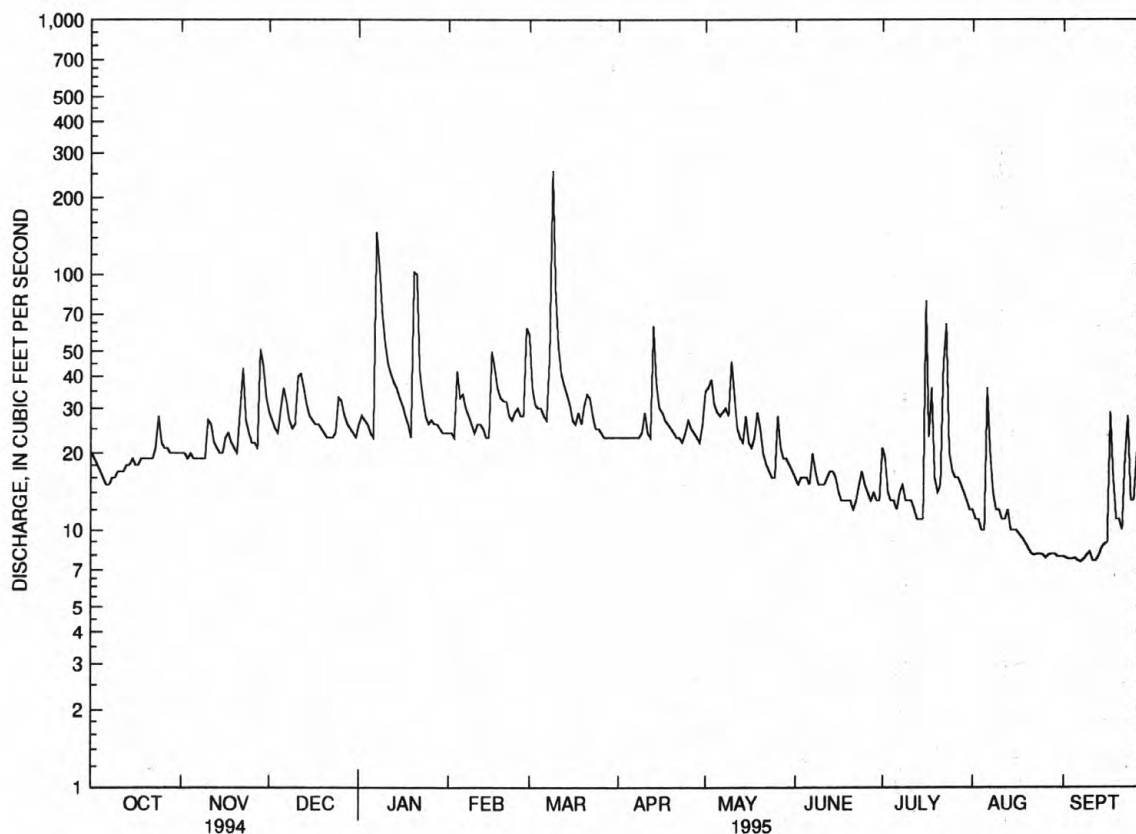
01477120 RACCOON CREEK NEAR SWEDSBORO, NJ--Continued

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1966 - 1995	
ANNUAL TOTAL	17286		8952.6		40.0	
ANNUAL MEAN	47.4		24.5		64.7	
HIGHEST ANNUAL MEAN					22.5	
LOWEST ANNUAL MEAN					1260	
HIGHEST DAILY MEAN	547	Feb 24	257	Mar 9	Aug 28	1971
LOWEST DAILY MEAN	13	Jul 12	7.5	Sep 7	Jul 14	1966
ANNUAL SEVEN-DAY MINIMUM	16	Oct 4	7.7	Sep 2	Aug 25	1966
INSTANTANEOUS PEAK FLOW			319	Mar 9	Aug 10	1967
INSTANTANEOUS PEAK STAGE			11.32	Mar 9	Aug 10	1967
INSTANTANEOUS LOW FLOW			6.8	Aug 30	Jul 14	1966
ANNUAL RUNOFF (CFSM)	1.76		.91		1.49	
ANNUAL RUNOFF (INCHES)	23.90		12.38		20.23	
10 PERCENT EXCEEDS	80		36		66	
50 PERCENT EXCEEDS	31		23		29	
90 PERCENT EXCEEDS	18		10		14	

a Present datum.

b Obtained from crest-stage gage.

e Estimated.



01477120 RACCOON CREEK NEAR SWEDSBORO, NJ, DAILY MEAN DISCHARGE

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1966 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)
NOV 1994										
09...	1110	19	236	7.4	12.0	759	9.7	90	E1.5	220
JAN 1995										
31...	1040	24	229	7.2	2.0	757	13.1	95	E2.0	90
APR										
04...	0930	23	222	7.3	9.5	754	9.6	85	E2.5	140
MAY										
31...	1230	17	221	7.4	18.0	765	7.4	78	E1.9	790
JUL										
26...	0952	16	221	7.3	24.0	760	6.8	81	E1.1	1700
DATE	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 1994										
09...	200	74	23	4.0	9.7	4.5	46	22	19	0.2
JAN 1995										
31...	50	66	20	4.0	10	3.7	30	25	19	0.2
APR										
04...	20	69	21	3.9	10	3.3	33	27	18	0.2
MAY										
31...	140	68	21	3.7	11	3.7	41	21	19	0.2
JUL										
26...	400	71	22	3.8	11	4.3	46	20	19	0.2
DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDE (MG/L) (00530)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	
NOV 1994										
09...	12	136	126	--	0.005	0.90	0.20	0.18	0.30	
JAN 1995										
31...	10	128	119	1	0.012	1.90	0.31	0.32	0.50	
APR										
04...	8.2	130	117	3	0.023	1.10	0.34	0.37	0.50	
MAY										
31...	11	130	121	8	0.076	1.20	0.41	0.40	0.60	
JUL										
26...	12	128	124	8	0.027	0.83	0.14	0.18	0.30	

DELAWARE RIVER BASIN

459

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 1994 09...	0.26	1.2	1.2	0.11	0.01	2.7	0.5	14	0.72
JAN 1995 31...	0.48	2.4	2.4	0.06	0.03	2.2	0.4	--	--
APR 04...	0.32	1.6	1.4	0.08	<0.01	2.0	0.8	--	--
MAY 31...	0.57	1.8	1.8	0.16	0.08	2.9	0.8	--	--
JUL 26...	0.26	1.1	1.1	0.17	0.03	3.6	0.5	--	--

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 09...	1110	17	1	<10	50	<1	<1	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 09...	1700	<1	70	<0.1	3	<1	<10

## DELAWARE RIVER BASIN

## 01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft downstream of tributary from outflow of lake at Porches Mill, 1.0 mi north of Seven Stars, and 2.1 mi southeast of Auburn.

DRAINAGE AREA.--21.0 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1994													
17...	1130	34	235	7.5	10.0	769	11.3	99	2.1	79	50	86	
FEB 1995													
15...	1145	15	225	7.1	1.0	772	12.6	88	<1.0	79	<10	81	
MAR													
27...	1240	20	207	7.8	12.0	765	13.4	124	<1.0	17	<10	73	
MAY													
30...	1005	11	213	7.4	19.5	760	7.2	79	E1.4	130	150	77	
AUG													
01...	1118	E5.0	212	7.6	25.5	766	8.3	101	E2.2	120	80	80	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
17...	26	5.1	6.1	4.1	43	26	21	0.3	12	128	132	3	
FEB 1995													
15...	24	5.0	6.2	3.6	27	30	19	0.2	11	136	128	13	
MAR													
27...	22	4.5	6.0	3.2	26	28	18	0.2	7.6	128	113	3	
MAY													
30...	23	4.7	6.0	3.5	39	22	18	0.2	12	120	119	20	
AUG													
01...	24	4.9	5.4	4.3	42	20	19	0.3	12	126	120	7	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
17...	0.010	1.20	0.03	0.03	0.03	0.27	0.16	1.5	1.4	0.04	0.01	2.9	0.8
FEB 1995													
15...	0.012	2.90	0.08	0.08	0.08	0.31	0.16	3.2	3.1	0.09	<0.01	2.0	0.8
MAR													
27...	0.012	1.70	<0.03	<0.03	<0.03	0.20	0.15	1.9	1.9	0.06	<0.01	2.9	0.8
MAY													
30...	0.045	1.40	0.08	0.08	0.07	0.50	0.38	1.9	1.8	0.12	0.02	3.6	0.9
AUG													
01...	0.019	1.00	0.07	0.10	0.10	0.40	0.27	1.4	1.3	0.08	0.01	3.8	2.1



## DELAWARE RIVER BASIN

01477510 OLDMANS CREEK AT PORCHES MILL, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L) AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L) AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L) AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L) AS CU) (01042)
NOV 1994 17...	1130	<10	<1	<10	20	<1	<1	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L) AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L) AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L) AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092)
NOV 1994 17...	1200	<1	90	<0.1	7	<1	10

## DELAWARE RIVER BASIN

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1973 to current year.

COOPERATION.--Analyses of fecal coliform bacteria by the MPN method, enterococcus bacteria by the membrane filtration method, dissolved nitrite, total ammonia, dissolved ammonia, and BOD performed by the New Jersey Department of Health, Public Health, and Environmental Laboratories.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	ENTERO-COCCI ME, MF WATER TOTAL (COL / 100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
NOV 1994													
17...	0900	7.2	264	7.5	10.0	769	10.3	90	3.1	130	200	91	
FEB 1995													
15...	0945	5.9	275	7.2	4.0	771	12.9	97	<1.0	50	50	91	
MAR													
27...	0945	15	244	7.6	10.5	765	11.1	99	3.0	50	10	84	
MAY													
24...	0945	2.7	243	8.4	22.5	765	8.3	96	5.1	31	40	88	
AUG													
01...	0927	1.5	187	8.2	29.0	766	6.4	83	7.1	790	170	65	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV 1994													
17...	20	10	7.8	6.3	40	34	24	0.1	6.3	140	139	16	
FEB 1995													
15...	20	10	8.8	4.9	23	39	24	<0.1	8.1	156	147	12	
MAR													
27...	19	8.8	7.9	4.4	23	36	22	0.1	7.0	130	131	15	
MAY													
24...	20	9.3	7.8	5.3	40	30	21	0.1	7.2	142	129	14	
AUG													
01...	15	6.6	5.6	7.8	35	19	16	0.2	9.3	116	101	57	
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED TOTAL (MG/L AS P) (00602)	PHOS-PHORUS DIS-SOLVED TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1994													
17...	0.053	1.50	0.24	0.27	0.90	0.61	2.4	2.1	0.11	0.02	4.3	1.2	
FEB 1995													
15...	0.026	4.20	0.20	0.13	0.80	0.47	5.0	4.7	0.07	0.03	3.8	1.1	
MAR													
27...	0.034	2.80	0.03	0.03	0.70	0.38	3.5	3.2	0.12	0.02	4.3	1.7	
MAY													
24...	0.057	0.89	0.03	<0.03	0.90	0.50	1.8	1.4	0.07	<0.01	5.9	3.3	
AUG													
01...	0.003	<0.05	0.05	0.04	0.60	0.55	--	--	0.25	0.12	8.5	5.5	

## DELAWARE RIVER BASIN

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1994 17...	0900	16	<1	<10	30	<1	<1	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 1994 17...	930	2	100	<0.1	1	<1	<10

## RESERVOIRS IN DELAWARE RIVER BASIN

- 01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downs-ville Dam on East Branch Delaware River, and 1.6 mi east of Downsville. DRAINAGE AREA, 372 mi<sup>2</sup>, revised. PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York).  
REMARKS.--Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft and crest of spillway, elevation, 1,280.0 ft. Capacity: at crest of spillway 149,799 mil gal; at minimum operating level, 9,609 mil gal; at sill of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see elsewhere in this section), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955.  
COOPERATION.--Records provided by New York City Department of Environmental Protection.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 154,027 mil gal, Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal, Dec. 26, 1964, elevation, 1,151.92 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 140,120 mil gal, May 22, elevation, 1,274.65 ft; minimum observed, 75,238 mil gal, Sept. 30, elevation, 1,231.44 ft.
- 01424997 CANNONVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville. DRAINAGE AREA, 454 mi<sup>2</sup>. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WDR NY-71-1: 1966. GAGE, water-stage recorder. Datum of gage is sea level (levels by Board of Water Supply, City of New York).  
REMARKS.--Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 30, 1963. Usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see elsewhere in this section); is released in Delaware River for downstream low flow augmentation, as directed by the Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to January 29, 1964.  
COOPERATION.--Records provided by New York City Department of Environmental Protection.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,617 mil gal, Mar. 16, 1986, elevation, 1,156.73 ft; minimum observed (after first filling), 11,901 mil gal, Nov. 7, 1968, elevation, 1,066.24 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 101,966 mil gal, Mar. 10, elevation, 1,152.08 ft; minimum observed, 28,287 mil gal, Sept. 30, elevation, 1,091.17 ft.
- 01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, 0.4 mi upstream from highway bridge, and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi<sup>2</sup>. PERIOD OF RECORD, December 1960 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).  
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation of 1,205.00 ft. Storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool is 1,125.00 ft, capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.  
COOPERATION.--Records provided by U.S. Army Corps of Engineers.  
EXTREMES FOR PERIOD OF RECORD. Maximum contents, 8,170 acre-ft, June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,500 acre-ft, June 5, 1991, elevation, 1,121.46 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,270 acre-ft, Nov. 29, elevation, 1,127.75 ft; minimum contents, 2,900 acre-ft, Sept. 4-6, 12, elevation, 1,122.86 ft.
- 01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.4 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi<sup>2</sup>. PERIOD OF RECORD, October 1959 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).  
REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,053.00 ft. Storage began in October 1959. Capacity at elevation of 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.  
COOPERATION.--Records provided by U.S. Army Corps of Engineers.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,520 acre-ft, June 19, 1973, elevation, 1,017.40 ft; minimum contents, no storage many times.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 604 acre-ft, Apr. 16, elevation, 990.04 ft; minimum contents, no storage many times.
- 01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi south of Hawley, and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi<sup>2</sup>. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is sea level (levels by Pennsylvania Power and Light Co.).  
REMARKS.--Lake formed by concrete gravity-type and earthfill dam, with concrete spillway in two sections at elevation 1,176.00 ft. Spillway equipped with 14 ft high roller gate on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation January 1926. Total capacity at elevation 1,190.00 ft (top of gates), is 209,300 acre-ft, of which 108,900 acre-ft, above elevation 1,170.00 ft (minimum pool), is controlled storage. Prior to 1984, minimum pool elevation was 1,160.00 ft. Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records prior to 1984 included additional usable contents of 48,900 acre-ft.  
COOPERATION.--Records provided by Pennsylvania Power and Light Co.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 129,300 acre-ft, Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft (old minimum pool), Mar. 28, 1958, elevation, 1,162.60 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 80,790 acre-ft, Dec. 6, elevation, 1,185.1 ft; minimum contents, 29,850 acre-ft, Feb. 24, elevation 1,176.0 ft.
- 01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'21", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville. DRAINAGE AREA, 116 mi<sup>2</sup>, excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. GAGE, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft.  
REMARKS.--Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft<sup>3</sup> between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir.  
COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,461.6 mil ft<sup>3</sup>, Mar. 14, 1977, elevation, 1,071.8 ft; minimum observed (after first filling), -141.4 mil ft<sup>3</sup>, Dec. 2, 1938, elevation, 987.5 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,319.0 mil ft<sup>3</sup>, Mar. 17, elevation, 1,068.3 ft; minimum observed, 952.2 mil ft<sup>3</sup>, Apr. 21, elevation, 1,058.3 ft.



## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake. DRAINAGE AREA, 22.9 mi<sup>2</sup>. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959 (M). WDR NY-85-1: 1984. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. GAGE, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft.

REMARKS.--Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity 1,098.2 mil ft<sup>3</sup> between elevations 1,165.0 ft, minimum operating pool, and 1,220.0 ft, top of permanent flashboards. Capacity below elevation 1,165.0 ft, minimum operating pool, about 26.8 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft.

COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,171.2 mil ft<sup>3</sup>, July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft<sup>3</sup>, Nov. 15, 1928, elevation, 1,144.5 ft.

EXTREMES OF CURRENT YEAR.--Maximum contents observed, 769.6 mil ft<sup>3</sup>, June 5, 7, 12, elevation, 1,209.6 ft; minimum observed, 248.5 mil ft<sup>3</sup>, Nov. 14, 16, 23, elevation, 1,187.2 ft.

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville. DRAINAGE AREA, 6.46 mi<sup>2</sup>, excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NY-75-1: 1974(m). WDR NY-86-1: 1985. GAGE, nonrecording gage, daily readings at 0900. Datum of gage is sea level (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft.

REMARKS.--Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft<sup>3</sup> between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft.

COOPERATION.--Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 145.44 mil ft<sup>3</sup>, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft<sup>3</sup>, Mar. 16, 1963, elevation, 1,038.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 117.32 mil ft<sup>3</sup>, Oct. 14, elevation, 1,069.7 ft; minimum observed, 47.45 mil ft<sup>3</sup>, Apr. 21, elevation, 1,058.7 ft.

01435900 NEVERSINK RESERVOIR.--Lat 41°49'27", long 74°38'20", Sullivan County, NY, Hydrologic Unit 02040104, at a gatehouse at Neversink Dam on Neversink River, and 2 mi southwest of Neversink. DRAINAGE AREA, 92.5 mi<sup>2</sup>. PERIOD OF RECORD, June 1953 to current year. REVISED RECORDS, WDR NY-85-1: Drainage area. GAGE, nonrecording gage read daily at 0900. Datum of gage is sea level (levels by Board of Water Supply, City of New York).

REMARKS.--Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage below diversion sill and outlet sill, elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see elsewhere in this section); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953.

COOPERATION.--Records provided by New York City Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 37,983 mil gal, Apr. 17, 1993, elevation, 1,441.68 ft; minimum observed (after first filling), 1,985 mil gal, Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 34,032 mil gal, May 22, elevation, 1,433.53 ft; minimum observed, 11,225 mil gal, Sept. 30, elevation, 1,369.42 ft.

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek, and 5.0 mi northeast of White Haven. DRAINAGE AREA, 289 mi<sup>2</sup>. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft. Storage began Feb. 17, 1961; reservoir first reached conservation pool in June 1961. Total capacity (elevation 1,450.0 ft) is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft. (conservation pool). Dead storage is 2,000 acre-ft. Flow regulated by three gates and low-flow by-pass system. Reservoir is used for flood control and recreation. Satellite telemetry at station.

COOPERATION.--Records provided by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,100 acre-ft, Sept. 28, 1985, elevation, 1,417.08 ft; minimum contents (after establishment of conservation pool), 980 acre-ft, July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,380 acre-ft, Oct. 2, elevation, 1,355.95 ft; minimum contents, 1,720 acre-ft, Jan. 20, elevation, 1,297.39 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi upstream from hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10.0 mi northeast of Palmerton. DRAINAGE AREA, 16.5 mi<sup>2</sup>. PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by an earthfill dam with ungated concrete spillway at elevation 1,000.00 ft (capacity, 19,980 acre-ft). Storage began October 1958. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent total contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum contents, 176 acre-ft, Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,660 acre-ft, Oct. 3, elevation, 997.07 ft; minimum contents, 1,880 acre-ft, Aug. 21, elevation, 932.15 ft.



## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

- 01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi upstream from mouth, 2.4 mi south of hatchery, and 7.5 mi northeast of Palmerton. DRAINAGE AREA, 22.2 mi<sup>2</sup>. PERIOD OF RECORD, January 1941 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by city of Bethlehem).  
 REMARKS.--Reservoir formed by earthfill dam with concrete ungated spillway at elevation 820.00 ft. Storage began January 27, 1941; reservoir first reached minimum contents pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent usable contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.  
 COOPERATION.--Records provided by city of Bethlehem.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum contents (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,360 acre-ft, Dec. 8, elevation, 821.20 ft; minimum contents 8,800 acre-ft, Sept. 30, elevation 807.72 ft.
- 01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.4 mi upstream from gaging station on Pohopoco Creek, 0.6 mi upstream from Sawmill Run, and 2.3 mi northeast of Parryville. DRAINAGE AREA, 96.3 mi<sup>2</sup>. PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).  
 REMARKS.--Lake formed by an earth and rockfill dam with ungated, partially lined spillway at an elevation of 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum contents (conservation) pool elevation is 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Lake is used for recreation, flood control, low-flow augmentation, and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates.  
 COOPERATION.--Records provided by U.S. Army Corps of Engineers.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,730 acre-ft, Jan. 29, 1976, elevation, 636.30 ft; minimum contents, 15,110 acre-ft, Mar. 31, 1983, elevation, 588.79 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,280 acre-ft, July 10, elevation, 629.08 ft; minimum contents, 31,640 acre-ft, Sept. 15, elevation, 616.72 ft.
- 01455221 MERRILL CREEK RESERVOIR.--Lat 40°43'42", long 75°06'11", Warren County, Hydrologic Unit 02040105, at dam on Merrill Creek in Harmony Township, 4.5 mi northeast of Phillipsburg, and 2.8 mi upstream from mouth. DRAINAGE AREA, 3.13 mi<sup>2</sup>. PERIOD OF RECORD, March 1988 to current year. GAGE, measurement from reference point. Datum of gage is sea level.  
 REMARKS.--Reservoir formed by zoned, compacted, earth-rockfill dam constructed in November 1987. Storage began March 1988. Total capacity at spillway elevation, 16,617,000,000 gal, elevation 929.0 ft. Useable capacity, 15,6654,000,000 gal. Reservoir used for storage of water pumped from the Delaware River through a 57-inch diameter pipe 17,000 ft long. Releases are made into the Delaware River through the same pipe. Reservoir is used to augment low flow in the Delaware River. Conservation release of 3 ft<sup>3</sup>/s made to Merrill Creek.  
 COOPERATION.--Records provided by the Merrill Creek Reservoir Project.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,710,000,000 gal, Jan. 15, 1990, elevation, 923.3 ft; minimum (after first filling), 14,076,000,000 gal, Jan. 23, 1992, elevation 910.40 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,464,000,000 gal, Mar. 16, elevation 922.16 ft; minimum, 15,846,000,000 gal, Sept. 30, elevation 919.19 ft.
- 01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.3 mi<sup>2</sup>. PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. REVISED RECORDS, WDR NJ-82-2: Drainage area; WDR NJ-83-2: Corrections 1981 (m/m). GAGE, staff gage. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft sea level.  
 REMARKS.--Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft in 1925. Usable capacity, 7,459,000,000 gal between (gage height -2.6 ft, sills of gates and 9.00 ft, crest of spillway). Flow regulated by four gates (3 by 5 ft, also by one 24-inch pipe with gate valve to recreation fountain 250 ft downstream from dam. Dead storage, about 8,117,000,000 gal. Figures given herein represent usable capacity. Lake used for recreation. CORRECTIONS.--Once-daily staff readings furnished by New Jersey Department of Environmental Protection.  
 COOPERATION.--Records provided by New Jersey Department of Environmental Protection.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,777,000,000 gal, August 19, 1955, gage height, 10.55 ft; minimum, 1,525,000,000 gal, Dec. 29, 1960, gage height, 0.65 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,493,000,000 gal, Oct. 2, gage height, 9.04 ft; minimum, 5,677,000,000 gal, Feb. 1-4, gage height, 6.80 ft.
- 01459350 NOCKAMIXON RESERVOIR.--Lat 40°28'13", long 75°11'10", Bucks County, PA, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 2.9 mi upstream from Mink Run, and 1.3 mi east of Ottsville. DRAINAGE AREA.-- 73.3 mi<sup>2</sup>. PERIOD OF RECORD.--December 1973 to current year. GAGE.--Water stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Protection).  
 REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began December 1973. Total capacity 66,500 acre-ft at elevation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control.  
 COOPERATION.--Records furnished by Pennsylvania Department of Environmental Protection.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,380 acre-ft, Jan. 20, 1979, elevation, 397.85 ft; minimum contents (after first filling), 15,900 acre-ft, around Dec. 31, 1975, elevation, 372.78 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents 41,320 acre-ft, Mar. 10, elevation, 395.80 ft; minimum contents, 39,080 acre-ft, Apr. 3, elevation, 394.20 ft.
- 01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1.0 mi upstream from mouth, and 2.3 mi north of Hometown. DRAINAGE AREA, 7.19 mi<sup>2</sup>. PERIOD OF RECORD, January 1933 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by Panther Valley Water Co.).  
 REMARKS.--Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft. Storage began February 1933. Capacity at elevation 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam.  
 COOPERATION.--Records provided by the borough of Tamaqua.  
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,570 acre-ft, Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 or 1951 water years; minimum contents (after first filling), 588 acre-ft, Dec. 8, 1944, elevation, 1,136.70 ft.  
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,340 acre-ft, Jan. 21, elevation, 1,182.2 ft; minimum contents, 7,520 acre-ft, Oct. 27, elevation, 1,179.2 ft.

## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, PA, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek (station 01470960), 1.0 mi northeast of Blue Marsh, 1.9 mi upstream from Rebers Bridge, and 5.1 mi southeast of Bernville. DRAINAGE AREA, 175 mi<sup>2</sup>. PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by earthfill dam, with ungated concrete spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Lake is used for flood control, water supply, and recreation. Figures herein represent total contents. Satellite telemetry at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft, Apr. 17, 1983, elevation, 301.65 ft; minimum contents (after first filling), 13,150 acre-ft, Mar. 18, 1994, elevation, 279.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,900 acre-ft, July 10, elevation, 290.86 ft; minimum contents, 15,940 acre-ft, Sept. 16, elevation, 283.20.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi west of Green Lane, and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi<sup>2</sup>. PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Philadelphia Suburban Water Co.).

REMARKS.--Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation of 286.00 ft. Storage began December 21, 1956. Capacity at elevation 286.00 ft is 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam.

COOPERATION.--Records provided by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,030 acre-ft, June 23, 1972, elevation, 290.05 ft; minimum contents (after first filling), 1,270 acre-ft, Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,340 acre-ft, March 9, elevation, 287.03 ft; minimum contents, 9,290 acre-ft, Sept. 25, elevation, 280.21 ft.

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24", long 75°43'06", Chester County, PA, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi upstream from mouth and 3.2 mi north of Downingtown. DRAINAGE AREA, 20.1 mi<sup>2</sup>. PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Resources).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity 22,190 acre-ft at elevation 373 ft. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft.

COOPERATION.--Records provided by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 16,380 acre-ft Jan. 25, 1979, elevation, 363.49 ft; minimum (after first filling), 10,410 acre-ft Mar. 3, 1976, elevation, 351.75 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 15,370 acre-ft, Dec. 6, at elevation of 361.65 ft; minimum contents, 12,700 acre-ft, Feb. 4, at elevation of 356.59 ft.

## MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
<b>01416900 Pepacton Reservoir</b>									
Sept. 30.....	1,263.35	120,861	-	1,141.61	86,112	--	1,125.03	3,510	--
Oct. 31.....	1,257.09	110,867	-499	1,132.20	73,170	-646	1,123.88	3,190	- 5.2
Nov. 30.....	1,253.43	105,253	-290	1,131.36	72,058	- 57.4	1,126.56	3,940	+12.6
Dec. 31.....	1,256.28	109,610	+217	1,140.65	84,725	+632	1,125.22	3,560	- 6.2
CAL YR 1994			+94.4			+111	--	--	+ 0.04
Jan. 31.....	1,263.35	120,861	+562	1,150.71	99,760	+750	1,125.33	3,590	+ 0.5
Feb. 28.....	1,259.92	115,326	-306	1,150.36	99,197	-31.1	1,125.52	3,640	+ 0.9
Mar. 31.....	1,268.05	128,679	+666	1,150.46	99,358	+8.04	1,125.21	3,560	- 1.3
Apr. 30.....	1,272.93	137,086	+434	1,149.61	98,025	-68.8	1,125.17	3,550	- 0.2
May 31.....	1,273.13	137,438	+17.6	1,144.98	90,983	-351	1,125.01	3,500	- 0.8
June 30.....	1,269.39	130,960	-334	1,134.82	76,640	-740	1,123.75	3,150	- 5.9
July 31.....	1,261.35	117,616	-666	1,124.61	63,412	-660	1,123.64	3,120	- 0.5
Aug. 31.....	1,249.40	99,274	-915	1,108.42	44,728	-933	1,122.88	2,910	- 3.4
Sept. 30.....	1,230.81	74,470	-1,279	1,090.47	27,691	-879	1,123.39	3,050	+ 2.4
WTR YR 1995	-	-	-197	-	-	-248	--	--	- 0.6
<b>01429400 General Edgar Jadwin Reservoir</b>									
Sept. 30.....	976.56	0	--	1,180.0	52,700	--	1,065.4	1,206.5	--
Oct. 31.....	976.31	0	0	1,182.3	63,980	+183	1,063.9	1,150.2	-21.0
Nov. 30.....	982.16	126	+2.1	1,184.6	77,650	+230	1,067.3	1,279.7	+50.0
Dec. 31.....	978.60	12.0	-1.9	1,181.1	57,830	-322	1,063.9	1,150.2	-48.4
CAL YR 1994	--	--	+0.02	--	--	-4.8			+12.3
Jan. 31.....	979.80	44.0	+0.5	1,180.5	54,970	- 46.5	1,065.3	1,202.7	+19.6
Feb. 28.....	978.70	14.0	-0.5	1,176.4	31,600	-421	1,062.0	1,080.9	-50.4
Mar. 31.....	977.46	0	-0.2	1,180.7	55,910	+395	1,063.9	1,150.2	+25.9
Apr. 30.....	977.80	0	0	1,181.5	59,810	+ 65.5	1,062.3	1,091.8	-22.5
May 31.....	976.93	0	0	1,182.6	65,620	+ 94.5	1,066.5	1,248.6	+58.5
June 30.....	976.60	0	0	1,183.3	69,610	+ 67.1	1,064.3	1,165.1	-32.2
July 31.....	976.49	0	0	1,181.3	58,810	-176	1,065.9	1,225.5	+22.5
Aug. 31.....	975.98	0	0	1,179.5	49,080	-158	1,062.5	1,099.0	-47.2
Sept. 30.....	976.16	0	0	1,179.7	50,490	+ 23.7	1,061.3	1,056.0	-16.6
WTR YR 1995	--	--	0	--	--	-3.1	-	-	-4.8
<b>01431700 Lake Wallenpaupack</b>									
Sept. 30.....	976.56	0	--	1,180.0	52,700	--	1,065.4	1,206.5	--
Oct. 31.....	976.31	0	0	1,182.3	63,980	+183	1,063.9	1,150.2	-21.0
Nov. 30.....	982.16	126	+2.1	1,184.6	77,650	+230	1,067.3	1,279.7	+50.0
Dec. 31.....	978.60	12.0	-1.9	1,181.1	57,830	-322	1,063.9	1,150.2	-48.4
CAL YR 1994	--	--	+0.02	--	--	-4.8			+12.3
Jan. 31.....	979.80	44.0	+0.5	1,180.5	54,970	- 46.5	1,065.3	1,202.7	+19.6
Feb. 28.....	978.70	14.0	-0.5	1,176.4	31,600	-421	1,062.0	1,080.9	-50.4
Mar. 31.....	977.46	0	-0.2	1,180.7	55,910	+395	1,063.9	1,150.2	+25.9
Apr. 30.....	977.80	0	0	1,181.5	59,810	+ 65.5	1,062.3	1,091.8	-22.5
May 31.....	976.93	0	0	1,182.6	65,620	+ 94.5	1,066.5	1,248.6	+58.5
June 30.....	976.60	0	0	1,183.3	69,610	+ 67.1	1,064.3	1,165.1	-32.2
July 31.....	976.49	0	0	1,181.3	58,810	-176	1,065.9	1,225.5	+22.5
Aug. 31.....	975.98	0	0	1,179.5	49,080	-158	1,062.5	1,099.0	-47.2
Sept. 30.....	976.16	0	0	1,179.7	50,490	+ 23.7	1,061.3	1,056.0	-16.6
WTR YR 1995	--	--	0	--	--	-3.1	-	-	-4.8
<b>01433000 Swinging Bridge Reservoir</b>									
Sept. 30.....	976.56	0	--	1,180.0	52,700	--	1,065.4	1,206.5	--
Oct. 31.....	976.31	0	0	1,182.3	63,980	+183	1,063.9	1,150.2	-21.0
Nov. 30.....	982.16	126	+2.1	1,184.6	77,650	+230	1,067.3	1,279.7	+50.0
Dec. 31.....	978.60	12.0	-1.9	1,181.1	57,830	-322	1,063.9	1,150.2	-48.4
CAL YR 1994	--	--	+0.02	--	--	-4.8			+12.3
Jan. 31.....	979.80	44.0	+0.5	1,180.5	54,970	- 46.5	1,065.3	1,202.7	+19.6
Feb. 28.....	978.70	14.0	-0.5	1,176.4	31,600	-421	1,062.0	1,080.9	-50.4
Mar. 31.....	977.46	0	-0.2	1,180.7	55,910	+395	1,063.9	1,150.2	+25.9
Apr. 30.....	977.80	0	0	1,181.5	59,810	+ 65.5	1,062.3	1,091.8	-22.5
May 31.....	976.93	0	0	1,182.6	65,620	+ 94.5	1,066.5	1,248.6	+58.5
June 30.....	976.60	0	0	1,183.3	69,610	+ 67.1	1,064.3	1,165.1	-32.2
July 31.....	976.49	0	0	1,181.3	58,810	-176	1,065.9	1,225.5	+22.5
Aug. 31.....	975.98	0	0	1,179.5	49,080	-158	1,062.5	1,099.0	-47.2
Sept. 30.....	976.16	0	0	1,179.7	50,490	+ 23.7	1,061.3	1,056.0	-16.6
WTR YR 1995	--	--	0	--	--	-3.1	-	-	-4.8

## MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01433100 Toronto Reservoir				01433200 Cliff Lake			01435900 Neversink Reservoir		
Sept. 30.....	1,204.2	623.5	--	1,066.4	93.02	--	1,415.74	26,293	--
Oct. 31.....	1,191.8	333.1	-108	1,067.7	102.20	+3.4	1,410.93	24,384	-95.3
Nov. 30.....	1,188.5	271.3	-23.8	1,067.2	98.60	-1.4	1,408.61	23,492	-46.0
Dec. 31.....	1,194.3	384.8	+42.4	1,064.8	82.38	-6.1	1,415.21	26,075	+129
CAL YR 1994			-9.1			-8			+37.9
Jan. 31.....	1,200.1	518.8	+50.0	1,066.0	90.26	+2.9	1,423.86	29,682	+180
Feb. 28.....	1,201.2	546.3	+11.4	1,061.5	62.21	-11.6	1,420.37	28,197	-82.1
Mar. 31.....	1,207.3	706.2	+59.7	1,065.0	83.66	+8.0	1,428.16	31,570	+168
Apr. 30.....	1,209.1	755.6	+19.1	1,062.3	66.86	-6.5	1,431.64	33,152	+81.6
May 31.....	1,209.4	764.0	+3.1	1,066.4	93.02	+9.8	1,430.31	32,542	-30.4
June 30.....	1,209.2	758.4	-2.2	1,064.2	78.54	-5.6	1,426.26	30,727	-93.6
July 31.....	1,200.7	533.7	-83.9	1,068.0	104.36	+9.6	1,406.67	22,760	-398
Aug. 31.....	1,196.1	424.5	-40.8	1,062.4	67.46	-13.8	1,381.38	14,420	-416
Sept. 30.....	1,196.0	422.2	-9	1,061.5	62.21	-2.0	1,368.73	11,053	-174
WTR YR 1995	-	-	-6.4	-	-	-1.0	-	-	-64.6
01447780 Francis E. Walter Lake				01449400 Penn Forest Reservoir			01449700 Wild Creek Reservoir		
Sept. 30.....	1,355.21	14,070	--	996.88	18,570	--	818.58	11,690	--
Oct. 31.....	1,302.36	2,240	-192	994.54	17,540	-16.8	818.01	11,530	-2.6
Nov. 30.....	1,308.99	2,960	+12.1	994.98	17,720	+3.0	819.31	11,860	+5.5
Dec. 31.....	1,300.46	2,050	-14.8	975.10	10,370	-120	819.77	11,950	+1.5
CAL YR 1994	--	--	-0.2	--	--	-10.8	--	--	+0.6
Jan. 31.....	1,300.38	2,040	-0.2	969.78	8,840	-24.9	817.79	11,470	-7.8
Feb. 28.....	1,301.10	2,110	+1.3	954.95	5,340	-63.0	817.46	11,380	-1.6
Mar. 31.....	1,304.72	2,480	+6.0	950.00	4,400	-15.3	819.96	11,990	+9.9
Apr. 30.....	1,300.57	2,060	-7.1	950.00	4,400	0	819.71	11,940	-0.8
May 31.....	1,305.83	2,600	+8.8	950.28	4,460	+1.0	817.96	11,520	-6.8
June 30.....	1,301.99	2,200	-6.7	945.99	3,730	-12.3	818.01	11,530	+0.2
July 31.....	1,299.51	1,950	-4.1	940.92	2,950	-12.7	817.88	11,500	-0.5
Aug. 31.....	1,300.15	2,020	+1.1	932.66	1,940	-16.4	815.12	10,730	-12.5
Sept. 30.....	1,300.81	2,080	+1.0	934.58	2,140	+3.4	807.72	8,800	-32.4
WTR YR 1995	--	--	-16.6	--	--	-22.7	--	--	-4.0
01449790 Beltzville Lake				01455221 Merrill Creek Reservoir			01455400 Lake Hopatcong		
Sept. 30.....	818.58	11,690	--	922.35	16,504	--	8.98	7,442	--
Oct. 31.....	818.01	11,530	-2.6	921.84	16,396	-5.4	8.74	7,243	-9.9
Nov. 30.....	819.31	11,860	+5.5	921.67	16,361	-1.8	7.40	6,152	-56.3
Dec. 31.....	819.77	11,950	+1.5	921.59	16,344	-8	6.84	5,709	-22.1
CAL YR 1994	--	--	+0.6			+1.3			+8
Jan. 31.....	817.79	11,470	-7.8	921.82	16,392	+2.4	6.80	5,677	-1.6
Feb. 28.....	817.46	11,380	-1.6	921.76	16,380	-7	6.88	5,740	+3.5
Mar. 31.....	819.96	11,990	+9.9	922.10	16,451	+3.5	8.44	6,996	+62.7
Apr. 30.....	819.71	11,940	-0.8	921.92	16,413	-2.0	8.76	7,260	+13.6
May 31.....	817.96	11,520	-6.8	921.86	16,401	-6	8.98	7,442	+9.1
June 30.....	818.01	11,530	+0.2	921.40	16,304	-5.0	8.60	7,128	-16.2
July 31.....	817.88	11,500	-0.5	921.45	16,314	+5	8.60	7,128	0
Aug. 31.....	815.12	10,730	-12.5	920.73	16,163	-7.5	7.98	6,620	-25.4
Sept. 30.....	807.72	8,800	-32.4	919.19	15,846	-16.3	7.74	6,425	-10.1
WTR YR 1995	--	--	-4.0			-2.8			-4.4



## DELAWARE RIVER BASIN

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## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

## MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft³/s)
01459350 Nockamixon Reservoir				01469200 Still Creek Reservoir			01470870 Blue Marsh Lake		
Sept. 30.....	394.90	40,060	--	1,179.8	7,690	--	289.93	22,820	--
Oct. 31.....	394.80	39,920	- 2.3	1,179.2	7,520	- 2.8	285.05	17,670	- 83.8
Nov. 30.....	395.25	40,550	+10.6	1,179.2	7,520	0	284.94	17,560	-1.8
Dec. 31.....	395.15	40,410	- 2.3	1,180.8	7,960	+ 7.2	285.13	17,750	+3.1
CAL YR 1994	--	--	+ 0.3	--	--	- .3	--	--	+2
Jan. 31.....	395.00	40,200	- 3.4	1,182.2	8,340	+ 6.2	285.08	17,700	- .8
Feb. 28.....	395.60	41,030	+14.9	1,182.1	8,320	- .4	285.37	17,980	+5.0
Mar. 31.....	394.25	39,150	-30.6	1,182.1	8,320	0	285.08	17,700	-4.6
Apr. 30.....	395.00	40,200	+17.6	1,182.0	8,290	- .5	290.09	23,000	+ 89.1
May 31.....	394.90	40,060	- 2.3	1,182.0	8,290	0	289.32	22,120	- 14.3
June 30.....	394.60	39,630	- 7.2	1,182.1	8,320	+ .5	290.05	22,950	+ 13.9
July 31.....	394.75	39,850	+ 3.6	1,182.0	8,290	- .5	290.15	23,070	+2.0
Aug. 31.....	394.35	39,280	- 9.3	1,181.5	8,150	- 2.3	287.17	19,800	- 53.2
Sept. 30.....	394.30	39,220	- 1.0	1,180.7	7,930	- 3.7	284.46	17,110	- 45.2
WTR YR 1995	--	--	- 1.2	--	--	+ 0.3	--	--	
01472200 Green Lane Reservoir				01480684 Marsh Creek Reservoir					
Sept. 30.....	285.30	13,340	--	360.00	14,460	- 0.5			
Oct. 31.....	285.17	12,690	-10.6	360.40	14,680	+ 3.7			
Nov. 30.....	286.09	13,510	+13.8	357.25	13,030	-26.8			
Dec. 31.....	285.92	13,360	- 2.4						
CAL YR 1994	--	--	- .1	--	--	- .1			
Jan. 31.....	286.00	13,430	+ 1.1	357.00	12,910	- 2.0			
Feb. 28.....	286.00	13,430	0	358.35	13,580	+12.1			
Mar. 31.....	286.03	13,460	+ .5	360.15	14,540	+15.6			
Apr. 30.....	285.95	13,390	- 1.2	360.03	14,480	- 1.0			
May 31.....	285.95	13,390	- 1.2	360.01	14,470	- .2			
June 30.....	286.01	13,440	+ 0.8	359.89	14,400	- 1.2			
July 31.....	285.26	12,770	-11.3	360.01	14,470	+ 1.1			
Aug. 31.....	285.69	13,150	+ 6.2	359.00	13,910	- 9.1			
Sept. 30.....	282.83	10,920	-36.3	358.55	13,680	- 3.9			
WTR YR 1995	--	--	- 5.4	--	--	- 1.1			

## DIVERSIONS AND WITHDRAWALS

## WITHDRAWALS FROM THE DELAWARE RIVER BASIN

- 01415200 Diversion from Pepacton Reservoir (see preceding pages) on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 6, 1955. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-71-1: 1970. WDR NY-81-1: 1980.
- 01423900 Diversion from Cannonsville Reservoir (see preceding pages) on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 29, 1964. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-81-1: 1980.
- 01435800 Diversion from Neversink Reservoir (see preceding pages) on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Dec. 3, 1953. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-82-1: 1976, 1977.
- 01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Village of Woodridge has estimated that this year virtually all the withdrawal from East Pond Reservoir was returned to the Neversink River.
- 01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School, Otisville, NY, for water supply outside of basin. Records provided by Delaware River Basin Commission.
- 01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Pennsylvania American for water supply outside of basin. Records provided by Delaware River Basin Commission.
- 01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records provided by Delaware River Basin Commission.
- 01460440 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Port Mercer since Aug. 1, 1990 (see station 01460440).

## DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## WITHDRAWALS BY CITY OF NEW YORK

MONTH	<u>01415200</u> Pepacton Reservoir	<u>01423900</u> Cannonsville Reservoir	<u>01435800</u> Neversink Reservoir
October .....	694	454	161
November .....	668	365	160
December .....	584	209	152
CAL YR 1994 .....	540	371	158
January .....	478	200	181
February .....	671	132	191
March .....	614	458	191
April .....	325	694	115
May .....	227	659	102
June .....	413	486	120
July .....	700	182	445
August .....	699	202	397
September .....	767	211	157
WTR YR 1995 .....	569	355	198

## MISCELLANEOUS WITHDRAWALS FROM BASIN, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

MONTH	<u>01437360</u> Bear Swamp Reservoir	<u>01447750</u> Bear Creek	<u>01448830</u> Hazle Creek	<u>01460440</u> Delaware & Raritan Canals
October .....	.31	0	5.72	133
November .....	.28	0	6.59	137
December .....	.31	0	5.58	124
CAL YR 1994 .....	.22	0	5.25	132
January .....	.39	0	4.46	133
February .....	.39	0	5.26	143
March .....	.39	0	5.03	141
April .....	.31	0	5.58	145
May .....	.41	0	6.14	148
June .....	.46	0	6.03	150
July .....	.44	0	5.74	150
August .....	.44	0	7.05	149
September .....	.44	0	6.08	134
WTR YR 1995 .....	.38	0	5.77	141



## DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01446572 Diversion from Delaware River at Brainards to Merrill Creek Reservoir for storage to augment low flow in the Delaware River. There is a conservation release of 3 ft<sup>3</sup>/s to lower Merrill Creek, which eventually reaches the Delaware River. Releases other than the conservation release are designated by a minus (-) sign. Records provided by Merrill Creek Reservoir Project.

01459005 Diversion from the Delaware River at Point Pleasant, PA by Philadelphia Electric Company to Bradshaw Reservoir on the East Branch Perkiomen Creek, tributary to Schuylkill River, to supplement flow to Limerick Power Station. Diversion began August 1989. Records provided by the Delaware River Basin Commission.

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant, by the Borough of Morrisville, PA for municipal supply. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records provided by the Borough of Morrisville, PA.

01463490 Diversion from the Delaware River just above the Trenton gaging station by the city of Trenton, NJ for municipal supply. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records provided by the City of Trenton. REVISED RECORDS.--WDR NJ-82-2: Station number.

01467030 Diversion from the Delaware River at the Torresdale Intake, by the City of Philadelphia, PA for municipal supply. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records provided by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes, by the City of Philadelphia, PA for municipal supply. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and losses in transmission. Records provided by the Delaware River Basin Commission.

## WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

MONTH	<u>01446572</u> Merrill Creek Reservoir	<u>01459005</u> Point Pleasant	<u>01463480</u> Borough of Morrisville	<u>01463490</u> City of Trenton
October	-.12	66.8	4.26	48.2
November	0	52.4	4.24	46.6
December	-.12	9.8	4.71	45.4
CAL YR 1994	-1.57	36.1	4.34	49.9
January	0	16.7	4.90	45.4
February	0	18.1	5.16	46.2
March	0	25.0	4.74	46.6
April	0	45.2	4.36	45.6
May	0	79.6	4.23	46.3
June	-.12	80.4	3.78	50.7
July	0	78.5	4.14	53.1
August	0	81.8	4.95	58.1
September	-10.4	75.6	4.16	52.0
WTR YR 1995	-.90	52.5	4.47	48.7

## WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995--Continued

MONTH	City of Philadelphia		
	<u>01415200</u> Delaware River Torresdale	<u>01474500</u> Schuylkill River	
		<u>Belmont</u>	<u>Queen Lane</u>
October .....	301	91.0	142
November .....	299	86.2	140
December .....	298	83.3	152
CAL YR 1994 .....	318	98.8	152
January .....	290	83.1	153
February .....	300	94.5	155
March .....	283	95.6	146
April .....	281	85.3	147
May .....	283	92.4	134
June .....	296	98.7	147
July .....	327	104	161
August .....	321	101	160
September .....	290	92.1	135
WTR YR 1995 .....	297	92.3	148

DELAWARE RIVER BASIN  
DIVERSIONS AND WITHDRAWALS--Continued

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records provided by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Coatesville Water Authority (formerly Octoraro Water Co.) for municipal use. After use the water is released into the Delaware River basin. Records provided by the Delaware River Basin Commission.

01578450 Water diverted from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records provided by the Delaware River Basin Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995--Continued

MONTH	01367630 Morris Lake	OCTORARO CREEK	
		01578420 Coatesville Water Authority	01578450 Chester Water Authority
October.....	1.38	1.74	54.9
November.....	1.38	1.82	53.4
December.....	1.41	1.66	50.8
CAL YR 1994.....	1.48	1.61	54.5
January.....	1.48	1.52	51.4
February.....	1.47	1.49	53.2
March.....	1.50	1.53	52.0
April.....	1.29	1.88	50.6
May.....	1.30	1.92	52.1
June.....	1.46	2.08	57.8
July.....	1.47	1.93	59.4
August.....	1.49	1.88	62.0
September.....	1.24	1.99	53.9
WTR YR 1995.....	1.41	1.79	54.3

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations.

#### Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

#### Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
HACKENSACK RIVER BASIN								
Tenakill Brook at Closter, NJ *(01378385)	Lat 40°58'29", long 73°58'06, Bergen County, Hydrologic Unit 02030103, at bridge on High Street in Closter, 0.7 mi upstream from mouth. Datum of gage is 23.85 ft above sea level. Drainage area is 8.56 mi <sup>2</sup> .	1965-95	1-20-95	1.81b	295	5-17-90	3.63bd	930
Metzler Brook at Englewood, NJ (01378590)	Lat 40°54'29", long 73°59'13", Bergen County, Hydrologic Unit 02030103, at bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth. Datum of gage is 43.10 ft above sea level. Drainage area is 1.54 mi <sup>2</sup> .	1965-95	1-20-95	1.92b	140	11-08-77	2.84bd	470
PASSAIC RIVER BASIN								
Passaic River near Bernardsville, NJ (01378690)	Lat 40°44'03", long 74°32'26", Somerset County, Hydrologic Unit 02030103, at bridge on U.S. Route 202, 1.8 mi northeast of Bernardsville, and 3.0 mi upstream from Great Brook. Datum of gage is 238.07 ft above sea level. Drainage area is 8.83 mi <sup>2</sup> .	1968-76†, 1977-95	3-09-95	<12.50bh	<350i	8-28-71	18.56b	3,850
Rockaway River at Warren Street, at Dover, NJ (01379845)	Lat 40°53'08", long 74°33'36", Morris County, Hydrologic Unit 02030103, on left bank, 100 ft upstream from bridge on Warren Street, in Dover, 4.0 mi west of Denville and 6 mi south-east of Lake Hopatcong. Datum of gage is 561.83 ft above sea level. Drainage area is 52.1 mi <sup>2</sup> .	1981-95	3-09-95	4.28	680	4-06-84	7.20	2,170

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
PASSAIC RIVER BASIN--Continued								
Pond Brook at Oakland, NJ *(01387880)	Lat 41°01'36", long 74°14'04", Bergen County, Hydrologic Unit 02030103, at bridge on Interstate 287/NJ Route 208 in Oakland, 0.2 mi upstream from former site at Franklin Avenue (prior to October 1975), 0.6 mi upstream from mouth, and 1.5 mi northwest of Franklin Lakes. Datum of gage is 276.97 ft above sea level. Drainage area is 6.76 mi <sup>2</sup> .	1968-71, 1976-95	1-20-95	<1.74h	<175i	5-29-68	11.64	1,300
Passaic River below Pompton River, at Two Bridges, NJ (01389005)	Lat40°53'47", long 74°16'10", Passaic County, Hydrologic Unit 02030103, on right bank, in Two Bridges and 400 ft downstream from the Pom- pton River. Datum of gage is 155.00 ft above sea level. Drainage area is 734 mi <sup>2</sup> .	1989-95	3-09-95	6.66	a	5-18-89	12.65	a
Preakness (Singac) Brook near Preakness, NJ (01389030)	Lat 40°56'55", long 74°13'25", Passaic County, Hydrologic Unit 02030103, at bridge on Ratzer Road, 1.0 mi north of Preakness, and 2.0 mi upstream from Naachpunkt Brook. Datum of gage is 230.8 ft above sea level. Drainage area is 3.24 mi <sup>2</sup> .	1979-95	5-30-95	<4.00bh	500	5-16-90	6.32b	1,570
Passaic River above Beatties Dam, at Little Falls, NJ (01389492)	Lat 40°53'04", long 74°14'05", Passaic County, Hydrologic Unit 02030103, at Little Falls, 600 ft upstream from bridge on Union Boulevard and 1.5 mi upstream from mouth of Peck- man River. Datum of gage is 150.00 ft above sea level. Drainage area is 762 mi <sup>2</sup> .	1984, 1991-95†	3-10-95	9.94	a	4-07-84	14.0	a
Peckman River at Ozone Avenue, at Verona, NJ (01389534)	Lat 40°50'42", long 74°14'09", Passaic County, Hydrologic Unit 02030103, at bridge on Ozone Avenue in Verona, 4.0 mi west of Clifton and 1.0 mi southwest of Cedar Grove Reser- voir. Datum of gage is 300.08 ft above sea level. Drainage area is 4.45 mi <sup>2</sup> .	1945, 1979-95	7-17-95	4.11b	1,120	7-23-45	---	3,800f
Molly Ann Brook at North Haledon, NJ (01389765)	Lat 40°57'11", long 74°11'07", Passaic County, Hydrologic Unit 02030103, at bridge on Overlook Avenue in North Haldeon, 1.5 mi west of Haw- thorne and 0.5 mi upstream from Oldham Pond Dam. Datum of gage is 209.68 ft above sea level. Drainage area is 3.89 mi <sup>2</sup> .	1945, 1979-95	1-20-95	4.86	34	7-23-45	---	e3,100
Fleischer Brook at Market Street, at Elm- wood Park, NJ (01389900)	Lat 40°53'57", long 74°06'54", Bergen County, Hydrologic Unit 02030103, at culvert on Market Street in Elm- wood Park (formerly East Paterson), and 2.0 mi upstream from mouth. Datum of gage is 35.31 ft above sea level. Drainage area is 1.37 mi <sup>2</sup> .	1967-95	5-30-95	2.25	a	11-08-77	6.47b	470



## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Date	Water year 1995 maximum		Period of record maximum		
				Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
PASSAIC RIVER BASIN--Continued								
Saddle River at Upper Saddle River, NJ *(01390450)	Lat 41°03'32", long 74°05'44", Bergen County, Hydrologic Unit 02030103, at culvert on Lake Street in Upper Saddle River, and 1.3 mi downstream from Pine Brook. Datum of gage is 186.11 ft above sea level. Drainage area is 10.9 mi <sup>2</sup> .	1966-95	1-20-95	3.76b	820	11-08-77	5.25bd	4,150
Hohokus Brook at Allendale, NJ (01390810)	Lat 41°01'37", long 74°08'44", Bergen County, Hydrologic Unit 02030103, at bridge on Brookside Avenue in Allendale and 0.2 mi downstream from Valentine Brook. Datum of gage is 277.46 ft above sea level. Drainage area is 9.11 mi <sup>2</sup> .	1969-95	1-20-95	4.53	210	11-08-77	8.28	1,380
Ramsey Brook at Allendale, NJ (01390900)	Lat 41°01'44", long 74°08'07", Bergen County, Hydrologic Unit 02030103, at bridge on Brookside Avenue in Allendale and 0.6 mi upstream from Hohokus Brook. Datum of gage is 270.79 ft above sea level. Drainage area is 2.55 mi <sup>2</sup> .	1975-95	1-20-95	1.82b	47	11-08-77	5.39b	980
Third River at Bloomfield, NJ (01392170)	Lat 40°47'59", long 74°11'18", Essex County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on entrance ramp at Inter- change 148 to the Garden State Park- way in Bloomfield 0.6 mi west of Nutley, and 5.1 mi upstream from Passaic River. Drainage area is 7.71 mi <sup>2</sup> .	1988-95	7-17-95	4.99b	500	6-05-92	6.58b	830
Second River at Belleville, NJ (01392500)	Lat 40°47'17", long 74°10'19", Essex County, Hydrologic Unit 02030103, on Mill Street in Branch Brook Park at Belleville, 300 ft downstream from Franklin Avenue, and 1,100 ft down- stream from Hendricks Pond dam. Datum of gage is 62.6 ft above sea level. Drainage area is 11.6 mi <sup>2</sup> .	1937-64†, 1963-95	7-17-95	6.54	2,840	8-28-71	9.80	6,500
RARITAN RIVER BASIN								
Alpaugh Brook at Hampton, NJ (01396570)	Lat 40°42'13", long 74°56'52", Hunter- don County, Hydrologic Unit 02030105, at culvert on State Route 31 at Hampton, 0.1 mi upstream of mouth, 0.6 mi north at Glen Gardner. Drainage area is 0.41 mi <sup>2</sup> .	1995	7-18-95	2.66	86	7-18-95	2.66	86
Walnut Brook near Flemington, NJ (01397500)	Lat 40°30'55", long 74°52'52", Hunter- don County, Hydrologic Unit 02030105, bank 1.2 mi northwest of Flemington, and 2.3 mi upstream from mouth. Datum of gage is 267.33 ft above sea level. Drainage area is 2.24 mi <sup>2</sup> .	1936-61†, 1963-95	3-09-95	2.73	350	8-28-71	4.61	1,570



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Continued								
Back Brook tributary near Ringoes, NJ (01398045)	Lat 40°25'41", long 74°49'52", Hunterdon County, Hydrologic Unit 02030105, on right upstream wing-wall of bridge on Wertsville Road, 2.1 mi east of Ringoes, 1.3 mi upstream from Back Brook, and 2.3 mi southwest of Wertsville. Datum of gage is 161.6 ft above sea level. Drainage area is 1.98 mi <sup>2</sup> .	1978-88†, 1989-95	3-09-95	<2.86h	<474i	8-03-79	5.05	1,290
Axle Brook near Pottersville, NJ (01399525)	Lat 40°41'40", long 74°43'05", Somerset County, Hydrologic Unit 02030105, on right upstream wingwall of bridge on Black River Road, 1.3 mi, south of Pottersville, and 0.3 mi upstream from mouth. Datum of gage is 172.74 ft above sea level. Drainage area is 1.22 mi <sup>2</sup> .	1977-88†, 1988-95	3-08-95	2.87	183	7-26-88	6.13	914
Rockaway Creek at Whitehouse, NJ (01399700)	Lat 40°37'55", long 74°44'11", Hunterdon County, Hydrologic Unit 02030105, on right bank at bridge on Lamington Road, 1.4 mi northeast of Whitehouse, and 1.8 mi upstream from mouth. Datum of gage is 99.64 ft above sea level. Drainage area is 37.1 mi <sup>2</sup> .	1959-62, 1964-65, 1977-84†, 1985-95	3-09-95	5.31	1,260	7-07-84	11.33	4,600
North Branch Raritan River at North Branch, NJ (01399830)	Lat 40°36'00", long 74°40'27", Somerset County, Hydrologic Unit 02030105, on right bank 5 ft upstream from bridge on State Highway 28 in North Branch, 0.1 mi south of River Brook, and 3.6 mi upstream from confluence with South Branch Raritan River. Datum of gage is 56.94 ft above sea level. Drainage area is 174 mi <sup>2</sup> .	1977-81†, 1982-95	3-09-95	<7.70h	<2,520i	7-07-84	19.31	27,300
North Branch Raritan River at South Branch, NJ (01400010)	Lat 40°33'24", long 74°41'19", Somerset County, Hydrologic Branch, Unit 02030105, at bridge on Old York Road, 0.8 mi northeast of South Branch, and 500 ft upstream from confluence with South Branch Raritan River. Datum of gage is 46.0 ft. Drainage area is 190 mi <sup>2</sup> .	1993-95	3-09-95	8.25	a	1-29-94	10.05	a
Peters Brook at Mercer Street, at Somerville, NJ (01400360)	Lat 40°34'30", long 74°37'07", Somerset County, Hydrologic Unit 02030105, on the left bank on the downstream side of the bridge on Mercer Street in Somerville, 0.4 mi downstream from Macs Brook and 0.6 mi upstream from Ross Brook. Datum of gage is 42.51 ft above sea level. Drainage area is 7.37 mi <sup>2</sup> .	1991-95	3-09-95	5.60b	a	1-28-94	9.08b	a

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Date	Water year 1995 maximum		Period of record maximum		
				Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Continued								
Millstone River at Southfield Road, near Grovers Mill, NJ (01400630)	Lat 40°18'12", long 74°34'33", Mercer County, Hydrologic Unit 02030105, at bridge on Southfield Road, 0.2 mi southeast at Grovers Mill, 3.5 mi southwest of Cranbury, and 3.0 mi upstream of Bear Brook. Datum of gage is 62.63 ft above sea level. Drainage area is 41.0 mi <sup>2</sup> .	1971, 1975, 1979-95	3-09-95	<3.78h	<285i	12-11-92c	7.22c	1,400c
Millstone River at Plainsboro, NJ (01400730)	Lat 40°19'27", long 74°36'51", Mercer County, Hydrologic Unit 02030105, on left bank 30 ft upstream from rail- road bridge on AMTRAK (former Penn Central) mainline, 100 ft down- stream from Cranbury Brook, 0.2 mi upstream from Bear Brook, and 0.9 mi southwest of Plainsboro. Datum of gage is 53.41 ft sea level. Drainage area is 65.8 mi <sup>2</sup> .	1965-75+, 1976-87, 1987-89+, 1990-95	3-09-95	<2.91h	<475i	7-21-75	8.96	3,970
Bear Brook at Route 535, near Locust Corner, NJ (01400775)	Lat 40°16'41", long 74°34'39", Mercer County, Hydrologic Unit 02030105, at bridge on State Route 535, 0.9 mi southwest of Locust Corner, 2.0 mi east of Hightstown, and 4.2 mi above mouth. Datum of gage is 73.75 ft above sea level. Drainage area is 6.69 mi <sup>2</sup> .	1971-75, 1979-95	3-09-95	<3.81bh	<145i	6-10-89	7.95db	1,550
Bear Brook at Route 571, near Grovers Mill, NJ (01400795)	Lat 40°17'41", long 74°35'34", Mercer County, Hydrologic Unit 02030105, at bridge on Route 571 (Princeton- Hightstown Road), 1.2 mi upstream of Grovers Mill Pond, 1.4 mi east of Princeton Junction, and 2.9 mi west of U.S. Route 130 and Hightstown. Datum of gage is 62.48 ft above sea level. Drainage area is 9.28 mi <sup>2</sup> .	1986-95	3-09-95	7.65	100	6-10-89	11.90	1,320
Little Bear Brook at Penns Neck, NJ (01400822)	Lat 40°19'21", long 74°37'37", Mercer County, Hydrologic Unit 02030105, at downstream side of bridge on Alexander Road, 0.9 mi southeast of Penns Neck, 2.8 mi southwest of Plainsboro and 1.0 mi above mouth. Datum of gage is 53.96 ft above sea level. Drainage area is 1.84 mi <sup>2</sup> .	1971-75, 1979-95	3-09-95	2.26	29	1-28-94	3.27d	107
Stony Brook at Glenmoore, NJ (01400900)	Lat 40°21'55", long 74°47'14", Mercer County, Hydrologic Unit 02030105, at highway bridge on Spur State Route 518, 200 ft east of tracks of CONRAIL, at Glenmoore, and 2.0 mi southwest of Hopewell. Datum of gage is 159.1 ft above sea level. Drainage area is 17.0 mi <sup>2</sup> .	1957-95	3-09-95	6.12b	1,560	8-28-71	11.02b	6,100

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Continued								
Baldwins Creek at Pennington, NJ *(01400930)	Lat 40°20'18", long 74°47'50", Mercer County, Hydrologic Unit 02030105, at bridge on State Route 31, 0.8 mi north of Pennington, and 0.9 mi upstream from Baldwin Lake dam. Datum of gage is 161.69 ft above sea level. Drainage area is 1.99 mi <sup>2</sup> .	1960-95	3-09-95	3.86	155	8-27-71	8.64	1,260
Hart Brook near Pennington, NJ (01400950)	Lat 40°19'17", long 74°45'38", Mercer County, Hydrologic Unit 02030105, at culvert on Federal City Road, 1.6 mi upstream of mouth, and 1.7 mi southeast of Pennington. Datum of gage after July 1, 1975 is 163.32 ft above sea level. Drainage area is 0.57 mi <sup>2</sup> .	1968-95	3-09-95	2.87	76	7-14-87	5.27d	470
Duck Pond Run near Princeton Junction, NJ (01401160)	Lat 40°17'47", long 74°38'47", Mercer County, Hydrologic Unit 02030105, on right bank upstream from bridge on Clarksville Road, 1.5 mi south- west of Princeton Junction, and 4.0 mi south of Princeton. Datum of gage is 72.50 ft above sea level. Drainage area is 1.81 mi <sup>2</sup> .	1980-95	5-30-95	3.45	70	6-10-89	6.68	275
Millstone River at Carnegie Lake, at Princeton, NJ (01401301)	Lat 40°22'11", long 74°37'15", Middle- sex County, Hydrologic Unit 02030105, at right end of Carnegie Lake dam, 2.5 mi northeast of Prince- ton. Datum of gage is 50.00 ft above sea level. Drainage area is 159 mi <sup>2</sup> .	1971, 1973-74†, 1977-87, 1988-89†, 1990-95	3-09-95	4.05	2,590	8-28-71	7.09	13,000
Rock Brook near Blawenburg, NJ (01401595)	Lat 40°25'47", long 74°41'05", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Hill Road, 0.7 mi upstream from mouth, 1.0 mi north- east of Blawenburg, and 2.8 mi northwest of Rocky Hill. Datum of gage is 63.45 ft above sea level. Drainage area is 9.03 mi <sup>2</sup> .	1967-95	3-09-95	3.81b	720	8-28-71	10.00	4,530
Beden Brook near Rocky Hill, NJ (01401600)	Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, at bridge on U.S. Route 206, 0.7 mi upstream from Pike Run, 1.2 mi northwest of Rocky Hill, and 4.6 mi north of Princeton. Datum of gage is 38.09 ft above sea level. Drainage area is 27.0 mi <sup>2</sup> , revised.	1967-95	3-09-95	7.66b	2,100	8-28-71	16.83b	12,100
Six Mile Run near Middle- bush, NJ (01401870)	Lat 40°28'12", long 74°32'42", Somerset County, Hydrologic Unit 02030105, at bridge on South Middlebush Road, 1.6 mi upstream from mouth, and 2.1 mi south of Middlebush. Datum of gage is 39.91 ft above sea level. Drainage area is 10.7 mi <sup>2</sup> .	1966-95	3-09-95	6.24	720	7-14-75	11.77	10,200

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Continued								
East Branch Middle Brook at Warrenville, NJ (01403080)	Lat 40°36'20", long 74°30'33", Somerset County, Hydrologic Unit 02030105, at upstream side of bridge on Moun- tain Avenue (Morning Glory Road), 0.9 mi southwest of Warrenville, 3.2 mi upstream of Middle Brook, and 0.1 mi south of Springdale. Drainage area is 2.71 mi <sup>2</sup> .	1994	7-18-95	7.12	a	11-28-93	7.79	a
Middle Brook at Bound Brook, NJ (01403200)	Lat 40°33'38", long 74°32'56", Middle- sex County, Hydrologic Unit 02030105, at bridge on Talmadge Avenue at Bound Brook 0.6 mi downstream from bridge on State Route 28, and 0.5 mi upstream from mouth. Datum of gage is 21.53 ft above sea level. Drainage area is 17.2 mi <sup>2</sup> .	1993-95	6-22-95	7.02b	a	1-28-94	8.52b	a
Blue Brook at Seeleys Pond Dam, near Berkeley Heights, NJ (01403395)	Lat 40°40'02", long 74°24'13", Union County, Hydrologic Unit 02030105, on wall on right bank, upstream from Seeleys Pond spillway, 300 ft north of Scotch Plains, 1.0 mi west of Moun- tainside, and 4.5 mi southeast of Ber- keley Heights. Datum of gage is 202.05 ft above sea level. Drainage area is 3.59 mi <sup>2</sup> .	1973, 1981-95	6-22-95	4.23	86	8-02-73	7.55	2,080
Green Brook at Plainfield, NJ (01403500)	Lat 40°36'53", Long 74°25'55", Union County, Hydrologic Unit 02030105, on left bank at bridge on Sycamore Avenue in Plainfield and 1.0 mi upstream from Stony Brook. Datum of gage is 70.37 ft above sea level. Drainage area is 9.75 mi <sup>2</sup> .	1938-84†, 1985-95	6-22-95	<2.83bh	<546i	7-23-38	5.82db	2,890
Stony Brook at North Plainfield, NJ (01403570)	Lat 40°37'19", long 74°26'11, Somerset County, Hydrologic Unit 02030105, at bridge on Green Brook Road, in North Plainfield, 100 ft downstream of Crab Brook, and 1.4 mi upstream of mouth. Datum of gage is 71.59 ft above sea level. Drainage area is 6.88 mi <sup>2</sup> .	1975-82, 1991-95	7-28-95	4.56	817	11-28-93	6.10c	1,620
Green Brook at Rock Avenue, at Plainfield, NJ (01403600)	Lat 40°36'07", long 74°27'28", Somerset County, Hydrologic Unit 02030105, at bridge on Rock Avenue in Plain- field, 0.35 mi north of West Front Street, and 0.65 mi south of U.S. Route 22. Datum of gage is 45.70 ft above sea level. Drainage area is 18.2 mi <sup>2</sup> .	1972-79, 1992-95	6-22-95	7.28b	980	8-02-73	10.65b	10,400



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Continued								
Bound Brook at Middlesex, NJ (01403900)	Lat 40°35'06", long 74°30'29", Somerset County, Hydrologic Unit 02030105, at bridge on Sebrings Mill Road, 0.4 mi downstream of mouth of Green Brook, and 2.3 mi upstream of mouth. Datum of gage is 26.72 ft above sea level. Drainage area is 48.4 mi <sup>2</sup> .	1972-77†, 1992-95	7-28-95	6.39b	a	8-02-73	41.18g	7,000
Lawrence Brook at Farrington Dam, NJ (01405000)	Lat 40°27'00", long 74°27'05", Middle- sex County, Hydrologic Unit 02030105, on left bank 300 ft upstream from Farrington Dam, 0.7 mi southwest of Milltown, and 5.4 mi upstream from mouth. Datum of gage is 25.73 ft above sea level. Drainage area is 34.4 mi <sup>2</sup> .	1927-90†, 1992-95	3-09-95	24.80	448	7-21-75	26.93	6,400
SHREWSBURY RIVER BASIN								
Big Brook near Marlboro, NJ (01407290)	Lat 40°19'10", long 74°12'52", Mon- mouth County, Hydrologic Unit 02030104, downstream side of bridge on Hillsdale Road, 1.7 mi east of Marlboro, and 3.0 mi northwest of Colts Neck. Drainage area is 6.42 mi <sup>2</sup> .	1980-95	11-28-94	4.96b	490	09-20-89	10.16b	1,370
MANASQUAN RIVER BASIN								
Manasquan River near Georgia, NJ *(01407830)	Lat 40°12'36", long 74°16'41", Mon- mouth County, Hydrologic Unit 02040301, at culvert on Jacksons Mill Road near Georgia, and 0.5 mi up- stream from Debois Creek. Datum of gage is 70.52 ft (revised) above sea level. Revised records--WDR NJ-87- 1. Drainage area is 10.6 mi <sup>2</sup> .	1969-95	8-06-95	10.83	600	6-20-92	13.53	1,150
Mingamahone Brook at Farmingdale, NJ *(01408015)	Lat 40°11'38", long 74°09'42", Mon- mouth County, Hydrologic Unit 02040301, at bridge on Belmar Road in Farmingdale, and 3.0 mi upstream from mouth. Datum of gage is 48.64 ft above sea level. Drainage area is 6.20 mi <sup>2</sup> .	1969-95	8-06-95	4.84	150	7-21-75	7.31	425
Manasquan River at Allenwood, NJ *(01408030)	Lat 40°08'35", long 74°07'03", Mon- mouth County, Hydrologic Unit 02040301, at bridge on Hospital Road at Allenwood, and 1.5 mi down- stream from Mill Run. Datum of gage is 3.56 ft above sea level. Drain- age area is 63.9 mi <sup>2</sup> .	1969-95	8-06-95	4.70b	5.30	9-27-75	11.24b	3,700



## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
MAURICE RIVER BASIN								
Menantico Creek near Millville, NJ (01412000)	Lat 39°25'12", long 74°58'00", Cumberland county, Hydrologic Unit 02040206 on left bank at upstream side of Mays Landing Road (State Route 552), 0.9 mi downstream of Menantico Lake, 4.0 mi northeast of Millville, and 7.0 mi upstream from mouth. Datum of gage is 36.63 ft above sea level. Drainage area is 23.2 mi <sup>2</sup> .	1931-57+, 1978-84+, 1985-95	7-20-95	2.28	123	8-20-39	6.21	1,050
COHANSEY RIVER BASIN								
West Branch Cohansey River at Seeley, NJ (01412500)	Lat 39°29'06, long 75°15'33", Cumberland County, Hydrologic Unit 02040206, on right bank 15 ft upstream from county bridge, County Highway 31 at Seeley, 450 ft upstream from mouth, and 4.1 mi northwest of Bridgeton. Datum of gage is 42.23 ft above sea level. Drainage area is 2.58 mi <sup>2</sup> .	1952-67+, 1968-95	3-09-95	<2.08h	52i	6-20-83	11.17	885
Cohansey River at Seeley, NJ (01412800)	Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth. Datum of gage is 26.9 ft above sea level. Drainage area is 28.0 mi <sup>2</sup> .	1978-88+, 1989-95	1-07-95	4.32	123	6-21-83	8.50	10,000
DELAWARE RIVER BASIN								
Pequest River at Huntsville, NJ *(01445000)	Lat 40°58'52", long 74°46'36", Sussex County, Hydrologic Unit 02040105, on right bank, 20 ft upstream from highway bridge in Huntsville, and 0.4 mi downstream from East Branch. Datum of gage is 553.81 ft above sea level. Drainage area is 31.0 mi <sup>2</sup> .	1940-62+, 1963-95	3-09-95	3.62	236	1-25-79	5.44	640
Beaver Brook near Belvidere, NJ *(01446000)	Lat 40°50'40", long 75°02'48, Warren County, Hydrologic Unit 02040105, on right bank, 2,000 ft upstream from mouth, and 2 mi east Belvidere. Datum of gage is 303.36 ft above sea level. Drainage area is 36.7 mi <sup>2</sup> .	1922-61+, 1963-95	3-09-95	3.59	431	3-12-36	5.76	1,510
Laoahannock Creek at Ridge Road, at Rox- burg, NJ (01446564)	Lat 40°46'06", long 75°06'11, Warren County, Hydrologic Unit 02040105, at bridge on Ridge Road, 0.2 mi south of unnamed pond and 0.8 mi east of State Route 519 at Roxburg. Drainage area is 0.86 mi <sup>2</sup> .	1995	7-18-95	5.15	88	7-18-95	5.15	88

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued								
Pohatcong Creek at New Village, NJ *(01455200)	Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek. Datum of gage is 308.32 ft above sea level. Drainage area is 33.3 mi <sup>2</sup> .	1960-69†, 1970-95	3-09-95	4.83	880	1-25-79	8.10	3,570
Musconetcong River at outlet of Lake Hopat- cong, NJ (01455500)	Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Lake Unit 02040105, on left bank just upstream of highway bridge 300 ft down- stream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft above sea level. Drainage area is 25.3 mi <sup>2</sup> .	1929-75†, 1976-95	3-09-95	2.71	123	8-20-55	3.85d	795
Musconetcong River near Hackettstown, NJ (01456000)	Lat 40°53'17", long 74°47'53", Warren County, Hydrologic Unit 02040105, on right bank 75 ft upstream from Saxton Falls Dam, 0.5 mi upstream from CONRAIL railroad bridge, and 3.0 mi northeast of Hackettstown. Datum of gage is 630.93 ft above sea level. Drainage area is 68.9 mi <sup>2</sup> .	1921-73†, 1974-95	3-09-95	2.39	672	8-19-55	3.97d	2,170
Delaware River at Riegelsville, NJ (01457500)	Lat 40°35'36", long 75°11'17", Warren County, Hydrologic Unit 02040105, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this sta- tion since Oct. 1, 1931). Datum of gage is 125.12 ft above sea level. Drainage area is 6,328 mi <sup>2</sup> .	1906-71†, 1972-95	3-10-95	12.25	43,700	8-19-55	38.85	340,000
Delaware River tributary at Byram, NJ (01459010)	Lat 40°25'23", long 75°03'42", Hunter- don County, Hydrologic Unit 02030105, at culvert on State Route 29, south of Byram, 0.1 mi east of the Delaware River, and 0.9 mi north of Bull's Island. Datum of gage is 69.7 ft above sea level. Drainage area is 1.23 mi <sup>2</sup> .	1945, 1995	3-09-95	<7.36bh	<116i	7-09-45 8-20-55	18.4 28.37k	2,900 a
Moore Creek tributary at Valley Road, near Lam- bertville, NJ (01462197)	Lat 40°20'12", long 74°54'59", Mercer County, Hydrologic Unit 02030105, at culvert on Valley Road, ssouth of Lambertville, 0.3 mi east of Belle Mountain, and 0.7 mi upstream of mouth. Drainage area is 0.73 mi <sup>2</sup> .	1989, 1995	3-09-95	1.98	168	8-15-89	--	1,150j
Shabakunk Creek tribu- tary at Texas Avenue, near Lawrenceville, NJ (01463812)	Lat 40°15'36", long 74°43'38", Mercer County, Hydrologic Unit 02030105, at bridge on Texas Avenue, Lawrenceville, 600 ft west of Brun- swick Pike, 0.2 mi north of Colonial Lake. Drainage area is 0.27 mi <sup>2</sup> .	1995	1-20-95	3.15	43	1-20-95	3.15	43

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Date	Water year 1995 maximum		Period of record maximum		
				Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued								
Stony Ford Brook at New Egypt, NJ (01464405)	Lat 40°04'21", long 74°31'00", Ocean County, Hydrologic Unit 02030105, at bridge on Lakewood Road, 0.7 mi northwest of New Egypt, 0.9 mi upstream from mouth. Drainage area is 0.99 mi <sup>2</sup> .	1979, 1995	3-09-95	3.52	11	8-31-79	--	340
Doctors Creek at Allentown, NJ (01464515)	Lat 40°10'37", long 74°35'57", Mon- mouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond Dam. Datum of gage is 50.98 ft above sea level. Drainage area is 17.4 mi <sup>2</sup> .	1968-95	9-18-95	3.33b	250	8-28-71	7.3b	1,250
Crosswicks Creek tribu- tary at U.S. Route 206 near Bordentown, NJ (01464524)	Lat 40°10'15", long 74°41'59", Burling- ton County, Hydrologic Unit 02040201, at culvert on U.S. Route 206, 0.4 mi south of Syovan Glen, and 1.9 mi northeast of Bordentown. Drainage area is 0.43 mi <sup>2</sup> .	1995	5-30-95	0.90	14	5-30-95	0.90	14
Thorton Creek at Bordentown, NJ (01464525)	Lat 40°08'50", long 74°41'46", Burling- ton County, Hydrologic Unit 02040201, upstream side of aban- doned dam, 50 ft upstream of Thor- ton Lane, 0.4 mi upstream of unnamed pond, 0.9 mi east of Bor- dentown post office, and 2.5 mi west of Crosswicks. Drainage area is 0.84 mi <sup>2</sup> .	1976-77, 1995	5-30-95	1.96	82	5-30-95	1.96	82
Blacks Creek at Mansfield Square, NJ (01464530)	Lat 40°07'02", long 74°41'58", Burling- ton County, Hydrologic Unit 02040201, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi east of Mansfield Square, and 3.4 mi upstream from mouth. Datum of gage is 12.44 ft above sea level. Drainage area is 19.7 mi <sup>2</sup> .	1978-95	5-30-95	5.60b	331	8-31-78	11.20b	2,500
Crafts Creek at Rout 68, at Georgetown, NJ (01464533)	Lat 40°04'37", long 74°39'48", Burling- ton County, Hydrologic Unit 02040201, at culvert on State Route 68, 0.5 mi west of Georgetown, 0.7 mi downstream of unnamed pond, and 3.1 mi east of Columbus. Drainage area is 0.58 mi <sup>2</sup> .	1995	3-09-95	2.48	11	3-09-95	2.48	11
Crafts Creek at Columbus, NJ (01464538)	Lat 40°04'44", long 74°43'07", Burling- ton County, Hydrologic Unit 02040201, at bridge on Columbus- Mansfield road, 0.4 mi north of Columbus, and 6.0 mi northeast of Mount Holly. Datum of gage is 33.71 ft above sea level. Drainage area is 5.38 mi <sup>2</sup> .	1978-95	3-09-95	5.43b	120	7-06-89	10.25b	880

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued								
Assiscunk Creek near Columbus, NJ (01464582)	Lat 40°03'13", long 74°44'34", Burling- ton County, Hydrologic Unit 02040201, at bridge on Petticoat Bridge Road, 1.7 mi southwest of Columbus, 4.0 mi northeast of Mount Holly, and 0.1 mi down- stream from Assiscunk Branch. Datum of gage is 24.19 ft above sea level. Drainage area is 10.9 mi <sup>2</sup> .	1978-95	3-09-95	5.89b	240	8-31-78	11.10b	1,480
South Branch Rancocas Creek at Vincentown, NJ (01465850)	Lat 39°56'22", long 74°45'50", Burling- ton County, Hydrologic Unit 02040202, on left bank 150 ft down- stream from highway bridge on Lumberton-Vincentown Road, 0.8 mi west of Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch. Datum of gage is 13.17 ft above sea level. Drainage area is 64.5 mi <sup>2</sup> .	1962-75†, 1976-95	3-09-95	4.14	250	8-28-78	7.98	1,320
Southwest Branch Rancocas Creek at Medford, NJ *(01465880)	Lat 39°53'43", long 74°49'26", Burling- ton County, Hydrologic Unit 02040202, at bridge on Argonne Highway (State Route 541), 0.6 mi south of intersection of Argonne Highway and State Highway 70 at Medford, and 5.3 mi upstream from mouth. Datum of gage is 18.38. Drainage area is 47.2 mi <sup>2</sup> .	1983-95	3-09-95	8.37	540	7-05-89	15.30	3,300
Newton Creek at Collingswood, NJ *(01467305)	Lat 39°54'30", long 75°03'13", Camden County, Hydrologic Unit 02040202, at bridge on Park Avenue in Colling- swood, 0.3 mi east of Cuthbert Ave- nue. Datum of gage is 18.74 ft above sea level. Drainage area is 1.33 mi <sup>2</sup> .	1964-95	3-09-95	3.42	165	7-14-94	6.82	328
South Branch Newton Creek at Haddon Heights, NJ (01467317)	Lat 39°52'45", long 75°04'26", Camden County, Hydrologic Unit 02040202, at bridge on 13th Avenue in Haddon Heights, and 2.6 mi south of Colling- swood. Datum of gage is 23.34 ft above sea level. Drainage area is 0.63 mi <sup>2</sup> .	1964-95	3-09-95	2.25	45	9-01-78	4.62	295
Raccoon Creek at Mullica Hill, NJ (01477110)	Lat 39°44'10", long 75°13'30", Glouces- ter County, Hydrologic Unit 02040202, at bridge on State Routes 45 and 77 in Mullica Hill, 1,200 ft downstream of Mullica Hill Pond, and 5.5 mi west of Pitman. Datum of gage is 21.91 ft above sea level. Drainage area is 15.6 mi <sup>2</sup> .	1940, 1978-95	3-09-95	2.10b	130	9-01-40	---	2,900
Oldmans Creek near Harrisonville, NJ (01477480)	Lat 39°41'20", long 75°18'38", Salem County, Hydrologic Unit 02040206, at bridge on Harrisonville Station Road, 2.4 mi west of Harrisonville, and 2.8 mi north of Woodstown. Datum of gage is 16.58 ft above sea level. Drainage area is 13.8 mi <sup>2</sup> .	1975-95	3-09-95	4.86	250	1-26-78	6.51	800

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

485

## Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1995 maximum			Period of record maximum		
			Date	Gage Height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued								
Salem River at Woodstown, NJ (01482500)	Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right side of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from CONRAIL railroad bridge. Datum of gage is 19.49 ft above sea level. Drainage area is 14.6 mi <sup>2</sup> .	1940†, 1942-84†, 1985-88, 1989-90†, 1991-95	3-09-95	11.90	423	9-01-40	17.98	22,000

\* Also a low-flow partial-record station.

† Operated as a continuous-record gaging station.

a Discharge not determined.

b Downstream side of bridge.

c Revised.

d Not the maximum gage height for period of record.

e Determined at Squaw Lake Dam, 0.2 mi upstream of gage.

f Determined at Bradford Avenue, 0.2 mi downstream of gage,  
adjusted for change in drainage area.g Gage height (NGVD 1929) from previous site location approximately  
150 ft upstream of current site.h Peak gage height for the period was less than minimum recordable  
gage height indicated.i Peak discharge for the period was less than the minimum recordable  
discharge.j Determined at site 0.1 mi downstream (USGS station number  
01462198, drainage area 0.80 mi<sup>2</sup>), adjusted for change in drainage  
area.

k Due to backwater from Delaware River.



## Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1995

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
HUDSON RIVER BASIN						
01368950	Black Creek near Vernon, NJ	Lat 41°13'21", long 74°28'33", Sussex County, Hydrologic Unit 02020007, at highway bridge on Maple Grange Road, 0.6 mi upstream of mouth, 0.7 mi northwest of Maple Grange, and 1.7 mi northeast of Vernon.	17.3	1977-86, 1988, 1990-91, 1994-95	9-14-95	0.0
PASSAIC RIVER BASIN						
01379525	Canoe Brook near Millburn, NJ	Lat 40°44'55", long 74°20'14", Essex County, Hydrologic Unit 02030103, at bridge on Parsonage Hill Road, 0.2 mi downstream from Taylor Lake, 1.0 mi upstream from New Jersey-American Water Company pumping station, and 1.4 mi northwest of Millburn.	10.2	1989-95	6-01-95 8-28-95	2.8 .00
01381200	Rockaway River at Pine Brook, NJ	Lat 40°51'42, long 74°20'53", Morris County, Hydrologic Unit 02030103,at bridge on U.S. Route 46, 0.9 mi west of Pine Brook, and 1.1 mi upstream of Whippany River.	136	1963-73, 1979-81, 1983-95	8-25-95	22
01381490	Watnong Brook at Morris Plains, NJ	Lat 40°18'50, long 74°29'38", Morris County, Hydrologic Unit 02030103,at bridge on Lake Road, 0.1 mi upstream from mouth, and 0.8 mi south of Morris Plains.	7.77	1966-72, 1995	4-26-95 9-05-95	6.9 2.5
01381550	Malapardis Brook at Whippany, NJ	Lat 40°49'22", long 74°25'08", Morris County, Hydrologic Unit 02030103, at bridge on Parsippanty Road at Whippany, 400 ft upstream from mouth, and 2.2 mi south of Parsippanty.	5.07	1989-95	10-05-94 4-26-95 6-01-95 8-28-95 9-05-95	1.6 1.8 1.8 .74 .27
01382000	Passaic River at Two Bridges, NJ	Lat 40°53'50", long 74°16'23", Essex County, Hydrologic Unit 02030103, at bridge on Two Bridges Road, just upstream of confluence with Pompton River, 0.3 mi northeast of Two Bridges, and 2.6 mi northwest of Little Falls.	361	1963-68, 1983-84, 1986-92, 1994-95	8-25-95	95
01382550	Pequannock River tributary at Kinnelon, NJ	Lat 41°00'12", long 74°22'08", Morris County, Hydrologic Unit 02030103, at culvert on Kinnelon Road, at Kinnelon, 300 ft upstream from Maple Lake and 1.0 mi west of Butler.	1.18	1992-95	8-28-95	.02
01382700	Stone House Brook at Kinnelon, NJ	Lat 40°59'17", long 74°23'10", Morris County, Hydrologic Unit 02030103, at culvert on Kinnelon Road at Kinnelon, 200 ft downstream from dam on unnamed pond, and 0.3 mi upstream of Butler Reservoir.	3.45	1992-95	8-28-95	.33

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
PASSAIC RIVER BASIN--Continued						
01382890	Belcher Creek at West Milford, NJ	Lat 41°08'05", long 74°22'04", Passaic County, Hydrologic Unit 02030103, at bridge on Union Valley Road, 150 ft downstream from Pinecliff Lake Dam, 0.4 mi from West Milford, and 1.6 mi from mouth.	7.27	1973-80, 1995	7-27-95	f2.5
					8-03-95	f1.1
					8-20-95	f1.5
					8-29-95	f.46
					9-07-95	f.52
01387490	Masonicus Brook at West Mahwah, NJ	Lat 41°05'53", long 74°08'57", Bergen County, Hydrologic Unit 02030103, at bridge on Eastview Avenue, at West Mahwah, 0.3 mi downstream from Winters Pond and 0.4 mi upstream from mouth.	3.84	1982-83, 1992-95	8-29-95	.13
01388700	Beaver Dam Brook at Lincoln Park, NJ	Lat 40°55'29", long 74°18'10", Morris County, Hydrologic Unit 02030103, at bridge on Park Avenue, at Lincoln Park, 0.6 mi downstream from East Ditch and 0.7 mi upstream of mouth.	12.3	1992-95	6-02-95	3.7
					8-28-95	.22
01389100	Singac Brook at Singac, NJ	Lat 40°53'57", long 74°15'57", Passaic County, Hydrologic Unit 02030103, at bridge on Fairfield Road, between Interstate 80 and U.S. Route 46, 60 ft upstream from mouth, 1.2 mi north-west of Singac, and 1.8 mi northwest of Little Falls.	11.1	1963-67, 1983-84, 1986-95	6-02-95	18
					8-28-95	13
01389140	Deepavaal Brook at Two Bridges, NJ	Lat 40°53'14", long 74°16'00", Essex County, Hydrologic Unit 02030103, at bridge on Little Falls Road, 400 ft upstream from Passaic River, and 0.8 mi southeast of Two Bridges.	7.59	1970, 1983-84, 1988-95	6-02-95	2.4
					8-28-95	.71
ELIZABETH RIVER BASIN						
01393350	West Branch Elizabeth River near Union, NJ	Lat 40°41'32", long 74°14'38", Union County, Hydrologic Unit 02030104, at bridge on Vauxhall Road, 0.3 mi upstream of mouth, 1.4 mi east of Union, and 2.3 mi northwest of Elizabeth	2.53	1989-95	6-01-95	.72
					8-28-95	.13
RAHWAY RIVER BASIN						
01394400	Van Winkle Brook at Springfield, NJ	Lat 40°42'12", long 74°18'15", Union County, Hydrologic Unit 02030104, at railroad bridge in Springfield, 0.4 mi upstream from bridge on Mountain Avenue, and 2.3 mi west of Union.	4.85	1989-95	6-01-95	.60
					8-28-95	.26
01394600	Nomahegan Brook near Mountain-side, NJ	Lat 40°40'42", long 74°19'54", Union County, Hydrologic Unit 02030104, at bridge on Springfield Avenue, 0.2 mi downstream of Echo Lake, 1.1 mi upstream of mouth, and 1.4 mi north-east of Mountainside	3.76	1989-95	6-01-95	1.5
					8-28-95	.35

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN						
01396220	Stony Brook at Naughright, NJ	Lat 40°48'11", long 74°45'07", Morris County, Hydrologic Unit 02040105, at bridge on Naughright Road, 0.6 mi northwest of Naughright, 0.7 mi upstream from mouth, and 1.9 mi northeast of Long Valley.	3.34	1963-67, 1973, 1991-95	6-01-95 8-28-95	.56 .00
01396240	Electric Brook at Long Valley, NJ	Lat 40°47'23", long 74°46'36", Morris County, Hydrologic Unit 02030105, at bridge on Fairview Avenue at Long Valley, 0.3 mi upstream of mouth, and 0.8 mi downstream of Camp Washington Pond.	3.17	1991-95	6-01-95 8-28-95	1.3 .22
01399190	Lamington (Black) River at Succasunna, NJ	Lat 40°51'03", long 74°38'02", Morris County, Hydrologic Unit 02030105, bridge on Righter Road, 0.7 mi south of Succasunna, and 0.4 mi upstream of Succasunna Brook.	7.37	1977-87a, 1988-95	5-11-95 6-01-95 8-28-95	11 2.5 .71
01399200	Lamington (Black) River near Ironia, NJ	Lat 40°50'07", long 74°38'40", Morris County, Hydrologic Unit 02030105, at bridge on Ironia Road, 1.0 mi downstream of Succasunna Brook, and 1.3 mi northwest of Ironia.	10.9	1964-72, 1976-87a, 1988-95	5-11-95 6-01-95 8-16-95 8-28-95	18 7.7 2.0 2.2
01399295	Tanners Brook near Milltown, NJ	Lat 40°47'17", long 74°43'33", Morris County, Hydrologic Unit 02030105, at bridge on Tanners Brook Road, 0.2 mi upstream of mouth, 0.6 mi north of Milltown, and 1.5 mi west of Chester.	2.78	1991-95	8-28-95	.25
01399300	Lamington River at Milltown, NJ	Lat 40°47'13", long 74°43'13", Morris County, Hydrologic Unit 02030105, at bridge on New Furnace Road, 0.1 mi downstream from Tanners Brook, and 0.6 mi north of Milltown.	23.2	1988-95	8-28-95	2.1
01400640	Millstone River near Grovers Mill, NJ	Lat 40°18'48", long 74°35'22", Mercer County, Hydrologic Unit 02030105, at bridge on Cranbury Neck Road, 1.0 mi east of Grovers Mill, 1.8 mi upstream from Cranbury Brook, and 1.8 mi east of Princeton Junction..	42.6	1959-65, 1971, 1986-87, 1992-93, 1995	9-18-95	48
WHALE POND BROOK BASIN						
01407618	Whale Pond Brook near Oakhurst, NJ	Lat 40°16'35", long 74°00'12", Monmouth County, Hydrologic Unit 02030104, at bridge on Norwood Avenue, 0.6 mi upstream of Lake Takanassee, and 0.8 mi northeast of Oakhurst.	6.20	1989-95	6-01-95 8-28-95	3.5 3.1

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
POPLAR BROOK BASIN						
01407628	Poplar Brook near Deal, NJ	Lat 40°15'24", long 74°00'42", Monmouth County, Hydrologic Unit 02030104, at bridge on Monmouth Road, 0.7 mi west of Deal, 1.0 mi south of Oakhurst, and 1.3 mi upstream of mouth.	2.49	1989-95	6-01-95	2.0
					8-28-95	1.0
HARVEY (HOG SWAMP) BROOK BASIN						
01407636	Harvey (Hog Swamp) Brook at West Allenhurst, NJ	Lat 40°14'36", long 74°00'52", Monmouth County, Hydrologic Unit 02030104, at culvert on Monmouth Road at West Allenhurst, 0.7 mi west of Deal, and 1.6 mi upstream of dam on Deal Lake.	1.99	1989-95	6-01-95	.79
					8-28-95	.91
SHARK RIVER BASIN						
01407755	Jumping Brook above reservoir, near Neptune City, NJ	Lat 40°12'30", long 74°04'12", Monmouth County, Hydrologic Unit 02030104, at bridge on State Route 33, 0.25 mi upstream of Jumping Brook Reservoir, and 2.3 mi west of Neptune City.	5.58	1989-95	6-01-95	2.0
					8-28-95	.65
POLLY POD BROOK BASIN						
01407780	Polly Pond Brook at South Belmar, NJ	Lat 40°10'00", long 74°01'41", Monmouth County, Hydrologic Unit 02030104, at culvert on F Street at South Belmar, 50 ft upstream of Lake Como, and 0.6 mi upstream of mouth.	.99	1989-95	6-01-95	.33
					8-28-95	.71
WRECK POND BROOK BASIN						
01407800	Wreck Pond Brook near Spring Lake, NJ	Lat 40°09'11", long 74°03'43", Monmouth County, Hydrologic Unit 02030104, at Osborne Pond Dam, 1.1 mi above Hannabrand Brook, and 1.7 mi west of Spring Lake.	7.00	1956-57a, 1959-63, 1966, 1995	9-29-95	4.3
01407806	Hannabrand Brook at Old Mill Road, near Spring Lake Heights, NJ	Lat 40°08'29", long 74°03'43", Monmouth County, Hydrologic Unit 02030104, at bridge on Old Mill Road, 300 ft upstream of mouth, and 1.0 mi southwest of Spring Lake Heights.	3.13	1989-95	6-01-95	1.9
					8-28-95	1.8
MULLICA RIVER BASIN						
01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'38", Camden County, Hydrologic Unit 02040301, on left bank of small lake 50 ft downstream from bridge on Jackson-Medford Road, 0.7 mi north of intersection of State Route 534 with Jackson-Medford Road, and 1.6 mi east of Atco.	3.22	1974-85b, 1991-95	12-22-94	1.6
					3-14-95	2.3
					6-14-95	.71
					8-16-95	.03
01409401	Hays Mill Creek at Atco, NJ	Lat 39°45'32", long 74°53'02", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30, at outlet of Atco Lake in Atco, and 3.3 mi southeast of Berlin	3.80	1979, 1991-95	12-21-94	2.1
					3-14-95	2.6
					6-14-95	2.2
					8-16-95	1.5



Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
MULLICA RIVER BASIN--Continued						
01409402	Hays Mill Creek near Chesilhurst, NJ	Lat 39°45'02", long 74°50'28", Camden County, Hydrologic Unit 02040301, at bridge on Tremont Avenue in Wharton State Forest, 0.3 mi northeast of Burnt Mill Road and 2.0 mi northeast of Chesilhurst.	7.13	1974-77b, 1991-95	12-22-94	7.1
					3-14-95	8.9
					6-14-95	8.0
					8-16-95	4.2
0140940250	Cooper Branch near Chesilhurst, NJ	Lat 39°44'44", long 74°50'25", Camden County, Hydrologic Unit 02040301, at bridge on Burnt Mill Road, 700 ft upstream from mouth, 1.6 mi north-east of Waterford Works, and 2.8 mi southeast of Atco.	1.93	1991-95	12-21-94	.30
					3-15-95	1.6
					6-14-95	.21
					8-16-95	.00
0140940310	Wildcat Branch near Chesilhurst, NJ	Lat 39°44'20", long 74°49'58", Camden County, Hydrologic Unit 02040301, at bridge on Burnt Mill Road, 0.1 mi downstream from outlet of Beaverdam Lake, 1.4 mi northeast of Waterford Works, and 1.9 mi east of Chesilhurst.	2.27	1991-95	12-21-94	2.5
					3-15-95	.00
					6-14-95	1.3
					8-16-95	9.1
0140940365	Sleeper Branch Diversion (Saltars Ditch) near Atsion, NJ	Lat 39°43'48", long 74°46'09", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 600 ft downstream of Sleeper Branch, and 2.3 mi west of Atsion.	---	1991-95	12-21-94	.32
					3-14-95	1.6
					6-14-95	.20
					8-16-95	.05
0140940370	Sleeper Branch near Atsion, NJ	Lat 39°43'42", long 74°46'12", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 500 ft downstream of Sleeper Branch Diversion (Saltars Ditch) and 2.3 mi west of Atsion.	16.1	1991-95	12-21-94	17
					3-14-95	19
					6-14-95	12
					8-16-95	6.7
0140940480	Clark Branch near Atsion, NJ	Lat 39°42'53", long 74°46'25", Camden County, Hydrologic Unit 02040301, at abandoned railroad bridge, 0.2 mi downstream of Price Branch and 2.8 mi west of Atsion.	6.42	1991-95	12-21-94	1.7
					3-14-95	4.9
					6-14-95	.46
					8-16-95	.00
01409408	Pump Branch near Waterford Works, NJ	Lat 39°41'59", long 74°50'40", Camden County, Hydrologic Unit 02040301, at bridge on Old Whitehorse Pike, 0.5 mi downstream from lake at Camp Ha-Lu-Wa-Sa, and 1.6 mi south of Waterford Works.	9.78	1991-95	12-21-94	8.6
					3-14-95	5.0
					6-14-95	14
					8-16-95	7.1
0140940950	Blue Anchor Brook at Elm, NJ	Lat 39°40'11", long 74°50'06", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 (Whitehorse Pike) at Elm, at outlet of unnamed lake, and 1.4 mi upstream of confluence with Pump Branch.	4.86	1991-95	12-21-94	2.1
					3-14-95	2.9
					6-14-95	1.5
					8-16-95	.80
0140940970	Albertson Branch near Elm, NJ	Lat 39°41'34", long 74°48'24", Camden County, Hydrologic Unit 02040301, at bridge on Fleming Pike, 0.4 mi downstream from confluence of Blue Anchor Brook and Pump Branch, and 1.6 mi northeast of Elm.	17.1	1991-95	12-21-94	14
					3-14-95	19
					6-14-95	18
					8-16-95	13



Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
MULLICA RIVER BASIN--Continued						
0140941050	Great Swamp Branch at Elm, NJ	Lat 39°40'18", long 74°49'33", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30, 0.5 mi south-east of Elm, 1.5 mi north of Rosedale, and 2.4 mi northeast of Winslow.	2.83	1991-95	12-21-94	.75
					3-14-95	.94
					6-14-95	.18
					8-16-95	.01
GREAT EGG HARBOR RIVER BASIN						
01410803	Fourmile Branch at Winslow Crossing, NJ	Lat 39°42'07", long 74°58'11", Camden County, Hydrologic Unit 02040301, at bridge on Andrews Road in Winslow Crossing, 1.4 mi northeast of Williamstown, and 2.1 mi upstream from Great Egg Harbor River.	6.22	1972-80, 1990-95	10-14-94	4.2
					8-25-95	1.0
01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'25", Camden County, Hydrologic Unit 02040301, on left bank 70 ft upstream from bridge on Malaga Road, 0.3 mi northeast of New Brooklyn, and 0.3 mi upstream from mouth.	7.74	1972-79, 1989-95	10-14-94	5.5
					8-25-95	1.7
01410865	Squankum Branch at Malaga Road, near Williamstown, NJ	Lat 39°40'04", long 74°57'39", Gloucester County, Hydrologic Unit 02040302, at bridge on Malaga Road, 1.0 mi upstream from Hedges Branch, and 2.2 mi east of Williamstown.	3.02	1974, 1990-95	10-14-94	.41
					8-25-95	.02
01411035	Hospitality Branch at Blue Bell Road, near Cecil, NJ	Lat 39°38'36", long 74°58'40", Gloucester County, Hydrologic Unit 02040302, at bridge on Blue Bell Road, 1.2 mi upstream of Timber Road, 1.2 mi upstream of Timber Lakes, and 2.0 mi west of Cecil.	4.51	1990-95	10-14-94	1.2
					8-25-95	.18
01411047	Whitehall Branch below Victory Lakes, near Cecil, NJ	Lat 39°37'59", long 74°56'51", Gloucester County, Hydrologic Unit 02040302, at bridge on unnamed dirt road off of Yardley Road in Friendly Village trailer park, 800 ft downstream from Victory Lake and 1.0 mi south of Cecil.	4.60	1990-95	10-14-94	1.5
					8-25-95	.82
01411170	Great Egg Harbor River at Mays Landing, NJ	Lat 39°27'13", long 74°44'04" Atlantic County, Hydrologic Unit 02040302, at bridge on State Route 559, at outlet of Lake Lenape, and 0.4 mi west of intersection of State Route 50 with U.S. Route 40 in Mays Landing.	205	1988-93, 1995	7-06-95	121
					8-29-95	32
01411220	South River near Belcoville, NJ	Lat 39°26'25", long 74°45'21" Atlantic County, Hydrologic Unit 02040302, at bridge on Walkers Forge Road, 1.1 mi west of Belcoville, and 3.7 mi upstream from mouth.	20.4	1994-95	2-28-95	5.6
					6-01-95	16
MAURICE RIVER BASIN						
01411650	Muddy Run near Elmer, NJ	Lat 39°36'48", long 75°11'21" Salem County, Hydrologic Unit 02040206, at bridge on Friendship Church Road, 1.6 mi north of Elmer and 1.8 mi upstream from Elmer Lake.	4.94	1994-95	6-01-95	1.4
					8-28-95	.72

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
MAURICE RIVER BASIN--Continued						
01411680	Palatine Branch at Palatine, NJ	Lat 39°33'25", long 75°10'28" Salem County, Hydrologic Unit 02040206, at bridge on Elmer-Palatine Road at Palatine, 0.6 mi upstream from Palatine Lake and 2.5 mi south of Elmer.	5.39	1994-95	6-01-95 8-28-95	2.5 .11
01411850	Mill Creek near Millville, NJ	Lat 39°25'33", long 75°05'11" Cumberland County, Hydrologic Unit 02040206, at bridge on dirt road, 1.2 mi upstream from mouth, and 3.3 mi northwest of Millville.	15.1	1973-79, 1993, 1995	6-01-95 8-28-95	6.2 3.0
01412100	Manumuskin River near Manumuskin, NJ	Lat 39°20'57", long 74°57'31", Cumberland County, Hydrologic Unit 02040206, at bridge on light-duty road, 1.1 mi north of Manumuskin 2.9 mi northeast of Port Elizabeth, and 5.0 mi upstream from mouth.	32.1	1964-71, 1994-95	2-28-95 7-06-95	10 15
DELAWARE RIVER BASIN						
01443260	East Branch Paulins Kill tributary no. 2 near Woodruffs Gap, NJ	Lat 41°03'42", long 74°39'37", Sussex County, Hydrologic Unit 02040105, at culvert on private road, 0.4 mi upstream from bridge on Houses Corner Road and 0.7 mi south of Woodruffs Gap.	2.81	1992-95	10-19-94 5-09-95 8-10-95	.59 2.1 .56
01443275	East Branch Paulins Kill tributary no. 1 near Lafayette, NJ	Lat 41°04'12", long 74°40'43", Sussex County, Hydrologic Unit 02040105, at culvert on abandoned railroad bed, 0.5 mi upstream of mouth, 1.2 mi west of Woodruffs Gap, and 2.0 south of Lafayette.	1.81	1992-95	10-19-94 5-09-95 8-10-95	.06 .22 .05e
01443510	Blairs Creek at Blairstown, NJ	Lat 40°59'12", long 74°57'35", Warren County, Hydrologic Unit 02040105, at bridge on Mill Brook Road, at Blairstown, 300 ft upstream from Blair Lake, 0.4 mi upstream of mouth, and 1.2 mi east of Jacksonburg.	13.1	1989-95	8-28-95	.90
01445200	Bear Creek near Johnsonburg, NJ	Lat 40°56'35", long 74°52'31", Warren County, Hydrologic Unit 02040105, at bridge on Bear Creek Road, 1.8 mi upstream of Trout Brook, and 1.5 mi south of Johnsonburg.	12.9	1940-42, 1987-95	6-01-95 8-28-95	8.5 1.4
01445490	Furnace Brook at Oxford, NJ	Lat 40°48'15", long 74°59'42" Warren County, Hydrologic Unit 02040105, at bridge on State Route 31 in Oxford, 2.4 mi upstream from mouth and 3.2 mi north of Washington.	4.29	1965-69b, 1971-72b, 1994-95	8-28-95	2.7
01445520	Mountain Lake Brook near Pequest, NJ	Lat 40°51'11", long 74°59'09", Warren County, Hydrologic Unit 02040105, at bridge on Lake Drive South, at outlet of Mountain Lake, 1.5 mi north of Pequest and 1.7 mi upstream of mouth.	4.35	1991-95	6-29-95 8-28-95	.69 .00

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued						
01446520	Pophandusing Brook at Belvidere, NJ	Lat 40°49'14", long 75°04'37", Warren County, Hydrologic Unit 02040105, at bridge on Knowlton Street, at Belvidere, 0.5 mi upstream of mouth, and 1.8 mi west of Hazen.	5.36	1991-95	8-28-95	.09
01446568	Buckhorn Creek at Hutchinson Road, at Hutchinson, NJ	Lat 40°46'18", long 75°07'53", Warren County, Hydrologic Unit 02040105, at bridge on Hutchinson Road at Hutchinson, 50 ft upstream of unnamed tributary, and 800 ft upstream of mouth.	8.38	1991-95	8-28-95	.63
01455100	Lopatcong Creek at Phillipsburg, NJ	Lat 40°40'38", long 75°10'13", Warren County, Hydrologic Unit 02040105, at bridge on Alternate U.S. Route 22 in Phillipsburg, 100 ft upstream of railroad bridge of CONRAIL, and 3,000 ft above mouth.	14.2	1958-64, 1991-95	6-29-95 8-28-95	8.3 7.8
01455780	Lubbers Run at Lockwood, NJ	Lat 40°55'36", long 74°43'09", Sussex County, Hydrologic Unit 02040105, at bridge on U.S. Route 206 at Lockwood, 1.0 mi upstream from mouth, and 1.5 mi northwest of Stanhope.	16.3	1982-90, 1995	5-24-95 8-28-95	11 .30
01456080	Mine Brook near Hackettstown, NJ	Lat 40°49'58", long 74°49'23", Morris County, Hydrologic Unit 02040105, at bridge on State Route 517 (Schooleys Mountain Road), 600 ft upstream of mouth, and 1.0 mi south of Hackettstown.	4.96	1991-95	6-01-95 8-28-95	.86 .05e
01456210	Hances Brook near Beattystown, NJ	Lat 40°48'17", long 74°51'38", Warren County, Hydrologic Unit 02040105, at bridge on State Route 57, 600 ft upstream of mouth, and 1.1 mi southwest of Beattystown.	4.13	1991-95	8-28-95	.64
01467130	Cooper River at Kirkwood, NJ	Lat 39°50'11", long 75°00'06", Camden County, Hydrologic Unit 02040202, at outlet of Kirkwood Lake in Kirkwood, 100 ft east of railroad tracks of CONRAIL, and 1.0 mi north of Laurel Springs.	5.10	1964-72, 1988-95	6-02-95 8-29-95	1.7 .13
01467140	Cooper River at Lawnside, NJ	Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, on right bank at Melrose Avenue at Lawnside, 300 ft downstream of former Lawnside sewage treatment plant, and 2.0 mi upstream of New Jersey Turnpike.	12.7	1964-72, 1988-95	6-02-95 8-29-95	5.8 2.5
01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Burlington County, Hydrologic Unit 02040202, at bridge on Springdale Road, 2.5 mi west of Marlton, and 5.7 mi southwest of Moorestown.	5.34	1965-69, 1971, 1988-95	6-02-95	2.7

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1995--Continued

Station No.	Station Name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued						
01467180	North Branch Cooper River near Ellisburg, NJ	Lat 39°54'27", long 75°00'42", Camden County, Hydrologic Unit 02040202, at bridge on Brace Road, 0.4 mi south of Ellisburg, and 0.9 mi upstream from confluence with Cooper River.	10.5	1964-69, 1971-72, 1977, 1988-95	6-02-95 8-29-95	5.3 2.1
01467330	South Branch Big Timber Creek at Blackwood, NJ	Lat 39°48'17", long 75°04'33" Camden County, Hydrologic Unit 02040202, at bridge on Lower Landing Road at Blackwood, 3.1 mi southwest of Lindenwold and 3.0 mi from mouth.	19.1	1964-72, 1994-95	8-29-95	13
01475020	Mantua Creek at Sewell, NJ	Lat 39°46'22", long 75°08'10", Gloucester County, Hydrologic Unit 02040202, at bridge on Wenonah-Pitman Road, 0.5 mi below Bees Branch, and 0.6 mi east of Sewell.	14.7	1966-72, 1994-95	8-25-95	3.6
01477130	Basgalore Brook at Russell Road near Swedesboro, NJ	Lat 39°44'14", long 75°17'00" Gloucester County, Hydrologic Unit 02040202, at bridge on Russell Mill Road, 0.8 mi above mouth, and 1.7 mi east-south-east of Swedesboro.	3.30	1957d, 1966d, 1994-95	8-29-95	1.8
01482510	Nichomus Run near Woodstown, NJ	Lat 39°38'22", long 75°20'59" Salem County, Hydrologic Unit 02040206, at bridge on State Route 45, 1.4 mi southwest of Woodstown, and 1.7 mi above mouth.	3.76	1966-74, 1994-95	8-29-95	.48
01482900	Cool Run near Alloway, NJ	Lat 39°34'43", long 75°18'36" Salem County, Hydrologic Unit 02040206, at highway bridge on Stockton-Pleasant Hill Road, 0.5 mi above mouth, 3.0 mi northeast of Alloway, and 3.3 mi southwest of Daretown	4.92	1959-63, 1994-95	8-29-95	4.1
01482950	Cedar Brook near Alloway, NJ	Lat 39°33'31", long 75°20'22" Salem County, Hydrologic Unit 02040206, at highway bridge on secondary road 400 ft downstream from outlet of Sycamore Lake (at Remsterville), 1.3 mi east of Alloway, and 5.3 mi southwest of Daretown.	3.76	1959-63, 1994-95	8-29-95	.98

\* Active crest-stage partial-record station.

a Operated as a continuous-record gaging station by U.S. Geological Survey.

b Operated as a crest-stage partial-record station.

c Updated 1991 published data.

d Published as Raccoon Creek tributary.

e Estimated.

f Measurement made by HSI consultants.



## Discharge Measurements at Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (\*).

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
HUDSON RIVER BASIN						
01367770 Wallkill River	Rondout Creek	Lat 41°11'38", long 74°34'32", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.6 mi upstream of Papakating Creek, 1.7 mi southwest of Independence Corner, and 2.0 mi southeast of Sussex.	60.8	1977-82, 1985, 1987-94	9-14-95	12
01367910 Papakating Creek	Wallkill River	Lat 41°12'02", long 74°35'59", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 23, 2.6 mi south- west of Independence Corner, and 3.4 mi northeast of McAfee.	59.4	1977-80, 1982, 1985, 1989-94	9-14-95	2.5
01368000 Wallkill River	Rondout Creek	Lat 41°15'36", long 74°32'56", Sussex County, Hydrologic Unit 02020007, on right bank on downstream side of bridge on the Bassetts Bridge Road, 0.6 mi upstream from small tributary, 2.0 mi south of the New York-New Jersey state line and 3.0 mi south of Union- ville.	140	1938-81a, 1991-94	9-14-95*	16
PASSAIC RIVER BASIN						
01379530 Canoe Brook	Passaic River	Lat 40°45'21", long 74°21'43", Essex County, Hydrologic Unit 02030103, just downstream of New Jersey-Ameri- can Water Company pumping station, 0.5 mi upstream of mouth, and 2.0 mi north of Summit.	11.0	1933-60b, 1961-93c, 1994	1-03-95 2-22-95 4-13-95 7-11-95	9.8 15 19 11
01381290 Whippany River tributary	Whippany River	Lat 40°47'13", long 74°32'41", Morris County, Hydrologic Unit 02030103, on stone and wooden bridge 0.5 mi upstream of Sunrise Lake, 1.2 mi southeast of Brookside, and 1 mi north- west of Sugar Loaf.	.43	--	10-04-94	.19
01381440 Whippany River	Rockaway River	Lat 40°48'45", long 74°29'52", Morris County, Hydrologic Unit 02030103, at bridge on Lake Valley Road, 1,200 ft upstream from Watnong Brook, and 1.5 mi northwest of Morristown.	16.24	--	10-04-94 4-26-95 9-06-95	7.1 15.7 2.8
01381480 Watnong Brook	Whippany River	Lat 40°49'45", long 74°29'39", Morris County, Hydrologic Unit 02030103, at bridge on Central Avenue in Morris Plains, just downstream from unnamed pond and Jaquis Brook.	6.29	--	10-04-94 4-26-95 9-05-95	2.8 4.2 1.25



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
PASSAIC RIVER BASIN--Cont'd						
01381495 Whippany River	Whippany River	Lat 40°48'45", long 74°28'51", Morris County, Hydrologic Unit 02030103, at bridge on Speedwell Avenue at Morris- town, 300 ft downstream of Speedwell Lake, and 0.3 mi upstream of Lake Pocohontas.	24.87	--	10-04-94	19.6
					4-26-95	29.3
					9-05-95	8.2
01381497 Whippany River	Rockaway River	Lat 40°48'04", long 74°28'41", Morris County, Hydrologic Unit 02030103, at bridge on King Boulevard, at Morris- town, and 0.2 mi downstream from Lake Pocahontas.	25.77	--	10-04-94	18.3
					4-27-95	33.8
					9-05-95	7.8
01381515 Whippany River	Rockaway River	Lat 40°49'08", long 74°26'28", Morris County, Hydrologic Unit 02030103, 0.5 mi upstream from Eden Mill Dam, and 2.3 mi northeast of Morristown	31.62	--	10-05-94	23.2
					4-27-95	30.8
01381560 Whippany River	Rockaway River	Lat 40°49'02", long 74°24'19", Morris County, Hydrologic Unit 02030103, next to parking lot behind Einstein- Moomjy building on Route 10 in Whippany, 0.5 mi downtown from Whippany Road bridge, and 2.2 mi north of Florham Park.	37.88	--	10-05-94	25.1
					4-27-95	34.0
					9-06-95	16.6
01381540 Whippany River	Rockaway River	Lat 40°49'21", long 74°25'51", Morris County, Hydrologic Unit 02030103, at bridge on Whippany Road at Whip- pany, 400 ft upstream of Malapardis Brook, and 0.9 mi southeast of Mala- pardis.	32.2	1961, 1994	10-05-94	20
					4-26-95	42
					9-05-95*	14
01381580 Black Brook	Whippany River	Lat 40°48'39", long 74°23'43", Morris County, Hydrologic Unit 02030103, just upstream from mouth, 800 ft upstream from Route 10 bridge over Whippany River, and 1.4 mi southeast of Whippany.	10.37	--	10-05-94	.60
					4-27-95	.25
					9-06-95	.36
01381605 Whippany River	Rockaway River	Lat 40°48'55", long 74°23'16", Morris County, Hydrologic Unit 02030103, at bridge on Melanie Lane, 0.5 mi down- stream from Black Brook and 1.3 mi west of Hanover.	48.94	--	10-05-94	25.0
					4-27-95	36.0
					9-06-95	17.2
01381640 Whippany River	Rockaway River	Lat 40°50'34", long 74°21'15", Morris County, Hydrologic Unit 02030103, upstream of Troy Brook tributary at Hanover Neck and 1.4 mi south of Pine Brook.	52.0	--	10-06-94	25.3
					4-27-95	38.6
					9-06-95	17.5
01381790 Troy Brook	Whippany River	Lat 40°50'36", long 74°21'16", Morris County, Hydrologic Unit 02030103, 100 ft west of mouth at Hanover Neck, and 1.4 mi south of Pine Brook.	16.13	--	10-06-94	6.14
					4-27-95	4.7
					9-06-95	2.5

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
PASSAIC RIVER BASIN--Cont'd						
01388600 Pompton River	Passaic River	Lat 40°56'36", long 74°16'47", Morris County, Hydrologic Unit 02030103, at bridge on Pompton-Newark Turnpike (State Road 504), 1.2 mi west of Pack- anack Lake, and 2.0 mi downstream of confluence of Ramapo and Pequannock Rivers.	361	1989-94	8-18-95*	54
01389492 Passaic River	Newark Bay	Lat 40°53'05", long 74°14'05". Passaic County, Hydrologic Unit 02030103, at Beatties Dam at Little Falls, 600 ft upstream from Union Boulevard, and 1.5 mi upstream of Peckman River. These flows are only over dam, not bypass channel.	762	1991-94	6-20-95* 6-26-95* 8-30-95	74f 60f 21f
01389802 Passaic River	Newark Bay	Lat 40°54'57", long 74°10'55", Passaic County, Hydrologic Unit 02030103, on right bank, 10 ft upstream from Passaic Falls (Great Falls) in Paterson, and 1.5 mi downstream from Peckman River. Note: These flows are only over the falls not through hydroelectric plant.	779	1987-89, 1991-94	1-25-95* 6-27-95* 8-10-95*	800g 89g 125g
01389895 Passaic River	Newark Bay	Lat 40°52'45", long 74°07'14", Bergen County, Hydrologic Unit 02030103, at bridge on Outwater Lane at Garfield, 0.4 mi downstream from Dundee Dam, and 1.2 mi upstream from bridge on Passaic Street.	806	1970-71, 1986-87, 1992-94	9-19-95	30
RARITAN RIVER BASIN						
01396280 South Branch Raritan River	Raritan River	Lat 40°45'40", long 74°49'18", Morris County, Hydrologic Unit 02030105, at bridge on Middle Valley Road, at Mid- dle Valley, 200 ft northwest of State Route 513, and 0.2 mi upstream of abandoned railroad bridge.	47.7	1963-67, 1973, 1975, 1982-83, 1985-92, 1994	9-11-95	13
01396535 South Branch Raritan River	Raritan River	Lat 40°39'49", long 74°53'52", Hunterdon County, Hydrologic Unit 02030105, at bridge on Arch Street in High Bridge, 0.9 mi northeast of Mariannes Corner, and 4.3 mi northeast of Norton.	68.8	1978-81, 1983, 1985-94	9-11-95*	24
01396588 Spruce Run	South Branch Raritan River	Lat 40°40'41", long 74°55'06", Hunterdon County, Hydrologic Unit 02030105, 800 ft downstream of Rocky Run, 0.3 mi upstream of bridge on Van Syckel Road, and 1.6 mi southeast of Glen Gardner.	15.5	1979, 1981-83, 1985-94	9-11-95*	1.5

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
RARITAN RIVER BASIN--Cont'd						
01397400 South Branch Raritan River	Raritan River	Lat 40°31'01", long 74°48'10", Hunterdon County, Hydrologic Unit 02030105, at bridge on Main Street in Three Bridges, 1.4 mi downstream from Bushkill Brook, and 3.0 mi northeast of Flemington.	181	1976, 1978-81, 1983, 1985-94	9-14-95*	94
01399120 North Branch Raritan River	Raritan River	Lat 40°38'09", long 74°40'56", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road, 0.1 mi upstream from Lamington River, 0.3 mi east of Burnt Mills, and 4.0 mi southwest of Far Hills.	63.8	1964, 1975-78, 1981-83, 1985-94	9-14-95	9.7
01399780 Lamington River	North Branch Raritan River	Lat 40°38'09", long 74°41'13", Somerset County, Hydrologic Unit 02030105, at bridge on Walsh Road at Burnt Mills, 0.2 mi upstream from North Branch Raritan River, and 4.4 mi southwest of Far Hills.	100	1964, 1973, 1975-78, 1981-83, 1985-94	9-14-95*	181
01400540 Millstone River	Raritan River	Lat 40°15'44", long 74°25'13", Monmouth County, Hydrologic Unit 02030105, at bridge on State Route 33, 1.3 mi west of Manalapan, 5.5 mi east of Hight- stown, and 8.4 mi upstream of Rocky Brook.	7.37	1960-62, 1964, 1971-72, 1985, 1987-94	9-20-95	2.5
01405302 Matchaponix Brook	South River	Lat 40°23'22", long 74°22'55", Middlesex County, Hydrologic Unit 02030105, at bridge on Mundy Avenue in Spotswood, 0.2 mi upstream of mouth, 0.5 mi east of DeVoe Lake Dam, and 3.4 mi southeast of Tanners Corners.	44.1	1979-80, 1982, 1986-88, 1990-91, 1993-94	9-14-95	34
01405340 Manalapan Brook	South River	Lat 40°17'46", long 74°23'53", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.0 mi west of Englishtown, 2.6 mi north of Manala- pan, and 3.0 mi downstream from Still House Brook.	20.9	1979-81, 1986-94	9-20-95	5.3
01405435 Cedar Brook	Manalapan	Lat 40°23'26", long 74°23'31", Middlesex County, Hydrologic Unit 02030105, 50 ft upstream from mouth in Spotswood, and 4.3 mi south of South River	3.85	1943, 1949-50, 1957-86d, 1987, 1989-91, 1993-94	11-08-94* 5-09-95	3.9 4.6
METEDECONK RIVER BASIN						
01408154 Metedeconk River	Barneget Bay	Lat 40°04'28", long 74°08'36", Ocean County, Hydrologic Unit 02040301, at Brick Municipal Utilities Authority, 0.75 mi downstream of confluence intake of North Branch and South Branch Metedeconk, and 1.1 mi north- northeast of Bricktown.	70.0	1994	10-20-94* 11-23-94	37 76

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
TOMS RIVER BASIN						
01408600 Wrangle Brook	Toms River	Lat 39°57'39", long 74°13'42", Ocean County, Hydrologic Unit 02040301, at bridge on Southampton Road in Ber- kely Township, 0.5 mi upstream from mouth, and 1.7 mi west of Toms River	19.46	1993-94	11-28-94	54
					3-01-95	46
					3-08-95	67
					3-09-95	49
					4-21-95*	24
					6-12-95	19
					8-31-95	12
01408620 Davenport Branch	Wrangle Brook	Lat 39°56'29", long 74°17'49", Ocean County, Hydrologic Unit 02040301, at bridge on Pinewald Road, 2.2 mi north of Dover Forge, 2.3 mi east of Keswick Grove, and 3.0 mi northeast of Cedar Crest.	7.41	1994	11-28-94	7.8
					3-01-95	7.1
					3-09-95	6.2
					4-21-95*	3.0
					6-12-95	1.2
	9-06-95	.25				
01408630 Davenport Branch	Wrangle Brook	Lat 39°57'38", long 74°14'42", Ocean County, Hydrologic Unit 02040301, at bridge on Mule Road in Berkeley Township, 1.4 mi upstream of mouth, and 2.5 mi west of Toms River.	12.14	1993-94	11-28-94	17
					3-01-95	15
					3-09-95	16
					4-21-95*	9.0
					6-12-95	7.3
	9-01-95	3.4				
01408728 Long Swamp Creek	Toms River	Lat 39°57'14", long 74°11'19", Ocean County, Hydrologic Unit 02040301, at bridge on Washington Street in Dover Township at Toms River, and 0.3 mi upstream from mouth.	6.53	1994	11-28-94	9.2
					3-01-95	1.6
					3-08-95	6.5
					3-09-95	3.4
					3-09-95	3.1
					4-21-95*	.23
					6-12-95	.27
8-31-95	.02					
MULLICA RIVER BASIN						
01409416 Hammonton Creek	Mullica River	Lat 39°38'02", long 74°43'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road, 0.4 mi south of Wescoatville, and 1.6 mi upstream of Norton Branch.	9.57	1974, 1978-81, 1983, 1985-94	3-20-95	9.5
					9-19-95	4.0
GREAT EGG HARBOR RIVER BASIN						
01411110 Great Egg Harbor River	Great Egg Harbor Bay	Lat 39°30'50", long 74°46'47", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream from Deep Run, and 20.9 mi upstream of mouth.	154	1978-81, 1985-94	9-19-95	70
DELAWARE RIVER BASIN						
01443440 Paulins Kill	Delaware River	Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on Kinney Road in Balesville, 2.3 mi upstream from Pau- lins Kill Lake, and 3.0 mi north of Newton.	67.1	1979-82, 1985, 1988-94	9-14-95	31



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Continued						
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, Hydrologic Unit 02040105, at bridge on State Route 519, in Belvidere, and 1,400 ft upstream of mouth.	157	1950-53, 1977-82, 1984-94	11-29-94 5-16-95 8-17-95	540 115 30
01455200 Pohatcong Creek	Delaware River	Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi south- east of New Village, and 4.3 mi upstream of Merrill Creek.	33.3	1960-70a, 1991-94	3-13-95	31
01455775 Lubbers Run	Musconetcong River	Lat 40°56'12", long 74°42'22", Sussex County, Hydrologic Unit 02040105, at bridge on Mansfield Drive at Lock- wood, 2.3 mi upstream from mouth, and 2.1 mi northwest of Stanhope.	14.7	1995	5-24-95* 8-28-95	10 .24
01455780 Lubbers Run	Musconetcong River	Lat 40°55'36", long 74°43'09", Sussex County, Hydrologic Unit 02040105, at bridge on U.S. Route 206 at Lock- wood, 1.0 mi upstream from mouth, and 1.5 mi northwest of Stanhope.	16.3	1981-90	5-24-95* 8-28-95	11 .30
01456200 Musconetcong River	Delaware River	Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge on Kings Highway at Beattys- town, 1.6 mi upstream from Hances Brook, and 1.8 mi west of Schooleys Mountain.	90.3	1973, 1979-81, 1983, 1985-90, 1993-94	9-28-95	133
01457400 Musconetcong River	Delaware River	Lat 40°35'32", long 75°11'11", Warren County, Hydrologic Unit 02040105, at bridge on County Route 627, at Rie- gelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.	156	1940-55, 1973, 1977, 1987-94	9-21-94*	123
01460500 Delaware & Rar- itan Canal	Raritan River	Lat 40°22'24", long 74°37'08", Middlesex County, Hydrologic Unit 02040105, on right bank at canal lock at Kingston, and 250 ft upstream from bridge on State Highway 27.	--	1947-91a, 1992-94	3-09-95	179
01467069 North Branch Pennsauken Creek	Pennsauken Creek	Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202 at bridge on State Route 41 (Kings Highway), and 1.7 mi south- west of Moorestown.	12.8	1975-87, 1990-94	9-20-95	3.2
01467329 South Branch Big Timber Creek	Big Timber Creek	Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, just upstream from Bull Run, 1,000 ft downstream of Black- wood Avenue, and 0.5 mi southeast of Blackwood Terrace.	19.1	1979-81, 1985-94	9-20-95	14



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1995

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
DELAWARE RIVER BASIN--Cont'd						
01475031 Chestnut Branch	Plank Run	Lat 39°42'32", long 75°06'58", Gloucester County, Hydrologic Unit 02040202, 0.3 mi north of Glassboro, 1.4 mi upstream from the mouth of Plank Run, and 1.5 mi south of Pitman.	.36	--	8-23-95	.20
01475032 Chestnut Branch	Plank Run	Lat 39°42'38", long 75°07'22", Gloucester County, Hydrologic Unit 02040202, 0.7 mi northwest of Glassboro, 1.0 mi upstream from the mouth of Plank Run, and 1.4 mi south of Pitman.	.47	--	8-23-95	.28
0147503330 Plank Run	Chestnut Branch	Lat 39°43'02", long 75°08'14", Gloucester County, Hydrologic Unit 02040202, 0.1 mi upstream of Chestnut Branch, 1.0 mi south of Pitman, and 1.5 mi northwest of Glassboro.	.96	--	8-23-95	.99
01475034 Lost Lake Run	Plank Run	Lat 39°43'26", long 75°07'38", Gloucester County, Hydrologic Unit 02040202, 0.4 mi south of Pitman, 0.7 mi uyp- stream from Chestnut Branch, and 1.5 mi north of Glassboro.	.33	--	8-23-95	0
0147503450 Cabin Run	Chestnut Branch	Lat 39°43'39", long 75°08'39", Gloucester County, Hydrologic Unit 02040202, 0.1 mi upstream of mouth and Alcyon Lake, 1.0 mi west of Pitman, and 1.3 mi east of Richwood.	.51	--	8-23-95	.24
01477510 Oldmans Creek	Delaware River	Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 1.0 mi north of Seven Stars, and 3.1 mi north of Woodstown.	21.0	1979-83, 1987-94	9-20-95	0

a Operated as continuous-recording gaging station.

b Discharge records published in reports of the New Jersey Department of Environmental Protection.

c Discharge records on file in U.S. Geological Survey Office, West Trenton, New Jersey.

d Operated as continuous gaging station by Duhernal Water Company.

e Not previously published.

f Flow over Passaic Falls only.

g Flow over Beatties Dam only.

The following table contains annual maximum elevations for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-tage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above mean sea level unless otherwise noted. Only the maximum elevation is given. Information on some other high elevations may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum elevation has been determined.

Maximum elevation at tidal crest-stage partial-record stations

Station name and number	Location	Period of record	Water year 1995 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Raritan River at Perth Amboy, NJ (01406700)	Lat 40°30'31", long 74°17'30", Middlesex County, Hydrologic Unit 02030105, on upstream left bridge pier of Victory Bridge on State Route 35 in Perth Amboy, 0.5 mi down- stream from Garden State Parkway bridge, and 1.5 mi upstream from mouth of Raritan River.	1954, 1960, 1967-70†, 1980-95	2-04-95	6.62	12-11-92	10.4
Luppataong Creek at Keyport, NJ (01407030)	Lat 40°26'08", long 74°12'27", Monmouth County, Hydrologic Unit 02030104, on left bank upstream side of Front Street bridge in Keyport, 2.0 mi northwest of Matawan, and 0.1 mi upstream from mouth.	1960, 1980-95	2-04-95	6.81	9-12-60	10.3
Manahawkin Bay near Manahawkin, NJ (01409145)	Lat 39°40'13", long 74°12'54", Ocean County, Hydrologic Unit 02040301, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 mi north- west of Ship Bottom, and 3.1 mi southeast of Manahawkin.	1965-95	12-24-94	4.24	12-11-92	6.02
Little Egg Harbor at Beach Haven, NJ (01409285)	Lat 39°33'10", long 74°15'07", Ocean County, Hydrologic Unit 02040301, in Beach Haven at U.S. Coast Guard station, 6.0 mi southeast of Tuckerton and 7.4 mi southeast of Ship Bottom.	1979-95	12-24-94	4.55	12-11-92	6.93
Batsto River at Pleasant Mills, NJ (01409510)	Lat 39°37'55", long 74°38'40", Ocean County, Hydrologic Unit 02040301, on right bank, 1.0 mi southeast of Pleasant Mills, and 0.5 mi upstream from mouth.	1958-95†	12-24-94	4.37	3-07-62	7.2
Mullica River near Port Republic, NJ (01410100)	Lat 39°33'12", long 74°27'46", Atlantic County, Hydrologic Unit 02040301, on right bank on bulkhead piling at south end of U.S. Route 9 and Garden State Parkway bridge over Mullica River, 2.8 mi northeast of Port Republic, and 2.8 mi south of New Gretna.	1962, 1965-95	12-24-94	4.57	3-06-62	7.9
Absecon Creek at Absecon, NJ (01410500)	Lat 39°25'45", long 74°31'16", Atlantic County, Hydrologic Unit 02040302, on right abutment of bridge on Mill Road, 50 ft downstream of former gaging station, 1 mi west of Absecon, and 3.4 mi upstream from mouth.	1923-29†, 1933-38†, 1946-84†, 1985-95	12-24-94	5.16	3-29-84	7.77
Beach Thorofare at Atlantic City, NJ (01410570)	Lat 39°21'56", long 74°26'44", Atlantic County, Hydrologic Unit 02040302, on west abutment south side of AMTRAK railroad swivel bridge in Atlantic City, 0.5 mi northeast of Bader Field airport, and 2.7 mi northeast of Ventnor City.	1944, 1950, 1960, 1962, 1978†, 1969-95	12-24-94	5.42	3-06-62	8.3
Tuckahoe River at Head of River, NJ (01411300)	Lat 39°18'25", long 74°49'15", Cape May County, Hydrologic Unit 02040302, downstream right abutment of highway bridge on State Route 49, 0.2 mi upstream from McNeals Branch, 0.4 mi southeast of Head of River, and 3.7 mi west of Tuckahoe.	1979-95†	8-07-95	4.50	12-11-92	7.01
Great Egg Harbor Bay at Ocean City, NJ (01411320)	Lat 39°17'03", long 74°34'41", Cape May County, Hydrologic Unit 02040302, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at 5th Street), Ocean City, and 2.5 mi southeast of Somers Point.	1965-95	12-24-94	5.70	12-11-92	7.89

## ELEVATIONS AT TIDAL CREST-STAGE STATIONS

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Maximum elevation at tidal crest-stage partial-record stations--Continued

Station name and number	Location	Period of record	Water year 1995 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Great Channel at Stone Harbor, NJ (01411360)	Lat 39°03'26", long 74°45'53", Cape May County, Hydrologic Unit 02040302, on boat-ramp piling near east end of bridge at west end of Boro of Stone Harbor, 3.7 mi southeast of Cape May Court House, and 3.9 mi southwest of Avalon.	1965-95	12-24-94	5.30	3-29-84	7.33
Cohansey River at Greenwich, NJ (01413038)	Lat 39°23'02", long 75°20'58", Cumberland County, Hydrologic Unit 02040206, at Greenwich Pier, 0.7 mi southwest of Greenwich, and 5.8 mi south-west of Shiloh.	1951, 1979-95	8-07-95	5.18	11-25-50	8.8

† Operated as a continuous-record gaging station.

e Estimated.



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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<i>Area</i>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<i>Volume</i>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<i>Mass</i>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

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



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