

Water Resources Data New Jersey Water Year 2004

Volume 1. Surface-Water Data

Water-Data Report NJ-04-1



Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies



U.S. Department of the Interior
U.S. Geological Survey

Calendar for Water Year 2004

2003

October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1		1	2	3	4	5	6
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
							30													

2004

January							February							March						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7		1	2	3	4	5	6
4	5	6	7	8	9	10	8	9	10	11	12	13	14	7	8	9	10	11	12	13
11	12	13	14	15	16	17	15	16	17	18	19	20	21	14	15	16	17	18	19	20
18	19	20	21	22	23	24	22	23	24	25	26	27	28	21	22	23	24	25	26	27
25	26	27	28	29	30	31	29							28	29	30	31			

April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3							1			1	2	3	4	5
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												

July							August							September						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		

Water Resources Data New Jersey Water Year 2004

Volume 1. Surface-Water Data

By G.L. Centinaro, B.T. White, H.L. Hoppe, J.F. Dudek, A.R. Protz, T.J. Reed, J.C. Shvanda, and
A.F. Watson

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U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior

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2005

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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 streamflow (Volume 1), ground-water levels (Volume 2), and water quality (Volume 3) 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 3 volumes:

- Volume 1. Surface-Water Data
- Volume 2. Ground-Water Data
- Volume 3. Water-Quality 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 U.S. Geological Survey policy and established guidelines. The following individual contributed significantly to the completion of the report.

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This report was prepared in cooperation with the State of New Jersey and with other agencies under the supervision of Robert G. Reiser, Chief of the Hydrologic Data Assessment Program or Steven P. Nieswand, Chief of Hydrologic Studies Program; under the general supervision of David A. Stedfast, Associate Director; Richard H. Kropp, Director, New Jersey Water Science Center; and Catherine L. Hill, Regional Hydrologist, Northeastern Region.

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13. ABSTRACT (*Maximum 200 words*)
Water-resources data for the 2004 water year for New Jersey are presented in three volumes, and consists of records of stage, discharge, and water-quality of streams; stage and contents of lakes and reservoirs; and water levels and water-quality of ground water. Volume 1 contains discharge records for 105 gaging stations; tide summaries at 27 tidal gaging stations; stage and contents at 39 lakes and reservoirs; and diversions from 51 surface-water sources. Also included are stage and discharge for 108 crest-stage partial-record stations, stage-only at 34 tidal crest-stage gages, and discharge for 124 low-flow partial-record stations. Locations of these sites are shown in figures 8-11. Additional discharge measurements were made at 131 miscellaneous sites that are not part of the systematic data-collection program. Discontinued station tables for gaging stations, crest-stage gages, tidal crest-stage and tidal gaging stations show historical coverage. The data in this report represent that part of the National Water Information System (NWIS) data collected by the United States Geological Survey (USGS). Hydrologic conditions are also described for this water year, including stream-flow, precipitation, reservoir conditions, and air temperatures.

14. SUBJECT TERMS *New Jersey, *hydrologic data, *surface water, *streamflow, *tide, *tidal, flow, flood, flow rate, gaging stations, lakes, reservoirs, water temperatures, gage height, crest-stage gage, runoff, water level, discharge, drought, datum, USGS, Geological Survey.	15. NUMBER OF PAGES 408
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

Note.--Data for partial-record station and miscellaneous sites for surface-water discharge 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, (e) elevation, gage height, or contents]

HUDSON RIVER BASIN

Rondout Creek:

Wallkill River

Papakating Creek at Pelletstown (d)	01367800	50
Hudson River south of Hastings-on-Hudson, NY (e)	01376304	52
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Neshanic River at Reaville (d)	01398000	146
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North Branch Rancocas Creek:		
Greenwood Branch:		
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Greenwood Branch at New Lisbon (d)	01466900	304
North Branch Rancocas Creek at Pemberton (d)	01467000	306
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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 1 year of record have not been included. Information regarding these stations may be obtained from the Water Science Center at the address given on the back side of the title page of this report.

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
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
Passaic River at Hanover Neck, NJ	01379580	132	1993-97b
Russia Brook tributary at Milton, NJ	01379630	1.64	1969-71
Rockaway River at Berkshire Valley, NJ	01379700	24.4	1985-96
Beaver Brook at Splitrock Reservoir, NJ	01380000	5.50	1925-46,1976-88a
Passaic River at Towaco, NJ	01381950	355	1993-97b
Pequannock River at Riverdale, NJ	01382800	83.9	1994-97
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
Blue Mine Brook near Wanaque, NJ	01386500	1.01	1935-58
Ramapo River downstream of Pond Brook, at Oakland, NJ	01387890	143	1999-2000
Pompton River at Mountain View, NJ	01388910	371	1993-97b
Deepavaal Brook near Fairfield, NJ	01389130	1.37	1993-97b
Passaic River at Paterson, NJ	01389800	785	1897-1955
Hohokus Brook at Ho-Ho-Kus, NJ	01391000*	16.4	1954-73,1977-96
Weasel Brook at Clifton, NJ	01392000	4.45	1937-62
Third River at Passaic, NJ	01392210	11.8	1977-97
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 at Goodmans, NJ	01395500	12.7	1921-24
Robinsons Branch at Rahway, NJ	01396000	21.6	1939-96
Walnut Brook near Flemington, NJ	01397500*	2.24	1936-61
Back Brook tributary near Ringoes, NJ	01398045*	1.98	1977-88
Holland Brook at Readington, NJ	01398107	9.00	1978-95
North Branch Raritan River at Pluckemin, 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
Upper Cold Brook near Pottersville, NJ	01399510	2.18	1972-96
Axle Brook near Pottersville, NJ	01399525*	1.22	1977-88
South Branch Rockaway Creek at Whitehouse, NJ	01399690	13.2	1977-86
Rockaway Creek at Whitehouse, NJ	01399700	37.1	1977-84
North Branch Raritan River at North Branch, NJ	01399830*	174	1977-81
Peters Brook near Raritan, NJ	01400300	4.19	1978-95
Macs Brook at Somerville, NJ	01400350	.77	1982-95
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

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Royce Brook tributary at Frankfort, NJ	01402590	.29	1969-74
Royce Brook tributary near Belle Mead, NJ	01402600	1.20	1966-74,1980-95
Raritan River at Bound Brook, NJ	01403000	779	1903-09,1945-66
West Branch Middle Brook near Somerville, NJ	01403160	3.83	1983-86
Green Brook at Plainfield, NJ	01403500*	9.75	1938-84
East Branch Stony Brook at Best Lake, at Watchung	01403535*	1.57	1980-2000
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
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
South Branch Metedeconk River near Lakewood, NJ	01408150	27.5	1992-99
Oyster Creek near Brookville, NJ	01409095	7.43	1965-84
West Branch Wading River near Jenkins, NJ	01409810	84.1	1974-96
Absecon Creek at Absecon, NJ	01410500	17.9	1946-85
Great Egg Harbor River at Sicklerville, NJ	01410784	15.1	1996-98
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	216	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
Loper Run near Bridgeton, NJ	01413000	2.34	1937-59
Delaware River near Delaware Water Gap, PA	01440200*	3,850	1964-96
Paulins Kill at Columbia, NJ	01444000	179	1908-09
Pequest River at Townsbury, NJ	01445430	92.5	1977-80
Delaware River at Easton, PA	01446700	4,636	1968-78
Brass Castle Creek near Washington, NJ	01455160	2.34	1970-83a
Pohatcong Creek at New Village, NJ	01455200	33.3	1960-69
Beaver Brook near Weldon, NJ	01455355	1.72	1969-71
Musconetcong River near Hackettstown, NJ	01456000	68.9	1922-73
Delaware River at Riegelsville, NJ	01457500*	6,328	1906-71
Delaware and Raritan Canal at Carnegie Lake, NJ	01460490	---	1951-99ab
Delaware and Raritan Canal at Kingston, NJ	01460500	---	1947-91
Delaware River at Lambertville, NJ	01462000	6,680	1898-1906
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
Middle Branch Mount Misery Brook in Byrne 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
Still Run near Mickleton, NJ	01476600	3.98	1957-66
Oldmans Creek near Woodstown, NJ	01477500	18.5	1932-40
Alloway Creek at Alloway, NJ	01483000	20.3	1953-72

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

b Stage only.

* Currently operated as crest-stage partial-record station.

DISCONTINUED CREST-STAGE PARTIAL-RECORD STATIONS

The following crest-stage partial-record stations in New Jersey have been discontinued. Annual maximum gage height and discharge measurements were made for the period of record shown for each station.

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Pascack Brook at Montvale, NJ	01377360	13.2	1998-2003
Musquapsink Brook near Westwood, NJ	01377475	2.12	1965-86
Musquapsink Brook at Westwood, NJ	01377490	4.75	1966-86,1998-2003
Tenakill Brook at Cresskill, NJ	01378350	3.01	1965-78
Wolf Creek at Ridgefield, NJ	01378615	1.18	1965-86
Rockaway River at Warren Street, at Dover, NJ	01379845	52.1	1981-97
Pequanock River at Riverdale, NJ	01382800	83.9	1981,1984,1994-97*
Fleischer Brook at East Paterson, NJ	01389905	1.78	1965-66
Saddle River at Paramus, NJ	01391110	45.0	1965-78
Sprout Brook at Rochelle Park, NJ	01391485	5.56	1965-78
Weasel Brook at Clifton, NJ	01392000	4.45	1938-62*,1963-78,1989-90
Second River at Belleville, NJ	01392500	11.6	1937-64*,1963-95
East Fork East Branch Rahway River, at Orange, NJ	01393810	.83	1972-78
South Branch Raritan River near Bartley, NJ	01396117	11.7	1970
Lamington River near Whitehouse, NJ	01399550	57.3	1978-79
South Branch Rockaway Creek at Whitehouse Station, NJ	01399690	13.2	1977-86*,1987-88
Rockaway Creek at Whitehouse, NJ	01399700	37.1	1978-84*,1985-95
Lamington River at Lamington Road, near North Branch, NJ	01399760	97.6	1978-79
Millstone River at Southfield Road, near Grovers Mill, NJ	01400630	41.0	1971,1975,1979-99
Millstone River at Plainsboro, NJ	01400730	65.8	1965-75,1976-89,1990-99
Bear Brook at Route 535, near Locust Corner, NJ	01400775	6.69	1971,1975,1979-99
Bear Brook at Route 571, near Grovers Mill, NJ	01400795	9.28	1986-99
Little Bear Brook at Penns Neck, NJ	01400822	1.84	1971,1975,1979-95
Woodsville Brook at Woodsville, NJ	01400850	1.78	1957-58,1964-80
Stony Brook at Glenmoore, NJ	01400900	17.0	1957-95
Stony Brook at Pennington, NJ	01400947	26.5	1965-78
Honey Branch near Pennington, NJ	01400953	.70	1966,1967-74*
Honey Branch near Mount Rose, NJ	01400960	1.28	1969-78
Honey Branch near Rosedale, NJ	01400970	3.83	1967-78
Duck Pond Run near Princeton Junction, NJ	01401160	1.81	1980-99
Duck Pond Run at Clarksville, NJ	01401200	5.21	1965-85
Beden Brook near Hopewell, NJ	01401520	6.67	1967-85
East Branch Middle Brook at Warrenville, NJ	01403080	2.71	1994-95
Green Brook at North Plainfield, NJ	01403470	8.01	1972-78
Green Brook at Dunellen, NJ	01403700	20.7	1972-77
Bound Brook at South Bound Brook, NJ	01404080	65.0	1972-77
Lawrence Brook at Farrington Dam, NJ	01405000	34.3	1927-90*,1991-95
Manasquan River near Georgia, NJ	01407830	10.6	1969-95
Manasquan River at Allenwood, NJ	01408030	63.9	1969-95
Oyster Creek near Brookville, NJ	01409095	7.43	1966-85*,1991
Mullica River near Atco, NJ	01409375	3.22	1975-87
Hays Mill Creek near Chesilhurst, NJ	01409402	7.13	1975-78
Wildcat Branch at Chesilhurst, NJ	01409403	1.03	1975-87
Pump Branch near Blue Anchor, NJ	01409407	6.20	1975-77
Blue Anchor Brook near Blue Anchor, NJ	01409409	3.01	1975-87
Great Egg Harbor River at Berlin, NJ	01410775	1.88	1964-71
Fourmile Branch at New Brooklyn, NJ	01410810	7.74	1972-79*,1980-91
Menantico Creek near Millville, NJ	01412000	23.2	1931-57*,1978-84*,1985-95
Pequest River at Townsbury, NJ	01445430	92.5	1978-80*,1981-93
Furnace Brook at Oxford, NJ	01445490	4.29	1966-78

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Pohatcong Creek at New Village, NJ	01455200	33.3	1960-69*, 1970-95
Musconetcong River near Hackettstown, NJ	01456000	68.9	1922-73*, 1974-95
Crosswicks Creek at New Egypt, NJ	01464400	41.2	1968-94
Crosswicks Creek at Groveville, NJ	01464505	98.2	1968-74
Doctors Creek at Allentown, NJ	01464515	17.4	1968-95
Doctors Creek at Groveville, NJ	01464520	25.3	1968-79
Blacks Creek at Mansfield Square, NJ	01464530	19.7	1978-95
Assiscunk Creek near Columbus, NJ	01464582	10.9	1978-95
Southwest Branch Rancocas Creek at Medford, NJ	01465880	47.2	1983-95
Southwest Branch Rancocas Creek at Route 70, at Medford, NJ	01465882	47.9	1978-82
Middle Branch Mount Misery Brook in Lebanon State Forest, NJ	01466000	2.82	1953-65*, 1967-78
Parkers Creek near Mount Laurel, NJ	01467010	2.68	1967-71
Pompeston Creek at Cinnaminson, NJ	01467057	5.77	1975-88
North Branch Pennsauken Creek near Moorestown, NJ	01467069	12.8	1975-88
South Branch Pennsauken Creek at Maple Shade, NJ	01467080	8.10	1964-68
Cooper River at Kirkwood, NJ	01467130	5.10	1964-80
Cooper River at Lawnside, NJ	01467140	12.7	1964-68
North Branch Cooper River near Marlton, NJ	01467160	5.34	1964-88
North Branch Cooper River at Ellisburg, NJ	01467180	10.5	1964-75
Cooper River at Camden, NJ	01467190	35.2	1967-73, 1994
Newton Creek at West Collingswood, NJ	01467312	4.51	1964-68
South Branch Big Timber Creek at Blackwood, NJ	01467330	20.9	1964-84
North Branch Big Timber Creek at Laurel Springs, NJ	01467350	6.55	1964-68
Mantua Creek at Salina, NJ	01475019	14.1	1975-88
Raccoon Creek at Mullica Hill, NJ	01477110	15.6	1940, 1978-95
Oldmans Creek near Harrisonville, NJ	01477480	13.8	1975-95

* Operated as a continuous-record gaging station.

DISCONTINUED LOW-FLOW STATIONS

The following low-flow partial-record stations in New Jersey have been discontinued. Streamflow measurements were made during periods of base-flow and when correlated with the simultaneous discharge at nearby continuous-record sites, will give a picture of the low-flow potentiality of a stream. The period of record may also include measurements made under rainfall-runoff conditions for other study purposes.

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Wallkill River at outlet of Lake Mohawk, at Sparta, NJ	01367620	4.38	1979-86
Wallkill River at Franklin, NJ	01367700	29.4	1959-64,1982-83,1985,1987-90,1999
Beaver Run near Hamburg, NJ	01367750	5.59	1966-72,2002
Wallkill River near Sussex, NJ	01367770	60.8	1977-82,1985,1987-2004
West Branch Papakating Creek at McCoys Corner, NJ	01367850	11.0	1967-72,2001-04
Clove Brook above Clove Acre Lake, at Sussex, NJ	01367890	19.2	1967-72,2002
Clove Brook at Sussex, NJ	01367900	19.7	1959-64
Black Creek near Vernon, NJ	01368950	17.3	1977-96,2001-02
Musquapsink Brook near Westwood, NJ	01377475	2.12	1964-72,1975-76,1978,1981-87,2000
Tenakill Brook at Cresskill, NJ	01378350	3.01	1964-73,1975,1999-2000
Norwood Brook at Norwood, NJ	01378430	2.03	1973-80
French Brook at New Bridge, NJ	01378530	.46	1965-72
Coles Brook at Hackensack, NJ	01378560	7.00	1965-72,1998-2004
Metzler Brook at Englewood, NJ	01378590	1.54	1964-72,1977-78,1982,1987-98,2003
Wolf Creek at Ridgewood, NJ	01378615	1.18	1964-72,1978,1983
Passaic River near Bernardsville, NJ	01378690	8.83	1964-77,1983-84,1987,1989,1992-93,1997-98,2001,2003
Passaic River at outlet Osborn Pond, at Osborn Mill, NJ	01378700	10.1	1961-68,1984-89
Great Brook at Green Village, NJ	01378750	7.92	1961-65,2002
Primrose Brook near New Vernon, NJ	01378800	4.68	1961-65,2002
Great Brook near Basking Ridge, NJ	01378850	23.1	1961-65,2002
Black Brook near Meyersville, NJ	01378900	11.7	1959-63,2002
Harrisons Brook at Liberty Corner, NJ	01379150	3.74	1964-67,1983-84,2002
Dead River near Millington, NJ	01379200	20.8	1961-67,1973-75,1986-89,1998-2004
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
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
Rockaway River at Pine Brook, NJ	01381200	136	1963-70,1972-73,1979-81,1983-83,1995-97,2001,2002-03
Jacquis Brook at Greystone Park State Hospital, NJ	01381470	1.39	1967-73,2002
Watnong Brook at Morris Plains NJ	01381490	7.77	1966-72,1995,2002
Malapardis Brook at Whippany, NJ	01381550	5.07	1961,1989-2001
Whippany River near Whippany, NJ	01381600	48.5	1963-66,1973,2001
Troy Brook at Troy Hills, NJ	01381700	10.1	1961-66,1972-73
West Brook at Troy Hills, NJ	01381750	1.32	1961-66,2002
Macopin River at Macopin Reservoir, NJ	01382450	5.25	1970-73,1998-2000
Pequannock River tributary no. 1 at Kinnelon, NJ	01382550	1.18	1992-2001
Stone House Brook at Kinnelon, NJ	01382700	3.45	1992-98,2001
Belcher Creek at Stowaway Road, at West Milford, NJ	01382870	5.44a	1973-80
Belcher Creek tributary at West Milford, NJ	01382880	.61	1973-77,1979-80

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Belcher Creek at West Milford, NJ	01382890	7.27	1973-80,1995
Morsetown Brook at West Milford, NJ	01382910	1.31	1973-80
Green Brook near West Milford, NJ	01382960	2.03a	1973-80
Cooley Brook near West Milford, NJ	01382990	1.34	1973-80
Masonicus Brook at West Mahwah, NJ	01387490	3.84	1982,1992-2001
Stag Brook near Mahwah, NJ	01387520	1.35	1963-70,1972,1982-83
Darlington Brook at Darlington, NJ	01387600	3.38	1963-67,1982-83, 1999, 2002
Ramapo River near Darlington, NJ	01387670	131	1963-66,1982-83,1989
Bear Swamp Brook near Oakland, NJ	01387700	3.25	1963-67, 1982-83,2002
Ramapo River tributary No. 5 at Oakland, NJ	01387930	.86	1963-67, 1982,2002
Acid Brook at Pompton Lakes, NJ	01387950	1.79	1963-67, 1982,2002
Haycock Brook at Pompton Lakes, NJ	01387980	4.18	1963-64,1973-77,1982, 2002
Beaver Dam Brook at Lincoln Park, NJ	01388700	12.3	1992-2002
Pompton River at Two Bridges, NJ	01389000	372	1963-68,1984,1986-88, 1998
Deepavaal Brook at Two Bridges, NJ	01389110	7.59	1970,1983-84,1988-99,2001
Molly Ann Brook at Paterson, NJ	01389790	7.73	1963-72,1983-84,1994, 2003
Goffle Brook at Hawthorne, NJ	01389850	8.77	1963-67,1983-84,1998, 2003-04
Passaic River at Outwater Lane at Garfield	01389895		1970-71,1986-88,1992-97
Fleischer Brook at Elmwood Park, NJ	01389905	1.78	1964-72
Hohokus Brook at Wyckoff, NJ	01390700	5.31	1963-67,2002
Valentine Brook at Allendale, NJ	01390800	2.48	1963-67,2002
Ramsey Brook at Allendale, NJ	01390900	2.55	1974-77,1982,1986-2003
Saddle River at Paramus, NJ	01391110	45.0	1964-69,1971-72,1978
Sprout Brook at Rochelle Park, NJ	01391485	5.56	1964-72,2002
Third River at Nutley, NJ	01392200	11.4	1963-73
Elizabeth River below Chancellor Avenue, at Irvington, NJ	01393200	5.14	1955,1961-62,1966
West Branch Elizabeth River near Union, NJ	01393350	2.53	1989-98,2001
South Branch Rahway River at Colonia, NJ	01396030	9.41	1979-86,2003
South Branch Raritan River tributary no. 6 at Budd Lake, NJ	01396070	.70	1973-77
South Branch Raritan River tributary no. 7 at Budd Lake, NJ	01396080	.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	1964-73,1990-91
Drakes Brook at Reger Road, at Flanders, NJ	01396160	11.6	1965,1990
Stony Brook at Naughtright, NJ	01396220	3.34	1964-67,1973,1991-98
Electric Brook at Long Valley, NJ	01396240	3.17	1991-2001
South Branch Raritan River at Middle Valley, NJ	01396280	47.7	1964-67,1973,1975,1980-92,1995-99
South Branch Raritan River at Califon, NJ	01396350	58.5	1975-76,1989-90,2001-02
Spruce Run near High Bridge, NJ	01396590	15.5	1973-80
Spruce Run near Clinton, NJ	01396600	18.1	1959-64,1987
Mulhockaway Creek tributary at Van Syckel, NJ	01396670	2.76	1973-80
Mulhockaway Creek near Clinton, NJ	01396700	20.5	1959-63
Prescott Brook at Round Valley, NJ	01397100	4.61	1958-63,1978-82
Assiscong Creek at Bartles Corners, NJ	01397290	2.98	1981-89
Neshanic River near Flemington, 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	1964-67,1980-93,1996-97, 2001
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

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
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
Middle Brook at Burnt Mills, NJ	01399100	6.67	1964-67,1976
Succasunna Brook at Succasunna, NJ	01399194	1.72	1977-82
Lamington River near Chester, NJ	01399280	17.3	1964,1973,1990-91
Tanners Brook near Milltown, NJ	01399295	2.78	1991-2000
Lamington River at Milltown, NJ	01399300	23.2	1988-2001
Cold Brook at Oldwick, NJ	01399540	5.32	1964-67
South Branch Rockaway Creek tributary at Lebanon, NJ	01399600	1.02	1958,1960-64,1978-82
Rockaway Creek at Whitehouse, NJ	01399700	37.1	1959-65,1973,1977-97,1999
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 near Manalapan, NJ	01400540	7.37	1960-64,1971-72,1985-96
Millstone River at Applegarth, NJ	01400560	15.0	1960-64,1971-72,1980-81
Millstone River at Hightstown, NJ	01400580	19.7	1960-64,1967-74
Rocky Brook at Hightstown, NJ	01400593	9.58	1965-72,1999
Peddie Brook at Hightstown, NJ	01400596	3.07	1965-72,1999
Millstone River at Locust Corner, NJ	01400600	37.5	1959-64,1971-72
Millstone River near Grovers Mill, NJ	01400640	42.6	1959-65,1971-72,1986-88,1992-95,1998-2004
Cranbury Brook at Old Church, NJ	01400670	3.69	1960-64,2003
Cranbury Brook at Cranbury Station, NJ	01400700	9.56	1959-64,1971-72,2002-03
Bear Brook near Hickory Corner, NJ	01400750	3.46	1960-65,2002
Little Bear Brook at Hickory Corner, NJ	01400770	1.88	1960-64,2002
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	1957-59,1963-73,1980,2002
Stony Brook at Glenmoore, NJ	01400900	17.0	1957-64,1969,1971-72,1982-89,1992,1999
Baldwins Creek at Pennington, NJ	01400930	1.99	1957-61,1963-72,1982-94,1997-98,2001-03
Stony Brook at Pennington, NJ	01400947	26.7	1965-72,1985-88,2002
Honey Branch near Rosedale, NJ	01400970	3.83	1957-59,1971-75,1985-88,1965,1968-75,2002
Stony Brook at Clarksville, NJ	01401100	46.5	1959-64,1987-88
Duck Pond Run at Clarksville, NJ	01401200	3.74a	1954-55,1960-67,1973,1977,1979-80,1984,2002
Heathcote Brook at Kingston, NJ	01401400	9.0	1971-72,1979-84,1989-92,1998-2004
Beden Brook near Hopewell, NJ	01401520	6.67	1965-72,1975,1979,1982,1984-85,1987,1999-2002
Rock Brook at Blawenburg, NJ	01401590	8.02	1962-67,1971-72,1987-88
Beden Brook near Rocky Hill, NJ	01401600	27.0	1959-63,1965-67,1971-72,1977,1979,1981-2003
Pike Run near Rocky Hill, NJ	01401700	22.2	1959-63,1971-72,2001-02
Ten Mile Run near Blackwells Mills, NJ	01401800	4.36	1960-64,1971-72,2002
Six Mile Run at Blackwells Mills, NJ	01401900	16.1	1960-67,1971-72,2001-02
Royce Brook at Manville, NJ	01402700	11.7	1960-64,1999,2002
East Branch Middle Brook at Martinsville, NJ	01403100	8.45	1959-64,2002
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
Ireland Brook at Patricks Corner, NJ	01404470	6.52	1973-77
Beaverdam Brook near Patricks Corner, NJ	01404700	1.51	1973-77

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
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	1973-76,1989-90,2000
Iresick Brook at East Spotswood, NJ	01405470	2.29	1973-77,1980
Deep Run near Browntown, NJ	01406000	8.07	1932-41,1982,1984-88
East Creek at North Centerville, NJ	01407055	1.33a	1969,1986-93
Waackaack 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
Gravelly Brook at Church Street at Matawan	01407012	2.36	1987-93
Mohingson (Wilkson) Creek at Church Street at Matawan	01407026	1.70	1987-93
Big Brook at Vanderburg, NJ	01407300	8.41	1969-74,1989
Pine Brook at Tinton Falls, NJ	01407520	12.1	1969-74
Poricy Brook at Red Bank, NJ	01407532	2.54	1988-93
Whale Pond Brook near Oakhurst, NJ	01407618	6.20	1989-98
Poplar Brook near Deal, NJ	01407628	2.49	1989-98
Harvey (Hog Swamp) Brook at West Allenhurst, NJ	01407636	1.99	1989-98
Polly Pod Brook at South Belmar, NJ	01407780	.99	1989-2001
Wreck Pond Brook near Spring Lake, NJ	01407800	7.00	1956-63,1966,1995,2002
Hannabrand Brook at Old Mill Road, near Spring Lake Heights, NJ	01407806	3.13	1989-2002
Manasquan River near Georgia, NJ	01407830	10.6	1966,1969-74,1978-87,1989-95
Yellow Brook at West Farms, NJ	01407890	3.57	1966,1969-74
Timber Swamp Creek near Farmingdale, NJ	01407970	3.38	1964-72
Mingamahone Brook at Squankum, NJ	01408020	10.7	1966,1969-74
Manasquan River at Allenwood, NJ	01408030	63.9	1956-57,1966,1969-74,1982-95
North Branch Metedeconk River at Lakewood, NJ	01408100	19.4	1959-63,1966,1998-2004
Toms River at Whitesville, NJ	01408300	45.2	1959-63,1966
Union Branch at Lakehurst, NJ	01408440	19.0	1960-64,2002
Manapaqua Brook at Lakehurst, NJ	01408460	6.32	1960-64,2002
Ridgeway Branch near Lakehurst, NJ	01408490	28.2	1959-63,2002
Webbs Mill Branch near Whiting, NJ	01408800	2.92	1973-77
Webbs Mill Branch tributary near Whiting, NJ	01408810	.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	1961-67,2002-04
Fourmile Branch near Manahawkin, NJ	01409200	5.24	1961-67
Cedar Run near Manahawkin, NJ	01409250	3.34	1961-67
Mill Branch near Tuckerton, NJ	01409300	4.89	1961-67,2002
Mullica River at Atco, NJ	01409375	3.22	1974-85,1991-2004
Mullica River at outlet Atsion Lake, at Atsion, NJ	01409387	26.7	1980-81,1985-2004
Mullica River at Atsion, NJ	01409390	33.1	1975-86
Mullica River tributary near Atsion, NJ	01409395	4.10	1975-79
Hays Mill Creek at Atco, NJ	01409401	3.80	1979,1991-2003
Hays Mill Creek near Chesilhurst, NJ	01409402	7.13	1974-80,1991-2004
Cooper Branch near Chesilhurst, NJ	0140940250	1.93	1979,1991-2001
Wildcat Branch at Chesilhurst, NJ	01409403	1.03	1974-80,1985
Wildcat Branch near Chesilhurst, NJ	0140940310	2.27	1979,1991-2003
Sleeper Branch Diversion Channel near Atsion, NJ	0140940365	--	1979,1991-2004
Sleeper Branch near Atsion, NJ	0140940370	16.1	1991-2003
Sleeper Branch at U.S. Route 206, near Atsion, NJ	01409404	18.2	1975-80
Clark Branch at railroad bridge, near Atsion, NJ	0140940480	6.42	1979,1991-2003

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Clark Branch near Atsion, NJ	01409405	7.12	1975-80
Sleeper Branch at Batsto, NJ	01409406	36.1	1975-80
Pump Branch near Blue Anchor, NJ	01409407	6.20	1974-80
Pump Branch near Waterford Works, NJ	01409408	9.78	1991-2004
Blue Anchor Brook near Blue Anchor, NJ	01409409	3.01	1974-80,1983-85
Blue Anchor Brook at Elm, NJ	0140940950	4.86	1991-2004
Albertson Branch near Elm, NJ	0140940970	17.1	1991-2004
Albertson Brook near Hammonton, NJ	01409410	19.3	1975-86
Great Swamp Branch at Elm, NJ	0140941050	2.83	1991-2001
Nescochague Creek at Pleasant Mills, NJ	01409411	43.8	1975-86,1995-98,2003-04
Springers Brook near Indian Mills, NJ	01409450	12.6	1959-63,1977,1985
Springers Brook near Atsion, NJ	01409460	21.2	1975-83
Landing Creek at Philadelphia Avenue, at Egg Harbor City, NJ	01409575	4.86	1974-81
West Branch Wading River near Chatsworth, NJ	01409730	44.8	1975-80
Tulpehocken Creek near Jenkins, NJ	01409780	21.9	1975-81,1996-98
West Branch Wading River near Harrisville, NJ	01409800	83.9	1957-63
Oswego River at Oswego Lake, NJ	01409970	61.4	1975-81
West Branch Bass River near New Gretna, NJ	01410200	6.54	1969-74,2002
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	1964-74,2002
Great Egg Harbor River near Sicklerville, NJ	01410784	15.1	1971-81,1985-2004
Fourmile Branch near Williamstown, NJ	01410800	5.34	1959-64,1971
Fourmile Branch at Winslow Crossing, NJ	01410803	6.22	1972-80,1989-96,2001-04
Squankum Branch above sewage plant at Williamstown	01410855	1.50	1974,1990-94
Squankum Branch at Malaga Road, near Williamstown, NJ	01410865	3.02	1974,1990-96,2001-04
Penny Pot Stream near Folsom, NJ	01411020	5.35	1968-72,2002
Hospitality Branch at Blue Bell Road near Cecil, NJ	01411035	4.51	1990-2004
Hospitality Branch near Cecil, NJ	01411040	8.30	1990-92
Whitehall Branch near Cecil, NJ	01411042	2.21	1990-92
Whitehall Branch below Victory Lakes, near Cecil, NJ	01411047	4.60	1990-96,2001-04
Hospitality Branch at Berryland, NJ	01411053	20.0	1976-86
Deep Run at Weymouth, NJ	01411140	20.0	1976-86,2003-04
Great Egg Harbor River at Mays Landing, NJ	01411170	205	1988-98,2001
Babcock Creek at Mays Landing, NJ	01411200	20.0	1959-63,2002
South River near Belcoville, NJ	01411220	20.4	1994-99,2001
English Creek near Scullville, NJ	01411250	3.80	1986-93
Tarkiln Brook near Head of River, NJ	01411299	7.40	1990-92,2002
Mill Creek near Steelmantown, NJ	01411302	3.82	1990-92,2003
Mill Branch near Northfield, NJ	01411305	7.47	1986-93,2003-04
Mill Creek at outlet Magnolia Lake, at Ocean View, NJ	01411351	2.28	1991-92,2003
Mill Creek at Cold Spring, NJ	01411388	1.34	1991-92,2003
Fishing Creek at Rio Grande, NJ	01411400	2.29	1965-72,1990-92,1998-2004
Green Creek at Green Creek, NJ	01411404	2.49	1965-72
Dias Creek near Cape May Court House, NJ	01411408	1.27	1965-73,1991-92,2003
Bidwell Creek trib. no. 1 near Cape May Court House, NJ	01411410	.41	1967-73,1990-92,2003
Bidwell Creek trib. no. 2 near Cape May Court House, NJ	01411412	.19	1967-72,1990
Goshen Creek at Goshen, NJ	01411418	.33	1967-72,1990-92,2003
Dennis Creek tributary no. 2 at Dennisville, NJ	01411428	4.00	1990-92,2003
Sluice Creek at Clermont, NJ	01411430	.67	1967-72,1990-91
Sluice Creek near South Dennis, NJ	01411434	8.47	1991-92,2003
Dennis Creek tributary near Dennisville, NJ	01411438	2.74	1990-92,2003
East Creek near Eldora, NJ	01411442	8.10	1990-92,2003
West Creek at outlet Pickle Factory Pond, near Eldora, NJ	01411445	11.9	1990-92,2003
Still Run at Aura, NJ	01411450	3.21	1976-90,1996
Scotland Run near Williamstown, NJ	01411460	3.96	1966,1990-92

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
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	1966-72,1992-94,2003
Mill Creek near Millville, NJ	01411850	15.1	1973-79,1993,1995-98
Maurice River at Sharp Street, at Millville, NJ	01411880	216	1973-76,1988-93
Buckshutem Creek near Laurel Lake, NJ	01411950	16.1	1976-84,1998
Manumuskin River near Manumuskin, NJ	01412100	32.1	1964-71,1994-96,1998
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	1976-84,2003
Shimers Brook near Montague, NJ	01438400	7.07	1943,1958-64,1966,2001-04
Big Flat Brook near Hainesville, NJ	01439800	22.6	1959-64,1966,2002
Big Flat Brook at Tuttlers Corner, NJ	01439830	28.2	1963,1970-73,1978-80,2001-04
Little Flat Brook at Hainesville, NJ	01439900	7.73	1959-64,2002
Vancampens Brook near Millbrook, NJ	01440100	7.27	1958-68,2002-04
Stony Brook near Columbia, NJ	01442800	3.51	1958-68,2002
East Branch Paulins Kill trib. no. 2 near Woodruffs, NJ	01443260	2.81	1992-97
East Branch Paulins Kill trib. no. 1 near Lafayette, NJ	01443275	1.81	1992-97
Paulins Kill at Lafayette, NJ	01443300	33.0	1959-64,1966,2002
Culvers Creek at Branchville, NJ	01443400	11.2	1959-64,2002
Paulins Kill near Newton, NJ	01443450	69.0	1973-80
Paulins Kill at Paulins Kill, NJ	01443460	72.9	1973-80
Trout Brook near Middleville, NJ	01443475	24.0	1979-89
Blair Creek at Blairstown, NJ	01443510	13.1	1989-2001
Bear Creek near Johnsonburg, NJ	01445200	12.9	1940-42,1987-98,2001
Furnace Brook at Oxford, NJ	01445490	4.29	1965-72,1978,1990, 1994-2001
Mountain Lake Brook near Pequest, NJ	01445520	4.35	1991-2001
Honey Run near Ramseysburg, NJ	01445800	2.21	1982-90
Honey Run near Hope, NJ	01445900	10.3	1966-72,2002
Pophandusing Brook at Belvidere, NJ	01446520	5.36	1991-98,2000-01
Buckhorn Creek at Hutchinson Road, at Hutchinson, NJ	01446568	8.38	1991-97,2000-02
Lopatcong Creek at Phillipsburg, NJ	01455100	14.5	1958-64,1979-81,1991-2001
Merrill Creek at Coopersville, NJ	01455230	3.85	1982-93
Pohatcong Creek at Carpentersville, NJ	01455300	57.0	1932,1952-64,1978-83,2002
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 Hurdtown, NJ	01455370	8.10	1973-80,2002-03
Musconetcong River at Stanhope, NJ	01455550	29.7	1973-76,1981
Lubbers Run at Lockwood, NJ	01455780	16.3	1982-90,1995,2001-02
Mine Brook near Hackettstown, NJ	01456080	4.96	1991-2001
Hatchery Brook at Hackettstown, NJ	01456100	1.81	1966-72
Hances Brook near Beattystown, NJ	01456210	4.13	1991-2002
Hakihokake Creek at Milford, NJ	01458100	17.2	1944,1958-64,1977-81,2002-04
Harihokake Creek near Frenchtown, NJ	01458400	9.75	1944,1958-65,1979-81,2002-04
Nishisakawick Creek at Frenchtown, NJ	01458600	11.0	1958-64,2002
Little Nishisakawick Creek at Frenchtown, NJ	01458700	3.50	1958-65,2002
Lockatong Creek near Raven Rock, NJ	01460900	23.2	1944-45,1958-64,2002-04
Wickecheoke Creek at Stockton, NJ	01461300	26.6	1944,1958-64,1977-83,1985-90

Station name	Station number	Drainage area (mi ²)	Period of record (water years)
Alexauken Creek near Lambertville, NJ	01461900	14.9	1945,1955,1958-64,1977-82,2000-04
Moore Creek near Titusville, NJ	01462200	10.2	1958-64,2002
Jacobs Creek at Somerset, NJ	01462800	13.3	1945,1958-64,1985-88,2000
Shipetaukin Creek at Lawrenceville, NJ	01463650	4.47	1963-67,2002
Shipetaukin Creek at Bakersville, NJ	01463670	8.97	1963-67,2002
Little Shabakunk Creek at Bakersville, NJ	01463690	3.98	1963-72,1976-77
Shabakunk Creek at Ewingville, NJ	01463750	5.00	1963-67,2002
West Branch Shabakunk Creek near Ewingville, NJ	01463790	4.56	1963-72,2002
Miry Run at Robbinsville, NJ	01463830	4.02	1963-67,2002
Miry Run at Mercerville, NJ	01463860	12.4	1963-67,2002
Pond Run at Trenton, NJ	01463980	8.94	1963-69,1971-72
Crosswicks Creek near Cookstown, NJ	01464300	24.9	1966,1969-74,2002-04
North Run at Cookstown, NJ	01464380	7.28	1966,1969-74,2002-04
Lahaway Creek near Hornerstown, NJ	01464460	21.4	1966,1969-74,2002-04
Miry Run at Holmes Mills, NJ	01464480	3.15	1966,1969-74,2002
Doctors Creek at Allentown, NJ	01464515	17.4	1966,1968-72,1975,1979-95,1998-2004
Blacks Creek at Mansfield Square, NJ	01464530	19.7	1966-72,1978-79,1983-94,2002
Crafts Creek at Hedding, NJ	01464540	10.6	1959-63,2003-04
Assiscunk Creek at Columbus, NJ	01464580	8.28	1958-63,2002
Assiscunk Creek near Burlington, NJ	01464590	37.4	1966-74,1998,2002
Southwest Branch Rancocas Creek at Medford, NJ	01465880	47.2	1961-66,1973,1982-93,1997,2002
Sharps Run at Medford, NJ	01465884	4.41	1982-90
Little Creek near Lumberton, NJ	01465898	19.2	1982-90,1999
Parkers Creek near Mount Laurel, NJ	01467010	2.66	1964-72,2002
Mill Creek at Willingboro, NJ	01467020	7.77	1959-64,1976,2002
Pompeston Creek at Cinnaminson, NJ	01467057	5.74	1964-85,2002
North Branch Pennsauken Creek at Maple Shade, NJ	01467070	13.0	1959-63,2002
South Branch Pennsauken Creek at Maple Shade, NJ	01467080	8.13	1964-67
Cooper River at Kirkwood, NJ	01467130	5.10	1964-72,1988-98
Cooper River at Lawnside, NJ	01467140	12.7	1964-72,1979-81,1985-98,2002-03
North Branch Cooper River near Marlton, NJ	01467160	5.34	1964-69,1971-72,1977-78,1982-98
North Branch Cooper River at Ellisburg, NJ	01467180	10.5	1964-72,1977,1988-98
Newton Creek at Collingswood, NJ	01467305	1.32	1964-72,1983-84,1993-98,2002-03
Newton Creek at West Collingswood, NJ	01467312	3.48	1964-72
South Branch Newton Creek at Glover Ave., at Haddon Heights, NJ	01467315	.52	1968-74
South Branch Newton Creek at Haddon Heights, NJ	01467317	.63	1964-68,1971,1977,1982-86,1990,1994-98,2001-03
South Branch Big Timber Creek at Blackwood, NJ	01467330	19.6	1964-72,1978,1982-83,1994-2001
North Branch Big Timber Creek at Laurel Springs, NJ	01467350	6.55	1959-72,2002
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
Mantua Creek at Sewell, NJ	01475020	14.5	1966-72,1994-99,2001
Raccoon Creek near Mullica Hill, NJ	01477100	10.1	1959-63,1966,1981-83,2002
South Branch Raccoon Creek near Mullica Hill, NJ	01477118	8.30	1966-72,2002
Salem River at Sharptown, NJ	01482520	27.3	1966-72,1974-75
Major Run at Sharptown, NJ	01482530	3.04	1966-72,1974-75,2003-04
Cool Run near Alloway, NJ	01482900	4.92	1959-63,1994-99,2001
Cedar Brook near Alloway, NJ	01482950	3.76	1959-63,1994-99,2001
Deep Run near Alloway, NJ	01483010	5.30	1977-84

* Operated as a continuous-record gaging station.

a Revised.

DISCONTINUED TIDAL CREST-STAGE AND TIDAL GAGING STATIONS

Station name	Station number	Period of record (water years)	
		Tidal Crest- Stage Gage	Tidal Gaging Station
Passaic River at Newark, NJ	01392590		June 1993-Sept 1999, Mar 2001-Aug 2003
South River below Duhernal Dam, at Old Bridge, NJ	01405700		Aug 1967-Sept 1970
Raritan River at Old Raritan Arsenal, at Metuchen, NJ	01406680		Jan 1966-Sept 1969a, Oct 1969-Sept 1974
Tuckerton Cove near Tuckerton, NJ	01409290	1965-80	July 1971-Sept 1973
Tuckerton Creek at Tuckerton, NJ	01409310		July 1971-Sept 1971
Head of Big Thorofare near Tuckerton, NJ	01409315		July 1971-June 1972
Big Thorofare at mouth near Tuckerton, NJ	01409317		July 1971-Sept 1971
Marshelder Channel at Story Island, near Tuckerton, NJ	01409323		July 1971-Sept 1971
Big Sheepshead Creek at Great Bay Boulevard, near Tuckerton, NJ	01409326		July 1971-Sept 1971
East Entrance Big Sheepshead Creek near Tuckerton, NJ	01409329		July 1971-Sept 1971
Little Sheepshead Creek at Great Bay Boulevard, near Tuckerton, NJ	01409332		July 1971-Sept 1971
Newmans Thorofare at Fish Factory, near Tuckerton, NJ	01409340		July 1971-Sept 1971
Great Bay at Cape Horn Marina, near Tuckerton, NJ	01409345		July 1971-Feb 1972
Big Creek at Radio Road, near Tuckerton, NJ	01409360		July 1971-July 1973
Great Bay at Great Bay Marina, near Tuckerton, NJ	01409370		July 1971-Sept 1974
Ballangers Creek below Polly Ditch, near Tuckerton, NJ	01410300		July 1971-Sept 1971
Ballangers Creek entrance near Tuckerton, NJ	01410305		July 1971-Sept 1971
Whale Creek near Strathmere, NJ	01411340		Mar 1976-Feb 1977
Townsend Channel at Townsends Inlet, NJ	01411353	1978*	Oct 1976-Apr 1978
Grassy Sound at West Wildwood, NJ	01411380	1965-81	Oct 1977-Apr 1978
Cape May Canal at North Cape May, NJ	01411395	1965-85	
Delaware Bay at Reeds Beach, NJ	01411409	1979-85	
Delaware River at Florence, NJ	01464560		Apr 1964-Feb 1970
Rancocas Creek at Rancocas, NJ	01467009		Oct 1976-Apr 1977
Delaware River at Torresdale Intake, at Philadelphia, PA	01467030		Oct 1963-Sept 1970
Delaware River at Palmyra, NJ	01467060		Dec 1962-Sept 1974
Delaware River at Delair, NJ	01467090		Dec 1962-Aug 1969
Delaware River at Delaware Memorial Bridge, at Wilmington, DE	01482100		July 1967-May 1983
Salem River at Winslow Farms Dock, near Pennsville, NJ	01482620		July 1971-Dec 1971
Delaware River at Oakwood Beach, NJ	01482705	1965-74	

* Operated as a continuous-record gaging station.

a Revised.

INTRODUCTION

The Water Resources Division of the United States Geological Survey (USGS), in cooperation with Federal, State, and local agencies, collects a large amount of data pertaining to the water resources of New Jersey each water year. These data, accumulated over 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 USGS, the data are published annually in this report series, titled "Water Resources Data-New Jersey." This data is also available on the world wide web at <http://nj.usgs.gov/>.

This report series includes records of stage, discharge, and water quality in streams; stage and contents, and water quality in lakes and reservoirs; and water levels and water quality in ground-water wells. This volume contains records of water discharge at 105 gaging stations, tide summaries at 27 tidal gaging stations, stage and contents at 39 lakes and reservoirs, and diversions from 51 surface-water sources. Also included are stage and discharge for 108 crest-stage partial-record stations and stage-only at 34 tidal crest-stage gages, and discharge for 124 low-flow partial-record stations. Locations of these sites are shown in figures 8-11. Additional discharge measurements were made at 131 miscellaneous sites that are not part of the systematic data-collection program. The data in this report represent that part of the National Water Information System (NWIS) data collected by the USGS and cooperating Federal, State, and local 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. Beginning in 1975, surface-water, water-quality, and ground-water data were combined in one volume. 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. Beginning with the 1998 water year, the format has changed to include surface-water discharge records in Volume 1, ground-water level records in Volume 2, and surface-water and ground-water quality records in Volume 3.

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 water years 1961 through 1970, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for water years 1941 through 1970 were published annually under the title "Quality of Surface Waters of the United States," and water levels for water years 1935 through 1974 were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers can be consulted in the libraries of the principal cities of the United States and can be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, CO 80225-0286, (303) 202-4610.

Publications similar to this report are produced annually by the USGS for all States. These 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-02-1." For archiving and general distribution purposes, the reports for water years 1971 through 1974 also are identified as water-data reports. Water-data reports are available for purchase in paper copy, compact disc, microfiche, or electronic format from the U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161, (703) 605-6100, <http://www.ntis.gov/>.

Additional information, including current prices, for ordering specific reports can be obtained from the Director, USGS New Jersey Water Science Center, at the address given on the back of the title page of this report or by telephone (609-771-3900).

The U.S. Geological Survey New Jersey Water Science Center, maintains a World Wide Web site which has water-resource related information for New Jersey and information on New Jersey Water Science Center activities. Links to other USGS and Federal web sites are also available. We invite you to visit us at: <http://nj.usgs.gov/>.

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 USGS are--

New Jersey Department of Environmental Protection, Bradley M. Campbell, Commissioner

New Jersey Department of Transportation, John F. Lettiere, Jr., Commissioner

New Jersey Water Supply Authority, Henry Patterson, III, Executive Director

Delaware River Basin Commission, Carol R. Collier, Executive Director

Lake Hopatcong Commission, Kenneth H. Klipstein, Acting Chairman

North Jersey District Water Supply Commission, Michael Barnes, General Manager

Passaic Valley Water Commission, Joseph A. Bella, Executive Director

Pinelands Commission, Annette M. Barbaccia, Executive Director

County of Bergen, Paul Juliano, Director of Public Works

County of Essex, Mehdi Mohammadish, County Engineer (interim)

County of Hunterdon, Marcia A. Karrow, Freeholder Director

County of Gloucester, Charles E. Romick, Director of Planning

County of Mercer, Steven J. Dixon, Executive Director, Mercer County Improvement Authority

County of Morris, Glen Schweizer, Executive Director, Morris County Municipal Utilities Authority

County of Somerset, Michael J. Amorosa, Director of Public Works

County of Union, Frank E. Dann, Jr., Director of Department of Engineering and Public Works

City of New Brunswick, Shawn Maloney, Director, Water Utility Department

City of Perth Amboy, Joseph Vas, Mayor

Brick Township Municipal Utilities Authority, Kevin F. Donald, Executive Director

Borough of Westwood, Donald F. Rainey, Borough Administrator

Ocean County Soil Conservation District, David B. Friedman, Director

Princeton Sewer Operating Committee, Donald W. Mayer-Brown, Manager

Funding assistance was provided by the U.S. Army Corps of Engineers, for the collection of records at 4 surface-water stations, by the Fort Dix Directorate of Public Works for collection of records at 1 surface-water station, 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 with funds appropriated directly to the USGS. Funding also was supplied by the following Federal Energy Regulatory Commission licensees: GPU Generation Corporation, Passaic Valley Water Commission, and Great Falls Hydroelectric Company. Assistance was provided by the National Weather Service and the National Ocean Service.

The following organizations aided in collecting records:

New Jersey Department of Environmental Protection; Municipalities of Jersey City, Newark, New Brunswick, and Spotswood; Elizabethtown Water Company; Ewing-Lawrence Sewerage Authority; United Water New Jersey; New Jersey-American Water Company; Rockaway Valley Regional Sewerage Authority; and GPU Generation Corporation.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

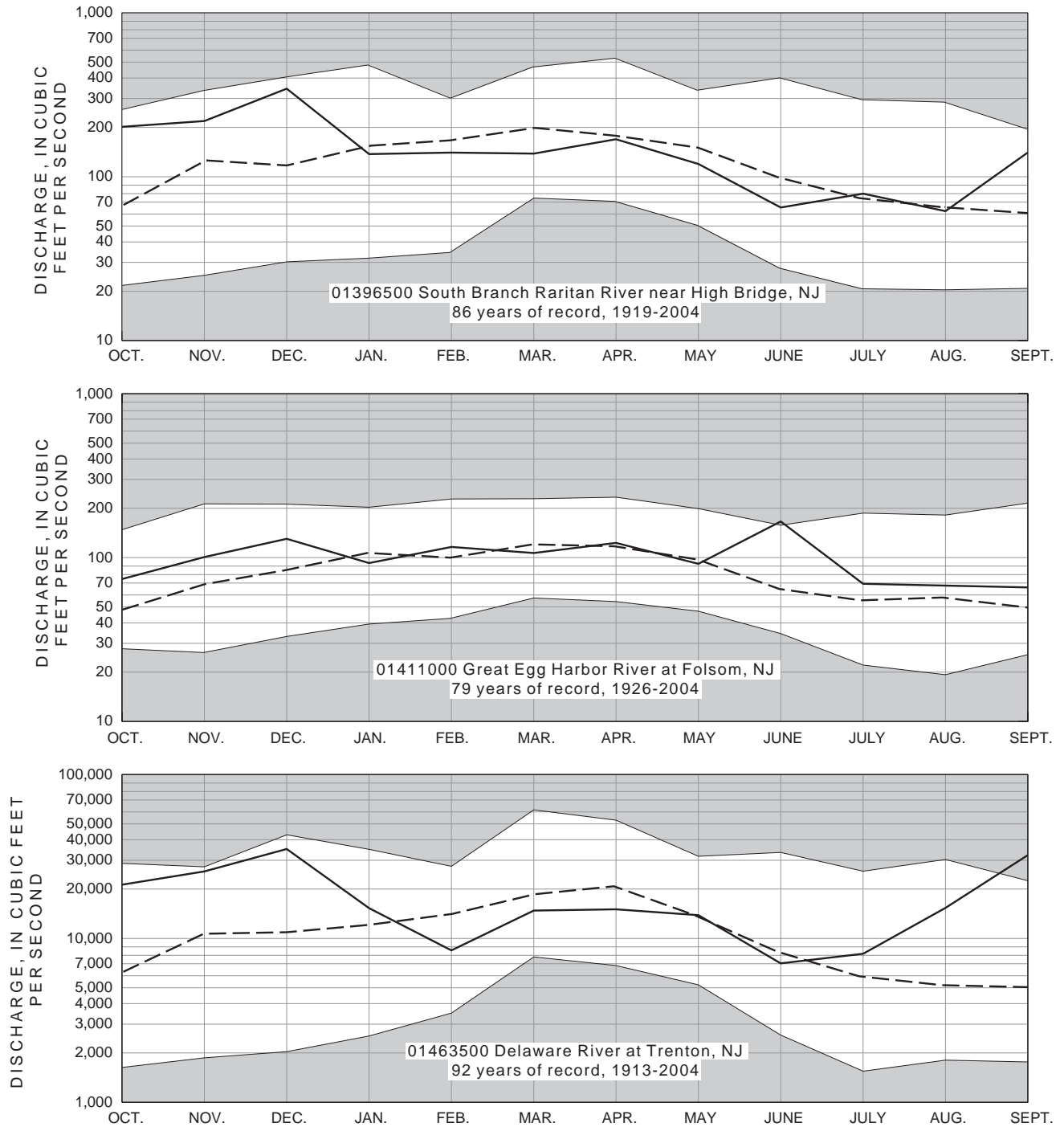
Three gaging stations, located in north, south, and central New Jersey, are considered index stations for statewide streamflow conditions. The monthly mean discharges at the Great Egg Harbor River and Delaware River gages, for June and September respectively, were the highest for the period of record. Monthly mean discharges at South Branch Raritan River, Great Egg Harbor River, and the Delaware River index gages were above average for 5, 9, and 8 months, respectively, during water year 2004 (fig. 1). Monthly means were above average in October, November, December, July, and September at each gage. Annual mean discharge at each of these index gaging stations was above the annual mean for the period of record for the second consecutive year (fig. 2).

Streamflow at the index station in northern New Jersey (South Branch Raritan River near High Bridge) averaged $156 \text{ ft}^3/\text{s}$ for the water year, which is 128 percent of the 1919-2004 average. Peak flow for the water year was $2,310 \text{ ft}^3/\text{s}$ on December 11; the recurrence interval is less than 5 years. The lowest daily mean flow was $36 \text{ ft}^3/\text{s}$, recorded on July 11, which is about the 90-percent flow duration.

Streamflow at the index station in southern New Jersey (Great Egg Harbor River at Folsom) averaged $102 \text{ ft}^3/\text{s}$, which is 120 percent of the 1926-2004 average. Peak flow for the water year was $389 \text{ ft}^3/\text{s}$ on February 9; the recurrence interval is from 2 to 5 years. The lowest daily mean flow was $37 \text{ ft}^3/\text{s}$, recorded on July 11, which is about the 90-percent flow duration.

The observed annual mean discharge for the Delaware River at Trenton was $18,190 \text{ ft}^3/\text{s}$, which is 155 percent of the 1913-2004 average. Peak flow for the water year was $201,000 \text{ ft}^3/\text{s}$ on September 19, and the recurrence interval is about 50 years. The lowest daily mean flow was $3,570 \text{ ft}^3/\text{s}$, recorded on July 4, which is about the 85-percent flow exceedance. The Delaware River is substantially regulated by reservoirs and diversions.

Annual mean discharges for water year 2004 at 46 selected gaging stations that had 40 years or more of continuous record and mean annual discharge for the period of record at each gaging station are shown in table 1. The differences are listed as percent difference. Discharge at 45 of the 46 gaging stations was above normal for water year 2004. The percent differences ranged from -13.3 to 113.5. Discharge at 45 of the 46 gaging stations was above normal for water year 2003, and the percent differences ranged from -7.1 to 61.0. In contrast, during water year 2002, flow at all 46 gaging stations was well below normal with the percent differences ranging from -38.6 to -94.4. Discharge at 40 of the 46 gaging stations was below normal for water year 2001, and the percent differences ranged from -28.7 to 17.9. Discharge at 36 of the 46 gaging stations was below normal for the water year 2000, and the percent differences



EXPLANATION

UNSHADED AREA--Indicates range between highest and lowest mean discharge recorded for the month, prior to 2004 water year

BROKEN LINE--Indicates normal discharge (median of the monthly means) for the standard reference period, 1971-2000

SOLID LINE--Indicates observed monthly mean discharge for the 2004 water year

Figure 1. Monthly mean discharge at index gaging stations.

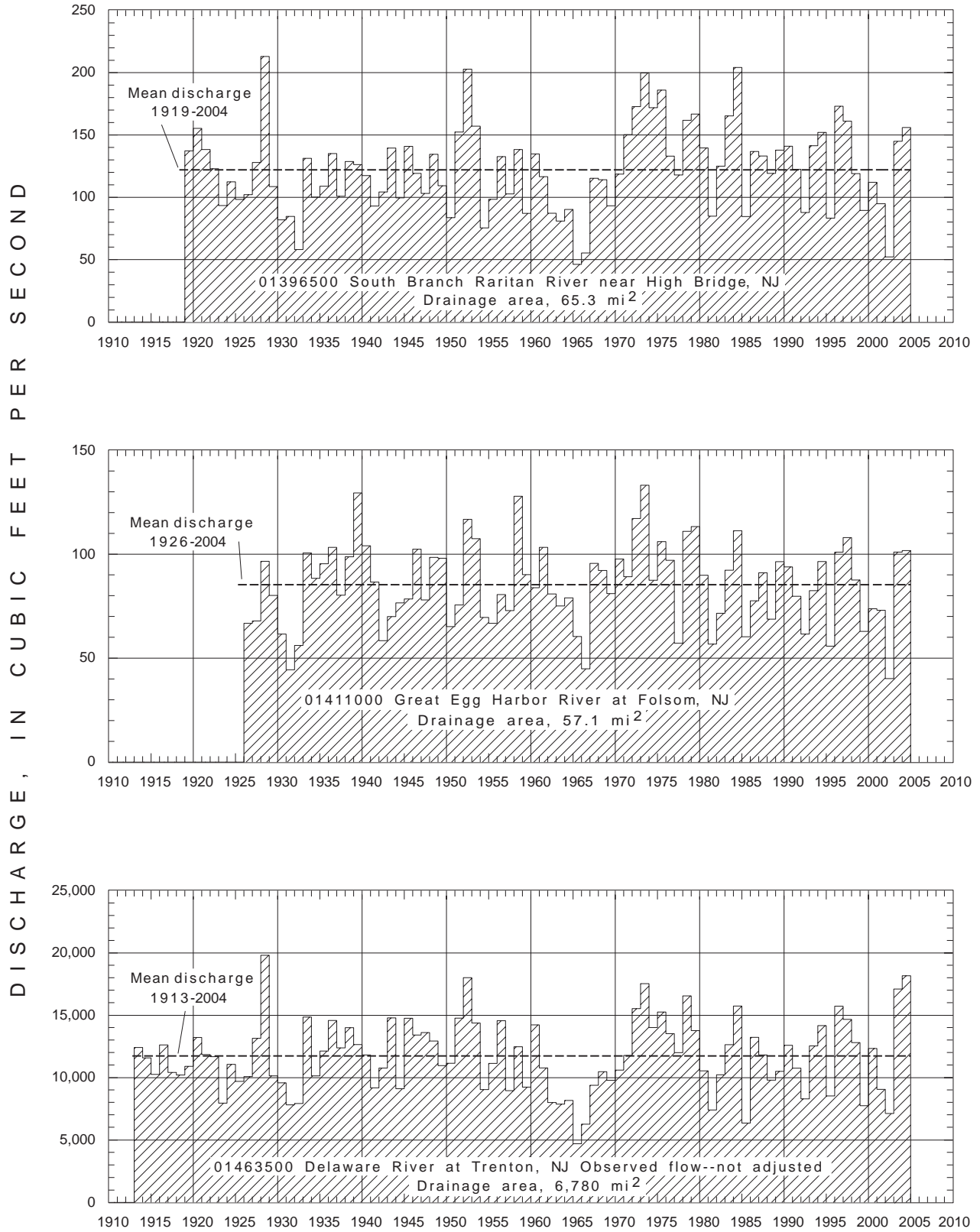


Figure 2. Annual mean discharge at index gaging stations.

Table 1. Annual mean discharges for water year 2004 and mean annual discharge for the period of record at selected continuous gaging stations with 40 years or more of records
[ft³/s, cubic feet per second; mi², square miles]

Station number	Station name	Drainage area (mi ²)	Number of years of record	Annual mean discharge for 2004 water year (ft ³ /s)	Mean annual discharge for period of record (ft ³ /s)	Percent difference
01377000	Hackensack River at Rivervale, NJ	58.0	63	120	86.8	38.2
01377500	Pascack Brook at Westwood, NJ	29.6	70	70.4	54.1	30.1
01379000	Passaic River near Millington, NJ	55.4	83	113	91.0	24.2
01379500	Passaic River near Chatham, NJ	100	76	223	172	29.7
01380500	Rockaway River above reservoir, at Boonton, NJ	116	67	287	230	24.8
01381500	Whippany River at Morristown, NJ	29.4	83	68.5	54.5	25.7
01382500	Pequannock River at Macopin Intake Dam, NJ	63.7	81	101	47.3	113.5
01383500	Wanaque River at Awosting, NJ	27.1	85	74.7	54.4	37.3
01384500	Ringwood Creek near Wanaque, NJ	19.1	63	48.0	33.3	44.1
01387500	Ramapo River near Mahwah, NJ	120	85	311	228	36.4
01388000	Ramapo River at Pompton Lakes, NJ	160	83	416	287	44.9
01388500	Pompton River at Pompton Plains, NJ	355	65	766	492	55.7
01389500	Passaic River at Little Falls, NJ	762	106	1509	1135	33.0
01390500	Saddle River at Ridgewood, NJ	21.6	47	45.4	33.9	33.9
01391500	Saddle River at Lodi, NJ	54.6	82	134	100	34.0
01393450	Elizabeth River at Ursino Lake, at Elizabeth, NJ	16.9	83	30.9	26.0	18.8
01394500	Rahway River near Springfield, NJ	25.5	67	45.8	30.7	49.2
01395000	Rahway River at Rahway, NJ	40.9	82	74.3	49.4	50.4
01396500	South Branch Raritan River near High Bridge, NJ	65.3	86	156	122	27.9
01396800	Spruce Run at Clinton, NJ	41.3	45	105	65.9	59.3
01397000	South Branch Raritan River at Stanton, NJ	147	88	360	248	45.2
01398000	Neshanic River at Reaville, NJ	25.7	74	53.9	38.0	41.8
01398500	North Branch Raritan River near Far Hills, NJ	26.2	81	62.4	47.9	30.3
01399500	Lamington (Black) River near Pottersville, NJ	32.8	83	65.8	55.6	18.3
01400000	North Branch Raritan River near Raritan, NJ	190	81	434	311	39.6
01400500	Raritan River at Manville, NJ	490	87	1166	778	49.9
01401000	Stony Brook at Princeton, NJ	44.5	51	95.8	67.0	43.0
01402000	Millstone River at Blackwells Mills, NJ	258	83	514	383	34.2
01403060	Raritan River below Calco Dam, at Bound Brook, NJ	785	66	1635	1196	36.7
01405400	Manalapan Brook at Spotswood, NJ	40.7	47	69.3	61.7	12.3
01408000	Manasquan River at Squankum, NJ	44.0	73	75.2	73.5	2.3
01408500	Toms River near Toms River, NJ	123	76	224	210	6.7
01409400	Mullica River near Batsto, NJ	46.7	47	121	105	15.2
01409500	Batsto River at Batsto, NJ	67.8	76	135	120	12.5
01410000	Oswego River at Harrisville, NJ	72.5	74	74.2	85.6	-13.3
01411000	Great Egg Harbor River at Folsom, NJ	57.1	79	102	85.3	19.6
01411500	Maurice River at Norma, NJ	112	72	213	163	30.7
01440000	Flat Brook near Flatbrookville, NJ	64.0	81	154	111	38.7
01443500	Paulins Kill at Blairstown, NJ	126	82	311	198	57.1
01445500	Pequest River at Pequest, NJ	106	83	234	158	48.1
01457000	Musconetcong River near Bloomsbury, NJ	141	87	339	239	41.8
01463500	Delaware River at Trenton, NJ	6780	92	18190	11730	55.1
01464000	Assunpink Creek at Trenton, NJ	90.6	81	168	134	25.4
01464500	Crosswicks Creek at Extonville, NJ	81.5	63	152	134	13.4
01466500	McDonalds Branch in Byrne State Forest, NJ	2.35	50	2.35	2.13	10.3
01467000	North Branch Rancocas Creek at Pemberton, NJ	118	83	206	170	21.2

ranged from -14.3 to -36.3. Several gaging stations that monitor heavily regulated rivers were not included in this comparison because of large artificial deficits related to regulation. The criterion of assessing gaging stations with 40 years or more of record was used in order to encompass at least one of the approximately 30-year drought cycles that New Jersey has experienced.

More than 25 heavy rainfalls occurred throughout the water year and caused flooding to some extent in the counties listed in table 2, as reported by the National Oceanic and Atmospheric Administration's National Weather Service (<http://www.nws.noaa.gov>). Some flooding was due to heavy ice jamming in the rivers. One such event involved Green Brook. On February 6, the Union County Bomb Squad personnel evacuated nearby homes in order to detonate explosives that they planted in the ice jams on Green Brook. Melting snow also contributed to flooding on other streams in the spring.

Table 2. Floods and flash floods in New Jersey in water year 2004, by date and county.

Date	Location by County
10/27/2003	Somerset
10/29/2003	Morris, Somerset
11/05/2003	Mercer
11/19/2003	Mercer, Morris, Somerset
12/11/2003	Bergen, Camden, Gloucester, Hunterdon, Mercer, Morris, Passaic, Somerset, Union
12/13/2003	Cumberland
12/17/2003	Somerset
12/24/2003	Bergen, Camden, Mercer, Morris, Somerset
02/06/2004	Camden, Gloucester, Mercer, Monmouth, Ocean, Somerset
02/08/2004	Cumberland
04/13/2004	Mercer, Somerset
04/27/2004	Somerset
05/12/2004	Essex, Passaic, Union
05/17/2004	Gloucester
06/17/2004	Bergen
06/25/2004	Hunterdon, Middlesex
07/01/2004	Monmouth, Ocean
07/12/2004	Burlington, Camden, Gloucester, Ocean, Salem
07/14/2004	Hunterdon, Somerset
07/23/2004	Bergen, Hunterdon, Mercer, Morris, Passaic, Somerset
07/27/2004	Camden, Gloucester, Hunterdon, Mercer, Salem, Somerset
08/01/2004	Camden, Gloucester, Ocean, Salem
08/11/2004	Middlesex, Monmouth
08/21/2004	Sussex, Union
08/31/2004	Burlington
09/08/2004	Bergen, Essex, Passaic, Union
09/18/2004	Bergen, Hudson, Hunterdon, Mercer, Morris, Sussex, Warren
09/28/2004	Bergen, Hudson, Hunterdon, Essex, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Union

The heavy rains that began July 12 overwhelmed many streams, especially in Burlington and Camden County. Up to 13 inches of rain fell in a 12-hour period in Tabernacle. The rain gage at the USGS gaging station, Greenwood Branch at New Lisbon, recorded 11.3 inches during July 12-13. In a 5-hour period, from 1715 hours to 2200 hours on Monday, July 12, 9.34 inches was recorded. This exceeds the predicted 100-year 24-hour rainfall frequency for Pemberton of 8.83 inches (<http://www.nws.noaa.gov/ohd/hdsc/>). The constant rain led to the flooding of roadways, and residents were evacuated from about 1,000 houses. According to a New Jersey Dam Safety Fact Sheet dated July 2004, 13 dams in the Burlington area failed completely, and approximately 15 other dams were damaged. Dam

owners were left with the decision to remove, reconstruct, or repair their dams (http://www.state.nj.us/dep/damsafety/fact_sheet_7_12_04.pdf). Many residents in the area helped hydrographers from the U.S. Geological Survey document the high-water event, and as always, we are very grateful.

Three of the four hurricanes that hit Florida this water year made their way close enough to New Jersey to cause flooding. Hurricane Frances hit Florida September 4, then passed New Jersey on September 8, causing flooding in Bergen, Essex, Passaic, and Union Counties. Hurricane Ivan hit Florida September 15, then passed New Jersey on September 18, prompting flooding in Bergen, Hudson, Hunterdon, Mercer, Morris, Sussex, and Warren Counties. Hurricane Jeane hit Florida on September 25, then soaked the already saturated soils of New Jersey on September 25. This caused widespread flooding in Bergen, Hudson, Hunterdon, Essex, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, and Union Counties. The Delaware River rose to its highest level since the record flooding of August 1955 on September 18-19, 2004.

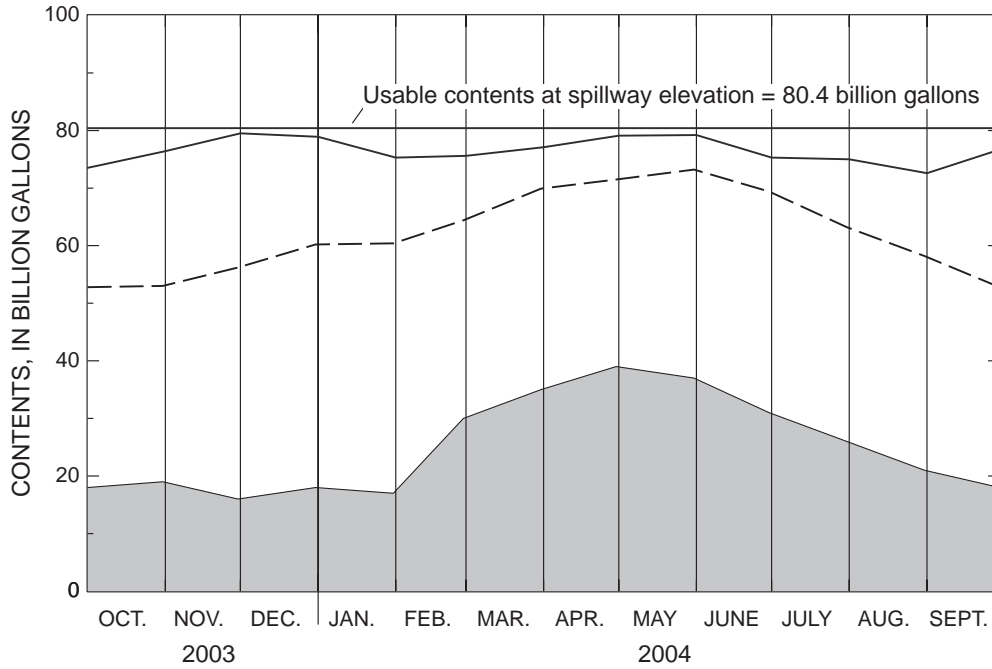
Heavy surf occurred several times in water year 2004. The December 5-6 event buckled part of the Atlantic City Boardwalk; the worst erosion was in Ocean County. The heavy surf on August 3 led to five injuries in Cape May and Atlantic City (<http://www.ncdc.noaa.gov/>).

Reservoir Contents




The combined usable contents of 13 major water-supply reservoirs in New Jersey ranged from 90.3 to 98.9 percent of the 80.4 billion gallon capacity for the entire water year. The combined contents at the end of each month exceeded the 1961-1990 monthly averages. Precipitation was mostly above or near normal in northern New Jersey for most of the 2004 water year, which contributed to the high reservoir contents. Combined usable contents of the 13 major water-supply reservoirs was 73.5 billion gallons at the end of September 2003, which is 139 percent of the 30-year mean (normal) contents for the end of September and 91.5 percent of capacity. Combined usable contents climbed steadily from September 2003 to a maximum for the water year of 79.5 billion gallons by the end of November 2003; this is 141 percent of normal contents for the end of November and 98.9 percent of capacity. Reservoir levels remained high through the spring months, then declined slightly during the summer because of an increased demand for water supplies. Air temperatures were near or slightly above normal during the summer months. By September 30, 2004, combined usable contents totalled 76.7 billion gallons, which is 145 percent of the 30-year mean (normal) contents for the end of September and 95.4 percent of capacity (fig. 3). The term “usable contents” is used here as a measure of the total volume of water that can be removed from a reservoir without pumping and does not account for the volume of water below the bottom of the lowest outlet or pipe (sometimes referred to as dead storage).

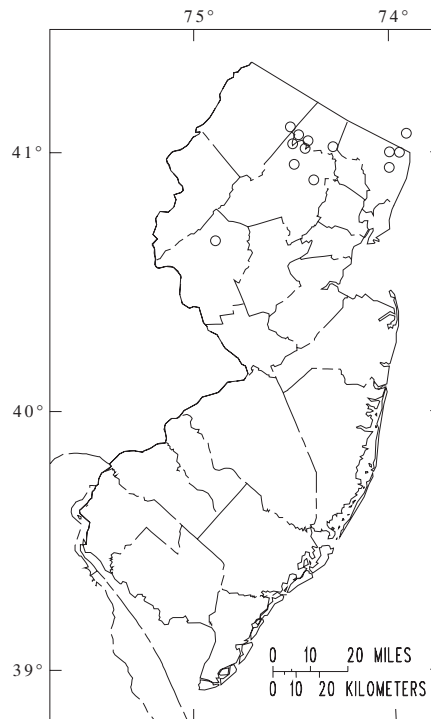
Precipitation and Temperature

Water years 2003 and 2004 were generally wet years with above average precipitation. Before water year 2003, a trend of precipitation deficit began approximately July 1998, possibly as early as 1997. For 38 of 69 months from January 1997 to September 2002, monthly spatially weighted average-precipitation values throughout New Jersey were below the statewide long-term monthly means (1895-2002) as shown in figure 4. Precipitation data can be accessed at <http://climate.rutgers.edu/stateclim/>. For 32 of 51 months from July 1998 to September 2002, the monthly spatially weighted values were below the long-term monthly means. For water year 2004, the spatially weighted values for 7 of 12 months were above the long-term mean (October through December, April, and July through September were above their respective means). Calendar year 2003 was the fourth wettest year on record, and water year 2004 is the sixteenth wettest for the period of record. For water year 2004, the statewide spatially weighted average-precipitation total was 53.25 inches, which is 8.51 inches more than the long-term mean-annual precipitation from 1895 to 2002 (David Robinson, New Jersey State Climatologist, Rutgers University, oral commun., 2004). The average annual precipitation for New Jersey is approximately 45 inches. Rankings of monthly precipitation in New



EXPLANATION

-  Shaded area indicates lowest monthly usable contents for reference period
-  Mean usable contents, 1961-90
-  Month-end usable contents, 2004 water year



Map showing locations of reservoirs

Figure 3. Combined usable contents of 13 major water-supply reservoirs.

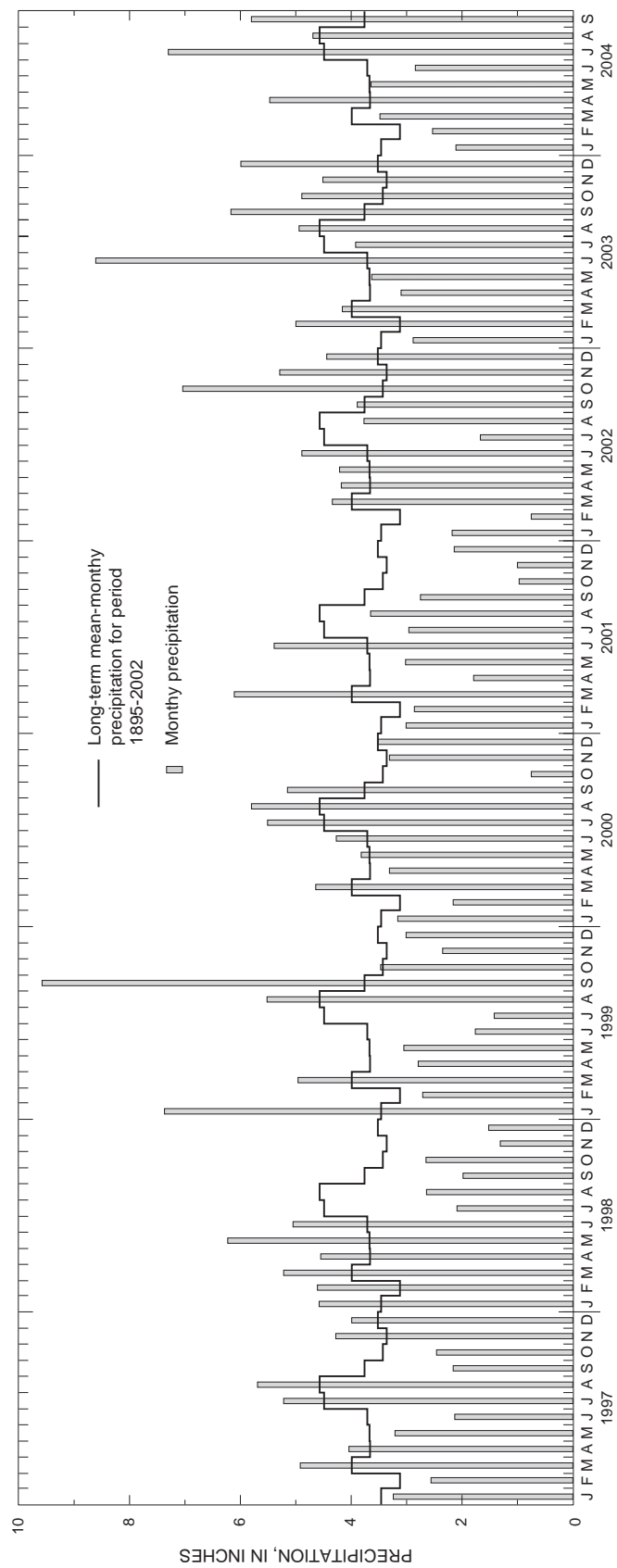


Figure 4. Monthly precipitation for water years 1997-2004 in New Jersey and long-term mean-monthly precipitation for period 1895-2002. (Long-term mean-monthly and monthly precipitation are spatially weighted averages for several dozen stations throughout the State.)

Jersey for water year 2004 as compared to water years 1896-2004 are listed in table 3. Monthly precipitation values are spatially weighted averages, determined using data from several dozen stations throughout the State.

Table 3. Ranking of monthly precipitation values in New Jersey for water 2004 in relation to the period of record, water years 1896-2004.

Monthly precipitation are spatially weighted averages from many stations throughout the State.

Month of water year	Total Precipitation, in inches	Ranking
Oct. 2003	4.89	19th wettest
Nov. 2003	4.51	29th wettest
Dec. 2003	5.99	12th wettest
Jan. 2004	2.11	12th driest
Feb. 2004	2.53	38th driest
Mar. 2004	3.48	43rd driest
Apr. 2004	5.47	14th wettest
May 2004	3.64	53 wettest
Jun. 2004	2.84	30th driest
Jul. 2004	7.30	9th wettest
Aug. 2004	4.69	44th wettest
Sep. 2004	5.80	16th wettest

The greatest daily rainfall totals for each month in water year 2004, as reported in a series of publications of the National Oceanic and Atmospheric Administration entitled *Climatological Data-New Jersey*, are as follows: October 27, 2.35 at Sussex (station Sussex 8 NNW); November 20, 2.40 inches at Charlotteburg Reservoir; December 11, 2.10 inches at Moorestown; January 18, 0.97 inches in Cape May; February 7, 1.89 inches in Somerville; March 19, 1.41 inches at Atlantic City Marina Station; April 13, 3.12 inches in Atlantic City Station; May 12, 2.14 inches in Plainfield; June 18, 3.08 inches at the Sussex 2 NE Station; July 13, 4.25 inches in Toms River; August 21, 3.22 inches in High Point Park; and September 18, 6.32 inches at the Belvidere Bridge Station.

Nine substantial and several smaller snowfall events occurred this year, starting as early as October 2 with a trace at High Point Park. Several trace snow events occurred in November, and several snowfalls occurred in the first half of December, with up to 17 inches on the ground in Cranford. Snowfall can remain on the ground as water in storage during days of low temperatures. As the temperature rises above freezing, the snow on the ground melts increasing the runoff into streams. For example, the 17 inches of snow cover in Cranford on December 6 melted over a period of several days. As a result of the snowmelt, the Rahway River rose above flood stage on December 11. In the second half of January, several snowfalls occurred, leaving up to a foot of snow on the ground in the northern half of the State and less than a half of a foot in the southern part of the State that stayed on the ground into February. Several light snowfalls in February kept the northern part of the State blanketed for the first 2 weeks of the month. Two snowfalls occurred in March. The first in the second week, of the month left 3 inches on the ground, and the second left up to 6 inches. Both melted quickly. The last events were on April 5 with 0.4 inches at Hammonton and on May 28 with a trace of snow at Newark International Airport.

Three National Weather Service (NWS) precipitation stations in Newark, Trenton, and Atlantic City have been selected as index sites for precipitation. During water year 2004, precipitation totals were above normal for all three index sites. Monthly totals were above or near normal for 7 of the 12 months at all three NWS index stations. The Newark station recorded 52.45 inches, which is 113 percent of the 30-year reference-period (1971-2000) mean. The Atlantic City station recorded 43.58 inches, which is 107 percent of the 30-year mean, and the Trenton station recorded 54.87 inches, which is 133 percent of the 30-year mean. Monthly precipitation at the three NWS stations, along with the 30-year mean, is shown in figure 5.

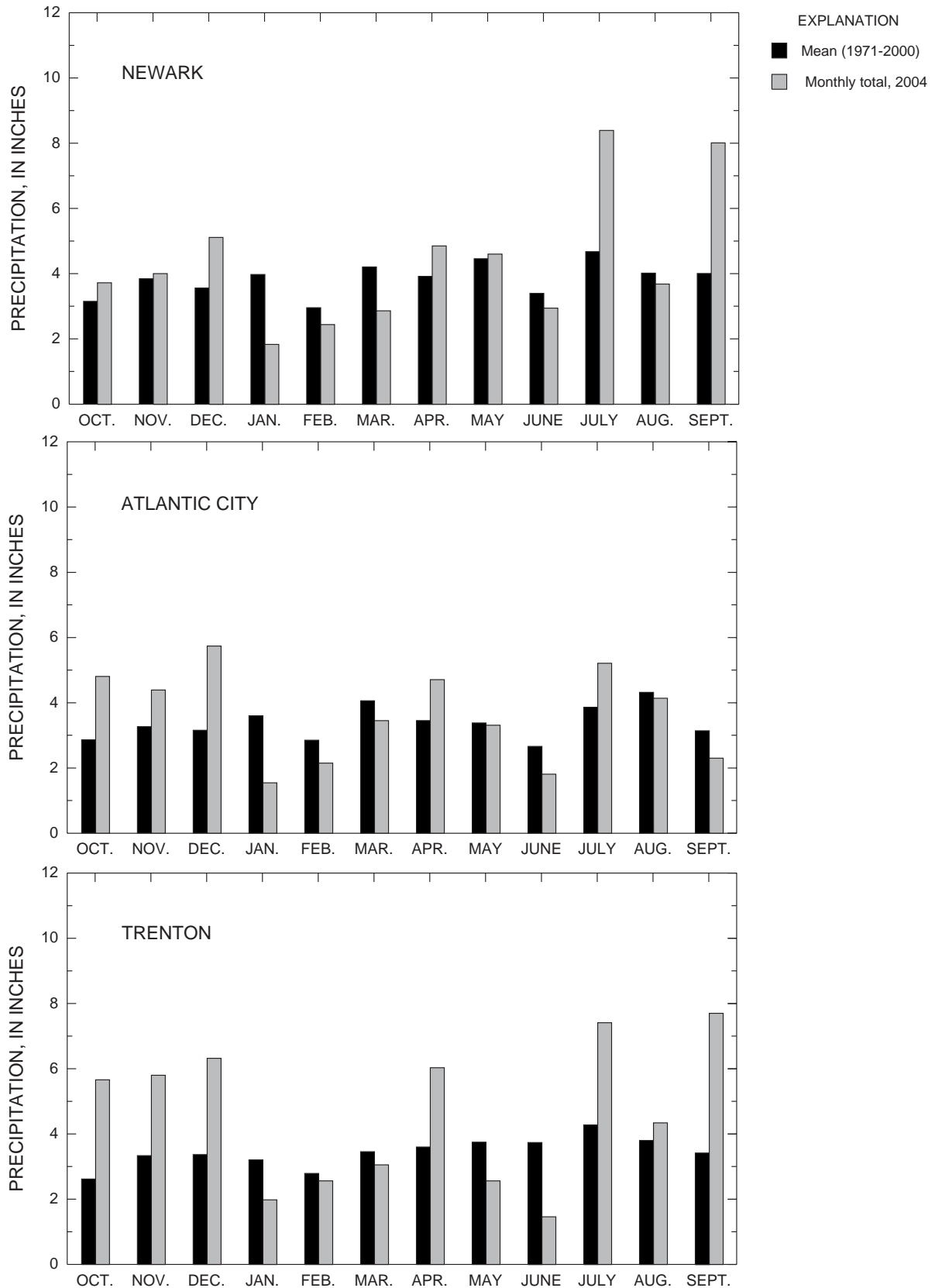


Figure 5. Monthly precipitation at three National Weather Service stations.

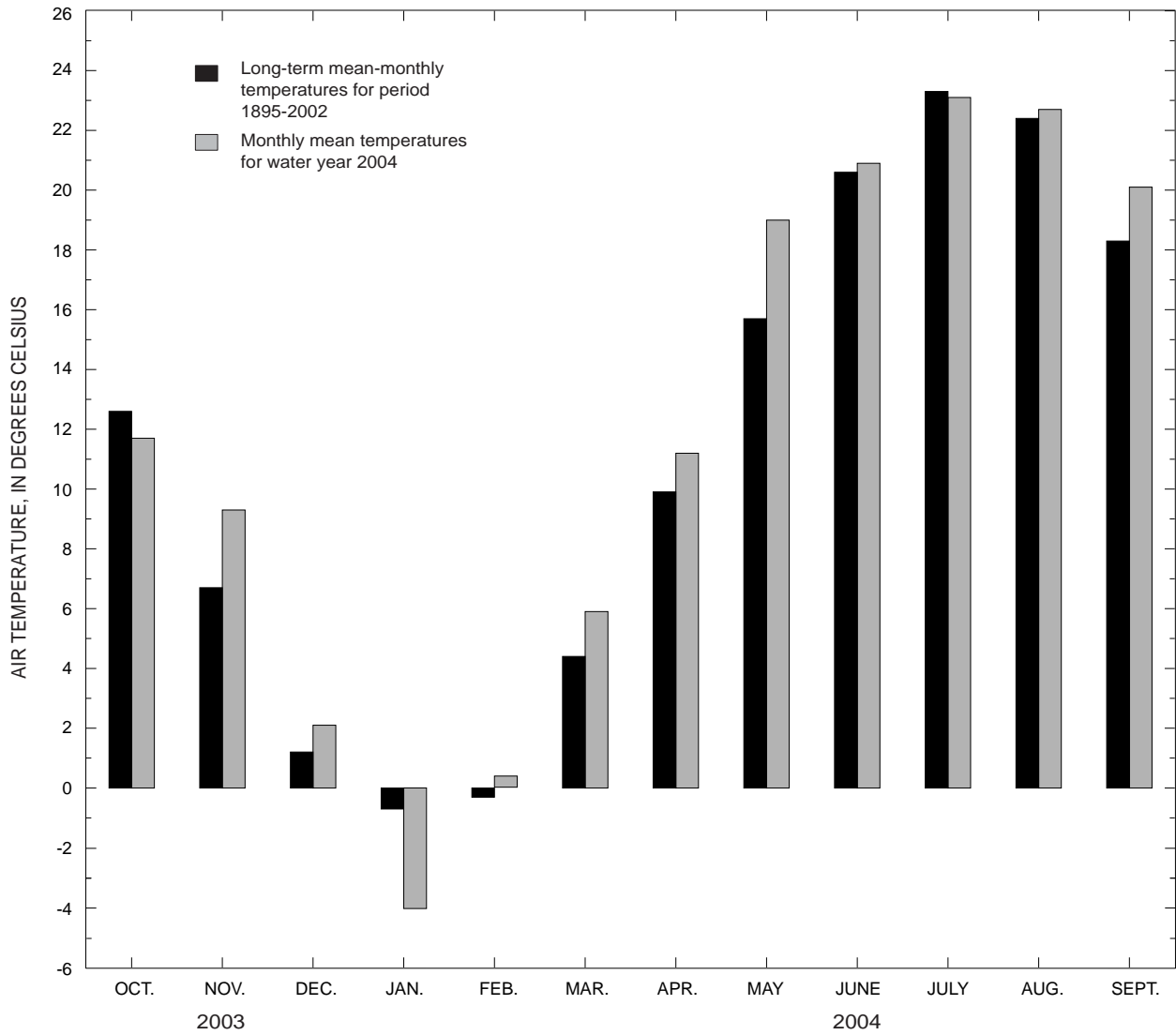


Figure 6. Water year 2004 monthly mean air temperatures and long-term mean-monthly air temperatures for New Jersey.

Nine of the 12 monthly mean temperatures in the 2004 water year (determined from spatially weighted average temperatures recorded throughout New Jersey) were above the long-term mean monthly average (1895- 2002). The October monthly mean was 0.3 degrees Celsius below the long-term average temperature. Monthly mean temperatures were 2.6 and 0.9 degrees Celsius above average for November and December. January averaged 3.2 degrees Celsius below average. The low temperatures of January caused streams to ice over at times. This ice cover led to ice jams and flooding on a number of streams. Monthly means from February through June ranged from 0.3 to 3.3 degrees Celsius above average. July was 0.2 degrees Celsius below average, and August and September were 0.3 and 1.8 degrees Celsius above average (fig. 6). The bookend months of the summer, May and September, were above average, and June, July, and August were very close to average (a coreless summer) (David Robinson, New Jersey State Climatologist, Rutgers University, oral commun., 2004). With the lack of long periods of extreme high temperatures, evaporation was low for water year 2004 as compared to the drought conditions that New Jersey experienced several years ago. Generally, the average temperature this water year was slightly higher than that in water year 2003. Monthly mean temperatures for the 2004 water year are listed in table 4 and are compared by rank to the historical monthly means (water years 1896-2004). May was the warmest month on record. Temperature data can be accessed at <http://climate.rutgers.edu/stateclim/>.

Table 4. Ranking of monthly temperatures in New Jersey for water 2004 in relation to the period of record, water years 1896-2004.

Monthly temperatures are spatially weighted averages from many stations throughout the State.

Month of water year	Monthly mean temperature, in degrees Celsius	Rank of month
Oct. 2003	11.7	30th coolest
Nov. 2003	9.3	9th warmest
Dec. 2003	2.1	43 warmest
Jan. 2004	-4.0	14th coolest
Feb. 2004	0.4	45th warmest
Mar. 2004	5.9	25th warmest
Apr. 2004	11.2	23 warmest
May 2004	19.0	The warmest
Jun. 2004	20.9	45th warmest
Jul. 2004	23.1	42nd coolest
Aug. 2004	22.7	47th warmest
Sep. 2004	20.1	9th warmest

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are

consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number “09” plus the 6-digit (or 8-digit) downstream order number “004100.” In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as “01,” “02,” and so forth, would be assigned as one would for wells (see fig. 7). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

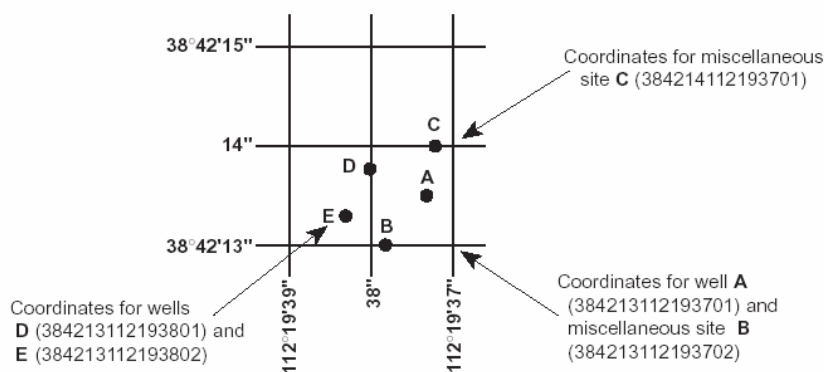


Figure 7. System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation’s largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment

(NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations (fig. 8-11) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio

transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <http://water.usgs.gov/pubs/twri/>. 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).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, 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.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; and (5) a hydrograph of discharge.

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 follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information 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 term indicates the time 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 its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented 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 stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents 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 USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://>

water.usgs.gov/nwis/nwis). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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 stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedance in any 1 year.

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 arithmetic 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 is 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect 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 volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (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 values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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 of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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.

Cubic feet 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) indicate 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 table lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to the nearest tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

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, values 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 Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the Water Science Center (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the 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, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Water Science Center.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Science Center (See address that is shown on the back of the title page of this report.)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adjusted discharge is discharge data that has been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

Cfs-day (See “Cubic foot per second-day”)

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(\text{ft}^3/\text{s})/\text{d}]$) 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, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(\text{ft}^3/\text{s})/\text{mi}^2$] 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. (See also “Annual runoff”)

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA web site: <http://www.co-ops.nos.noaa.gov/tideglos.html>

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to streamflow, as used in the report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site:* <http://www.co-ops.nos.noaa.gov/tideglos.html>

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site:* <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See “North American Vertical Datum of 1988”)

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was

established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Stage (See “Gage height”)

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

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.

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Vertical datum (See “Datum”)

Water year in USGS 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, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

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 acronym for “Water-Supply Paper” in reference to previously published reports.

CURRENT WATER RESOURCES PROJECTS IN NEW JERSEY

The U.S. Geological 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 NWIS data base.

An Application to Integrate GIS and Database Processing Steps for Conducting Public Supply Susceptibility Assessments

Aquifer Flow and Chemistry in Salem County

Assessment of Current Ground-Water and Surface-Water Conditions within the NJ-NY Highlands Area

Delaware River Basin National Water Quality Assessment

Determination of the hydrologic and ecological effects of ground-water diversions from the Kirkwood-Cohansey aquifer system in the Pinelands Area

Determination of Total Annual Nonpoint Source Pollution Loads to Selected River Systems in New Jersey

Determining Impacts on Special Protection Waters in the Delaware Water Gap National recreation Area

Development of Database, Models, and Determination of Vulnerability of Public Supply Wells and Surface-Water Intakes in New Jersey for Chemicals of Concern to Support Source Water Assessment Program

Distribution of MTBE and Related Volatile Organic Compounds in Lakes in Northern NJ and Investigation of Lake-Well Interactions

Distribution of Radium and Related Radionuclides in Coastal-Plain Aquifers

Effects of Land Use, Septic Systems, and Sewering on the Distribution of Nitrate in Shallow Ground Water

EPA Technical Assistance Program

Estimation of the Relative Importance of Nonpoint Source Loads in the Raritan River Basin

Evaluation of Bacterial Contamination in Surface and Ground Water in Morristown National Historical Park

Evaluation of the Changes in Hydrology and Ground- and Surface-Water Quality in an Urban Wetland as Part of a Wetlands Restoration Effort

Flood Characteristics of New Jersey Streams

Flow Characteristics and Basis for Development of Ecological Goals for New Jersey Streams

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

Ground-Water Data Collection Network

Ground-Water Levels and Chloride Concentrations in Major Aquifers of the Coastal Plain

Ground-Water Supply Availability in Southern Ocean County

Head of Tide Sampling Program for the New Jersey Harbour Toxic Contaminant Assessment Reduction Program

High-Flow Water Quality Management Objectives

Hydrogeologic Investigation to Ensure Sustainable Water Supply for Cape May County

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

Hydrologic Data for Neldon’s Brook and Indian Brook in the Swartswood Lake Basin

Hydrology of Surficial Aquifer Systems

Identification of Sources of Arsenic to the Wallkill River Watershed

Investigation of Ground-Water/Surface-Water Interaction in the Northern Passaic River Valley, New Jersey

Investigation of Hydrogeology and Volatile Organic Compound Contamination in Fair Lawn, New Jersey
Investigation of Hydrogeology and Volatile Organic Compound Contamination in the Pohatcong Valley, New Jersey
Investigation of Potential Threats to Water Supply from the Potomac-Raritan-Magothy Aquifer in Salem and Western Gloucester Counties, New Jersey
Low Flow Characteristics of New Jersey Streams
Lower Delaware Non-Point Source
Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone
Movement of Chromium in the Ground Water of Pennsauken Township, Camden County
Natural Radionuclide Occurrence in Principal New Jersey Aquifers
New Jersey Drought Monitoring System
New Jersey-Long Island National Water Quality Assessment
New Jersey Tide Telemetry System
Occurrence and Distribution of Trace Level Organics in Waste Water and Streams
Pascack Brook Flood Warning System
Passaic Flood Warning System
Passaic River Basin Flow Model
Program to Maintain and Update Ground-Water Models to Evaluate Continued Water-Supply Development
Quality of Water Data Collection Network
Quantification of Radium Mass Loading and Radioactivity in the Shallow Aquifer from the Water-Softening-Treatment Backwash Waste Stream that is Discharged to Septic Systems
Radionuclides in Public Water Supply Systems
Rahway Flood Warning System
Refinement of a Data Model for Watershed Water Transfer Analysis
Small Watershed Flood Data Collection
Somerset County Flood-Information System
Streamflow Characteristics and the Basis for Ecological Flow Goals
Surface Water Data Collection Network
Validation of Membrane Diffusion Sampler for Soluble Inorganic and All Organic (Volatile/Nonvolatile) Contaminants in Ground Water
Vulnerability Assessment of the Kirkwood-Cohansey Aquifer System to Radium, Mercury, and Trace Metals
Water Budget Analysis of Confined Aquifers for Water-Supply Planning and Regulation
Water Budgets and Ground-Water Availability in the Delaware River Basin
Water-Quality Characteristics of Upper-Delaware Watershed

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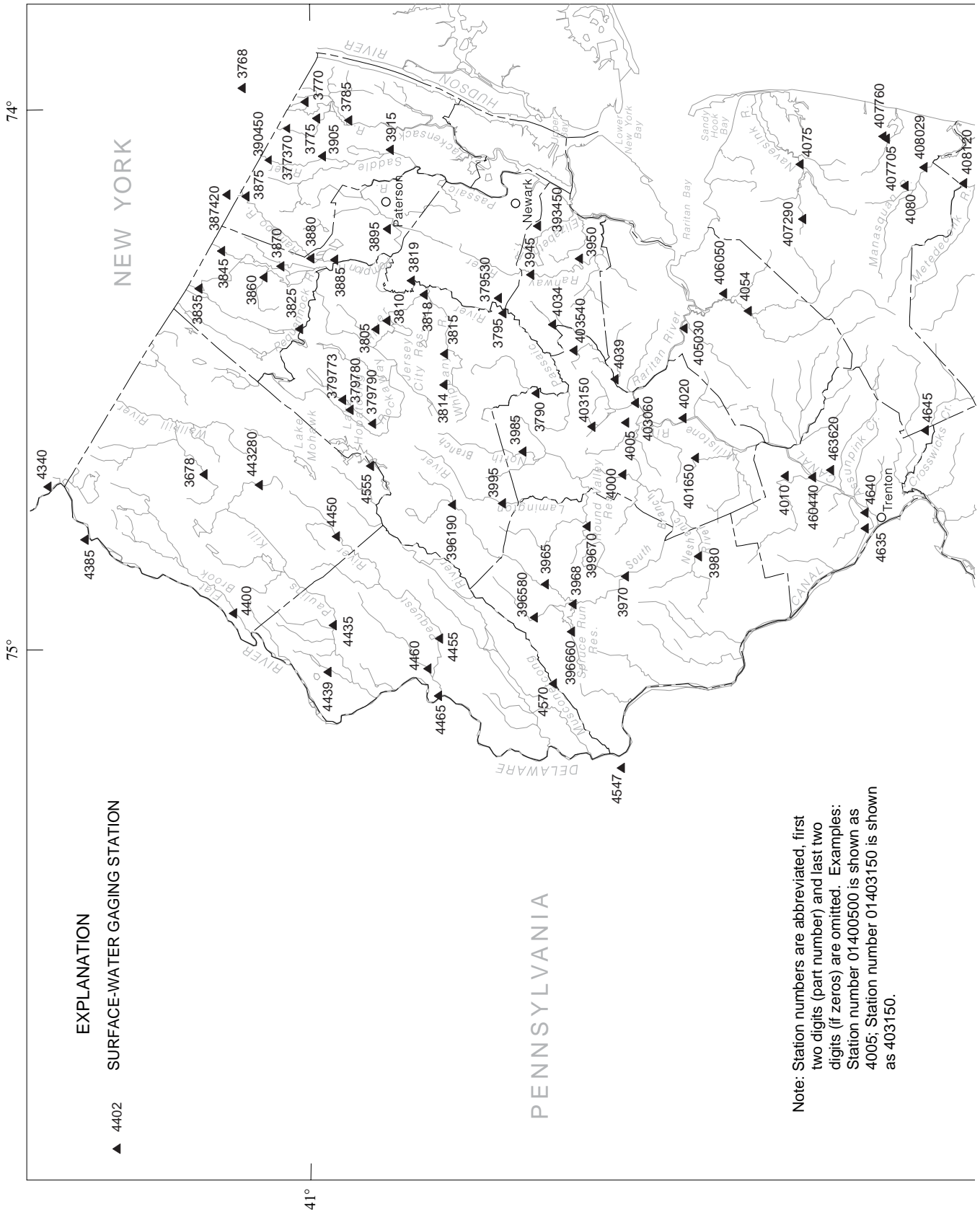
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Aftermath of Lumberton Flood--Canoe wrapped around tree downstream of Squaw Lae in Medford Township, after dam failed adding to flooding along Ballinger Run, July 12-13, 2004 (file photograph, U.S. Geological Survey, West Trenton, New Jersey)



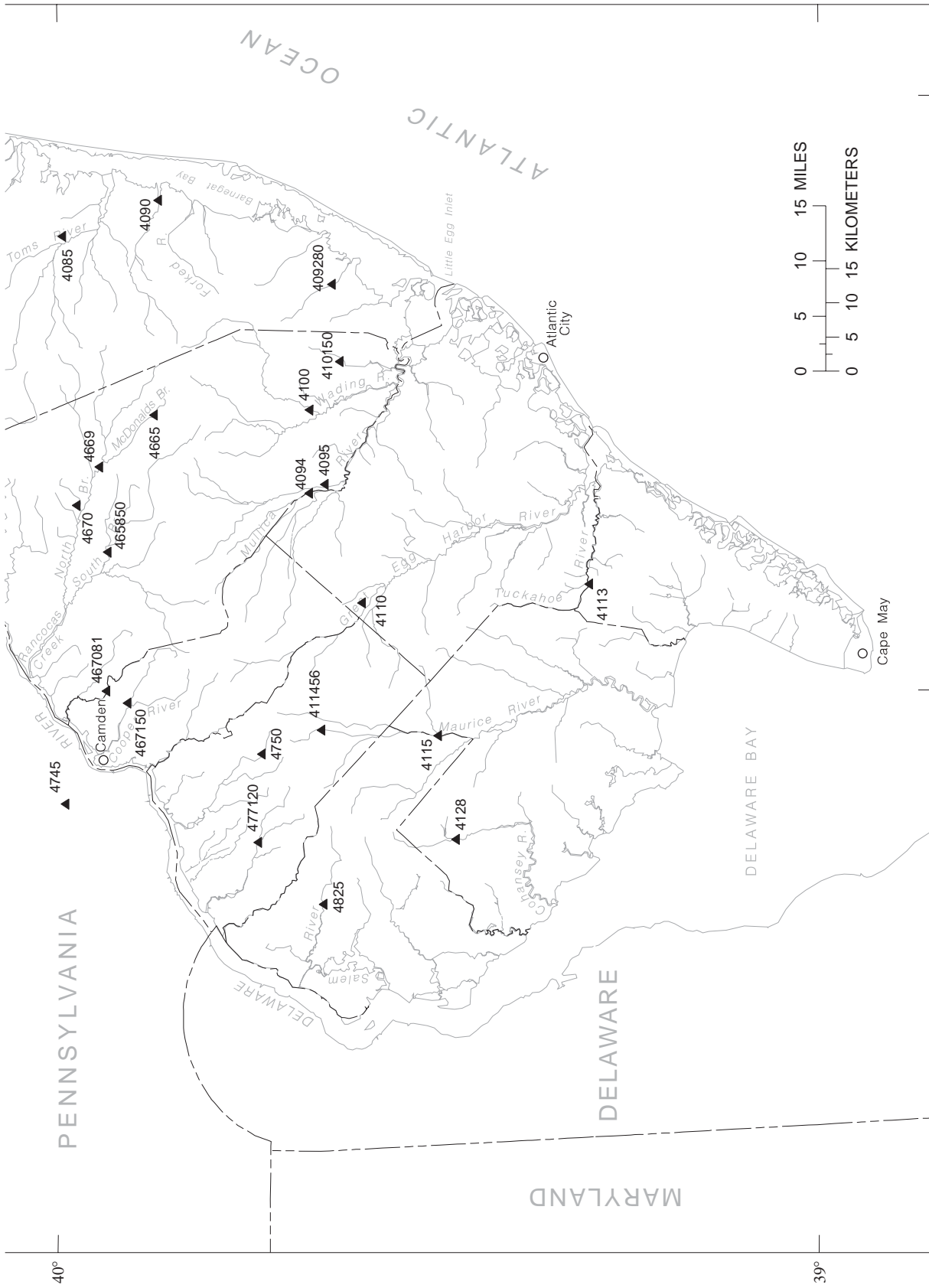
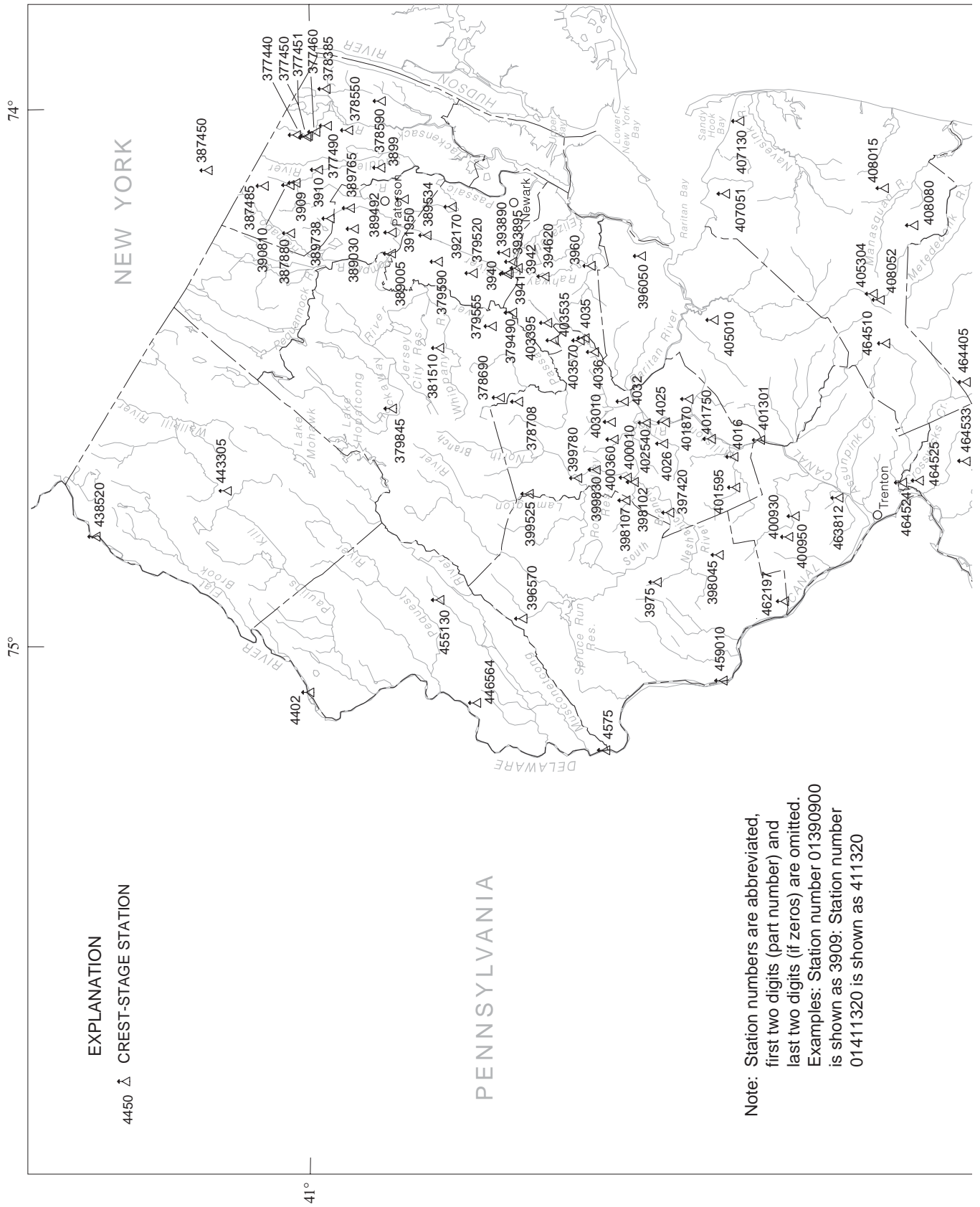


Figure 8. Map showing locations of surface-water gaging stations.



EXPLANATION
 4450 ▲ CREST-STAGE STATION

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01390900 is shown as 3909; Station number 01411320 is shown as 411320

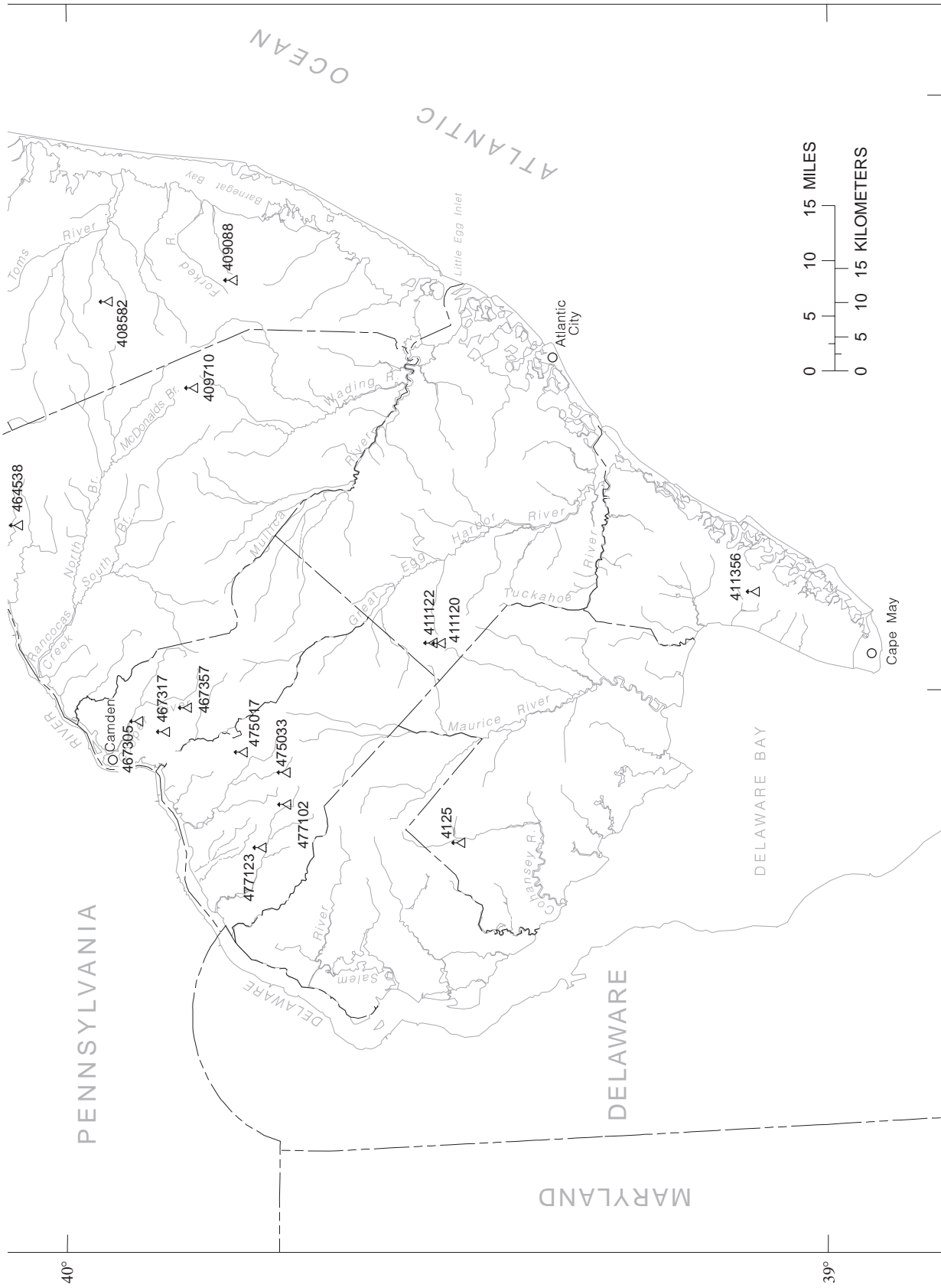
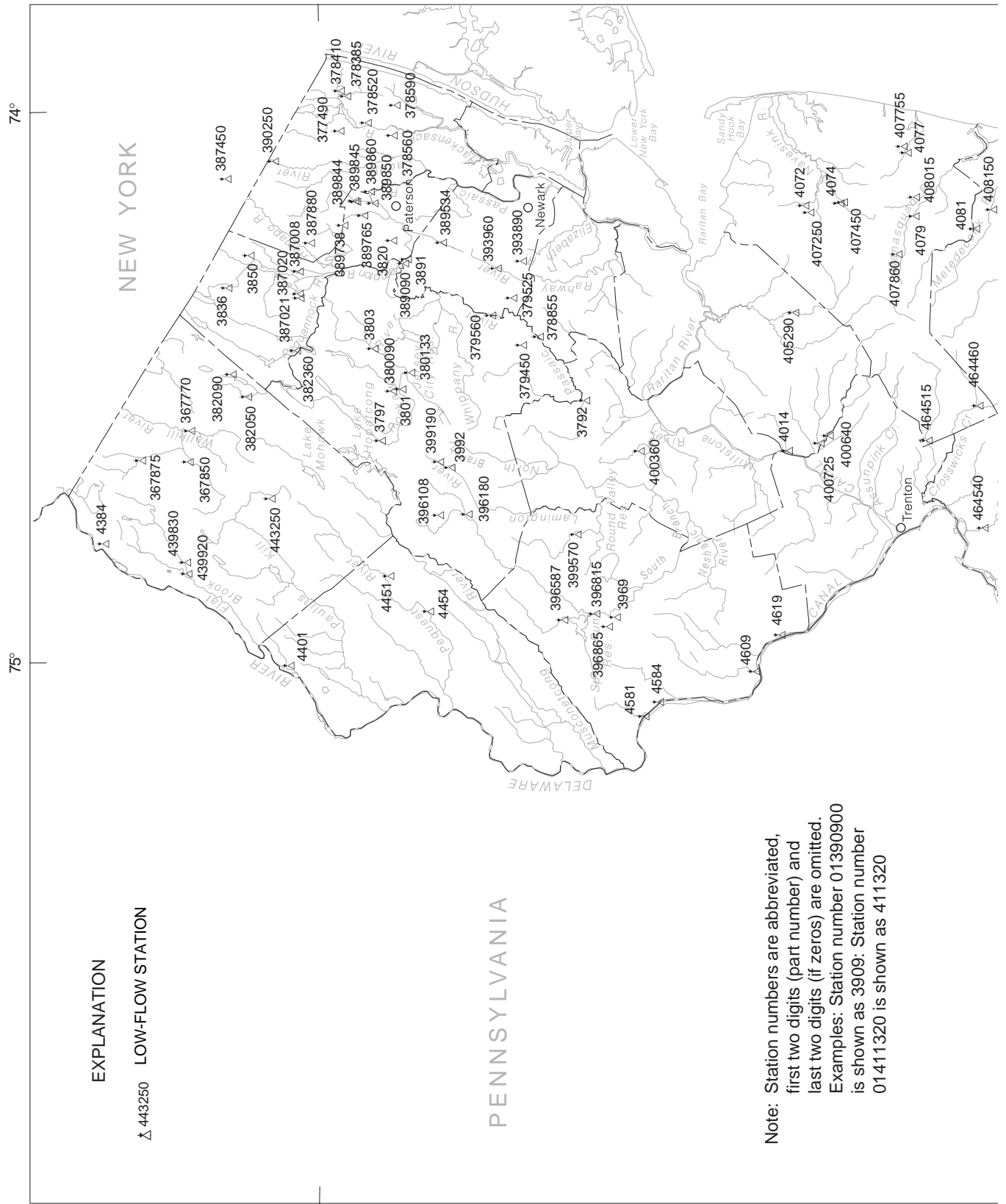


Figure 9. Map showing locations of crest-stage partial-record stations.



EXPLANATION

▲ 443250 LOW-FLOW STATION

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01390900 is shown as 3909; Station number 01411320 is shown as 411320

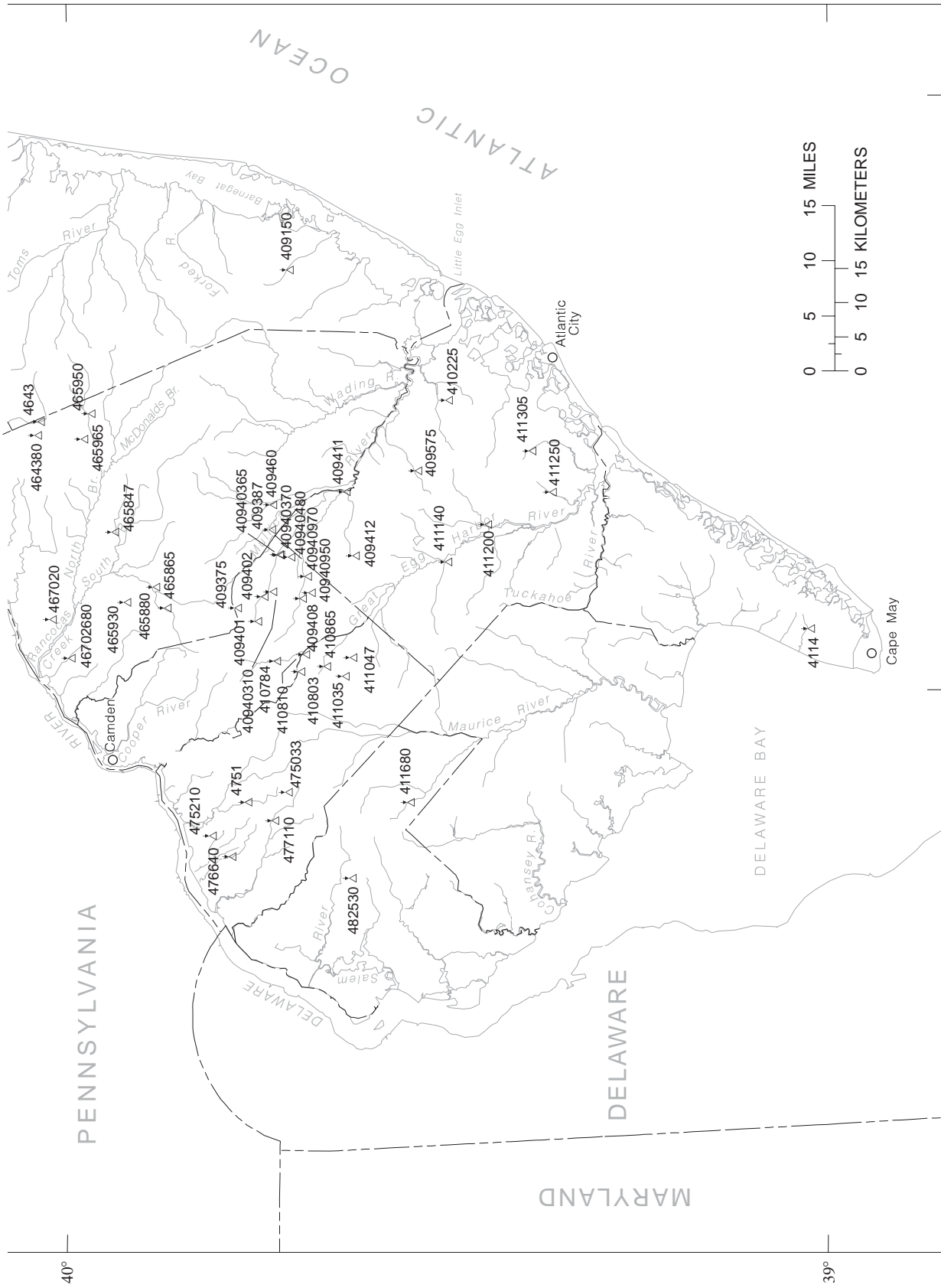
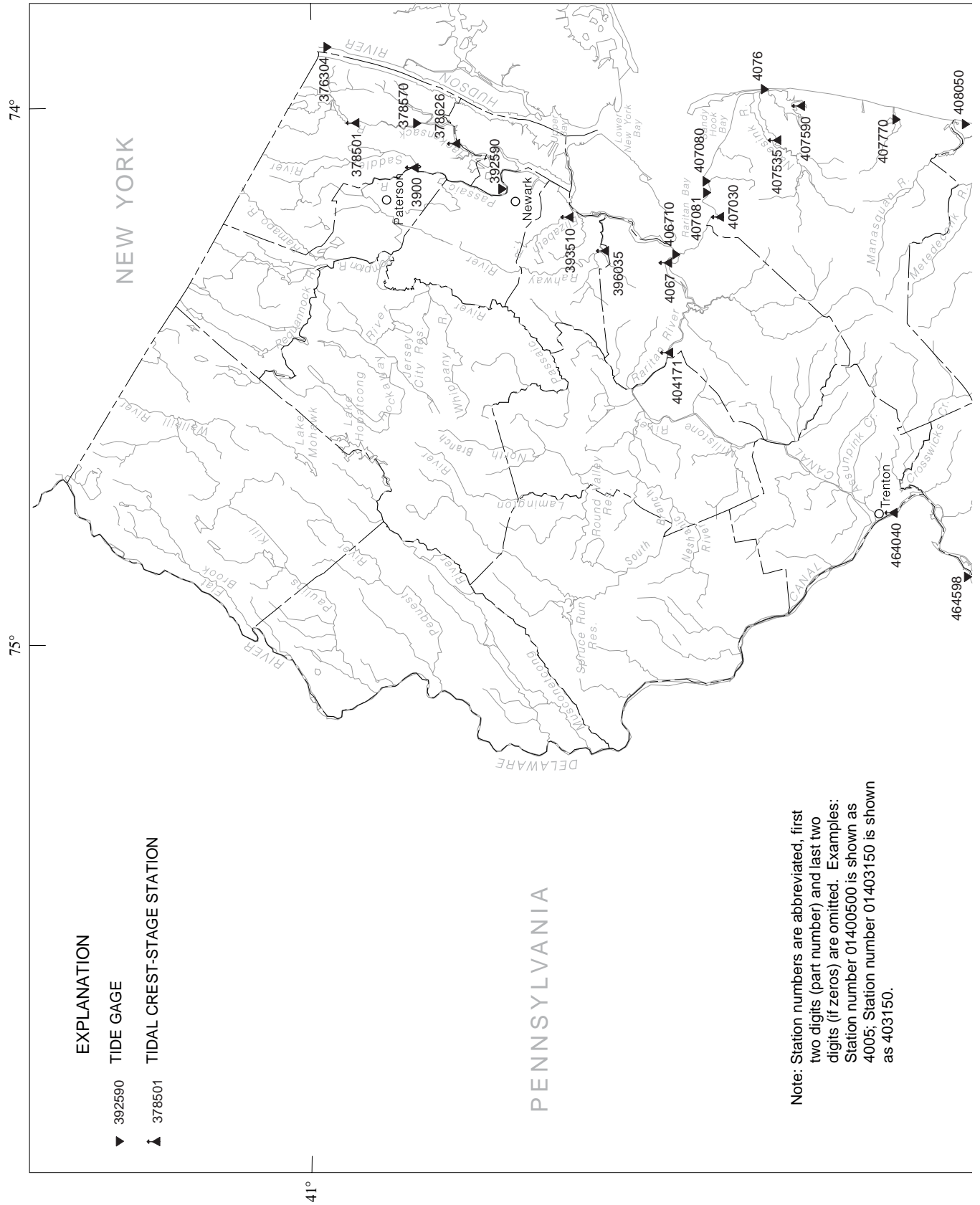


Figure 10. Map showing locations of low-flow partial-record stations.



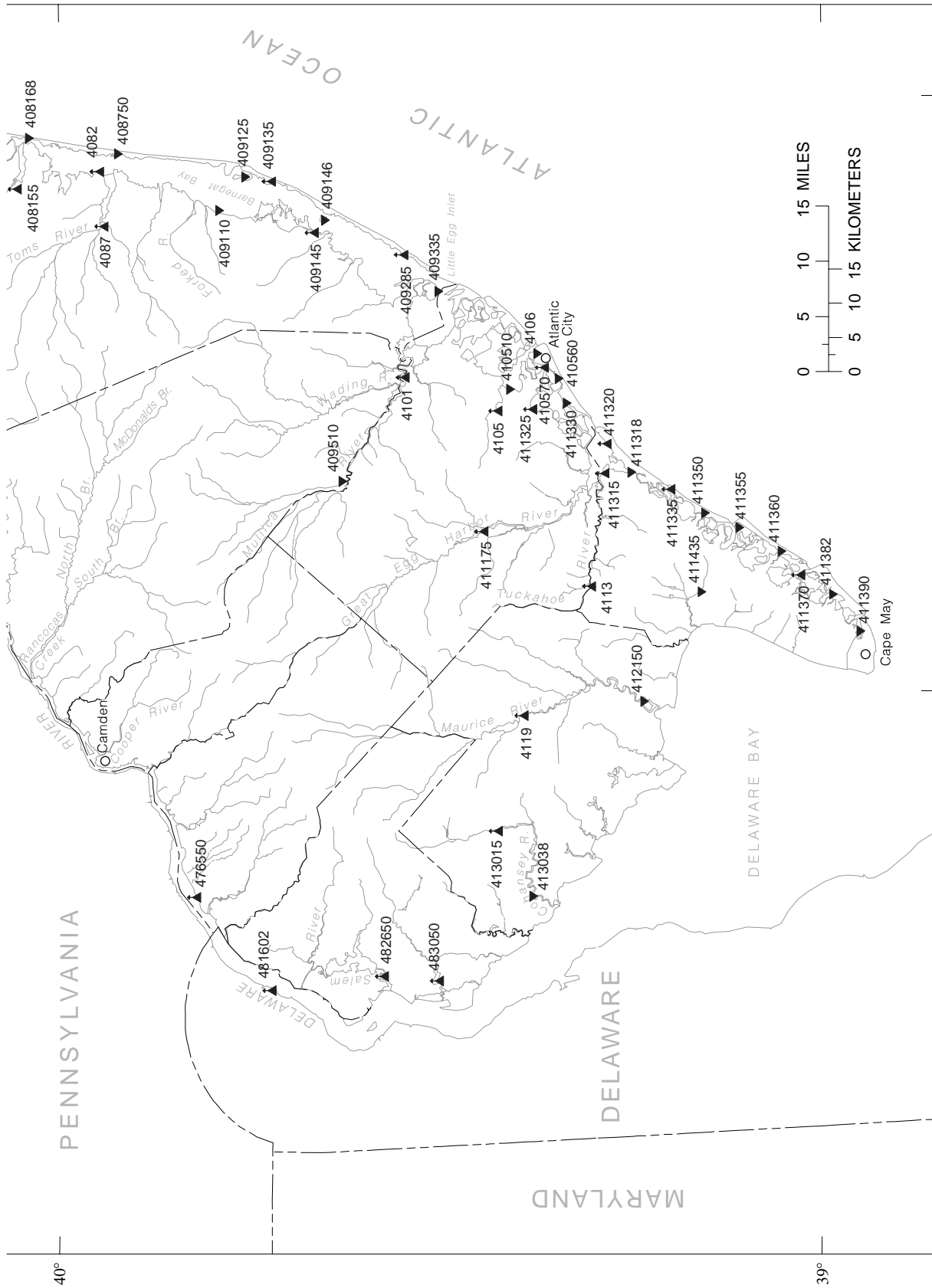


Figure 11. Map showing locations of tide gage and tidal crest-stage partial-record stations.

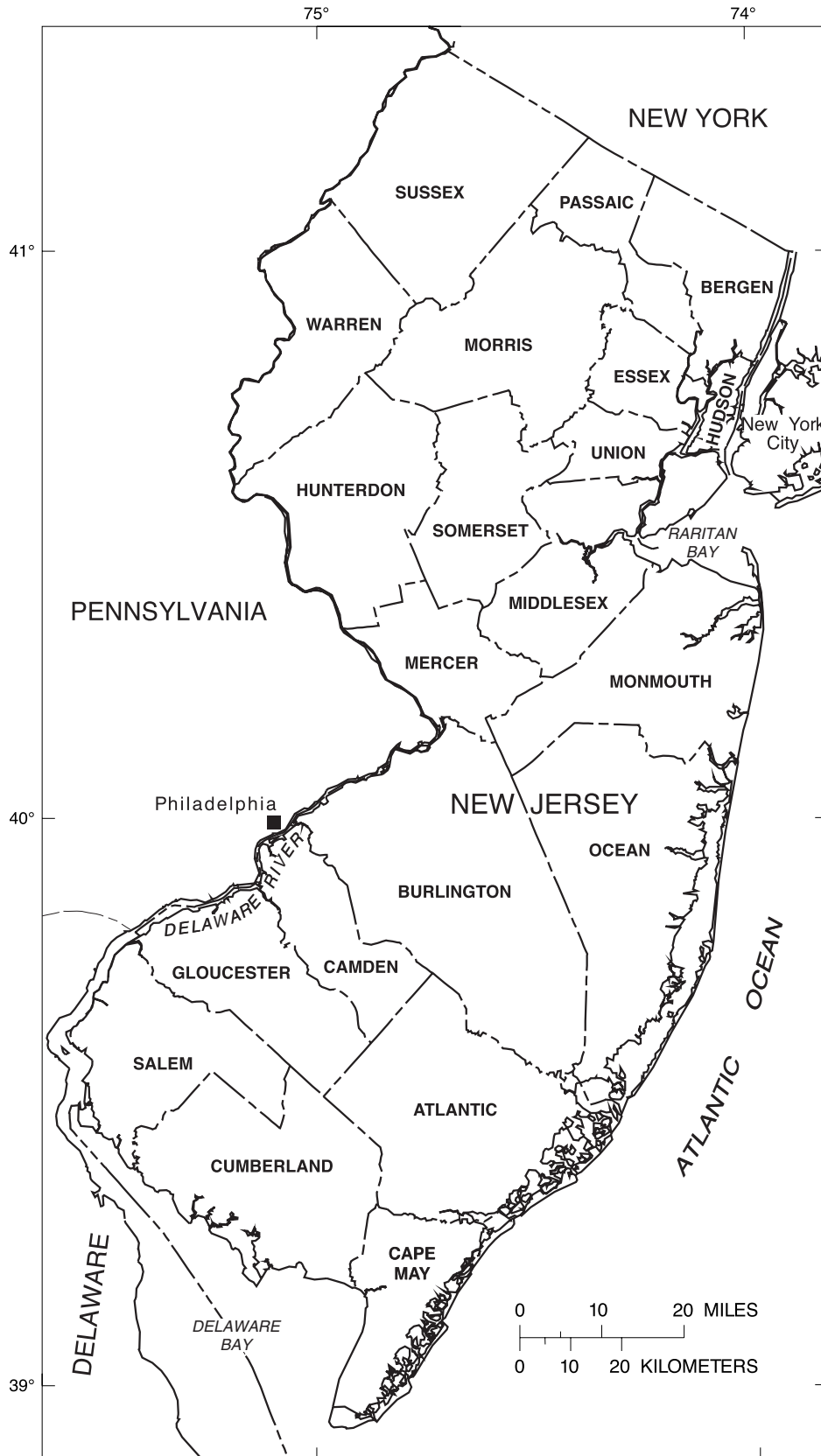


Figure 12. Counties in New Jersey.

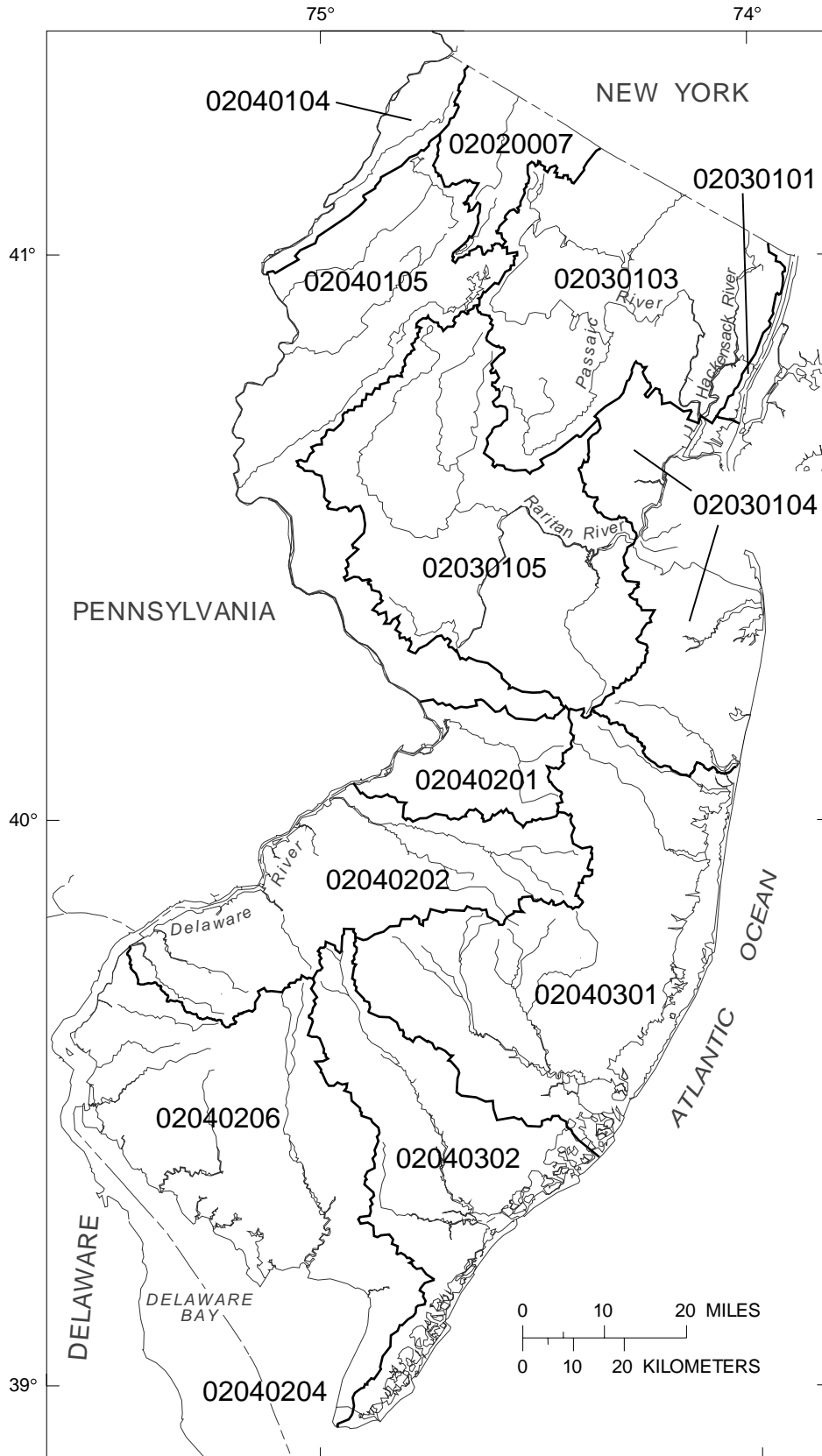
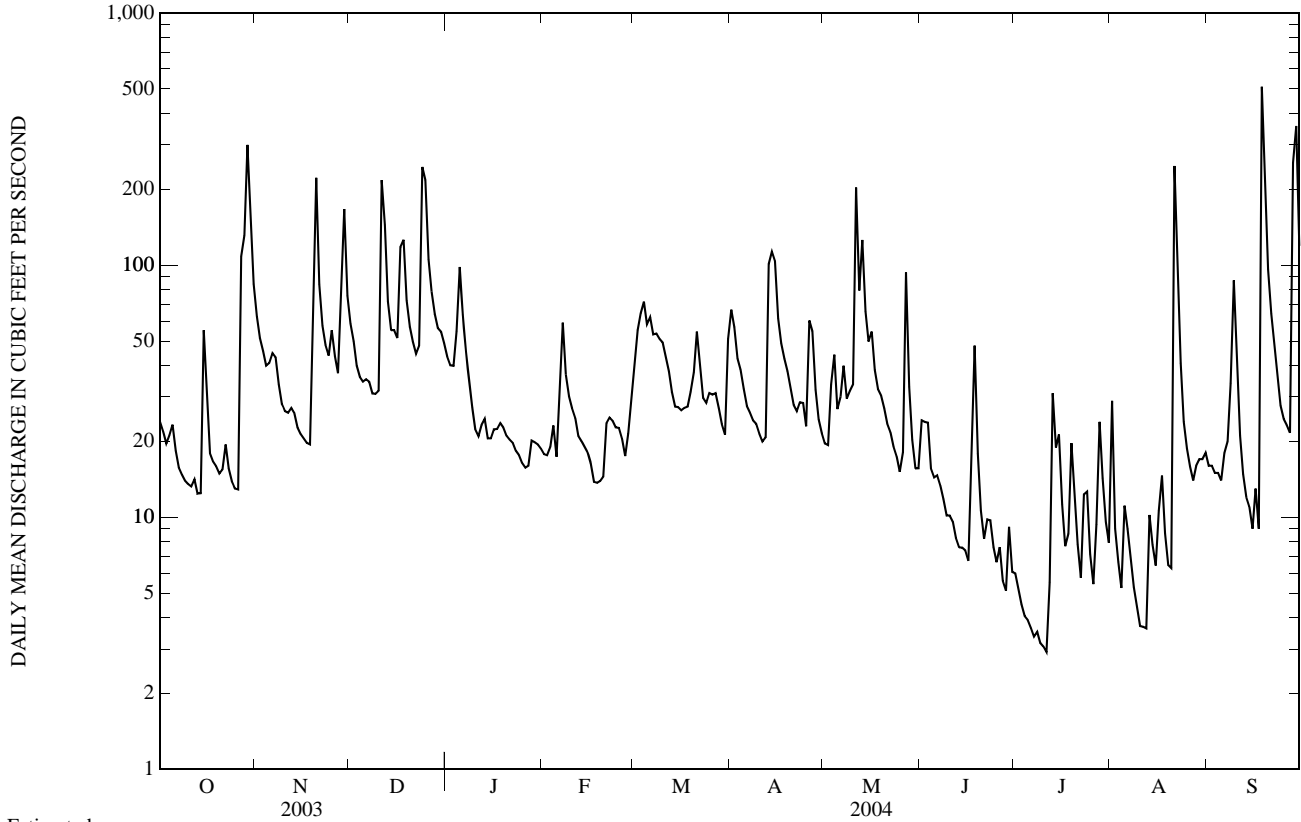


Figure 13. Cataloging units and codes in New Jersey. (Modified from Seaber and others, 1987)

01367800 PAPAKATING CREEK AT PELLETTOWN, NJ—Continued

SUMMARY STATISTICS	FOR OCT 1 TO DEC 31, 2003		FOR 2004 WATER YEAR	
ANNUAL TOTAL			14,112.4	
ANNUAL MEAN			38.6	
HIGHEST ANNUAL MEAN				
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	300	Oct 29	510	Sep 18
LOWEST DAILY MEAN	12	Oct 13, 14	2.9	Jul 11
ANNUAL SEVEN-DAY MINIMUM			3.4	Jul 5
MAXIMUM PEAK FLOW	427	Oct 29	965	Sep 18
MAXIMUM PEAK STAGE	6.15	Oct 29	8.24	Sep 18
INSTANTANEOUS LOW FLOW	11	Oct 13, 14	2.6	Jul 11, 12
ANNUAL RUNOFF (CFSM)			2.44	
ANNUAL RUNOFF (INCHES)			33.23	
10 PERCENT EXCEEDS			72	
50 PERCENT EXCEEDS			24	
90 PERCENT EXCEEDS			7.7	



e Estimated.



Aftermath of Lumberton Flood--Camp Inawendiwin Upper Dam washed out. adding to flooding along Friendship Creek in Tabernacle Township, during July 12-13, 2004 flood event.
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

HACKENSACK RIVER BASIN

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 mi².

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 NGVD of 1929 (levels by Hackensack Water Co.).

REMARKS.--Records fair. 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, 1,740 ft³/s, Sept. 16, 1999, gage height, 11.21 ft, from floodmarks in gage house; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft³/s, Sept. 18, gage height, 10.66 ft, from floodmark in gage house; minimum discharge, 7.4 ft³/s, Sept. 2, gage height, 2.32 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	52	49	50	14	20	54	37	43	11	73	12
2	23	43	41	43	13	22	62	34	65	13	49	11
3	17	35	32	40	18	24	49	41	61	13	36	14
4	15	32	26	49	33	28	48	43	42	13	30	13
5	15	36	27	115	28	29	47	35	31	13	27	13
6	14	45	47	95	67	46	33	40	25	14	21	13
7	13	44	32	59	216	48	27	38	20	14	13	13
8	15	38	25	46	103	54	23	33	17	15	12	447
9	17	28	21	41	61	56	22	28	17	14	12	703
10	17	23	20	32	51	57	19	26	20	14	12	199
11	18	21	350	27	47	52	18	46	18	13	33	82
12	18	22	238	26	41	35	19	40	15	15	91	57
13	17	24	94	26	36	32	114	38	13	29	116	47
14	17	24	81	24	33	25	258	30	16	12	64	40
15	27	18	149	25	31	23	161	26	17	13	77	37
16	15	14	98	23	27	25	65	42	17	13	79	71
17	13	14	186	20	23	31	49	32	64	16	65	56
18	16	14	256	23	22	28	45	25	104	17	45	e970
19	18	39	122	24	21	35	40	23	55	16	32	388
20	14	332	78	22	20	35	39	19	34	14	25	119
21	15	126	62	20	22	52	32	18	22	13	238	88
22	18	63	56	19	25	49	30	17	19	12	233	71
23	13	43	52	18	25	37	35	17	19	228	64	62
24	13	39	347	16	26	32	37	25	14	366	46	54
25	14	46	363	17	25	29	32	23	18	76	33	46
26	16	39	134	16	23	27	77	21	20	42	26	43
27	72	35	97	15	21	31	143	79	15	58	23	37
28	207	39	72	18	19	29	77	67	12	179	20	197
29	360	103	64	17	19	22	47	50	17	76	18	795
30	172	65	61	16	---	19	41	32	13	98	16	173
31	71	---	54	14	---	33	---	26	---	196	16	---
TOTAL	1,320	1,496	3,334	996	1,110	1,065	1,743	1,051	863	1,636	1,645	4,871
MEAN	42.6	49.9	108	32.1	38.3	34.4	58.1	33.9	28.8	52.8	53.1	162
MAX	360	332	363	115	216	57	258	79	104	366	238	970
MIN	13	14	20	14	13	19	18	17	12	11	12	11

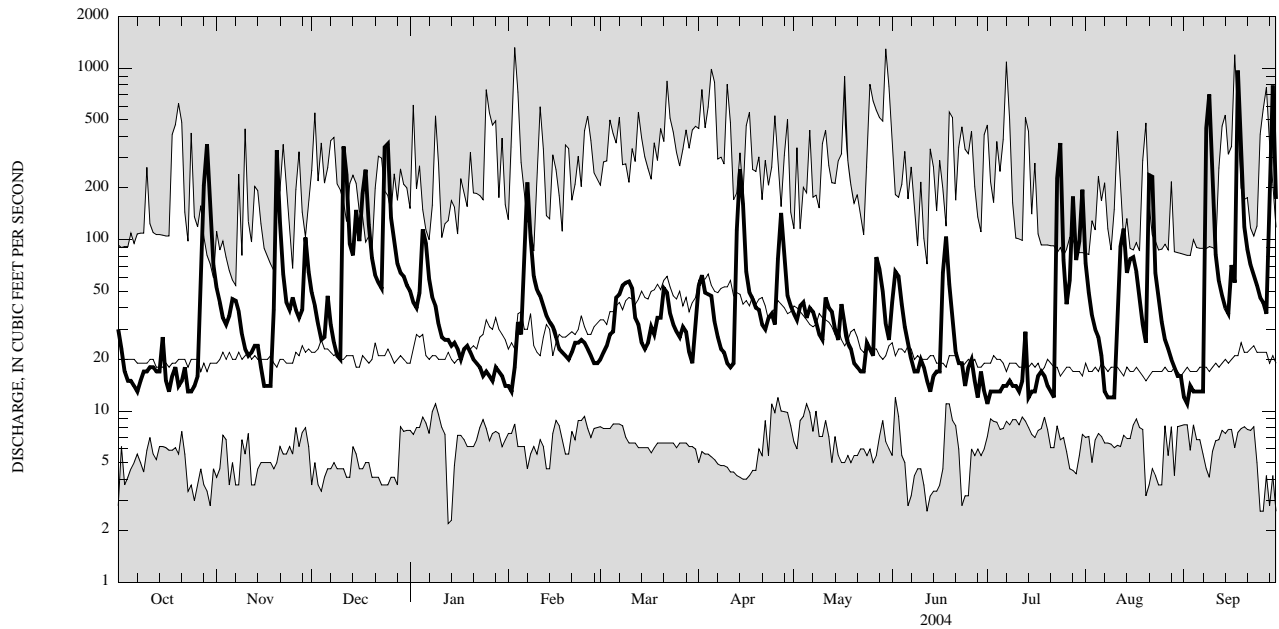
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	30.1	29.9	38.2	41.3	46.3	67.3	69.0	48.7	36.3	31.9	27.4	36.4
MAX	84.2	88.6	135	125	152	151	204	162	162	127	83.3	162
(WY)	(1990)	(1976)	(1997)	(1978)	(1973)	(1961)	(1983)	(1989)	(1972)	(1984)	(1966)	(2004)
MIN	7.27	7.59	5.63	8.95	9.59	6.95	9.61	7.04	12.7	10.1	8.69	8.22
(WY)	(1967)	(1967)	(1967)	(1967)	(2002)	(1981)	(1966)	(1965)	(1981)	(1999)	(2002)	(2002)

01376800 HACKENSACK RIVER AT WEST NYACK, NY—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	21,185		21,130		42.0	
ANNUAL MEAN	58.0		57.7		74.1	
HIGHEST ANNUAL MEAN					12.4	1984
LOWEST ANNUAL MEAN					2.2	2002
HIGHEST DAILY MEAN	611	Jan 2	970	Sep 18	1,320	Feb 3, 1973
LOWEST DAILY MEAN	12	May 18	11	Jul 1	3.1	Jan 13, 1996
ANNUAL SEVEN-DAY MINIMUM	14	May 14	13	Sep 1	3.1	Sep 25, 1966
10 PERCENT EXCEEDS	127		107		84	
50 PERCENT EXCEEDS	30		32		23	
90 PERCENT EXCEEDS	15		14		12	

e Estimated



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD. SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'57", long 73°59'21", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.1 mi downstream of Lake Tappan, and 4.6 mi upstream from Oradell Dam.

DRAINAGE AREA.--58.0 mi².

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

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

GAGE.--Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 22.51 ft above NGVD of 1929.

REMARKS.--Records fair. Flow regulated by De Forest Lake (since 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). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

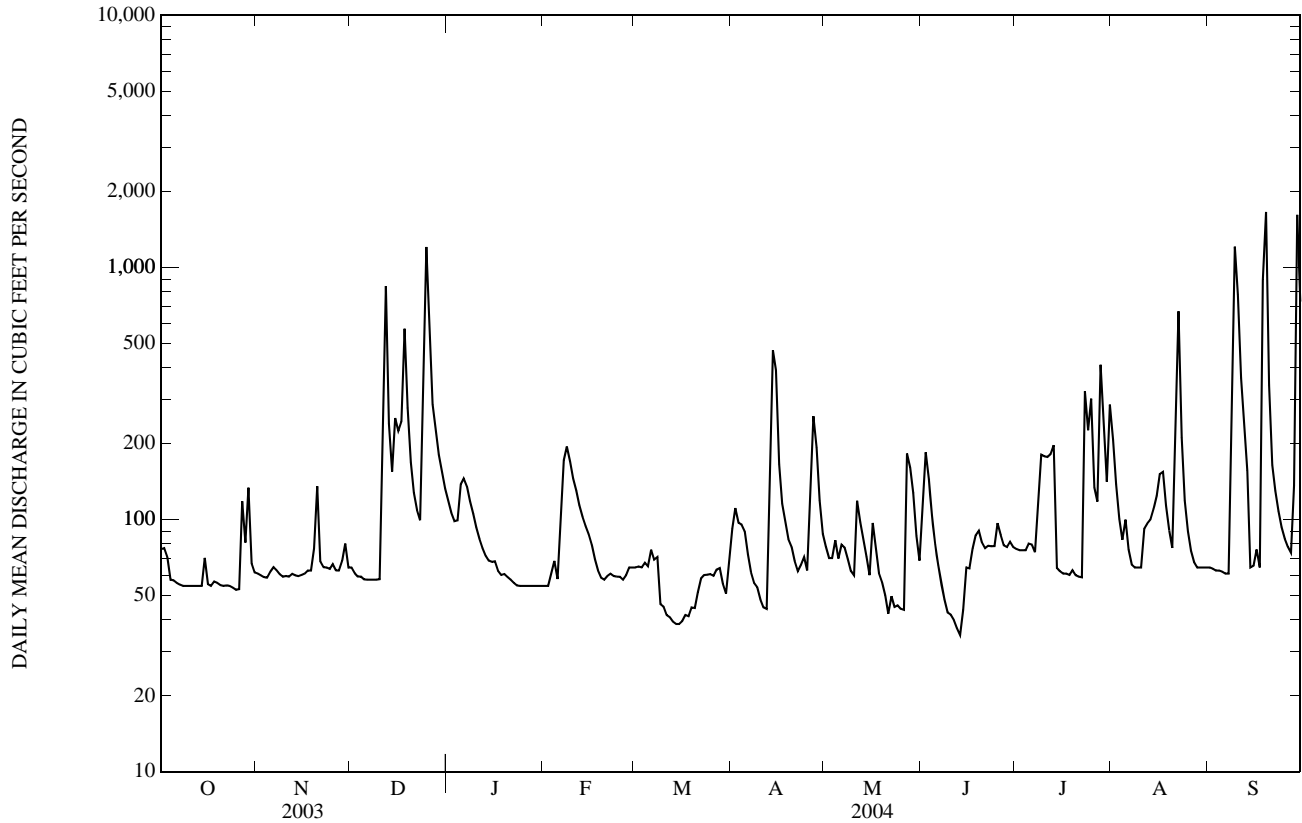
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	61	65	118	55	65	92	78	109	76	207	65
2	77	60	61	107	55	65	111	70	185	76	138	64
3	71	59	59	99	62	65	97	70	144	76	100	63
4	58	59	59	99	69	67	96	83	104	76	83	63
5	57	62	58	138	58	65	90	70	80	80	100	62
6	56	65	58	145	101	76	73	80	66	80	76	61
7	55	63	58	135	172	69	62	77	56	74	66	61
8	55	61	58	118	195	71	56	70	48	123	65	169
9	55	59	58	105	170	46	54	63	43	181	65	1,210
10	55	60	58	93	146	45	48	60	42	178	65	780
11	55	59	319	84	130	42	45	119	40	177	92	365
12	55	61	844	77	114	41	44	98	37	182	97	254
13	55	60	240	72	103	39	150	83	35	197	100	156
14	55	60	155	69	94	39	469	71	44	64	110	65
15	70	60	253	68	88	39	391	60	65	62	124	66
16	55	61	224	68	80	40	166	97	64	61	152	76
17	55	63	245	62	70	42	115	78	77	61	155	65
18	57	63	571	60	63	41	98	61	87	60	113	894
19	56	77	278	61	59	45	84	56	90	63	90	1,660
20	55	136	169	59	58	45	78	50	81	60	77	342
21	55	68	128	58	60	52	69	42	77	59	198	164
22	55	65	109	56	61	58	62	50	79	59	670	130
23	55	65	99	55	60	60	66	45	78	323	212	108
24	54	64	408	55	59	60	71	46	79	226	119	93
25	53	67	1,210	55	59	61	63	44	97	302	90	84
26	53	63	516	55	58	60	126	44	87	134	75	78
27	118	63	287	55	60	63	257	183	79	118	68	74
28	81	69	224	55	65	64	193	161	78	411	65	136
29	134	80	181	55	65	56	119	127	82	226	65	1,610
30	67	65	154	55	---	51	88	86	78	141	65	733
31	62	---	133	55	---	68	---	69	---	286	65	---
TOTAL	1,970	1,978	7,339	2,446	2,489	1,700	3,533	2,391	2,311	4,292	3,767	9,751
MEAN	63.5	65.9	237	78.9	85.8	54.8	118	77.1	77.0	138	122	325
MAX	134	136	1,210	145	195	76	469	183	185	411	670	1,660
MIN	53	59	58	55	55	39	44	42	35	59	65	61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	58.7	68.2	79.2	86.6	88.8	131	135	98.0	77.5	78.4	70.4	69.4
MAX	312	240	248	251	221	379	438	310	319	339	197	325
(WY)	(1956)	(1956)	(1997)	(1949)	(1951)	(1953)	(1983)	(1989)	(1972)	(1945)	(1955)	(2004)
MIN	12.1	16.6	12.6	22.6	19.9	11.2	14.5	20.4	13.4	11.6	11.4	7.87
(WY)	(1942)	(1996)	(1981)	(1982)	(2002)	(1981)	(1981)	(1981)	(1957)	(1954)	(1944)	(1953)

01377000 HACKENSACK RIVER AT RIVERVALE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	44,092		43,967			
ANNUAL MEAN	121		120		86.8	
HIGHEST ANNUAL MEAN					156	1952
LOWEST ANNUAL MEAN					30.9	1981
HIGHEST DAILY MEAN	1,340	Jan 2	1,660	Sep 19	2,190	May 31, 1984
LOWEST DAILY MEAN	18	May 6	35	Jun 13	4.4	Oct 10, 1995
ANNUAL SEVEN-DAY MINIMUM	20	May 5	40	Mar 12	5.0	Oct 7, 1995
MAXIMUM PEAK FLOW			2,090	Sep 19	2,530	May 17, 1989
MAXIMUM PEAK STAGE			6.99	Sep 19	8.08	May 17, 1989
INSTANTANEOUS LOW FLOW			33	Jun 13, 14	0.00	Jan 16, 1970
10 PERCENT EXCEEDS	201		196		165	
50 PERCENT EXCEEDS	84		69		59	
90 PERCENT EXCEEDS	46		55		21	



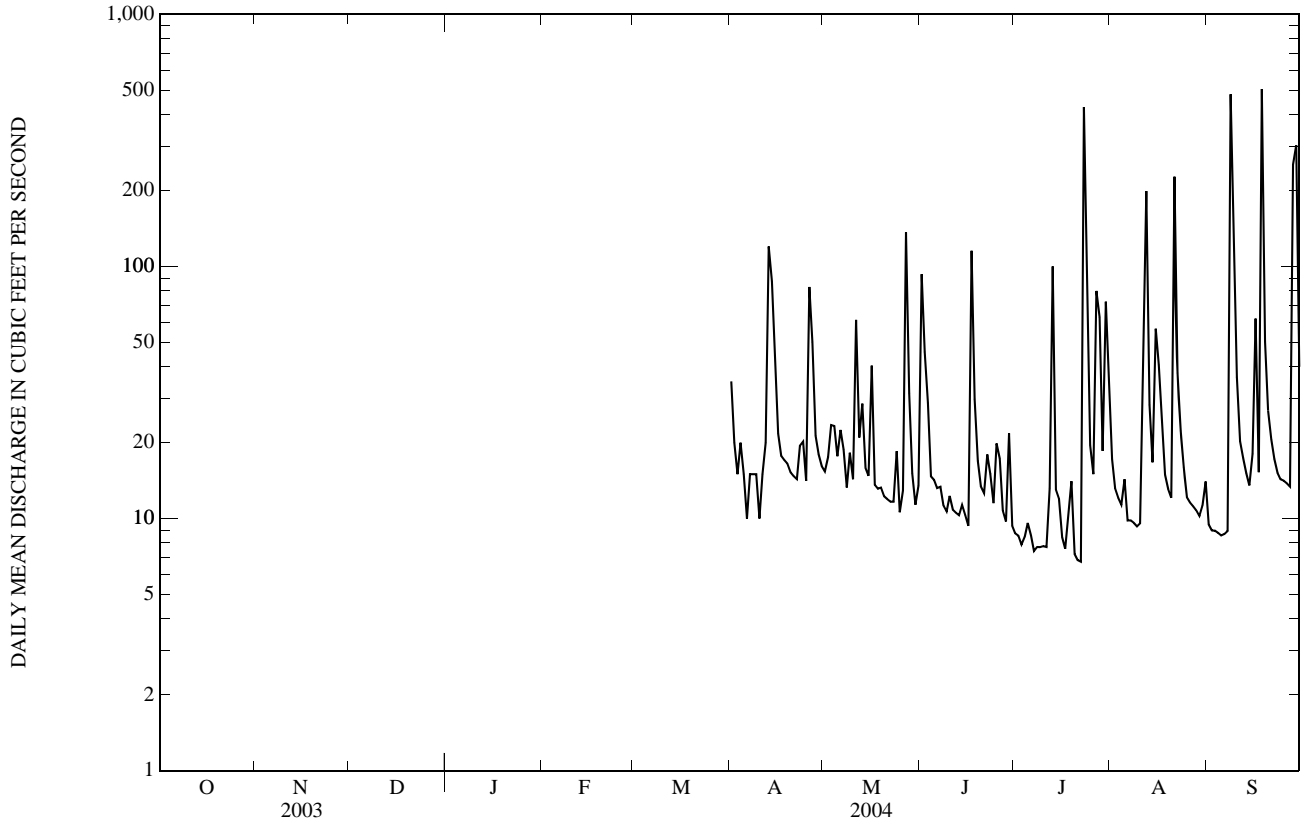
01377370 PASCACK BROOK AT PARK RIDGE, NJ—Continued

SUMMARY STATISTICS

APRIL-SEPTEMBER 2004

ANNUAL TOTAL	6,388.9	
ANNUAL MEAN	34.9	
HIGHEST DAILY MEAN	506	Sep 18
LOWEST DAILY MEAN	6.7	Jul 22
ANNUAL SEVEN-DAY MINIMUM	8.1	Jul 5
MAXIMUM PEAK FLOW	1,880	Jul 23
MAXIMUM PEAK STAGE	5.60	Jul 23
INSTANTANEOUS LOW FLOW	6.4	Jul 20-23
ANNUAL RUNOFF (CFSM)	2.61	
ANNUAL RUNOFF (INCHES)	17.74	
10 PERCENT EXCEEDS	68	
50 PERCENT EXCEEDS	15	
90 PERCENT EXCEEDS	8.8	

e Estimated.



HACKENSACK RIVER BASIN

01377500 PASCACK BROOK AT WESTWOOD, NJ

LOCATION.--Lat 40°59'34", long 74°01'16", Bergen County, Hydrologic Unit 02030103, on right bank 75 ft upstream from bridge on Harrington Avenue in Westwood, 500 ft downstream from Musquapsink Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--29.6 mi².

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 NGVD of 1929.

REMARKS.--Records good, except discharges above 310 cfs which are 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. Water is diverted from Saddle River to Musquapsink Brook which then enters Pascack Brook 500 feet upstream of gage (see Diversions Into and From Hackensack River Basin). Several measurements of water temperature were made during the year. Satellite/radio gage-height telemetry 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1245	723	4.03	Aug 12	2215	647	3.72
Nov 20	0615	597	3.76	Sep 8	2200	1,290	4.91
Dec 11	1615	1,020	4.59	Sep 9	1115	699	3.84
Dec 24	1930	1,150	4.80	Sep 18	1430	1,250	4.84
Jul 23	2145	*2,020	*5.96	Sep 29	0045	1,360	5.03
Jul 27	2015	425	3.27				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	42	39	77	35	31	91	38	95	23	94	54
2	44	37	38	37	35	32	46	62	184	23	82	29
3	42	101	35	34	51	34	30	55	109	22	49	26
4	36	94	34	41	54	59	44	40	95	22	49	25
5	35	55	37	116	41	73	38	39	71	30	78	25
6	34	67	41	101	136	83	32	48	55	22	37	24
7	33	52	37	89	216	66	32	47	28	22	30	24
8	33	42	36	80	85	50	34	40	27	23	29	469
9	33	36	35	33	55	62	38	39	27	28	28	549
10	32	33	47	31	44	52	35	37	27	28	28	157
11	30	31	478	30	46	35	35	114	26	28	61	115
12	30	37	156	31	44	33	62	55	25	40	219	98
13	29	44	86	31	43	32	160	54	24	142	165	86
14	28	42	105	30	42	32	216	43	24	57	101	30
15	77	35	140	32	41	32	121	37	24	98	71	30
16	43	34	107	35	38	38	54	82	23	94	75	94
17	36	37	142	39	36	50	47	46	44	79	119	77
18	36	74	147	48	36	48	45	37	102	37	59	605
19	35	126	106	49	37	52	43	36	96	36	39	179
20	34	339	101	47	38	50	41	32	93	32	34	134
21	60	112	73	47	41	55	40	29	30	26	98	104
22	67	101	46	46	44	50	40	28	26	22	119	59
23	56	97	46	46	41	47	53	27	25	565	101	55
24	45	62	497	46	40	43	45	26	22	417	46	50
25	36	44	293	45	39	40	34	26	68	128	26	37
26	35	33	107	45	36	40	143	29	52	113	26	36
27	154	31	75	40	34	38	154	81	26	156	43	38
28	172	42	79	38	33	35	64	37	24	231	67	265
29	353	52	84	36	32	34	34	30	29	83	90	731
30	106	36	82	36	---	34	35	28	24	43	133	134
31	55	---	79	36	---	52	---	28	---	61	97	---
TOTAL	1,885	1,968	3,408	1,472	1,493	1,412	1,886	1,350	1,525	2,731	2,293	4,339
MEAN	60.8	65.6	110	47.5	51.5	45.5	62.9	43.5	50.8	88.1	74.0	145
MAX	353	339	497	116	216	83	216	114	184	565	219	731
MIN	28	31	34	30	32	31	30	26	22	22	26	24

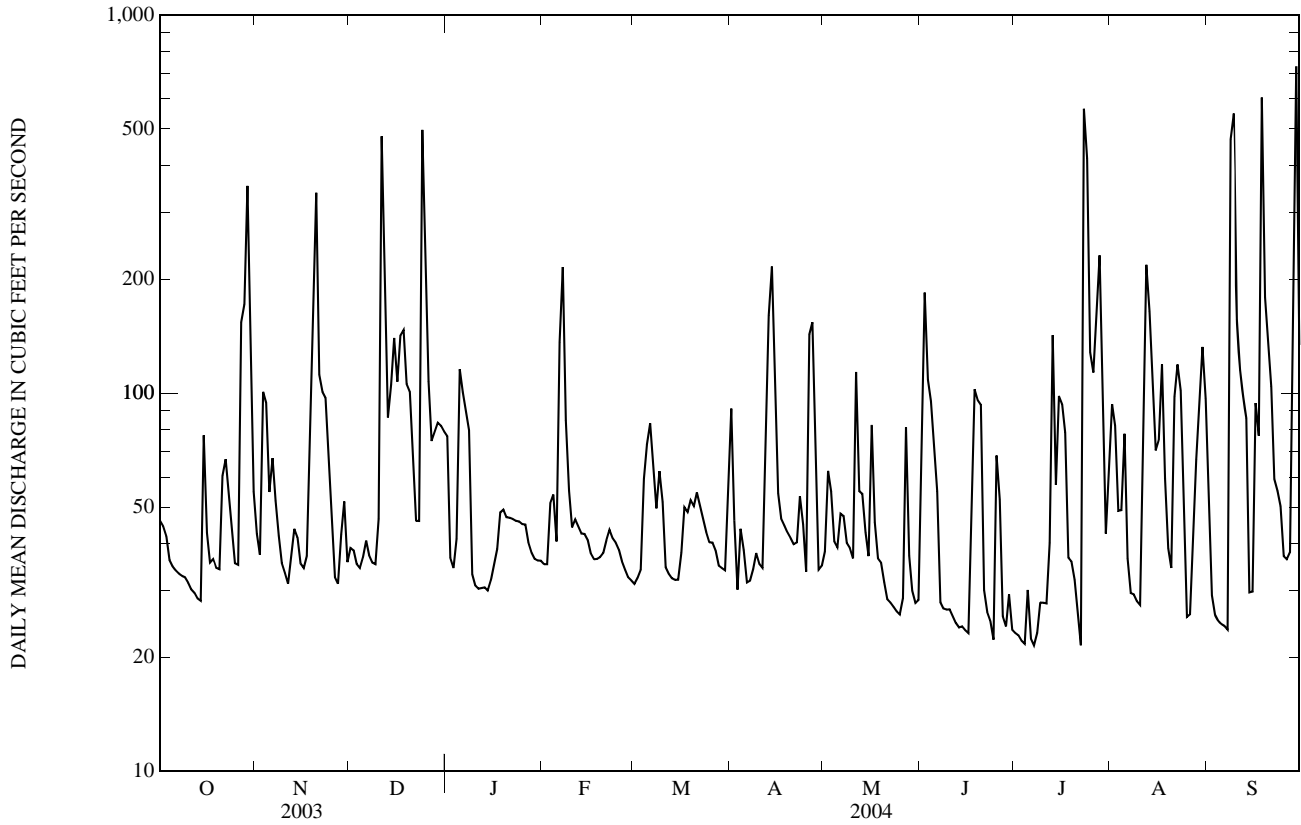
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

	39.1	48.3	52.3	53.8	57.4	77.7	76.7	61.1	50.8	46.0	42.8	43.5
MEAN	39.1	48.3	52.3	53.8	57.4	77.7	76.7	61.1	50.8	46.0	42.8	43.5
MAX	143	131	129	151	135	197	198	155	175	180	127	196
(WY)	(1956)	(1978)	(1984)	(1979)	(1973)	(1953)	(1983)	(1989)	(1972)	(1945)	(1971)	(1999)
MIN	10.2	9.83	15.8	10.8	15.7	31.1	28.9	21.2	18.2	14.2	10.0	9.45
(WY)	(1942)	(1950)	(1940)	(1954)	(1954)	(2002)	(1991)	(1992)	(1939)	(1944)	(1935)	(1939)

01377500 PASCACK BROOK AT WESTWOOD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	24,973		25,762		54.1	
ANNUAL MEAN	68.4		70.4		27.6	
HIGHEST ANNUAL MEAN					88.6	1952
LOWEST ANNUAL MEAN					27.6	1965
HIGHEST DAILY MEAN	610	Jan 2	731	Sep 29	1,770	Aug 28, 1971
LOWEST DAILY MEAN	20	Feb 17	22	Many days	0.45	Apr 26, 1991
ANNUAL SEVEN-DAY MINIMUM	22	Feb 11	23	Jul 1	6.3	Oct 19, 1949
MAXIMUM PEAK FLOW			2,020	Jul 23	9,630a	Sep 16, 1999
MAXIMUM PEAK STAGE			5.96	Jul 23	12.22b	Sep 16, 1999
INSTANTANEOUS LOW FLOW			21	Many days	0.05c	Apr 23, 1991
10 PERCENT EXCEEDS	123		127		96	
50 PERCENT EXCEEDS	46		43		39	
90 PERCENT EXCEEDS	29		28		19	

- a From rating curve extended above 2,400 ft³/s on basis of contracted-opening computation of peak flow
- b From floodmark
- c Also occurred Sept. 28, 1993.



HACKENSACK RIVER BASIN

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ

LOCATION.--Lat 40°56'54", long 74°01'36", 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.), in New Milford, 300 feet upstream of the Elm Street bridge, 0.6 mi downstream from Oradell Reservoir Dam, and 4.0 mi downstream from the mouth of Pascack Brook.

DRAINAGE AREA.--113 mi².

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, crest-stage gage above south dam. Datum of gage is 6.25 ft above NGVD of 1929. 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 fair, except those below 1 ft³/s, and estimated daily values which are poor. 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. Satellite gage-height telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	10	20	160	9.0	11	142	27	87	12	430	24
2	8.0	11	19	50	8.6	11	58	43	640	12	21	16
3	e12	101	19	3.5	13	12	16	49	159	12	18	15
4	13	220	19	8.8	17	12	53	46	59	12	66	15
5	13	61	19	207	16	12	74	35	113	6.1	92	13
6	14	45	8.9	323	20	13	53	23	24	13	33	13
7	6.9	63	5.4	258	27	15	29	26	12	4.5	17	13
8	6.7	15	18	169	160	47	18	28	12	8.3	16	454
9	7.0	10	12	11	179	61	22	24	12	5.2	16	1,400
10	7.8	11	120	8.0	68	99	22	24	12	5.0	15	1,340
11	8.8	12	577	5.9	90	12	22	76	9.4	7.3	18	279
12	9.5	13	794	15	80	15	55	120	24	7.9	343	223
13	7.3	14	566	15	63	21	351	93	29	6.9	262	158
14	11	14	309	15	57	21	689	30	20	7.7	105	22
15	12	13	384	15	52	15	515	16	13	7.0	37	22
16	11	13	435	15	48	13	43	60	11	7.1	40	22
17	11	12	476	15	47	12	14	58	16	9.5	206	123
18	4.9	10	570	16	42	14	16	23	11	7.1	13	1,470
19	4.1	58	532	15	35	14	16	17	11	9.9	10	2,450
20	5.3	480	127	13	16	11	14	12	11	3.6	16	970
21	11	269	18	11	6.5	11	12	9.0	13	13	22	173
22	9.6	95	18	11	7.8	13	31	16	19	8.5	562	17
23	13	95	261	11	10	13	52	15	18	422	437	116
24	15	167	519	11	8.4	13	34	15	18	1,580	36	73
25	11	96	1,250	11	10	15	29	15	18	700	10	24
26	12	82	714	9.3	12	12	239	16	13	9.0	18	24
27	23	22	434	9.2	11	e13	505	17	12	114	18	22
28	168	25	400	9.8	12	e13	150	17	12	789	18	297
29	367	22	376	9.2	12	13	46	17	13	248	18	2,250
30	288	20	271	9.1	---	14	39	17	12	17	85	1,450
31	71	---	162	9.2	---	33	---	17	---	190	94	---
TOTAL	1,168.5	2,079	9,453.3	1,449.0	1,137.3	604	3,359	1,001.0	1,433.4	4,254.6	3,092	13,488
MEAN	37.7	69.3	305	46.7	39.2	19.5	112	32.3	47.8	137	99.7	450
MAX	367	480	1,250	323	179	99	689	120	640	1,580	562	2,450
MIN	4.1	10	5.4	3.5	6.5	11	12	9.0	9.4	3.6	10	13

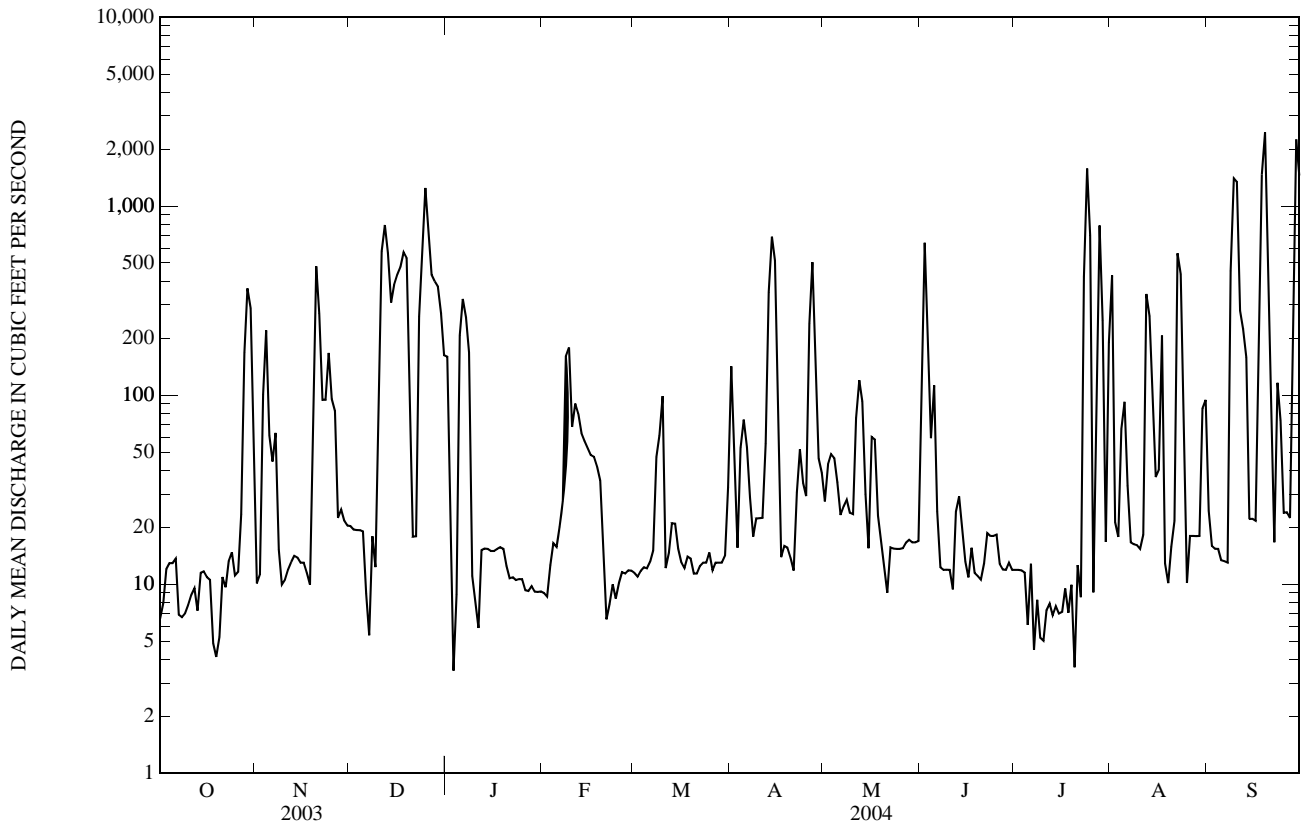
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	33.9	60.0	85.5	98.2	117	199	188	115	62.1	44.3	38.5	48.3
MAX	480	356	339	359	396	651	774	528	612	543	373	450
(WY)	(1956)	(1928)	(1997)	(1937)	(1939)	(1936)	(1983)	(1989)	(1972)	(1945)	(1927)	(2004)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00
(WY)	(1922)	(1924)	(1932)	(1971)	(1977)	(1981)	(1981)	(1985)	(1977)	(1954)	(1924)	(1923)

01378500 HACKENSACK RIVER AT NEW MILFORD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	43,740.55		42,519.1		90.7	
ANNUAL MEAN	120		116		263	
HIGHEST ANNUAL MEAN					1928	
LOWEST ANNUAL MEAN					0.40	
HIGHEST DAILY MEAN	1,610	Jan 2	2,450	Sep 19	5,580	Sep 17, 1999
LOWEST DAILY MEAN	0.46	Jul 8	3.5	Jan 3	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 2	6.4	Jul 7	0.00	Oct 1, 1921
MAXIMUM PEAK FLOW			2,910a	Sep 19	9,760a	Sep 17, 1999
MAXIMUM PEAK STAGE			5.81	Sep 19	11.45b	Sep 17, 1999
INSTANTANEOUS LOW FLOW			0.80	Many days	0.00	Many days
10 PERCENT EXCEEDS	379		345		265	
50 PERCENT EXCEEDS	15		18		15	
90 PERCENT EXCEEDS	8.3		9.0		0.00	

- a From rating curve extended above 1,700 ft³/s on basis of flow-over-dam computations of peak flow
- b From high-water mark in gage house
- c Estimated



HACKENSACK RIVER BASIN

01378570 HACKENSACK RIVER AT HACKENSACK, NJ

LOCATION.--Lat 40°52'46", long 74°02'23", Bergen County, Hydrologic Unit 02030103, on upstream ice breaker on Dillard Memorial Bridge carrying Fort Lee Road (Court Street) between Hackensack and Bogota, 1100 ft east of Bergen County Courthouse, and 16 mi upstream from the mouth and Newark Bay.

PERIOD OF RECORD.--June 1997 to April 21, 2000 (unpublished fragmentary gage-height record), April 21, 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929 elevation, add 1.01 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 3.35 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record January 15-17, 20-21, January 23 to February 3, February 7-8, March 27 to April 2, April 5, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.29 ft (NAVD of 1988), December 25, 2002; minimum elevation recorded, -7.32 ft (NAVD of 1988), December 12, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.97 ft (NAVD of 1988), December 6; minimum elevation recorded, -5.61 ft (NAVD of 1988), November 29, although a lower tide elevation may have occurred during January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	27	4.52	26	-4.78	2.92	0.20	-3.16
NOV	24	4.88	29	-5.61	2.68	0.03	-3.23
DEC	6	4.97	26	-4.9e	2.58	0.0e	-3.1e
JAN	---	---	---	---	---	---	---
FEB	21	3.8e	---	---	---	---	---
MAR	8	4.3e	7	-4.7e	2.8e	0.0e	-3.3e
APR	7	3.7e	---	---	2.6e	0.2e	-3.1e
MAY	31	4.0e	4	-3.8e	2.8e	0.2e	-2.9e
JUN	1	4.7e	4	-3.9e	3.0e	0.3e	-2.9e
JUL	31	4.22	4	-4.62	3.08	0.37	-2.92
AUG	3	4.07	2	-4.53	3.02	0.31	-2.98
SEP	30	4.38	1	-4.41	3.17	0.57	-2.68

e Estimated

RESERVOIRS IN HACKENSACK RIVER BASIN

01376700 DE FOREST LAKE.--Lat 41°06'22", long 73°57'59", Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.8 mi north of West Nyack, NY.

DRAINAGE AREA.-- 27.5 mi²

PERIOD OF RECORD.-- February 1956 to current year.

REVISED RECORDS.-- WDR NJ-84-1: Drainage area, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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°01'06", long 74°00'04", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan.

DRAINAGE AREA.-- 49.0 mi²

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.-- WDR NJ-89-1: Capacity, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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°00'46", long 74°02'57", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale.

DRAINAGE AREA.-- 19.4 mi²

PERIOD OF RECORD.-- December 1929 to current year.

REVISED RECORDS.-- WDR NJ-89-1: Capacity, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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°57'23", long 74°01'46", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell.

DRAINAGE AREA.-- 113 mi²

PERIOD OF RECORD.-- December 1922 to current year.

REVISED RECORDS.--WDR NJ-84-1: Spillway elevation, WDR NJ-89-1: Capacity, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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 presently 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 2003 TO SEPTEMBER 2004

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01376700 DE FOREST LAKE			01376950 LAKE TAPPAN			
Sept. 30.....	85.06	5,690		51.22	2,576	
Oct. 31.....	85.14	5,717	+1.3	53.03	3,166	+29.4
Nov. 30.....	85.17	5,727	+5	54.94	3,830	+34.2
Dec. 31.....	85.11	5,708	-9	54.54	3,688	-7.1
CAL YR 2003			+1			-1.4
Jan. 31.....	84.88	5,632	-3.8	53.78	3,421	-13.3
Feb. 29.....	84.95	5,654	+1.2	53.98	3,492	+3.8
Mar. 31.....	85.03	5,680	+1.3	55.25	3,941	+22.4
Apr. 30.....	85.10	5,702	+1.1	55.17	3,913	-1.4
May 31.....	85.02	5,675	-1.3	55.11	3,982	-1.0
June 30.....	84.88	5,631	-2.3	54.15	3,550	-17.6
July 31.....	85.26	5,755	+6.2	55.30	3,962	+20.6
Aug. 31.....	84.91	5,649	-5.3	54.67	3,733	-11.4
Sept. 30.....	85.21	5,791	+7.3	55.32	3,968	+12.1
WTR YR 2004			+4			+5.9

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

HACKENSACK RIVER BASIN
RESERVOIRS IN HACKENSACK RIVER BASIN—Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	93.26	774		22.19	3,248	
Oct. 31.....	93.53	789	+7	22.91	3,439	+9.5
Nov. 30.....	91.13	660	-6.7	22.42	3,307	-6.8
Dec. 31.....	89.98	600	-3.0	22.09	3,220	-4.3
CAL YR 2003			-3			
Jan. 31.....	89.32	567	-1.6	20.77	2,889	-16.5
Feb. 29.....	90.90	647	+4.3	22.58	3,350	+24.6
Mar. 31.....	90.77	641	-3	22.68	3,376	+1.3
Apr. 30.....	91.02	654	+7	23.28	3,539	+8.4
May 31.....	93.95	812	+7.9	22.95	3,450	-4.4
June 30.....	93.04	762	-2.6	20.41	2,799	-33.6
July 31.....	94.41	838	+3.8	22.85	3,424	+31.2
Aug. 31.....	90.78	641	-9.8	22.47	3,322	-5.1
Sept. 30.....	92.54	735	+4.8	22.64	3,367	+2.3
WTR YR 2004			-2			

† 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 from Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by United Water New Jersey.

01376699 United Water New York diverts water from De Forest Lake for municipal supply in Rockland County, NY. Records provided by United Water New York.

01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station pool on Hackensack River at West Nyack, NY (station 01376800, measured flow excludes diversions) for municipal supply. Records provided by Board of Water Commissioners of Nyack, NY.

01378478 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 (01378490) just upstream from 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.

01378521 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).

01390520 United Water New Jersey, diverts water from Saddle River (Passaic River basin) 0.3 mi downstream from Grove Street in Paramus, and 0.3 mi upstream from Hohokus Brook. Water is diverted into Oradell Reservoir on the Hackensack River via Musquapsink and Pascack Brooks for municipal supply. Records provided by United Water New Jersey.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	<u>01376699</u> UNITED WATER NEW YORK.	<u>01376810</u> WEST NYACK, NY	<u>01378478</u> UNITED WATER NEW JERSEY
October	12.3	3.11	138
November	11.8	2.90	135
December	12.3	2.91	137
CAL YR 2003	13.4	2.79	145
January	13.9	2.71	147
February	14.0	2.87	146
March	14.3	2.76	138
April	14.7	2.67	139
May	15.1	2.67	152
June	14.8	2.68	169
July	17.3	2.68	169
August	16.1	2.69	159
September.....	14.3	2.77	157
WTR YR 2004	14.2	2.79	149

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	<u>01376272</u> SPARKILL CREEK (HUDSON RIVER BASIN)	<u>01378521</u> HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	<u>01388981</u> POMPTON RIVER (PASSAIC RIVER BASIN)	<u>01390520</u> SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0	0	0	0	.23
November	0	0	0	0	.23
December	0	0	0	0	.18
CAL YR 2003	0	0	4.14	0	.20
January	0	0	0	0	0
February	0	0	0	0	0
March	0	.18	0	0	0
April	0	.11	0	0	.24
May	0	0	6.66	0	.20
June.....	0	0	9.22	0	.25
July	0	.09	15.8	.03	.81
August	0	0	12.9	0	.69
September.....	0	0	12.2	0	.59
WTR YR 2004	0	.03	4.74	0	.28

PASSAIC RIVER BASIN

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°40'48", long 74°31'44", 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 mi².

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

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1905(M). WDR NJ-96-1: 1936 (M), 1949 (M), 1971 (M), 1975 (M), 1979 (M), 1984(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 215.60 ft above NGVD of 1929 (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 fair, except for estimated record which is poor. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, was discontinued in April 1979 and the installation dismantled. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0400	565	6.95	Dec 25	0530	619	7.08
Dec 12	0030	*822	*7.54	Jul 24	1145	569	6.96

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	333	165	133	37	84	86	120	84	20	187	21
2	69	244	146	117	37	91	96	101	102	18	161	18
3	58	177	121	108	46	98	103	98	81	16	123	13
4	50	134	101	105	72	105	106	128	64	14	96	13
5	46	109	87	158	89	114	97	109	52	13	75	13
6	41	103	72	197	136	126	83	98	48	13	59	13
7	37	101	76	157	374	156	75	95	47	11	56	13
8	33	91	75	134	437	175	70	90	37	11	41	23
9	31	80	74	111	411	213	71	79	32	9.5	34	32
10	29	73	78	e85	314	193	66	71	30	8.8	28	27
11	27	68	439	66	247	168	61	93	33	8.6	35	24
12	26	70	748	63	200	140	61	96	30	23	100	21
13	25	78	631	63	166	118	163	89	27	176	96	18
14	24	73	476	56	147	100	404	81	26	153	84	16
15	56	67	394	51	130	90	458	74	24	126	94	15
16	69	62	335	50	109	84	381	128	22	93	87	18
17	44	58	322	50	88	90	267	112	20	65	79	18
18	48	56	406	51	81	91	192	93	21	50	69	43
19	47	76	331	53	82	103	149	82	19	71	61	87
20	40	321	266	51	85	124	122	75	17	58	53	48
21	37	346	209	47	92	162	102	66	16	44	59	44
22	35	294	175	45	110	158	90	60	19	37	85	43
23	31	254	152	43	109	131	82	57	22	122	61	40
24	29	198	286	39	107	117	76	62	18	506	52	35
25	27	163	588	35	99	106	69	53	27	392	44	29
26	27	137	508	35	91	100	109	46	64	295	37	25
27	118	114	415	e36	84	95	262	70	36	236	33	22
28	322	116	301	37	80	89	216	68	28	346	30	53
29	427	201	222	38	80	79	179	66	31	349	30	312
30	533	188	181	38	---	72	145	53	25	283	27	304
31	432	---	153	38	---	76	---	51	---	228	25	---
TOTAL	2,898	4,385	8,533	2,290	4,140	3,648	4,441	2,564	1,102	3,795.9	2,101	1,401
MEAN	93.5	146	275	73.9	143	118	148	82.7	36.7	122	67.8	46.7
MAX	533	346	748	197	437	213	458	128	102	506	187	312
MIN	24	56	72	35	37	72	61	46	16	8.6	25	13
CFSM	1.69	2.64	4.97	1.33	2.58	2.12	2.67	1.49	0.66	2.21	1.22	0.84
IN.	1.95	2.94	5.73	1.54	2.78	2.45	2.98	1.72	0.74	2.55	1.41	0.94

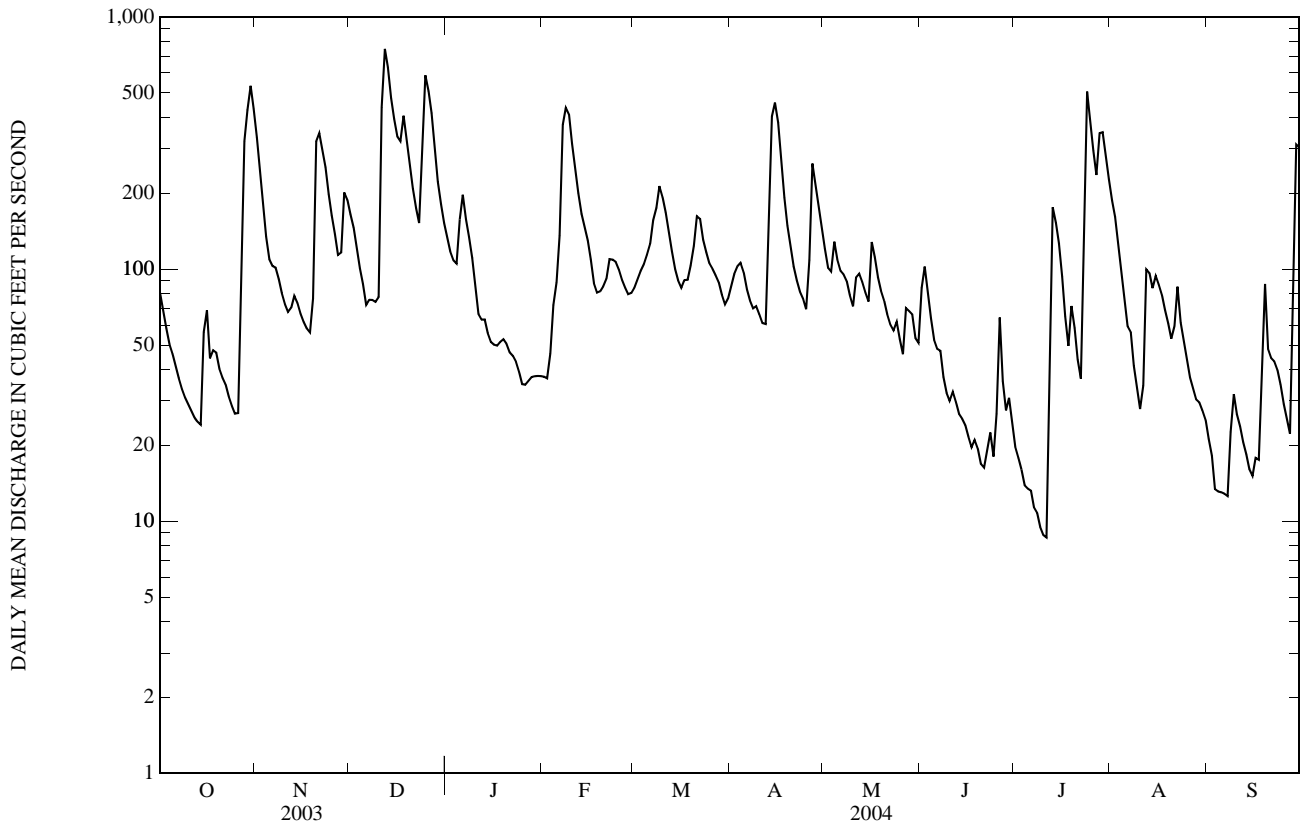
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

MEAN	48.5	85.1	106	112	127	185	142	92.9	60.2	44.9	49.0	51.3
MAX	345	340	335	463	380	439	420	365	307	307	398	380
(WY)	(1997)	(1933)	(1984)	(1905)	(1904)	(1994)	(1983)	(1989)	(2003)	(1975)	(1942)	(1971)
MIN	3.56	7.47	8.18	6.78	24.5	61.7	25.9	20.3	3.95	1.25	1.37	0.73
(WY)	(1964)	(1966)	(1966)	(1981)	(2002)	(2002)	(1985)	(1965)	(1965)	(1965)	(1966)	(1964)

01379000 PASSAIC RIVER NEAR MILLINGTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	50,873		41,298.9		91.0	
ANNUAL MEAN	139		113		163	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					31.5	
HIGHEST DAILY MEAN	760	Jun 5	748	Dec 12	2,230	Oct 20, 1996
LOWEST DAILY MEAN	14	Jul 20	8.6	Jul 11	0.30	Sep 13, 1966
ANNUAL SEVEN-DAY MINIMUM	16	Aug 26	11	Jul 5	0.47	Sep 11, 1964
MAXIMUM PEAK FLOW			822	Dec 12	2,290	Oct 20, 1996
MAXIMUM PEAK STAGE			7.54	Dec 12	9.89	Oct 20, 1996
INSTANTANEOUS LOW FLOW			7.9	Jul 11	0.20	Sep 12, 1966
ANNUAL RUNOFF (CFSM)	2.52		2.04		1.64	
ANNUAL RUNOFF (INCHES)	34.16		27.73		22.32	
10 PERCENT EXCEEDS	322		284		221	
50 PERCENT EXCEEDS	84		79		47	
90 PERCENT EXCEEDS	24		24		8.8	

e Estimated.



PASSAIC RIVER BASIN

01379500 PASSAIC RIVER NEAR CHATHAM, NJ

LOCATION.--Lat 40°43'34", long 74°23'23", Morris County, Hydrologic Unit 02030103, on left bank 150 ft downstream from bridge on Stanley Avenue in Chatham, and 3.0 mi upstream from Canoe Brook.

DRAINAGE AREA.--100 mi².

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), WDR NJ-04-1: 2003 (M).

GAGE.--Water-stage recorder. Concrete control since Sept. 19, 1938. Datum of gage is 193.51 ft above NGVD of 1929. Prior to Dec 31, 1911, nonrecording gage at bridge 150 ft upstream at different datum.

REMARKS.--Records good except for estimated discharges, which are fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, during water years 1903-79. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	0900	931	5.57	Feb 06	2200	Ice jam	*5.73
Dec 11	1015	986	5.66	Apr 14	2230	918	5.55
Dec 15	0015	*1,020	5.71	Jul 25	0615	842	5.43
Dec 26	0315	861	5.46	Jul 27	1900	918	5.55

REVISIONS.--The maximum discharge for the 2003 water year has been revised to 1,170 ft³/s, Jun. 7, 2003 (1715). The published maximum gage-height of 6.35, Feb. 24, 2003 is correct, but is ice effected. The peak of Feb.24, 2003 was caused by an ice jam and is no longer considered a peak above base. This supersedes figures published in the report for 2003.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	698	335	274	69	138	171	253	150	54	457	43
2	120	569	291	231	66	151	182	199	307	44	370	39
3	104	446	247	201	115	168	196	181	337	39	297	36
4	91	341	209	188	207	184	212	220	220	34	207	31
5	83	267	178	265	214	197	200	224	127	34	148	30
6	75	229	e126	313	e280	226	171	191	99	32	117	29
7	71	207	e135	327	e660	244	146	183	89	30	97	29
8	65	183	e130	273	e760	314	135	180	81	29	82	83
9	60	156	e135	e220	e715	353	134	152	68	27	66	96
10	57	132	141	e170	640	366	131	130	60	26	56	76
11	54	117	682	e135	567	335	118	164	63	24	107	52
12	49	125	917	e121	e450	293	113	156	61	87	275	43
13	47	131	983	e121	377	245	322	151	52	306	214	38
14	45	121	918	e105	317	198	680	136	47	402	153	36
15	146	112	929	e96	e250	167	860	124	45	391	165	36
16	127	103	800	e93	e200	149	789	294	43	328	167	41
17	104	94	757	e92	e160	152	666	288	41	204	162	36
18	88	89	752	93	151	162	516	222	45	124	144	211
19	78	151	712	101	141	195	383	162	43	155	113	145
20	74	493	607	98	146	244	288	142	37	135	97	115
21	68	612	487	88	163	308	217	123	34	103	111	76
22	62	601	384	83	193	323	174	108	48	79	197	65
23	59	513	319	e78	196	292	149	98	55	151	168	60
24	56	430	531	e77	188	245	138	107	47	500	112	55
25	51	365	761	e72	178	208	126	103	72	808	88	49
26	49	306	846	e65	162	190	233	92	215	712	73	44
27	268	252	771	e60	148	179	422	130	209	649	62	41
28	434	251	664	e73	138	168	454	133	103	757	58	135
29	763	335	536	e73	133	152	391	122	90	777	53	498
30	832	352	423	e69	---	139	317	103	74	667	48	588
31	807	---	337	e64	---	137	---	96	---	538	46	---
TOTAL	5,134	8,781	16,043	4,319	7,984	6,822	9,034	4,967	2,962	8,246	4,510	2,856
MEAN	166	293	518	139	275	220	301	160	98.7	266	145	95.2
MAX	832	698	983	327	760	366	860	294	337	808	457	588
MIN	45	89	126	60	66	137	113	92	34	24	46	29
CFSM	1.66	2.93	5.18	1.39	2.75	2.20	3.01	1.60	0.99	2.66	1.45	0.95
IN.	1.91	3.27	5.97	1.61	2.97	2.54	3.36	1.85	1.10	3.07	1.68	1.06

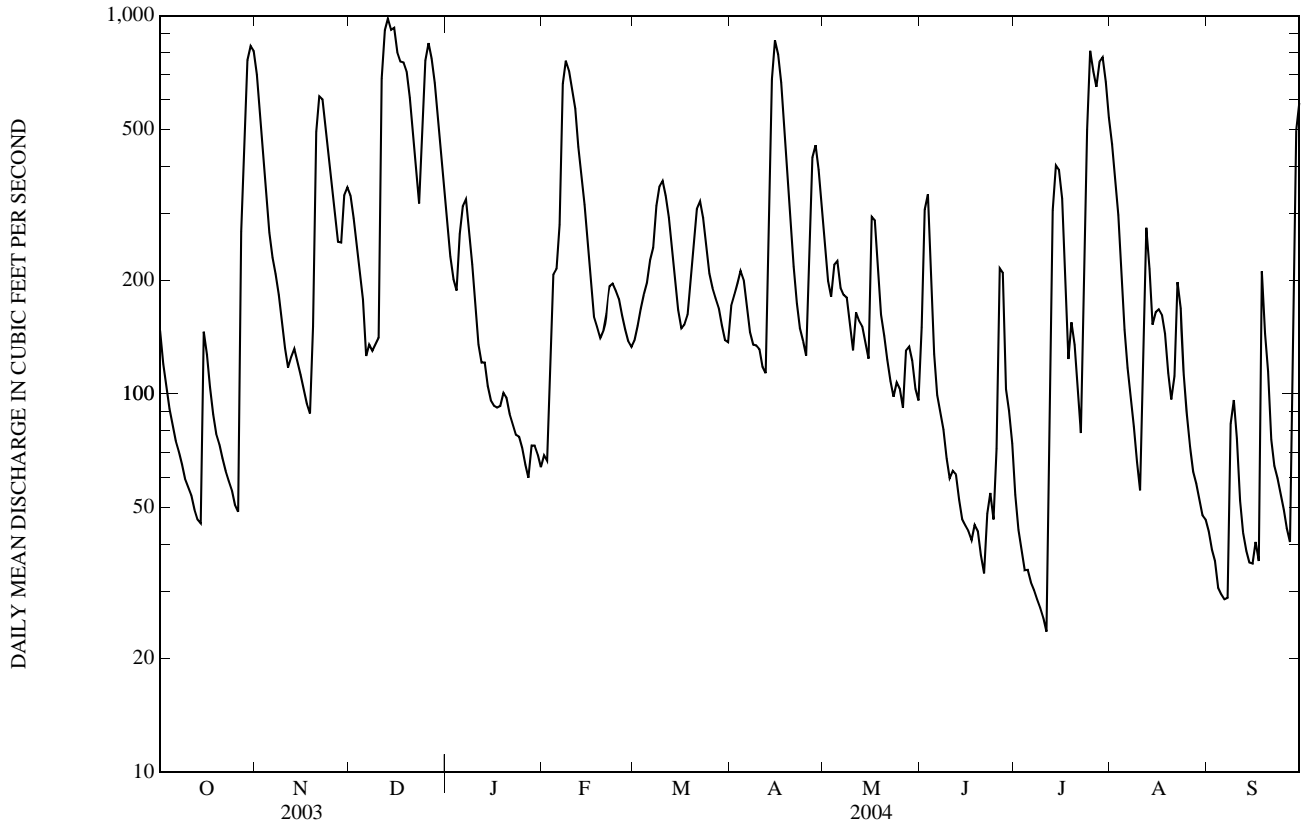
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

MEAN	93.6	156	204	223	235	336	261	175	120	85.7	94.6	96.0
MAX	576	590	655	735	493	719	711	637	550	539	664	713
(WY)	(1904)	(1973)	(1984)	(1979)	(1908)	(1994)	(1983)	(1989)	(2003)	(1975)	(1942)	(1971)
MIN	8.05	13.7	27.5	21.5	44.5	94.5	54.3	7.52	13.6	7.74	7.35	4.70
(WY)	(1965)	(1950)	(1999)	(1981)	(2002)	(1911)	(1985)	(1903)	(1965)	(1966)	(1957)	(1906)

01379500 PASSAIC RIVER NEAR CHATHAM, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	94,424		81,658		172	
ANNUAL MEAN	259		223		305	
HIGHEST ANNUAL MEAN					67.7	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	1,070	Jun 6	983	Dec 13	2,990	Jan 9, 1905
LOWEST DAILY MEAN	36	Aug 29	24	Jul 11	2.0	May 15, 1903
ANNUAL SEVEN-DAY MINIMUM	39	Aug 26	29	Jul 5	2.0	May 15, 1903
MAXIMUM PEAK FLOW			1,020	Dec 15	3,380	Aug 2, 1973
MAXIMUM PEAK STAGE			5.73b	Feb 6	9.36a	Aug 2, 1973
INSTANTANEOUS LOW FLOW			23	Jul 11	10	Aug 17, 2002
ANNUAL RUNOFF (CFSM)	2.59		2.23		1.72	
ANNUAL RUNOFF (INCHES)	35.13		30.38		23.39	
10 PERCENT EXCEEDS	583		568		452	
50 PERCENT EXCEEDS	165		150		85	
90 PERCENT EXCEEDS	50		47		18	

a From floodmark.
 b Ice effected.
 c Estimated.



PASSAIC RIVER BASIN

01379530 CANOE BROOK NEAR SUMMIT, NJ

LOCATION.--Lat 40°44'41", long 74°21'12", Essex County, Hydrologic Unit 02030103, on left bank just upstream of pumping station intake, 100 ft upstream of bridge on private driveway within New Jersey-American Water Company property, 0.5 mi upstream of mouth, 1.6 mi east of Chatham, and 2.0 mi north of Summit.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--1933-60, published in Special Reports of predecessors of the New Jersey Department of Environmental Protection. Fragmentary records for water years 1961-2001 are unpublished but available in the files of the New Jersey Water Science Center.

GAGE.--Water-stage recorder upstream and downstream of concrete control, crest-stage gage downstream of control. Datum of gage is 159.64 ft NGVD of 1929.

REMARKS.-- Records fair, except for discharges below 2 ft³/s and estimated daily discharges which are poor. Diversion above weir by New Jersey-American Water Company for municipal supply. During extreme back-water conditions from the Passaic River, reverse flow may occur during periods of high flow, due to pumping from the gage pool for municipal supply by New Jersey-American Water Company. Reverse flows are reported as zero flows presently.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	2.6	7.5	5.5	2.8	7.1	46	4.0	12	2.1	5.9	2.3
2	3.8	4.8	8.5	3.8	2.6	8.7	23	4.1	7.9	1.7	9.1	2.1
3	1.1	7.3	4.4	0.20	82	9.5	19	10	5.5	1.4	16	3.1
4	0.31	5.4	4.2	0.21	109	12	19	15	3.9	1.2	29	3.4
5	0.35	3.4	3.8	53	26	11	15	7.2	2.9	1.4	7.9	3.4
6	1.7	6.6	e5.0	19	539	20	10	4.6	2.6	1.7	5.3	3.3
7	1.2	11	e5.0	7.8	399	17	8.5	9.3	2.8	1.2	3.5	2.8
8	1.5	2.1	e6.0	4.5	48	36	8.5	4.4	2.4	0.98	2.8	119
9	1.3	0.29	e7.0	5.0	22	29	9.7	5.1	2.1	0.88	2.4	49
10	1.4	2.9	e12	4.6	19	24	4.1	4.5	1.9	0.83	2.0	19
11	0.34	2.6	734	4.5	18	16	4.9	44	2.6	0.76	12	8.2
12	0.37	7.7	48	5.1	10	13	3.8	16	2.3	21	86	4.6
13	1.4	4.0	16	5.4	12	9.5	97	14	1.7	57	15	3.4
14	1.5	2.6	14	4.3	13	7.3	186	7.3	1.5	9.3	7.3	2.7
15	56	0.30	147	4.2	11	6.6	104	6.7	1.5	6.9	5.5	3.1
16	7.3	0.30	29	3.7	6.2	7.3	18	23	1.4	4.5	12	11
17	3.7	2.4	108	3.8	5.7	13	3.1	8.7	3.9	3.1	8.9	5.7
18	1.8	1.8	44	4.6	5.7	12	12	6.9	25	3.1	6.0	72
19	1.00	45	15	5.5	6.2	22	12	6.2	4.0	39	4.5	7.1
20	2.8	219	3.3	4.2	7.8	26	10	6.1	2.2	8.1	3.7	6.7
21	2.6	22	7.0	3.6	11	47	8.3	4.9	1.7	5.0	4.3	4.4
22	1.5	3.5	10	3.6	15	23	7.1	4.1	4.5	3.4	7.1	4.7
23	1.3	5.1	6.4	3.2	11	14	6.3	3.6	6.4	159	6.0	3.0
24	1.1	8.7	462	2.8	9.5	12	7.5	3.6	2.4	50	4.3	2.3
25	0.37	7.3	49	2.4	9.0	12	5.6	2.9	21	12	3.8	2.0
26	0.38	6.3	19	2.4	6.7	12	49	3.9	15	5.5	3.2	1.9
27	233	0.65	3.6	2.6	6.0	12	78	24	6.2	198	3.0	1.8
28	37	11	5.9	3.0	5.4	10	14	19	3.2	182	3.2	102
29	263	40	7.2	3.1	5.9	7.9	11	6.2	6.5	57	3.5	304
30	27	7.4	6.1	3.1	---	6.7	7.2	5.5	3.6	12	3.4	22
31	13	---	6.1	2.8	---	16	---	4.7	---	4.8	2.8	---
TOTAL	672.92	444.04	1,804.0	181.51	1,424.5	479.6	807.6	289.5	160.6	854.85	289.4	780.0
MEAN	21.7	14.8	58.2	5.86	49.1	15.5	26.9	9.34	5.35	27.6	9.34	26.0
MAX	263	219	734	53	539	47	186	44	25	198	86	304
MIN	0.31	0.29	3.3	0.20	2.6	6.6	3.1	2.9	1.4	0.76	2.0	1.8

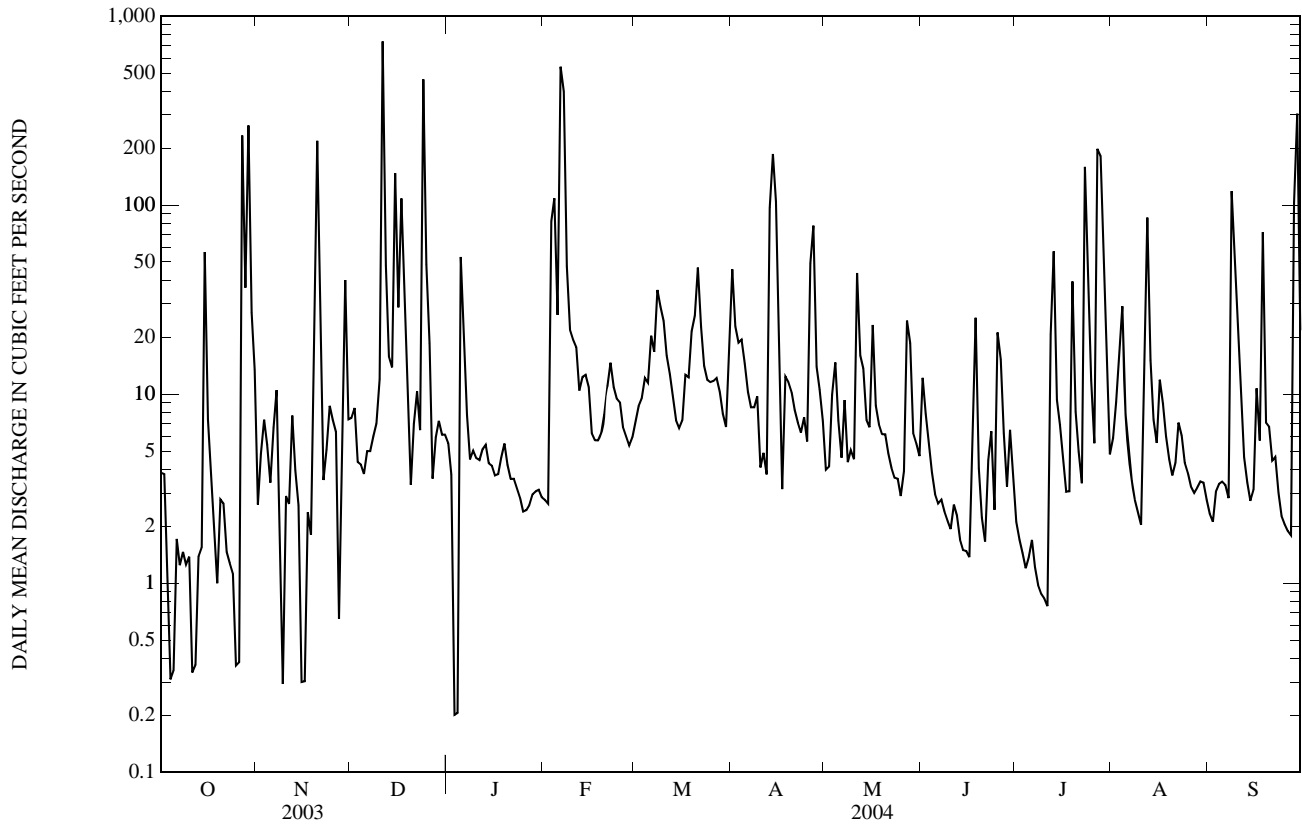
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

MEAN	7.80	8.31	11.3	16.1	15.6	24.8	15.0	11.3	8.17	6.37	4.02	7.02
MAX	91.5	32.3	58.2	57.1	49.1	84.1	42.1	44.0	65.5	47.0	10.8	61.2
(WY)	(1997)	(1986)	(2004)	(1996)	(2004)	(1994)	(1998)	(1972)	(2003)	(1997)	(2003)	(1999)
MIN	0.10	0.65	0.24	0.61	1.15	2.91	0.56	0.60	0.23	0.01	0.35	0.25
(WY)	(1987)	(2002)	(1981)	(1981)	(2002)	(1985)	(1985)	(1987)	(1987)	(1966)	(1995)	(1983)

01379530 CANOE BROOK NEAR SUMMIT, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004a	
ANNUAL TOTAL	8,941.28		8,188.52		13.6	
ANNUAL MEAN	24.5		22.4		24.0	
HIGHEST ANNUAL MEAN					3.91	1997
LOWEST ANNUAL MEAN					0.00	2002
HIGHEST DAILY MEAN	734	Dec 11	734	Dec 11	1,900	Oct 19, 1996
LOWEST DAILY MEAN	0.09	Jul 12	0.20	Jan 3	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	0.57	Jul 12	1.1	Oct 3	0.00	Many days
MAXIMUM PEAK STAGE			15.79		---	
10 PERCENT EXCEEDS	50		44		23	
50 PERCENT EXCEEDS	4.8		6.1		2.8	
90 PERCENT EXCEEDS	0.55		1.7		0.00	

a Statistics based on records with short gaps
 e Estimated



01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ

LOCATION.--Lat 40°57'34", long 74°32'23", 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 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 712.54 ft above NGVD of 1929 (U.S. Army, Picatinny Arsenal, bench mark).

REMARKS.--Records fair except for discharges below 1.0 cfs and estimated daily discharges, which are poor. Discharges given herein includes flow through sluice gates when open. Some regulation by Lake Denmark and Green Pond. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	0930	82	2.42	Dec 11	1115	*127	*2.69

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	54	34	26	e6.5	8.9	16	17	9.9	3.2	5.8	4.4
2	11	44	29	23	e7.0	11	17	16	8.8	3.0	6.3	4.0
3	9.1	36	24	21	e8.5	13	16	17	7.9	2.9	6.1	3.7
4	8.6	32	20	22	e11	16	15	17	7.0	2.8	5.7	3.5
5	7.9	29	20	26	e11	17	14	16	6.6	2.9	5.4	3.4
6	7.1	27	23	26	e16	20	12	18	6.4	2.7	5.0	3.2
7	6.5	27	22	23	e20	21	11	20	5.7	2.6	4.6	3.1
8	6.0	23	19	20	e19	23	11	18	5.3	2.6	4.4	4.3
9	5.5	19	18	18	e18	21	10	16	5.1	2.5	4.2	5.1
10	5.4	16	18	e15	16	21	9.4	15	5.0	2.4	4.0	4.7
11	5.3	16	84	e13	16	20	8.9	36	4.8	2.3	4.1	4.5
12	4.9	14	98	e11	16	18	9.3	35	4.7	3.7	4.1	4.1
13	4.7	12	82	e10	15	17	16	35	4.5	6.0	4.2	3.6
14	4.5	11	68	e10	15	15	25	36	4.3	5.0	3.9	3.3
15	9.6	10	60	e10	14	14	34	31	4.3	4.5	4.8	3.2
16	7.6	9.3	50	e9.0	12	17	32	30	4.2	3.9	4.5	3.2
17	7.5	9.1	54	e9.0	11	18	28	27	4.2	3.5	4.4	3.1
18	7.8	11	56	e9.0	10	17	28	24	4.2	3.8	4.4	19
19	7.5	15	51	e9.0	9.7	17	24	21	4.0	6.1	5.4	19
20	6.8	47	44	e8.0	9.2	17	19	19	3.8	5.1	5.3	18
21	6.3	52	37	e8.0	9.3	18	16	16	3.7	4.6	11	16
22	6.1	47	32	e7.0	9.1	16	14	14	3.8	4.2	11	15
23	5.6	44	29	e7.0	8.7	15	15	12	3.7	5.8	9.2	14
24	5.0	36	54	e7.0	8.8	14	14	10	3.5	6.6	8.5	12
25	4.6	32	73	e6.0	8.7	14	13	8.5	3.6	6.1	8.0	9.1
26	4.4	28	67	e6.0	8.2	14	19	7.8	3.5	5.8	7.5	7.8
27	22	24	56	e6.0	7.8	15	24	12	3.3	7.4	7.0	8.0
28	42	25	47	e7.0	7.7	15	24	12	3.1	8.9	6.7	16
29	72	36	39	e7.5	8.0	13	21	11	3.3	7.9	6.1	44
30	71	36	34	e7.5	---	12	19	9.5	3.2	7.2	5.6	42
31	65	---	30	e7.0	---	13	---	9.3	---	6.3	4.9	---
TOTAL	449.3	821.4	1,372	394.0	337.2	500.9	534.6	586.1	145.4	142.3	182.1	304.3
MEAN	14.5	27.4	44.3	12.7	11.6	16.2	17.8	18.9	4.85	4.59	5.87	10.1
MAX	72	54	98	26	20	23	34	36	9.9	8.9	11	44
MIN	4.4	9.1	18	6.0	6.5	8.9	8.9	7.8	3.1	2.3	3.9	3.1
CFSM	1.89	3.58	5.79	1.66	1.52	2.11	2.33	2.47	0.63	0.60	0.77	1.33
IN.	2.18	3.99	6.67	1.92	1.64	2.44	2.60	2.85	0.71	0.69	0.89	1.48

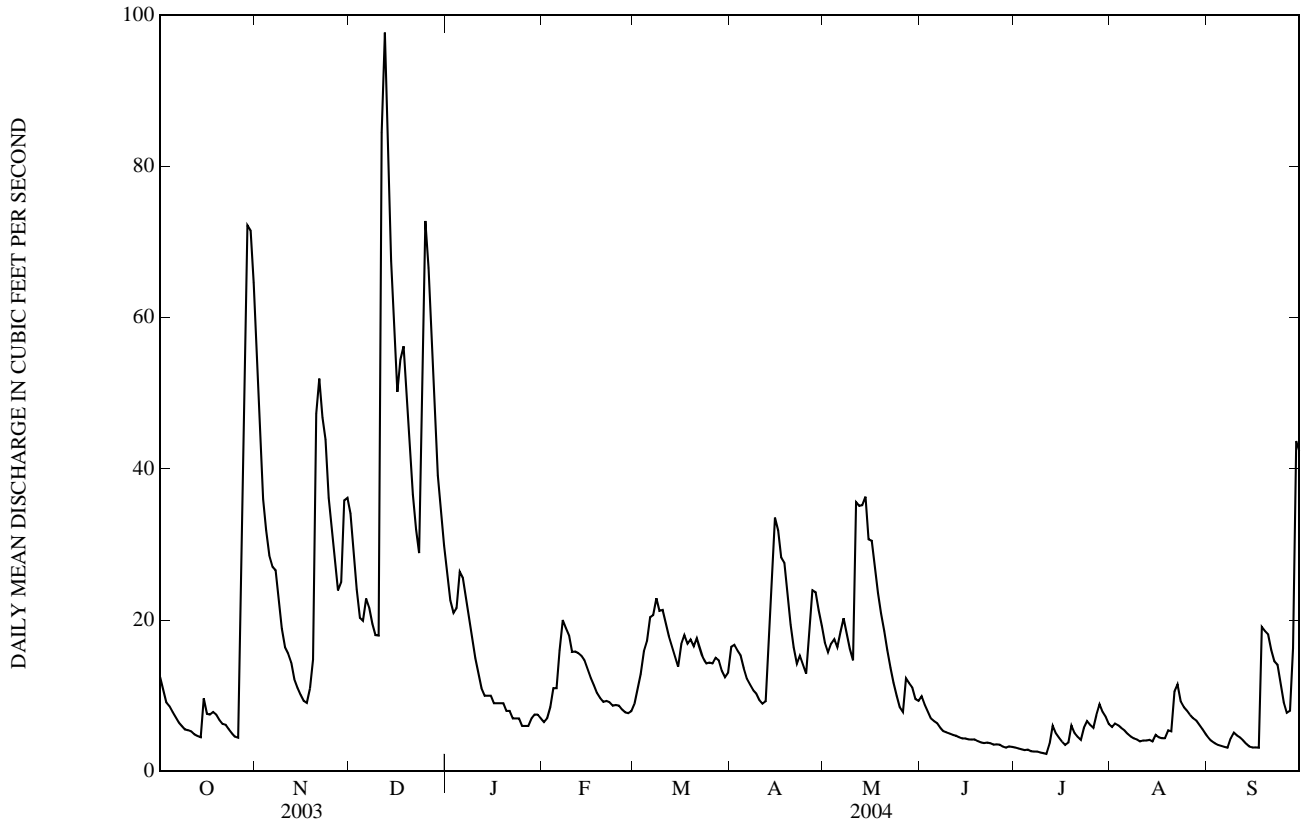
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

	6.90	11.0	17.5	14.9	15.4	23.1	23.9	17.0	12.6	6.85	6.61	5.74
MEAN	6.90	11.0	17.5	14.9	15.4	23.1	23.9	17.0	12.6	6.85	6.61	5.74
MAX	26.1	27.4	49.5	45.5	32.0	49.5	64.1	50.6	56.4	32.6	31.9	24.7
(WY)	(1990)	(2004)	(1997)	(1996)	(1996)	(1983)	(1983)	(1989)	(2003)	(1984)	(2000)	(1987)
MIN	0.68	0.53	0.55	1.31	1.87	3.66	3.84	4.49	2.55	1.71	1.49	1.36
(WY)	(1998)	(1999)	(1999)	(2002)	(2002)	(2002)	(1985)	(1999)	(1999)	(1999)	(1999)	(1998)

01379773 GREEN POND BROOK AT PICATINNY ARSENAL, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	7,830.2		5,769.6		13.4	
ANNUAL MEAN	21.5		15.8		21.4	
HIGHEST ANNUAL MEAN					5.10	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	101	Jun 22	98	Dec 12	248	Apr 5, 1984
LOWEST DAILY MEAN	3.0	Sep 12	2.3	Jul 11	0.22	Nov 23, 1998
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 8	2.6	Jul 5	0.25	Nov 19, 1998
MAXIMUM PEAK FLOW			127	Dec 11	333	Apr 5, 1984
MAXIMUM PEAK STAGE			2.69	Dec 11	3.51	Apr 5, 1984
INSTANTANEOUS LOW FLOW			2.1	Jul 11	0.19	Nov 23, 1998
ANNUAL RUNOFF (CFSM)	2.80		2.06		1.76	
ANNUAL RUNOFF (INCHES)	38.08		28.06		23.89	
10 PERCENT EXCEEDS	53		35		30	
50 PERCENT EXCEEDS	13		11		8.3	
90 PERCENT EXCEEDS	4.2		3.9		2.2	

e Estimated



PASSAIC RIVER BASIN

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

LOCATION.--Lat 40°56'56", long 74°33'28", 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 mi².

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 NGVD of 1929 (U.S. Army, Picatinny Arsenal, benchmark).

REMARKS.--Records fair, except for estimated daily discharges which are poor. 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 NGVD of 1929, 200 ft upstream from bridge on Whitmore Avenue.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1130	122	3.22	Dec 17	1730	82	3.07
Nov 5	1530	87	3.09	Dec 24	1830	106	3.16
Nov 20	0830	73	3.03	Sep 18	1045	73	3.03
Dec 11	1715	*172	*3.43	Sep 29	0645	73	3.03

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	72	40	28	e6.0	9.1	19	20	11	1.7	6.5	4.1
2	13	55	33	25	e6.5	11	19	18	9.3	1.6	6.3	3.6
3	11	43	27	23	e8.0	13	18	20	7.8	1.4	5.7	2.9
4	11	29	24	23	e10	17	17	20	6.6	1.1	5.6	2.9
5	9.5	37	22	31	e11	18	15	18	6.3	1.0	5.8	2.8
6	8.2	35	26	27	e17	22	13	19	6.1	1.0	4.5	2.3
7	7.5	31	24	24	e22	22	12	22	5.2	0.90	3.8	2.4
8	6.9	25	21	22	e21	26	12	20	4.9	0.89	3.3	5.2
9	6.5	21	20	19	e18	24	12	18	4.3	0.86	3.2	9.1
10	6.2	18	19	e16	17	25	11	16	4.1	0.76	3.1	6.2
11	6.0	17	112	e14	17	22	9.7	48	3.9	0.75	3.9	4.8
12	5.6	17	137	e13	16	20	10	42	3.7	1.9	5.1	4.2
13	5.2	14	114	e13	16	18	18	40	3.1	9.8	5.1	3.8
14	5.1	11	94	e11	15	17	30	39	2.8	6.2	4.4	3.3
15	14	10	79	e10	14	15	41	34	3.1	4.8	6.4	2.9
16	9.4	10	62	e9.5	13	18	38	34	2.9	3.8	5.7	3.4
17	8.5	12	69	e9.0	12	20	33	29	2.8	3.2	5.3	3.2
18	8.9	11	75	e9.0	11	19	30	24	3.1	3.7	4.4	38
19	8.4	17	64	e8.5	10	20	27	22	2.8	7.6	4.6	26
20	7.6	68	53	e8.0	9.6	18	23	19	2.2	6.1	4.9	20
21	7.2	70	43	e7.5	9.7	20	19	16	1.9	4.9	13	18
22	6.9	62	36	e7.5	9.8	18	16	14	2.3	4.2	14	15
23	6.2	53	32	e7.0	9.2	16	17	12	2.6	6.7	10	14
24	5.5	50	70	e6.5	9.5	16	16	10	2.2	9.7	8.4	12
25	5.1	40	102	e6.0	9.4	16	14	8.6	2.1	6.9	7.5	10
26	5.4	32	90	e6.0	8.8	16	23	8.0	2.7	5.8	7.1	8.2
27	29	27	73	e6.0	8.4	17	28	14	2.1	7.1	6.6	7.7
28	61	28	58	e6.5	8.1	16	26	13	1.7	11	6.5	17
29	105	42	47	e6.5	8.4	14	23	11	2.3	8.8	6.2	67
30	107	41	40	e6.5	---	13	22	9.5	1.9	7.5	5.7	60
31	90	---	33	e6.0	---	14	---	9.3	---	6.7	5.0	---
TOTAL	602.8	998	1,739	415.0	351.4	550.1	611.7	647.4	117.8	138.36	187.6	380.0
MEAN	19.4	33.3	56.1	13.4	12.1	17.7	20.4	20.9	3.93	4.46	6.05	12.7
MAX	107	72	137	31	22	26	41	48	11	11	14	67
MIN	5.1	10	19	6.0	6.0	9.1	9.7	8.0	1.7	0.75	3.1	2.3
CFSM	2.12	3.63	6.12	1.46	1.32	1.94	2.23	2.28	0.43	0.49	0.66	1.38
IN.	2.45	4.05	7.06	1.69	1.43	2.23	2.48	2.63	0.48	0.56	0.76	1.54

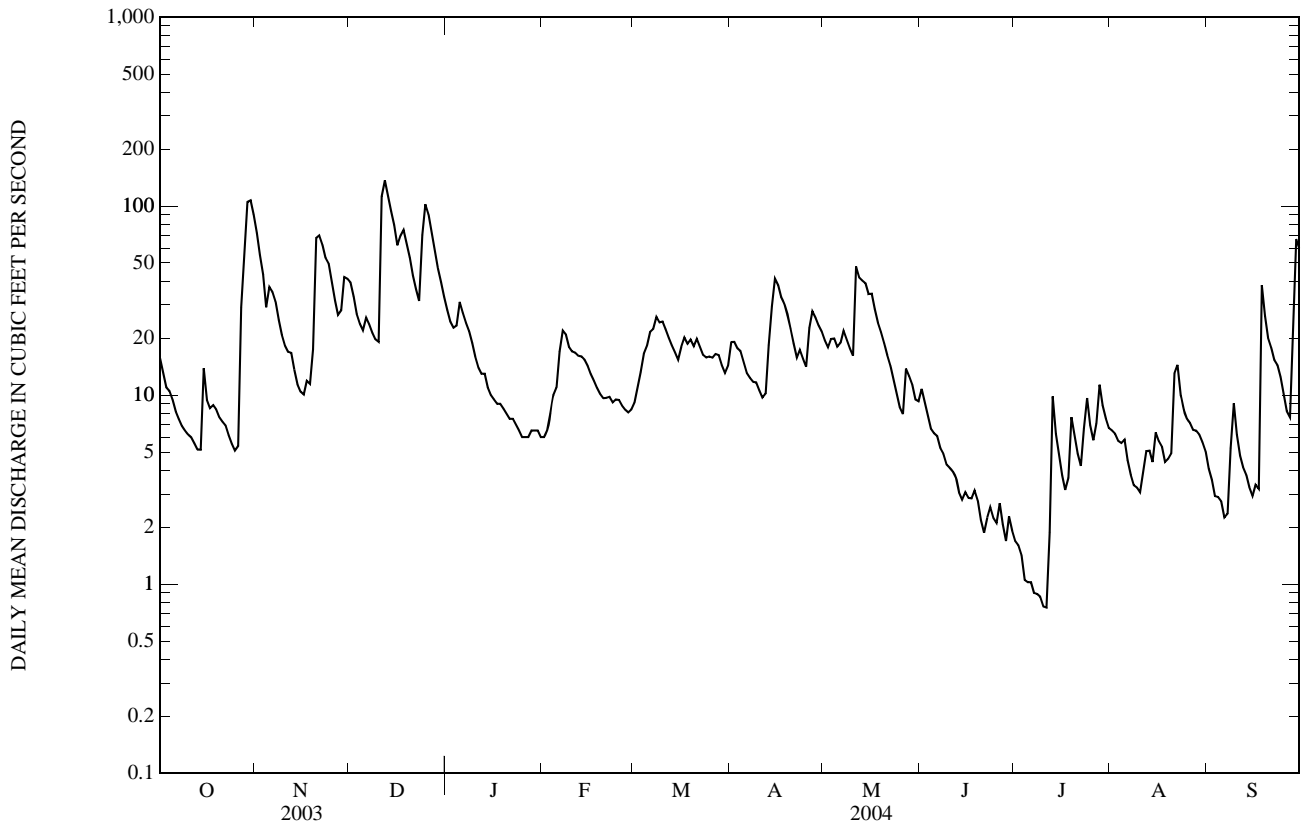
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

	7.97	13.5	20.7	17.2	16.5	24.8	24.0	19.1	14.6	5.76	7.29	6.96
MEAN	7.97	13.5	20.7	17.2	16.5	24.8	24.0	19.1	14.6	5.76	7.29	6.96
MAX	33.3	33.3	60.7	51.2	31.8	42.0	51.1	66.7	76.2	18.4	38.5	36.7
(WY)	(1990)	(2004)	(1997)	(1996)	(1998)	(2003)	(1993)	(1989)	(2003)	(1990)	(2000)	(1987)
MIN	0.71	0.18	0.19	0.20	1.24	3.96	2.48	4.77	2.23	1.48	0.45	1.06
(WY)	(1985)	(2002)	(2002)	(2002)	(2002)	(2002)	(1985)	(1999)	(1987)	(1993)	(1999)	(2001)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	9,639.0		6,739.16			
ANNUAL MEAN	26.4		18.4		14.8	
HIGHEST ANNUAL MEAN					22.1	1990
LOWEST ANNUAL MEAN					5.04	2002
HIGHEST DAILY MEAN	159	Jun 22	137	Dec 12	206	May 17, 1990
LOWEST DAILY MEAN	1.7	Jul 16	0.75	Jul 11	0.09	Nov 29, 2001
ANNUAL SEVEN-DAY MINIMUM	2.1	Jul 15	0.88	Jul 5	0.11	Nov 26, 2001
MAXIMUM PEAK FLOW			172	Dec 11	290	Aug 12, 2000
MAXIMUM PEAK STAGE			3.43	Dec 11	3.83	Aug 12, 2000
INSTANTANEOUS LOW FLOW			0.65	Jul 11, 12	0.00	Dec 31, 2001
ANNUAL RUNOFF (CFSM)	2.88		2.01		1.62	
ANNUAL RUNOFF (INCHES)	39.15		27.37		22.01	
10 PERCENT EXCEEDS	69		40		34	
50 PERCENT EXCEEDS	14		12		8.8	
90 PERCENT EXCEEDS	4.2		3.1		1.3	

e Estimated.



PASSAIC RIVER BASIN

01379790 GREEN POND BROOK AT WHARTON, NJ

LOCATION.--Lat 40°55'04", long 74°35'01", 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 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 680.26 ft above NGVD of 1929 (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 from gage. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1530	148	3.60	Dec 24	1830	153	3.62
Dec 11	2330	*222	*3.87				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

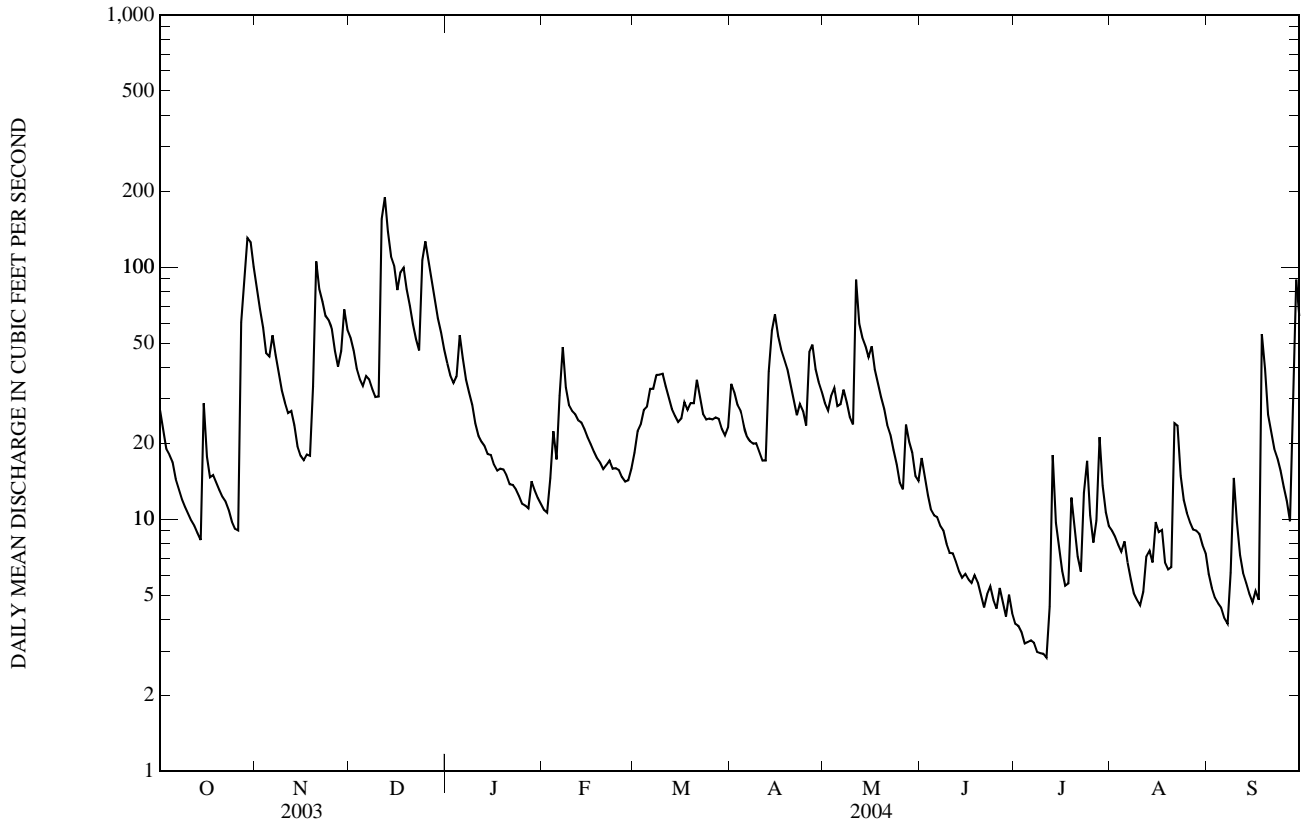
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	83	53	42	11	18	34	29	17	3.8	9.0	6.1
2	23	68	47	37	11	22	32	27	15	3.8	8.5	5.3
3	19	57	40	35	15	24	28	31	12	3.6	7.9	4.9
4	18	46	36	37	22	27	27	33	11	3.2	7.4	4.6
5	17	44	34	54	17	28	24	28	10	3.3	8.2	4.5
6	14	54	37	44	31	33	21	29	10	3.3	6.7	4.0
7	13	45	36	36	48	33	20	33	9.4	3.2	5.8	3.8
8	12	38	33	32	33	37	20	29	9.0	3.0	5.1	6.1
9	11	32	31	28	28	37	20	25	8.0	2.9	4.8	15
10	11	29	31	24	27	38	18	24	7.4	2.9	4.6	9.8
11	9.9	26	155	21	26	34	17	89	7.3	2.8	5.2	7.2
12	9.4	27	189	20	25	30	17	60	6.8	4.5	7.1	6.1
13	8.8	24	139	19	24	27	39	53	6.2	18	7.5	5.6
14	8.3	19	110	18	23	26	56	49	5.9	9.7	6.7	5.1
15	29	18	101	18	21	24	65	44	6.1	7.9	9.7	4.7
16	18	17	81	16	20	25	53	48	5.8	6.2	8.9	5.2
17	15	18	95	16	19	29	47	39	5.6	5.5	9.1	4.8
18	15	18	100	16	17	27	43	35	6.0	5.6	6.7	54
19	14	34	82	16	17	29	39	31	5.6	12	6.3	40
20	13	105	70	15	16	29	34	27	5.0	9.3	6.5	26
21	12	82	60	14	16	36	30	24	4.5	7.1	24	22
22	12	73	52	14	17	30	26	22	5.1	6.2	24	19
23	11	64	47	13	16	26	29	19	5.4	13	15	17
24	9.8	62	107	12	16	25	27	17	4.8	17	12	16
25	9.2	57	126	12	16	25	24	14	4.4	10	11	13
26	9.0	46	104	11	15	25	46	13	5.3	8.1	9.7	12
27	60	40	88	11	14	25	49	24	4.7	9.9	9.1	9.8
28	91	47	74	14	14	25	39	20	4.1	21	9.0	29
29	131	68	63	13	16	23	35	18	5.0	14	8.7	89
30	126	56	55	12	---	21	32	15	4.2	11	7.9	64
31	100	---	47	12	---	23	---	14	---	9.4	7.3	---
TOTAL	876.4	1,397	2,323	682	591	861	991	963	216.6	241.2	279.4	513.6
MEAN	28.3	46.6	74.9	22.0	20.4	27.8	33.0	31.1	7.22	7.78	9.01	17.1
MAX	131	105	189	54	48	38	65	89	17	21	24	89
MIN	8.3	17	31	11	11	18	17	13	4.1	2.8	4.6	3.8
CFM	2.24	3.70	5.95	1.75	1.62	2.20	2.62	2.47	0.57	0.62	0.72	1.36
IN.	2.59	4.12	6.86	2.01	1.74	2.54	2.93	2.84	0.64	0.71	0.82	1.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

	12.8	20.4	31.1	26.6	27.5	41.1	43.1	30.4	22.5	12.3	11.5	11.5
MEAN	12.8	20.4	31.1	26.6	27.5	41.1	43.1	30.4	22.5	12.3	11.5	11.5
MAX	46.7	46.6	79.4	80.2	49.7	89.2	112	87.0	94.5	61.4	59.7	54.0
(WY)	(1990)	(2004)	(1997)	(1996)	(1996)	(1983)	(1983)	(1989)	(2003)	(1984)	(2000)	(1987)
MIN	2.18	2.10	2.29	2.74	3.42	8.05	8.96	9.44	4.90	2.97	2.01	2.70
(WY)	(1999)	(2002)	(1999)	(2002)	(2002)	(2002)	(1985)	(1999)	(1999)	(1999)	(1999)	(1998)

01379790 GREEN POND BROOK AT WHARTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL TOTAL	13,623.7		9,935.2		24.2	
ANNUAL MEAN	37.3		27.1		9.61	
HIGHEST ANNUAL MEAN					40.6	1984
LOWEST ANNUAL MEAN					9.61	2002
HIGHEST DAILY MEAN	206	Jun 22	189	Dec 12	512	Apr 6, 1984
LOWEST DAILY MEAN	4.4	Aug 29	2.8	Jul 11	0.54	Sep 5, 1999
ANNUAL SEVEN-DAY MINIMUM	4.7	Aug 25	3.1	Jul 5	0.70	Aug 30, 1999
MAXIMUM PEAK FLOW			222	Dec 11	572	Apr 5, 1984
MAXIMUM PEAK STAGE			3.87	Dec 11	5.11	Apr 5, 1984
INSTANTANEOUS LOW FLOW			2.4	Jul 8, 12	0.53	Aug 19, 1999
ANNUAL RUNOFF (CFSM)	2.96		2.15		1.92	
ANNUAL RUNOFF (INCHES)	40.22		29.33		26.09	
10 PERCENT EXCEEDS	89		57		53	
50 PERCENT EXCEEDS	24		19		15	
90 PERCENT EXCEEDS	7.1		5.4		3.7	



PASSAIC RIVER BASIN

01380500 ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°54'10", long 74°24'35", Morris County, Hydrologic Unit 02030103, on right bank, under New Jersey Transit railroad bridge, just downstream from bridge on Morris Avenue in Boonton, 1.8 mi upstream from dam at Boonton Reservoir.

DRAINAGE AREA.--116 mi².

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 NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair. Flow regulated by Splitrock Reservoir on Beaver Brook, 14.5 mi upstream from 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. For diversion from Taylortown Reservoir, see Passaic River Basin diversions. Rockaway Valley trunk sewer bypasses the station (see station 01381000). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

NOTE.--Stage readings published for this gage prior to Feb. 4, 2004 were recorded inside the gage house. It has been found by study that these gage height can be more than a half foot lower than water levels in the stream due to drawdown. To better address this and other problems, a bubble gage has been installed and it record used from Feb. 4, 2004 onward. The published discharges before that date are still accurate.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0445	1,270	3.88	Dec 25	0130	1,890	4.40
Oct 29	2115	1,670	4.23	May 11	1245	1,310	4.23
Nov 20	1400	1,570	4.15	Sep 18	1930	1,330	4.26
Dec 11	2130	*2,360	4.74	Sep 29	1015	2,120	*5.11
Dec 18	0330	1,010	3.60				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

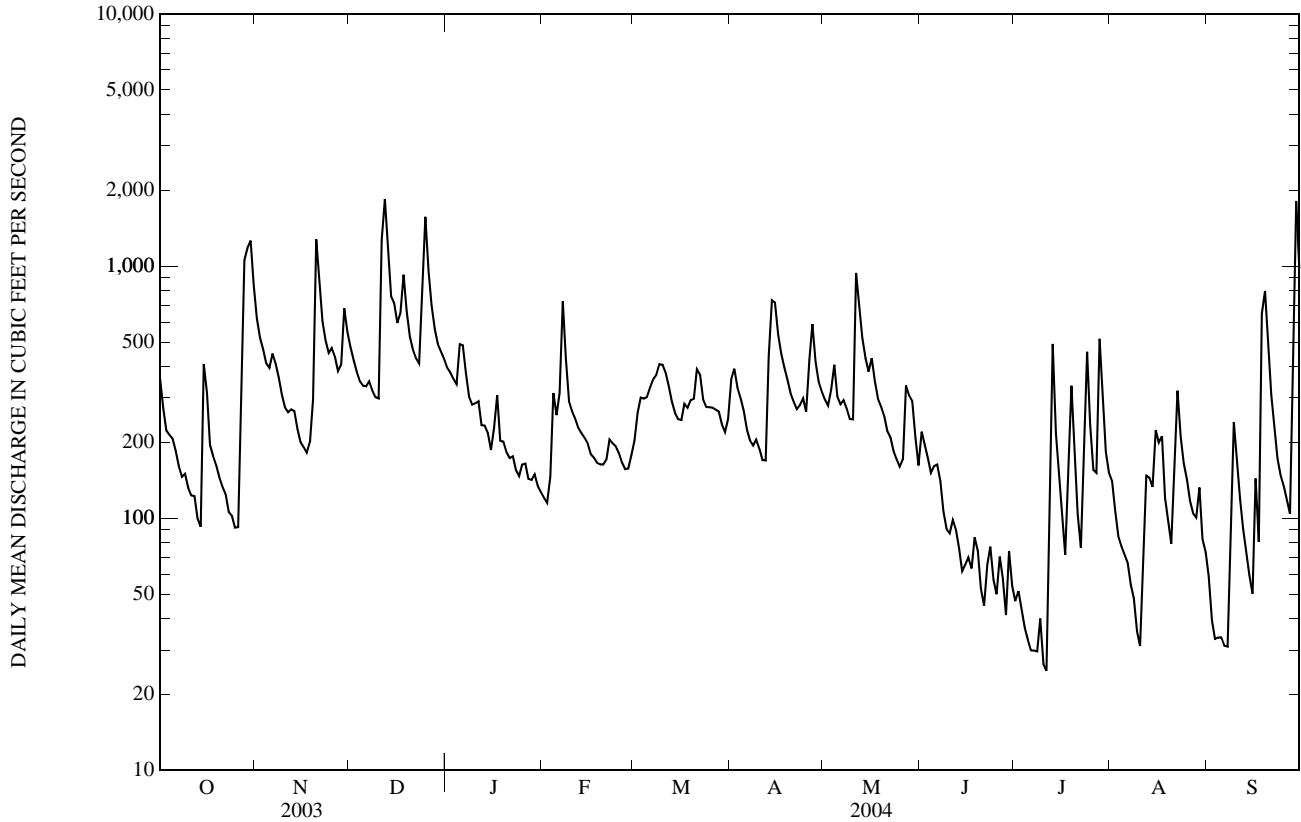
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	619	478	395	120	203	356	296	220	47	141	59
2	272	522	424	379	115	263	392	280	195	51	108	39
3	223	468	382	357	146	301	329	322	173	44	85	33
4	214	413	349	340	314	298	300	406	151	37	78	34
5	207	395	336	489	256	302	267	304	161	33	72	34
6	185	450	334	485	314	330	224	283	163	30	67	31
7	161	412	349	375	724	356	203	294	140	30	54	31
8	146	361	321	304	432	371	194	272	106	30	48	91
9	150	309	302	282	291	408	205	248	90	40	36	241
10	132	275	299	285	266	406	188	247	87	26	31	177
11	123	263	1,270	291	248	378	170	940	99	25	75	119
12	122	270	1,850	234	228	332	169	684	90	69	148	91
13	100	266	1,150	233	217	290	439	519	76	491	145	74
14	93	226	760	218	209	261	732	432	62	217	133	59
15	409	200	714	186	198	247	717	382	65	152	224	50
16	315	191	595	227	180	245	535	431	70	107	199	144
17	195	182	649	308	174	284	450	351	63	72	211	81
18	176	201	925	203	166	274	396	298	84	148	120	648
19	162	295	664	201	164	293	355	278	74	335	96	797
20	145	1,280	526	183	163	297	313	254	53	195	79	469
21	134	897	467	173	171	390	291	222	45	104	184	308
22	124	605	431	176	205	371	271	209	65	76	320	233
23	106	508	411	155	198	296	281	185	77	210	210	172
24	102	453	868	147	193	276	299	171	57	457	165	148
25	92	474	1,570	163	181	276	265	160	50	236	142	134
26	92	437	956	165	166	274	424	172	70	155	117	118
27	404	383	697	143	157	270	589	336	58	151	104	104
28	1,060	407	563	142	157	265	417	306	41	514	101	314
29	1,180	680	491	149	178	237	348	292	74	292	132	1,810
30	1,260	547	459	134	---	220	318	209	54	183	83	979
31	844	---	429	127	---	247	---	162	---	152	73	---
TOTAL	9,286	12,989	20,019	7,649	6,531	9,261	10,437	9,945	2,813	4,709	3,781	7,622
MEAN	300	433	646	247	225	299	348	321	93.8	152	122	254
MAX	1,260	1,280	1,850	489	724	408	732	940	220	514	320	1,810
MIN	92	182	299	127	115	203	169	160	41	25	31	31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

	126	218	275	261	272	391	386	275	190	125	118	123
MEAN	126	218	275	261	272	391	386	275	190	125	118	123
MAX	523	694	718	855	590	798	979	836	847	553	447	484
(WY)	(1956)	(1973)	(1997)	(1979)	(1973)	(1977)	(1983)	(1989)	(1972)	(1975)	(1955)	(1971)
MIN	23.7	27.9	49.5	64.2	53.8	112	87.0	90.5	35.3	18.1	16.6	16.8
(WY)	(1965)	(2002)	(1999)	(2002)	(2002)	(2002)	(1985)	(1965)	(1965)	(1966)	(1957)	(1964)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	130,876		105,042		230	
ANNUAL MEAN	359		287		88.3	
HIGHEST ANNUAL MEAN					396	1952
LOWEST ANNUAL MEAN					88.3	1965
HIGHEST DAILY MEAN	1,950	Jun 22	1,850	Dec 12	4,220	Jan 25, 1979
LOWEST DAILY MEAN	46	Sep 12	25	Jul 11	5.7	Aug 10, 1999
ANNUAL SEVEN-DAY MINIMUM	56	Aug 25	31	Jul 5	6.1	Aug 7, 1999
MAXIMUM PEAK FLOW			2,360	Dec 11	5,590	Apr 5, 1984
MAXIMUM PEAK STAGE			5.11	Sep 29	7.23	Apr 5, 1984
10 PERCENT EXCEEDS	710		523		496	
50 PERCENT EXCEEDS	277		224		154	
90 PERCENT EXCEEDS	91		68		42	



01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

LOCATION.--Lat 40°53'49", long 74°23'41", Morris County, Hydrologic Unit 02030103, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton, and 0.4 mi upstream at bridge on Greenback Road.

DRAINAGE AREA.--119 mi².

PERIOD OF RECORD.--Gage-height only, March 1903 to February 1904. Monthly discharges only, November 1911 to May 1912 and November 1912 to December 1912. Daily discharges, January 1906 to October 1911, June 1912 to October 1912, and January 1913 to current year. Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

REVISED RECORDS.--WSP 1902: 1951-54. WDR NJ-79-1: 1949(M), 1952(M), 1968(M), 1970-74(M), 1977(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1936. Datum of gage is 195.68 ft above NGVD of 1929 (levels from New Jersey Geological Survey bench mark). Mar. 15, 1903 to Feb. 2, 1904, nonrecording gage at site 1.9 mi downstream at different datum. Jan. 1, 1906 to Mar. 3, 1918, nonrecording gage on Boonton Reservoir Dam 2,000 ft upstream at datum 305.25 ft above NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good, except for estimated daily discharges which are fair. Records represent flow in river only. Sewage effluent enters river about 600 ft below station (records given herein). Flow regulated by Boonton Reservoir (see Passaic River basin, reservoirs in) 2,000 ft upstream from station, and by Splitrock Reservoir (see Passaic River basin, reservoirs in) 16.5 mi above station. 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 gage-height telemetry at station.

COOPERATION.--Gage-height record collected in cooperation with United Water Jersey City, and record of sewage effluent furnished by Rockaway Valley Regional Sewerage Authority.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	679	418	356	e70	114	221	221	122	18	69	15
2	222	503	347	333	e60	156	289	201	123	18	51	15
3	158	397	297	319	e125	205	258	221	100	18	37	15
4	136	332	261	304	e200	219	227	294	78	18	23	15
5	135	304	243	433	229	224	187	250	66	18	12	15
6	116	337	255	519	244	240	152	212	73	17	12	15
7	97	329	251	379	599	272	131	206	69	17	12	15
8	82	277	230	277	488	281	123	195	48	17	12	17
9	77	232	212	252	288	314	127	171	29	17	14	16
10	69	197	201	e180	228	313	122	165	20	17	16	15
11	57	167	822	e160	204	300	108	641	19	17	17	15
12	54	177	2,110	e160	179	265	104	752	19	19	19	15
13	44	204	1,440	e170	165	217	253	483	22	19	16	15
14	32	152	968	e160	149	185	615	361	20	18	16	15
15	218	129	816	e135	136	172	688	306	19	18	21	16
16	278	120	698	e130	124	167	523	317	19	17	80	15
17	175	115	667	e120	113	195	392	287	20	17	128	15
18	133	122	1,000	e145	106	196	321	232	19	25	70	253
19	115	185	807	e135	101	209	284	196	19	19	40	1,070
20	100	964	608	e125	97	213	238	178	19	18	19	610
21	85	1,080	484	e125	98	257	215	152	19	18	28	327
22	64	669	400	e115	116	282	194	135	19	18	189	197
23	48	482	364	e110	122	238	185	116	19	35	175	119
24	36	386	650	e95	123	197	211	100	19	242	96	86
25	32	373	1,690	e85	117	191	187	90	19	256	67	68
26	30	355	1,210	e75	106	194	277	84	19	112	43	47
27	184	306	846	e75	95	185	498	176	19	72	31	33
28	970	318	655	e95	91	185	376	216	19	463	20	181
29	1,150	587	532	e95	98	168	282	204	18	370	32	1,640
30	1,410	551	460	e85	---	150	242	155	18	159	22	1,240
31	984	---	397	e85	---	158	---	109	---	96	16	---
TOTAL	7,602	11,029	20,339	5,832	4,871	6,662	8,030	7,426	1,111	2,203	1,403	6,130
MEAN	245	368	656	188	168	215	268	240	37.0	71.1	45.3	204
MAX	1,410	1,080	2,110	519	599	314	688	752	123	463	189	1,640
MIN	30	115	201	75	60	114	104	84	18	17	12	15
(I)	16.8	18.0	19.9	17.2	16.2	16.5	17.0	16.9	14.2	14.2	14.1	14.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2004, BY WATER YEAR (WY)

MEAN	50.3	108	153	169	177	305	295	184	100	58.6	51.8	49.0
MAX	459	743	802	692	598	1,001	978	873	770	445	358	346
(WY)	(1908)	(1908)	(1997)	(1979)	(1908)	(1936)	(1983)	(1989)	(2003)	(1984)	(2000)	(1960)
MIN	0.00	0.00	0.00	0.00	0.62	1.94	8.83	6.01	0.00	0.00	0.00	0.00
(WY)	(1915)	(1917)	(1917)	(1918)	(1954)	(1931)	(2002)	(1941)	(1912)	(1912)	(1912)	(1912)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1906 - 2004	
ANNUAL TOTAL	109,324		82,638			
ANNUAL MEAN	300		226		141	
(I)	17.8		16.3			
HIGHEST ANNUAL MEAN					399	1908
LOWEST ANNUAL MEAN					7.19	1965
HIGHEST DAILY MEAN	2,110	Dec 12	2,110	Dec 12	3,850	Apr 6, 1984
LOWEST DAILY MEAN	13	Jul 17	12	Aug 5-8	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	13	Aug 24	14	Aug 5	0.00	Many days
MAXIMUM PEAK FLOW			2,330	Dec 12	7,560ab	Oct 10, 1903
MAXIMUM PEAK STAGE			6.26	Dec 12	8.30c	Jan 25, 1979
INSTANTANEOUS LOW FLOW			11	Aug 6-9	0.00a	Many days
10 PERCENT EXCEEDS	735		520		378	
50 PERCENT EXCEEDS	196		152		49	
90 PERCENT EXCEEDS	24		18		0.50	

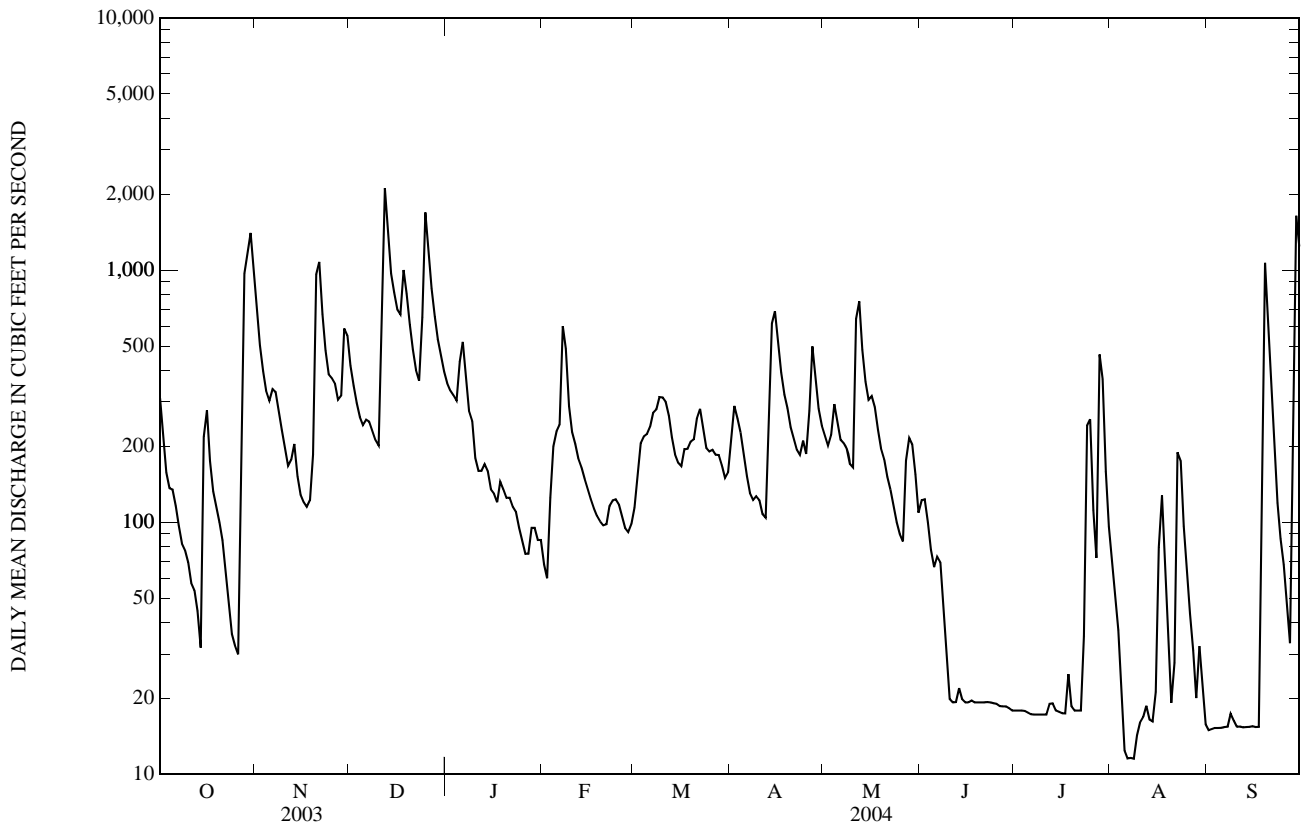
a Since 1903; see Period of Record section.

b Maximum daily.

c Maximum peak stage since 1925

(I) Sewage effluent, in cubic feet per second, from plant at Rockaway Valley Regional Sewerage Authority

e Estimated



01381400 WHIPPANY RIVER NEAR MORRISTOWN, NJ

LOCATION.--Lat 40°48'44", long 74°30'43", Morris County, Hydrologic Unit 02030103, on downstream left side of bridge on Sussex Avenue, 1.9 mi northwest of Morristown, and 2.7 mi upstream from Lake Pocahontas Dam.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--Low-flow partial-record site 1964-72. August 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 310 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records good, except for estimated record which is fair. Water diverted upstream at Clyde Potts Reservoir on Harmony Brook for municipal supply by the Southeast Morris County Municipal Utilities Authority. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0000	216	5.18	Dec 24	1730	405	5.77
Oct 29	1400	244	5.30	Jul 13	0800	182	5.01
Nov 20	0600	368	5.69	Jul 23	2130	*687	*6.26
Dec 11	1430	670	6.23	Sep 18	1615	222	5.21
Dec 17	1900	188	5.04	Sep 29	0345	570	6.04

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	26	35	48	e18	28	40	30	28	9.6	e20	6.8
2	19	23	33	46	e18	30	31	29	23	9.6	e14	6.5
3	18	23	31	45	e34	28	29	42	18	9.0	e13	6.3
4	19	22	30	49	e53	31	29	45	16	8.6	9.9	6.5
5	18	25	31	103	e28	27	26	30	17	9.4	9.0	6.3
6	17	25	33	64	e87	36	23	28	17	8.7	8.4	6.3
7	15	24	32	42	e140	28	23	34	e17	8.3	7.9	6.4
8	9.8	20	31	38	e49	48	24	26	e14	8.2	7.7	12
9	9.4	18	30	35	e34	38	25	25	e12	8.0	7.4	18
10	9.3	18	33	e31	e34	35	23	24	e12	7.7	7.1	9.4
11	9.2	18	339	e36	35	29	22	86	e14	7.4	40	7.0
12	8.8	24	131	e35	29	26	23	34	e11	24	62	6.7
13	8.6	20	75	e32	29	24	90	35	e10	118	18	6.4
14	8.7	17	67	e28	29	23	114	26	e10	21	11	6.2
15	51	17	107	e27	27	23	70	24	e10	20	25	6.9
16	13	17	68	e33	27	26	39	36	e9.0	13	17	14
17	11	16	117	e26	24	30	36	24	e12	11	18	7.7
18	13	16	125	e27	23	30	34	23	e13	11	11	111
19	11	42	73	e25	25	35	32	23	e10	18	10	36
20	10	234	63	e22	27	40	31	22	e8.0	12	9.4	10
21	10	58	55	e24	36	63	30	21	e8.0	9.9	18	8.8
22	10	39	53	e22	34	40	29	20	e11	11	13	7.7
23	9.5	35	53	e20	31	31	28	20	e10	186	9.2	7.0
24	9.1	34	203	e18	30	29	30	19	e8.0	160	8.5	6.8
25	9.0	41	152	e21	28	30	26	19	e15	23	8.0	6.8
26	9.4	33	89	e19	26	29	87	20	e21	17	7.9	6.8
27	85	32	76	e19	25	30	90	37	e9.0	28	7.8	6.4
28	103	49	66	e20	24	27	37	25	e8.0	104	8.5	69
29	158	89	62	e19	26	25	32	21	e14	24	9.4	288
30	60	39	59	e19	---	25	31	18	e10	e15	7.7	34
31	30	---	52	e20	---	31	---	19	---	e14	7.6	---
TOTAL	790.8	1,094	2,404	1,013	1,030	975	1,184	885	395.0	934.4	431.4	737.7
MEAN	25.5	36.5	77.5	32.7	35.5	31.5	39.5	28.5	13.2	30.1	13.9	24.6
MAX	158	234	339	103	140	63	114	86	28	186	62	288
MIN	8.6	16	30	18	18	23	22	18	8.0	7.4	7.1	6.2
CFSM	1.82	2.60	5.54	2.33	2.54	2.25	2.82	2.04	0.94	2.15	0.99	1.76
IN.	2.10	2.91	6.39	2.69	2.74	2.59	3.15	2.35	1.05	2.48	1.15	1.96

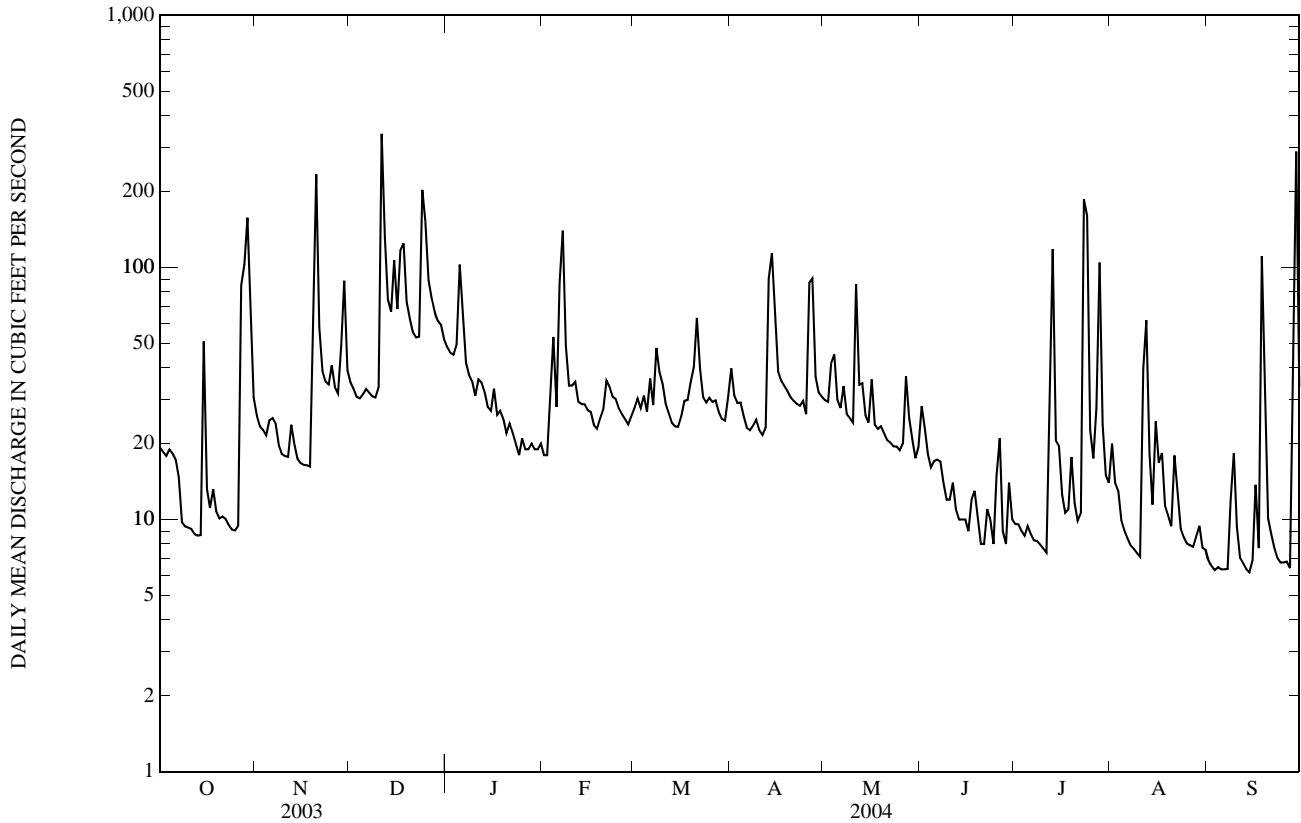
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

	28.9	22.3	39.4	33.8	34.0	42.5	39.9	32.5	27.4	16.2	11.5	16.7
MEAN	28.9	22.3	39.4	33.8	34.0	42.5	39.9	32.5	27.4	16.2	11.5	16.7
MAX	145	40.4	154	73.8	52.3	61.7	60.6	63.4	76.9	31.3	22.7	51.4
(WY)	(1997)	(1996)	(1997)	(1996)	(1996)	(2003)	(1996)	(1998)	(2003)	(1996)	(2003)	(1999)
MIN	4.94	5.23	6.03	6.18	5.98	15.3	19.6	17.8	7.17	3.76	4.70	4.87
(WY)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(1999)	(2002)	(1998)

01381400 WHIPPANY RIVER NEAR MORRISTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	14,662.5		11,874.3			
ANNUAL MEAN	40.2		32.4		28.8	
HIGHEST ANNUAL MEAN					50.9	1997
LOWEST ANNUAL MEAN					10.7	2002
HIGHEST DAILY MEAN	339	Dec 11	339	Dec 11	2,000	Oct 20, 1996
LOWEST DAILY MEAN	8.4	Aug 26	6.2	Sep 14	1.9	Aug 3, 1999
ANNUAL SEVEN-DAY MINIMUM	9.1	Aug 22	6.4	Sep 1	2.1	Aug 2, 1999
MAXIMUM PEAK FLOW			687	Jul 23	2,950a	Oct 20, 1996
MAXIMUM PEAK STAGE			6.26	Jul 23	9.31	Sep 16, 1999
INSTANTANEOUS LOW FLOW			6.1	Many days.	1.7	Aug 7, 1999
ANNUAL RUNOFF (CFSM)	2.87		2.32		2.06	
ANNUAL RUNOFF (INCHES)	38.96		31.55		27.98	
10 PERCENT EXCEEDS	76		63		55	
50 PERCENT EXCEEDS	27		24		17	
90 PERCENT EXCEEDS	12		8.3		5.1	

a From rating curve extended above 530 ft³/s
 e Estimated



PASSAIC RIVER BASIN

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'26", long 74°27'25", Morris County, Hydrologic Unit 02030103, on left bank at Morristown sewage-treatment plant, 0.8 mi northeast of Morristown, and 9.0 mi upstream from mouth.

DRAINAGE AREA.--29.4 mi².

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).

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 1, 1936. Datum of gage is 260.01 ft above NGVD of 1929 (levels from New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges which are fair. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi upstream of station and Speedwell Lake 3.4 mi upstream of station. Storms sewers in Morristown can cause sharp rises in stage at this station. Diurnal fluctuations at low flow possibly due to upstream sewage treatment plant effluent patterns. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	1615	873	5.44	Jul 23	1930	*1,060	*5.83
Dec 24	2015	631	4.86	Sep 29	0330	923	5.55

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	57	71	87	43	56	77	63	67	23	60	22
2	40	51	66	83	44	62	69	62	54	23	44	21
3	38	49	61	82	81	60	54	88	42	21	38	20
4	40	46	60	92	116	64	61	99	37	20	31	19
5	39	51	61	166	65	57	63	64	38	22	29	20
6	37	54	64	120	181	72	47	62	40	21	27	20
7	35	51	62	81	271	62	48	75	37	19	25	20
8	28	43	60	71	105	98	46	59	34	20	25	41
9	27	40	59	68	71	85	53	55	32	19	24	68
10	27	39	63	62	70	74	46	54	32	18	24	33
11	26	39	558	68	70	64	44	177	36	17	77	22
12	25	49	248	64	63	57	49	86	31	70	157	22
13	24	44	122	64	61	52	167	84	29	275	61	21
14	25	36	112	57	60	49	211	60	29	69	37	21
15	134	35	159	59	57	50	137	56	29	53	76	22
16	40	35	116	70	52	54	81	84	28	33	51	41
17	30	35	188	57	51	63	73	55	36	27	62	26
18	34	34	214	60	51	61	71	53	38	29	37	203
19	28	100	123	57	53	74	69	55	30	60	33	103
20	27	409	107	53	55	75	66	52	25	33	30	32
21	27	128	95	55	63	114	63	48	24	26	49	26
22	26	78	91	51	69	83	62	46	32	24	49	24
23	25	69	90	50	60	62	60	44	32	319	30	22
24	24	67	351	e45	61	60	63	46	25	383	27	21
25	24	80	302	e50	56	62	57	43	44	69	26	21
26	25	66	147	47	52	62	149	47	61	43	25	21
27	192	61	126	46	51	62	177	91	28	63	25	21
28	206	111	114	48	47	59	82	62	24	203	28	175
29	284	174	108	47	52	49	68	51	38	72	29	547
30	149	84	103	45	---	52	65	39	25	42	24	92
31	72	---	94	49	---	63	---	44	---	42	24	---
TOTAL	1,800	2,215	4,195	2,054	2,131	2,017	2,378	2,004	1,057	2,158	1,284	1,767
MEAN	58.1	73.8	135	66.3	73.5	65.1	79.3	64.6	35.2	69.6	41.4	58.9
MAX	284	409	558	166	271	114	211	177	67	383	157	547
MIN	24	34	59	45	43	49	44	39	24	17	24	19
CFSM	1.97	2.51	4.60	2.25	2.50	2.21	2.70	2.20	1.20	2.37	1.41	2.00
IN.	2.28	2.80	5.31	2.60	2.70	2.55	3.01	2.54	1.34	2.73	1.62	2.24

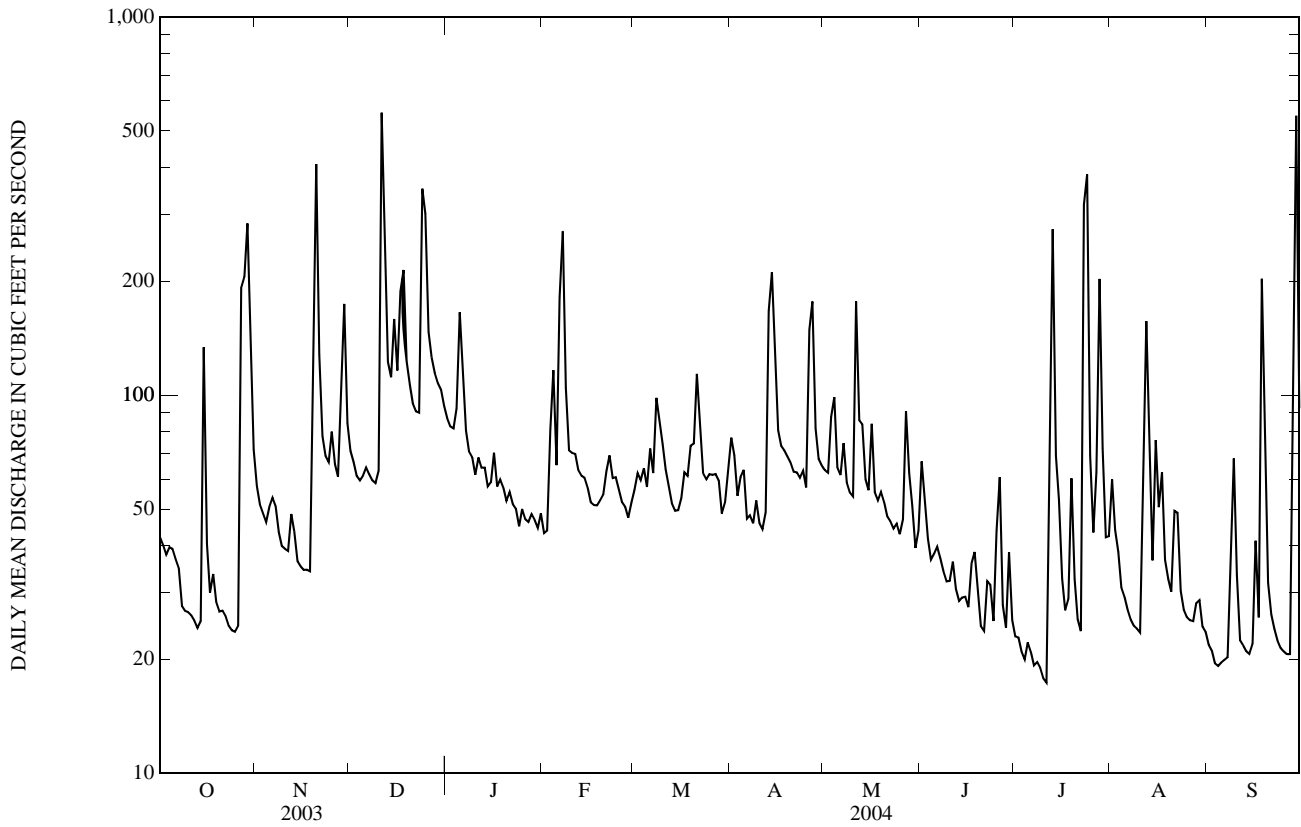
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	33.0	45.5	55.0	58.9	64.2	86.8	86.6	66.5	48.7	38.7	35.4	35.2
MAX	133	132	185	211	147	215	231	237	214	186	158	123
(WY)	(1997)	(1933)	(1997)	(1979)	(1973)	(1936)	(1983)	(1989)	(1972)	(1975)	(1942)	(1971)
MIN	8.72	13.4	14.2	16.9	20.3	28.1	30.2	24.4	14.6	10.3	8.02	7.25
(WY)	(1931)	(1937)	(1940)	(1922)	(2002)	(1981)	(1985)	(1941)	(1965)	(1965)	(1932)	(1932)

01381500 WHIPPANY RIVER AT MORRISTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	29,309		25,060		54.5	
ANNUAL MEAN	80.3		68.5		98.5	
HIGHEST ANNUAL MEAN					23.3	1984
LOWEST ANNUAL MEAN					1,510	Aug 28, 1971
HIGHEST DAILY MEAN	558	Dec 11	558	Dec 11	4.2	Sep 10, 1932
LOWEST DAILY MEAN	24	Oct 13	17	Jul 11	4.7	Sep 9, 1932
ANNUAL SEVEN-DAY MINIMUM	25	Oct 20	19	Jul 5	2,800	Aug 28, 1971
MAXIMUM PEAK FLOW			1,060	Jul 23	8.60	Aug 28, 1971
MAXIMUM PEAK STAGE			5.83	Jul 23	2.8	Aug 27, 1932
INSTANTANEOUS LOW FLOW			16	Apr 8, Sep 11	1.85	
ANNUAL RUNOFF (CFSM)	2.73		2.33		25.18	
ANNUAL RUNOFF (INCHES)	37.08		31.71		104	
10 PERCENT EXCEEDS	153		121		36	
50 PERCENT EXCEEDS	60		54		15	
90 PERCENT EXCEEDS	31		24			

e Estimated



PASSAIC RIVER BASIN

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'50". Morris County, Hydrologic Unit 02030103, on left upstream abutment of former bridge on Edwards Road, 200 ft downstream from bridges of Interstate 280, 0.4 mi upstream from Rockaway River, and 1.2 mi southwest of Pine Brook.

DRAINAGE AREA.--68.5 mi²

PERIOD OF RECORD.--Low-flow partial-record station water years 1963-69, 1973, 1979-96. November 1992 to September 1996 (gage height and discharge measurements only), October 1996 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 162 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair, except periods of backwater and estimated daily discharges, which are poor. Flow includes sewage effluent from several treatment plants upstream of gage. Discharges may be effected by backwater from the Passaic River when it reaches high stages. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e165	e520	e330	e270	e70	e110	e160	e250	194	36	e290	39
2	e155	e420	e290	e230	e65	e120	e200	e200	201	34	e260	37
3	e130	e330	e260	e200	e90	e130	e190	e190	157	32	e220	36
4	e110	e270	e230	e190	e230	e140	e170	e230	130	29	e190	32
5	e105	e220	e200	e260	e200	e140	e170	e215	104	30	e140	32
6	e90	e210	e180	e300	e270	e150	e145	e180	95	32	e95	32
7	e80	e200	e160	e280	e560	e150	e120	e170	82	29	64	33
8	e70	e180	e130	e250	e580	e185	e110	e150	67	28	48	143
9	62	e150	e120	e220	e490	e230	e110	e130	55	27	45	251
10	58	e140	e100	e190	e390	e260	e100	e115	50	25	41	185
11	52	e120	e370	e175	e370	e250	e90	e280	54	24	90	85
12	47	e135	e720	e150	e320	e240	e85	e380	48	62	287	53
13	44	e130	e700	e140	e290	e210	e190	e380	42	354	302	47
14	39	e115	e555	e130	e270	e180	e420	e300	42	384	178	41
15	280	e100	e570	e110	e240	e150	e595	e250	43	302	212	39
16	412	e90	e510	e120	e200	e135	e510	e260	41	180	197	65
17	320	e85	e510	e110	e160	e140	e435	e240	44	115	232	53
18	214	e75	e590	e100	e130	e140	e380	e220	91	145	159	289
19	150	e105	e540	e100	e115	e155	e340	e190	53	340	97	639
20	112	e440	e490	e90	e110	e170	e310	e170	39	234	69	e540
21	93	e620	e420	e85	e110	e230	e270	e140	36	100	113	e380
22	78	e530	e390	e85	e130	e250	e230	e125	45	60	217	e260
23	66	e420	e310	e85	e130	e230	e190	e115	59	177	192	e160
24	56	e370	e445	e80	e140	e200	e160	115	41	677	122	e100
25	53	e365	e700	e80	e130	e180	e130	111	48	e500	77	68
26	53	e320	e690	e75	e120	e170	e180	100	163	e370	57	52
27	257	e280	e580	e75	e110	e160	e360	253	64	e300	50	45
28	651	e270	e500	e85	e100	e150	e380	280	44	e470	49	132
29	791	e360	e415	e80	e100	e130	e330	297	69	e460	58	745
30	e800	e370	e365	e80	---	e115	e285	198	48	e390	47	759
31	e640	---	e310	e75	---	e120	---	134	---	e310	43	---
TOTAL	6,233	7,940	12,680	4,500	6,220	5,320	7,345	6,368	2,249	6,256	4,241	5,372
MEAN	201	265	409	145	214	172	245	205	75.0	202	137	179
MAX	800	620	720	300	580	260	595	380	201	677	302	759
MIN	39	75	100	75	65	110	85	100	36	24	41	32

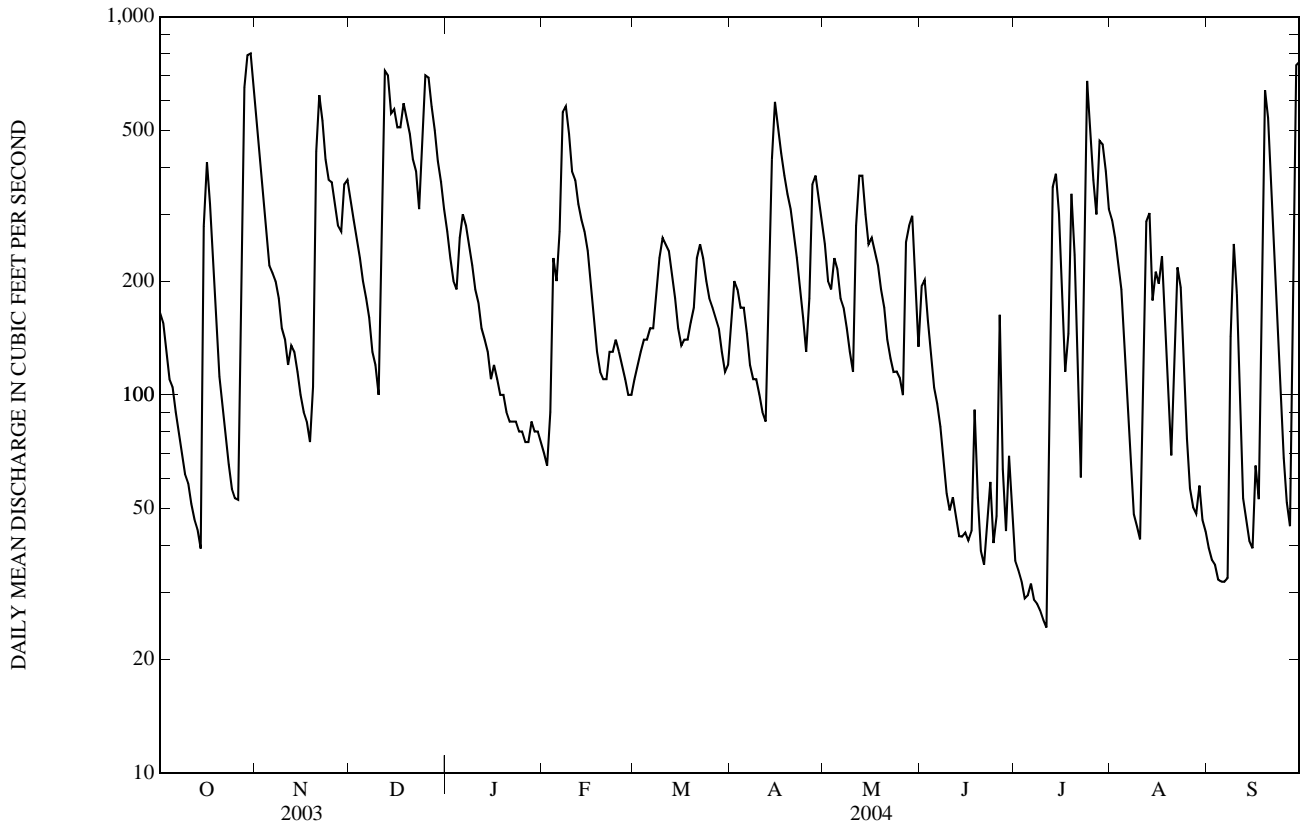
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2004, BY WATER YEAR (WY)

	1997	2004	1997	2002	2002	2002	2002	1999	1999	1999	2000	1999
MEAN	109	120	220	160	174	214	213	180	166	87.9	97.9	110
MAX	323	265	696	260	274	291	331	274	436	202	255	258
(WY)	(1997)	(2004)	(1997)	(1997)	(1997)	(1999)	(1997)	(1998)	(2003)	(2004)	(2000)	(1999)
MIN	28.7	32.8	33.6	43.3	39.7	90.4	97.6	92.6	37.7	23.7	32.5	35.2
(WY)	(2002)	(2002)	(1999)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(1999)	(2002)	(1998)

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1997 - 2004	
ANNUAL TOTAL	81,328		74,724		154	
ANNUAL MEAN	223		204		236	
HIGHEST ANNUAL MEAN					68.7	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	800	Oct 30	800e	Oct 30	1,820	Oct 20, 1996
LOWEST DAILY MEAN	28	Feb 12	24	Jul 11	17	Aug 2, 1999
ANNUAL SEVEN-DAY MINIMUM	33	Feb 9	28	Jul 5	17	Aug 2, 1999
MAXIMUM PEAK FLOW			900e	Dec 13	2,080	Oct 20, 1996
MAXIMUM PEAK STAGE			7.42	Dec 13	9.22a	Oct 22, 1996
INSTANTANEOUS LOW FLOW			24	Jul 11,12	16	Sep 13, 2002
10 PERCENT EXCEEDS	494		424		360	
50 PERCENT EXCEEDS	185		155		92	
90 PERCENT EXCEEDS	46		46		30	

a Stage on Oct. 20, 1996 was probably higher.
 e Estimated



PASSAIC RIVER BASIN

01381900 PASSAIC RIVER AT PINE BROOK, NJ

LOCATION.--Lat 40°51'45", long 74°19'17", 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 mi².

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 NGVD of 1929. 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 ft³/s and estimated record which are fair. Flow regulated by Boonton and Splitrock Reservoir (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 gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 31	0230	2,760	18.95	Feb 9	0300	2,280	18.28
Nov 22	1215	2,260	18.25	Apr 16	1015	2,220	18.19
Dec 13	1530	*3,040	*19.26	Jul 29	2015	2,130	18.04
Dec 26	1130	2,830	19.03				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,340	2,630	1,780	e1,350	278	450	615	1,230	471	203	1,750	170
2	1,160	2,430	1,670	e1,150	267	485	761	1,050	532	177	1,590	164
3	895	e2,000	1,530	e1,000	296	545	809	894	558	159	1,380	154
4	662	e1,700	1,370	e900	607	599	776	907	557	144	1,190	148
5	516	e1,400	1,210	e1,000	786	645	727	909	518	139	925	138
6	418	e1,250	1,080	e1,150	962	678	660	846	435	144	671	134
7	355	e1,150	936	e1,200	1,620	743	570	762	359	137	441	136
8	310	e1,050	805	e1,150	2,110	828	495	711	304	133	287	314
9	277	e900	713	e1,050	2,270	1,010	460	626	260	130	239	609
10	261	e800	661	e950	2,120	1,160	442	560	227	124	184	598
11	241	e700	1,190	850	1,950	1,230	414	872	213	119	203	431
12	226	684	2,400	703	1,790	1,210	388	1,350	208	154	521	271
13	214	648	3,000	634	1,640	1,120	612	1,560	198	564	689	202
14	199	601	2,950	582	1,480	972	1,190	1,460	189	676	647	175
15	487	527	2,860	500	1,300	822	1,920	1,280	186	704	602	163
16	704	465	2,730	507	1,090	697	2,210	1,150	180	650	576	192
17	708	425	2,600	498	860	653	2,160	1,090	180	577	568	194
18	596	400	2,640	464	684	641	1,990	984	265	526	531	452
19	473	435	2,630	460	569	661	1,790	858	226	674	421	1,040
20	382	1,040	2,480	436	502	736	1,590	735	184	610	323	1,420
21	336	1,890	2,280	406	488	864	1,390	621	163	436	329	1,400
22	305	2,250	2,070	384	525	978	1,190	518	169	295	515	1,170
23	270	2,200	1,870	371	545	1,010	985	440	207	352	568	836
24	240	2,050	1,910	359	557	946	819	397	192	1,080	503	532
25	219	1,890	2,480	337	559	855	690	398	187	1,420	380	337
26	209	1,750	2,800	308	531	778	719	363	374	1,540	290	250
27	469	1,600	2,720	293	493	713	1,110	515	371	1,590	242	208
28	1,160	1,480	2,540	319	458	649	1,430	610	332	1,830	223	272
29	2,060	1,610	e2,150	316	440	592	1,480	659	296	2,080	236	1,350
30	2,610	1,780	e1,900	306	---	541	1,380	582	249	2,080	206	2,340
31	2,750	---	e1,600	292	---	526	---	463	---	1,930	184	---
TOTAL	21,052	39,735	61,555	20,225	27,777	24,337	31,772	25,400	8,790	21,377	17,414	15,800
MEAN	679	1,324	1,986	652	958	785	1,059	819	293	690	562	527
MAX	2,750	2,630	3,000	1,350	2,270	1,230	2,210	1,560	558	2,080	1,750	2,340
MIN	199	400	661	292	267	450	388	363	163	119	184	134

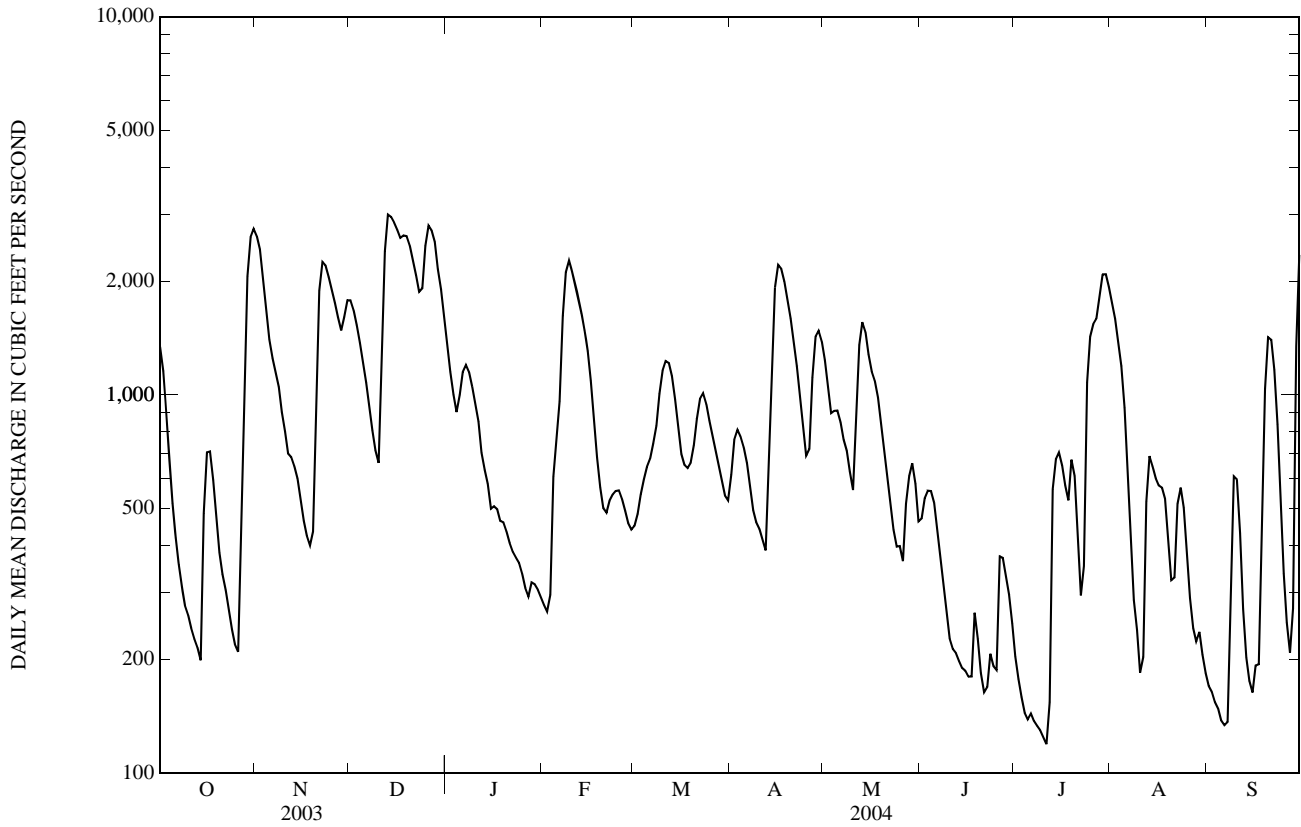
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

	389	562	792	658	766	1,019	1,108	767	581	355	310	310
MEAN	389	562	792	658	766	1,019	1,108	767	581	355	310	310
MAX	1,566	1,355	2,286	1,516	1,268	2,204	2,842	2,537	1,946	1,485	1,079	1,204
(WY)	(1997)	(1996)	(1984)	(1996)	(1996)	(1994)	(1983)	(1989)	(2003)	(1984)	(2000)	(1999)
MIN	114	127	107	105	148	272	161	289	146	98.1	117	91.0
(WY)	(2002)	(2002)	(1981)	(1981)	(2002)	(1981)	(1985)	(1995)	(1999)	(1999)	(1981)	(1980)

01381900 PASSAIC RIVER AT PINE BROOK, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	379,794		315,234		634	
ANNUAL MEAN	1,041		861		1,125	
HIGHEST ANNUAL MEAN					257	1984
LOWEST ANNUAL MEAN					7,910	2002
HIGHEST DAILY MEAN	3,180	Jun 6	3,000	Dec 13	72	Apr 7, 1984
LOWEST DAILY MEAN	145	Aug 29	119	Jul 11	78	Sep 29, 1980
ANNUAL SEVEN-DAY MINIMUM	156	Aug 25	132	Jul 5	8,000e	Oct 12, 1980
MAXIMUM PEAK FLOW			3,040	Dec 13	22.90a	Apr 7, 1984
MAXIMUM PEAK STAGE			19.26	Dec 13	70	Apr 7, 1984
INSTANTANEOUS LOW FLOW			116	Jul 12	1,520	Sep 29, 1980
10 PERCENT EXCEEDS	2,200		1,920		363	
50 PERCENT EXCEEDS	864		638		123	
90 PERCENT EXCEEDS	197		203			

a Effected by backwater.
e Estimated



01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'06", long 74°24'04", Morris County, Hydrologic Unit 02030103, on left bank 15 ft downstream from 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 mi².

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 NGVD of 1929. Prior to May 22, 1970, at site just upstream from Macopin Intake Dam, at datum 36.35 ft higher. May 22, 1970 to March 5, 1990, at site just upstream from Macopin Intake Dam, at datum 20.83 ft higher.

REMARKS.--Records fair, except those below 1.0 cfs which are poor. 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 gage-height telemetry at station.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft³/s, Dec. 12, gage height, 5.78 ft; minimum discharge, 0.33 ft³/s, July 12, gage height, 1.86 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	359	243	155	e11	9.8	106	69	78	1.6	6.0	4.0
2	68	255	199	137	e11	15	150	63	90	1.6	4.8	2.6
3	48	206	157	132	12	70	121	87	92	1.4	4.0	1.1
4	33	191	120	151	62	133	101	130	67	0.96	3.1	2.5
5	31	177	114	236	41	156	108	93	42	1.5	3.0	3.0
6	24	186	145	229	81	175	69	100	33	3.8	2.6	2.3
7	21	177	129	157	189	181	32	110	25	1.9	1.8	1.4
8	20	149	102	112	101	177	26	110	16	2.2	0.94	2.5
9	16	108	83	93	75	162	26	79	12	2.9	0.63	20
10	11	88	87	68	56	143	29	72	7.0	1.3	0.56	22
11	8.9	85	808	56	45	128	20	266	4.9	0.51	0.96	12
12	8.2	97	1,240	e46	31	113	19	272	3.5	1.3	1.8	7.8
13	7.7	96	777	e44	23	96	124	210	2.6	15	1.8	5.7
14	6.5	93	476	e43	18	78	287	154	2.0	10	1.8	4.3
15	85	55	420	e38	14	69	351	119	2.2	8.0	2.8	3.3
16	123	33	287	e24	9.2	72	292	132	2.3	5.7	11	3.3
17	69	28	337	e24	7.4	93	222	105	4.6	4.2	12	3.0
18	47	40	493	e25	7.2	77	162	78	7.6	5.2	8.9	94
19	36	119	387	e20	6.9	76	133	74	6.3	13	6.3	559
20	28	608	278	e18	6.5	70	108	55	4.8	10	4.7	376
21	22	549	217	e15	7.4	100	83	39	2.5	7.7	26	191
22	20	347	181	e15	8.1	109	72	29	1.8	5.4	44	117
23	26	238	170	e13	7.3	79	84	22	2.6	6.8	85	70
24	19	188	465	e12	7.4	65	87	18	2.3	38	127	42
25	11	196	860	e10	7.9	70	63	14	1.9	23	65	27
26	8.7	166	632	e10	6.8	76	115	9.9	2.2	12	44	17
27	155	138	423	e10	6.6	80	225	170	2.1	9.5	31	10
28	515	154	294	e9.0	6.7	82	175	266	1.3	15	22	50
29	759	340	236	e10	7.3	57	106	185	1.9	11	14	613
30	845	323	208	e11	---	44	81	97	1.7	7.4	6.6	625
31	567	---	180	e10	---	53	---	57	---	6.5	4.7	---
TOTAL	3,732.0	5,789	10,748	1,933.0	872.7	2,908.8	3,577	3,284.9	523.1	234.37	548.79	2,891.8
MEAN	120	193	347	62.4	30.1	93.8	119	106	17.4	7.56	17.7	96.4
MAX	845	608	1,240	236	189	181	351	272	92	38	127	625
MIN	6.5	28	83	9.0	6.5	9.8	19	9.9	1.3	0.51	0.56	1.1

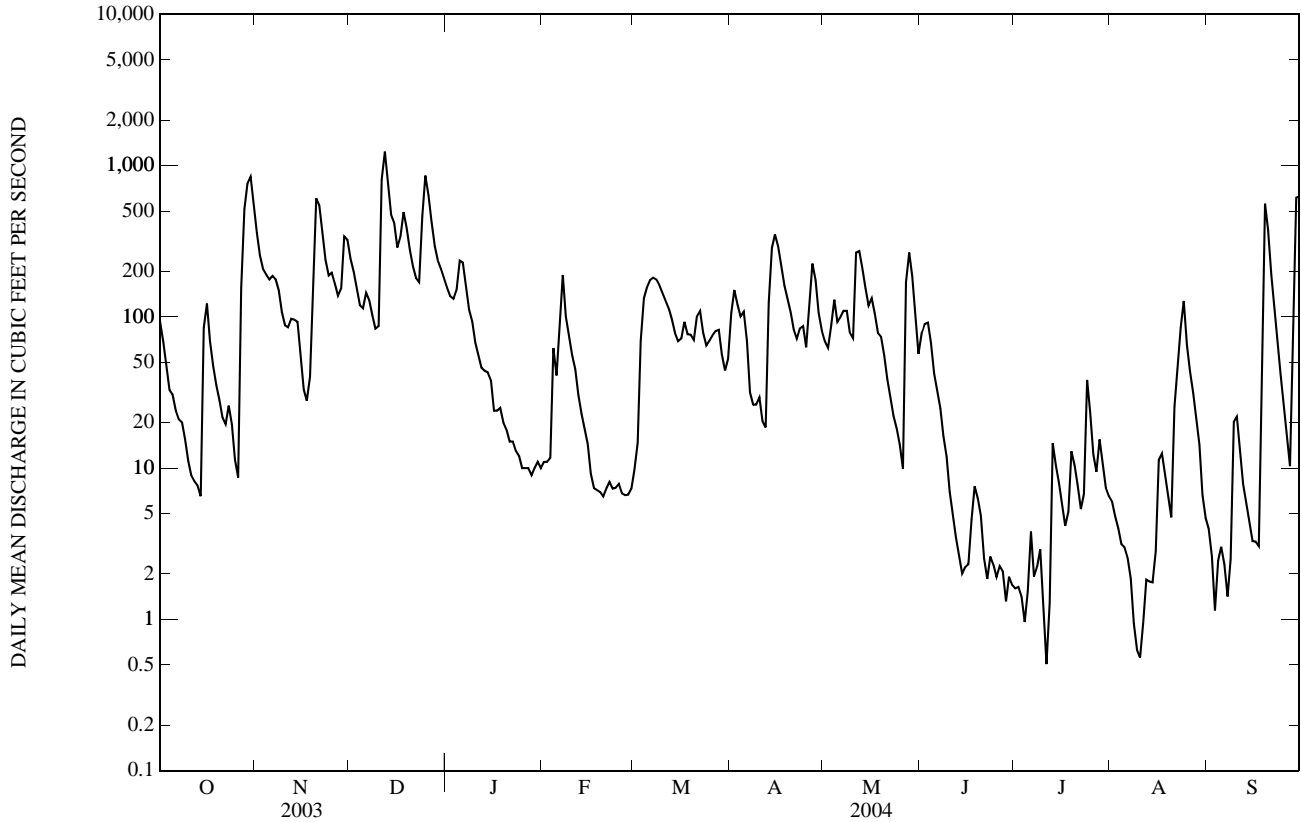
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

MEAN	17.2	33.6	43.3	40.8	49.6	102	129	65.9	34.8	18.4	15.1	19.7
MAX	288	309	357	308	270	572	506	263	360	238	228	211
(WY)	(1956)	(1928)	(1997)	(1996)	(1939)	(1936)	(1983)	(1989)	(1972)	(1938)	(1955)	(1960)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1929)	(1929)	(1929)	(1931)	(1930)	(1965)	(1950)	(1954)	(1944)	(1923)	(1923)	(1929)

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	45,906.1		37,043.46		47.3	
ANNUAL MEAN	126		101		109	
HIGHEST ANNUAL MEAN					0.12	
LOWEST ANNUAL MEAN					1954	
HIGHEST DAILY MEAN	1,240	Dec 12	1,240	Dec 12	3,170	Apr 6, 1984
LOWEST DAILY MEAN	3.7	Aug 1	0.51	Jul 11	0.00	Oct 1, 1922
ANNUAL SEVEN-DAY MINIMUM	4.3	Jul 15	1.2	Aug 7	0.00	Oct 18, 1922
MAXIMUM PEAK FLOW			1,390	Dec 12	6,100a	Oct 10, 1903
MAXIMUM PEAK STAGE			5.78	Dec 12	17.40a	Oct 10, 1903
10 PERCENT EXCEEDS	348		247		141	
50 PERCENT EXCEEDS	41		44		5.6	
90 PERCENT EXCEEDS	6.8		2.6		0.00	

a Since 1898, site and datum then in use.
 e Estimated



PASSAIC RIVER BASIN

01383500 WANAQUE RIVER AT AWOSTING, NJ

LOCATION.--Lat 41°09'37", long 74°20'01", Passaic County, Hydrologic Unit 02030103, on right bank, 700 ft downstream from dam at outlet of Greenwood Lake at Awosting, and 3.7 mi northeast of West Milford.

DRAINAGE AREA.--27.1 mi².

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 NGVD of 1929 (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 fair. Flow occasionally regulated by gates in dam on 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. Satellite gage-height telemetry at station.

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 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2115	436	3.64	Dec 25	0545	374	3.51
Nov 20	1930	263	3.25	Aug 22	0030	333	3.42
Dec 12	0300	*531	*3.82	Sep 19	0015	393	3.55
Dec 18	1000	248	3.21	Sep 29	1330	286	3.32

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	243	126	94	24	29	65	58	70	20	35	45
2	94	190	112	82	23	36	74	56	106	19	32	36
3	78	145	94	75	24	47	70	61	103	16	27	30
4	66	117	79	77	32	62	71	66	85	13	25	27
5	60	103	74	93	31	72	68	60	73	13	25	23
6	52	105	84	94	41	83	56	65	63	14	18	20
7	44	97	73	84	60	87	48	66	56	10	13	18
8	39	86	63	74	59	95	43	59	50	9.4	12	42
9	36	71	58	67	53	96	41	59	44	9.5	9.5	158
10	33	64	54	59	49	94	38	58	42	8.9	9.1	175
11	32	60	245	52	46	89	35	95	36	8.6	12	135
12	29	59	494	49	43	84	35	100	30	8.4	21	106
13	25	57	375	47	40	78	56	102	24	22	25	81
14	21	52	282	44	38	66	104	90	22	23	25	66
15	75	43	244	45	36	62	147	79	22	22	29	55
16	77	37	176	46	34	63	135	81	24	20	86	51
17	68	37	188	37	31	65	116	70	33	19	91	45
18	62	35	239	38	30	60	101	61	52	17	73	234
19	55	48	210	38	29	63	86	58	48	21	60	346
20	48	213	176	36	27	57	79	49	37	21	52	246
21	46	239	144	33	28	68	67	45	29	19	172	177
22	53	199	121	31	29	69	61	42	26	18	318	130
23	48	163	107	29	29	60	60	40	26	22	234	97
24	40	137	187	28	30	58	59	39	22	43	168	77
25	34	130	363	26	31	57	50	36	26	38	121	64
26	34	109	306	24	29	57	64	31	37	33	91	57
27	77	95	237	24	28	60	81	61	31	32	74	48
28	177	96	183	32	27	58	78	81	26	43	64	70
29	333	142	150	30	27	52	67	80	27	40	54	253
30	408	138	129	28	---	48	62	65	22	36	51	250
31	315	---	107	26	---	53	---	57	---	35	55	---
TOTAL	2,671	3,310	5,480	1,542	1,008	2,028	2,117	1,970	1,292	673.8	2,081.6	3,162
MEAN	86.2	110	177	49.7	34.8	65.4	70.6	63.5	43.1	21.7	67.1	105
MAX	408	243	494	94	60	96	147	102	106	43	318	346
MIN	21	35	54	24	23	29	35	31	22	8.4	9.1	18

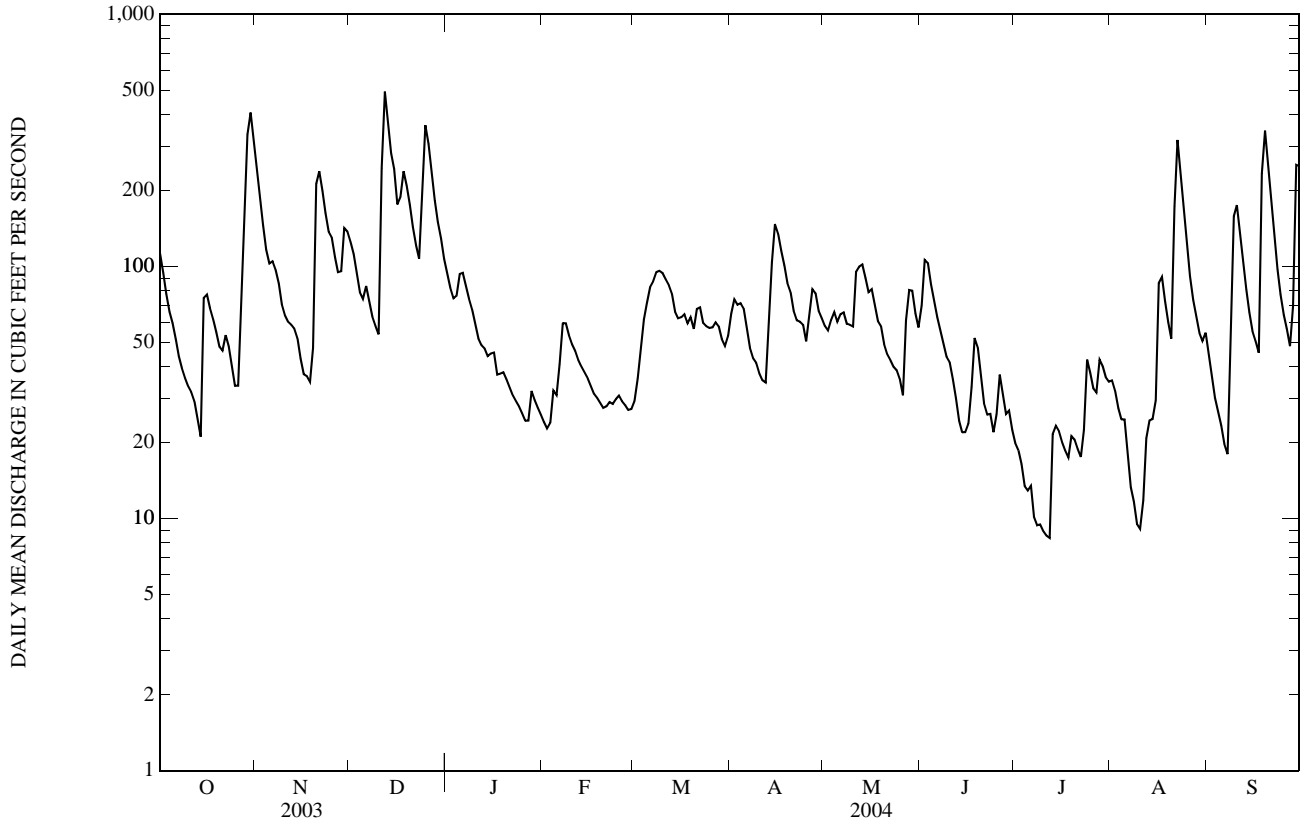
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2004, BY WATER YEAR (WY)

MEAN	29.6	56.8	66.5	63.1	61.8	102	93.6	59.7	38.7	25.9	26.2	30.1
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	0.20	0.18	1.88	3.00	3.04	6.08	6.02	13.4	4.37	2.76	0.01	0.06
(WY)	(1932)	(1932)	(1985)	(1922)	(1922)	(2002)	(2002)	(1941)	(1957)	(1981)	(1929)	(1929)

01383500 WANAQUE RIVER AT AWOSTING, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1919 - 2004	
ANNUAL TOTAL	31,744.5		27,335.4		54.4	
ANNUAL MEAN	87.0		74.7		19.2	
HIGHEST ANNUAL MEAN					105	1984
LOWEST ANNUAL MEAN					19.2	2002
HIGHEST DAILY MEAN	511	Mar 22	494	Dec 12	2,350	Apr 6, 1984
LOWEST DAILY MEAN	5.2	Jul 17	8.4	Jul 12	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	7.2	Aug 26	9.8	Jul 6	0.00	Jul 27, 1929
MAXIMUM PEAK FLOW			531	Dec 12	2,800a	Apr 5, 1984
MAXIMUM PEAK STAGE			3.82	Dec 12	6.65	Apr 5, 1984
INSTANTANEOUS LOW FLOW			8.3	Jul 11, 12	0.00	Many days
10 PERCENT EXCEEDS	195		160		125	
50 PERCENT EXCEEDS	67		57		33	
90 PERCENT EXCEEDS	19		23		5.0	

a From rating curve extended above 750 ft³/s based on theoretical weir formula



PASSAIC RIVER BASIN

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ

LOCATION.--Lat 41°07'39", long 74°15'56", 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 mi².

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 NGVD of 1929 (levels by New Jersey Geological Survey). Prior to Sept. 30, 1978, at datum 10.0 ft higher.

REMARKS.--Records good, except for discharges above 300 ft³/s which are fair and estimated daily discharges which are poor. Records given herein include flow over spillway and through ports in dam when open or through waste gate in dam. No flow through ports this year. Currently there is leakage through the waste gate and is included in flow. 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. Satellite gage-height telemetry at station.

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2130	291	11.69	Dec 24	1845	500	*12.15
Oct 29	1200	448	12.04	Aug 22	0100	323	11.77
Nov 20	0630	242	11.56	Sep 18	1100	430	12.00
Nov 29	0015	275	11.65	Sep 29	0300	375	11.89
Dec 11	---	*unknown	unknown				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	123	92	63	e15	21	40	35	58	12	11	27
2	48	100	79	57	15	26	40	33	112	10	9.8	22
3	41	86	68	52	18	28	34	36	80	9.1	8.8	20
4	36	73	61	53	30	33	33	44	58	7.9	7.2	16
5	34	73	57	73	21	34	29	37	50	8.5	6.6	15
6	30	76	56	61	34	40	26	39	44	7.7	6.0	13
7	25	68	55	51	51	41	25	36	39	6.9	5.3	11
8	23	56	52	45	e33	45	25	33	35	5.9	5.0	45
9	21	50	48	39	e28	46	23	34	31	5.1	4.4	89
10	19	45	44	e37	22	45	22	32	29	4.2	3.9	55
11	18	43	e340	e34	21	42	21	74	25	3.8	5.6	39
12	17	42	e330	e32	19	38	21	65	22	4.7	11	32
13	15	39	e190	e31	18	35	43	69	20	27	13	27
14	14	32	e125	e31	18	32	74	52	19	17	11	24
15	54	30	e145	e26	17	30	100	43	17	12	15	20
16	31	28	e115	e32	16	30	70	50	17	8.9	89	21
17	25	27	e155	e29	15	30	60	38	29	7.7	87	19
18	23	25	e200	e26	15	29	55	34	34	6.8	51	246
19	21	40	e170	e24	15	31	49	e31	24	7.6	38	154
20	20	201	e130	e22	14	33	44	e26	19	6.4	30	99
21	20	126	e100	e21	17	44	42	24	17	5.7	149	78
22	23	97	e85	e20	19	39	37	23	18	5.2	225	64
23	21	83	73	e19	19	34	38	22	17	47	129	54
24	18	73	280	e19	18	32	37	23	16	69	95	46
25	17	78	311	e20	16	32	31	20	15	31	74	38
26	17	64	189	e19	15	32	57	19	23	18	59	34
27	119	57	141	e18	15	31	64	68	18	16	52	30
28	188	80	114	e18	16	29	49	39	16	28	44	72
29	323	188	96	e18	18	26	43	32	16	19	38	255
30	233	111	85	e17	---	25	39	25	14	15	33	127
31	156	---	72	e16	---	30	---	24	---	14	32	---
TOTAL	1,706	2,214	4,058	1,023	588	1,043	1,271	1,160	932	447.1	1,348.6	1,792
MEAN	55.0	73.8	131	33.0	20.3	33.6	42.4	37.4	31.1	14.4	43.5	59.7
MAX	323	201	340	73	51	46	100	74	112	69	225	255
MIN	14	25	44	16	14	21	21	19	14	3.8	3.9	11
CFSM	2.88	3.86	6.85	1.73	1.06	1.76	2.22	1.96	1.63	0.76	2.28	3.13
IN.	3.32	4.31	7.90	1.99	1.15	2.03	2.48	2.26	1.82	0.87	2.63	3.49

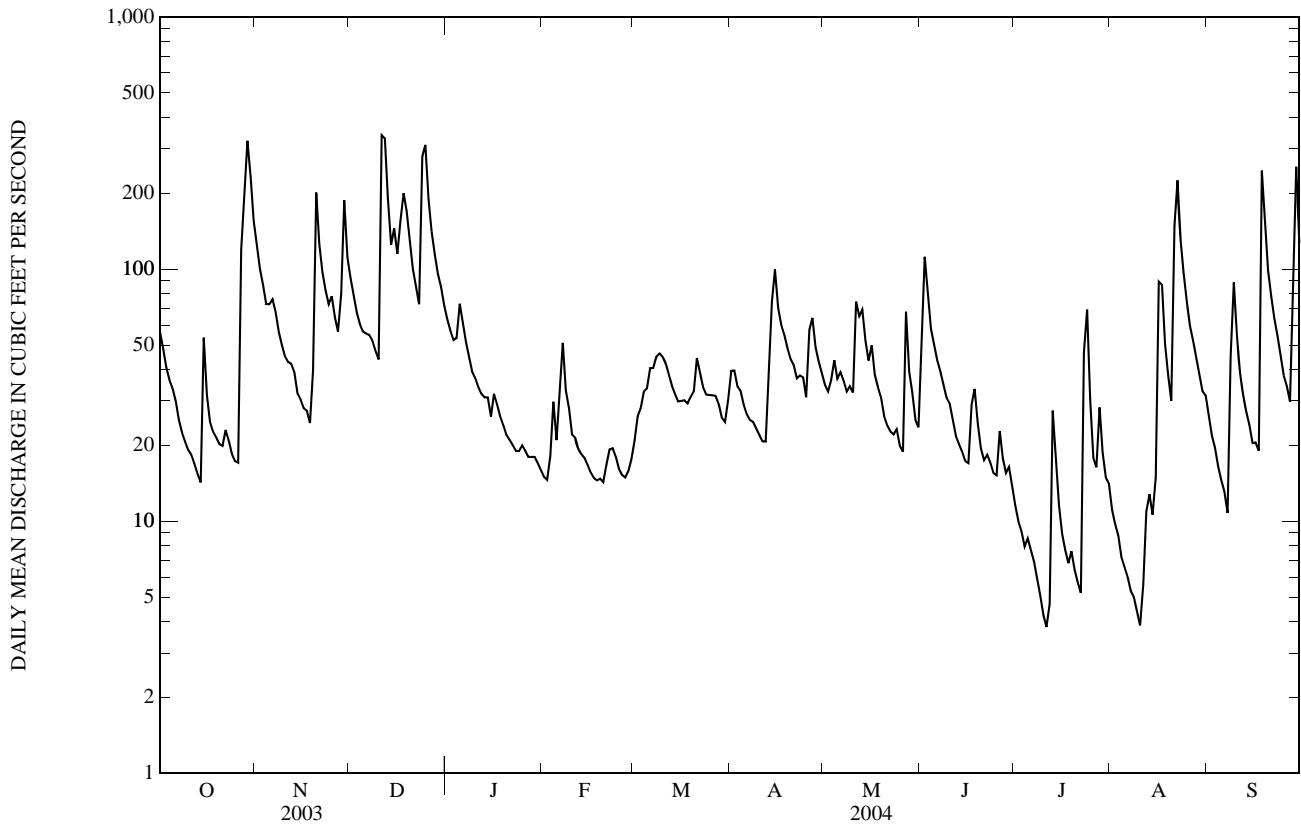
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	16.2	32.2	43.6	41.1	40.2	66.2	57.7	39.1	24.2	14.1	13.0	12.9
MAX	131	88.8	131	149	109	157	123	131	121	86.1	107	62.4
(WY)	(1956)	(1973)	(2004)	(1979)	(1970)	(1936)	(1940)	(1989)	(1972)	(1945)	(1955)	(1999)
MIN	1.07	1.42	2.71	2.82	3.93	14.1	18.3	10.9	3.78	1.31	0.70	0.28
(WY)	(1945)	(2002)	(1999)	(2002)	(2002)	(2002)	(1966)	(1941)	(1957)	(1966)	(1966)	(1964)

01384500 RINGWOOD CREEK NEAR WANAQUE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	20,955.0		17,582.7		33.3	
ANNUAL MEAN	57.4		48.0		11.8	
HIGHEST ANNUAL MEAN					54.4	1952
LOWEST ANNUAL MEAN					11.8	2002
HIGHEST DAILY MEAN	385	Mar 22	340	Dec 11	756	Aug 19, 1955
LOWEST DAILY MEAN	5.8	Jul 31	3.8	Jul 11	0.00	Sep 11, 1963
ANNUAL SEVEN-DAY MINIMUM	7.4	Sep 9	5.3	Aug 5	0.16	Sep 5, 1944
MAXIMUM PEAK FLOW			unknown	Dec 11	2,300	Sep 16, 1999
MAXIMUM PEAK STAGE			12.15	Dec 24	13.92	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.4	Many days	0.00	Many days
ANNUAL RUNOFF (CFSM)	3.01		2.52		1.74	
ANNUAL RUNOFF (INCHES)	40.81		34.24		23.70	
10 PERCENT EXCEEDS	125		99		76	
50 PERCENT EXCEEDS	40		32		21	
90 PERCENT EXCEEDS	11		14		2.1	

e Estimated



PASSAIC RIVER BASIN

01386000 WEST BROOK NEAR WANAQUE, NJ

LOCATION.--Lat 41°04'25", long 74°18'42", Passaic County, Hydrologic Unit 02030103, on right bank 500 ft upstream from Wanaque Reservoir, 0.3 mi downstream from Burnt Meadow Brook, and 2.5 mi northwest of Wanaque.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--October 1934 to September 1978, May 2002 to current year. Monthly discharge only for October to December 1934, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 326.79 ft above NGVD of 1929(levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair, except for estimated discharges which are poor. Records herein include flow over spillway and through ports in dam or through waste gate in dam. No flow through ports or waste gates this year. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREME OUTSIDE OF PERIOD OF RECORD.--The flood of Sep. 19, 1999, reached a stage of 7.1 ft, based on floodmarks, discharge, 2,500 ft³/s, from rating curve extended above 630 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1915	401	2.46	Dec 24	1545	447	2.66
Oct 29	1000	429	2.58	Sep 18	1100	660	3.50
Dec 11	1315	*740	*3.77	Sep 29	0315	476	2.78

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	61	e49	32	e10	22	38	28	31	5.3	12	9.3
2	33	48	41	29	e9.0	33	38	25	34	4.1	9.5	6.1
3	26	40	35	28	e14	41	30	32	29	3.6	7.3	4.8
4	23	34	31	30	e24	44	28	42	19	3.0	6.3	4.8
5	21	39	29	54	16	40	23	30	16	3.3	6.0	4.4
6	19	43	30	44	26	47	20	35	15	3.0	5.2	4.1
7	19	39	e28	32	48	40	19	34	14	2.7	4.5	3.7
8	14	32	26	28	e27	44	18	27	12	2.6	4.0	71
9	13	29	25	e24	e20	42	18	26	11	2.5	3.7	134
10	11	27	24	e21	e16	40	16	23	11	2.0	3.3	51
11	12	27	335	e19	e16	38	16	67	9.3	2.0	5.9	27
12	11	26	158	e19	e13	35	16	47	7.5	4.2	15	20
13	10	25	84	e18	e13	30	62	54	6.6	46	13	16
14	9.9	22	64	e18	e14	27	121	35	6.6	16	8.3	12
15	97	21	64	e16	e12	25	123	30	6.3	9.7	15	11
16	43	21	51	e20	e11	24	70	38	5.4	6.0	118	13
17	31	20	98	e18	e10	25	52	26	18	4.4	48	11
18	25	18	114	e17	e11	23	42	21	15	5.1	24	268
19	21	47	71	15	e11	25	36	22	9.3	15	17	102
20	19	e225	55	13	e11	27	31	20	6.4	7.8	13	49
21	18	e115	45	13	e14	43	27	18	5.2	5.2	139	33
22	17	64	41	12	17	40	24	19	6.6	4.3	99	23
23	17	53	40	11	15	32	26	15	6.7	72	40	18
24	15	45	214	e11	14	29	27	15	5.1	83	23	15
25	13	47	169	e12	14	30	21	13	5.4	26	18	13
26	13	37	90	e12	12	28	54	12	4.8	14	15	12
27	150	32	66	e12	12	27	63	86	4.3	16	13	11
28	160	43	54	e12	14	23	42	40	4.6	34	11	72
29	264	e105	46	e12	16	21	33	25	5.1	20	9.1	265
30	135	e59	41	e11	---	19	29	17	4.6	15	9.2	79
31	82	---	36	e10	---	22	---	15	---	18	10	---
TOTAL	1,380.9	1,444	2,254	623	460.0	986	1,163	937	334.8	455.8	725.3	1,363.2
MEAN	44.5	48.1	72.7	20.1	15.9	31.8	38.8	30.2	11.2	14.7	23.4	45.4
MAX	264	225	335	54	48	47	123	86	34	83	139	268
MIN	9.9	18	24	10	9.0	19	16	12	4.3	2.0	3.3	3.7

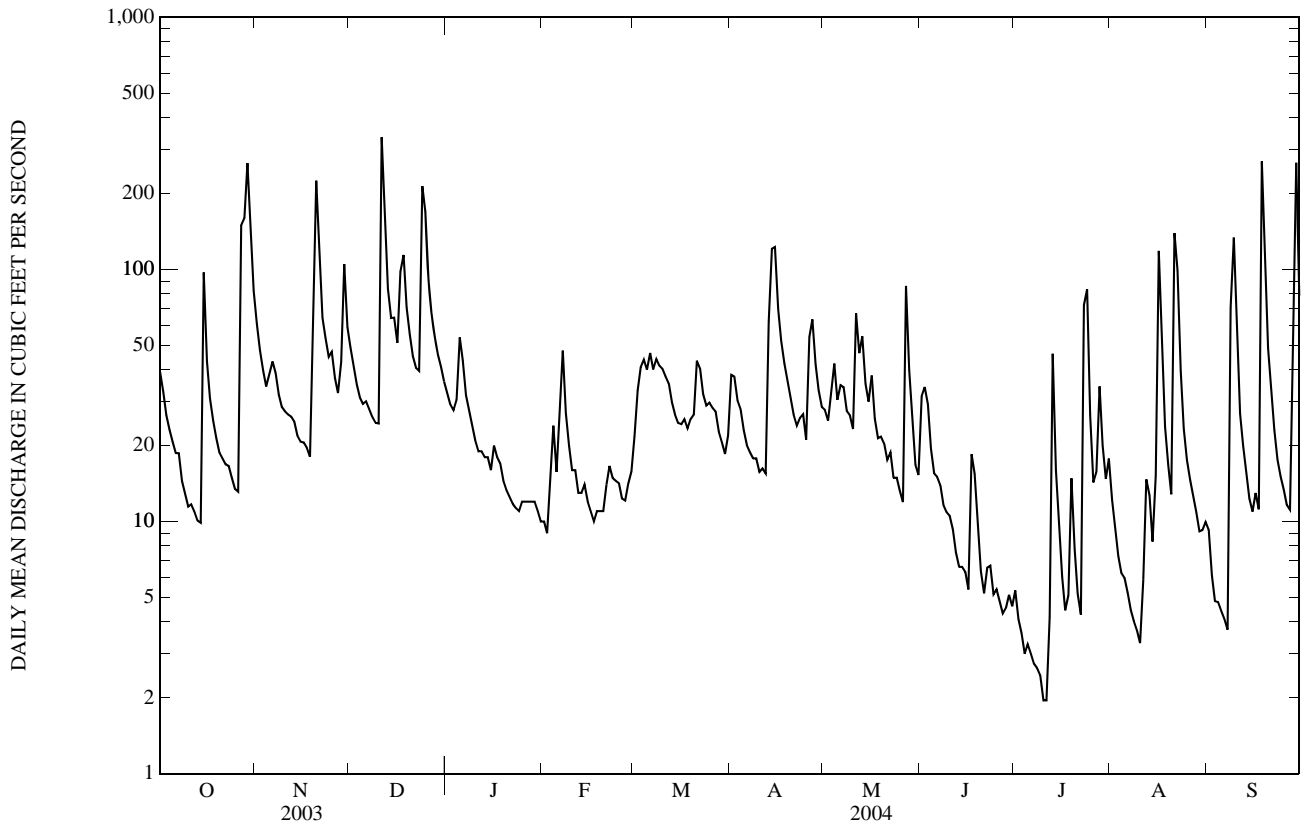
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2004, BY WATER YEAR (WY)

MEAN	14.3	27.5	32.5	28.2	29.9	48.8	38.6	26.0	16.5	9.84	10.8	11.7
MAX	89.6	68.9	72.7	63.1	70.4	119	76.7	62.1	76.8	48.9	56.2	49.0
(WY)	(1956)	(1978)	(2004)	(1978)	(1970)	(1936)	(1952)	(1978)	(1972)	(1945)	(1955)	(1960)
MIN	1.73	2.54	4.25	5.90	8.65	19.8	14.0	5.59	2.22	1.48	0.60	0.78
(WY)	(1945)	(1965)	(1940)	(1977)	(1940)	(1938)	(1946)	(1941)	(1957)	(1957)	(1966)	(1953)

01386000 WEST BROOK NEAR WANAQUE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1935 - 2004	
ANNUAL TOTAL	14,665.9		12,127.0		24.6	
ANNUAL MEAN	40.2		33.1		10.3	
HIGHEST ANNUAL MEAN					40.0	1952
LOWEST ANNUAL MEAN					10.3	1965
HIGHEST DAILY MEAN	335	Dec 11	335	Dec 11	662	Mar 12, 1936
LOWEST DAILY MEAN	2.7	Jul 20	2.0	Jul 10,11	0.20	Aug 8, 1966
ANNUAL SEVEN-DAY MINIMUM	3.5	Jul 15	2.6	Jul 5	0.20	Aug 8, 1966
MAXIMUM PEAK FLOW			740	Dec 11	1,900a	Mar 30, 1951
MAXIMUM PEAK STAGE			3.77	Dec 11	6.60b	Mar 30, 1951
INSTANTANEOUS LOW FLOW			1.7	Jul 12	0.00c	Many days
10 PERCENT EXCEEDS	90		65		54	
50 PERCENT EXCEEDS	28		21		14	
90 PERCENT EXCEEDS	6.8		6.0		2.1	

- a From rating curve extended above 630 ft³/s.
- b From floodmark.
- c No flow part of day in most years just after waste gate was closed and water was below ports.
- e Estimated



01387000 WANAQUE RIVER AT WANAQUE, NJ

LOCATION.--Lat 41°02'39", long 74°17'35", Passaic County, Hydrologic Unit 02030103, on left bank 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on County Route 511.

DRAINAGE AREA.--90.4 mi², considered as 94 mi² 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 NGVD of 1929 (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. Flow regulated by Greenwood Lake 11 mi above station, since October 1987 by Monksville Reservoir just upstream from 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. National Weather Service raingage and U. S. Geological Survey satellite gage-height telemetry at 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.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

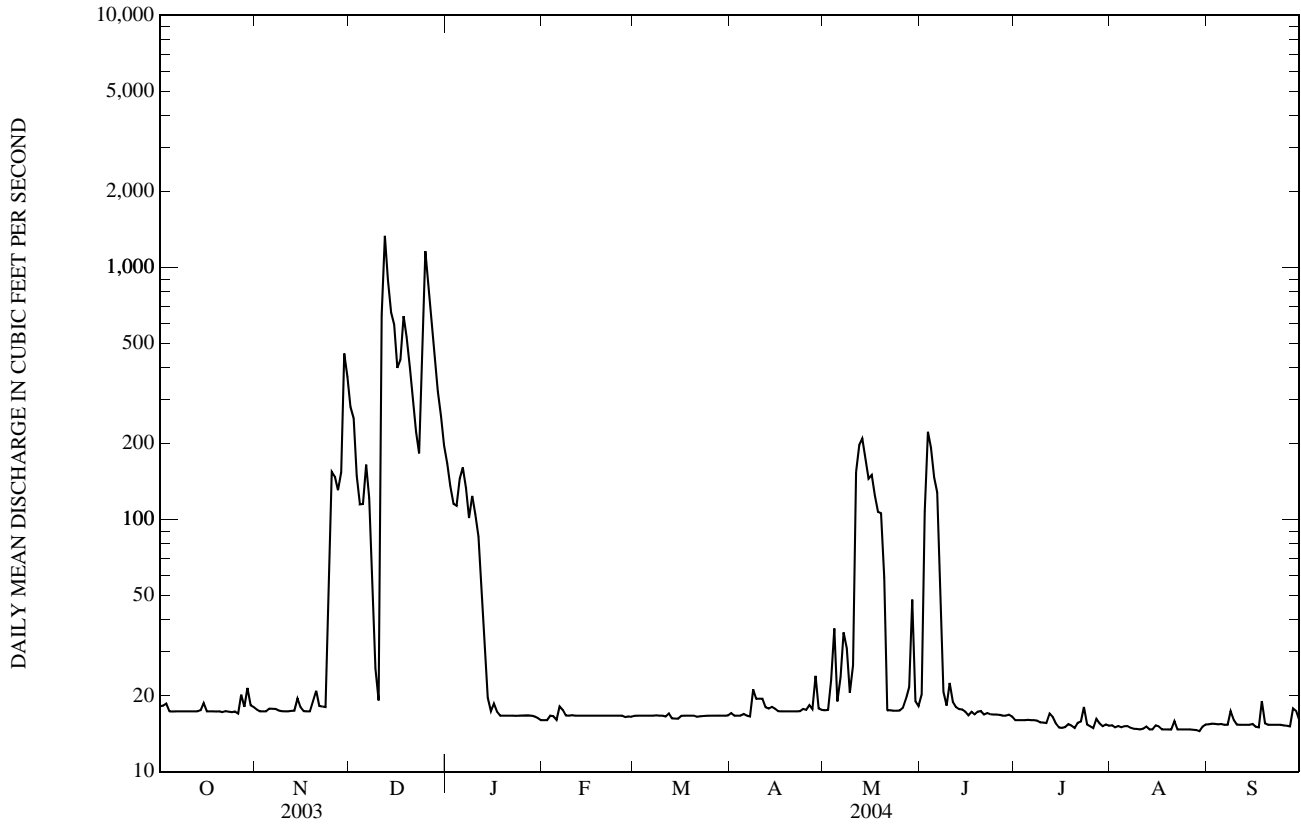
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	280	167	16	17	17	18	20	16	15	15
2	18	17	252	136	16	17	17	18	107	16	15	16
3	19	17	149	115	17	17	17	23	223	16	15	15
4	17	17	115	114	17	17	17	37	193	16	15	15
5	17	18	115	145	16	17	17	19	147	16	15	15
6	17	18	165	161	18	17	17	24	128	16	15	15
7	17	18	122	133	18	17	17	36	57	16	15	15
8	17	17	51	101	17	17	21	31	21	16	15	17
9	17	17	26	124	17	17	19	21	18	16	15	16
10	17	17	19	105	17	17	19	26	22	16	15	15
11	17	17	648	86	17	17	19	154	19	16	15	15
12	17	17	1,340	47	17	17	18	197	18	17	15	15
13	17	17	893	30	17	16	18	209	18	17	15	15
14	18	20	663	20	17	16	18	175	18	16	15	15
15	19	18	594	17	17	16	18	145	17	15	15	15
16	17	17	400	19	17	17	17	150	17	15	15	15
17	17	17	430	17	17	17	17	125	17	15	15	15
18	17	17	641	17	17	17	17	107	17	15	15	19
19	17	19	529	17	17	17	17	106	17	15	15	16
20	17	21	403	17	17	17	17	59	17	15	15	15
21	17	18	294	17	17	17	17	18	17	16	16	15
22	17	18	223	17	17	17	17	18	17	16	15	15
23	17	18	183	17	17	17	17	17	17	18	15	15
24	17	57	511	17	17	17	18	17	17	15	15	15
25	17	155	1,160	17	17	17	18	17	17	15	15	15
26	17	148	859	17	17	17	18	18	17	15	15	15
27	20	131	616	17	16	17	18	19	17	16	15	15
28	18	154	428	17	17	17	24	22	17	16	15	18
29	21	455	322	17	17	17	18	48	17	15	14	17
30	18	368	257	16	---	17	18	19	17	15	15	16
31	18	---	197	16	---	17	---	18	---	15	15	---
TOTAL	544	1,876	12,885	1,773	491	524	537	1,911	1,281	488	465	465
MEAN	17.5	62.5	416	57.2	16.9	16.9	17.9	61.6	42.7	15.7	15.0	15.5
MAX	21	455	1,340	167	18	17	24	209	223	18	16	19
MIN	17	17	19	16	16	16	17	17	17	15	14	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2004, BY WATER YEAR (WY)

MEAN	34.8	45.5	65.4	66.5	72.6	153	175	96.1	60.4	38.1	27.6	33.5
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	0.76	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)

01387000 WANAQUE RIVER AT WANAQUE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1912 - 2004	
ANNUAL TOTAL	39,450		23,240		70.9	
ANNUAL MEAN	108		63.5		1.93	
HIGHEST ANNUAL MEAN					231	1920
LOWEST ANNUAL MEAN					1.93	1966
HIGHEST DAILY MEAN	1,340	Dec 12	1,340	Dec 12	5,470	Apr 6, 1984
LOWEST DAILY MEAN	17	Oct 4	14	Aug 29	0.06	Oct 11, 1984
ANNUAL SEVEN-DAY MINIMUM	17	Oct 4	15	Aug 23	0.50	Dec 14, 1949
MAXIMUM PEAK FLOW			1,550	Dec 12	10,500	Apr 5, 1984
MAXIMUM PEAK STAGE			5.97	Dec 12	10.82	Apr 5, 1984
INSTANTANEOUS LOW FLOW			11	Oct 3		
10 PERCENT EXCEEDS	336		151		187	
50 PERCENT EXCEEDS	19		17		18	
90 PERCENT EXCEEDS	18		15		15	



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 mi².

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

REVISED RECORDS.--WDR NY-00-1: 1999 (M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 264.44 ft above NGVD of 1929.

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. Satellite gage-height telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft³/s; minimum discharge, 1.7 ft³/s, Sept. 7, 1995, gage height, 1.04 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi².

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2300	1,880	7.26	Dec 25	0400	2,430	8.24
Nov 20	1900	1,150	5.71	Aug 22	0215	1,880	7.27
Dec 11	2330	*3,400	*9.58	Sep 18	1000	2,740	8.75
Dec 18	0900	1,120	5.66	Sep 29	1215	1,470	6.44

Minimum discharge, 13 ft³/s, Aug. 11, gage height, 1.48 ft; minimum gage height, 1.47 ft, July 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	537	483	288	e60	98	255	180	189	42	51	95
2	179	421	389	256	e62	139	300	169	267	44	42	76
3	139	350	324	234	e80	211	243	189	225	27	33	64
4	122	291	273	240	e100	245	222	267	159	23	28	55
5	112	279	244	385	e80	253	214	222	127	22	26	47
6	99	323	262	376	e120	299	171	240	113	20	28	43
7	90	303	263	276	e240	339	148	196	102	18	24	40
8	84	258	223	209	208	318	136	167	91	18	19	242
9	78	206	194	166	151	310	128	179	80	18	16	829
10	74	178	185	139	126	291	118	178	90	18	15	594
11	70	166	1,810	e130	119	269	109	319	81	16	16	326
12	67	168	2,590	e120	105	244	108	327	69	19	55	213
13	66	171	1,090	e115	99	204	261	307	60	64	53	153
14	60	144	682	e110	96	174	475	223	57	52	51	119
15	267	120	606	e105	90	162	473	166	54	39	75	102
16	197	107	484	e100	e78	157	359	208	54	30	541	112
17	119	102	646	e98	e76	172	305	170	115	24	453	96
18	102	99	1,040	e92	75	157	267	141	245	20	258	1,940
19	93	162	702	e88	75	161	230	130	122	24	158	1,870
20	95	970	515	e86	73	165	204	112	82	23	118	810
21	88	840	413	e84	79	268	195	103	66	18	850	497
22	92	513	358	e80	94	281	172	96	63	16	1,580	359
23	85	396	331	e76	93	220	173	94	60	123	693	279
24	77	334	1,140	e74	91	190	178	150	50	255	391	217
25	70	353	2,040	e72	86	184	147	195	61	102	270	176
26	68	306	997	e70	80	180	268	137	93	68	198	144
27	330	259	660	e68	77	177	379	235	68	64	155	125
28	1,040	306	513	e66	76	167	295	171	53	121	129	297
29	1,510	929	430	e64	86	145	240	147	55	92	106	1,350
30	1,460	683	377	e62	---	131	203	109	48	67	98	889
31	779	---	328	e60	---	176	---	96	---	61	136	---
TOTAL	7,955	10,274	20,592	4,389	2,875	6,487	6,976	5,623	2,999	1,548	6,666	12,159
MEAN	257	342	664	142	99.1	209	233	181	100	49.9	215	405
MAX	1,510	970	2,590	385	240	339	475	327	267	255	1,580	1,940
MIN	60	99	185	60	60	98	108	94	48	16	15	40
†	7.4	7.2	7.8	7.3	7.6	6.6	7.0	5.8	6.9	6.9	6.6	6.9

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

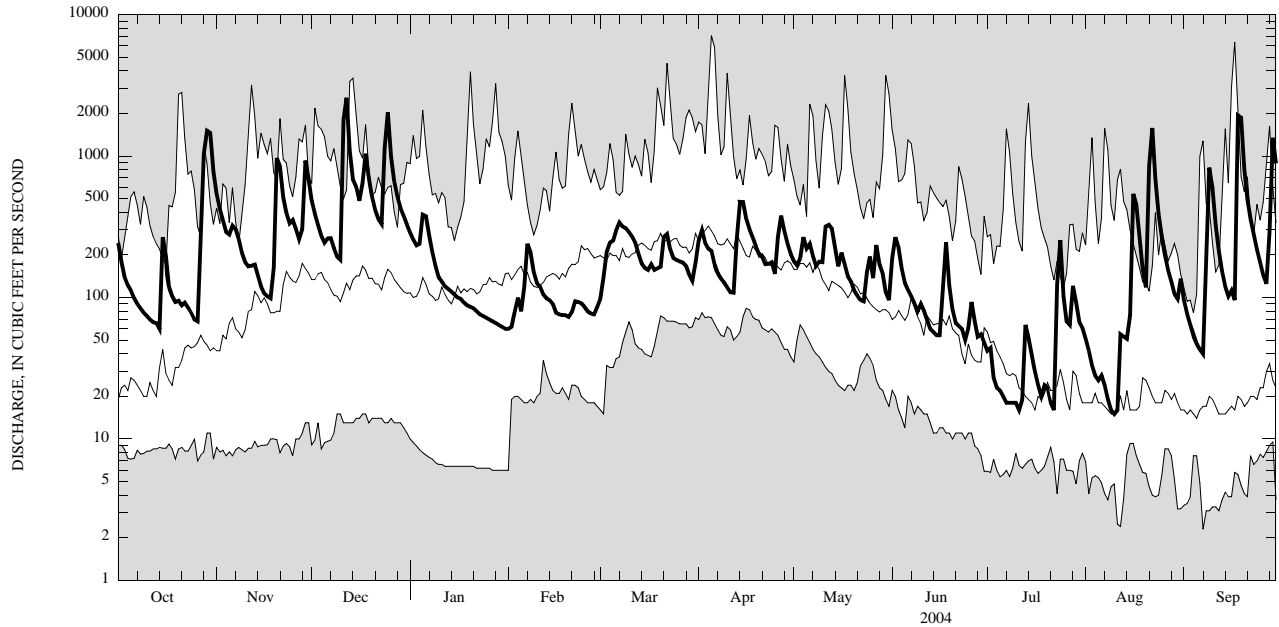
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

MEAN	100	176	225	190	202	327	321	209	125	57.8	55.8	86.0
MAX	389	496	693	654	475	816	862	777	460	308	305	508
(WY)	(1990)	(1996)	(1984)	(1996)	(1981)	(1983)	(1984)	(1989)	(2003)	(1996)	(1990)	(1999)
MIN	9.41	10.3	14.8	6.84	25.4	87.7	77.1	58.2	18.5	8.03	7.40	8.17
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(2002)	(1985)	(2001)	(1999)	(1993)	(1993)	(1995)

01387420 RAMAPO RIVER AT SUFFERN, NY—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1979 - 2004	
ANNUAL TOTAL	102,455		88,543			
ANNUAL MEAN	281		242		172	
HIGHEST ANNUAL MEAN					295	1984
LOWEST ANNUAL MEAN					59.5	2002
HIGHEST DAILY MEAN	2,590	Dec 12	2,590	Dec 12	7,110	Apr 5, 1984
LOWEST DAILY MEAN	18	Jul 31	15	Aug 10	2.3	Sep 7, 1995
ANNUAL SEVEN-DAY MINIMUM	20	Jul 15	18	Jul 6	3.1	Sep 7, 1995
10 PERCENT EXCEEDS	627		488		376	
50 PERCENT EXCEEDS	170		148		91	
90 PERCENT EXCEEDS	33		51		13	

e Estimated



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD. SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'53", long 74°09'46", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Route 17, 0.6 mi downstream from Mahwah River, 1.0 mi west of Mahwah, and 1.2 mi downstream of New York-New Jersey State line.

DRAINAGE AREA.--120 mi².

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 NGVD of 1929. 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 good, except estimated daily discharges which are fair. Flow affected by diversion from United Water-New York well field upstream from station (see station 01387420). Occasional regulation from lakes and ponds upstream from the station. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2030	2,420	7.50	Aug 22	0315	2,310	7.42
Nov 20	1600	1,560	6.42	Sep 9	0800	1,440	6.44
Dec 11	2315	*4,200	*8.80	Sep 18	1145	3,640	8.45
Dec 18	0700	1,410	6.38	Sep 29	0645	1,860	6.98
Dec 25	0130	3,220	8.16				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	608	527	341	85	133	304	233	284	72	87	132
2	242	457	418	312	83	180	335	220	361	74	71	105
3	200	379	350	297	125	251	286	242	298	53	59	90
4	179	319	299	312	189	285	272	310	219	46	52	77
5	169	319	275	459	139	289	261	270	178	48	50	68
6	150	358	287	428	235	337	216	291	159	44	49	62
7	135	336	288	328	375	367	192	251	146	39	41	58
8	126	288	259	273	272	354	178	215	127	38	38	458
9	118	246	236	227	200	348	167	226	112	36	33	1,280
10	109	221	231	188	180	327	155	219	120	35	29	813
11	105	212	2,360	173	172	304	144	387	113	31	51	403
12	100	216	3,240	182	152	285	143	358	98	46	167	289
13	97	218	1,430	181	141	249	339	366	85	210	89	223
14	92	190	812	163	136	220	583	282	85	98	67	180
15	360	168	720	152	127	206	546	223	81	88	113	165
16	247	153	539	e155	114	200	407	284	78	72	556	223
17	171	147	780	149	109	219	349	227	170	55	519	156
18	150	144	1,300	150	107	203	311	194	347	52	300	2,370
19	136	234	828	146	107	212	283	177	193	51	204	2,320
20	135	1,410	569	130	105	216	256	156	136	40	154	980
21	125	1,080	456	121	113	316	244	145	109	30	972	556
22	132	574	402	119	133	323	224	134	109	26	1,950	406
23	122	429	379	111	128	271	226	125	106	248	820	324
24	111	366	1,530	101	127	241	235	193	87	387	425	275
25	101	390	2,690	e100	120	233	195	222	98	164	310	233
26	97	336	1,290	94	112	229	338	172	151	106	244	199
27	507	289	803	92	107	228	445	395	107	119	198	175
28	1,440	367	587	99	106	213	341	238	87	239	166	398
29	2,040	1,230	488	99	118	189	290	202	105	152	146	1,750
30	1,900	819	431	93	---	172	257	150	84	112	150	1,070
31	974	---	381	89	---	235	---	133	---	105	204	---
TOTAL	10,872	12,503	25,185	5,864	4,217	7,835	8,522	7,240	4,433	2,916	8,314	15,838
MEAN	351	417	812	189	145	253	284	234	148	94.1	268	528
MAX	2,040	1,410	3,240	459	375	367	583	395	361	387	1,950	2,370
MIN	92	144	231	89	83	133	143	125	78	26	29	58
CFSM	2.92	3.47	6.77	1.58	1.21	2.11	2.37	1.95	1.23	0.78	2.23	4.40
IN.	3.37	3.88	7.81	1.82	1.31	2.43	2.64	2.24	1.37	0.90	2.58	4.91

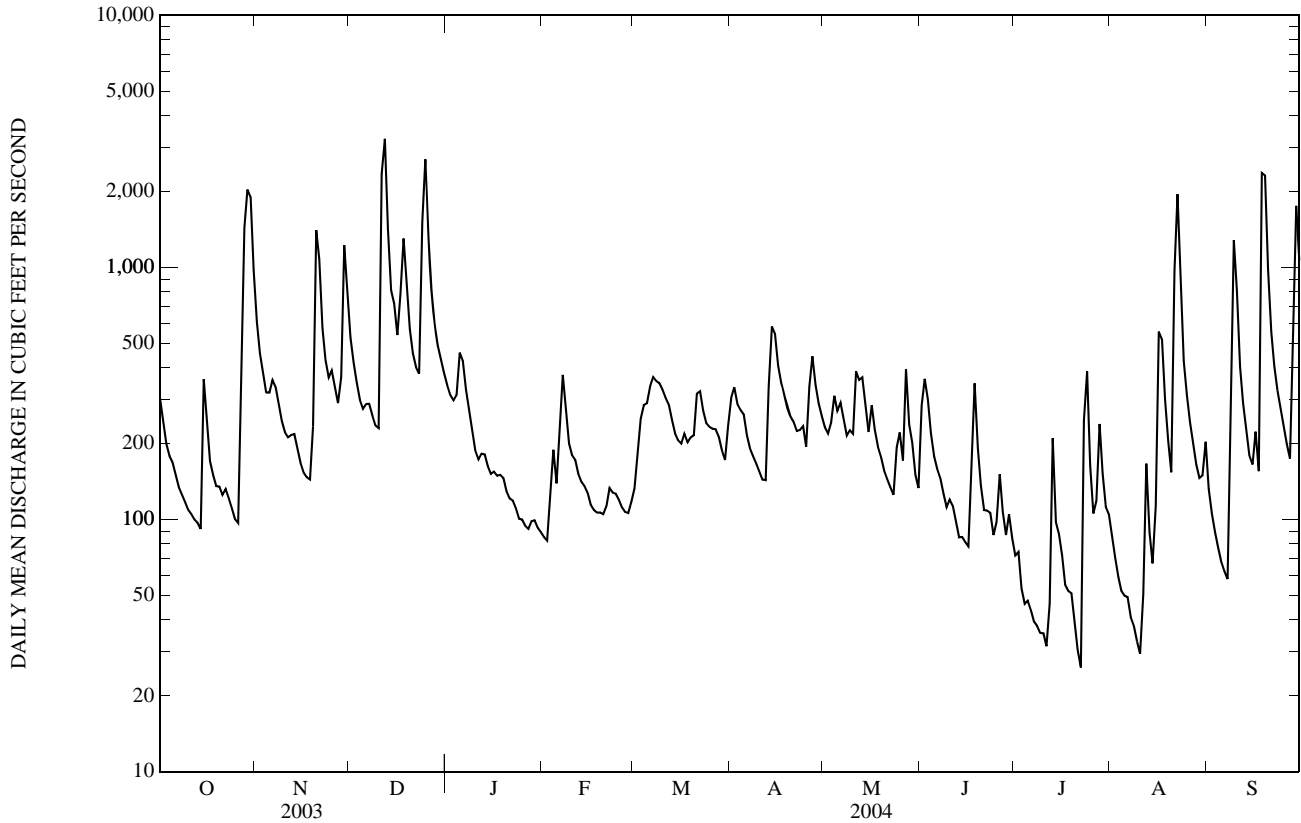
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

	143	223	277	264	275	440	394	256	159	97.7	100	116
MEAN	143	223	277	264	275	440	394	256	159	97.7	100	116
MAX	954	736	873	877	701	1,151	1,055	994	735	602	755	641
(WY)	(1904)	(1978)	(1984)	(1979)	(1970)	(1936)	(1984)	(1989)	(1972)	(1945)	(1955)	(1999)
MIN	13.8	17.9	19.8	16.5	42.7	120	88.4	79.5	29.6	15.8	11.3	11.1
(WY)	(1942)	(2002)	(1999)	(1981)	(2002)	(2002)	(1985)	(1905)	(1999)	(1993)	(1993)	(1964)

01387500 RAMAPO RIVER NEAR MAHWAH, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	131,252		113,739		228	
ANNUAL MEAN	360		311		461	
HIGHEST ANNUAL MEAN					80.0	
LOWEST ANNUAL MEAN					1903	
HIGHEST DAILY MEAN	3,240	Dec 12	3,240	Dec 12	8,920	Oct 9, 1903
LOWEST DAILY MEAN	31	Aug 31	26	Jul 22	1.2	Aug 12, 1993
ANNUAL SEVEN-DAY MINIMUM	37	Aug 25	38	Jul 6	3.7	Sep 7, 1995
MAXIMUM PEAK FLOW			4,200	Dec 11	15,500a	Apr 5, 1984
MAXIMUM PEAK STAGE			8.80	Dec 11	13.35	Apr 5, 1984
INSTANTANEOUS LOW FLOW			23	Jul 23	0.20	Aug 11, 1993
ANNUAL RUNOFF (CFSM)	3.00		2.59		1.90	
ANNUAL RUNOFF (INCHES)	40.69		35.26		25.86	
10 PERCENT EXCEEDS	807		556		503	
50 PERCENT EXCEEDS	231		204		138	
90 PERCENT EXCEEDS	60		82		26	

a From rating curve extended above 6,500 ft³/s.
 e Estimated



01388000 RAMAPO RIVER AT POMPTON LAKES, NJ

LOCATION.--Lat 40°59'33", long 74°16'43", Passaic County, Hydrologic Unit 02030103, on right end of dam at pumping station in Pompton Lakes, 450 ft upstream from bridge on Paterson-Hamburg Turnpike, and 2.0 mi upstream from mouth. Water samples collected upstream from dam at water-supply intake, on right bank. Water-quality monitor is 400 ft downstream from dam.

DRAINAGE AREA.--160 mi².

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

REVISED RECORDS.--WSP 1552: 1922(M), 1924-25, 1929-31(M), 1934-35(M). WRD-NJ 1970: 1968-69. WRD-NJ 1988: 1984(M).

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 190.96 ft above NGVD of 1929. Prior to October 1, 1981, at datum 10.00 ft higher.

REMARKS.--Records good until April 2004 when construction began for flood gates on the dam. Records considered fair during construction. Diversion by North Jersey District Water Supply Commission to Wanaque Reservoir since December 1953 (see Passaic River basin, diversions) and to Oradell Reservoir by United Water New Jersey 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. National Weather Service telephone telemetry at station. Satellite gage-height telemetry at gage and at auxiliary station 400 ft downstream of gage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2300	2,540	11.71	Aug 22	0945	2,140	12.66b
Nov 20	1945	1,610	11.29	Sep 9	1415	1,610	12.33b
Dec 12	0415	*4,120	12.31	Sep 18	2000	3,870	*13.56b
Dec 18	1315	1,670	11.32	Sep 29	1045	2,370	12.79b
Dec 25	0615	3,380	12.04				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	903	815	485	129	184	404	327	278	110	179	213
2	360	676	638	433	124	223	458	313	624	104	154	168
3	296	558	521	405	148	296	406	317	468	93	133	145
4	257	474	441	413	298	357	375	391	364	80	120	130
5	235	461	402	634	230	373	364	357	300	77	120	117
6	211	529	412	650	320	438	319	376	257	76	103	107
7	184	509	414	483	668	510	268	351	234	68	94	104
8	168	437	369	384	456	505	245	309	211	64	87	278
9	153	365	339	329	323	507	235	299	185	60	84	1,450
10	142	326	323	255	284	463	215	314	172	56	79	1,240
11	138	307	2,040	240	272	424	197	489	185	56	81	633
12	129	313	3,750	254	241	391	191	489	155	62	226	412
13	124	316	2,040	256	222	349	379	522	124	307	247	319
14	121	292	1,170	230	213	304	706	397	145	197	147	262
15	429	243	1,040	219	200	286	753	330	130	140	167	228
16	379	220	825	184	178	278	568	381	119	120	365	302
17	246	209	933	200	170	302	470	335	141	99	725	261
18	208	199	1,590	217	165	289	418	290	377	85	446	1,940
19	187	268	1,250	208	165	291	378	264	285	106	312	3,200
20	178	1,360	870	189	159	303	350	229	189	93	244	1,620
21	171	1,420	682	176	165	412	334	199	150	79	604	887
22	172	886	580	181	194	453	314	197	135	68	2,000	589
23	161	646	528	163	192	377	314	169	140	393	1,310	450
24	145	546	1,320	159	191	342	320	211	124	853	634	370
25	129	568	3,140	140	182	329	283	239	117	362	429	319
26	122	522	1,910	148	169	326	382	241	183	226	332	280
27	456	444	1,190	140	159	322	572	509	161	183	279	247
28	1,410	489	892	147	157	300	473	366	128	386	243	378
29	2,070	1,310	736	147	166	274	402	301	137	308	214	2,170
30	2,290	1,190	638	137	---	250	359	228	128	225	200	1,680
31	1,380	---	556	135	---	301	---	185	---	210	257	---
TOTAL	13,100	16,986	32,354	8,341	6,540	10,759	11,452	9,925	6,346	5,346	10,615	20,499
MEAN	423	566	1,044	269	226	347	382	320	212	172	342	683
MAX	2,290	1,420	3,750	650	668	510	753	522	624	853	2,000	3,200
MIN	121	199	323	135	124	184	191	169	117	56	79	104

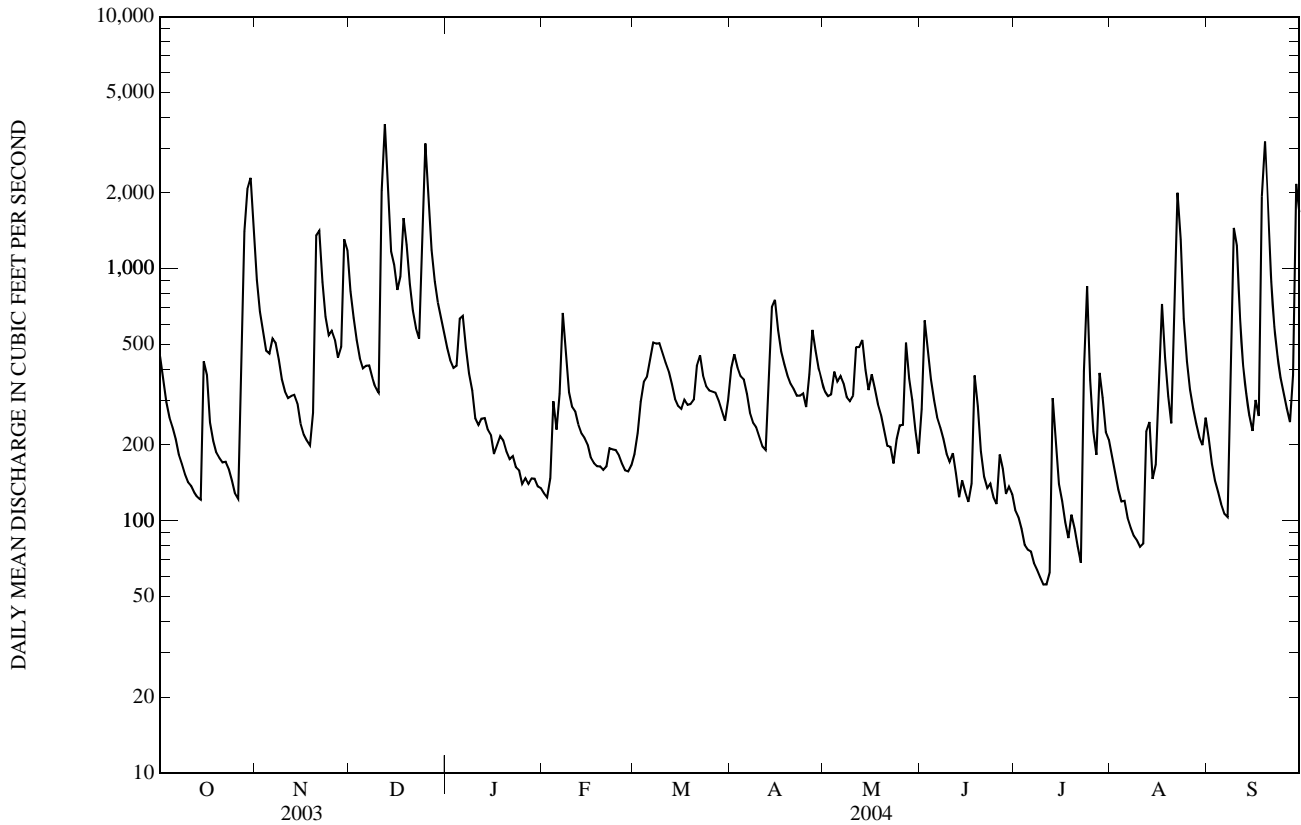
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	150	267	328	320	345	548	506	342	215	135	134	153
MAX	1,154	954	1,181	1,035	838	1,670	1,465	1,195	973	895	889	811
(WY)	(1956)	(1933)	(1997)	(1979)	(1970)	(1936)	(1983)	(1989)	(1972)	(1945)	(1955)	(1999)
MIN	13.6	20.5	12.8	24.7	12.9	31.9	24.9	72.0	39.9	5.89	6.17	10.8
(WY)	(1981)	(2002)	(1981)	(2002)	(2002)	(2002)	(1985)	(1965)	(1965)	(1985)	(1985)	(1964)

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	176,956		152,263		287	
ANNUAL MEAN	485		416		61.9	
HIGHEST ANNUAL MEAN					512	1984
LOWEST ANNUAL MEAN					61.9	2002
HIGHEST DAILY MEAN	3,750	Dec 12	3,750	Dec 12	10,700	Sep 17, 1999
LOWEST DAILY MEAN	56	Aug 29	56	Jul 10, 11	0.00	Oct 1, 1922
ANNUAL SEVEN-DAY MINIMUM	62	Aug 25	63	Jul 6	0.00	Dec 1, 1980
MAXIMUM PEAK FLOW			4,120	Dec 12	15,400	Apr 5, 1984
MAXIMUM PEAK STAGE			13.56b	Sep 18	15.21a	Apr 5, 1984
INSTANTANEOUS LOW FLOW			56	Jul 9-12	0.00	Many days
10 PERCENT EXCEEDS	1,170		818		641	
50 PERCENT EXCEEDS	326		294		163	
90 PERCENT EXCEEDS	95		124		35	

a From gage well, outside high-water marks at 15.33 ft.
 b Backwater due to dam reconstruction.



01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'55", Passaic County, Hydrologic Unit 02030103, on left bank just upstream of the Passaic Valley Water Commission pumping station, 800 ft below confluence of Pequannock and Ramapo Rivers, 140 ft upstream from bridge on Jackson Avenue (Pompton Plains Cross Road), and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi².

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 NGVD of 1929. 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 discharges over 2,000 ft³/s, which are fair. Water diverted from reservoirs on Pequannock and Wanaque Rivers, from Pompton River to Point View Reservoir, 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). Discharges for water years 1965-68 have been adjusted in USGS databases in water year 2004 to reflect only flow over weir only. Previously published discharges for water years 1965-68 included flow over the weir, plus pumpage to, or minus releases from Point View Reservoir through Passaic Valley Water Commission's Jackson Avenue Pumping Station. All published discharges, since water year 1969, 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 gage-height telemetry 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2115	4,890	13.49	Dec 25	1215	7,170	15.14
Dec 12	0930	*9,290	*16.77	Sep 19	0500	5,160	13.41
Dec 18	1445	3,720	12.17	Sep 29	1545	4,090	12.46

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	733	1,760	1,800	1,130	216	279	682	546	466	148	237	239
2	566	1,330	1,450	956	203	329	805	501	1,040	136	198	182
3	440	1,060	1,140	846	236	459	692	552	976	128	166	158
4	372	903	876	867	433	633	619	769	783	112	148	142
5	340	881	796	1,340	345	694	606	631	581	112	145	132
6	297	997	942	1,380	538	814	495	657	488	109	124	123
7	269	946	870	1,030	1,150	923	400	636	377	101	114	118
8	248	791	702	774	783	925	367	589	274	96	106	400
9	236	633	581	692	557	921	348	509	237	92	102	1,850
10	219	541	548	539	477	837	334	516	228	90	95	1,580
11	207	498	3,970	477	442	754	305	1,260	231	87	115	856
12	197	517	8,800	468	381	683	295	1,400	204	120	287	532
13	189	532	5,730	423	345	598	723	1,390	183	583	288	380
14	189	501	3,270	391	327	514	1,570	1,030	178	280	168	301
15	755	394	2,820	362	305	472	1,800	803	173	198	210	260
16	680	335	2,160	306	271	463	1,380	923	160	170	453	357
17	426	309	2,290	335	258	517	1,090	754	206	143	906	294
18	340	303	3,580	350	251	488	887	602	494	137	571	2,490
19	289	491	2,930	344	248	494	763	559	359	185	367	4,760
20	267	2,600	2,160	307	250	503	666	474	240	145	278	2,610
21	246	2,650	1,700	276	255	675	597	349	192	125	792	1,440
22	240	1,740	1,400	280	288	745	538	331	181	111	2,510	964
23	230	1,270	1,250	250	285	610	547	290	185	768	1,720	697
24	215	1,040	2,830	244	283	531	563	327	165	1,330	994	528
25	192	1,200	6,770	222	275	523	489	338	158	575	637	421
26	180	1,090	4,980	236	256	518	753	338	236	335	452	349
27	870	907	3,090	232	245	518	1,240	1,030	200	284	352	298
28	2,730	997	2,250	239	240	500	990	866	163	640	291	588
29	3,940	2,600	1,830	257	253	429	752	693	186	442	249	3,760
30	4,400	2,430	1,550	247	---	378	623	459	164	309	223	3,170
31	2,670	---	1,320	236	---	454	---	345	---	292	286	---
TOTAL	23,172	32,246	76,385	16,036	10,396	18,181	21,919	20,467	9,708	8,383	13,584	29,979
MEAN	747	1,075	2,464	517	358	586	731	660	324	270	438	999
MAX	4,400	2,650	8,800	1,380	1,150	925	1,800	1,400	1,040	1,330	2,510	4,760
MIN	180	303	548	222	203	279	295	290	158	87	95	118

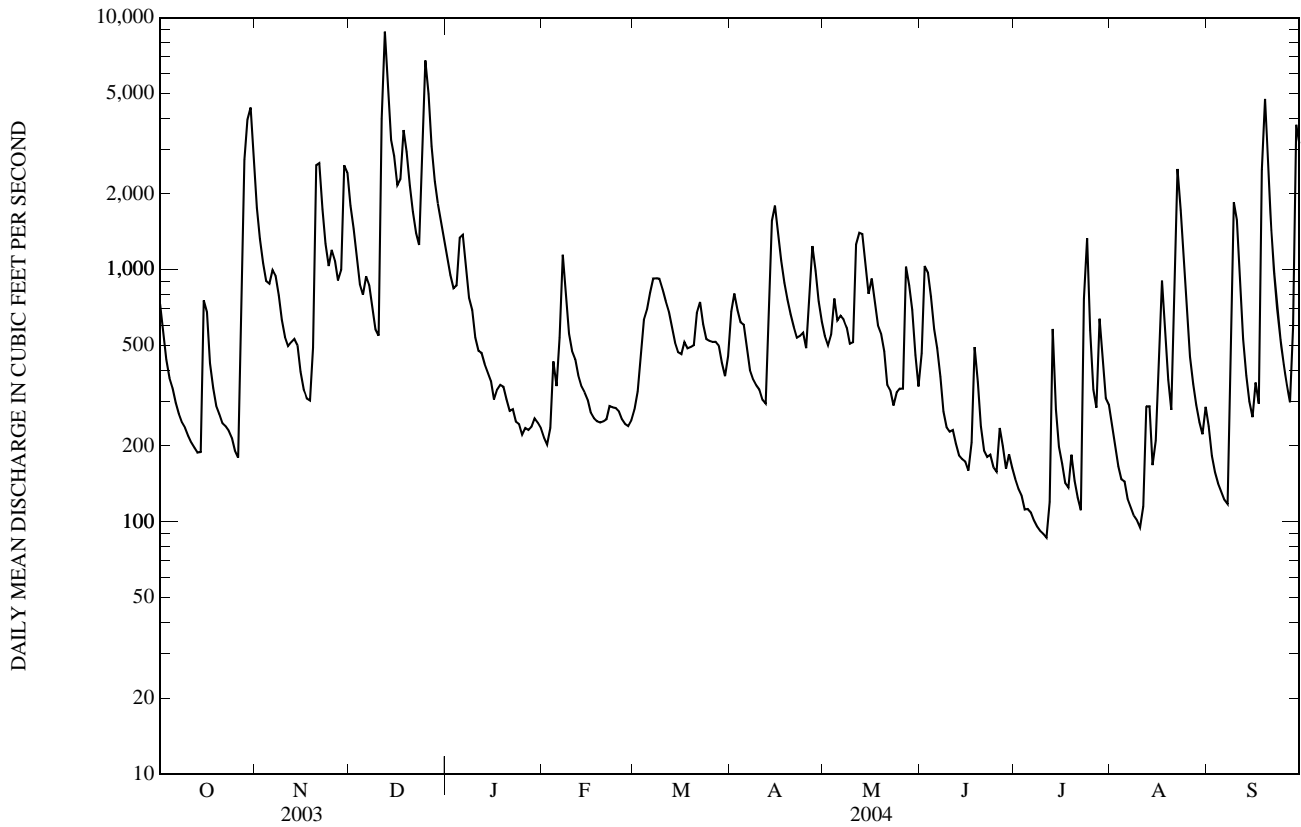
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

MEAN	289	420	553	510	554	937	948	612	405	237	219	242
MAX	2,369	1,417	2,464	1,777	1,654	2,477	2,995	2,778	2,177	1,530	1,520	1,067
(WY)	(1904)	(1956)	(2004)	(1996)	(1973)	(1983)	(1983)	(1989)	(1972)	(1945)	(1955)	(1999)
MIN	40.2	52.3	34.8	39.2	43.1	79.9	62.7	104	62.8	34.2	36.3	46.7
(WY)	(1981)	(1981)	(1981)	(1981)	(2002)	(2002)	(1985)	(1965)	(1965)	(1965)	(1985)	(1980)

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	355,228		280,456			
ANNUAL MEAN	973		766		492	
HIGHEST ANNUAL MEAN					906 1952	
LOWEST ANNUAL MEAN					108 1965	
HIGHEST DAILY MEAN	8,800	Dec 12	8,800	Dec 12	28,300	Oct 10, 1903
LOWEST DAILY MEAN	108	Jul 20	87	Jul 11	0.00	Aug 18, 1904
ANNUAL SEVEN-DAY MINIMUM	118	Jul 15	98	Jul 5	1.7	Aug 14, 1904
MAXIMUM PEAK FLOW			9,290	Dec 12	28,300a	Oct 10, 1903
MAXIMUM PEAK STAGE			16.77	Dec 12	14.30bc	Oct 10, 1903
INSTANTANEOUS LOW FLOW			2.4	Jul 11,12	0.00	Aug 18, 1904
10 PERCENT EXCEEDS	2,560		1,710		1,150	
50 PERCENT EXCEEDS	557		476		245	
90 PERCENT EXCEEDS	156		167		71	

- 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.



01389500 PASSAIC RIVER AT LITTLE FALLS, NJ

LOCATION.--Lat 40°53'05", long 74°13'34", Passaic County, Hydrologic Unit 02030103, on left bank 0.6 mi downstream from Beatties Dam in Little Falls, and 1.0 mi upstream from Peckman River.

DRAINAGE AREA.--762 mi². Area at site used prior to Oct. 1, 1955, 799 mi².

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 NGVD of 1929 (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 NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good. Significant fluctuations at medium and low flow caused by operations at a hydroelectric plant at Beatties 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 Beatties 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 telephone telemetry and USGS satellite gage-height telemetry 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 31	1045	5,360	6.28	Dec 26	1500	6,730	7.20
Dec 13	1300	*7,320	*7.57				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,920	4,640	3,160	2,830	501	763	1,230	1,660	852	323	1,870	431
2	1,680	3,910	2,830	2,470	480	843	1,450	1,520	1,220	275	1,650	359
3	1,430	3,300	2,500	2,180	589	964	1,480	1,440	1,340	239	1,450	312
4	1,180	2,810	2,130	2,020	1,030	1,170	1,400	1,560	1,290	199	1,240	272
5	972	2,490	1,890	2,270	1,140	1,300	1,330	1,500	1,110	186	1,090	256
6	798	2,360	1,810	2,370	1,480	1,420	1,220	1,440	930	184	901	242
7	686	2,180	1,750	2,210	2,240	1,560	1,060	1,400	780	176	667	243
8	600	1,960	1,550	1,990	2,120	1,680	927	1,320	595	171	496	619
9	541	1,720	1,360	1,820	2,010	1,780	857	1,180	510	157	417	1,760
10	509	1,500	1,260	1,560	2,210	1,770	812	1,100	444	147	330	2,040
11	457	1,330	3,110	1,290	2,180	1,730	763	1,890	417	139	422	1,510
12	441	1,230	5,740	1,260	2,030	1,680	723	2,180	369	222	736	962
13	409	1,160	7,210	1,100	1,860	1,590	1,290	2,340	341	1,120	1,020	659
14	396	1,110	6,830	1,020	1,690	1,450	2,300	2,200	326	1,010	895	522
15	1,130	957	6,300	866	1,530	1,320	2,890	1,950	317	897	924	452
16	1,310	825	5,560	712	1,350	1,240	2,910	1,910	298	811	933	518
17	1,210	803	5,030	781	1,180	1,180	2,900	1,730	377	711	1,250	532
18	1,050	700	5,320	833	1,050	1,160	2,760	1,520	672	718	1,190	1,590
19	842	852	5,420	826	903	1,190	2,500	1,390	626	905	897	3,580
20	708	2,500	4,900	779	818	1,250	2,210	1,270	438	790	684	3,690
21	617	3,190	4,170	718	804	1,420	1,940	1,060	308	596	833	2,860
22	569	3,170	3,530	686	871	1,550	1,710	891	315	410	2,010	2,200
23	515	3,010	3,060	649	897	1,510	1,510	784	343	895	2,220	1,690
24	466	2,840	3,600	590	895	1,420	1,400	709	320	2,430	1,650	1,250
25	413	2,740	5,540	553	883	1,350	1,250	720	331	1,890	1,160	898
26	380	2,580	6,640	541	838	1,300	1,440	711	530	1,530	819	679
27	1,110	2,320	6,300	514	789	1,250	2,000	1,220	557	1,510	641	554
28	2,670	2,200	5,460	505	743	1,180	2,010	1,410	480	1,960	563	898
29	3,920	2,960	4,550	575	733	1,090	1,920	1,320	482	1,950	528	3,410
30	4,930	3,350	3,810	555	---	980	1,790	1,110	396	1,920	460	3,940
31	5,250	---	3,260	528	---	1,010	---	854	---	1,990	435	---
TOTAL	39,109	66,697	125,580	37,601	35,844	41,100	49,982	43,289	17,314	26,461	30,381	38,928
MEAN	1,262	2,223	4,051	1,213	1,236	1,326	1,666	1,396	577	854	980	1,298
MAX	5,250	4,640	7,210	2,830	2,240	1,780	2,910	2,340	1,340	2,430	2,220	3,940
MIN	380	700	1,260	505	480	763	723	709	298	139	330	242

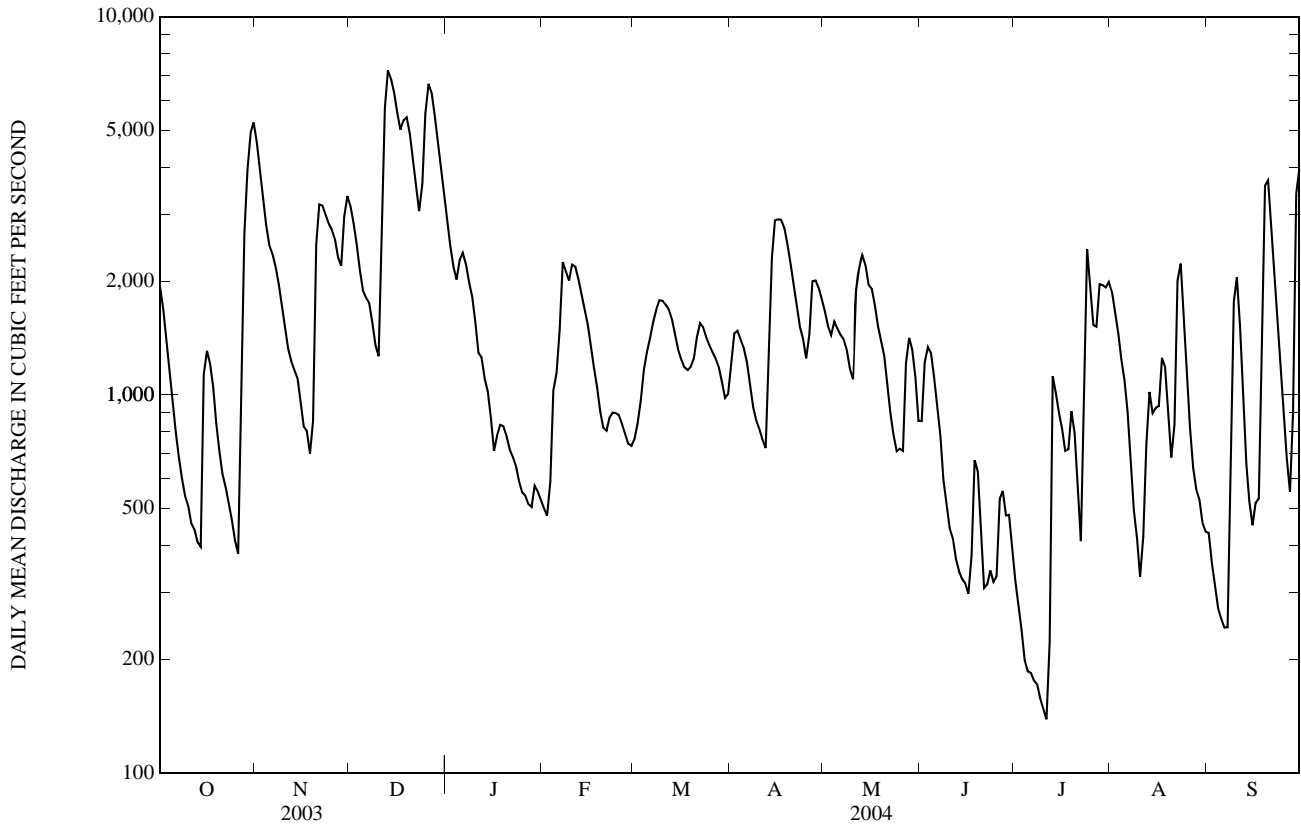
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2004, BY WATER YEAR (WY)

MEAN	616	934	1,271	1,322	1,408	2,327	2,049	1,295	800	530	546	540
MAX	5,613	4,757	4,497	4,039	3,787	6,755	5,761	4,554	4,290	3,124	2,859	3,561
(WY)	(1904)	(1908)	(1903)	(1979)	(1973)	(1936)	(1983)	(1989)	(1972)	(1945)	(1942)	(1971)
MIN	44.5	56.5	44.8	42.3	31.0	131	167	227	64.5	60.3	30.4	28.9
(WY)	(1931)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)	(1965)	(1999)	(1954)	(1923)	(1964)

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1898 - 2004	
ANNUAL TOTAL	690,995		552,286		1,135	
ANNUAL MEAN	1,893		1,509		2,394	
HIGHEST ANNUAL MEAN					199 1903	
LOWEST ANNUAL MEAN					28,000 2002	
HIGHEST DAILY MEAN	7,210	Dec 13	7,210	Dec 13	199	Oct 10, 1903
LOWEST DAILY MEAN	80	Feb 17	139	Jul 11	0.00	Jul 3, 1904
ANNUAL SEVEN-DAY MINIMUM	226	Feb 12	166	Jul 5	13	Sep 19, 1932
MAXIMUM PEAK FLOW			7,320	Dec 13	31,700a	Oct 10, 1903
MAXIMUM PEAK STAGE			7.57	Dec 13	12.91b	Apr 7, 1984
INSTANTANEOUS LOW FLOW			132	Jul 12	0.00	Jul 3, 1904
10 PERCENT EXCEEDS	4,360		2,980		2,750	
50 PERCENT EXCEEDS	1,490		1,190		630	
90 PERCENT EXCEEDS	368		416		119	

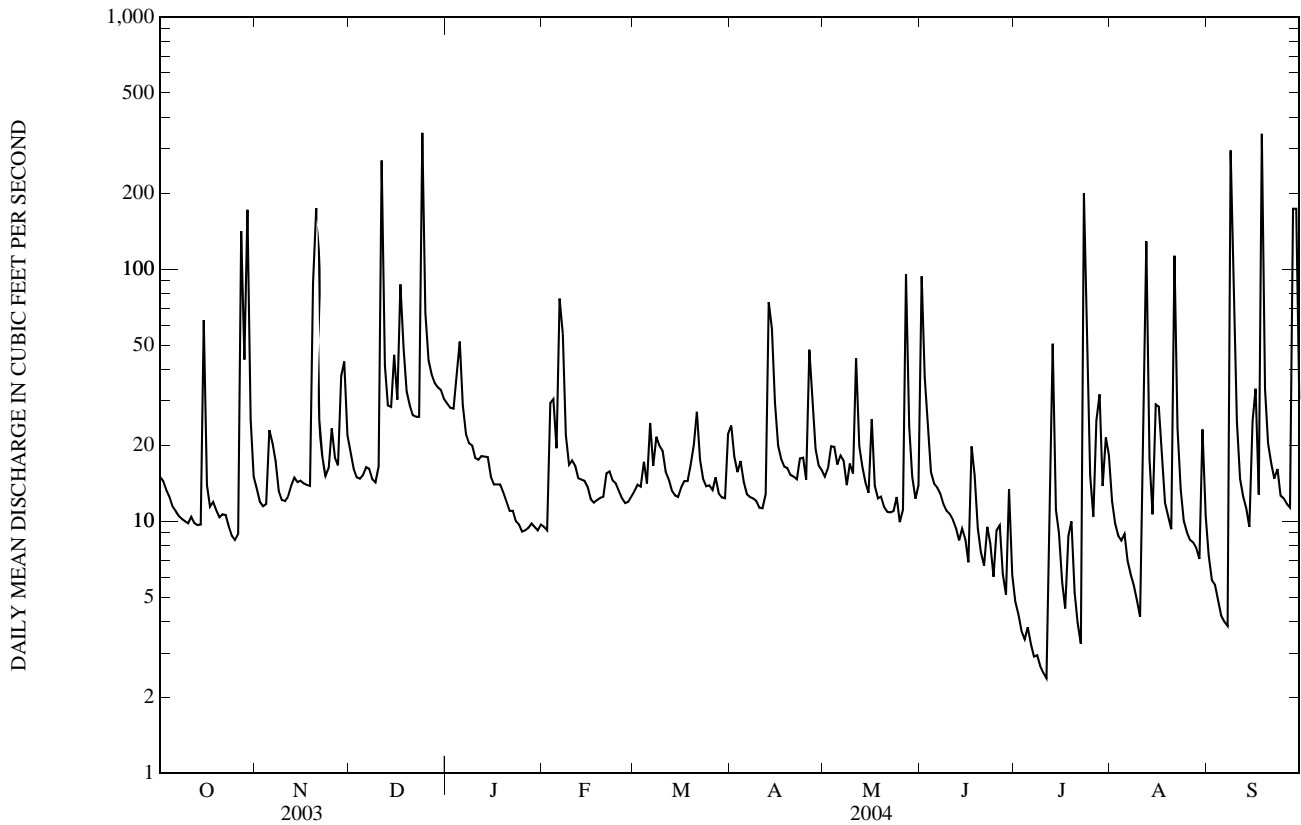
a Maximum discharge recorded at present site, no peak stage available
 b Maximum stage recorded since 1956, at present site



01390450 SADDLE RIVER AT UPPER SADDLE RIVER, NJ—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL	8,796.7			
ANNUAL MEAN	24.0		24.0	
HIGHEST ANNUAL MEAN			24.0	2004
LOWEST ANNUAL MEAN			24.0	2004
HIGHEST DAILY MEAN	347	Dec 24	347	Dec 24, 2003
LOWEST DAILY MEAN	2.4	Jul 11	2.4	Jul 11, 2004
ANNUAL SEVEN-DAY MINIMUM	2.9	Jul 5	2.9	Jul 5, 2004
MAXIMUM PEAK FLOW	1,640	Sep 18	6,290	Sep 16, 1999
MAXIMUM PEAK STAGE	4.58	Sep 18	5.64a	Sep 16, 1999
INSTANTANEOUS LOW FLOW	2.2	Jul 10	0.66b	Sep 6, 2002
10 PERCENT EXCEEDS	38		38	
50 PERCENT EXCEEDS	14		14	
90 PERCENT EXCEEDS	7.5		7.5	

- a From crest-stage gage, at site and datum then in use.
- b During period of low-flow partial-record station.
- e Estimated.



01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'06", long 74°05'26", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft upstream from bridge on State Route 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi².

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 NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair, except for estimated daily discharges which are poor. The flow past this station is effected by pumpage from wells by United Water New Jersey and others. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 23, 1945, reached a discharge of 6,400 ft³/s, at site 1.6 mi upstream, drainage area, 19.1 mi², by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1945	628	4.62	Jul 23	2015	1,170	6.07
Oct 29	0930	663	4.73	Aug 12	1330	542	4.35
Nov 20	0415	602	4.54	Aug 21	1715	628	4.62
Dec 11	1200	841	5.24	Sep 8	1915	830	5.21
Dec 24	1600	978	5.60	Sep 9	0830	413	3.91
May 27	0345	460	4.08	Sep 18	1245	*1,310	*6.26
Jun 1	2215	660	4.72	Sep 29	0315	928	5.22

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	43	39	46	e16	27	65	38	158	14	31	18
2	24	41	36	44	e14	29	46	39	100	12	25	16
3	22	38	33	43	38	28	37	45	68	9.8	21	16
4	21	37	32	e57	52	36	41	50	42	7.3	17	15
5	20	55	33	e97	24	30	34	37	35	7.8	e22	14
6	19	58	35	57	111	58	24	43	33	6.0	e16	14
7	18	51	34	44	130	39	19	40	31	5.3	e14	14
8	18	41	32	40	60	51	18	31	27	4.9	e14	287
9	17	38	31	37	43	48	18	34	22	4.3	e14	172
10	16	37	33	e33	42	45	17	30	21	3.9	15	52
11	16	38	356	e32	43	36	16	106	19	3.7	20	32
12	16	41	83	32	37	33	18	48	17	13	153	27
13	16	44	53	32	35	28	127	40	15	118	38	23
14	16	40	52	e32	35	26	143	30	16	27	23	21
15	114	38	99	e30	32	26	92	27	16	22	44	25
16	29	37	58	e29	28	29	53	59	13	16	55	68
17	23	36	141	e29	26	34	47	30	38	15	45	29
18	23	35	103	e30	26	32	43	26	40	19	26	437
19	19	105	63	e27	27	40	41	24	20	33	22	65
20	18	239	54	e25	26	44	38	21	16	18	20	38
21	19	58	48	e24	32	67	37	19	14	15	158	31
22	18	46	47	e23	36	42	36	19	16	13	52	27
23	18	40	46	e22	32	33	39	18	16	303	30	27
24	18	39	402	e21	31	32	42	22	12	119	23	23
25	18	49	136	e20	28	31	34	16	38	36	20	21
26	18	38	82	e20	24	29	106	17	33	23	19	20
27	240	35	68	e20	23	34	90	148	19	59	18	19
28	97	56	60	e21	24	29	52	57	16	85	17	211
29	272	102	57	e20	26	26	44	38	30	36	17	345
30	72	45	55	e18	---	27	40	27	16	43	27	64
31	49	---	49	e18	---	62	---	25	---	47	26	---
TOTAL	1,332	1,600	2,450	1,023	1,101	1,131	1,457	1,204	957	1,139.0	1,042	2,171
MEAN	43.0	53.3	79.0	33.0	38.0	36.5	48.6	38.8	31.9	36.7	33.6	72.4
MAX	272	239	402	97	130	67	143	148	158	303	158	437
MIN	16	35	31	18	14	26	16	16	12	3.7	14	14
CFSM	1.99	2.47	3.66	1.53	1.76	1.69	2.25	1.80	1.48	1.70	1.56	3.35
IN.	2.29	2.76	4.22	1.76	1.90	1.95	2.51	2.07	1.65	1.96	1.79	3.74

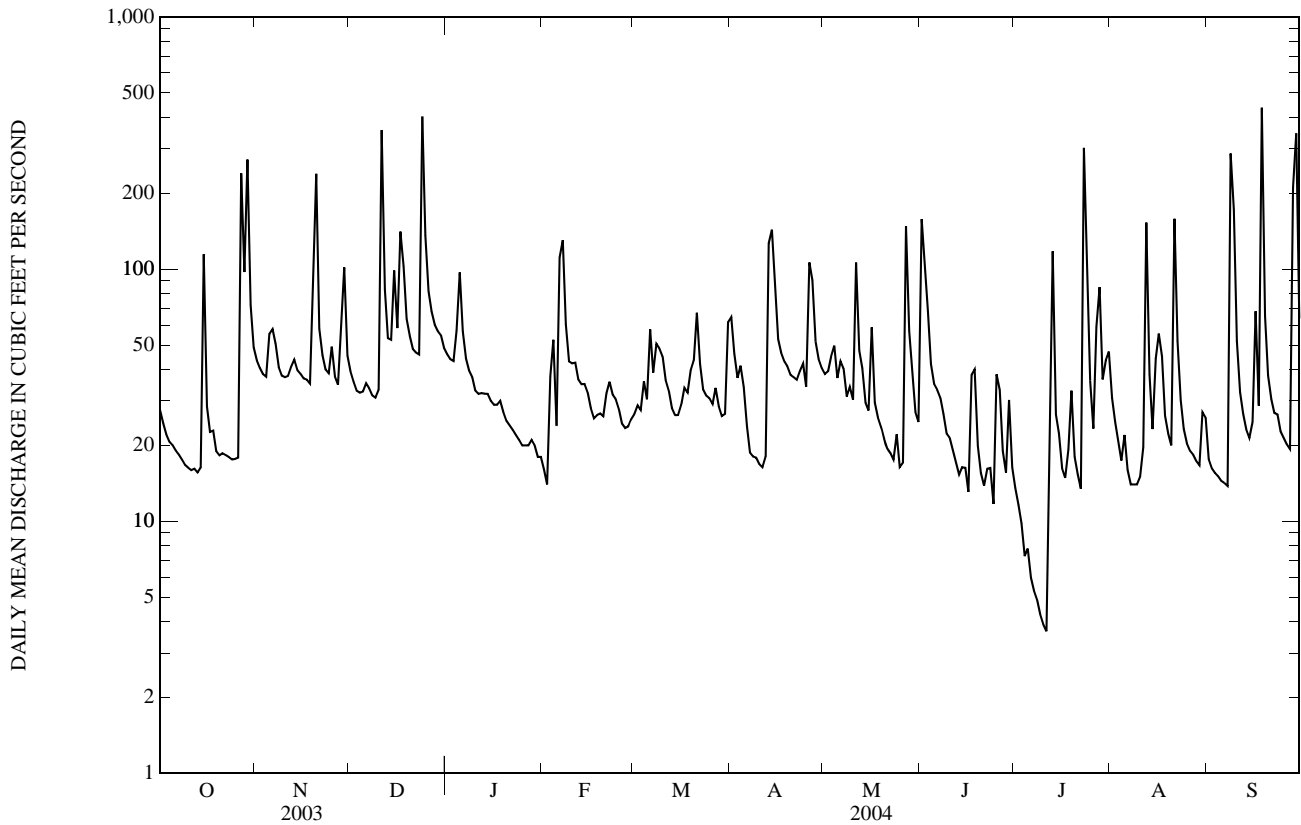
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

	21.7	33.1	35.8	35.8	39.0	53.9	56.4	41.4	29.4	20.6	19.6	20.4
MEAN												
MAX	104	109	109	115	86.9	104	152	118	121	87.6	77.1	87.4
(WY)	(1956)	(1978)	(1973)	(1979)	(1961)	(1983)	(1983)	(1989)	(1972)	(1984)	(1955)	(1999)
MIN	5.79	6.06	5.86	6.10	6.43	15.6	11.0	12.4	6.08	2.27	2.69	2.34
(WY)	(1983)	(2002)	(1999)	(2002)	(2002)	(1985)	(1985)	(1995)	(1999)	(1999)	(1995)	(1980)

01390500 SADDLE RIVER AT RIDGEWOOD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	19,031		16,607.0		33.9	
ANNUAL MEAN	52.1		45.4		58.7	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					14.5	
HIGHEST DAILY MEAN	402	Dec 24	437	Sep 18	1,610	Sep 16, 1999
LOWEST DAILY MEAN	10	Jul 20	3.7	Jul 11	0.20	Sep 17, 1966
ANNUAL SEVEN-DAY MINIMUM	12	Aug 25	5.1	Jul 5	0.75	Sep 10, 1995
MAXIMUM PEAK FLOW			1,310	Sep 18	5,380	Sep 16, 1999
MAXIMUM PEAK STAGE			6.26	Sep 18	13.40	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.3	Jul 12	0.00	Jul 27, 1999
ANNUAL RUNOFF (CFSM)	2.41		2.10		1.57	
ANNUAL RUNOFF (INCHES)	32.78		28.60		21.32	
10 PERCENT EXCEEDS	101		84		67	
50 PERCENT EXCEEDS	37		32		22	
90 PERCENT EXCEEDS	16		16		6.5	

e Estimated



PASSAIC RIVER BASIN

01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'50", Bergen County, Hydrologic Unit 02030103, on left bank 560 ft upstream from bridge on Outwater Lane in Lodi, 1.3 mi south of Rochelle Park, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--54.6 mi².

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 NGVD of 1929. 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 Paramus by United Water New Jersey, for municipal supply (see Hackensack River Basin, diversions). The flow past this station is affected by pumpage from wells by United Water New Jersey and others. Several measurements of water temperature were made during the year. Satellite gage height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1315	1,270	4.98	Sep 8	2230	1,450	5.33
Dec 11	1730	1,680	5.78	Sep 18	1715	*2,450	*7.33
Dec 24	2015	2,020	6.45	Sep 29	0500	2,220	6.85
Jul 24	0045	2,160	6.73				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	116	104	133	70	84	158	95	166	52	131	62
2	85	102	92	128	69	88	121	97	327	55	104	55
3	77	96	84	126	140	90	100	114	147	47	99	51
4	73	88	82	157	230	103	112	131	100	42	77	50
5	71	100	83	288	113	99	94	96	87	77	94	48
6	67	137	90	175	352	150	82	109	82	47	69	48
7	66	115	89	133	410	121	79	110	79	43	63	48
8	63	91	83	120	174	142	77	89	75	42	60	676
9	61	82	81	114	124	144	76	89	68	40	60	631
10	60	80	87	104	118	127	73	86	66	38	57	182
11	59	80	900	101	119	108	71	296	67	36	105	110
12	57	91	340	105	107	101	77	126	61	103	323	95
13	55	86	174	103	103	89	319	126	57	414	146	86
14	53	73	161	97	102	84	377	95	58	110	85	78
15	297	70	344	96	96	85	255	88	59	83	135	86
16	94	67	182	91	87	88	133	164	54	63	149	183
17	69	68	320	97	84	104	110	97	128	55	174	92
18	73	66	312	99	84	97	100	86	133	56	89	1,240
19	62	188	177	95	84	115	96	83	73	103	77	270
20	59	606	149	88	83	111	90	80	58	60	70	144
21	56	173	134	83	90	146	85	74	54	49	329	119
22	54	124	129	84	100	111	83	76	70	45	201	106
23	51	108	126	81	94	93	86	71	66	799	100	97
24	49	101	960	77	92	89	101	79	54	738	81	91
25	48	127	558	73	88	87	79	73	119	152	71	86
26	49	98	245	75	81	85	269	76	137	107	66	82
27	441	91	197	75	79	94	250	339	65	186	64	78
28	328	135	172	79	78	84	127	148	56	359	64	409
29	710	275	160	78	81	79	105	97	98	154	60	1,280
30	247	124	154	73	---	77	98	77	60	119	77	242
31	140	---	141	72	---	146	---	78	---	179	108	---
TOTAL	3,770	3,758	6,910	3,300	3,532	3,221	3,883	3,445	2,724	4,453	3,388	6,825
MEAN	122	125	223	106	122	104	129	111	90.8	144	109	228
MAX	710	606	960	288	410	150	377	339	327	799	329	1,280
MIN	48	66	81	72	69	77	71	71	54	36	57	48

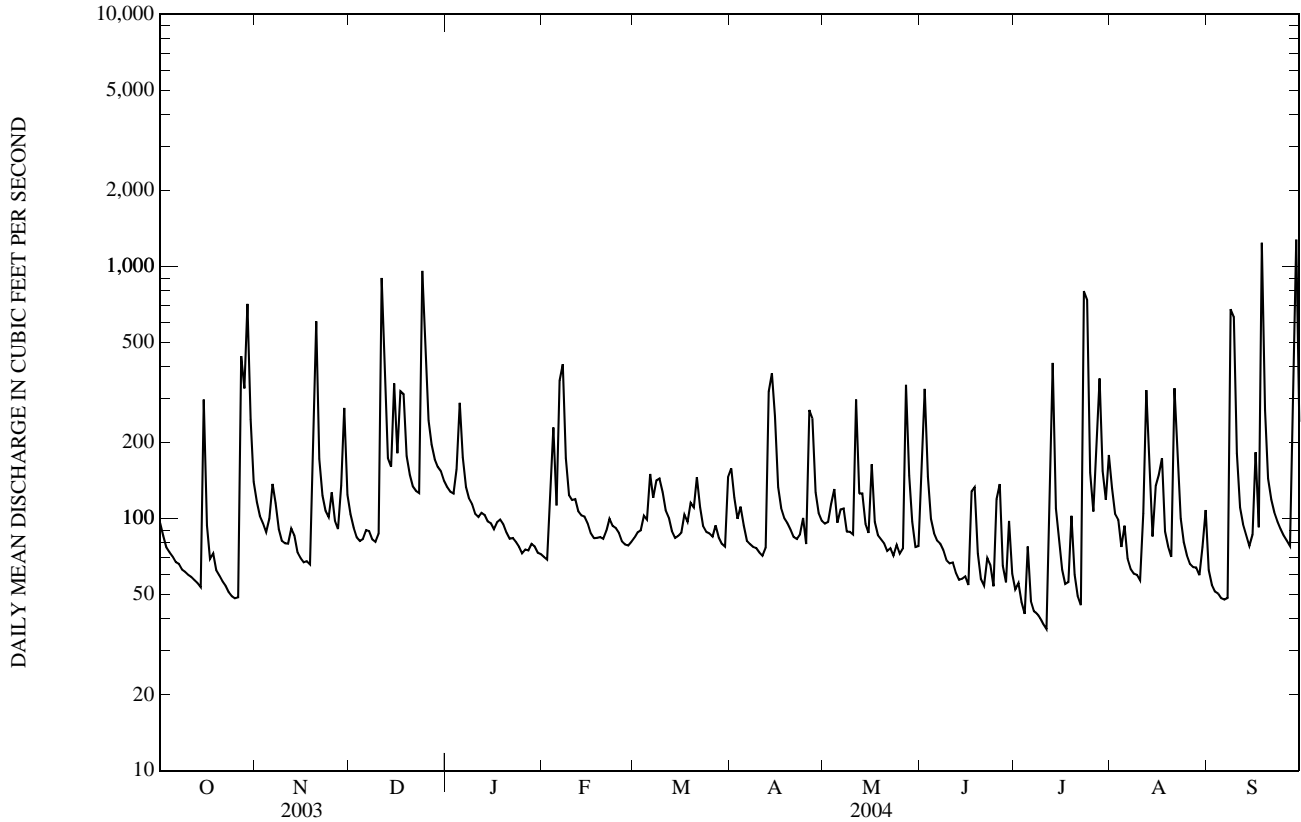
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

	65.8	88.6	101	106	117	154	153	117	88.0	73.0	69.2	71.4
MEAN	65.8	88.6	101	106	117	154	153	117	88.0	73.0	69.2	71.4
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	26.0	40.1	32.9	44.9	25.5	12.9	15.1	11.4
(WY)	(1936)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1941)	(1999)	(1999)	(1966)	(1932)

01391500 SADDLE RIVER AT LODI, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	54,352		49,209		100	
ANNUAL MEAN	149		134		45.2	
HIGHEST ANNUAL MEAN					187	1984
LOWEST ANNUAL MEAN					45.2	1981
HIGHEST DAILY MEAN	964	Jan 2	1,280	Sep 29	2,970	Apr 5, 1984
LOWEST DAILY MEAN	25	Feb 17	36	Jul 11	4.9	Sep 15, 1995
ANNUAL SEVEN-DAY MINIMUM	51	Aug 25	46	Jul 5	7.1	Sep 10, 1995
MAXIMUM PEAK FLOW			2,450	Sep 18	5,330	Sep 17, 1999
MAXIMUM PEAK STAGE			7.33	Sep 18	13.94a	Sep 17, 1999
INSTANTANEOUS LOW FLOW			31	Jul 11,12	1.0	May 25, 1935
10 PERCENT EXCEEDS	301		248		190	
50 PERCENT EXCEEDS	101		92		69	
90 PERCENT EXCEEDS	60		58		26	

a From high-water mark in gage house.



RESERVOIRS IN PASSAIC RIVER BASIN

01379990 SPLITROCK RESERVOIR.--Lat 40°57'48", long 74°27'35", Morris County, Hydrologic Unit 02030103, at dam on Beaver Brook, 2 mi north-east of Hibernia.

DRAINAGE AREA.-- 5.50 mi²

PERIOD OF RECORD.-- September 1925 to September 1931, December 1948 to current year.

REVISED RECORDS.--WDR NJ-94-1: 1993.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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 Jersey City.

COOPERATION.--Records provided by United Water Jersey City.

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, 3,474,000,000 gal, Sept. 29, elevation, 835.85 ft; minimum, 3,245,000,000 gal, Jul. 10, elevation, 834.70 ft.

01380900 BOONTON RESERVOIR.--Lat 40°53'45", long 74°23'52", Morris County, Hydrologic Unit 02030103, at dam on Rockaway River at Boonton.

DRAINAGE AREA.-- 119 mi²

PERIOD OF RECORD.-- April 1904 to current year.

REVISED RECORDS.--WDR NJ-85-1: 1984, WDR NJ-94-1: 1993.

GAGE.-- Hook gage. Datum of gage is National Geodetic Vertical Datum of 1929.

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 Jersey City.

COOPERATION.--Records provided by United Water Jersey City.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,580,000,000 gal, May 12, 1998, elevation, 309.50 ft; minimum, 1,445,000,000 gal, Jan. 31, 1981, elevation 274.71 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,903,000,000 gal, Dec. 12, elevation, 306.92 ft; minimum, 6,677,000,000 gal, Jul. 12, elevation, 302.06 ft.

01382100 CANISTEAR RESERVOIR.--Lat 41°06'40", long 74°29'31", Sussex County, Hydrologic Unit 02030103, at dam on Paddock Brook, 1.8 mi north-east of Stockholm.

DRAINAGE AREA.-- 6.08 mi²

PERIOD OF RECORD.-- October 1923 to current year.

REVISED RECORDS.--WDR NJ-94-1: 1993, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

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°02'27", long 74°30'09", Passaic County, Hydrologic Unit 02030103, at dam on Pequannock River, 0.9 mi southwest of Oak Ridge.

DRAINAGE AREA.-- 27.3 mi²

PERIOD OF RECORD.-- October 1923 to current year.

REVISED RECORDS.--WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

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°04'28", long 74°26'51", Passaic County, Hydrologic Unit 02030103, at dam on Clinton Brook, 2.0 mi north of Newfoundland.

DRAINAGE AREA.-- 10.5 mi²

PERIOD OF RECORD.-- October 1923 to current year.

REVISED RECORDS.--WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

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°25'29", 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 mi²

PERIOD OF RECORD.-- May 1961 to current year.

REVISED RECORDS.--WRD NJ-74: Station number, WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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.

RESERVOIRS IN PASSAIC RIVER BASIN—Continued

01382400 ECHO LAKE.--Lat 41°02'58", long 74°24'25", 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 mi²

PERIOD OF RECORD.-- October 1927 to current year.

REVISED RECORDS.-- WDR NJ-99-1: 1998 (elevation, contents).

GAGE.-- Staff gage. Datum of gage is National Geodetic Vertical Datum of 1929.

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.

01383000 GREENWOOD LAKE.--Lat 41°09'42", long 74°20'00", Passaic County, Hydrologic Unit 02030103, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting.

DRAINAGE AREA.-- 27.1 mi²

PERIOD OF RECORD.-- June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953).

REVISED RECORDS.-- WDR NJ-94-1: 1993, WDR NJ-97-1: 1995-96.

GAGE.-- Water-stage recorder. Datum of gage is 608.86 ft above National Geodetic Vertical Datum of 1929 (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. Diversions by North Jersey District Water Supply Commission from Upper Greenwood Lake enter via Green Brook.

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, 7,593,000,000 gal, Dec. 12, gage height, 11.18 ft; minimum, 6,793,000,000 gal, July 12, gage height, 9.89 ft.

01384002 MONKSVILLE RESERVOIR.--Lat 41°07'21", long 74°17'48", Passaic County, Hydrologic Unit 02030103, at dam on Wanaque River at Monks.

DRAINAGE AREA.-- 40.4 mi²

PERIOD OF RECORD.-- September 1988 to current year.

GAGE.-- Measurement from reference point. Datum of gage is National Geodetic Vertical Datum of 1929.

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 revised, 7,400,000,000 gal, Sep 17-19, 1999, elevation 403.3 ft; minimum, 860,000,000, Sept. 28, 1988 (first filling), elevation 339.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,350,000,000 gal, Sept. 11, elevation 401.9 ft; minimum, 7,070,000,000 gal, many days, elevation 400.4 ft.

01386990 WANAQUE RESERVOIR.--Lat 41°02'42", long 74°17'43", Passaic County, Hydrologic Unit 02030103, at Raymond Dam on Wanaque River at Wanaque.

DRAINAGE AREA, 90.4 mi²

PERIOD OF RECORD, February 1928 to current year.

REVISED RECORDS.--WDR NJ-85-1: 1984 (M).

GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (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, prior to 1986, 300.3 ft. Capacity available by gravity at spillway level, 27,850,000,000 gal. Outflow mostly controlled by sluice gates in intake conduits in gate 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). Records given herein represent total capacity.

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, 30,291,000,000 gal, Dec. 12, elevation, 303.25 ft; minimum, 24,731,000,000 gal, Oct. 26, elevation, 295.80 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)**	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01379990 SPLITROCK RESERVOIR			01380900 BOONTON RESERVOIR			01382100 CANISTEAR RESERVOIR			
Sept. 30.....	835.25	3,355		305.83	7,624		1,086.0	2,407	
Oct. 31.....	835.40	3,385	+1.5	306.25	7,731	+5.3	1,086.3	2,437	+1.5
Nov. 30.....	835.35	3,375	-.5	305.92	7,647	-4.3	1,086.2	2,427	-.5
Dec. 31.....	835.10	3,325	-2.5	305.75	7,604	-2.1	1,086.2	2,427	0
CAL YR 2003			0			+2			+4
Jan. 31.....	835.05	3,315	-.5	305.37	7,508	-4.8	1,086.1	2,417	-.5
Feb. 29.....	835.00	3,306	-.5	305.42	7,520	+.6	1,086.0	2,407	-.5
Mar. 31.....	835.05	3,315	+.4	305.56	7,556	+1.8	1,086.2	2,427	+1.0
Apr. 30.....	835.20	3,345	+1.5	305.67	7,584	+1.4	1,086.2	2,427	0
May 31.....	835.10	3,325	-1.0	305.52	7,546	-1.9	1,086.2	2,427	0
June 30.....	834.85	3,275	-2.6	303.29	7,142	-20.8	1,086.1	2,417	-.5
July 31.....	835.20	3,345	+3.5	305.46	7,530	+19.4	1,086.1	2,417	0
Aug. 31.....	835.00	3,306	-1.9	305.25	7,477	-2.6	1,086.1	2,417	0
Sept. 30.....	835.80	3,464	+8.1	306.46	7,785	+15.9	1,086.2	2,427	+5
WTR YR 2004			+5			+7			+1

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. Records provided by New Jersey-American Water Company.
- 01379530 New Jersey-American Water Company diverts water from Canoe Brook near Summit, 0.5 mi upstream from mouth, for municipal supply. Records provided by New Jersey-American Water Company.
- 01380280 The Town of Boonton diverts water from a tributary of Stony Brook at Taylortown Reservoir for municipal water supply. Records furnished by Town of Boonton.
- 01380800 Jersey City diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records provided by United Water Jersey City. REVISED RECORDS.--WDR NJ-97-1: 1996.
- 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 Posts Brook near Wanaque into Wanaque Reservoir for municipal supply. Records not available. See low-flow partial-record station 01387020.
- 01387959 Passaic Valley Water Commission diverts water from Point View Reservoir to the PVWC's intake canal at Little Falls for municipal supply. No diversion this year. REVISED RECORDS.--WDR NJ-00-1: 1999.
- 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. Water can also be released from Point View Reservoir into the Pompton River at Jackson Avenue Pumping Station and are noted as negative discharges. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream from Pompton Plains gaging station (01388500). Records provided by Passaic Valley Water Commission. REVISED RECORDS.--WDR NJ-82-1: Station number.
- 01388980 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. Records 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.
- 01388982 The Passaic Valley Water Commission (PVWC) diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to the PVWC's intake canal just upstream of Beatties Dam at Little Falls. Previous to the 2001 water year, diversions at this location were included with those made at Little Falls (01389490). Records provided by Passaic Valley Water Commission.
- 01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beatties Dam at Little Falls for municipal supply. Previous to the 2001 water year, figures included those made at Wanaque South pumping station on the Pompton River at Two Bridges (01388982). Negative flows indicate excess water from Wanaque South pumping station (01388982) was returned to the Passaic River at Little Falls (01389500). Occasionally releases from Point View Reservoir (01387959) are included in this total. Records provided by Passaic Valley Water Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	<u>01379510</u> New Jersey - American Water Company from Passaic River	<u>01379530</u> New Jersey - American Water Company from Canoe Brook	<u>01380280</u> Stony Brook tributary diversion at Taylortown	<u>01380800</u> Jersey City	<u>01382370</u> Newark
October	7.80	6.37	.73	69.1	62.6
November	16.9	9.71	.80	72.2	57.4
December	12.5	9.08	.70	74.8	55.6
CAL YR 2003	6.80	6.06	.70	76.7	65.5
January	5.22	2.13	.77	81.5	56.9
February	12.7	.38	.77	79.4	64.2
March	8.32	0	.77	72.7	68.9
April	8.91	4.07	.79	69.7	74.8
May	7.60	2.76	.84	70.4	74.3
June	0	.88	.88	82.5	72.9
July77	4.18	.91	83.8	68.2
August	1.47	1.65	.88	86.0	67.3
September.....	2.21	3.43	.91	85.2	68.3
WTR YR 2004	7.00	3.73	.81	77.3	65.9

HACKENSACK RIVER BASIN

DIVERSIONS WITHIN PASSAIC RIVER BASIN—Continued

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004, Continued

MONTH	<u>01386980</u>	<u>01387959</u>	<u>01387990</u>	<u>01388490</u>
	Wanaque Reservoir	Point View Reservoir to Little Falls	Ramapo River to Wanaque Reservoir	Pompton River to Point View Reservoir
October	175	0	0	0
November	165	0	0	0
December	165	0	0	0
CAL YR 2003	163	0	0	0
January	168	0	0	0
February	162	0	0	0
March	155	0	0	0
April	146	0	0	0
May	144	0	0	0
June	145	0	0	0
July	160	0	0	0
August	159	0	0	0
September	164	0	0	0
WTR YR 2004	159	0	0	0
MONTH	<u>01388980</u>	<u>01388981*</u>	<u>01388982</u>	<u>01389490</u>
	Pompton River to Wanaque Reservoir	To Oradell Reservoir	Pompton River to Passaic Valley Water Commission at Little Falls	Passaic River to Passaic Valley Water Commission at Little Falls
October	0	0	58.7	-3.29
November	0	0	63.1	-6.85
December	0	0	53.1	-3.66
CAL YR 2003	1.06	4.14	54.0	12.8
January	0	0	62.2	1.87
February	0	0	77.2	-8.51
March	0	0	73.4	-7.82
April	0	0	76.5	-18.2
May	0	6.66	77.1	-6.12
June	0	9.22	75.6	14.9
July	0	15.8	76.1	14.2
August	0	12.9	76.8	-6.18
September	0	12.2	78.1	-10.8
WTR YR 2004	0	4.74	70.6	-3.32

* Diversion is to the Hackensack River Basin from Pompton River or Wanaque Reservoir.



01389492 Passaic River above Beatties Dam, at Little Falls
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ

LOCATION.--Lat 40°40'30", long 74°13'19", Union County, Hydrologic Unit 02030104, on left bank at Ursino Lake Dam in Elizabeth, 75 ft upstream from bridge on Trotters Lane and 3.8 mi upstream from mouth.

DRAINAGE AREA.--16.9 mi².

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, crest-stage gage, and two concrete weirs. The right concrete weir was lowered 5 ft on Dec. 18, 1985. Datum of gage is NGVD of 1929 (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 mi².

REMARKS.--Records good, except for estimated daily discharges, which are fair. Diversion by pumpage from Hammock Well Field in Union Township for municipal supply by Elizabethtown Water Company, probably reduces the flow past the station. Elizabethtown Water Co. diverted water for municipal supply from Ursino Lake in Elizabeth prior to 1929. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	12	13	e9.5	10	75	15	36	11	101	9.4
2	10	14	11	13	10	11	21	17	18	10	25	9.4
3	9.4	12	10	13	116	10	22	36	14	9.5	61	9.1
4	9.2	11	9.8	31	40	22	20	21	12	9.1	21	8.9
5	8.9	29	9.8	70	21	12	15	15	11	91	16	8.8
6	8.6	25	11	20	288	41	15	15	15	16	14	8.7
7	8.5	19	12	17	73	14	13	27	12	12	13	9.6
8	8.5	11	13	14	31	65	17	13	11	11	12	356
9	8.3	9.5	14	13	23	26	13	14	11	9.5	12	89
10	8.1	9.4	32	12	22	21	12	12	11	8.8	11	27
11	7.6	9.5	251	e12	18	16	11	102	14	8.6	28	17
12	7.5	28	35	12	16	15	34	63	10	196	28	13
13	7.5	17	23	12	15	14	163	36	9.7	116	13	12
14	7.5	11	71	11	15	13	114	23	10	58	12	11
15	62	9.5	117	11	14	13	46	18	10	24	55	55
16	12	9.0	32	e12	13	19	26	59	9.5	16	29	21
17	10	8.7	87	11	12	27	21	21	26	13	16	13
18	22	8.7	32	20	12	26	18	18	17	118	13	123
19	8.8	72	23	16	12	50	16	18	9.8	43	11	21
20	8.0	126	19	12	12	23	15	15	8.9	19	11	15
21	8.3	29	17	e12	12	31	17	14	8.7	15	50	13
22	7.9	20	15	11	11	18	15	13	24	13	14	11
23	7.3	16	14	e11	11	16	14	13	11	174	12	10
24	7.0	14	257	e10	12	15	18	13	9.7	42	11	9.9
25	6.9	18	46	e10	12	17	14	12	180	22	10	10
26	6.9	12	29	9.6	11	14	150	16	43	17	10	10
27	165	11	22	11	10	19	102	23	19	305	10	10
28	32	64	18	11	10	14	29	41	14	168	10	523
29	222	33	17	10	10	13	21	16	23	47	11	272
30	31	14	15	e10	---	13	18	13	12	75	10	54
31	21	---	14	e9.0	---	45	---	31	---	26	12	---
TOTAL	759.7	686.3	1,288.6	459.6	871.5	663	1,085	763	620.3	1,703.5	662	1,759.8
MEAN	24.5	22.9	41.6	14.8	30.1	21.4	36.2	24.6	20.7	55.0	21.4	58.7
MAX	222	126	257	70	288	65	163	102	180	305	101	523
MIN	6.9	8.7	9.8	9.0	9.5	10	11	12	8.7	8.6	10	8.7

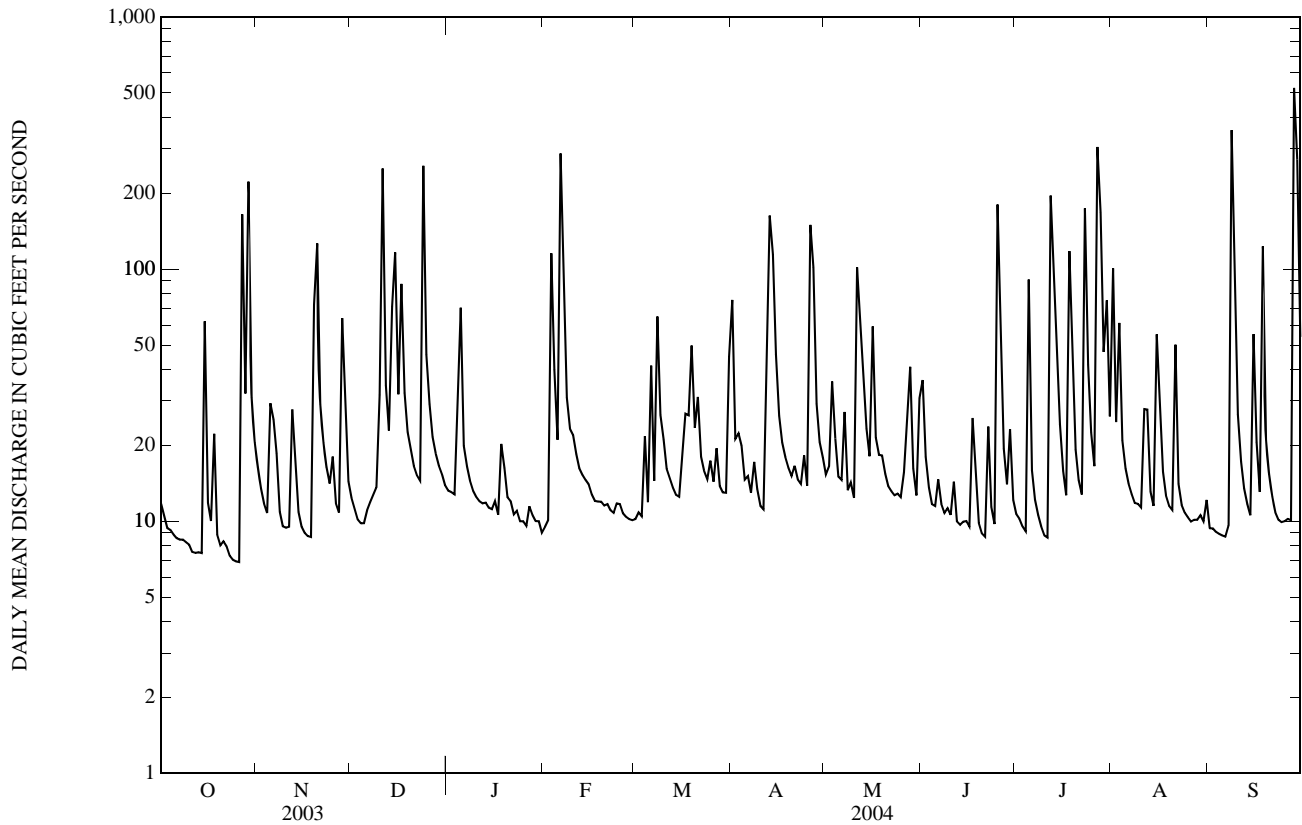
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	20.6	24.2	23.5	24.0	26.1	32.1	29.3	27.2	24.0	27.2	27.1	26.3
MAX	60.1	90.7	85.1	86.3	55.1	75.5	97.0	83.8	81.2	83.1	195	102
(WY)	(1928)	(1973)	(1984)	(1979)	(1971)	(1983)	(1983)	(1968)	(2003)	(1922)	(1971)	(1966)
MIN	1.58	5.05	6.25	3.71	6.56	6.03	10.3	5.97	3.94	3.24	0.07	1.99
(WY)	(1922)	(1923)	(1981)	(1925)	(1934)	(1981)	(1963)	(1923)	(1923)	(1923)	(1923)	(1923)

01393450 ELIZABETH RIVER AT URSINO LAKE, AT ELIZABETH, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	12,223.6		11,322.3			
ANNUAL MEAN	33.5		30.9		26.0	
HIGHEST ANNUAL MEAN					48.3	1971
LOWEST ANNUAL MEAN					10.2	1923
HIGHEST DAILY MEAN	593	Jun 4	523	Sep 28	1,900	Aug 28, 1971
LOWEST DAILY MEAN	6.9	Oct 25	6.9	Oct 25	0.00	Jul 14, 1922
ANNUAL SEVEN-DAY MINIMUM	7.5	Oct 20	7.5	Oct 20	0.00	Aug 7, 1923
MAXIMUM PEAK FLOW			1,980a	Sep 8	4,510a	Sep 16, 1999
MAXIMUM PEAK STAGE			19.86	Sep 8	25.77b	Aug 2, 1973
INSTANTANEOUS LOW FLOW			6.8	Oct 24-26	0.00	many days
10 PERCENT EXCEEDS	73		63		51	
50 PERCENT EXCEEDS	15		14		11	
90 PERCENT EXCEEDS	8.9		9.5		5.6	

- a From rating curve extended above 1,100 ft³/s on basis of contracted-opening measurement of peak flow.
- b Recorded before right weir was lowered 5 ft.
- e Estimated



01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ

LOCATION.--Lat 40°41'15", long 74°18'42", Union County, Hydrologic Unit 02030104, on left bank 50 ft downstream from bridge on eastbound U.S. Route 22, 100 ft downstream from Pope Brook, and 1.5 mi south of Springfield.

DRAINAGE AREA.--25.5 mi².

PERIOD OF RECORD.--July 1938 to current year.

REVISED RECORDS.--WSP 1622: 1945. WRD-NJ 1973: 1938(M), 1968(M), 1971(M).

GAGE.--Water-stage recorder. Former concrete control is no longer effective. Datum of gage is 66.17 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water for municipal supply diverted from river by city of Orange at Orange Reservoir upstream on the West Branch Rahway River. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, New Jersey-American Water Co., and Springfield station of Elizabethtown Water Co. (no longer active). Several measurements of water temperature were made during the year. Since 1980, the site may be affected during high flows by backwater from the Lenape Park flood control dam, about 1 mi downstream. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	1145	1,240	6.21	Sep 29	0015	1,110	5.92
Jul 27	2115	*1,460	*6.62				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	19	23	12	15	103	23	60	11	103	10
2	13	14	16	22	12	16	39	23	28	11	29	10
3	13	16	15	22	133	15	37	45	17	9.3	74	9.6
4	13	20	14	33	117	27	34	40	15	9.1	59	9.9
5	13	31	15	126	34	20	26	23	14	44	21	9.5
6	12	26	20	44	383	51	22	22	16	10	16	9.5
7	12	23	19	28	237	27	20	38	15	9.2	16	9.1
8	12	17	17	23	57	81	23	21	14	9.1	15	399
9	10	15	16	21	36	50	23	20	13	8.3	14	123
10	9.5	14	30	21	39	43	19	17	13	8.1	13	30
11	9.9	14	643	18	37	29	17	170	15	7.8	83	18
12	10	28	94	19	29	24	30	158	12	148	83	15
13	10	22	43	18	23	21	253	64	12	136	18	13
14	12	e16	80	17	23	18	267	28	12	29	15	11
15	137	e15	265	17	21	18	163	27	11	19	61	35
16	11	e15	63	17	18	22	50	161	11	12	27	33
17	10	e16	182	16	17	32	38	31	16	10	18	16
18	19	e19	112	21	17	30	31	24	29	50	15	152
19	8.0	144	50	21	17	57	28	24	13	89	14	25
20	8.1	399	38	16	20	43	25	20	11	17	14	13
21	9.4	44	30	15	20	70	23	17	11	12	69	13
22	9.9	26	27	16	21	38	22	17	31	11	21	12
23	10	20	25	15	17	27	21	18	11	184	14	11
24	11	18	459	14	18	23	24	17	11	94	12	11
25	12	22	176	12	18	24	19	16	145	20	12	12
26	13	16	58	12	16	22	163	23	81	15	12	10
27	298	15	42	13	15	26	173	94	15	301	12	11
28	82	65	34	14	15	21	45	69	13	374	14	255
29	363	106	28	13	15	19	29	27	36	99	12	502
30	44	25	29	13	---	17	26	17	10	104	11	66
31	20	---	25	12	---	45	---	34	---	44	11	---
TOTAL	1,228.8	1,237	2,684	692	1,437	971	1,793	1,328	711	1,904.9	908	1,853.6
MEAN	39.6	41.2	86.6	22.3	49.6	31.3	59.8	42.8	23.7	61.4	29.3	61.8
MAX	363	399	643	126	383	81	267	170	145	374	103	502
MIN	8.0	14	14	12	12	15	17	16	10	7.8	11	9.1

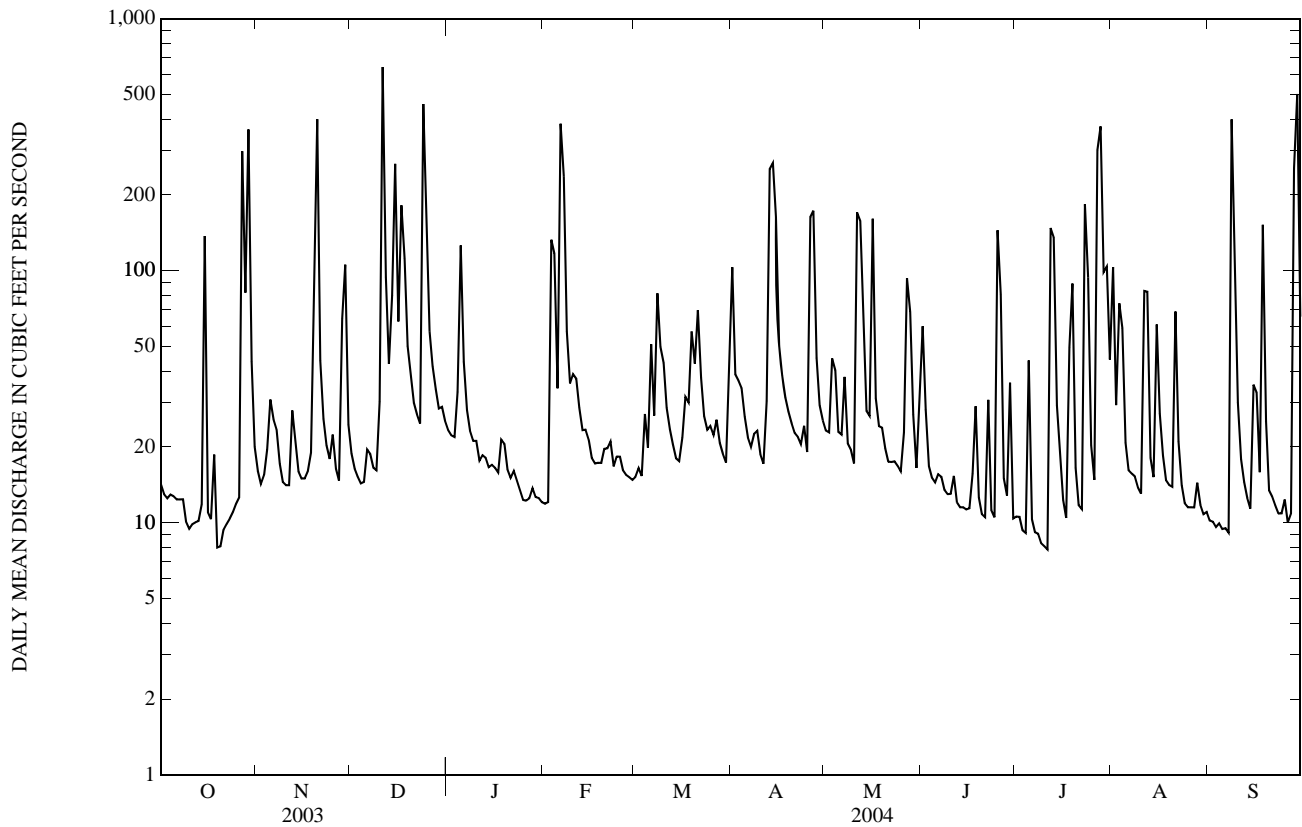
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	19.2	27.5	31.7	31.4	34.5	48.0	42.8	34.9	26.1	25.7	23.0	24.1
MAX	108	107	129	116	79.5	120	139	112	123	138	112	151
(WY)	(1997)	(1973)	(1984)	(1979)	(1998)	(1994)	(1983)	(1989)	(2003)	(1975)	(1942)	(1999)
MIN	2.17	2.73	4.02	4.26	6.86	8.08	7.37	6.31	4.14	2.23	2.10	2.97
(WY)	(1964)	(1950)	(1940)	(1966)	(2002)	(1981)	(1963)	(1965)	(1965)	(1966)	(1964)	(1964)

01394500 RAHWAY RIVER NEAR SPRINGFIELD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	18,865.0		16,748.3			
ANNUAL MEAN	51.7		45.8		30.7	
HIGHEST ANNUAL MEAN					55.9	1973
LOWEST ANNUAL MEAN					10.0	1965
HIGHEST DAILY MEAN	673	Jun 4	643	Dec 11	2,270	Sep 16, 1999
LOWEST DAILY MEAN	6.2	Feb 17	7.8	Jul 11	0.40	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	8.7	Feb 11	9.7	Sep 1	0.71	Oct 8, 1970
MAXIMUM PEAK FLOW			1,460	Jul 27	7,990a	Sep 16, 1999
MAXIMUM PEAK STAGE			6.62	Jul 27	10.67	Sep 16, 1999
INSTANTANEOUS LOW FLOW			7.7	Many days	0.10	Sep 11, 1966
10 PERCENT EXCEEDS	120		105		61	
50 PERCENT EXCEEDS	22		20		11	
90 PERCENT EXCEEDS	10		11		3.5	

a From rating curve extend above 1,600 ft³/s on basis of slope-area measurement of peak flow.
 e Estimated



RAHWAY RIVER BASIN

01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'08", long 74°17'00", Union County, Hydrologic Unit 02030104, on left bank, 100 ft upstream from bridge on St. Georges Avenue in Rahway, and 0.9 mi upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi².

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 NGVD of 1929. 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 values which are fair. Water for municipal supply diverted from river by cities of Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, New Jersey-American Water Co., Springfield station of Elizabethtown Water Co. (no longer active), by storage in the Lenape Park flood control reservoir (since 1980), and by gate operations at Hansels Dam 5.6 mi upstream from gage in Cranford and Taylor Park Dam on the West Branch Rahway River in Millburn 11.6 mi upstream from gage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	0445	845	3.81	Jun 25	2300	675	3.49
Dec 11	1415	1,070	4.20	Jul 13	0300	747	3.63
Dec 15	0930	943	3.98	Jul 23	2230	721	3.58
Dec 24	2015	943	3.98	Jul 28	0045	*1,440	*4.78
Feb 7	0000	977	4.04	Sep 8	1230	763	3.66
May 12	1930	1,030	4.13	Sep 29	0600	1,210	4.43

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	39	38	e15	24	142	39	92	15	159	13
2	24	23	30	36	e13	26	76	36	82	15	63	12
3	18	20	26	36	e124	26	61	53	30	14	47	12
4	17	20	24	38	e274	45	50	80	23	12	135	13
5	19	36	25	191	75	37	41	38	22	97	37	12
6	18	69	33	91	388	70	31	34	28	24	27	12
7	18	52	36	49	625	58	28	57	23	14	24	12
8	16	27	30	38	135	132	30	36	20	13	22	426
9	16	21	30	34	43	101	40	30	18	12	21	362
10	14	19	41	29	58	76	28	26	19	11	20	69
11	14	22	685	31	67	49	26	223	25	10	55	20
12	14	52	428	29	51	40	30	260	19	180	161	23
13	15	37	83	28	43	34	352	206	17	366	60	19
14	12	27	89	e24	40	30	398	49	16	69	26	17
15	207	21	496	e24	38	29	318	41	16	55	100	25
16	31	19	145	e23	32	35	85	269	15	22	32	91
17	16	20	194	e24	29	54	60	56	14	19	35	24
18	40	21	213	e36	29	52	50	40	39	30	45	217
19	19	110	87	e38	29	104	43	40	19	178	25	76
20	14	644	63	e29	21	87	39	37	14	33	20	25
21	14	135	51	e25	34	119	36	28	13	21	72	20
22	14	51	45	e24	35	68	33	27	52	18	61	19
23	14	37	41	e21	29	46	31	24	27	167	29	17
24	14	31	412	e18	27	38	38	26	14	290	25	16
25	13	38	545	e16	31	37	31	25	112	43	13	16
26	15	29	113	e16	26	38	233	34	268	26	7.2	16
27	296	25	73	e17	25	44	340	121	29	206	17	15
28	298	66	57	e20	25	37	79	73	19	984	16	304
29	422	201	35	e19	24	29	49	71	58	184	25	993
30	163	50	36	e18	---	28	43	26	17	115	14	182
31	39	---	41	e16	---	72	---	39	---	109	16	---
TOTAL	1,869	1,952	4,246	1,076	2,385	1,665	2,841	2,144	1,160	3,352	1,409.2	3,078
MEAN	60.3	65.1	137	34.7	82.2	53.7	94.7	69.2	38.7	108	45.5	103
MAX	422	644	685	191	625	132	398	269	268	984	161	993
MIN	12	19	24	16	13	24	26	24	13	10	7.2	12

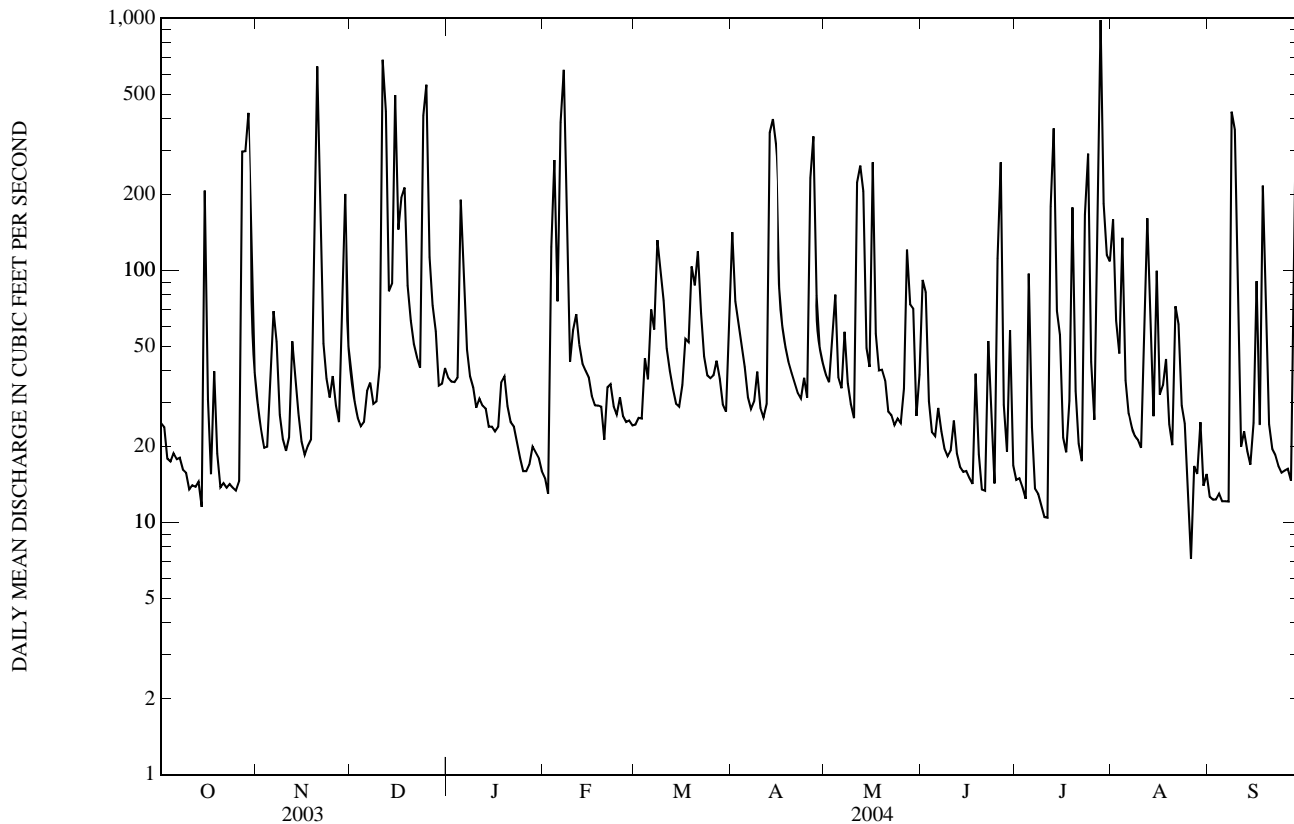
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

	29.8	43.4	49.0	51.8	58.3	78.9	68.8	53.5	39.7	42.3	39.0	39.2
MEAN	29.8	43.4	49.0	51.8	58.3	78.9	68.8	53.5	39.7	42.3	39.0	39.2
MAX	197	221	255	211	156	190	246	199	199	268	242	231
(WY)	(1997)	(1973)	(1984)	(1979)	(1925)	(1983)	(1983)	(1989)	(2003)	(1975)	(1971)	(1999)
MIN	1.48	3.05	3.27	1.41	8.15	12.6	7.80	6.20	3.32	0.33	0.43	2.26
(WY)	(1964)	(1966)	(1981)	(1981)	(2002)	(1981)	(1963)	(1965)	(1965)	(1966)	(1964)	(1964)

01395000 RAHWAY RIVER AT RAHWAY, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	30,209		27,177.2			
ANNUAL MEAN	82.8		74.3		49.4	
HIGHEST ANNUAL MEAN					105	1973
LOWEST ANNUAL MEAN					15.0	1965
HIGHEST DAILY MEAN	908	Jun 4	993	Sep 29	3,670	Sep 17, 1999
LOWEST DAILY MEAN	10	Aug 25	7.2	Aug 26	0.00	Oct 9, 1964
ANNUAL SEVEN-DAY MINIMUM	12	Aug 24	12	Sep 1	0.00	Jul 10, 1981
MAXIMUM PEAK FLOW			1,440	Jul 28	5,590	Sep 17, 1999
MAXIMUM PEAK STAGE			4.78	Jul 28	9.60	Sep 17, 1999
INSTANTANEOUS LOW FLOW			2.6	Aug 26	0.00	many days
10 PERCENT EXCEEDS	206		186		101	
50 PERCENT EXCEEDS	35		33		19	
90 PERCENT EXCEEDS	15		15		3.7	

e Estimated



01396190 SOUTH BRANCH RARITAN RIVER AT FOUR BRIDGES, NJ

LOCATION.--Lat 40°48'22", long 74°44'26", Morris County, Hydrologic Unit 02030105, on right bank, just downstream of bridge on Elizabeth Avenue, 0.3 mi southwest of Four Bridges, 0.6 mi downstream of Drakes Brook, 0.7 mi northwest of Naughtright, and 2.7 mi northwest of Chester.

DRAINAGE AREA.--31.0 mi².

PERIOD OF RECORD.--January 1999 to current year.

REVISED RECORDS.--WDR NJ-03-1: 1999 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 564.00 ft North American Vertical Datum of 1988 (revised, levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair, except for estimated daily discharges which are poor. Several measurements of water temperature were made during the year. Occasional fluctuations from sewage treatment plants upstream and possible regulation from ponds and lakes upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1930	989	7.50	Dec 17	1145	577	6.57
Oct 29	0900	1,090	7.70	Dec 24	1145	1,240	7.99
Nov 20	0100	882	7.28	Apr 13	1915	445	6.24
Nov 29	0045	523	6.44	Sep 18	1000	1,240	7.99
Dec 11	1200	*1,530	*8.50	Sep 29	0000	1,060	7.65

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	131	101	91	42	60	71	57	53	17	31	19
2	63	121	90	89	42	75	65	57	41	16	26	17
3	58	113	80	85	58	70	62	82	38	15	24	16
4	61	101	77	99	86	69	59	86	34	14	22	16
5	57	106	78	189	60	62	54	72	34	14	22	15
6	52	103	82	131	169	80	50	62	34	13	20	16
7	49	92	80	98	198	69	49	74	32	13	18	15
8	47	78	78	e85	91	80	51	61	29	17	16	37
9	45	69	77	e75	68	75	53	53	27	17	15	54
10	44	64	85	61	61	82	49	50	27	14	14	29
11	43	64	715	64	58	74	46	140	32	12	39	22
12	42	73	254	71	54	63	49	75	26	48	28	20
13	39	67	165	71	52	56	188	77	24	85	46	18
14	37	60	142	59	50	53	211	58	23	34	28	16
15	144	57	163	58	46	52	148	52	23	30	34	17
16	55	55	135	56	41	54	82	78	21	23	29	26
17	43	54	334	61	42	57	70	55	20	21	32	23
18	44	53	205	63	42	57	66	50	23	37	22	371
19	39	185	146	60	43	63	61	51	21	81	20	91
20	35	424	128	56	44	67	59	48	18	42	18	47
21	34	145	118	53	53	94	56	43	16	36	81	37
22	33	106	113	54	52	71	54	41	23	25	60	32
23	32	92	114	49	48	57	70	42	21	85	33	29
24	30	87	628	48	47	56	64	41	17	48	26	27
25	29	104	318	43	45	58	56	36	24	28	24	25
26	30	92	183	47	42	57	187	39	39	23	22	25
27	417	81	149	46	41	59	121	60	21	52	21	22
28	213	150	129	46	45	e50	84	47	18	92	30	238
29	597	210	115	45	51	e45	66	40	25	40	40	385
30	217	113	108	44	---	49	60	31	19	28	24	91
31	153	---	96	42	---	80	---	34	---	27	22	---
TOTAL	2,852	3,250	5,286	2,139	1,771	1,994	2,361	1,792	803	1,047	887	1,796
MEAN	92.0	108	171	69.0	61.1	64.3	78.7	57.8	26.8	33.8	28.6	59.9
MAX	597	424	715	189	198	94	211	140	53	92	81	385
MIN	29	53	77	42	41	45	46	31	16	12	14	15
CF5M	2.97	3.49	5.50	2.23	1.97	2.07	2.54	1.86	0.86	1.09	0.92	1.93
IN.	3.42	3.90	6.34	2.57	2.13	2.39	2.83	2.15	0.96	1.26	1.06	2.16

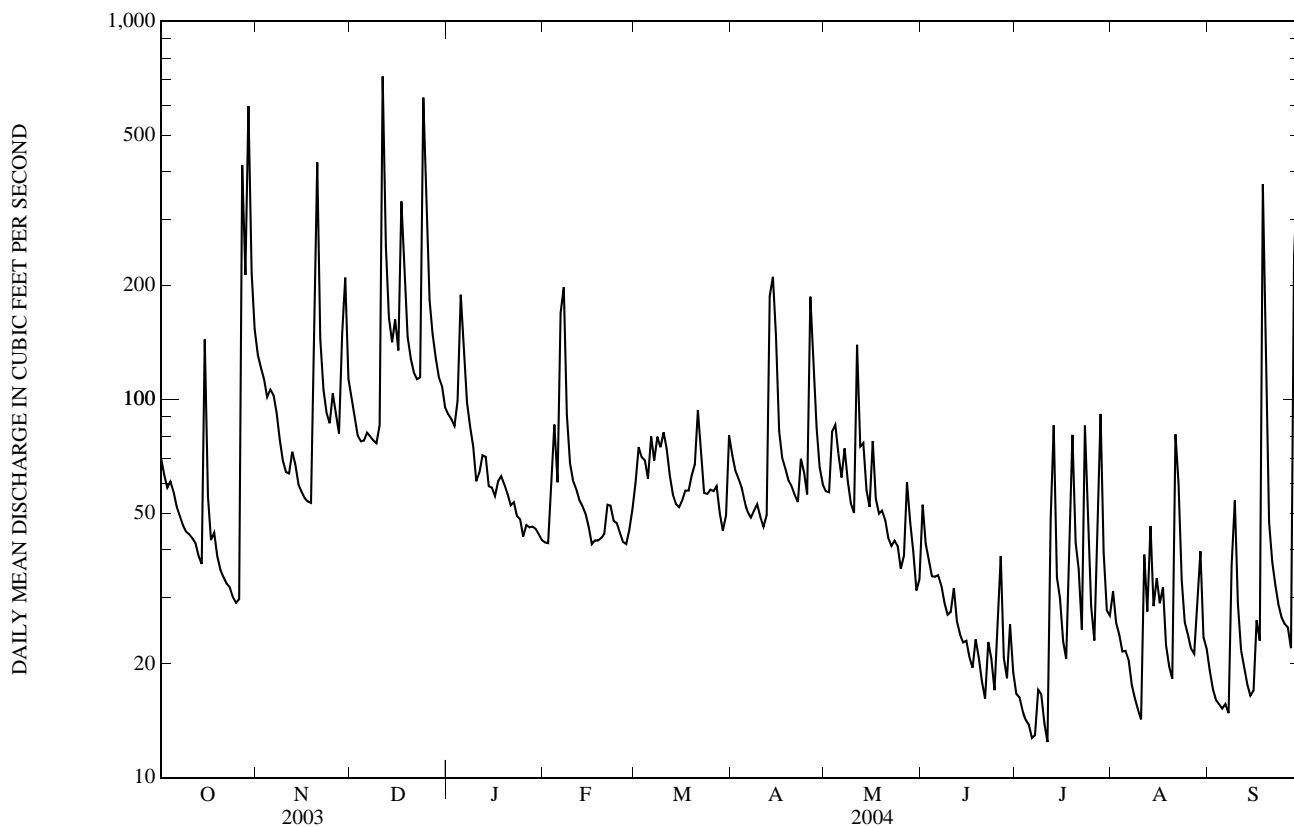
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
	34.6	92.0	7.92	(2002)	43.6	108	9.02	(2002)	64.5	171	11.7	(2002)
	50.7	99.8	14.1	(2002)	50.7	99.8	14.1	(2002)	45.9	61.1	11.6	(2002)
	81.5	121	27.8	(2002)	81.5	121	27.8	(2002)	59.7	78.7	29.0	(1999)
	47.7	57.8	34.5	(1999)	47.7	57.8	34.5	(1999)	22.5	37.1	6.30	(1999)
	50.7	110	13.7	(1999)	50.7	110	13.7	(1999)	28.0	59.5	6.92	(2002)
	22.5	37.1	6.30	(1999)	22.5	37.1	6.30	(1999)	46.4	88.6	7.43	(2002)

01396190 SOUTH BRANCH RARITAN RIVER AT FOUR BRIDGES, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1999 - 2004	
ANNUAL TOTAL	30,866		25,978		47.6	
ANNUAL MEAN	84.6		71.0		71.0	
HIGHEST ANNUAL MEAN					19.9	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	715	Dec 11	715	Dec 11	1,530	Sep 16, 1999
LOWEST DAILY MEAN	18	Feb 16	12	Jul 11	2.4	Aug 19, 2002
ANNUAL SEVEN-DAY MINIMUM	21	Feb 11	14	Jul 5	2.7	Aug 13, 2002
MAXIMUM PEAK FLOW			1,530	Dec 11	3,000 ^a	Sep 16, 1999
MAXIMUM PEAK STAGE			8.50	Dec 11	10.60	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.5	Sep 8	2.3	Aug 19, 2002
ANNUAL RUNOFF (CFSM)	2.73		2.29		1.53	
ANNUAL RUNOFF (INCHES)	37.04		31.17		20.84	
10 PERCENT EXCEEDS	166		131		93	
50 PERCENT EXCEEDS	61		53		31	
90 PERCENT EXCEEDS	27		21		9.4	

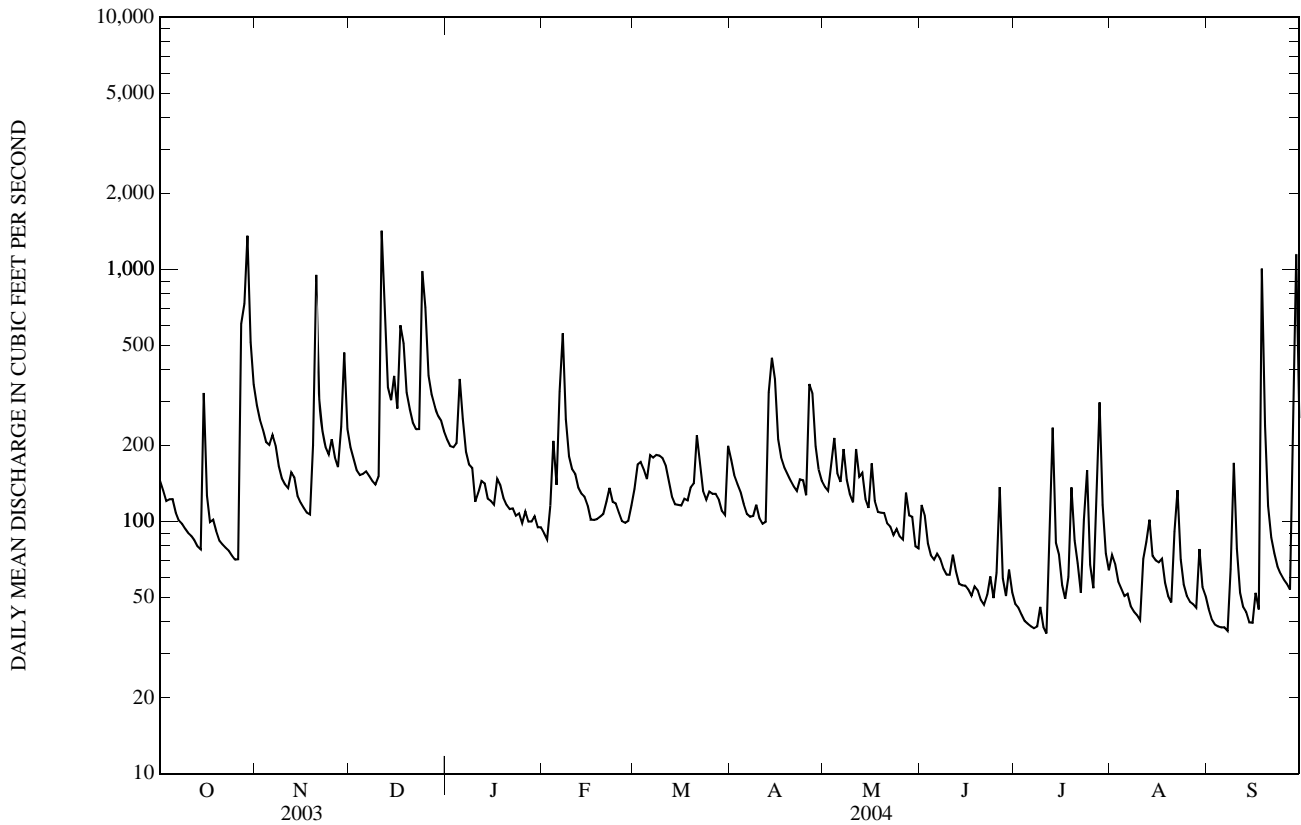
a From rating curve extended above 860 ft³/s
 e Estimated



01396500 SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1919 - 2004	
ANNUAL TOTAL	67,916		57,215			
ANNUAL MEAN	186		156		122	
HIGHEST ANNUAL MEAN					213	1928
LOWEST ANNUAL MEAN					46.2	1965
HIGHEST DAILY MEAN	1,420	Dec 11	1,420	Dec 11	3,340	Jan 25, 1979
LOWEST DAILY MEAN	50	Sep 12	36	Jul 11	13	Aug 11, 1966
ANNUAL SEVEN-DAY MINIMUM	56	Sep 7	39	Jul 5	17	Aug 14, 2002
MAXIMUM PEAK FLOW			2,310	Dec 11	6,910	Jan 25, 1979
MAXIMUM PEAK STAGE			9.69	Dec 11	14.26a	Jan 28, 1994
INSTANTANEOUS LOW FLOW			35	Jul 11, 12	6.6	Oct 11, 1930
ANNUAL RUNOFF (CFSM)	2.85		2.39		1.87	
ANNUAL RUNOFF (INCHES)	38.69		32.59		25.47	
10 PERCENT EXCEEDS	339		280		234	
50 PERCENT EXCEEDS	137		117		86	
90 PERCENT EXCEEDS	65		50		35	

a Result of an ice jam
e Estimated



01396580 SPRUCE RUN AT GLEN GARDNER, NJ

LOCATION.--Lat 40°41'35", long 74°56'24", 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 mi².

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 and temperature recorders and crest-stage gage. Datum of gage is 389.10 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges which are poor. Some regulation from unknown sources upstream. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1700	779	4.82	Dec 24	1130	646	4.42
Oct 29	0700	792	4.86	Sep 18	0830	*1,810	*7.38
Nov 19	1930	845	5.01	Sep 28	2215	836	4.99
Dec 11	1045	851	5.03				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	40	27	29	e11	29	32	19	26	5.1	9.8	4.9
2	14	34	22	28	e11	35	22	18	20	4.7	7.4	4.6
3	13	31	18	28	e18	28	21	40	13	4.5	6.1	4.4
4	13	27	16	37	e32	30	19	35	8.8	4.3	5.8	4.3
5	14	28	18	80	19	25	16	21	8.6	4.2	5.6	4.4
6	9.7	29	21	36	135	42	14	25	9.3	4.1	5.2	4.4
7	9.2	25	19	24	112	28	14	47	8.5	4.1	4.9	4.3
8	8.4	18	17	22	38	42	15	22	7.4	4.6	4.8	7.9
9	7.6	15	17	e18	26	32	17	20	6.7	5.1	4.7	19
10	7.3	14	39	e13	25	29	14	18	9.9	4.3	4.6	9.3
11	7.1	14	364	e16	23	24	13	16	14	4.0	22	5.5
12	6.5	28	64	e18	20	21	16	17	8.1	61	8.3	5.1
13	6.0	21	43	e19	20	18	99	18	6.6	35	33	4.9
14	6.9	15	47	e16	18	17	73	14	6.6	10	9.1	4.6
15	84	12	76	e16	16	17	53	14	6.5	10	8.1	5.4
16	15	11	41	e16	15	18	28	32	5.9	7.3	7.0	7.0
17	16	11	172	e17	14	19	24	15	5.8	6.5	6.2	5.3
18	18	10	71	e17	15	20	22	14	6.3	13	5.7	286
19	11	142	49	e16	16	25	20	14	5.6	14	5.7	26
20	9.7	176	41	e15	16	33	18	13	5.1	8.4	5.5	11
21	8.8	41	35	e15	23	51	17	12	5.0	7.2	8.5	8.5
22	8.1	28	34	e15	24	26	17	14	6.8	6.3	7.7	7.7
23	9.0	23	38	e13	21	19	20	10	6.4	7.8	5.7	7.2
24	8.2	22	255	e13	20	19	18	11	5.3	8.4	5.2	7.0
25	7.1	34	78	e12	17	24	16	11	7.5	6.3	5.2	6.9
26	7.8	20	53	e12	16	21	129	10	14	5.8	5.3	6.9
27	289	17	44	e12	16	21	50	14	6.1	22	5.2	6.8
28	72	78	39	e12	18	17	30	11	5.2	48	5.1	183
29	313	83	36	e12	24	15	23	9.7	9.5	18	5.8	151
30	73	32	35	e12	---	15	20	8.1	5.6	10	5.1	27
31	51	---	31	e12	---	32	---	9.9	---	7.3	6.2	---
TOTAL	1,139.4	1,079	1,860	621	779	792	890	552.7	260.1	361.3	234.5	840.3
MEAN	36.8	36.0	60.0	20.0	26.9	25.5	29.7	17.8	8.67	11.7	7.56	28.0
MAX	313	176	364	80	135	51	129	47	26	61	33	286
MIN	6.0	10	16	12	11	15	13	8.1	5.0	4.0	4.6	4.3
CFSM	3.25	3.18	5.31	1.77	2.38	2.26	2.63	1.58	0.77	1.03	0.67	2.48
IN.	3.75	3.55	6.12	2.04	2.56	2.61	2.93	1.82	0.86	1.19	0.77	2.77

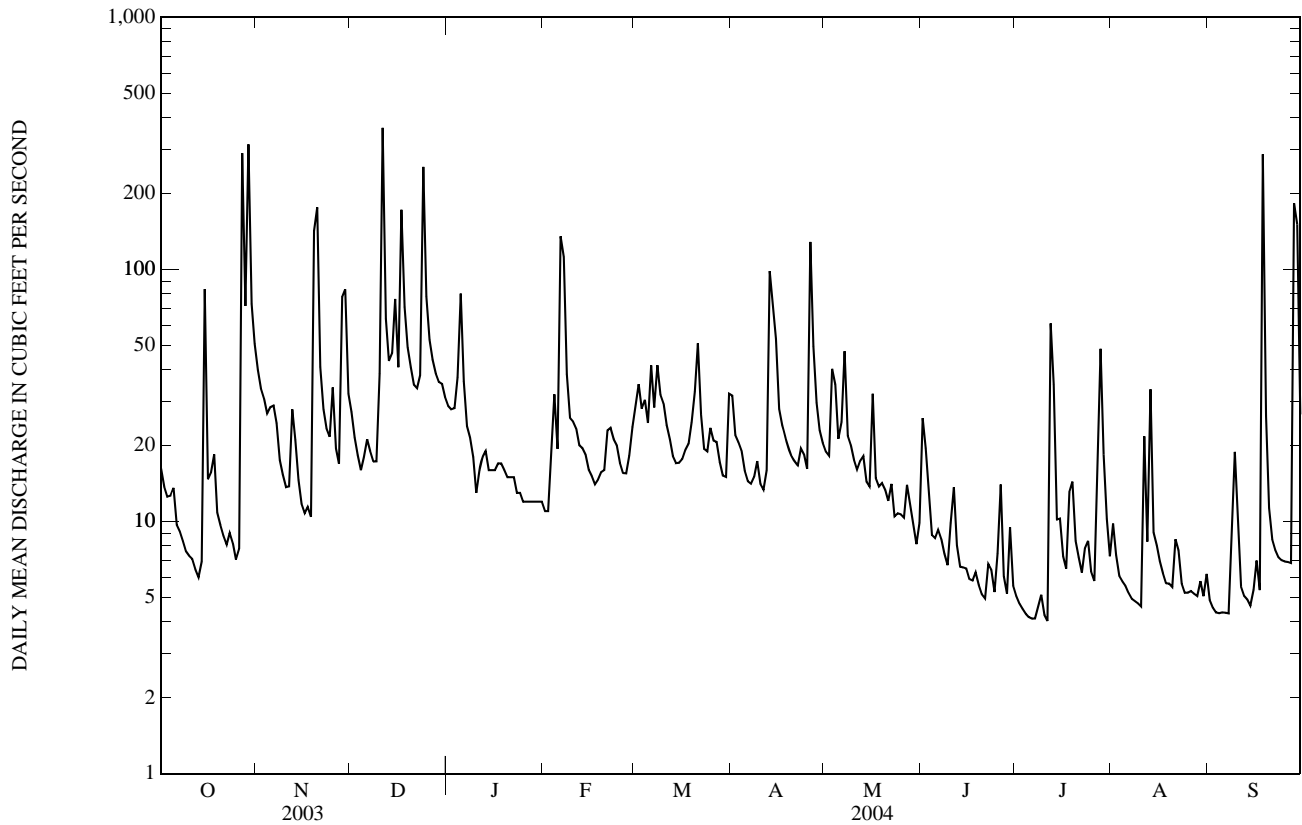
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	12.8	18.0	25.3	25.1	25.0	35.8	33.6	24.4	15.8	10.8	7.86	10.4
MAX	44.4	36.0	87.6	106	44.7	83.5	73.7	61.3	46.3	46.9	37.6	31.6
(WY)	(1996)	(2004)	(1997)	(1979)	(1979)	(1994)	(1983)	(1984)	(2003)	(1984)	(2003)	(2003)
MIN	2.65	3.30	3.54	5.66	6.95	12.8	9.74	8.95	3.16	1.85	2.48	1.88
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(1981)	(1985)	(1995)	(1999)	(1999)	(1999)	(1980)

01396580 SPRUCE RUN AT GLEN GARDNER, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	12,586.4		9,409.3		20.6	
ANNUAL MEAN	34.5		25.7		33.2	
HIGHEST ANNUAL MEAN					9.40	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	364	Dec 11	364	Dec 11	650	Sep 16, 1999
LOWEST DAILY MEAN	5.6	Jul 17	4.0	Jul 11	1.0	Sep 4, 1999
ANNUAL SEVEN-DAY MINIMUM	6.5	Jul 12	4.3	Jul 5	1.3	Aug 31, 1999
MAXIMUM PEAK FLOW			1,810	Sep 18	2,750a	Sep 16, 1999
MAXIMUM PEAK STAGE			7.38	Sep 18	9.27	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.8	Jul 10-12	0.80	Sep 23, 1998
ANNUAL RUNOFF (CFSM)	3.05		2.28		1.82	
ANNUAL RUNOFF (INCHES)	41.43		30.98		24.76	
10 PERCENT EXCEEDS	77		43		41	
50 PERCENT EXCEEDS	20		16		11	
90 PERCENT EXCEEDS	9.0		5.3		3.5	

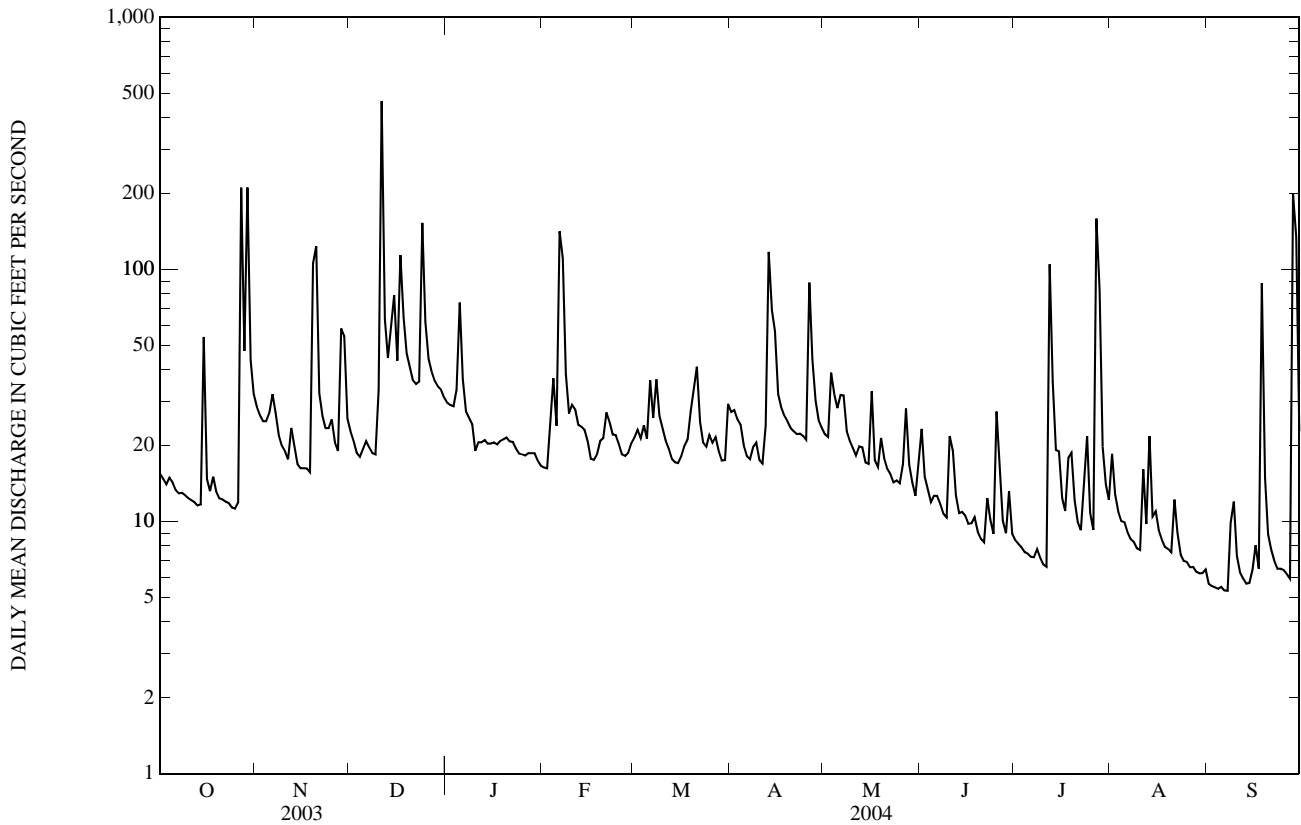
a From rating curve above 700 ft³/s on basis of slope-conveyance computation.
 e Estimated



01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1977 - 2004	
ANNUAL TOTAL	13,683.0		9,577.4		20.1	
ANNUAL MEAN	37.5		26.2		35.2	
HIGHEST ANNUAL MEAN					8.67	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	466	Dec 11	466	Dec 11	918	Sep 16, 1999
LOWEST DAILY MEAN	6.0	Feb 17	5.3	Sep 6	1.1	Aug 2, 1999
ANNUAL SEVEN-DAY MINIMUM	8.7	Feb 13	5.5	Sep 1	1.2	Aug 1, 1999
MAXIMUM PEAK FLOW			1,530	Jul 27	3,590a	Sep 20, 1989
MAXIMUM PEAK STAGE			5.23	Jul 27	7.41	Sep 20, 1989
INSTANTANEOUS LOW FLOW			5.2	Sep 1-8,13,14	1.0	Aug 2, 1999
ANNUAL RUNOFF (CFSM)	3.18		2.22		1.70	
ANNUAL RUNOFF (INCHES)	43.14		30.19		23.11	
10 PERCENT EXCEEDS	68		41		39	
50 PERCENT EXCEEDS	27		19		12	
90 PERCENT EXCEEDS	12		7.6		4.2	

a From rating curve extended above 1,200 ft³/s.
 e Estimated



01396800 SPRUCE RUN AT CLINTON, NJ

LOCATION.--Lat 40°38'21", long 74°54'57", 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 mi².

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 NGVD of 1929. 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 fair. Flow regulated by Spruce Run Reservoir (see Raritan River basin, reservoirs in). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	167	136	124	132	70	104	81	62	78	9.2	92
2	110	144	125	114	131	85	103	76	68	91	10	90
3	98	129	64	115	133	88	96	121	51	87	14	97
4	97	110	59	123	136	89	130	158	34	115	19	97
5	97	107	82	245	135	88	143	101	30	143	20	91
6	97	113	136	214	59	102	55	124	29	152	26	86
7	97	108	122	138	9.6	124	18	136	31	109	20	134
8	97	89	50	72	8.9	139	13	102	29	89	12	113
9	97	55	58	77	7.4	138	47	78	30	117	11	26
10	67	55	77	61	7.4	106	45	71	42	151	9.2	9.5
11	44	57	1,220	58	7.4	88	39	66	75	183	9.5	54
12	44	81	499	69	8.5	121	50	60	46	102	11	94
13	44	183	241	76	33	71	255	64	30	9.7	52	43
14	45	108	230	66	59	24	322	53	24	9.4	51	9.0
15	79	30	362	146	63	53	268	54	28	9.8	41	7.3
16	81	8.7	209	171	57	55	158	109	22	9.7	113	8.4
17	81	11	456	134	56	76	126	69	23	9.8	197	9.8
18	80	26	417	134	56	71	110	57	29	10	196	47
19	80	143	240	134	58	97	105	59	37	10	138	163
20	78	713	203	134	62	94	90	57	58	9.8	152	163
21	66	240	172	134	69	174	76	50	102	9.9	226	163
22	29	162	160	134	79	115	78	52	108	9.2	226	117
23	6.9	134	164	134	75	57	72	44	49	10	226	84
24	8.1	123	568	134	76	58	89	41	59	9.7	243	85
25	8.0	136	445	134	71	72	54	38	116	9.2	258	78
26	7.8	105	239	134	62	80	210	37	56	9.2	262	99
27	62	93	188	133	58	82	282	68	39	19	265	114
28	276	152	171	134	56	72	155	59	82	13	265	65
29	789	336	161	129	62	61	96	62	71	11	265	12
30	371	150	170	132	---	55	84	18	46	10	170	149
31	208	---	123	134	---	94	---	22	---	9.4	97	---
TOTAL	3,450.8	4,068.7	7,547	3,871	1,827.2	2,699	3,473	2,187	1,506	1,614.8	3,613.9	2,400.0
MEAN	111	136	243	125	63.0	87.1	116	70.5	50.2	52.1	117	80.0
MAX	789	713	1,220	245	136	174	322	158	116	183	265	163
MIN	6.9	8.7	50	58	7.4	24	13	18	22	9.2	9.2	7.3

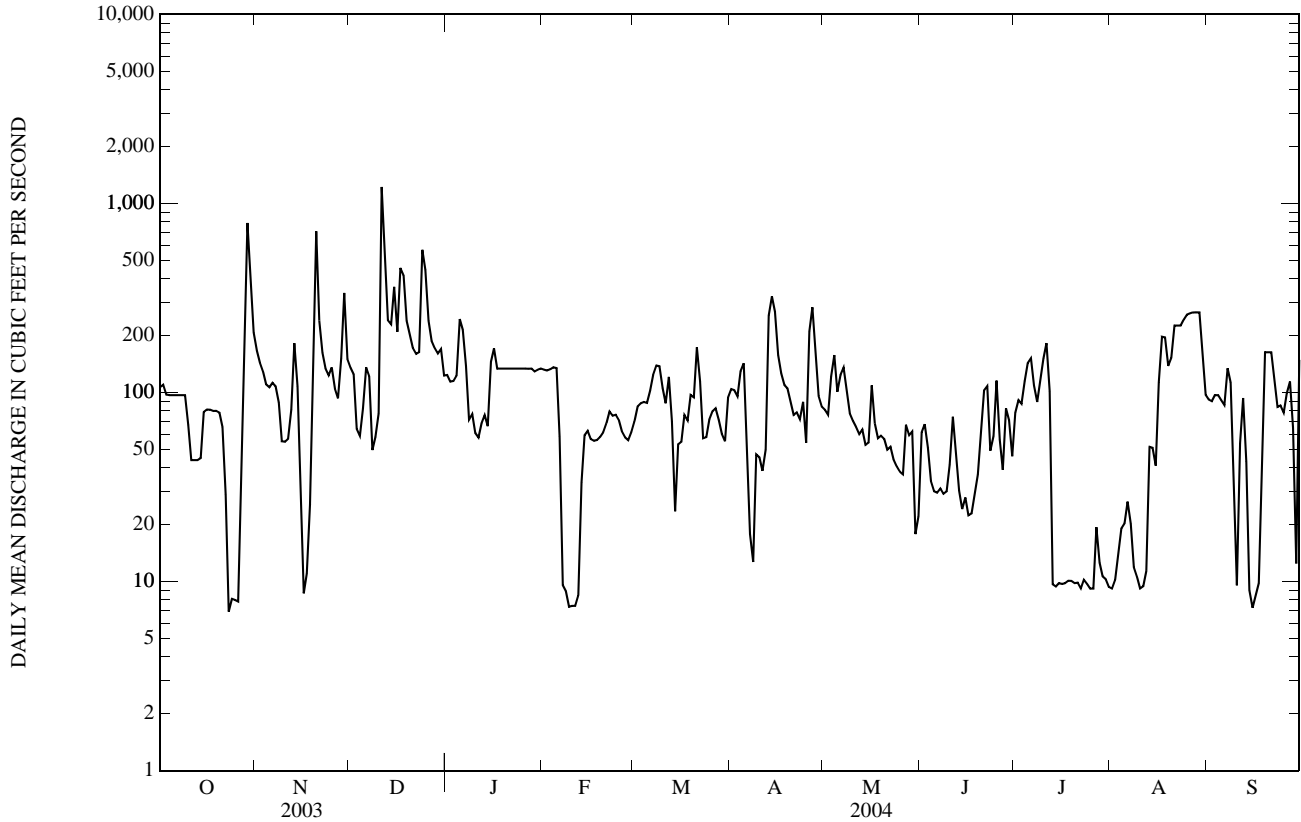
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	60.0	33.3	51.9	60.0	63.0	79.0	97.4	70.9	64.2	71.7	62.3	77.0
MAX	290	136	308	258	162	190	342	225	278	244	171	241
(WY)	(1990)	(2004)	(1997)	(1979)	(1971)	(1993)	(1983)	(1984)	(1972)	(1975)	(1995)	(1989)
MIN	0.00	0.00	0.00	0.00	0.00	0.19	0.86	0.81	2.60	4.24	4.32	0.50
(WY)	(1964)	(1964)	(1964)	(1964)	(1964)	(1964)	(1964)	(1964)	(1981)	(1964)	(1963)	(1963)

01396800 SPRUCE RUN AT CLINTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	39,654.3		38,258.4		65.9	
ANNUAL MEAN	109		105		3.81	
HIGHEST ANNUAL MEAN					111	1997
LOWEST ANNUAL MEAN					3.81	1964
HIGHEST DAILY MEAN	1,220	Dec 11	1,220	Dec 11	2,060	Jul 7, 1984
LOWEST DAILY MEAN	5.8	Feb 21	6.9	Oct 23	0.00a	Many days
ANNUAL SEVEN-DAY MINIMUM	6.5	Feb 26	9.6	Jul 20	0.00a	Many days
MAXIMUM PEAK FLOW			2,500	Dec 11	6,410	Apr 2, 1970
MAXIMUM PEAK STAGE			3.78	Dec 11	5.17	Apr 2, 1970
INSTANTANEOUS LOW FLOW			5.2	Oct 22, 23	0.00a	Many days
10 PERCENT EXCEEDS	229		199		154	
50 PERCENT EXCEEDS	74		81		41	
90 PERCENT EXCEEDS	6.9		11		7.0	

a Result of reservoir filling from Aug 1963 to Mar 1964.



01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'20", long 74°52'05", Hunterdon County, Hydrologic Unit 02030105, on right bank at downstream side of bridge on Stanton Station Road at Stanton Station, 0.4 mi upstream from Prescott Brook, and 1.4 mi west of Stanton.

DRAINAGE AREA.--147 mi².

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. WDR NJ-02-1: 2002(m).

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft above NGVD of 1929. 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 ft³/s) from Round Valley Reservoir at Hamden Pumping Station since July 1990. Several measurements of water temperature were made during the year. USGS satellite and National Weather Service telephone gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	670	468	434	e160	253	362	302	221	130	184	159
2	308	566	409	408	e160	297	358	289	232	149	166	142
3	278	508	338	403	e250	323	339	364	181	140	142	147
4	274	447	300	402	489	306	335	485	147	150	136	145
5	279	425	322	795	368	300	344	338	137	178	128	142
6	257	460	381	622	971	341	262	363	141	186	126	136
7	246	421	369	435	1,230	385	200	401	137	160	115	161
8	237	365	279	339	483	414	194	346	128	129	103	196
9	230	294	275	e320	321	425	238	278	122	158	94	262
10	209	280	298	e240	299	365	220	264	140	183	89	141
11	178	276	3,340	e250	281	338	204	310	193	213	94	116
12	173	330	1,890	e260	242	339	210	290	150	406	152	157
13	168	416	826	e270	251	270	799	287	119	402	167	164
14	162	335	721	e250	268	209	1,160	244	108	285	185	158
15	647	224	1,110	e250	257	233	1,110	229	111	208	164	154
16	296	192	690	e240	227	228	574	352	104	130	186	163
17	240	187	1,420	e270	222	265	462	262	98	115	278	133
18	243	197	1,380	e300	222	260	404	226	110	129	266	1,200
19	224	485	792	e300	224	318	370	236	111	206	242	688
20	211	2,230	657	e270	235	324	338	230	117	159	183	325
21	198	836	563	e260	251	476	307	204	153	123	304	275
22	166	570	511	e260	288	394	298	200	186	103	400	234
23	128	473	498	e260	259	275	296	184	153	188	316	177
24	125	427	e2,250	e240	259	258	314	180	106	379	306	167
25	118	475	1,730	e210	243	272	263	177	207	155	317	166
26	118	391	843	e210	221	278	681	167	256	122	314	172
27	1,100	355	677	e200	211	277	889	251	119	589	314	187
28	1,470	480	597	e190	205	263	488	216	144	1,220	310	624
29	3,020	1,150	549	e190	227	235	365	224	171	312	335	2,200
30	1,470	552	537	e170	---	221	324	144	127	213	265	550
31	849	---	462	e170	---	353	---	143	---	175	162	---
TOTAL	13,953	15,017	25,482	9,418	9,324	9,495	12,708	8,186	4,429	7,395	6,543	9,641
MEAN	450	501	822	304	322	306	424	264	148	239	211	321
MAX	3,020	2,230	3,340	795	1,230	476	1,160	485	256	1,220	400	2,200
MIN	118	187	275	170	160	209	194	143	98	103	89	116

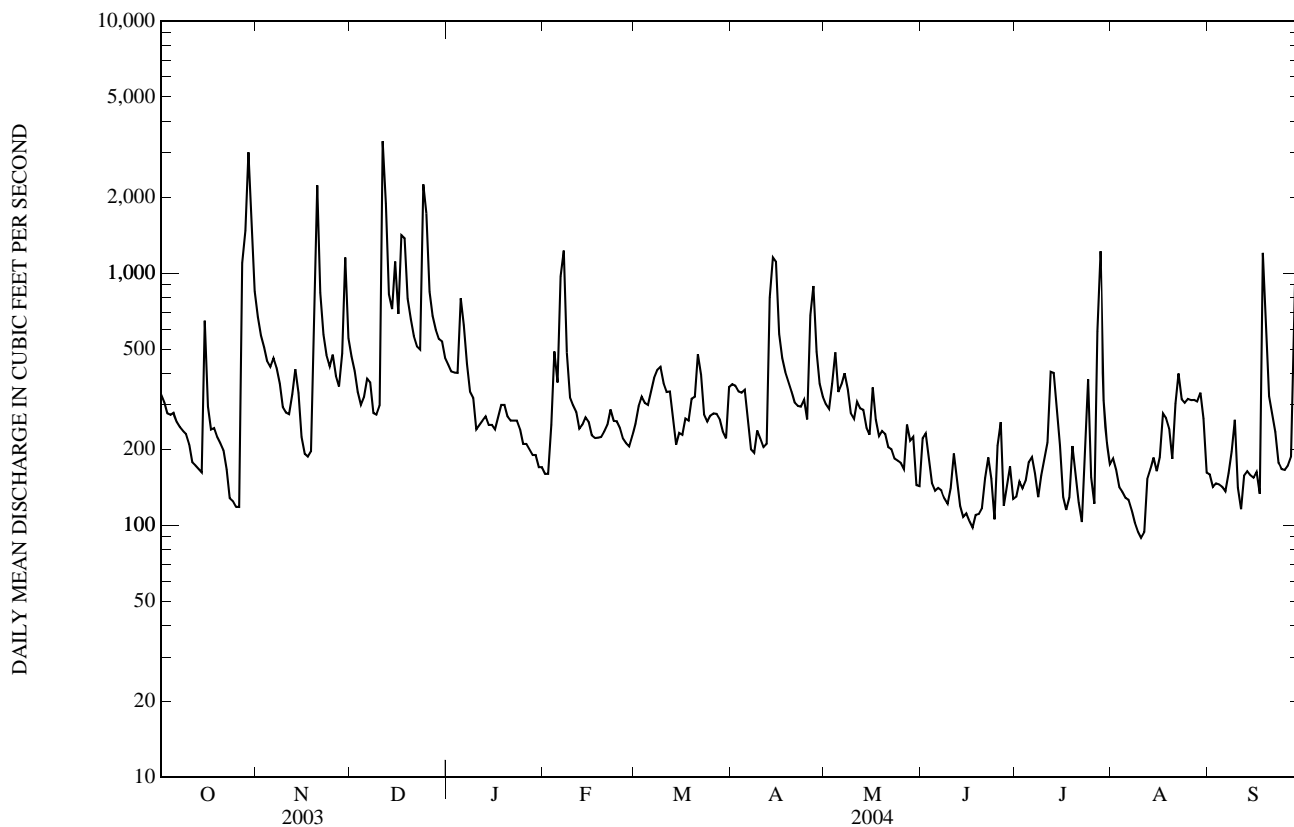
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

MEAN	166	204	267	285	313	398	368	269	197	179	165	168
MAX	641	659	1,026	1,099	807	1,057	1,137	750	967	752	793	554
(WY)	(1904)	(1952)	(1997)	(1979)	(1925)	(1936)	(1983)	(1989)	(1972)	(1975)	(1955)	(1989)
MIN	34.1	46.2	58.3	55.0	61.2	61.3	58.5	80.3	60.1	40.7	30.1	31.0
(WY)	(1964)	(1965)	(1999)	(1966)	(1967)	(1981)	(1981)	(1965)	(1965)	(1955)	(1957)	(1957)

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	146,443		131,591		248	
ANNUAL MEAN	401		360		413	
HIGHEST ANNUAL MEAN					95.0	
LOWEST ANNUAL MEAN					1952	
HIGHEST DAILY MEAN	3,340	Dec 11	3,340	Dec 11	8,060	Aug 19, 1955
LOWEST DAILY MEAN	71	May 18	89	Aug 10	12	Oct 18, 1963
ANNUAL SEVEN-DAY MINIMUM	78	May 1	107	Aug 5	25	Sep 4, 1957
MAXIMUM PEAK FLOW			5,580	Dec 11	18,000a	Aug 19, 1955
MAXIMUM PEAK STAGE			9.24	Dec 11	15.22	Aug 19, 1955
INSTANTANEOUS LOW FLOW			81	Many days	9.0	Nov 7, 1931
10 PERCENT EXCEEDS	806		631		488	
50 PERCENT EXCEEDS	258		260		166	
90 PERCENT EXCEEDS	110		137		64	

a From rating curve above 6,400 ft³/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



01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'24", long 74°49'40", 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 mi².

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 NGVD of 1929.

REMARKS.--Records good, except for discharges less than 2.0 ft³/s and estimated daily discharges which are fair. Several measurements of water temperature, other than those published, were made during the year. Occasional regulation possibly due to irrigation pumpage. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	1300	*3,930	*10.12	Aug 1	1215	1,770	7.79
Feb 6	---	e2,100	8.45c	Sep 29	0000	3,020	9.33
Jul 27	2345	2,040	8.19				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	53	47	35	14	19	57	22	31	2.3	542	4.9
2	11	42	37	33	13	24	67	20	16	9.0	101	4.3
3	9.7	35	30	e30	54	24	103	42	12	3.2	65	3.9
4	10	30	27	e35	166	30	75	42	10	2.2	43	3.6
5	9.8	36	27	e110	74	28	50	26	10	1.9	35	3.5
6	8.2	51	31	68	e310	e55	37	37	11	1.7	26	3.4
7	7.5	48	26	45	393	e45	32	34	9.2	1.4	21	3.4
8	6.8	33	23	38	93	123	31	23	7.8	1.4	17	13
9	6.6	28	22	30	50	82	35	19	6.5	1.2	15	14
10	6.2	26	45	26	84	55	25	18	6.5	0.93	13	7.0
11	6.0	24	1,630	24	57	42	22	16	10	0.81	17	4.7
12	5.7	49	157	25	36	35	27	14	6.9	118	16	4.1
13	5.2	42	81	24	33	28	403	12	5.4	78	15	3.8
14	5.0	28	180	20	31	24	343	11	5.0	232	12	3.3
15	89	25	315	19	25	23	230	12	7.0	108	20	3.1
16	16	22	110	19	17	24	90	73	4.8	30	12	4.3
17	12	21	389	18	17	26	63	16	5.0	24	10	4.0
18	19	19	153	24	17	30	47	14	8.8	31	8.8	42
19	12	196	87	24	19	72	38	17	4.6	31	8.2	11
20	9.8	530	65	19	20	111	32	15	3.6	18	7.4	6.2
21	9.1	101	50	16	26	125	28	12	3.2	13	78	5.1
22	8.4	67	44	16	24	61	25	11	3.8	10	28	4.3
23	7.2	51	41	15	20	42	22	9.1	4.3	193	13	3.6
24	6.4	43	e450	14	20	35	20	11	3.1	147	9.9	3.2
25	5.5	45	172	12	20	33	18	12	9.2	46	8.5	3.1
26	5.6	34	99	13	17	31	80	11	19	29	7.3	3.0
27	e200	30	70	14	17	29	111	18	4.7	261	6.9	2.8
28	e120	81	57	15	16	25	40	58	3.4	519	6.4	417
29	e430	164	50	15	18	21	30	16	3.3	85	5.8	865
30	125	60	45	14	---	20	25	12	2.7	60	5.3	76
31	73	---	39	14	---	62	---	21	---	47	6.4	---
TOTAL	1,257.7	2,014	4,599	824	1,701	1,384	2,206	674.1	237.8	2,106.04	1,179.9	1,530.6
MEAN	40.6	67.1	148	26.6	58.7	44.6	73.5	21.7	7.93	67.9	38.1	51.0
MAX	430	530	1,630	110	393	125	403	73	31	519	542	865
MIN	5.0	19	22	12	13	19	18	9.1	2.7	0.81	5.3	2.8
CFSM	1.58	2.61	5.77	1.03	2.28	1.74	2.86	0.85	0.31	2.64	1.48	1.99
IN.	1.82	2.92	6.66	1.19	2.46	2.00	3.19	0.98	0.34	3.05	1.71	2.22

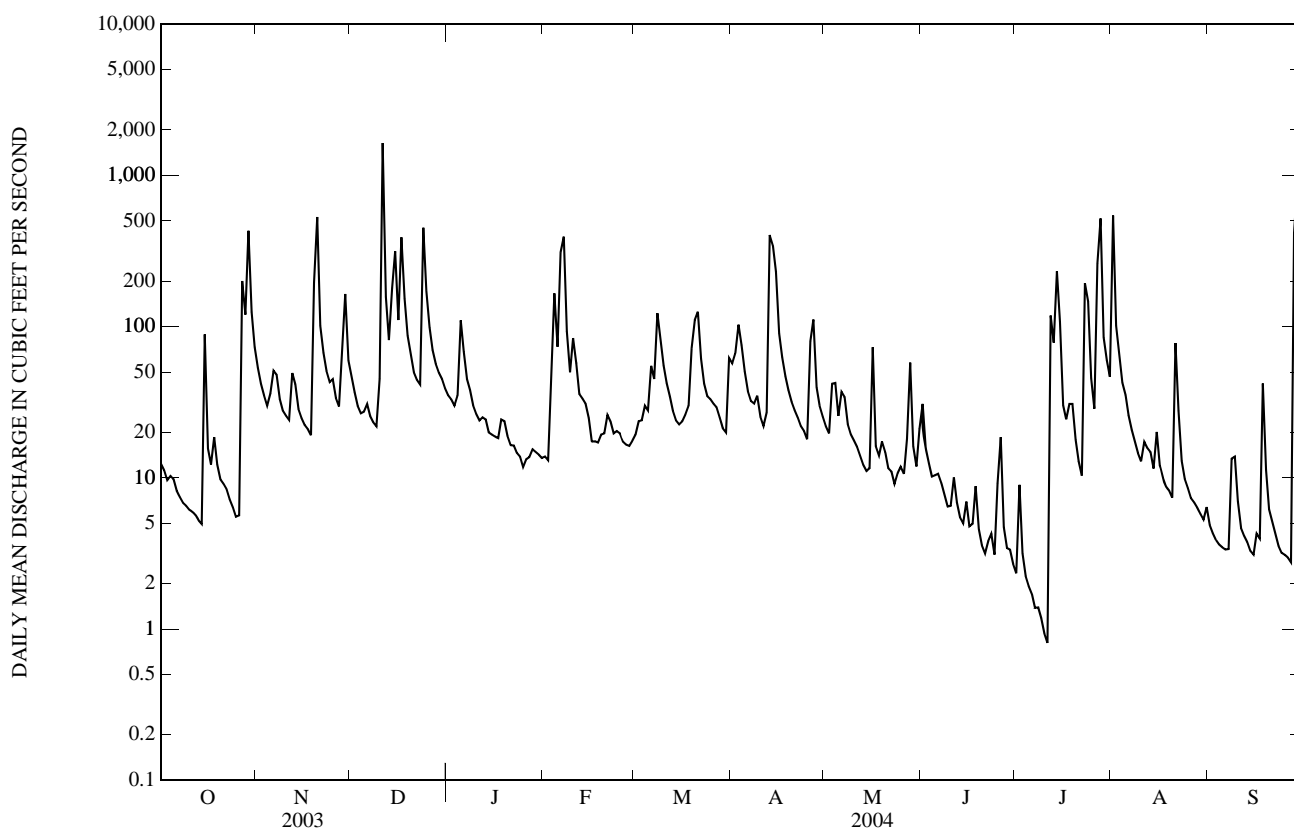
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	15.7	33.9	50.0	56.1	58.6	76.4	54.8	33.1	22.9	18.7	18.2	19.2
MAX	147	139	206	280	147	201	200	135	143	138	216	283
(WY)	(1997)	(1933)	(1997)	(1994)	(1939)	(1994)	(1983)	(1989)	(2003)	(1938)	(1971)	(1999)
MIN	0.67	0.90	1.42	1.14	3.92	15.2	7.20	3.78	1.11	0.07	0.44	0.47
(WY)	(1965)	(1966)	(1999)	(1981)	(1934)	(1985)	(1985)	(1963)	(1965)	(1999)	(1964)	(1965)

01398000 NESHANIC RIVER AT REAVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	23,064.7		19,714.14		38.0	
ANNUAL MEAN	63.2		53.9		70.8	
HIGHEST ANNUAL MEAN					14.2	
LOWEST ANNUAL MEAN					1994	
HIGHEST DAILY MEAN	1,630	Dec 11	1,630	Dec 11	7,000	Sep 16, 1999
LOWEST DAILY MEAN	2.8	Feb 17	0.81	Jul 11	0.00	Jul 29, 1965
ANNUAL SEVEN-DAY MINIMUM	4.2	Aug 24	1.3	Jul 5	0.00	Aug 4, 1966
MAXIMUM PEAK FLOW			3,930	Dec 11	23,100a	Sep 16, 1999
MAXIMUM PEAK STAGE			10.12	Dec 11	15.33b	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.71	Jul 11, 12	0.00	Jul 29, 1965
ANNUAL RUNOFF (CFSM)	2.46		2.10		1.48	
ANNUAL RUNOFF (INCHES)	33.39		28.54		20.11	
10 PERCENT EXCEEDS	145		109		77	
50 PERCENT EXCEEDS	27		23		13	
90 PERCENT EXCEEDS	6.1		4.5		1.4	

- a From rating curve extended above 9,400 ft³/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.
- c From crest-stage gage, 50 ft upstream.
- e Estimated



01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

LOCATION.--Lat 40°42'30", long 74°38'10", Somerset County, Hydrologic Unit 02030105, on left bank 75 ft upstream from Ravine Lake Dam, 1.3 mi southeast of Peapack, 1.6 mi north of Far Hills, and 2.3 mi upstream from Peapack Brook.

DRAINAGE AREA.--26.2 mi².

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 NGVD of 1929 (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 fair, except for estimated daily discharges which are poor. Records formerly included diversion by small turbine at dam (average discharge, 3.0 ft³/s) which returned to river 1,000 ft downstream from Ravine Lake Dam. Turbine is no longer operated. Flow regulated occasionally by operation of waste gate in dam. Several measurements of water temperature were made during the year. Telephone, radio, and satellite telemetry for gage height. Radio-telemetry for rain gage 500 downstream from station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1900	817	3.51	Dec 24	1400	1,120	3.85
Oct 29	1030	769	3.45	Jul 23	1930	859	3.56
Nov 20	0230	989	3.71	Jul 27	2230	785	3.47
Dec 11	1230	*1,590	*4.32	Sep 28	2330	1,110	3.84

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	84	75	112	e30	47	58	57	40	16	58	16
2	30	81	66	108	e29	56	51	54	37	16	41	15
3	28	82	58	108	e44	52	49	79	30	15	34	15
4	29	80	55	113	e82	56	47	89	27	14	31	14
5	31	87	58	234	e50	47	39	57	26	14	29	14
6	29	107	62	130	268	69	38	50	27	14	27	14
7	28	112	54	94	254	58	38	66	26	13	25	14
8	28	84	49	83	95	83	40	48	24	14	24	20
9	28	71	47	71	65	77	51	44	23	13	24	31
10	28	68	50	43	61	74	39	41	23	12	21	22
11	28	65	666	55	58	63	36	94	26	11	65	16
12	26	101	180	72	48	52	38	48	23	38	49	15
13	25	91	132	64	46	43	192	61	21	116	41	15
14	24	59	126	48	44	40	253	40	21	32	30	14
15	96	56	168	45	39	39	137	38	21	39	44	14
16	32	54	113	48	37	44	89	64	20	25	35	24
17	26	56	275	65	35	47	79	38	20	22	50	21
18	29	54	171	61	36	44	71	37	22	23	30	152
19	26	167	128	48	36	56	67	39	20	44	28	34
20	23	396	112	41	37	61	59	37	18	28	25	22
21	23	113	98	e39	45	107	55	31	17	22	30	18
22	23	104	94	e39	49	69	53	31	19	18	31	16
23	21	95	92	e36	41	49	54	32	21	194	25	16
24	20	90	522	e37	42	48	54	31	17	101	22	15
25	19	112	225	e33	37	55	46	30	20	37	21	16
26	19	82	178	e36	35	53	173	30	36	31	21	16
27	305	71	156	e33	35	52	147	49	20	108	20	16
28	147	131	142	e35	36	44	79	36	18	203	20	216
29	373	189	132	e35	39	40	67	34	22	73	25	338
30	127	86	127	e32	---	38	62	29	18	49	18	55
31	93	---	118	e33	---	51	---	29	---	50	18	---
TOTAL	1,796	3,028	4,529	2,031	1,753	1,714	2,261	1,443	703	1,405	962	1,224
MEAN	57.9	101	146	65.5	60.4	55.3	75.4	46.5	23.4	45.3	31.0	40.8
MAX	373	396	666	234	268	107	253	94	40	203	65	338
MIN	19	54	47	32	29	38	36	29	17	11	18	14
CFSM	2.21	3.85	5.58	2.50	2.31	2.11	2.88	1.78	0.89	1.73	1.18	1.56
IN.	2.55	4.30	6.43	2.88	2.49	2.43	3.21	2.05	1.00	1.99	1.37	1.74

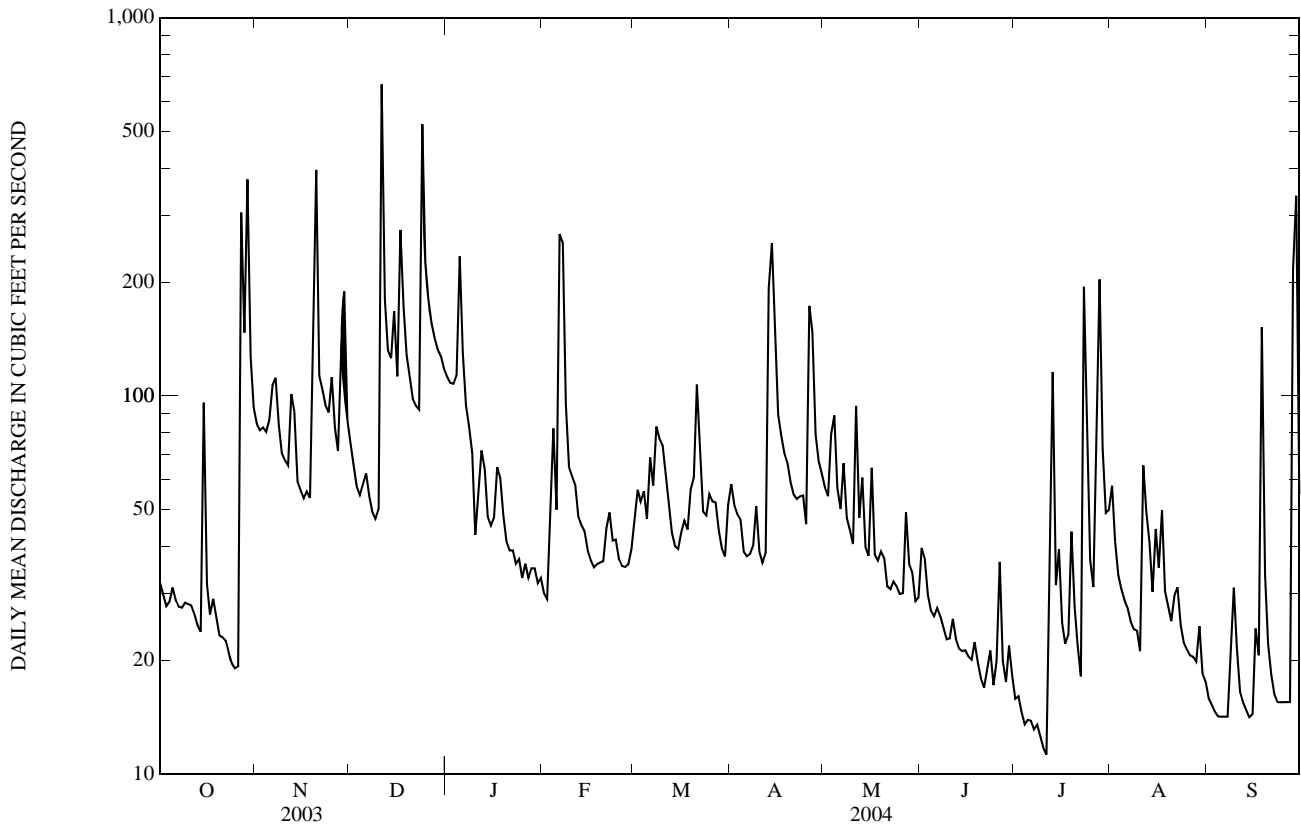
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

	26.5	42.5	49.9	53.9	58.4	81.0	80.8	58.6	39.4	30.3	27.6	27.2
MEAN	26.5	42.5	49.9	53.9	58.4	81.0	80.8	58.6	39.4	30.3	27.6	27.2
MAX	120	170	146	182	128	207	226	178	190	132	153	134
(WY)	(1997)	(1928)	(2004)	(1979)	(1973)	(1936)	(1983)	(1989)	(1972)	(1984)	(1942)	(1971)
MIN	6.29	8.15	7.93	6.76	11.6	22.8	26.8	20.0	10.5	4.41	4.55	3.61
(WY)	(1954)	(2002)	(1999)	(1981)	(2002)	(1981)	(1985)	(1965)	(1965)	(1966)	(1965)	(1964)

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	25,893		22,849		47.9	
ANNUAL MEAN	70.9		62.4		17.7	
HIGHEST ANNUAL MEAN					89.7	1928
LOWEST ANNUAL MEAN					17.7	1965
HIGHEST DAILY MEAN	666	Dec 11	666	Dec 11	1,770	Oct 19, 1996
LOWEST DAILY MEAN	18	Sep 12	11	Jul 11	0.20	Many days
ANNUAL SEVEN-DAY MINIMUM	20	Jan 25	13	Jul 5	0.20	Oct 22, 1953
MAXIMUM PEAK FLOW			1,590	Dec 11	6,390a	Aug 28, 1971
MAXIMUM PEAK STAGE			4.32	Dec 11	7.28	Aug 28, 1971
INSTANTANEOUS LOW FLOW			11	Jul 11,12	0.00b	Many days
ANNUAL RUNOFF (CFSM)	2.71		2.38		1.83	
ANNUAL RUNOFF (INCHES)	36.76		32.44		24.86	
10 PERCENT EXCEEDS	137		126		94	
50 PERCENT EXCEEDS	49		42		32	
90 PERCENT EXCEEDS	22		18		10	

- a From rating curve extended above 2000 ft³/s on basis of flow over dam computation of peak flow.
- b Several times when lake was filling.
- c Estimated



01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ

LOCATION.--Lat 40°43'39", long 74°43'49", Morris County, Hydrologic Unit 02030105, on right bank 1.1 mi upstream from bridge on County Route 512, 1.2 mi northwest of Pottersville, and 5.5 mi upstream from Cold Brook.

DRAINAGE AREA.--32.8 mi².

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 NGVD of 1929 (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 fair, except for estimated daily discharges which are poor. Flow regulated occasionally by ponds above station. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1745	399	3.13	Jul 27	2015	686	3.66
Oct 29	0900	471	3.28	Sep 18	0830	*993	*4.09
Dec 11	1215	673	3.64	Sep 28	2200	502	3.34
Dec 24	1130	496	3.33				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	168	104	104	e45	54	56	63	47	16	60	19
2	80	140	98	96	e40	59	55	59	43	16	49	19
3	73	121	88	90	e50	61	55	65	39	14	41	20
4	70	106	80	90	e80	64	54	66	36	13	35	19
5	66	99	78	123	e65	64	50	62	34	12	33	18
6	60	95	73	106	e150	73	47	62	31	11	28	17
7	56	90	68	96	e200	69	45	69	29	11	25	16
8	53	82	66	83	e115	74	43	61	27	12	22	33
9	51	79	66	75	e95	73	43	57	25	11	20	42
10	49	77	74	e70	99	70	40	54	24	10	18	29
11	47	73	e320	e65	90	66	39	53	24	10	31	25
12	44	76	216	e60	78	62	42	51	23	38	32	24
13	41	72	213	e55	70	59	89	58	22	62	33	22
14	39	66	179	e65	65	56	125	60	21	43	30	20
15	82	65	170	e60	60	53	126	58	21	49	35	19
16	53	63	143	e60	e50	51	106	64	19	47	34	21
17	45	61	199	e70	e50	50	92	55	18	40	35	19
18	47	58	183	e70	e50	49	76	51	18	40	34	146
19	46	e105	159	e65	49	53	66	49	17	52	35	75
20	42	211	147	e65	50	55	61	46	16	43	33	54
21	39	140	130	e60	55	63	59	43	16	39	35	59
22	37	145	120	e60	57	62	56	41	18	37	30	57
23	34	129	115	e55	54	60	55	38	17	91	27	48
24	32	113	298	e50	55	58	55	35	16	72	26	38
25	31	109	257	e50	51	57	54	33	26	53	26	31
26	29	97	228	e50	48	54	100	34	31	51	25	26
27	165	89	190	e50	48	54	103	41	22	115	24	24
28	145	107	164	e50	48	52	88	44	19	114	22	138
29	324	137	145	e45	50	49	84	43	23	75	21	198
30	232	106	130	e45	---	47	72	40	18	68	20	103
31	202	---	115	e45	---	55	---	41	---	65	20	---
TOTAL	2,399	3,079	4,616	2,128	2,017	1,826	2,036	1,596	740	1,330	939	1,379
MEAN	77.4	103	149	68.6	69.6	58.9	67.9	51.5	24.7	42.9	30.3	46.0
MAX	324	211	320	123	200	74	126	69	47	115	60	198
MIN	29	58	66	45	40	47	39	33	16	10	18	16
CFSM	2.36	3.13	4.54	2.09	2.12	1.80	2.07	1.57	0.75	1.31	0.92	1.40
IN.	2.72	3.49	5.24	2.41	2.29	2.07	2.31	1.81	0.84	1.51	1.06	1.56

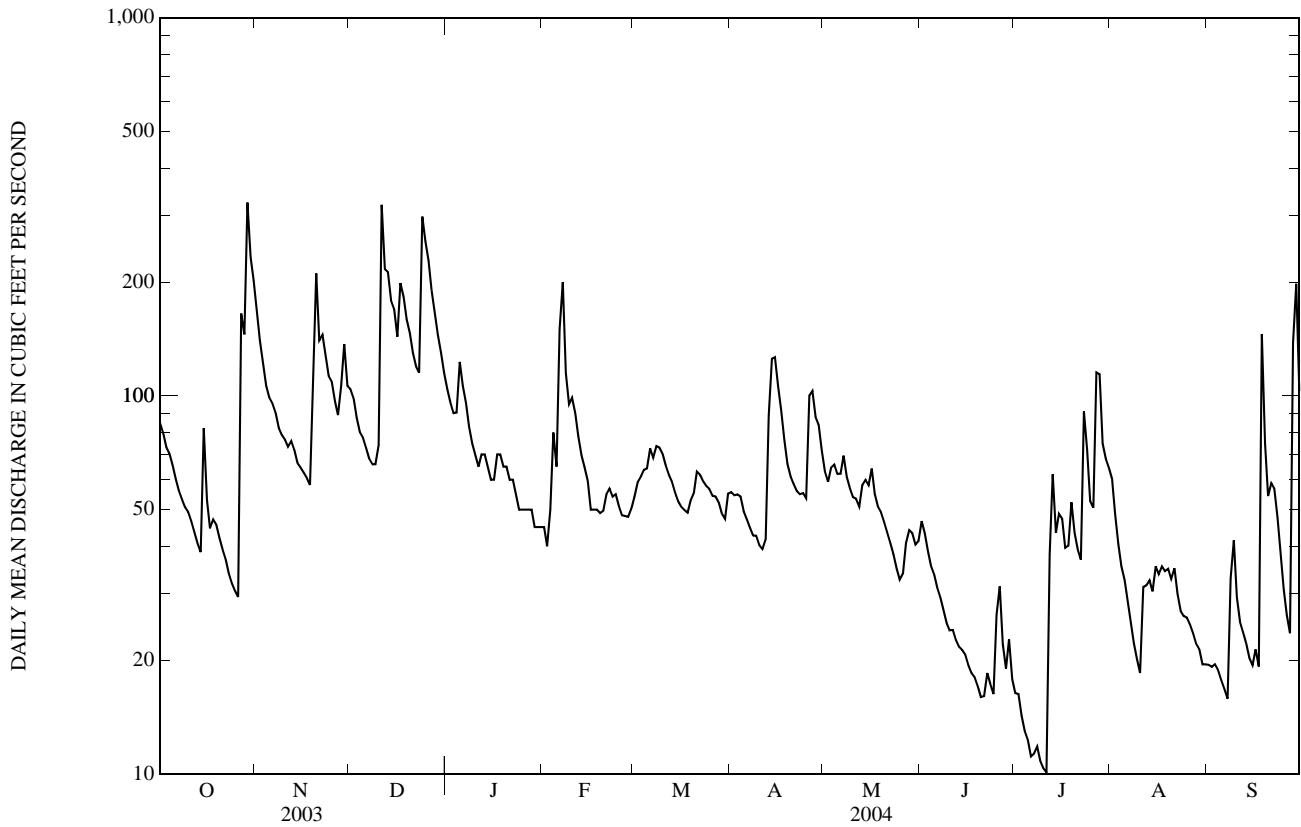
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																												
	34.3	116	5.69	(1931)	49.3	163	9.61	(2002)	60.2	207	15.4	(1981)	64.3	225	11.7	(1981)	69.5	144	19.7	(2002)	89.4	230	25.9	(1985)	87.2	239	25.9	(1985)	66.4	169	19.0	(1965)	46.6	191	10.1	(1965)	36.3	165	5.48	(1965)	32.6	126	5.28	(2002)	32.8	123	3.76	(1964)

01399500 LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	30,256		24,085			
ANNUAL MEAN	82.9		65.8		55.6	
HIGHEST ANNUAL MEAN					104	1928
LOWEST ANNUAL MEAN					20.5	1965
HIGHEST DAILY MEAN	324	Oct 29	324	Oct 29	905	Jan 25, 1979
LOWEST DAILY MEAN	20	Feb 17	10	Jul 10	1.5	Oct 4, 1930
ANNUAL SEVEN-DAY MINIMUM	24	Aug 25	11	Jul 5	2.4	Sep 22, 1964
MAXIMUM PEAK FLOW			993	Sep 18	3,460 ^a	Jul 7, 1984
MAXIMUM PEAK STAGE			4.09	Sep 18	5.94 ^b	Jul 7, 1984
INSTANTANEOUS LOW FLOW			9.8	Jul 10-12	1.3	Oct 4, 1930
ANNUAL RUNOFF (CFSM)	2.53		2.01		1.70	
ANNUAL RUNOFF (INCHES)	34.31		27.30		23.05	
10 PERCENT EXCEEDS	145		125		112	
50 PERCENT EXCEEDS	73		54		42	
90 PERCENT EXCEEDS	31		21		14	

- a From rating curve extended above 800 ft³/s on basis of slope-area measurement at gage height 4.71 ft
- b From floodmark
- c Estimated



01399670 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ

LOCATION.--Lat 40°37'10", long 74°46'25", 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 mi².

PERIOD OF RECORD.--March 1977 to September 1986, water-stage recorder 1,700 ft downstream, at datum 8.07 ft lower (station number 01399690 with drainage area of 13.2 mi²) and October 1986 to current year at present location.

REVISED RECORDS.--WDR NJ-88-1: 1987. WDR NJ-90-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 121.5 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Releases from Round Valley Reservoir enter stream directly upstream from station (see Raritan River basin, reservoirs in and diversions from). Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	30	24	24	11	16	32	18	16	5.4	88	6.0
2	14	25	21	22	11	18	23	17	11	5.2	100	5.8
3	13	23	18	22	21	18	27	28	9.6	4.9	156	5.8
4	13	21	18	23	45	21	25	27	8.6	4.5	106	5.7
5	13	22	18	70	24	18	19	19	8.9	4.5	12	5.6
6	12	24	19	34	219	30	17	22	9.3	4.2	11	5.7
7	11	22	17	24	167	24	16	36	8.8	4.2	10	5.7
8	11	18	16	23	45	44	16	19	7.9	4.5	9.6	40
9	11	16	16	20	26	30	18	17	7.5	4.1	9.1	30
10	10	16	19	15	29	26	14	16	9.9	3.9	8.7	10
11	10	15	363	16	28	21	14	15	12	3.6	28	7.9
12	9.8	22	56	17	22	18	16	18	7.9	8.4	14	7.4
13	9.3	18	36	18	21	16	119	23	7.2	71	11	6.9
14	9.5	13	38	16	20	15	112	14	7.0	54	9.5	6.6
15	63	12	97	16	18	15	75	13	7.1	36	18	6.8
16	14	12	40	11	15	16	35	33	7.1	13	10	8.1
17	13	12	159	12	14	17	29	14	6.4	10	9.8	7.1
18	15	12	69	14	15	18	25	13	7.3	28	8.5	218
19	12	81	41	16	15	31	23	16	5.9	24	8.9	20
20	11	185	34	15	16	33	20	14	5.1	12	7.9	12
21	11	36	29	14	20	36	19	12	5.1	10	15	10
22	11	27	28	14	19	22	18	12	11	8.8	11	9.0
23	11	23	27	12	17	18	17	11	40	293	7.9	8.0
24	10	22	318	12	17	17	17	11	43	175	7.4	7.7
25	10	26	73	11	16	19	16	11	11	27	7.0	7.3
26	10	20	44	e13	14	17	103	12	19	42	6.9	7.2
27	242	18	36	e12	14	18	58	16	6.5	83	6.8	6.9
28	64	40	32	12	13	16	27	12	5.8	234	6.7	241
29	414	80	29	12	14	14	21	9.9	12	116	6.6	285
30	54	27	28	11	---	14	19	9.0	6.2	180	6.4	31
31	36	---	25	11	---	40	---	11	---	171	7.1	---
TOTAL	1,162.6	918	1,788	562	926	676	990	518.9	330.1	1,720.8	724.8	1,034.2
MEAN	37.5	30.6	57.7	18.1	31.9	21.8	33.0	16.7	11.0	55.5	23.4	34.5
MAX	414	185	363	70	219	44	119	36	43	293	156	285
MIN	9.3	12	16	11	11	14	14	9.0	5.1	3.6	6.4	5.6

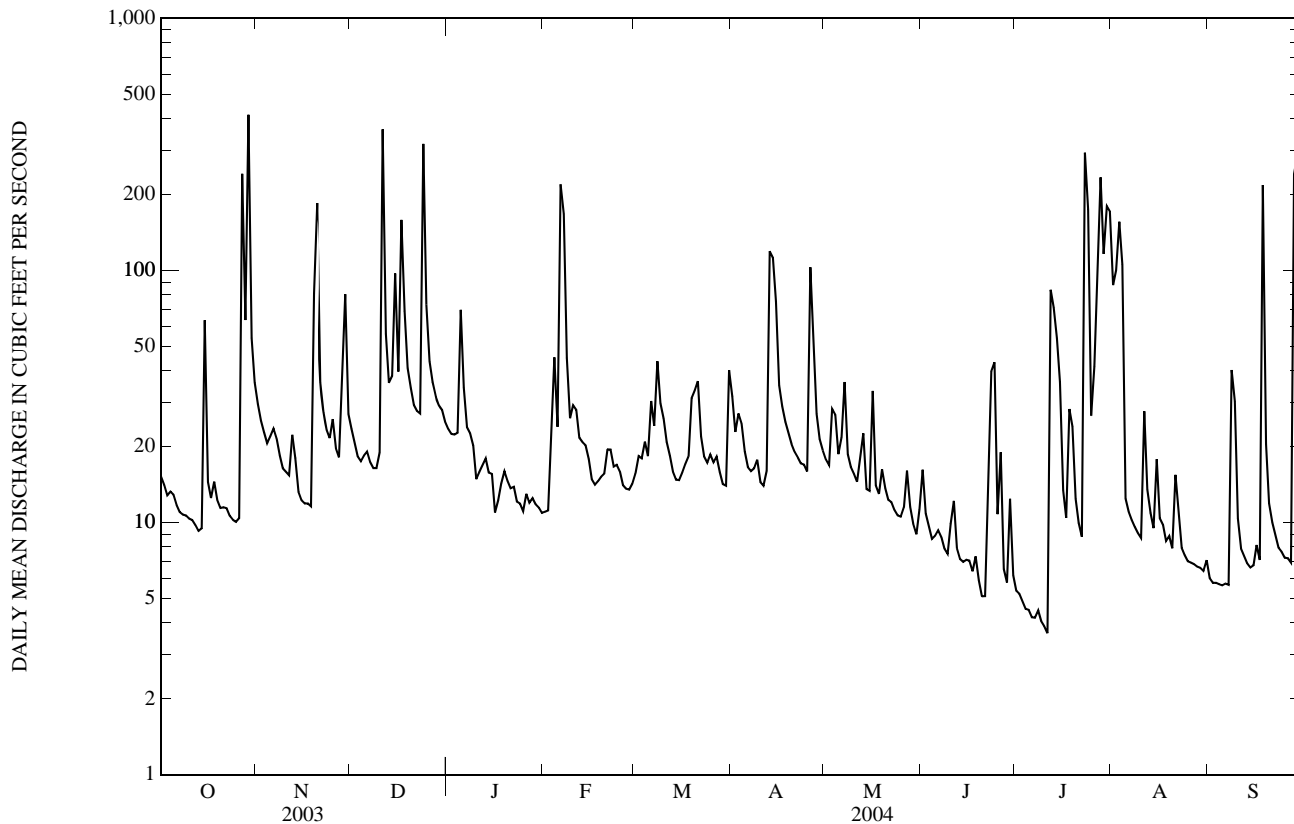
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2004, BY WATER YEAR (WY)

MEAN	25.9	28.0	35.0	31.9	25.9	32.2	29.7	24.3	19.9	34.1	34.9	27.2
MAX	116	88.9	91.6	93.3	51.1	74.5	85.0	60.5	52.7	245	204	146
(WY)	(1981)	(1999)	(1981)	(1981)	(1979)	(1994)	(1983)	(1989)	(2003)	(1999)	(2002)	(1980)
MIN	4.55	6.58	9.85	8.31	9.90	10.2	3.80	8.18	8.50	4.78	5.49	4.19
(WY)	(1995)	(1982)	(1996)	(1985)	(1992)	(1985)	(1985)	(1995)	(1993)	(1993)	(1983)	(1983)

01399670 SOUTH BRANCH ROCKAWAY CREEK AT WHITEHOUSE STATION, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1977 - 2004	
ANNUAL TOTAL	11,611.3		11,351.4		29.4	
ANNUAL MEAN	31.8		31.0		11.1	
HIGHEST ANNUAL MEAN					66.0	1999
LOWEST ANNUAL MEAN					11.1	1992
HIGHEST DAILY MEAN	414	Oct 29	414	Oct 29	885	Sep 16, 1999
LOWEST DAILY MEAN	5.4	Feb 14	3.6	Jul 11	0.07	Nov 12, 1994
ANNUAL SEVEN-DAY MINIMUM	6.1	Feb 12	4.1	Jul 5	0.09	Aug 5, 1995
MAXIMUM PEAK FLOW			1,230	Jul 23	2,620	Sep 16, 1999
MAXIMUM PEAK STAGE			7.55	Jul 23	10.68	Sep 16, 1999
INSTANTANEOUS LOW FLOW			3.6	Jul 10-12	0.00	Feb 2, 1993
10 PERCENT EXCEEDS	61		60		70	
50 PERCENT EXCEEDS	18		16		14	
90 PERCENT EXCEEDS	7.9		7.1		4.8	

e Estimated



RARITAN RIVER BASIN

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'14", long 74°40'45", Somerset County, Hydrologic Unit 02030105, on right bank, 400 ft upstream from U.S. Route 202, 1.4 mi upstream from confluence with South Branch Raritan River, and 2.7 mi west of Raritan.

DRAINAGE AREA.--190 mi².

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 NGVD of 1929. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--Records good, except for estimated daily discharges which are fair. Releases from Round Valley Reservoir enter basin upstream from gage (See station number 01399670 and Raritan River Basin, diversions in). Occasional regulation from gate operation at Ravine Lake, 13.8 mi upstream. Several measurements of water temperature were made during the year. U.S. Geological Survey satellite gage-height telemetry and National Weather Service telephone gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1500	6,270	8.91	Feb 7	0030	Ice Jam	11.32
Nov 20	0630	5,880	8.72	Jul 23	2330	*14,600	*11.95
Dec 11	1715	9,190	10.16	Jul 28	0615	5,800	8.68
Dec 24	1915	7,040	9.27	Sep 29	0600	10,100	10.50

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	577	431	449	e175	274	373	317	389	93	590	102
2	237	479	380	416	e170	321	316	294	388	94	387	95
3	215	413	334	409	e290	331	371	403	205	85	398	93
4	209	364	310	404	e810	364	354	518	171	76	349	92
5	212	356	310	1,120	e415	340	291	322	160	78	198	88
6	189	400	326	668	e1,200	490	249	329	164	72	182	86
7	177	364	296	451	e3,150	445	237	565	156	69	158	85
8	168	307	285	407	e1,100	732	232	338	143	76	148	249
9	165	273	270	348	e510	596	262	287	133	68	140	439
10	158	263	295	e250	e530	552	221	265	132	63	133	167
11	154	254	5,030	e260	542	417	209	300	164	62	522	121
12	147	330	1,290	e260	399	353	214	261	133	471	371	110
13	142	307	795	e275	364	303	1,450	283	119	1,520	260	104
14	138	251	742	e250	352	275	1,970	237	117	862	193	98
15	686	233	1,370	e245	307	267	1,140	239	116	623	326	95
16	224	224	740	e225	252	267	614	634	111	231	252	119
17	178	218	1,770	e215	260	295	500	267	105	175	303	105
18	197	209	1,240	e235	242	295	420	230	117	217	183	1,430
19	177	546	765	e270	250	519	370	241	102	356	170	389
20	161	3,140	649	e225	266	516	334	226	91	199	158	200
21	156	726	550	e210	310	624	305	203	87	156	491	172
22	150	560	502	e210	349	409	290	194	123	138	294	161
23	142	472	483	e195	291	317	277	185	144	3,110	170	143
24	135	413	3,510	e190	286	299	278	201	149	3,870	147	128
25	131	475	1,580	e180	269	307	250	173	120	477	137	118
26	130	371	937	e190	239	302	1,060	170	352	322	130	110
27	1,650	335	778	e200	231	298	1,090	257	126	564	125	103
28	1,400	584	669	e220	227	274	494	200	105	2,880	120	908
29	3,710	1,250	597	e205	247	246	398	207	147	1,160	120	4,890
30	1,060	508	556	e190	---	235	350	163	110	630	113	640
31	713	---	492	e175	---	344	---	173	---	584	112	---
TOTAL	13,568	15,202	28,282	9,547	14,033	11,607	14,919	8,682	4,679	19,381	7,380	11,640
MEAN	438	507	912	308	484	374	497	280	156	625	238	388
MAX	3,710	3,140	5,030	1,120	3,150	732	1,970	634	389	3,870	590	4,890
MIN	130	209	270	175	170	235	209	163	87	62	112	85

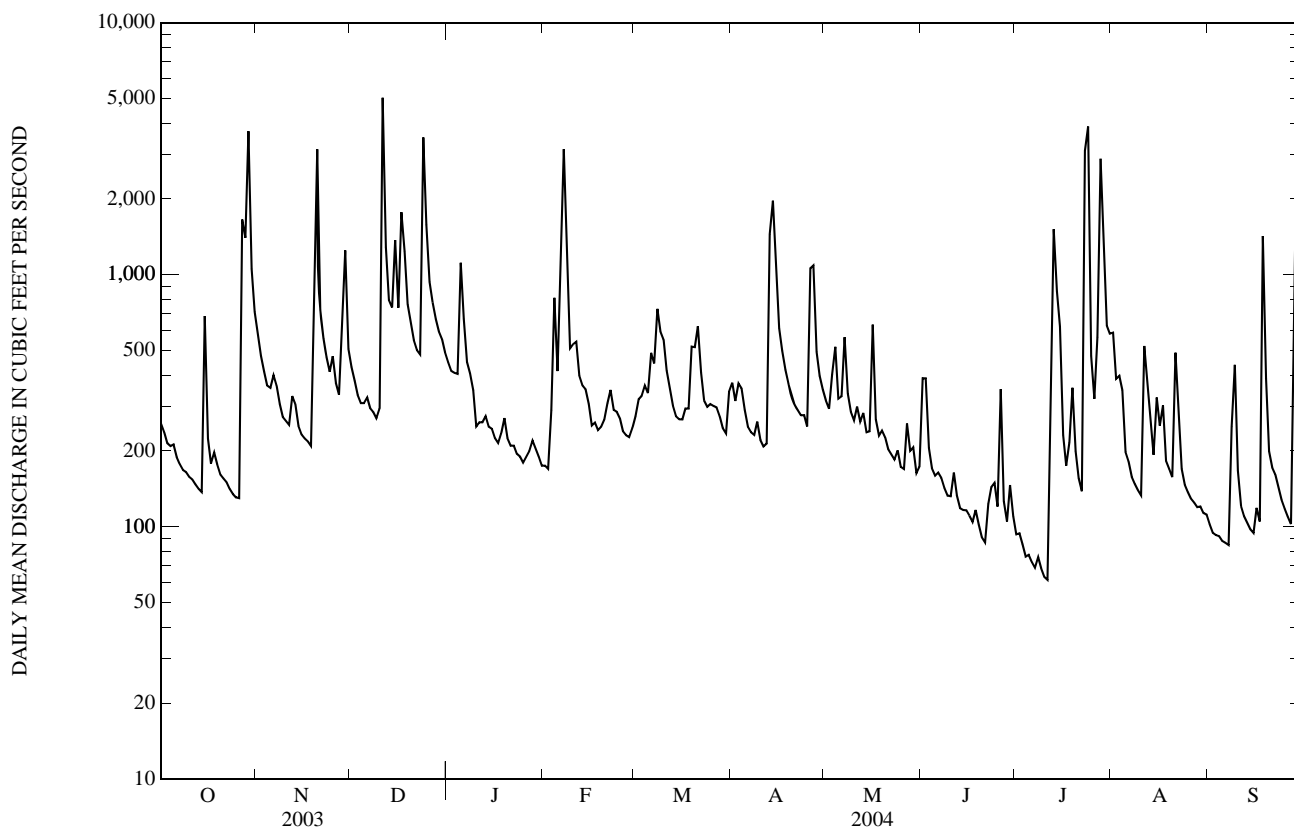
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

MEAN	178	280	355	389	427	517	466	340	230	190	188	175
MAX	882	824	1,077	1,416	948	1,272	1,368	1,027	1,270	1,291	1,068	675
(WY)	(1997)	(1973)	(1997)	(1979)	(1925)	(1936)	(1983)	(1989)	(1972)	(1984)	(1942)	(1999)
MIN	26.6	46.1	73.1	79.4	87.5	163	117	84.1	46.4	25.5	22.3	14.8
(WY)	(1931)	(1965)	(1966)	(1940)	(2002)	(1981)	(1985)	(1926)	(1965)	(1966)	(1932)	(1964)

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	169,326		158,920		311	
ANNUAL MEAN	464		434		120	
HIGHEST ANNUAL MEAN					605	1984
LOWEST ANNUAL MEAN					120	1965
HIGHEST DAILY MEAN	5,030	Dec 11	5,030	Dec 11	15,300	Jul 7, 1984
LOWEST DAILY MEAN	68	Feb 17	62	Jul 11	7.5	Sep 26, 1964
ANNUAL SEVEN-DAY MINIMUM	105	Aug 25	70	Jul 5	8.9	Sep 22, 1964
MAXIMUM PEAK FLOW			14,600	Jul 23	29,100	Oct 19, 1996
MAXIMUM PEAK STAGE			11.95	Jul 23	18.98	Sep 16, 1999
INSTANTANEOUS LOW FLOW			58	Jul 11-12	3.0a	Nov 28, 1930
10 PERCENT EXCEEDS	974		749		622	
50 PERCENT EXCEEDS	296		268		185	
90 PERCENT EXCEEDS	135		117		57	

a About, probably result of temporary regulation.
 e Estimated



01400500 RARITAN RIVER AT MANVILLE, NJ

LOCATION.--Lat 40°33'19", long 74°34'58", 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 mi²

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

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

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above NGVD of 1929. 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 5.50 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 from 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. USGS satellite gage-height telemetry and National Weather Service telephone gage-height telemetry at station.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2015	13,400	13.80	Feb 6	2145	15,100	13.23
Nov 20	1200	11,700	12.98	Jul 24	0600	14,300	14.19
Dec 11	2230	*19,100	*16.53	Jul 28	1200	12,900	13.71
Dec 24	2345	14,300	13.93	Sep 29	1145	18,500	15.90

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712	1,710	1,250	1,090	e395	622	1,030	821	648	233	2,270	309
2	640	1,360	1,060	1,010	e390	714	1,030	758	859	264	1,290	277
3	596	1,170	927	989	e655	814	1,230	910	510	257	913	269
4	559	1,040	804	966	e2,250	827	1,160	1,410	420	230	754	266
5	577	971	803	2,390	e1,500	866	1,030	908	375	257	546	260
6	529	1,380	870	2,070	e2,060	1,020	808	957	385	271	469	253
7	502	1,300	851	1,270	8,730	1,190	682	1,180	375	265	409	248
8	482	986	751	1,010	4,030	1,590	628	983	348	228	367	480
9	472	811	703	e895	1,510	1,820	703	735	320	215	332	1,020
10	459	742	740	e625	1,300	1,430	632	681	323	238	309	471
11	410	715	9,800	e635	1,360	1,140	574	680	454	264	642	301
12	389	879	9,450	e600	946	967	566	739	383	987	848	297
13	378	960	2,910	e610	824	823	3,230	678	311	3,300	485	306
14	366	837	2,160	e580	839	695	6,360	611	281	1,560	496	306
15	1,630	669	5,170	e545	759	650	4,980	556	278	2,580	626	289
16	807	597	2,800	e580	613	654	2,280	1,490	270	679	516	314
17	558	566	4,440	e545	590	755	1,510	745	245	500	639	315
18	572	549	4,930	e590	582	730	1,220	577	263	463	529	2,380
19	533	867	2,430	e715	581	1,140	1,040	599	248	838	491	1,950
20	485	8,870	1,890	e575	627	1,440	941	604	230	565	388	683
21	463	3,450	1,550	e510	653	2,030	840	514	238	408	953	542
22	435	1,880	1,330	e475	802	1,420	784	488	347	347	1,050	497
23	372	1,350	1,250	e450	690	968	741	458	384	1,820	611	401
24	344	1,140	6,560	e420	661	840	747	474	302	8,030	523	357
25	326	1,220	7,700	e390	658	812	690	499	323	1,260	512	332
26	320	1,030	2,900	e380	581	824	1,720	422	743	733	495	321
27	2,700	910	2,090	e395	551	787	3,330	583	342	919	485	328
28	5,470	1,150	1,720	e425	532	751	1,510	667	259	8,700	473	1,130
29	8,620	3,760	1,520	e410	559	655	1,090	561	332	2,960	471	12,900
30	5,640	1,670	1,370	e415	---	606	910	440	296	1,330	483	3,200
31	2,330	---	1,220	e405	---	853	---	406	---	1,150	346	---
TOTAL	38,676	44,539	83,949	22,965	36,228	30,433	43,996	22,134	11,092	41,851	19,721	31,002
MEAN	1,248	1,485	2,708	741	1,249	982	1,467	714	370	1,350	636	1,033
MAX	8,620	8,870	9,800	2,390	8,730	2,030	6,360	1,490	859	8,700	2,270	12,900
MIN	320	549	703	380	390	606	566	406	230	215	309	248

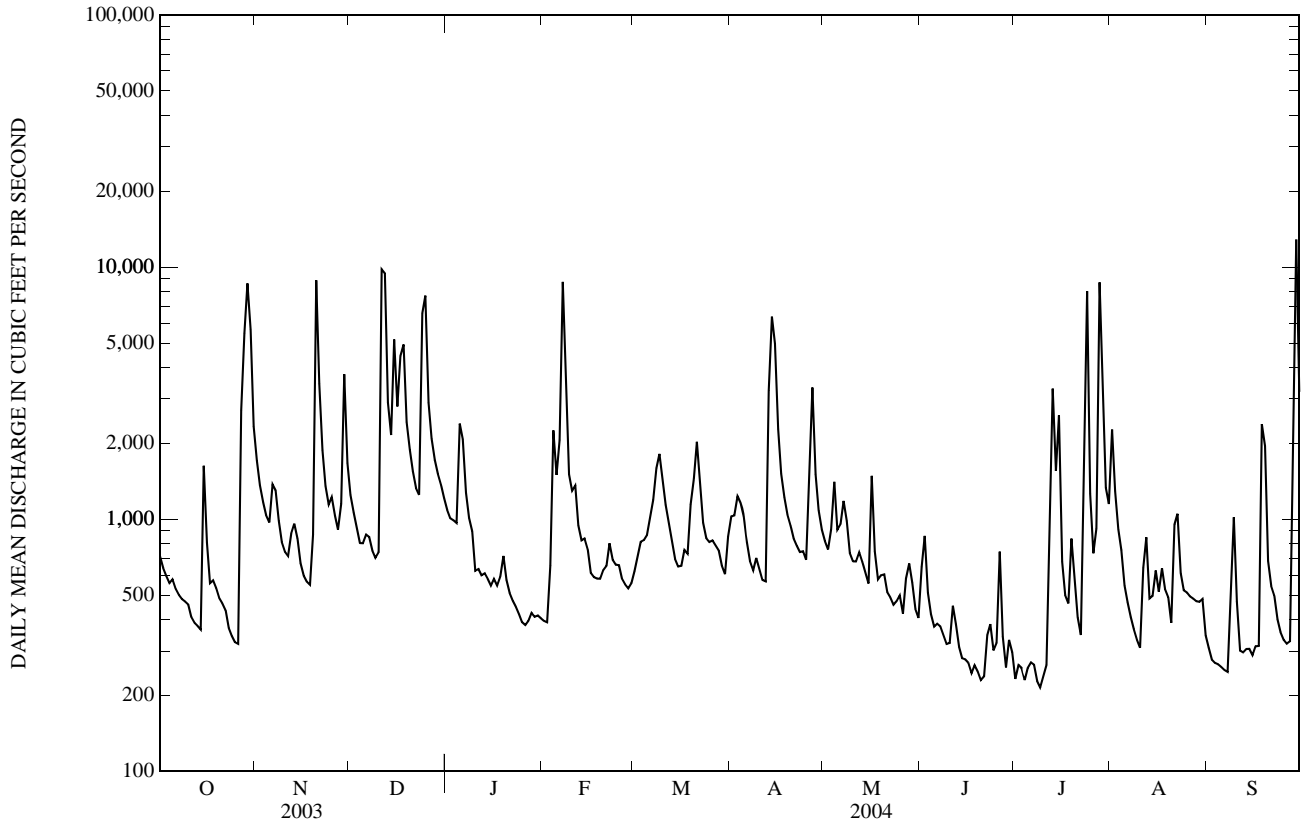
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
MEAN	467	675	900	986	1,058	1,348	1,143	801	548	481	466	482
MAX	2,433	2,460	2,877	3,856	2,406	3,260	3,507	2,707	2,581	2,542	2,552	2,068
(WY)	(1904)	(1933)	(1997)	(1979)	(1925)	(1936)	(1983)	(1989)	(1972)	(1975)	(1955)	(1971)
MIN	64.8	87.5	148	188	216	354	259	212	88.8	65.1	50.5	51.2
(WY)	(1942)	(1932)	(1966)	(1966)	(2002)	(1981)	(1985)	(1926)	(1965)	(1955)	(1932)	(1941)

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	455,685		426,586			
ANNUAL MEAN	1,248		1,166		778	
HIGHEST ANNUAL MEAN					1,365	1984
LOWEST ANNUAL MEAN					309	1965
HIGHEST DAILY MEAN	9,800	Dec 11	12,900	Sep 29	30,700	Sep 17, 1999
LOWEST DAILY MEAN	234	May 19	215	Jul 9	17a	Sep 19, 1964
ANNUAL SEVEN-DAY MINIMUM	260	May 15	243	Jul 4	29	Aug 27, 1944
MAXIMUM PEAK FLOW			19,100	Dec 11	77,600b	Sep 16, 1999
MAXIMUM PEAK STAGE			16.59	Dec 11	27.49	Sep 17, 1999
INSTANTANEOUS LOW FLOW			209	Jun 21		
10 PERCENT EXCEEDS	2,530		2,260		1,590	
50 PERCENT EXCEEDS	738		682		440	
90 PERCENT EXCEEDS	320		313		145	

- a Does not include water diverted to Johns-Manville plant.
- b From rating curve extended above 14,000 ft³/sec on basis of slope-area measurements at gage heights 14.9, 20.42, and 27.49 ft.
- e Estimated



01401000 STONY BROOK AT PRINCETON, NJ

LOCATION.--Lat 40°19'59", long 74°40'55", Mercer County, Hydrologic Unit 02030105, on right bank 10 ft downstream from bridge on U.S. Route 206, 1.6 mi southwest of Princeton, and 4.0 mi upstream from Carnegie Lake.

DRAINAGE AREA.--44.5 mi².

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 NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good except for estimated daily discharges, which are fair. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1230	2,640	6.62	Feb 6	1930	Ice Jam	*10.93b
Nov 20	0315	3,550	7.85	Apr 14	0215	2,800	6.84
Dec 11	1245	*4,490	9.06	Jul 28	0545	2,660	6.65
Dec 15	0145	2,470	6.39	Sep 29	0400	3,750	8.11
Dec 24	1530	3,480	7.75				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	62	78	54	e18	36	86	48	45	4.0	160	4.5
2	11	50	62	49	e17	44	76	42	22	3.3	82	3.7
3	9.2	42	51	48	e78	54	202	57	14	3.0	39	3.2
4	8.6	36	44	48	e400	59	119	149	10	3.0	28	2.6
5	8.6	202	46	215	e130	63	84	61	8.7	3.1	26	2.5
6	7.9	488	48	149	e490	128	58	95	11	2.2	19	2.2
7	7.0	233	58	69	e1,430	93	50	73	10	2.0	14	2.4
8	6.7	97	49	52	e510	295	45	57	8.6	1.8	12	5.3
9	6.8	66	48	43	e168	224	51	38	7.2	1.5	10	6.0
10	6.4	54	54	28	121	114	42	33	6.3	1.3	8.4	6.5
11	5.9	48	2,260	e28	127	83	35	29	6.3	1.3	14	5.6
12	5.3	92	292	e27	75	70	38	25	6.0	62	49	4.5
13	4.6	89	131	e27	62	55	733	21	5.5	101	21	3.7
14	4.4	58	286	e26	63	46	1,160	17	4.9	25	13	3.5
15	157	44	897	e25	56	45	488	16	4.8	96	25	3.5
16	32	37	191	e21	e35	46	160	52	4.6	20	22	3.9
17	16	35	387	e22	e34	57	107	26	5.5	10	15	3.7
18	26	32	283	e29	e31	57	82	18	8.7	68	11	6.9
19	21	282	127	e42	e30	168	68	19	6.9	80	9.7	11
20	14	1,550	95	e28	e31	293	59	22	4.7	17	8.3	6.3
21	12	192	75	e22	e32	333	51	17	3.6	9.9	8.2	4.2
22	11	111	67	e19	e35	138	46	15	3.1	7.1	15	3.4
23	10	82	64	e17	e29	81	41	13	3.1	283	11	2.8
24	9.0	70	1,340	e15	e28	67	43	13	2.8	243	7.3	2.4
25	8.2	78	388	e13	e30	63	34	14	3.0	53	5.7	1.9
26	7.7	64	150	e13	e27	62	181	11	21	27	4.9	1.6
27	515	53	108	e14	e28	58	415	12	9.7	137	4.8	1.4
28	331	103	85	e17	29	54	109	50	5.3	995	4.5	225
29	1,090	439	75	e15	30	43	71	24	6.0	121	4.0	1,450
30	176	108	71	e17	---	38	57	12	5.0	53	3.6	83
31	83	---	60	e18	---	67	---	13	---	34	4.1	---
TOTAL	2,623.3	4,897	7,970	1,210	4,174	3,034	4,791	1,092	263.3	2,468.5	659.5	1,867.2
MEAN	84.6	163	257	39.0	144	97.9	160	35.2	8.78	79.6	21.3	62.2
MAX	1,090	1,550	2,260	215	1,430	333	1,160	149	45	995	160	1,450
MIN	4.4	32	44	13	17	36	34	11	2.8	1.3	3.6	1.4
CFSM	1.90	3.67	5.78	0.88	3.23	2.20	3.59	0.79	0.20	1.79	0.48	1.40
IN.	2.19	4.09	6.66	1.01	3.49	2.54	4.01	0.91	0.22	2.06	0.55	1.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

	28.8	53.7	92.4	94.9	106	133	104	63.7	37.9	31.8	29.6	30.7
MEAN	28.8	53.7	92.4	94.9	106	133	104	63.7	37.9	31.8	29.6	30.7
MAX	181	212	363	319	203	337	295	216	259	216	240	210
(WY)	(1997)	(1973)	(1997)	(1996)	(1971)	(1994)	(1983)	(1989)	(2003)	(1975)	(1955)	(1999)
MIN	1.00	1.50	1.94	3.22	15.8	31.3	20.9	8.95	2.67	0.56	0.14	1.31
(WY)	(1958)	(1966)	(1999)	(1981)	(2002)	(1985)	(1985)	(1963)	(1957)	(1957)	(1966)	(1970)

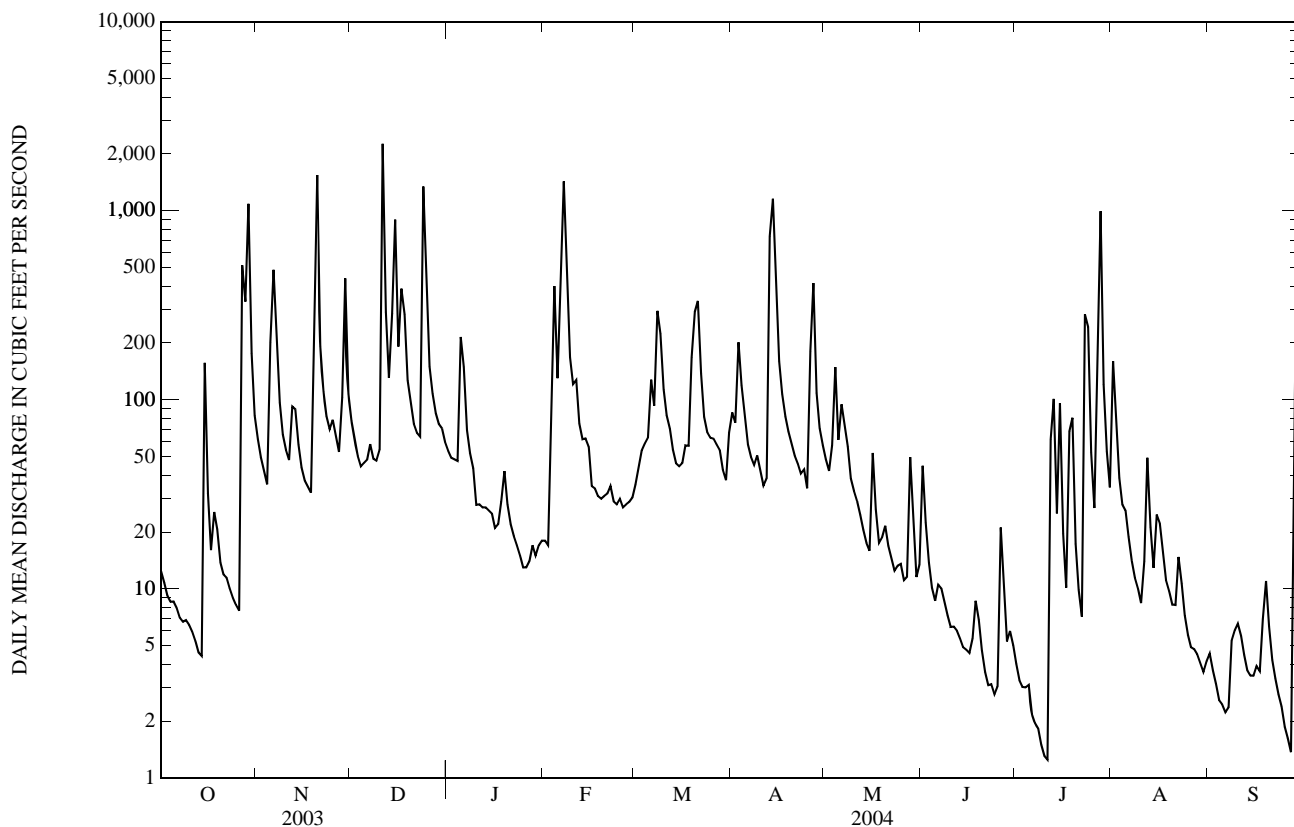
01401000 STONY BROOK AT PRINCETON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	41,414.1		35,049.8		67.0	
ANNUAL MEAN	113		95.8		118	
HIGHEST ANNUAL MEAN					28.5	
LOWEST ANNUAL MEAN					1966	
HIGHEST DAILY MEAN	2,260	Dec 11	2,260	Dec 11	3,730	Sep 16, 1999
LOWEST DAILY MEAN	2.1	Aug 29	1.3	Jul 10, 11	0.00	Aug 5, 1966
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 25	1.9	Jul 5	0.00	Aug 5, 1966
MAXIMUM PEAK FLOW			4,490	Dec 11	8,960a	Aug 28, 1971
MAXIMUM PEAK STAGE			10.93b	Feb 6	14.26	Aug 28, 1971
INSTANTANEOUS LOW FLOW			1.2	Many days	0.00	Aug 5, 1966
ANNUAL RUNOFF (CFSM)	2.55		2.15		1.51	
ANNUAL RUNOFF (INCHES)	34.62		29.30		20.47	
10 PERCENT EXCEEDS	285		195		143	
50 PERCENT EXCEEDS	42		34		22	
90 PERCENT EXCEEDS	6.8		4.2		2.1	

a From rating extended above 4,000 ft³/s on basis of contracted-opening measurement of peak flow.

b Ice Jam

c Estimated



01401650 PIKE RUN AT BELLE MEAD, NJ

LOCATION.--Lat 40°28'05", long 74°38'56", Somerset County, Hydrologic Unit 02030105, on right bank 20 ft upstream from bridge on Township Line Road, 0.7 mi east of Belle Mead, 0.8 mi upstream from Cruser Brook, and 1.0 mi downstream from bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi².

PERIOD OF RECORD.--July 1980 to current year.

REVISED RECORDS. --WRD NJ-01-1: 1994(M), 1996(M), 1997(P), 1999(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete parking-block control. Datum of gage is 58.85 ft above NGVD of 1929.

REMARKS.--Records fair, except 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 satellite/radio telemetry 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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1900	327	5.54	Jul 12	1815	329	5.55
Oct 29	1000	378	5.81	Jul 14	2115	682	7.25
Nov 20	0245	477	6.30	Jul 23	2245	450	6.17
Dec 11	---	*1000	*8.54c	Jul 28	0045	605	6.90
Apr 13	2330	669	7.19	Sep 29	0000	500	6.41

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.5	6.9	e4.5	e2.5	4.3	7.0	4.3	5.2	3.2	47	0.50
2	1.1	4.4	5.2	e4.5	e2.5	5.5	6.8	4.0	2.7	6.7	9.2	0.50
3	0.93	4.0	4.1	e4.5	e12	5.7	19	7.8	2.0	1.6	4.9	0.45
4	0.91	3.7	3.7	e5.0	e46	7.9	11	10	1.5	1.0	3.5	0.44
5	0.87	15	3.9	e22	e13	6.8	7.2	5.4	1.3	0.99	3.0	0.41
6	0.68	21	4.1	e12	e65	14	5.2	8.9	1.9	0.88	2.1	0.39
7	0.59	19	4.0	e6.5	e93	9.4	4.6	7.3	1.7	0.64	1.7	0.39
8	0.57	7.7	4.0	e5.0	e22	30	4.2	5.0	1.2	0.63	1.4	2.3
9	0.54	5.2	4.0	e4.0	e10	19	5.1	4.0	1.1	0.52	1.3	2.7
10	0.50	4.3	e7.0	e3.5	e11	15	3.8	3.7	1.3	0.44	1.2	0.97
11	0.49	3.8	e440	e3.0	e9.0	9.0	3.3	3.2	2.6	0.44	4.9	0.61
12	0.44	9.5	e20	e3.5	e5.0	6.8	3.8	2.9	1.3	69	7.6	0.56
13	0.42	10	e12	e3.0	e4.5	5.2	155	2.7	1.1	21	2.8	0.46
14	0.47	5.6	e25	e3.0	e4.5	4.4	149	e2.0	0.95	126	1.9	0.43
15	14	4.1	e67	e3.0	e4.0	4.2	34	e2.5	1.0	32	5.3	0.40
16	1.8	3.5	e15	e2.5	e2.5	4.3	12	e15	0.84	6.5	3.0	0.46
17	1.2	3.2	e47	e2.5	e3.0	5.3	8.4	e4.0	0.73	4.3	2.7	0.44
18	2.6	2.9	e20	e3.5	2.7	7.6	6.5	3.2	0.89	6.2	2.0	1.2
19	1.6	77	e10	e4.0	3.2	23	5.3	4.4	0.71	7.1	1.9	0.68
20	1.2	169	e7.5	e3.0	3.4	24	4.7	4.1	0.64	3.7	1.7	0.41
21	1.1	16	e6.0	e2.5	4.3	21	4.2	2.6	0.64	2.4	5.8	0.36
22	1.1	9.8	e6.0	e2.5	4.3	9.6	3.8	2.3	0.62	1.9	3.9	0.34
23	1.0	6.9	e5.5	e2.0	3.6	6.6	3.4	1.8	0.64	104	1.9	0.31
24	0.97	5.8	e125	e2.0	3.8	5.7	3.3	8.2	0.51	53	1.5	0.31
25	0.95	8.3	e24	e1.5	4.0	6.0	2.8	8.1	24	10	1.3	0.30
26	1.0	5.4	e13	e2.0	3.4	5.8	21	2.6	6.3	5.2	1.2	0.31
27	114	4.5	e8.5	e2.0	3.2	5.5	39	3.3	2.2	112	1.2	0.29
28	23	24	e7.5	e2.5	3.1	4.7	8.6	12	1.1	151	1.2	64
29	140	40	e7.0	e2.5	3.4	3.9	5.8	3.6	1.1	12	1.1	150
30	15	9.9	e6.5	e2.5	---	3.5	4.8	2.2	0.74	6.2	1.1	9.5
31	8.1	---	e5.5	e2.5	---	5.3	---	2.9	---	4.2	0.86	---
TOTAL	338.53	509.0	924.9	127.0	351.9	289.0	552.6	154.0	68.51	754.74	130.16	240.42
MEAN	10.9	17.0	29.8	4.10	12.1	9.32	18.4	4.97	2.28	24.3	4.20	8.01
MAX	140	169	440	22	93	30	155	15	24	151	47	150
MIN	0.42	2.9	3.7	1.5	2.5	3.5	2.8	1.8	0.51	0.44	0.86	0.29
CFSM	2.04	3.17	5.57	0.76	2.26	1.74	3.44	0.93	0.43	4.54	0.78	1.50
IN.	2.35	3.53	6.42	0.88	2.44	2.01	3.84	1.07	0.48	5.24	0.90	1.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2004, BY WATER YEAR (WY)

	5.51	8.30	11.6	12.9	12.9	14.5	12.2	8.68	5.90	6.35	3.31	5.15
MAX	40.1	22.3	35.5	43.3	27.5	38.8	43.1	26.2	31.4	26.1	9.94	56.9
(WY)	(1997)	(1989)	(1997)	(1996)	(1994)	(1994)	(1983)	(1989)	(2003)	(1984)	(1990)	(1999)
MIN	0.40	0.28	0.12	0.04	1.97	3.05	2.18	1.89	0.37	0.00	0.17	0.51
(WY)	(2002)	(1999)	(1999)	(1981)	(2002)	(1981)	(1985)	(1986)	(1995)	(1999)	(1980)	(1983)

01401650 PIKE RUN AT BELLE MEAD, NJ—Continued

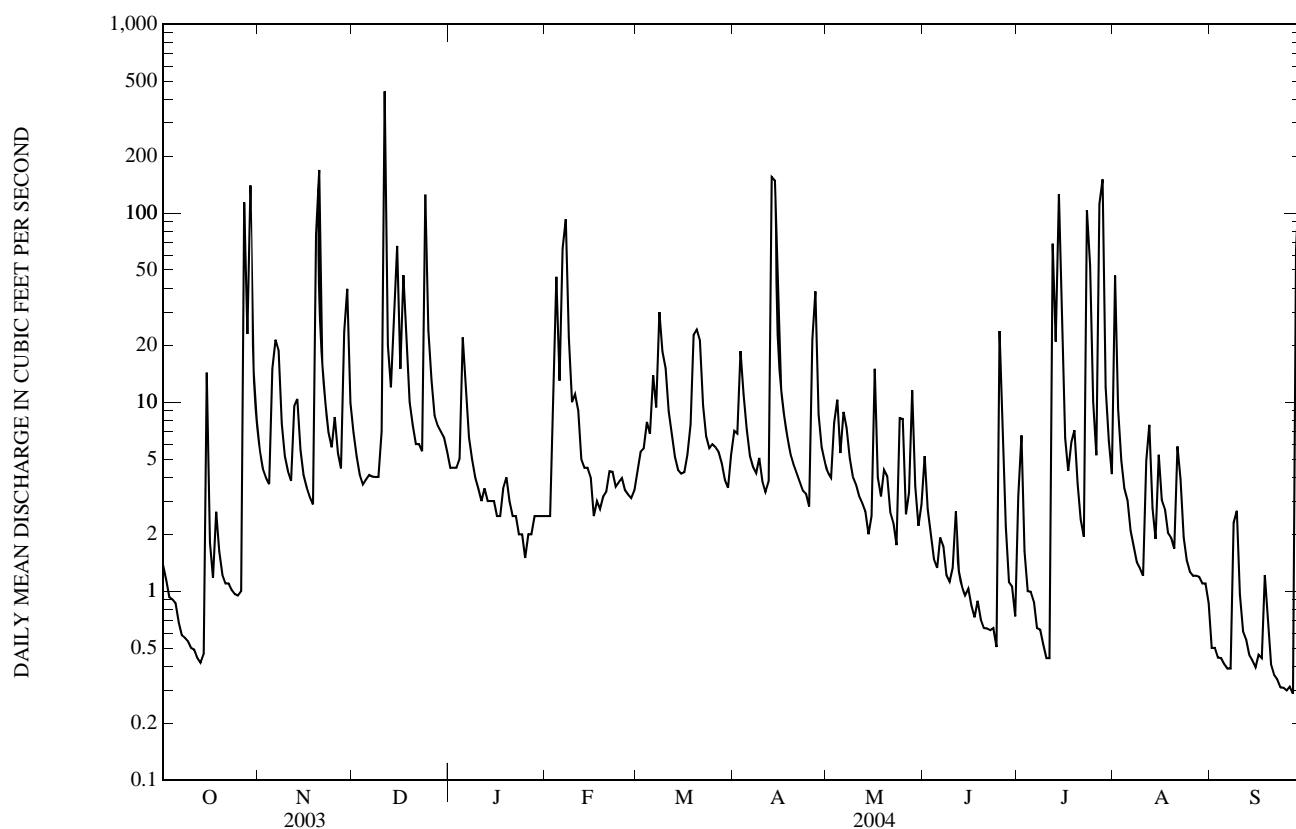
SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1980 - 2004	
ANNUAL TOTAL	5,187.09		4,440.76		8.96	
ANNUAL MEAN	14.2		12.1		14.3	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					3.32	
HIGHEST DAILY MEAN	e440	Dec 11	e440	Dec 11	1,590	Sep 16, 1999
LOWEST DAILY MEAN	0.18	Aug 29	0.29	Sep 27	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	0.26	Aug 24	0.32	Sep 21	0.00	Many days
MAXIMUM PEAK FLOW			1,000	Dec 11	4,120a	Sep 16, 1999
MAXIMUM PEAK STAGE			8.54c	Dec 11	13.61b	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.26	Sep 27, 28	0.00	Many days
ANNUAL RUNOFF (CFSM)	2.65		2.26		1.67	
ANNUAL RUNOFF (INCHES)	36.00		30.82		22.73	
10 PERCENT EXCEEDS	31		21		16	
50 PERCENT EXCEEDS	4.0		4.0		2.7	
90 PERCENT EXCEEDS	0.74		0.64		0.30	

a From rating curve extended above 790 ft³/s on basis of step-backwater computation.

b From high-water mark in gage

c Peak stage obtained from peak-stage indicator clip

e Estimated



01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'33", 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 mi².

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 NGVD of 1929. 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, except for estimated daily discharge, which are fair. 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. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0415	3,360	8.19	Feb 7	1845	4,500	9.54
Nov 20	1815	4,890	9.94	Apr 14	2145	4,000	9.00
Dec 12	0245	*7,160	*11.88	Jul 28	1800	3,430	8.28
Dec 15	1715	3,330	8.14	Sep 29	2100	5,210	10.26
Dec 25	0645	4,080	9.09				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	577	589	342	140	224	454	367	268	72	547	76
2	159	389	462	317	135	248	525	315	229	90	607	78
3	136	309	350	304	229	266	814	325	179	67	305	77
4	123	260	298	293	1,130	296	790	605	146	56	221	69
5	118	398	286	673	1,040	327	590	439	126	62	241	63
6	109	1,850	314	948	1,470	424	445	532	156	172	203	59
7	103	1,650	313	558	4,090	519	359	499	149	234	158	60
8	98	854	310	387	3,510	771	317	426	140	133	130	86
9	95	510	308	321	1,590	1,160	328	313	127	85	116	122
10	92	388	321	252	801	837	294	256	121	66	106	92
11	89	326	3,010	e235	742	608	263	230	128	57	145	74
12	87	426	5,760	227	546	472	256	208	113	298	533	70
13	84	512	2,620	228	449	365	1,360	191	105	937	322	66
14	83	377	1,200	218	411	311	3,470	167	95	579	205	63
15	476	306	2,970	207	378	283	3,520	161	91	921	247	60
16	316	262	2,510	e195	299	274	2,020	405	88	393	241	70
17	170	240	1,620	190	257	348	897	235	85	191	328	74
18	199	222	1,850	216	254	367	594	182	99	179	259	82
19	176	406	1,020	293	249	632	487	182	90	305	214	99
20	144	3,790	671	253	259	1,020	403	194	78	234	157	86
21	130	3,390	529	215	273	1,370	354	165	71	190	134	90
22	118	1,580	452	194	299	991	320	149	70	137	143	81
23	110	731	414	178	272	609	291	136	65	522	118	67
24	102	504	1,460	162	254	459	296	137	61	2,310	103	60
25	97	488	3,590	145	260	407	294	205	100	683	92	59
26	96	414	1,800	139	242	395	621	137	220	268	84	58
27	751	350	835	140	230	373	1,720	156	97	529	78	57
28	2,210	403	574	153	219	351	1,190	349	78	3,050	75	207
29	2,340	1,620	482	153	215	305	648	237	79	2,290	71	3,650
30	2,930	971	434	150	---	271	422	159	81	726	68	4,000
31	1,160	---	384	146	---	343	---	143	---	393	71	---
TOTAL	13,090	24,503	37,736	8,432	20,243	15,626	24,342	8,205	3,535	16,229	6,322	9,855
MEAN	422	817	1,217	272	698	504	811	265	118	524	204	328
MAX	2,930	3,790	5,760	948	4,090	1,370	3,520	605	268	3,050	607	4,000
MIN	83	222	286	139	135	224	256	136	61	56	68	57
CFSM	1.64	3.17	4.72	1.05	2.71	1.95	3.14	1.03	0.46	2.03	0.79	1.27
IN.	1.89	3.53	5.44	1.22	2.92	2.25	3.51	1.18	0.51	2.34	0.91	1.42

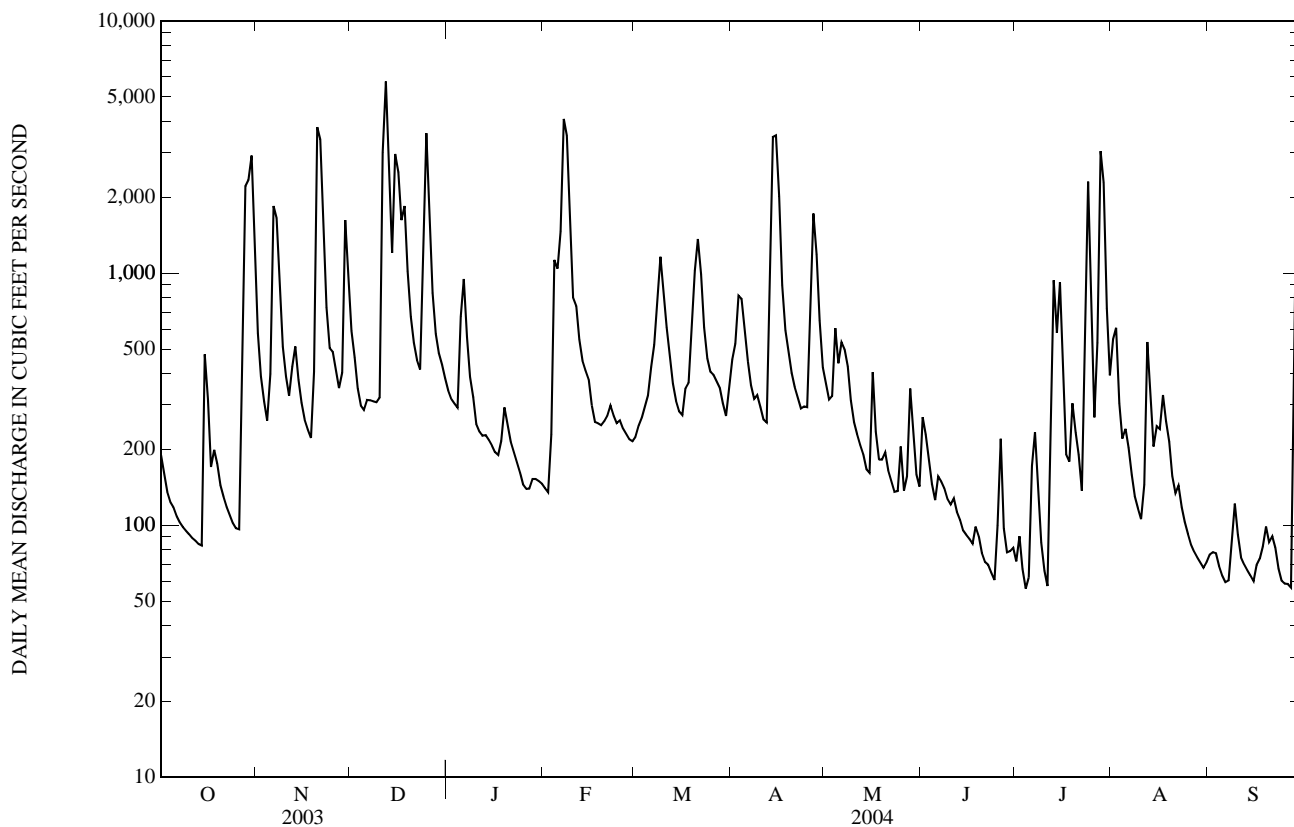
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

	201	334	471	510	566	691	539	362	250	243	215	230
MEAN (WY)	(1997)	(1973)	(1997)	(1979)	(1925)	(1994)	(1983)	(1989)	(2003)	(1975)	(1971)	(1999)
MIN (WY)	42.6 (1942)	51.2 (1966)	67.0 (1966)	62.9 (1981)	105 (1934)	158 (1985)	103 (1985)	82.8 (1963)	45.5 (1963)	19.3 (1966)	17.3 (1981)	20.2 (1980)

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	222,213		188,118		383	
ANNUAL MEAN	609		514		165	
HIGHEST ANNUAL MEAN					690	1975
LOWEST ANNUAL MEAN					165	1985
HIGHEST DAILY MEAN	5,760	Dec 12	5,760	Dec 12	22,000	Sep 17, 1999
LOWEST DAILY MEAN	67	Aug 29	56	Jul 4	5.0	Sep 16, 1923
ANNUAL SEVEN-DAY MINIMUM	71	Aug 25	67	Sep 21	6.3	Aug 7, 1966
MAXIMUM PEAK FLOW			7,160	Dec 12	26,200	Sep 17, 1999
MAXIMUM PEAK STAGE			11.88	Dec 12	21.01	Sep 17, 1999
INSTANTANEOUS LOW FLOW			52	Jul 4	5.0	Sep 16, 1923
ANNUAL RUNOFF (CFSM)	2.36		1.99		1.49	
ANNUAL RUNOFF (INCHES)	32.04		27.12		20.20	
10 PERCENT EXCEEDS	1,620		1,170		825	
50 PERCENT EXCEEDS	298		262		198	
90 PERCENT EXCEEDS	105		79		59	

e Estimated



01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'04", 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 from bridge on Interstate 287, 1.2 mi downstream from Millstone River, and 1.2 mi southwest of Bound Brook.

DRAINAGE AREA.--785 mi² (includes 11 mi² 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). Records prior to October 1966 are equivalent to the present records if the effluent from American Cyanimid Company and Somerset Raritan Sewerage Authority and the discharge of Cuckold Brook are added.

REVISED RECORDS.--WSP 1552: 1903-07, 1946(M), 1949, 1952(P).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. 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, except for estimated discharges which are fair. 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 telephone and USGS satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2245	16,000	27.18	Apr 14	0630	12,800	25.72
Nov 20	1500	15,500	26.97	Jul 24	0800	16,300	27.33
Dec 12	0245	*23,100	*30.02	Jul 28	1315	16,300	27.31
Dec 25	0400	16,500	27.41	Sep 29	1615	19,900	28.79
Feb 7	0815	15,700	27.08				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	830	2,390	1,930	1,480	e380	715	1,480	1,080	777	141	3,100	227
2	702	1,820	1,580	1,360	e380	842	1,570	955	991	247	2,050	195
3	611	1,500	1,280	1,310	e680	974	2,100	1,140	534	156	1,200	184
4	555	1,280	1,050	1,270	3,240	1,040	2,070	1,990	405	120	884	174
5	564	1,240	1,030	3,090	2,720	1,140	1,690	1,290	345	141	660	167
6	503	3,030	1,140	3,210	3,840	1,390	1,230	1,400	383	211	528	159
7	467	2,940	1,110	1,930	13,600	1,750	970	1,640	359	297	430	151
8	437	1,890	978	1,420	7,730	2,450	848	1,380	309	193	354	355
9	420	1,320	904	1,230	3,310	3,250	951	954	264	116	281	1,080
10	406	1,060	974	755	2,150	2,470	835	822	262	110	254	448
11	355	950	9,790	743	2,220	1,850	733	778	421	127	581	249
12	321	1,240	16,100	e695	1,530	1,480	699	821	333	1,420	1,470	217
13	311	1,490	5,870	e695	1,250	1,180	4,910	755	248	4,890	723	211
14	297	1,210	3,500	e660	1,210	945	10,900	630	208	2,260	605	208
15	2,060	921	8,270	593	1,080	843	9,230	550	191	4,170	816	195
16	1,120	777	5,560	648	823	832	4,690	2,060	183	1,120	681	232
17	609	693	6,010	e590	733	1,050	2,570	898	154	622	906	240
18	655	661	7,440	e650	730	1,040	1,880	629	192	574	695	2,250
19	597	1,180	3,660	e850	725	1,810	1,520	649	170	1,220	605	2,160
20	498	12,700	2,710	e685	779	2,640	1,310	667	139	733	440	634
21	460	7,240	2,150	e585	809	3,710	1,110	520	116	471	958	474
22	422	3,630	1,850	e520	1,020	2,620	1,000	473	218	343	1,250	414
23	352	2,190	1,730	e480	864	1,650	905	423	272	2,140	634	306
24	311	1,690	6,150	e430	806	1,300	905	416	185	11,500	513	235
25	292	1,760	12,200	e385	811	1,180	842	553	271	2,300	482	216
26	282	1,490	5,090	e370	711	1,190	2,290	391	983	1,030	444	215
27	3,350	1,260	3,100	e375	652	1,100	5,520	569	308	1,630	430	211
28	8,140	1,510	2,440	e410	614	1,040	2,850	864	175	13,000	405	1,090
29	10,900	5,480	2,070	e400	634	865	1,790	669	238	5,670	389	15,100
30	9,580	2,810	1,880	e405	---	773	1,310	450	207	2,220	393	7,430
31	3,740	---	1,670	e390	---	1,110	---	385	---	1,570	283	---
TOTAL	50,147	69,352	121,216	28,614	56,031	46,229	70,708	26,801	9,841	60,742	23,444	35,427
MEAN	1,618	2,312	3,910	923	1,932	1,491	2,357	865	328	1,959	756	1,181
MAX	10,900	12,700	16,100	3,210	13,600	3,710	10,900	2,060	991	13,000	3,100	15,100
MIN	282	661	904	370	380	715	699	385	116	110	254	151

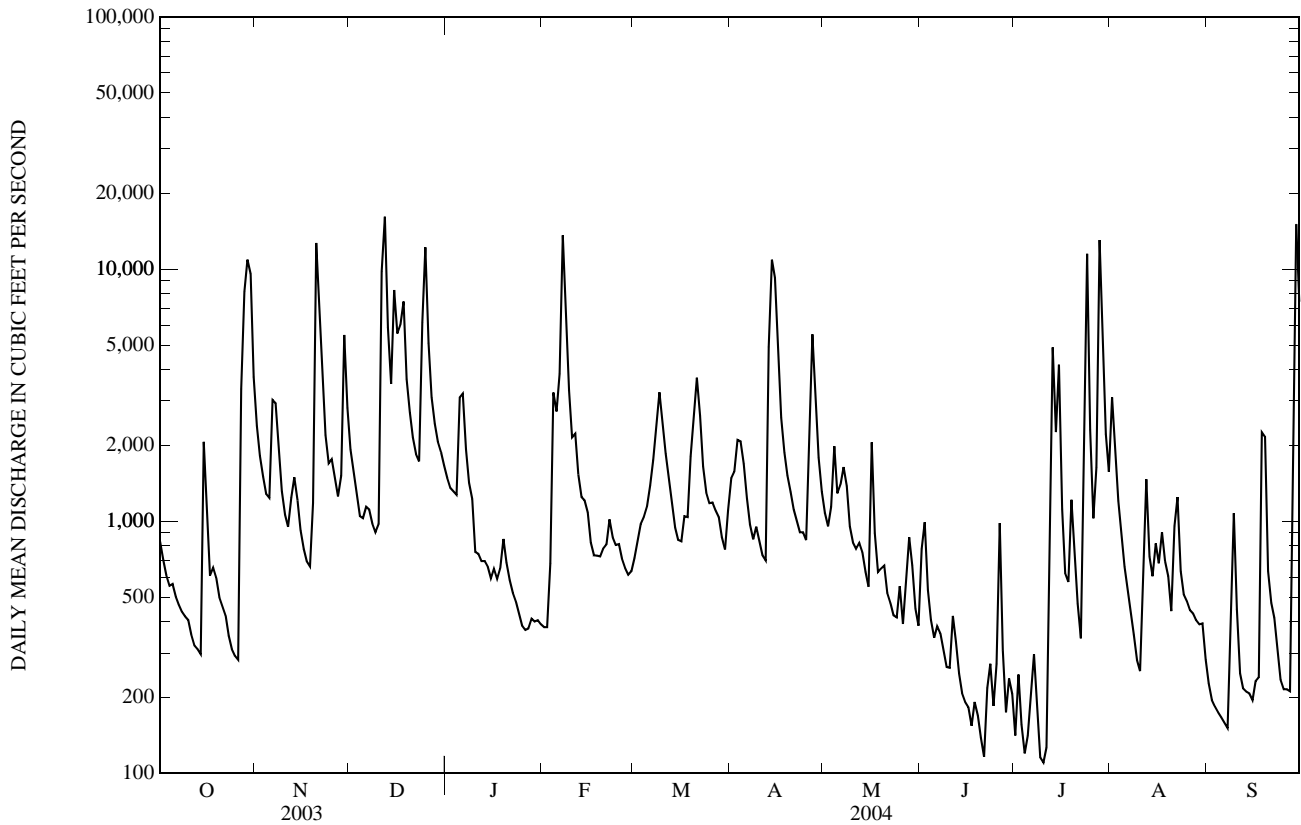
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

MEAN	677	1,031	1,484	1,573	1,669	2,130	1,737	1,250	808	682	656	690
MAX	2,953	3,684	4,615	5,825	3,232	5,093	5,326	3,862	3,883	4,624	3,576	3,358
(WY)	(1904)	(1973)	(1997)	(1979)	(1971)	(1994)	(1983)	(1989)	(1972)	(1975)	(1955)	(1999)
MIN	113	138	165	179	198	454	230	329	117	84.7	69.9	76.1
(WY)	(1958)	(1966)	(1999)	(1981)	(2002)	(1985)	(1985)	(1992)	(1965)	(1955)	(1957)	(1957)

01403060 RARITAN RIVER BELOW CALCO DAM, AT BOUND BROOK, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	681,803		598,552		1,196	
ANNUAL MEAN	1,868		1,635		2,046	
HIGHEST ANNUAL MEAN					432	1975
LOWEST ANNUAL MEAN					61,000	2002
HIGHEST DAILY MEAN	16,100	Dec 12	16,100	Dec 12	82,900a	Sep 17, 1999
LOWEST DAILY MEAN	157	Aug 29	110	Jul 10	37	Sep 6, 1964
ANNUAL SEVEN-DAY MINIMUM	180	Aug 25	164	Jun 15	46	Sep 4, 1957
MAXIMUM PEAK FLOW			23,100	Dec 12	82,900a	Sep 17, 1999
MAXIMUM PEAK STAGE			30.02	Dec 12	42.13b	Sep 17, 1999
INSTANTANEOUS LOW FLOW			101	Jul 9,10	26	Dec 31, 2001
10 PERCENT EXCEEDS	4,440		3,400		2,600	
50 PERCENT EXCEEDS	987		849		618	
90 PERCENT EXCEEDS	289		234		165	

- a From rating extended above 46,000 ft³/s on basis of indirect computation of peak flow downstream at Fieldville Dam.
- b From floodmark, highest since 1896.
- e Estimated



01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ

LOCATION.--Lat 40°36'44", long 74°35'27", 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 mi².

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

REVISED RECORDS.--WDR NJ-91-1: 1990. WDR NJ-96-1: 1980-94 (P), WDR NJ-99-1: 1990 (M), 1997 (M).

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above NGVD of 1929 (levels by Somerset County).

REMARKS.--Records fair, except for discharges below 1 ft³/s which are poor. Several measurements of water temperature were made during the year. Satellite/radio rain and gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 19	2000	228	4.66	Jul 12	1800	159	4.23
Dec 11	0700	222	4.63	Jul 23	1800	337	5.27
Apr 13	2230	*413	*5.67	Jul 27	2330	188	4.42
May 16	0030	199	4.49	Sep 28	2030	167	4.28

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.47	1.2	1.9	1.9	0.90	2.5	3.1	1.7	5.7	0.86	6.7	0.72
2	0.42	0.93	1.6	1.8	0.90	3.3	2.3	1.6	2.1	0.81	1.7	0.72
3	0.37	0.92	1.4	2.0	9.5	2.7	5.1	6.6	1.1	0.81	1.3	0.72
4	0.40	0.97	1.3	3.4	7.6	4.3	3.9	3.8	0.86	0.81	1.0	0.72
5	0.36	2.5	1.4	14	2.4	2.8	2.3	2.6	0.83	0.81	1.1	0.72
6	0.31	2.6	1.5	3.9	47	8.0	1.9	2.7	0.81	0.81	1.0	0.72
7	0.31	2.1	1.5	2.2	21	3.3	1.7	8.9	0.79	0.81	0.97	0.72
8	0.31	1.5	2.0	1.8	4.4	15	2.1	2.4	0.72	0.81	0.94	2.6
9	0.31	1.3	1.3	1.6	2.1	5.1	2.0	1.8	0.71	0.81	0.90	0.98
10	0.31	1.2	6.9	1.5	3.9	4.4	1.6	1.6	0.75	0.81	0.90	0.72
11	0.31	1.2	72	1.5	2.8	2.8	1.6	1.4	0.81	0.81	5.6	0.72
12	0.31	3.6	5.2	1.4	1.9	2.2	4.0	3.7	0.72	20	1.8	0.72
13	0.31	2.0	2.7	1.3	2.1	1.8	57	1.7	0.72	13	0.98	0.69
14	0.41	1.8	8.7	1.2	1.9	1.6	23	1.2	0.75	9.2	0.90	0.64
15	6.2	1.5	16	1.3	1.6	1.6	7.7	2.7	0.76	2.6	3.0	0.64
16	0.48	1.4	4.3	1.4	1.2	1.7	3.7	20	0.81	1.2	2.7	0.64
17	0.39	1.3	29	1.2	1.1	2.0	2.8	2.3	1.0	0.97	1.7	0.64
18	0.82	1.1	7.5	1.5	1.3	2.6	2.2	1.8	0.98	2.1	1.0	1.3
19	0.49	28	3.7	1.3	2.0	6.3	2.1	2.5	0.83	1.7	0.96	0.65
20	0.43	27	2.8	1.1	2.0	11	1.9	1.6	0.81	1.1	0.90	0.64
21	0.46	3.1	2.2	1.1	4.1	10	1.7	1.3	0.81	0.97	9.4	0.64
22	0.43	1.9	2.2	1.1	2.4	3.3	1.6	1.2	1.9	0.95	1.4	0.64
23	0.45	1.6	2.4	1.1	2.0	2.2	1.5	1.1	0.96	55	0.96	0.61
24	0.50	1.5	53	1.1	2.0	1.9	1.5	1.00	0.95	15	0.86	0.57
25	0.57	2.4	7.9	1.1	1.8	2.4	1.5	0.89	11	2.3	0.81	0.57
26	0.61	1.4	4.0	1.1	1.6	2.0	23	0.97	2.3	1.3	0.81	0.57
27	40	1.2	3.0	1.1	1.6	2.3	13	2.5	1.0	16	0.81	0.57
28	5.3	15	2.5	1.1	1.8	1.8	3.4	3.8	0.95	20	0.81	35
29	38	8.1	2.3	1.1	2.1	1.6	2.4	1.2	1.5	5.2	0.81	20
30	3.1	2.3	2.3	1.0	---	1.6	2.0	0.85	0.88	1.9	0.81	1.2
31	1.6	---	2.0	0.94	---	2.5	---	2.4	---	1.3	0.78	---
TOTAL	104.74	122.62	256.5	59.14	137.00	116.6	183.6	89.81	44.81	180.75	54.31	76.99
MEAN	3.38	4.09	8.27	1.91	4.72	3.76	6.12	2.90	1.49	5.83	1.75	2.57
MAX	40	28	72	14	47	15	57	20	11	55	9.4	35
MIN	0.31	0.92	1.3	0.94	0.90	1.6	1.5	0.85	0.71	0.81	0.78	0.57
CFSM	1.70	2.05	4.16	0.96	2.37	1.89	3.08	1.46	0.75	2.93	0.88	1.29
IN.	1.96	2.29	4.79	1.11	2.56	2.18	3.43	1.68	0.84	3.38	1.02	1.44

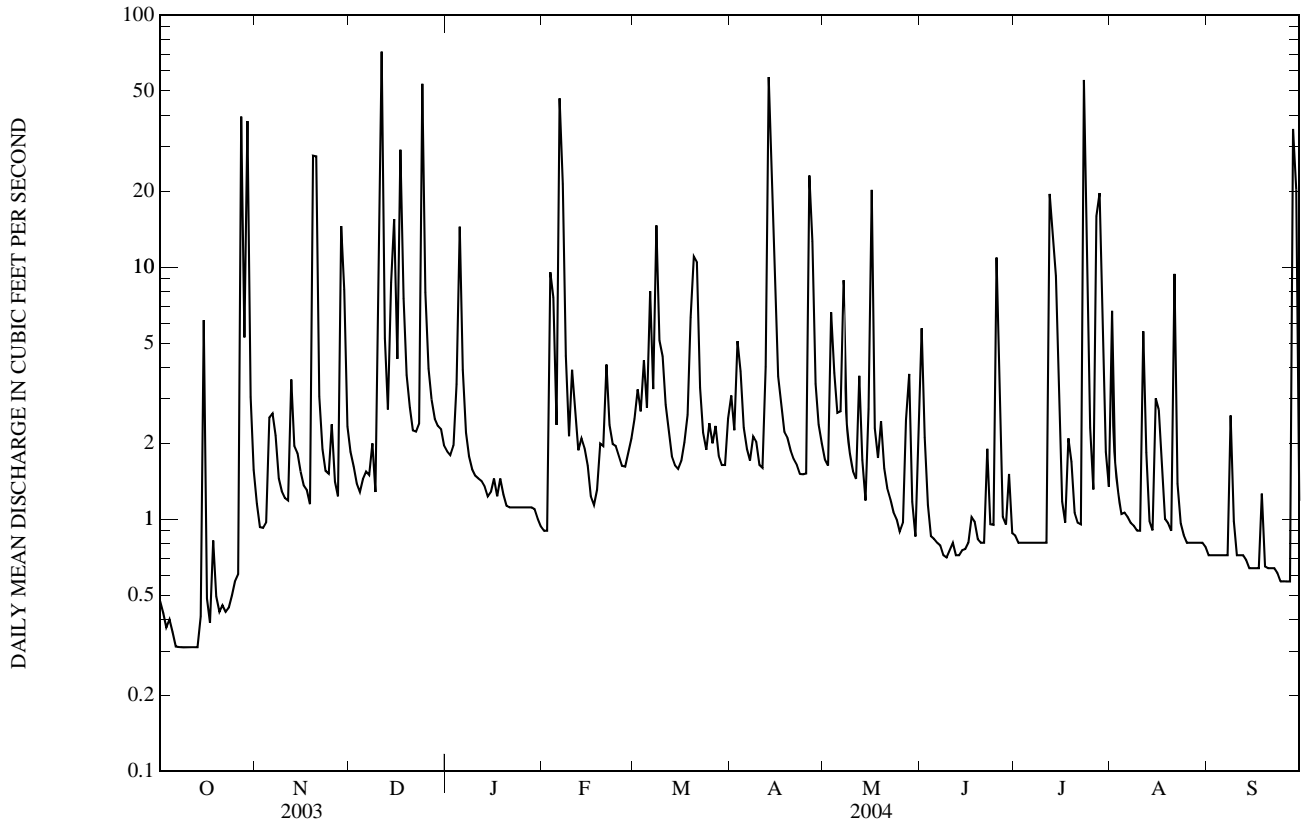
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

MEAN	2.21	3.33	4.31	4.25	4.04	6.04	5.21	4.24	2.28	2.02	1.23	1.91
MAX	9.28	10.5	11.5	11.9	9.02	21.4	11.6	19.4	7.91	6.40	6.46	11.7
(WY)	(1990)	(1989)	(1984)	(1996)	(1988)	(1994)	(1983)	(1989)	(2003)	(1984)	(2000)	(1999)
MIN	0.12	0.22	0.13	0.12	0.41	1.64	0.74	0.76	0.27	0.08	0.12	0.11
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(1985)	(1985)	(1986)	(1999)	(1980)	(1980)	(1980)

01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1979 - 2004	
ANNUAL TOTAL	1,424.06		1,426.87			
ANNUAL MEAN	3.90		3.90		3.43	
HIGHEST ANNUAL MEAN					5.48 1989	
LOWEST ANNUAL MEAN					0.77 2002	
HIGHEST DAILY MEAN	72	Dec 11	72	Dec 11	318	Sep 16, 1999
LOWEST DAILY MEAN	0.15	Sep 12	0.31	Oct 6-13	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	0.20	Sep 7	0.31	Many days	0.00	Many days
MAXIMUM PEAK FLOW			413	Apr 13	1,490a	Sep 16, 1999
MAXIMUM PEAK STAGE			5.67	Apr 13	9.30	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.31	Oct 5-14	0.00	Many days
ANNUAL RUNOFF (CFSM)	1.96		1.96		1.72	
ANNUAL RUNOFF (INCHES)	26.62		26.67		23.40	
10 PERCENT EXCEEDS	9.7		7.9		6.0	
50 PERCENT EXCEEDS	1.4		1.6		0.87	
90 PERCENT EXCEEDS	0.31		0.65		0.14	

a From rating curve extended above 400 ft³/s on basis of indirect computation of peak flow



01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'58", long 74°24'12", 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 mi².

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 U.S. 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 NGVD of 1929. 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. Satellite/radio gage height telemetry 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 ft³/s, computed by State Water Policy Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	0215	255	2.49	Jul 27	1830	554	3.34
Dec 11	0900	432	3.03	Jul 27	2100	376	2.87
Feb 6	1330	255	2.49	Aug 11	2215	320	2.70
Apr 13	2245	317	2.69	Sep 18	0915	*698	*3.66
May 16	0045	326	2.72	Sep 29	0330	261	2.51

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	4.7	7.3	6.9	3.1	5.1	14	8.4	23	2.7	23	2.3
2	2.4	4.1	6.1	6.3	3.0	5.9	11	7.9	8.8	2.4	7.1	2.3
3	2.3	3.7	5.0	6.3	27	5.6	13	13	4.4	2.0	4.7	2.2
4	2.3	3.6	4.8	7.7	23	8.7	11	11	3.3	1.6	3.9	2.2
5	2.3	5.8	5.0	30	8.5	6.8	7.7	7.2	3.1	2.4	3.3	2.2
6	2.2	7.2	5.7	15	117	14	6.4	6.6	3.7	1.4	3.0	2.2
7	2.1	6.6	6.0	8.0	83	10	6.2	9.9	3.1	1.2	2.9	2.2
8	2.1	4.4	4.9	6.4	22	31	6.7	6.0	2.8	1.2	2.8	14
9	2.1	3.9	4.8	5.7	12	20	6.7	5.5	2.5	1.1	2.6	11
10	2.1	3.7	9.2	4.6	13	14	5.7	5.1	3.0	0.99	2.5	4.7
11	2.1	3.6	196	4.5	12	10	5.5	18	2.9	1.0	38	2.6
12	2.0	6.9	37	4.5	9.1	8.6	9.4	7.9	2.4	27	42	2.4
13	2.0	5.1	16	4.6	8.6	7.1	91	8.9	2.3	25	11	2.3
14	2.3	3.5	26	4.1	8.2	6.3	103	5.2	2.3	6.0	4.4	2.2
15	15	3.4	64	4.1	7.1	6.0	60	8.6	2.3	3.5	11	3.1
16	1.8	3.2	23	e4.0	5.4	7.3	23	60	2.2	2.3	6.2	3.0
17	1.7	3.1	54	4.2	4.9	8.7	17	9.7	2.4	2.0	5.4	2.3
18	2.4	3.1	35	5.2	5.2	8.3	14	6.8	2.4	3.2	3.8	76
19	1.8	28	18	4.6	5.7	13	12	7.1	1.9	8.8	3.3	7.2
20	1.8	93	13	3.9	5.7	19	10	5.7	1.5	2.5	3.1	2.9
21	1.8	18	10	3.7	8.8	33	8.8	4.7	1.4	2.0	13	2.5
22	1.7	9.6	9.3	3.6	7.8	16	7.2	4.4	4.5	1.5	4.6	2.3
23	1.7	7.0	8.6	3.4	6.2	10	6.8	4.8	2.2	36	3.1	2.2
24	1.6	6.2	109	3.4	6.0	9.0	7.0	4.0	1.9	12	2.7	2.1
25	1.6	6.7	47	e3.0	5.4	9.4	6.3	3.5	20	3.4	2.5	2.2
26	1.7	5.6	20	3.1	4.8	8.4	67	4.4	8.6	2.3	2.5	2.1
27	45	5.0	14	3.2	4.5	8.8	62	13	3.4	82	2.5	2.1
28	17	22	12	3.4	4.5	7.4	18	5.5	3.0	81	2.6	52
29	50	27	10	3.2	4.7	6.1	12	4.2	6.3	35	2.5	89
30	12	10	8.9	3.1	---	5.8	9.7	3.3	3.0	8.3	2.4	15
31	6.1	---	7.7	3.2	---	7.9	---	7.9	---	4.9	2.3	---
TOTAL	195.6	317.7	797.3	176.9	436.2	337.2	638.1	278.2	134.6	366.69	224.7	320.8
MEAN	6.31	10.6	25.7	5.71	15.0	10.9	21.3	8.97	4.49	11.8	7.25	10.7
MAX	50	93	196	30	117	33	103	60	23	82	42	89
MIN	1.6	3.1	4.8	3.0	3.0	5.1	5.5	3.3	1.4	0.99	2.3	2.1
CFSM	1.01	1.70	4.13	0.92	2.41	1.75	3.41	1.44	0.72	1.90	1.16	1.72
IN.	1.17	1.90	4.76	1.06	2.60	2.01	3.81	1.66	0.80	2.19	1.34	1.92

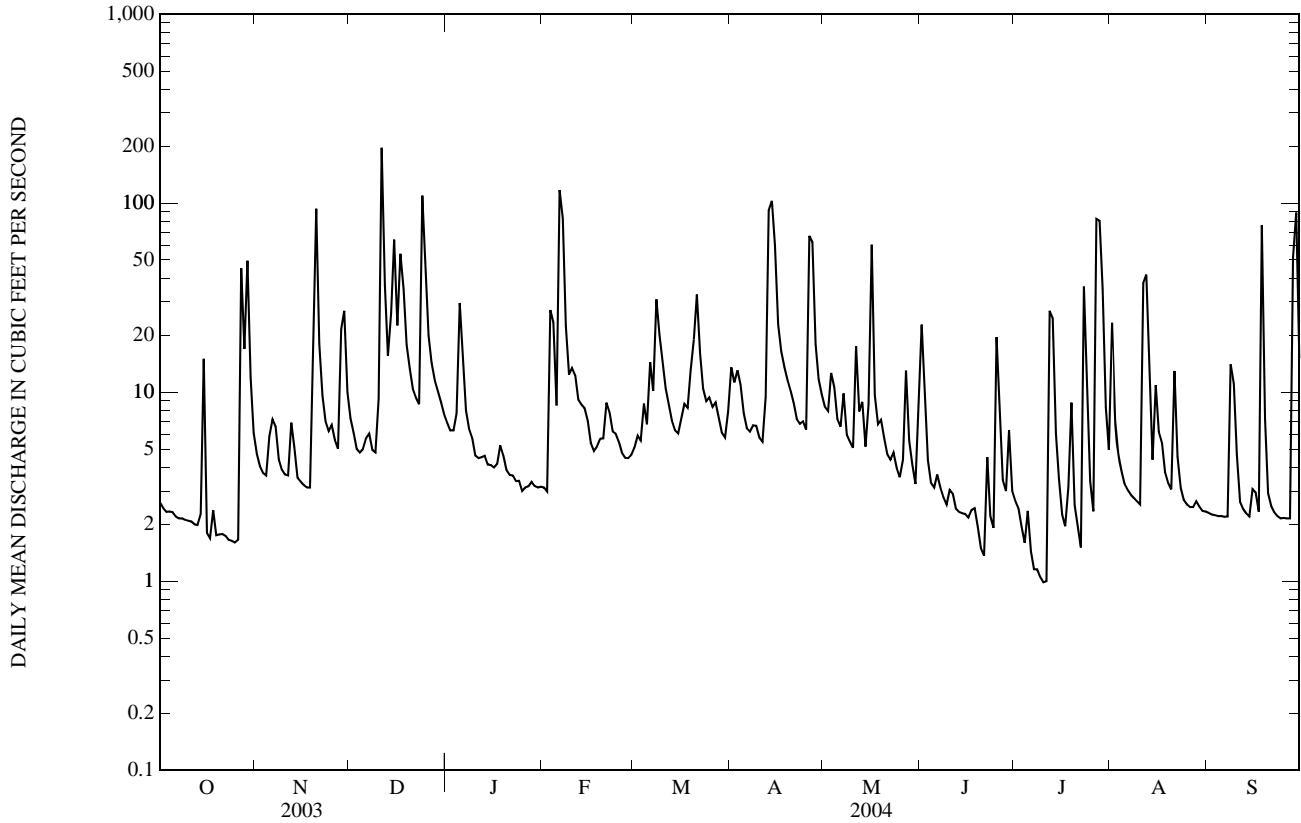
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

MEAN	6.80	9.14	12.0	11.4	11.5	16.6	17.0	12.5	7.86	6.44	4.93	8.99
MAX	31.9	22.4	46.9	27.1	22.3	40.9	41.1	42.0	28.3	18.9	16.1	97.1
(WY)	(1997)	(1986)	(1984)	(1996)	(1998)	(1994)	(1983)	(1989)	(2003)	(1984)	(1990)	(1999)
MIN	1.21	1.48	1.62	1.67	2.24	5.11	3.50	2.44	0.35	0.32	1.33	1.68
(WY)	(1995)	(1999)	(1999)	(1981)	(2002)	(1985)	(1985)	(1999)	(1999)	(1999)	(1981)	(1994)

01403400 GREEN BROOK AT SEELEY MILLS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1979 - 2004	
ANNUAL TOTAL	4,564.1		4,223.99			
ANNUAL MEAN	12.5		11.5		10.4	
HIGHEST ANNUAL MEAN					18.2	1984
LOWEST ANNUAL MEAN					3.25	2002
HIGHEST DAILY MEAN	196	Dec 11	196	Dec 11	1,470	Sep 16, 1999
LOWEST DAILY MEAN	1.1	Feb 17	0.99	Jul 10	0.00	Sep 11, 1981
ANNUAL SEVEN-DAY MINIMUM	1.5	Feb 12	1.3	Jul 5	0.05	Sep 24, 1981
MAXIMUM PEAK FLOW			698	Sep 18	6,240a	Aug 2, 1973
MAXIMUM PEAK STAGE			3.66	Sep 18	16.10b	Aug 2, 1973
INSTANTANEOUS LOW FLOW			0.87	Jul 11-12	0.00	Sep 11, 1981
ANNUAL RUNOFF (CFSM)	2.01		1.85		1.67	
ANNUAL RUNOFF (INCHES)	27.25		25.22		22.75	
10 PERCENT EXCEEDS	29		24		21	
50 PERCENT EXCEEDS	6.1		5.6		4.7	
90 PERCENT EXCEEDS	2.1		2.2		1.4	

a From rating curve extended above 600 ft³/s on basis of slope area measurement of peak flow.
 b Site and datum then in use.
 e Estimated



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 in Watchung, 150 ft downstream from bridge on Mountain Boulevard, 400 ft downstream from East Branch Stony Brook, and 2.9 mi upstream from confluence with Green Brook.

DRAINAGE AREA.--5.51 mi².

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 162.24 ft above NGVD of 1929. Prior to Oct. 1, 1996, at datum 10.00 ft higher.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Occasional regulation from Watchung and Best Lake directly upstream from station and other small lakes. Several measurements of water temperature were made during the year. Gage-height radio telemetry at station. Channel significantly enlarged and modified in 1991, and modified again in 1997 when the right wall was replaced.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1973, reached a stage of 24.5 ft, from floodmark, adjusted to current datum, discharge, 10,500 ft³/s (highest since 1896), from slope-area measurements of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	1445	410	12.32	Apr 13	2230	426	12.36
Oct 29	0800	342	12.14	May 16	0030	418	12.34
Nov 19	2015	379	12.24	Jun 1	1845	625	12.79
Nov 20	0130	430	12.37	Jul 27	1845	*993	*13.42
Dec 11	0645	695	12.92	Aug 11	2215	728	12.98
Dec 24	1745	402	12.30	Sep 18	0900	414	12.33
Feb 6	1345	371	12.22	Sep 28	2030	368	12.21

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.7	8.4	8.5	2.5	6.3	11	8.8	52	2.4	32	1.7
2	2.9	4.6	7.0	7.7	2.5	6.8	9.0	8.4	11	2.2	9.6	1.5
3	2.7	4.0	6.5	7.5	20	6.8	13	11	9.2	2.0	7.3	1.5
4	2.7	4.4	6.2	8.6	19	9.3	11	13	6.7	1.8	6.6	1.5
5	e2.6	6.8	6.4	29	9.6	8.2	9.4	8.9	5.5	2.1	6.8	1.4
6	e2.4	12	6.7	14	114	13	7.2	8.2	5.6	3.6	3.6	1.4
7	e2.0	5.8	6.3	9.5	52	11	6.9	11	5.2	1.1	2.6	1.3
8	e1.9	5.3	5.6	7.8	16	28	6.9	7.5	4.6	0.83	2.5	7.6
9	e1.9	4.4	5.0	7.2	12	16	7.2	6.8	3.9	1.8	2.2	5.3
10	e1.8	4.2	7.8	6.5	13	14	6.4	6.4	3.6	0.79	2.1	3.4
11	1.6	4.1	223	5.9	13	11	5.8	8.7	4.7	0.82	49	2.2
12	1.5	6.9	22	5.6	11	9.3	6.9	7.3	3.8	36	17	2.0
13	1.5	5.7	14	5.3	9.8	7.5	84	7.4	3.3	23	6.4	1.9
14	1.8	4.4	30	4.9	9.5	6.9	78	5.3	3.2	12	4.9	1.7
15	19	4.3	54	4.5	8.1	6.8	34	15	3.1	9.6	9.0	1.7
16	3.4	4.0	18	4.1	6.9	7.2	17	55	2.8	5.0	6.0	2.3
17	2.6	3.1	61	3.9	6.7	7.6	14	11	3.0	4.0	4.8	2.0
18	4.0	3.0	28	5.1	6.7	7.7	13	8.3	4.6	5.5	4.1	25
19	2.9	54	17	4.5	6.9	13	14	7.6	2.8	8.5	3.6	3.2
20	2.5	100	14	3.8	7.0	21	7.7	7.0	2.3	4.9	3.3	1.6
21	2.3	15	12	3.6	9.3	30	8.9	6.6	2.1	3.7	8.7	1.4
22	2.2	10	12	3.8	9.0	15	8.4	6.0	5.7	3.1	5.9	1.2
23	2.3	8.2	11	3.5	7.3	12	7.7	4.9	4.4	43	3.5	1.0
24	2.1	7.5	140	3.6	6.8	9.8	7.3	4.6	2.8	15	2.9	0.93
25	2.1	9.9	34	3.5	6.7	9.7	7.0	4.3	7.4	7.3	2.3	0.88
26	2.9	6.8	18	3.2	6.1	9.3	49	4.2	8.2	5.3	2.2	0.86
27	90	6.2	15	3.1	5.3	9.1	41	8.9	3.6	115	2.2	0.79
28	15	29	13	3.1	5.1	8.0	15	5.8	2.8	67	2.0	56
29	81	27	12	2.7	5.5	6.9	15	5.0	5.2	15	1.9	59
30	11	10	11	2.6	---	6.7	7.3	3.8	2.9	10	1.8	10
31	7.4	---	9.3	2.6	---	7.7	---	6.1	---	7.4	1.8	---
TOTAL	283.2	376.3	834.2	189.2	407.3	341.6	529.0	282.8	186.0	419.74	218.6	202.26
MEAN	9.14	12.5	26.9	6.10	14.0	11.0	17.6	9.12	6.20	13.5	7.05	6.74
MAX	90	100	223	29	114	30	84	55	52	115	49	59
MIN	1.5	3.0	5.0	2.6	2.5	6.3	5.8	3.8	2.1	0.79	1.8	0.79
CFSM	1.66	2.28	4.88	1.11	2.55	2.00	3.20	1.66	1.13	2.46	1.28	1.22
IN.	1.91	2.54	5.63	1.28	2.75	2.31	3.57	1.91	1.26	2.83	1.48	1.37

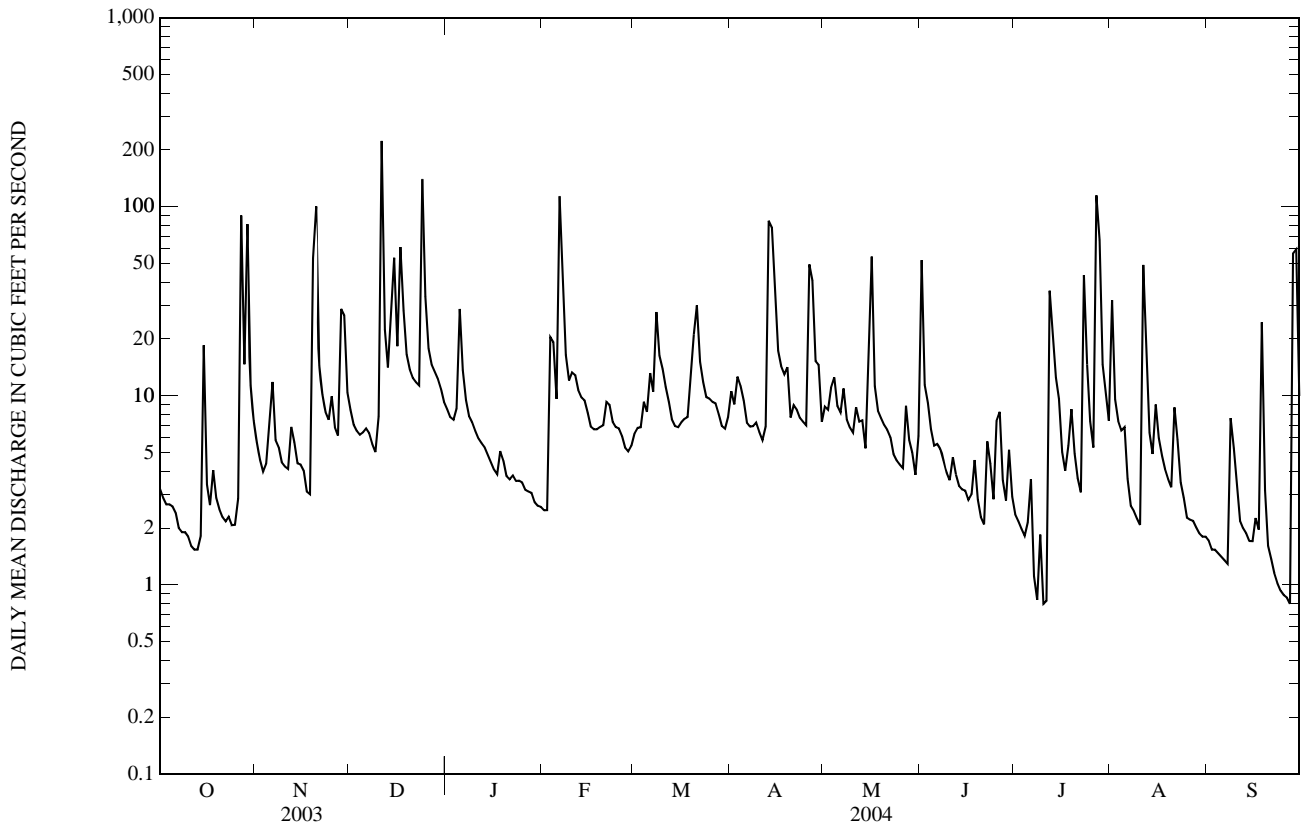
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2004, BY WATER YEAR (WY)

MEAN	5.98	9.08	12.1	13.2	11.9	17.1	15.3	11.6	7.24	6.09	4.16	5.58
MAX	24.6	25.6	37.1	37.5	20.1	45.0	38.3	37.8	29.1	32.1	18.4	30.8
(WY)	(1997)	(1996)	(1984)	(1979)	(1988)	(1994)	(1983)	(1989)	(2003)	(1975)	(2000)	(1999)
MIN	0.81	1.48	1.21	1.08	1.86	5.60	3.89	3.42	1.80	0.55	0.75	0.87
(WY)	(1995)	(2002)	(1999)	(1981)	(2002)	(1985)	(1985)	(1986)	(1999)	(1999)	(1998)	(1983)

01403540 STONY BROOK AT WATCHUNG, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1975 - 2004	
ANNUAL TOTAL	4,995.28		4,270.20			
ANNUAL MEAN	13.7		11.7		9.94	
HIGHEST ANNUAL MEAN					16.0	1984
LOWEST ANNUAL MEAN					3.96	2002
HIGHEST DAILY MEAN	223	Dec 11	223	Dec 11	814	Sep 16, 1999
LOWEST DAILY MEAN	0.98	Sep 21	0.79	Jul 10, Sept 27	0.00	Sep 18, 1982
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 25	1.0	Sept 21	0.06	Sep 13, 1982
MAXIMUM PEAK FLOW			993	Jul 27	5,380a	Sep 16, 1999
MAXIMUM PEAK STAGE			13.42	Jul 27	20.40b	Jul 14, 1975
INSTANTANEOUS LOW FLOW			0.71	Jul 8	0.00	Many Days
ANNUAL RUNOFF (CFSM)	2.48		2.12		1.80	
ANNUAL RUNOFF (INCHES)	33.72		28.83		24.51	
10 PERCENT EXCEEDS	30		21		20	
50 PERCENT EXCEEDS	6.6		6.7		4.6	
90 PERCENT EXCEEDS	2.2		2.0		1.1	

- a From rating curve extended above 500 ft³/s on basis of slope-area computation of peak flow.
- b Adjusted to current datum.
- c Estimated



01403900 BOUND BROOK AT MIDDLESEX, NJ

LOCATION.--Lat 40°35'06", long 74°30'28", Somerset County, Hydrologic Unit 02030105, at bridge on Sebrings Mill Road at Middlesex, 0.4 mi downstream of mouth of Green Brook, and 2.3 mi upstream of mouth.

DRAINAGE AREA.--48.4 mi².

PERIOD OF RECORD.--June 1972 to September 1977, April 1996 to September 1998, and February 2004 to September 2004. Operated as a crest-stage partial-record station water years 1992 to 1995, and 1999 to 2003.

GAGE.--Water-stage, rain and crest-stage gage. Datum of gage is 26.52 ft above NGVD of 1929. Continuous gage 1972-77 at site 100 ft upstream, datum at NGVD of 1929.

REMARKS.--Records fair. Satellite gage-height and rain-gage telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 28	0315	*1,880	*8.27	Sep 29	0730	1,360	7.04

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e20	33	85	57	149	18	208	16
2	---	---	---	---	e20	35	78	53	139	16	99	15
3	---	---	---	---	e130	37	106	68	58	15	73	14
4	---	---	---	---	e310	55	99	88	42	14	83	13
5	---	---	---	---	114	54	66	66	31	25	54	13
6	---	---	---	---	496	83	48	71	34	27	39	13
7	---	---	---	---	693	77	42	98	38	17	30	12
8	---	---	---	---	213	171	44	66	28	14	26	110
9	---	---	---	---	117	150	54	50	23	14	24	89
10	---	---	---	---	107	104	40	36	24	13	25	53
11	---	---	---	---	107	71	36	64	36	13	64	22
12	---	---	---	---	80	55	44	113	26	272	282	15
13	---	---	---	---	67	47	343	167	20	440	92	14
14	---	---	---	---	63	40	509	59	19	166	46	12
15	---	---	---	---	55	39	353	55	19	194	98	12
16	---	---	---	---	46	45	142	344	18	68	61	28
17	---	---	---	---	41	62	105	93	34	41	47	25
18	---	---	---	---	39	67	87	69	68	59	44	257
19	---	---	---	---	39	123	81	66	26	127	33	95
20	---	---	---	---	41	143	56	64	18	60	29	30
21	---	---	---	---	42	192	54	52	16	35	56	31
22	---	---	---	---	52	121	49	43	59	24	57	22
23	---	---	---	---	43	80	46	35	37	158	38	13
24	---	---	---	---	39	61	46	34	22	391	27	13
25	---	---	---	---	40	61	43	29	47	137	19	14
26	---	---	---	---	36	61	247	36	181	59	18	13
27	---	---	---	---	34	62	409	73	58	275	17	13
28	---	---	---	---	32	55	134	72	26	1,130	16	195
29	---	---	---	---	32	43	96	57	38	273	16	968
30	---	---	---	---	---	39	70	40	23	98	15	289
31	---	---	---	---	---	52	---	48	---	70	15	---
TOTAL	---	---	---	---	3,148	2,318	3,612	2,266	1,357	4,263	1,751	2,429
MEAN	---	---	---	---	109	74.8	120	73.1	45.2	138	56.5	81.0
MAX	---	---	---	---	693	192	509	344	181	1,130	282	968
MIN	---	---	---	---	20	33	36	29	16	13	15	12
CFSM	---	---	---	---	2.24	1.54	2.49	1.51	0.93	2.84	1.17	1.67
IN.	---	---	---	---	2.42	1.78	2.78	1.74	1.04	3.28	1.35	1.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

MEAN	68.8	56.4	113	84.8	97.4	90.6	109	80.8	55.3	79.8	53.9	54.4
MAX	192	125	210	112	170	110	178	165	128	263	258	198
(WY)	(1997)	(1973)	(1997)	(1975)	(1973)	(1977)	(1973)	(1998)	(1975)	(1975)	(1973)	(1975)
MIN	15.6	17.4	30.6	16.5	41.7	57.6	58.0	27.3	22.8	9.45	13.0	8.75
(WY)	(1998)	(1977)	(1977)	(1977)	(1974)	(1976)	(1976)	(1977)	(1974)	(1974)	(1972)	(1972)

01403900 BOUND BROOK AT MIDDLESEX, NJ—Continued

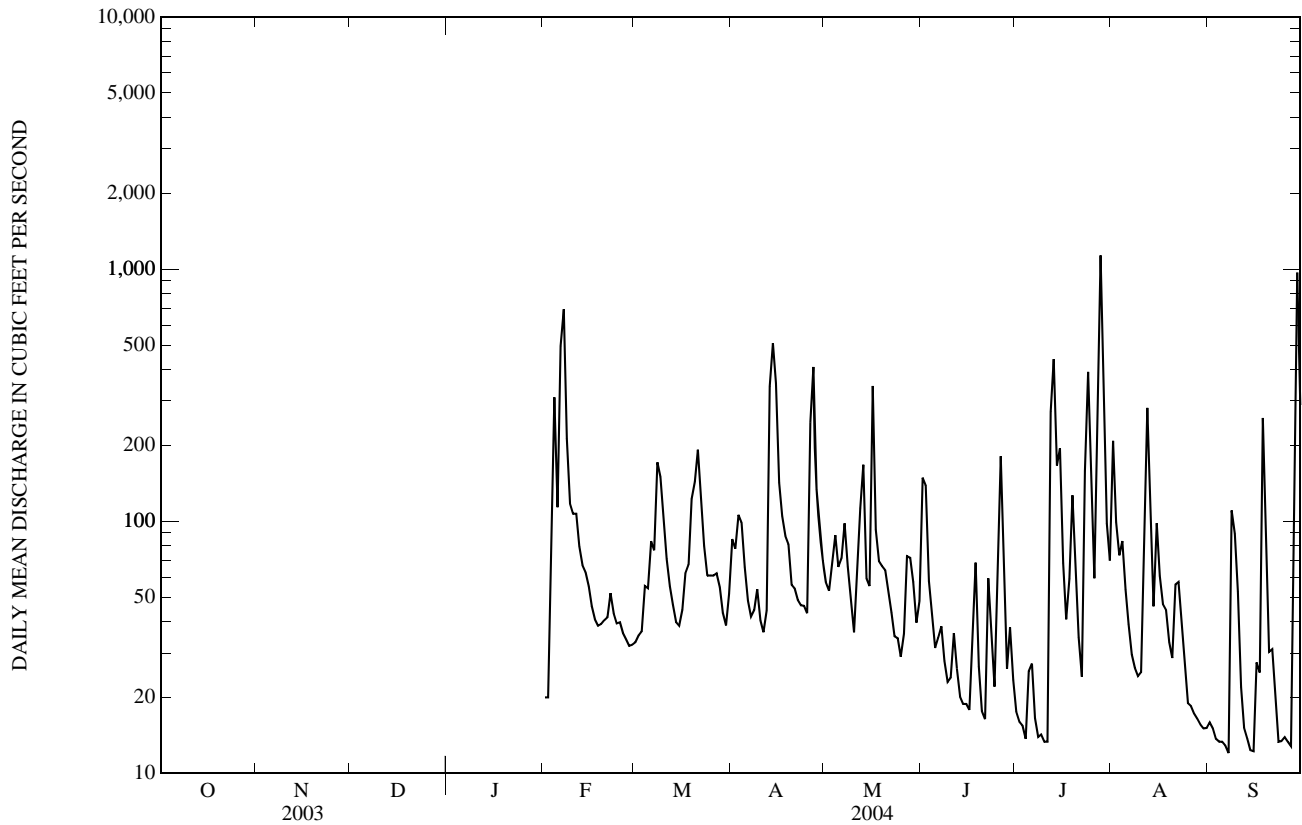
SUMMARY STATISTICS

FEBRUARY-SEPTEMBER 2004

WATER YEARS 1972 - 2004

ANNUAL TOTAL	21,144			
ANNUAL MEAN	87.0		77.5	
HIGHEST ANNUAL MEAN			112	1973
LOWEST ANNUAL MEAN			32.3	1972
HIGHEST DAILY MEAN	1,130	Jul 28	2,990	Aug 3, 1973
LOWEST DAILY MEAN	12	Sep 7	2.5	Jul 21, 1974
ANNUAL SEVEN-DAY MINIMUM	14	Sep 1	3.3	Jul 16, 1974
MAXIMUM PEAK FLOW	1,880	Jul 28	7,840	Sep 17, 1999
MAXIMUM PEAK STAGE	8.27	Jul 28	13.54	Sep 17, 1999
INSTANTANEOUS LOW FLOW	12	Sep 7	2.5	Jul 21, 1974
ANNUAL RUNOFF (CFSM)	1.80		1.60	
ANNUAL RUNOFF (INCHES)	16.25		21.76	
10 PERCENT EXCEEDS	188		156	
50 PERCENT EXCEEDS	52		38	
90 PERCENT EXCEEDS	16		10	

e Estimated.



01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ

LOCATION.--Lat 40°28'59", long 74°24'44", 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 mi².

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 NGVD of 1929.

REMARKS.--Records fair. Flow regulated by Farrington Lake, capacity, 655,250,000 gal. Diversion at gage by New Brunswick Water Department (see Raritan River basin, diversions). 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	46	49	34	23	28	73	41	46	9.3	72	14
2	22	41	38	33	24	34	76	38	24	9.7	53	12
3	19	35	32	32	100	39	139	56	19	10	25	12
4	17	29	30	33	215	50	92	72	16	9.7	21	11
5	16	143	35	139	110	45	64	51	20	75	35	12
6	15	437	45	121	459	72	45	101	50	29	16	9.6
7	14	204	40	62	586	57	41	80	35	14	12	8.9
8	12	85	38	45	201	173	39	47	19	11	13	24
9	8.0	50	39	41	103	145	43	34	17	9.1	11	32
10	13	37	51	36	102	81	35	29	25	10	9.4	22
11	13	32	781	29	102	61	33	25	38	9.9	89	14
12	13	68	320	31	74	48	37	53	18	158	444	14
13	12	62	127	32	62	38	359	59	15	272	54	12
14	12	34	176	30	57	35	419	20	12	63	19	10
15	86	29	602	33	53	32	381	21	13	79	70	12
16	26	28	182	25	44	42	147	94	16	30	33	30
17	18	27	213	23	37	64	92	28	14	21	98	16
18	34	28	190	49	37	58	68	22	17	34	40	38
19	22	149	98	53	36	133	58	30	16	103	25	23
20	16	921	67	37	36	146	45	29	15	40	20	13
21	15	221	52	31	39	161	39	21	11	21	20	9.0
22	14	108	44	28	38	86	36	18	12	18	20	8.9
23	13	66	43	26	36	63	34	16	9.6	100	15	9.6
24	12	50	296	24	36	48	39	32	8.5	223	11	8.2
25	11	55	299	22	36	48	33	61	33	58	11	9.4
26	13	43	117	22	33	46	159	22	84	32	10	8.7
27	199	35	72	23	29	46	278	34	22	59	10	7.6
28	230	66	55	30	29	43	108	80	14	410	10	420
29	443	223	46	26	29	37	70	34	11	80	8.7	1,350
30	191	78	42	23	---	36	53	21	11	49	8.8	143
31	66	---	36	23	---	53	---	25	---	32	11	---
TOTAL	1,623.0	3,430	4,255	1,196	2,766	2,048	3,135	1,294	661.1	2,078.7	1,294.9	2,313.9
MEAN	52.4	114	137	38.6	95.4	66.1	104	41.7	22.0	67.1	41.8	77.1
MAX	443	921	781	139	586	173	419	101	84	410	444	1,350
MIN	8.0	27	30	22	23	28	33	16	8.5	9.1	8.7	7.6

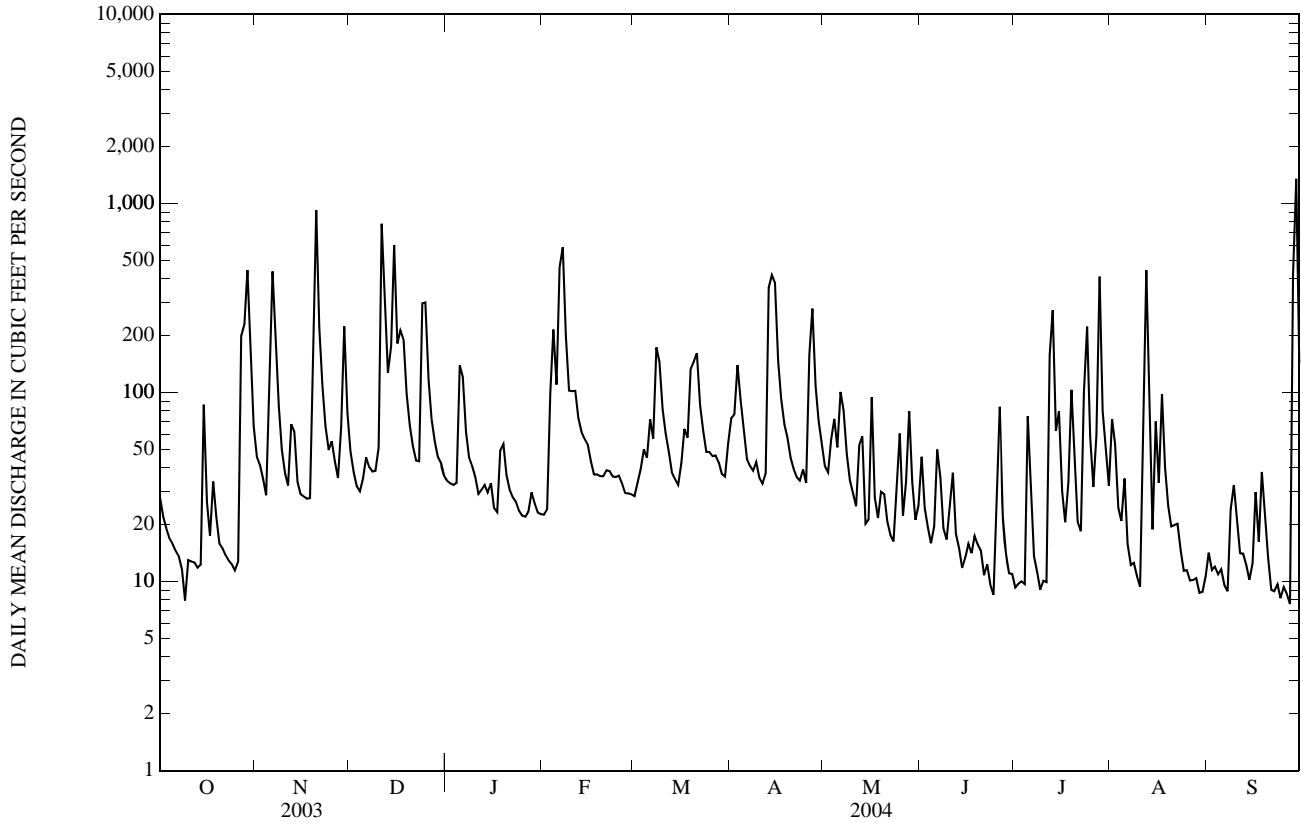
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2004, BY WATER YEAR (WY)

MEAN	36.7	41.1	65.4	62.2	56.8	81.0	69.3	62.3	49.4	38.2	42.1	46.0
MAX	104	114	174	114	113	179	116	169	161	92.7	103	184
(WY)	(1997)	(2004)	(1993)	(1996)	(1998)	(1993)	(1993)	(1989)	(2003)	(1989)	(1990)	(1989)
MIN	9.72	1.33	5.57	9.99	2.55	30.3	27.4	24.9	3.91	2.70	7.32	13.6
(WY)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)	(1995)	(1995)	(1999)	(1999)	(1995)	(2001)

01405030 LAWRENCE BROOK AT WESTONS MILLS, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1989 - 2004	
ANNUAL TOTAL	31,674.0		26,095.6		52.6	
ANNUAL MEAN	86.8		71.3		23.9	
HIGHEST ANNUAL MEAN					81.0	2003
LOWEST ANNUAL MEAN					23.9	2002
HIGHEST DAILY MEAN	921	Nov 20	1,350	Sep 29	2,200	Sep 21, 1989
LOWEST DAILY MEAN	8.0	Oct 9	7.6	Sep 27	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	12	Aug 24	8.8	Sep 21	0.00	Many Days
MAXIMUM PEAK FLOW			2,700a	Sep 29	4,850a	Sep 21, 1989
MAXIMUM PEAK STAGE			18.18	Sep 29	19.20	Sep 21, 1989
INSTANTANEOUS LOW FLOW			0.05	Oct 9, 23-26	0.00	Many days
10 PERCENT EXCEEDS	222		152		102	
50 PERCENT EXCEEDS	39		36		28	
90 PERCENT EXCEEDS	16		12		7.9	

a From rating curve extended above 1,000 ft³/s.



01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'26", 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 mi².

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 NGVD of 1929 (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Discharge given herein includes flow through sluice gate when open. Gate open many days throughout the year. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	72	74	60	40	40	70	60	43	18	45	59
2	31	58	60	60	40	41	73	57	42	18	50	38
3	29	51	53	60	55	43	102	62	35	16	43	27
4	27	48	48	59	173	46	115	85	31	14	38	23
5	27	59	50	79	226	50	83	71	29	110	38	23
6	27	e178	57	115	e200	59	63	74	49	97	30	21
7	27	e110	60	84	e450	74	53	73	64	45	26	22
8	27	71	61	63	e570	98	49	64	45	28	23	26
9	27	64	60	57	141	165	50	52	35	21	22	30
10	27	56	61	46	103	114	46	46	33	19	20	26
11	27	52	e200	44	96	76	45	45	61	16	50	23
12	27	65	e480	43	77	60	51	45	49	50	e140	21
13	27	78	e350	47	65	50	e170	40	35	208	69	18
14	27	61	e42	46	61	44	e350	40	30	e270	41	18
15	38	51	162	45	56	43	e330	38	27	e130	67	19
16	41	47	180	45	48	45	80	40	27	14	65	26
17	35	45	100	47	44	59	94	38	27	40	106	37
18	37	43	117	52	44	66	76	37	25	43	69	19
19	34	53	109	67	45	98	64	39	24	107	49	16
20	31	254	86	62	45	157	58	40	21	83	38	13
21	29	361	73	51	49	185	53	37	18	e52	34	12
22	27	188	66	49	50	140	51	36	18	e43	35	16
23	27	89	66	46	46	79	50	35	18	e47	32	17
24	27	70	e95	41	45	62	63	32	18	47	29	17
25	27	68	e200	39	45	57	74	32	19	33	26	16
26	27	63	161	38	45	57	108	30	19	39	24	15
27	e47	57	97	39	41	57	241	30	18	49	23	14
28	e83	57	78	42	40	54	228	45	18	e97	23	115
29	e150	125	69	44	40	48	106	37	19	e125	22	e760
30	e221	107	66	42	---	45	72	31	18	e82	21	e730
31	105	---	65	41	---	53	---	30	---	e38	42	---
TOTAL	1,376	2,701	3,446	1,653	2,980	2,265	3,068	1,421	915	1,999	1,340	2,217
MEAN	44.4	90.0	111	53.3	103	73.1	102	45.8	30.5	64.5	43.2	73.9
MAX	221	361	480	115	570	185	350	85	64	270	140	760
MIN	27	43	42	38	40	40	45	30	18	14	20	12
CFSM	1.09	2.21	2.73	1.31	2.52	1.80	2.51	1.13	0.75	1.58	1.06	1.82
IN.	1.26	2.47	3.15	1.51	2.72	2.07	2.80	1.30	0.84	1.83	1.22	2.03

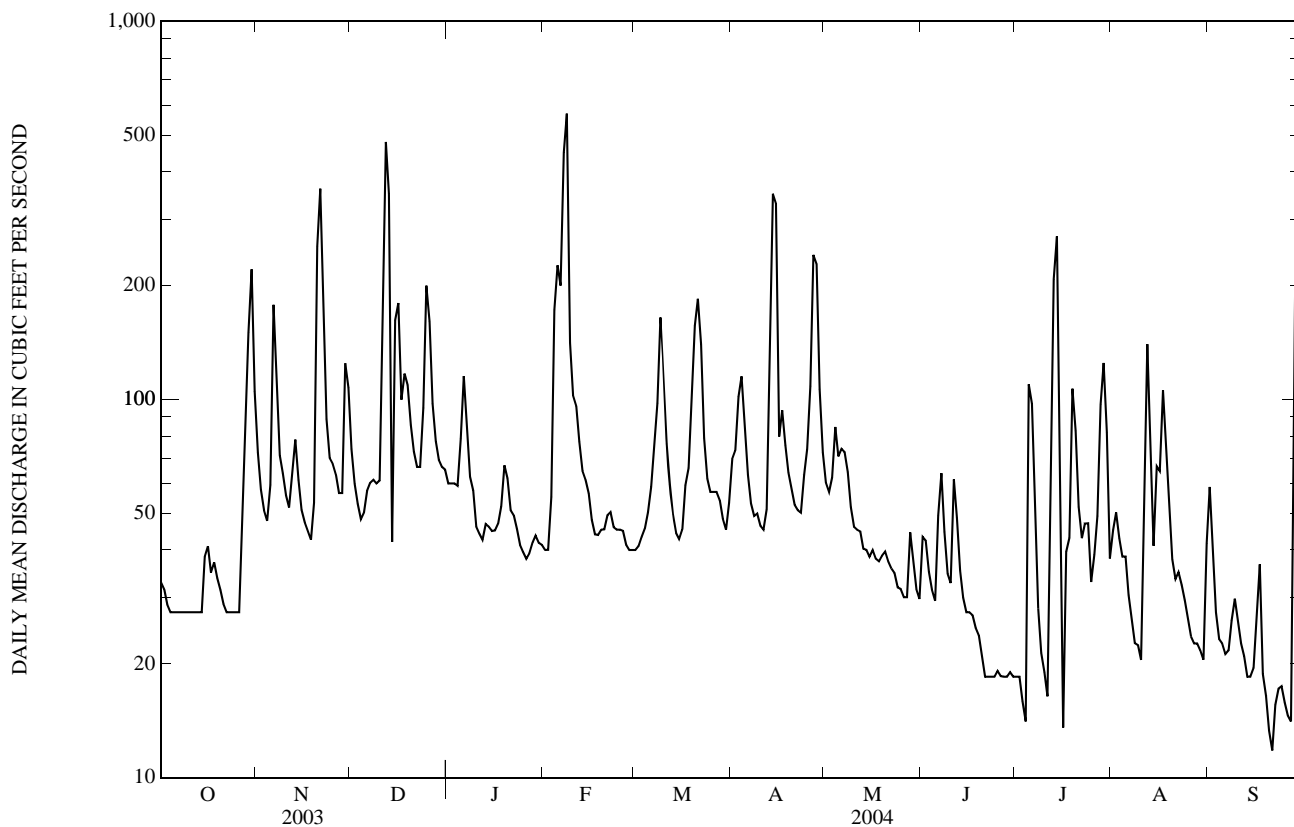
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

	39.9	56.2	73.6	77.6	76.7	91.0	83.8	65.8	48.0	42.0	41.9	41.3
MEAN	39.9	56.2	73.6	77.6	76.7	91.0	83.8	65.8	48.0	42.0	41.9	41.3
MAX	95.2	154	156	186	139	164	154	148	150	141	128	138
(WY)	(1990)	(1978)	(1984)	(1978)	(1979)	(1958)	(1983)	(1984)	(2003)	(1975)	(1990)	(1989)
MIN	13.7	14.2	21.4	21.1	23.6	36.3	31.1	26.5	14.8	4.40	5.56	11.6
(WY)	(1983)	(2002)	(1999)	(1981)	(2002)	(2000)	(1985)	(1977)	(1999)	(1966)	(1966)	(1965)

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	31,026		25,381		61.7	
ANNUAL MEAN	85.0		69.3		26.5	
HIGHEST ANNUAL MEAN					101	1973
LOWEST ANNUAL MEAN					26.5	2002
HIGHEST DAILY MEAN	480	Dec 12	e760	Sep 29	1,390	May 30, 1968
LOWEST DAILY MEAN	18	Aug 25	12	Sep 21	0.00	Jun 16, 1957
ANNUAL SEVEN-DAY MINIMUM	19	Aug 24	15	Sep 20	0.64	Sep 24, 1999
MAXIMUM PEAK FLOW			e880	Sep 29	1,700	Sep 20, 1989
MAXIMUM PEAK STAGE			19.26	Sep 29	20.50	Sep 20, 1989
INSTANTANEOUS LOW FLOW			0.00	Many days	0.00a	Many days
ANNUAL RUNOFF (CFSM)	2.09		1.70		1.51	
ANNUAL RUNOFF (INCHES)	28.36		23.20		20.58	
10 PERCENT EXCEEDS	189		119		117	
50 PERCENT EXCEEDS	55		47		44	
90 PERCENT EXCEEDS	27		22		18	

a Zero flow recorded on June 16, 1957 and many days since.
 e Estimated



01406050 DEEP RUN AT OLD BRIDGE, NJ

LOCATION.--Lat 40°24'54", long 74°20'56", Middlesex County, Hydrologic Unit 02030105, on right end of dam for Deep Run Reservoir, 800 ft upstream of Waterworks Road, 0.9 mi east of Old Bridge, 1.2 mi upstream of mouth, and 3.2 mi south of Sayreville.

DRAINAGE AREA.--16.0 mi².

PERIOD OF RECORD.--Miscellaneous measurements made in Water Year 2000. October 2000 to current year.

REVISED RECORD.--WRD NJ-03-1: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 2.5 ft above National Geodetic Vertical Datum of 1929 (determined by personnel of Hatch Mott MacDonald).

REMARKS.--Records fair, except for estimated daily discharges which are poor. Dam construction for Deep Run Reservoir was completed in 1988. Water diverted for municipal supply by City of Perth Amboy from nearby wells. Records given herein represent flow over spillway, flow through gates and leakage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	27	22	18	11	13	32	23	17	1.5	13	22
2	7.5	21	18	17	9.7	14	29	20	13	1.2	16	8.9
3	5.4	17	15	17	21	15	49	24	9.5	1.3	11	6.2
4	4.1	15	13	16	e110	16	35	36	8.3	1.00	7.5	5.0
5	3.6	26	14	35	65	19	30	25	6.3	33	6.9	4.2
6	2.9	148	17	46	104	25	23	36	16	16	5.9	3.8
7	1.9	74	18	26	297	27	19	29	18	5.1	4.3	3.8
8	1.3	40	19	e19	104	51	17	25	10	3.1	3.6	5.2
9	1.0	28	18	17	46	55	18	18	6.8	2.5	3.2	7.8
10	0.92	23	20	13	40	38	16	16	5.8	1.9	2.8	6.9
11	0.72	20	224	11	39	28	15	15	11	1.6	57	4.5
12	0.70	31	199	12	29	23	16	14	7.9	20	180	3.5
13	0.57	34	51	13	26	19	123	14	5.3	88	24	3.2
14	0.50	24	47	12	24	16	191	11	4.5	27	18	2.9
15	8.3	19	211	12	22	15	120	11	4.2	22	44	3.0
16	11	17	73	e11	18	16	57	15	3.9	11	27	4.7
17	5.6	16	56	e11	16	26	34	12	3.6	7.0	37	3.6
18	8.0	15	67	e17	16	25	28	11	4.0	6.2	18	12
19	8.8	20	37	25	17	49	24	12	3.6	13	12	19
20	6.7	199	28	19	17	63	21	16	2.6	8.4	9.5	7.2
21	5.4	95	24	15	17	81	19	11	2.1	5.0	8.6	4.6
22	5.2	35	21	14	18	47	18	10	2.1	3.7	12	3.9
23	4.5	26	20	12	16	29	18	8.5	2.4	12	7.6	3.4
24	3.9	21	64	11	16	24	22	7.7	2.4	50	5.6	2.9
25	3.6	21	162	9.5	16	22	19	13	2.1	16	4.7	2.7
26	3.6	19	52	8.8	14	22	68	9.9	5.5	8.8	4.1	2.6
27	12	16	33	9.6	14	21	145	10	3.2	7.5	3.8	2.5
28	84	16	27	10	13	20	61	22	1.8	115	3.6	29
29	121	64	23	11	13	17	33	15	1.9	35	3.2	491
30	110	32	22	11	---	16	26	9.6	2.9	16	2.9	102
31	38	---	20	11	---	27	---	8.7	---	10	26	---
TOTAL	480.11	1,159	1,635	489.9	1,168.7	879	1,326	508.4	187.7	549.80	582.8	782.0
MEAN	15.5	38.6	52.7	15.8	40.3	28.4	44.2	16.4	6.26	17.7	18.8	26.1
MAX	121	199	224	46	297	81	191	36	18	115	180	491
MIN	0.50	15	13	8.8	9.7	13	15	7.7	1.8	1.0	2.8	2.5

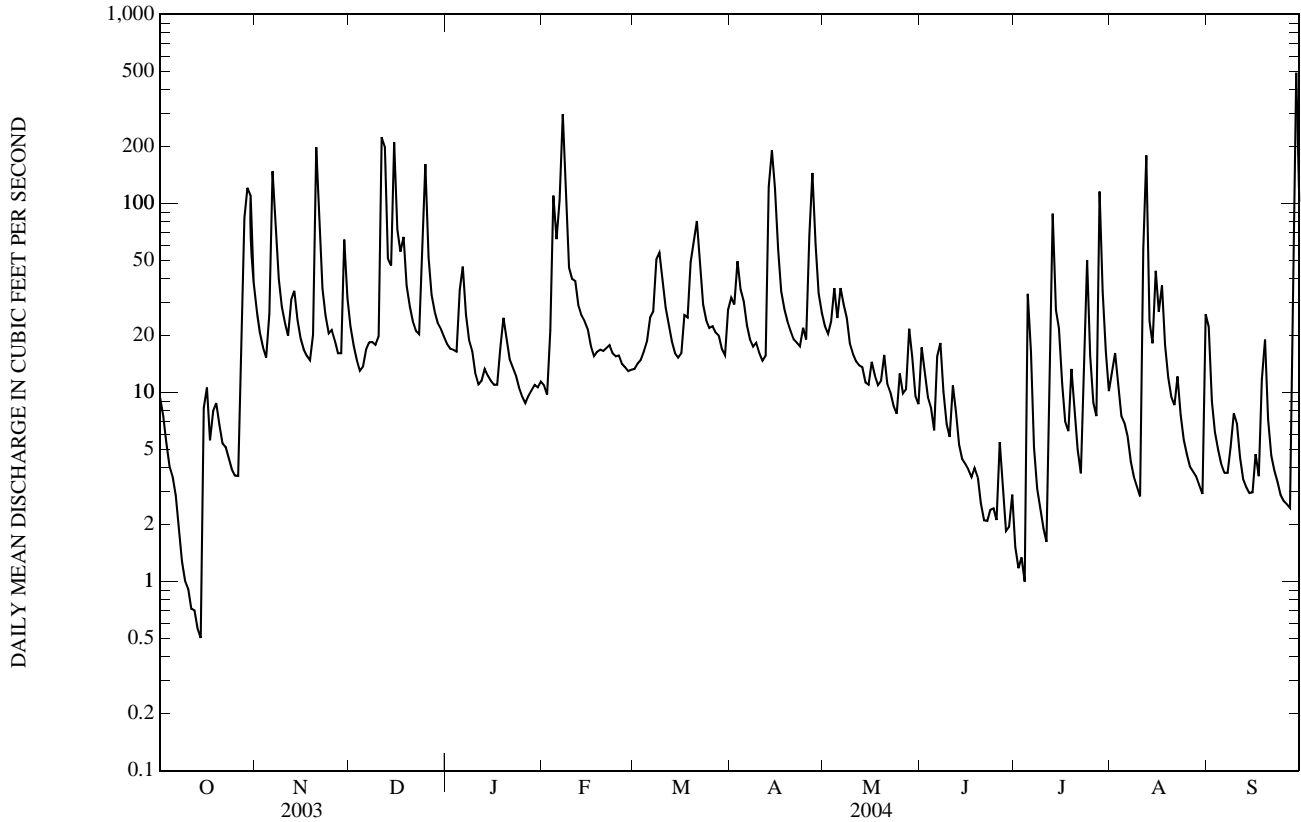
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	13.8	21.7	28.7	21.2	27.8	38.8	31.8	19.3	25.5	9.12	11.8	12.9
MAX	30.6	38.6	52.7	35.1	40.3	55.6	44.2	25.1	61.5	17.7	19.1	26.1
(WY)	(2003)	(2004)	(2004)	(2003)	(2004)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2004)
MIN	0.94	0.73	4.07	7.57	5.55	16.6	11.8	14.6	6.26	0.55	4.16	1.95
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2001)	(2004)	(2002)	(2001)	(2001)

01406050 DEEP RUN AT OLD BRIDGE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL TOTAL	12,233.21		9,748.41		21.8	
ANNUAL MEAN	33.5		26.6		8.90	
HIGHEST ANNUAL MEAN					32.8	2003
LOWEST ANNUAL MEAN					8.90	2002
HIGHEST DAILY MEAN	266	Feb 24	491	Sep 29	491	Sep 29, 2004
LOWEST DAILY MEAN	0.49	Aug 29	0.50	Oct 14	0.10	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	0.82	Oct 8	0.82	Oct 8	0.11	Nov 10, 2001
MAXIMUM PEAK FLOW			804	Sep 29	804	Sep 29, 2004
MAXIMUM PEAK STAGE			7.85	Sep 29	7.85	Sep 29, 2004
INSTANTANEOUS LOW FLOW			0.47	Oct 14	0.10	Aug 22, 2002
10 PERCENT EXCEEDS	82		55		48	
50 PERCENT EXCEEDS	19		16		11	
90 PERCENT EXCEEDS	4.1		3.2		0.94	

e Estimated



01406710 RARITAN RIVER AT SOUTH AMBOY, NJ

LOCATION.--Lat 40°29'31", long 74°16'51", Middlesex County, Hydrologic Unit 02030105, on right bank at the Werner Generating Station in South Amboy, 0.1 mi downstream from NJ Transit railroad bridge, 0.4 mi upstream from the mouth, and 1.3 mi southwest of Perth Amboy.

DRAINAGE AREA.--1,100 mi².

PERIOD OF RECORD.--August 1997 to September 1999 (unpublished fragmentary gage-height record), October 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 0.99 ft. To determine elevations to Mean Lower Low Water Datum, add 3.05 ft. (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record January 8 to February 9 and portions of numerous other days. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.55 ft (NAVD of 1988), December 25, 2002; minimum recorded, estimated at -5.5 ft (NAVD of 1988), November 29, 2003, but a lower elevation may have occurred during periods of missing record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 9.4 ft (adjusted to NAVD of 1988), December 11, 1992, from tidal crest-stage gage at Perth Amboy (station 01406700).

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.00 ft (NAVD of 1988), December 6; minimum recorded, estimated at -5.5 ft (NAVD of 1988), November 29, but a lower elevation may have occurred during periods of missing record January 8 to February 9.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	27	4.21	26	-4.22	2.41	-.12	-2.76
NOV	24	4.70	29	-5.5e	2.18	-.29	-2.91
DEC	6	5.00	26	-5.11	1.99	-.39	-2.97
JAN	---	---	---	---	---	---	---
FEB	21	3.73	10	-4.03	---	---	---
MAR	8	3.79	24	-4.37	2.05	-.25	-2.73
APR	7	3.56	5	-4.73	2.08	-.30	-2.87
MAY	5	3.87	5	-4.18	2.32	-.14	-2.77
JUN	1	4.52	4	-3.79	2.48	-.04	-2.67
JUL	2	3.88	4	-3.93	2.62	.09	-2.56
AUG	1	3.78	29	-3.87	2.59	.03	-2.64
SEP	29	4.18	1	-3.74	2.71	.26	-2.32

e Estimated

RESERVOIRS IN RARITAN RIVER BASIN

01396790 SPRUCE RUN RESERVOIR.--Lat 40°38'37", long 74°55'25", 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 mi².

PERIOD OF RECORD.-- November 1963 to current year.

REVISED RECORDS.-- WDR NJ-84-1: (M). WDR NJ-85-1: 1984.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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, 11,370,000,000 gal, Dec. 11, elevation, 273.78 ft; minimum observed, 8,690,000,000 gal, Sept. 28, elevation, 267.12 ft.

01397050 ROUND VALLEY RESERVOIR.--Lat 40°36'39", long 74°50'41", 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 mi².

PERIOD OF RECORD.-- March 1966 to current year.

REVISED RECORDS.-- WDR NJ-85-1: 1984. WDR NJ-01-1: 1996 (elevation, contents). WDR NJ-02-1: 2001 (contents), WDR NJ-04-1: (period of record maximum contents)

GAGE.-- Nonrecording gage read daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam at main dam on Prescott Brook and two dams on South Branch Rockaway Creek tributaries 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 Raritan River, South Branch Rockaway Creek, and Prescott Brook.

COOPERATION.--Records provided by New Jersey Water Supply Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,460,000,000 gal (revised), 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, 55,440,000,000 gal, July 29, elevation, 385.58 ft; minimum observed, 52,900,000,000 gal, Oct. 26, elevation, 382.40 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01396790 SPRUCE RUN RESERVOIR						
Sept. 30.....	272.96	10,980		382.65	53,130	
Oct. 31.....	273.04	11,030	+2.5	382.83	53,230	+5.0
Nov. 30.....	272.94	10,980	-2.6	383.03	53,430	+10.3
Dec. 31.....	273.02	11,020	+2.0	383.56	53,830	+20.0
CAL YR 2003			+12.8			+37.0
Jan. 31.....	271.32	10,280	-36.9	383.58	53,840	+5
Feb. 29.....	272.98	11,000	+38.4	383.83	54,030	+10.1
Mar. 31.....	272.96	10,980	-1.0	384.14	54,320	+14.5
Apr. 30.....	272.92	10,970	-5	384.64	54,670	+18.0
May 31.....	272.90	10,960	-5	384.84	54,840	+8.5
June 30.....	272.21	10,650	-16.0	385.00	55,000	+8.3
July 31.....	272.66	10,870	+11.0	385.32	55,310	+15.5
Aug. 31.....	268.61	9,240	-81.3	384.96	54,960	-17.5
Sept. 30.....	269.10	9,390	+7.7	384.96	54,960	0
WTR YR 2004			-6.7			+7.7

† Elevation at 0900 of the last day of each month.

RARITAN RIVER BASIN

DIVERSIONS IN RARITAN RIVER BASIN

01396920 Water is diverted at the Hamden Pumping Station 4.0 mi upstream from the gaging station on South Branch Raritan River at Stanton (see station 01397000) for storage in Round Valley Reservoir. Water can 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, WDR NJ-03-1: 2002

01399669 Water is also released from Round Valley Reservoir and enters the South Branch Rockaway Creek directly upstream from gaging station (01399670) at Whitehouse Station. Records provided by New Jersey Water Supply Authority.

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 Millstone River just above the Raritan 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.

01402915 (revised) Elizabethtown Water Company diverts water from the Raritan River just downstream from the mouth of the Millstone River at Manville. In October 1996, the intake was relocated from just upstream of mouth to the present location. Previous to the 2003 water year, records were published as 01400509 Raritan and Millstone Rivers. Records provided by the Elizabethtown Water Company. REVISED RECORDS.-- WDR NJ-91-1: 1992.

01405029 Water is diverted from Lawrence Brook at Westons Mills, just upstream of gaging station (01405030), by City of New Brunswick (since 1873), for municipal supply. Records provided by City of New Brunswick Water Department.

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 2003 TO SEPTEMBER 2004

MONTH	<u>01396920</u> Hamden pumping station	<u>01399669</u> Whitehouse Release	<u>01400836</u> Carnegie Lake	<u>01402910</u> Ten Mile Lock diversion	<u>01402915</u> Raritan River	<u>01405029</u> Westons Mills	<u>01460570</u> Delaware and Raritan Canal
October.....	0	0	0	-38.6	179	1.98	4.52
November.....	0	0	0	-42.0	155	1.07	9.22
December.....	0	0	0	-52.5	161	.38	9.62
CAL YR 2003	24.8	0	0	-30.5	176	1.77	19.6
January.....	0	0	0	-39.5	191	2.82	0
February.....	0	0	0	-45.1	193	3.05	0
March.....	0	0	0	-45.6	189	2.12	0
April.....	0	0	0	-53.1	190	2.75	0
May.....	0	0	0	-33.6	204	3.86	0
June.....	0	2.53	0	-20.9	211	4.10	13.6
July.....	0	13.0	0	-14.1	206	3.93	23.8
August.....	0	12.1	0	-27.0	208	3.32	9.91
September.....	-11.0	0	0	-36.8	215	3.93	1.70
WTR YR 2004	-90	2.33	0	-37.3	192	2.77	6.06

01407080 WAACKAACK CREEK AT KEANSBURG, NJ

LOCATION.--Lat 40°26'55", long 74°08'51", Monmouth County, Hydrologic Unit 02030104, on left bank just upstream of Bayshore Flood Control Station in Keansburg, 200 ft upstream from tide gate, 0.3 mi downstream from bridge on Laurel Avenue, and 1.3 mi east of Union Beach.

DRAINAGE AREA.--8.03 mi².

PERIOD OF RECORD.--September 1997 to January 2000 (unpublished fragmentary gage-height record), February 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate corresponding NGVD of 1929 elevation, add 1.18 ft. To determine approximate corresponding Mean Lower Low Water datum, add 3.10 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record December 6-7, January 5, July 20 to August 8, August 12-17, and portions of numerous other days. Ice effect evident January 9 to February 13. Gage was damaged in boat collision July 20. Prior to August 16, 2004, gage could not measure tide levels below -2.62 ft (NAVD of 1988); after August 16, 2004, gage cannot measure tide levels below -3.30 ft (NAVD of 1988). Monthly minimum elevations, monthly mean low tides, and monthly mean water levels are undetermined for this period. Regulation by tide gate and pumps at Bayshore Flood Control Station. Bay Shore Flood Control Station construction began June 19, 1970 and was completed January 18, 1973. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 3.44 ft (NAVD of 1988), September 20, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known elevation, 7.9 ft (adjusted to NAVD of 1988), November 25, 1950, from high-water mark in Keansburg (prior to installation of flood gate), published in report entitled "Tidal Flood Plain Information - Sandy Hook Bay and Raritan Bay Shore Areas, Monmouth County, New Jersey", July 1972, by the U.S. Army Corp of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 3.30 ft (NAVD of 1988), September 18, although a higher elevation may have occurred during period of missing record in December.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	26	3.13	---	---	2.26	---	---
NOV	4	3.22	---	---	2.00	---	---
DEC	---	---	---	---	1.72	---	---
JAN	---	---	---	---	---	---	---
FEB	20	3.15	---	---	---	---	---
MAR	21	3.14	---	---	1.86	---	---
APR	7	3.06	---	---	2.00	---	---
MAY	4	3.14	---	---	2.18	---	---
JUN	1	3.14	---	---	2.29	---	---
JUL	4	3.13	---	---	---	---	---
AUG	29	3.19	---	---	---	---	---
SEP	18	3.30	---	---	---	---	---

e Estimated

01407081 RARITAN BAY AT KEANSBURG, NJ

LOCATION.--Lat 40°26'57", long 74°08'51", Monmouth County, Hydrologic Unit 02030104, on south bank at Bayshore Flood Control Station in Keansburg, 20 ft downstream from tide gate, 0.3 mi downstream from bridge over Waackaack Creek on Laurel Avenue, and 1.3 mi east of Union Beach.

PERIOD OF RECORD.--September 1997 to October 2000 (unpublished fragmentary gage-height record), November 2000 to current year.

GAGE.--Water-stage, air temperature, water temperature, wind speed and direction, barometric pressure, and precipitation recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate corresponding NGVD of 1929 elevation, add 1.18 ft. To determine approximate corresponding Mean Lower Low Water datum, add 3.10 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record Oct. 17-19, Dec. 9-10, Dec.25 - Mar. 14, Mar. 16-19, Mar. 22, Aug. 5, and portions of numerous other days. Ice effect not noted for period, but likely occurred during period of missing record in January and February. Bay Shore Flood Control Station construction began June 19, 1970 and was completed January 18, 1973. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage and weather telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.46 ft (NAVD of 1988), Dec. 25, 2002. Minimum recorded elevation, -5.76 ft (NAVD of 1988), December 12, 2000.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum known elevation, 7.9 ft (adjusted to NAVD of 1988), Nov. 25, 1950, from high-water mark in Keansburg (prior to installation of flood gate), published in Tidal Flood Plain Information - Sandy Hook Bay and Raritan Bay Shore Areas, Monmouth County, New Jersey, July 1972, by the U.S. Army Corp of Engineers.

EXTREMES FOR CURRENT WATER YEAR.-- Maximum elevation recorded, 4.97 ft (NAVD of 1988), Dec. 6. Minimum elevation recorded, -5.30 ft (NAVD of 1988), Nov. 29.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	27	4.11	26	-4.07	2.5e	-0.1e	-2.8e
NOV	24	4.58	29	-5.30	2.11	-0.29	-2.78
DEC	6	4.97	---	---	---	---	---
JAN	---	---	---	---	---	---	---
FEB	---	---	---	---	---	---	---
MAR	---	---	7	-3.84	---	---	---
APR	7	3.44	5	-4.24	1.98	-0.25	-2.83
MAY	5	3.75	5	-4.08	2.18	-0.21	-2.70
JUN	1	4.37	4	-3.64	2.37	-0.06	-2.58
JUL	2	3.80	4	-3.75	2.48	0.04	-2.49
AUG	1	3.69	2	-3.72	2.43	0.02	-2.54
SEP	29	4.24	1	-3.56	2.63	0.25	-2.22

e Estimated

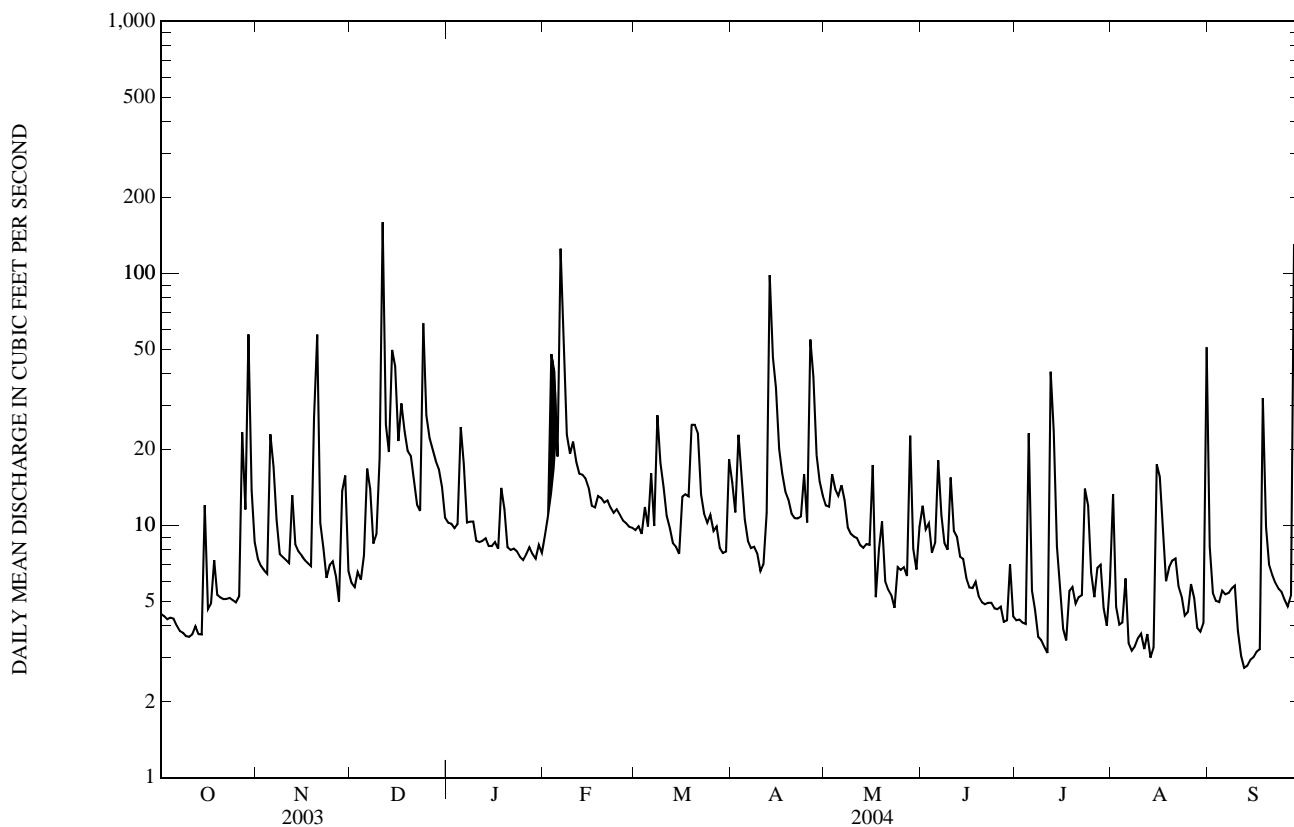


01397000 South Branch Raritan River at Stanton, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01407290 BIG BROOK NEAR MARLBORO, NJ—Continued

SUMMARY STATISTICS	FOR AUG 11 TO DEC 31		FOR 2004 WATER YEAR		WATER YEARS 2003 - 2004	
ANNUAL TOTAL			4,610.1			
ANNUAL MEAN			12.6		12.6	
HIGHEST ANNUAL MEAN					12.6	2004
LOWEST ANNUAL MEAN					12.6	2004
HIGHEST DAILY MEAN	160	Dec 11	160	Dec 11	160	Dec 11, 2003
LOWEST DAILY MEAN	3.6	Aug 29, Sep 22	2.7	Sep 12	2.7	Sep 12, 2004
ANNUAL SEVEN-DAY MINIMUM			3.0	Sep 11	3.0	Sep 11, 2004
MAXIMUM PEAK FLOW	416	Dec 11	804	Sep 28	1,370	Sep 20, 1989
MAXIMUM PEAK STAGE	14.81	Dec 11	17.16	Sep 28	20.16ab	Sep 20, 1989
INSTANTANEOUS LOW FLOW	3.0	Aug 28	2.3	Sep 12	2.3c	Sep 12, 2004
10 PERCENT EXCEEDS			23		23	
50 PERCENT EXCEEDS			8.3		8.3	
90 PERCENT EXCEEDS			4.1		4.1	

- a From crest-stage gage
- b Adjusted to current datum
- c From August 12, 2003 to current
- e Estimated



SHREWSBURY RIVER BASIN

01407500 SWIMMING RIVER NEAR RED BANK, NJ

LOCATION.--Lat 40°19'11", long 74°06'56" (revised), Monmouth County, Hydrologic Unit 02030104, on left bank 50 ft upstream from spillway at Swimming River Reservoir, 1,000 ft upstream of bridge on Swimming River Road, 3.3 mi southwest of Red Bank, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi².

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 NGVD of 1929. 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.--Records good, except those below 200 ft³/s which are fair. Records given herein represent flow over spillway and flow or leakage through blowoff gates. Flow regulated by and diversions from Swimming River Reservoir for municipal supply (see Reservoirs and Diversions in Atlantic Coastal Basins). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	37	39	44	30	33	115	61	44	0.05	9.8	6.8
2	16	32	33	46	29	35	86	55	34	0.05	15	4.9
3	13	33	29	48	60	35	141	74	31	0.05	15	2.9
4	11	35	29	48	401	41	105	92	25	0.05	13	1.7
5	10	48	39	89	182	44	89	64	20	0.05	12	0.64
6	8.2	209	65	109	446	61	52	80	66	0.05	9.9	0.13
7	7.1	108	45	55	781	53	49	73	48	0.05	6.4	0.05
8	7.2	45	41	37	236	97	49	53	29	0.05	3.9	0.16
9	7.2	31	37	38	96	105	51	40	20	0.05	2.1	0.86
10	7.9	30	39	32	85	83	43	36	16	0.05	0.89	1.0
11	7.7	30	727	32	88	58	41	35	29	0.05	0.23	0.52
12	7.9	54	354	32	71	42	49	33	24	0.05	0.07	0.19
13	8.6	47	117	35	62	32	473	34	17	1.9	0.05	0.05
14	7.6	20	132	33	56	32	508	31	14	8.7	0.05	0.05
15	15	20	436	38	51	32	284	31	12	18	1.7	0.05
16	14	22	145	34	42	44	138	58	8.8	19	5.0	0.05
17	13	26	128	34	40	80	93	37	6.9	16	10	0.05
18	14	27	141	51	44	63	78	37	5.9	12	9.6	1.5
19	14	44	94	75	44	118	73	38	4.3	13	7.8	7.1
20	13	483	74	47	44	127	57	46	2.3	11	5.6	5.9
21	12	168	56	34	45	152	52	34	1.2	7.3	3.8	4.6
22	10	73	45	35	44	92	53	32	0.39	3.6	3.4	3.3
23	9.5	46	48	32	36	58	53	25	0.11	3.0	2.2	2.0
24	8.0	41	211	29	41	43	96	21	0.05	16	1.1	1.2
25	7.4	43	307	25	42	49	59	30	0.05	15	0.39	0.51
26	7.4	39	104	28	35	50	183	27	0.05	12	0.06	0.13
27	11	37	72	33	35	49	328	29	0.05	9.1	0.05	0.05
28	82	43	63	47	35	43	129	75	0.05	13	0.05	25
29	296	147	57	39	34	37	85	41	0.05	13	0.05	1,220
30	167	53	55	35	---	35	70	25	0.05	10	0.05	168
31	52	---	44	32	---	103	---	23	---	8.3	2.0	---
TOTAL	883.7	2,071	3,806	1,326	3,235	1,926	3,682	1,370	459.25	210.50	141.24	1,459.39
MEAN	28.5	69.0	123	42.8	112	62.1	123	44.2	15.3	6.79	4.56	48.6
MAX	296	483	727	109	781	152	508	92	66	19	15	1,220
MIN	7.1	20	29	25	29	32	41	21	0.05	0.05	0.05	0.05

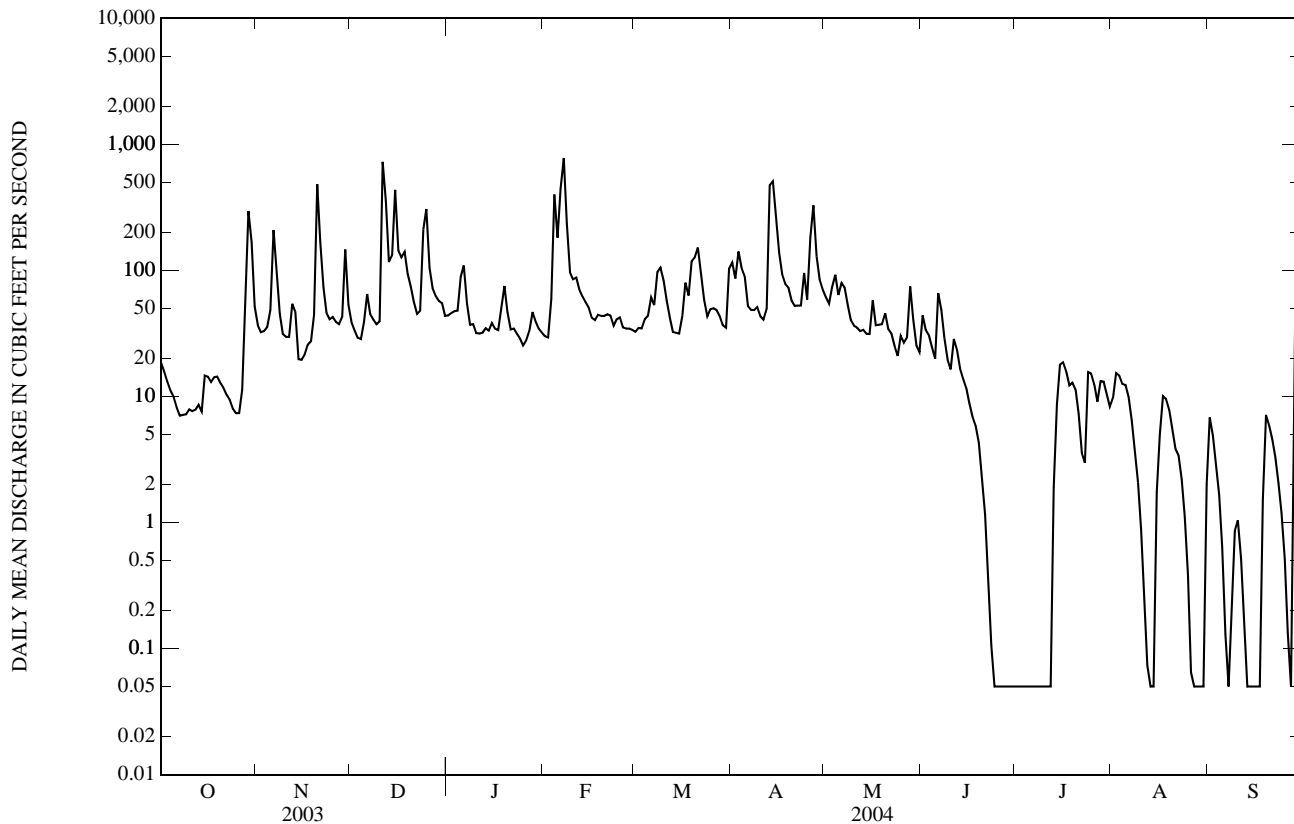
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	37.2	52.9	66.9	77.5	89.4	102	90.3	68.5	47.2	37.4	36.0	36.4
MAX	163	208	196	248	201	216	209	227	154	187	128	210
(WY)	(1944)	(1973)	(1978)	(1978)	(1979)	(1994)	(1980)	(1998)	(2003)	(1938)	(1955)	(1938)
MIN	0.00	0.00	0.00	0.00	0.05	0.53	1.53	4.07	0.00	0.00	0.00	0.00
(WY)	(1971)	(1981)	(1981)	(1981)	(2002)	(2002)	(2002)	(1985)	(1985)	(1966)	(1957)	(1980)

01407500 SWIMMING RIVER NEAR RED BANK, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	29,867.10		20,570.08		61.7	
ANNUAL MEAN	81.8		56.2		3.30	
HIGHEST ANNUAL MEAN					123	1928
LOWEST ANNUAL MEAN					3.30	2002
HIGHEST DAILY MEAN	961	Feb 23	1,220	Sep 29	3,050	Oct 27, 1943
LOWEST DAILY MEAN	0.05	Aug 27	0.05	Many days.	0.00	Many days.
ANNUAL SEVEN-DAY MINIMUM	0.06	Aug 26	0.05	Many days.	0.00	Many days.
MAXIMUM PEAK FLOW			2,040	Sep 29	8,910a	Oct 27, 1943
MAXIMUM PEAK STAGE			6.35	Sep 29	8.96	Oct 27, 1943
INSTANTANEOUS LOW FLOW			0.05	Many days.	0.00	Many days.
10 PERCENT EXCEEDS	192		108		120	
50 PERCENT EXCEEDS	46		34		43	
90 PERCENT EXCEEDS	10		0.13		0.05	

a From rating curve extended above 1,000 ft³/s on basis of weir formula, site and datum then in use.



SHREWSBURY RIVER BASIN

01407600 SHREWSBURY RIVER AT SEA BRIGHT, NJ

LOCATION.--Lat 40°21'55", long 73°58'29", Monmouth County, Hydrologic Unit 02030104, on right upstream wingwall of bridge on Rumson Road (County Route 520) in Sea Bright, 0.5 mi downstream of Gunning Island, and 3.3 mi south of Sandy Hook Bay.

PERIOD OF RECORD.--August 1997 to December 1999 (unpublished fragmentary gage-height record), January 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.20 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.19 ft (revised to Tidal Epoch 1983-2001).

REMARKS.-- Missing gage-height record November 22-24, September 8-19, and short portions of other days. Ice effect was evident January 10 to February 12. Gage cannot measure tide levels below -1.92 ft (NAVD of 1988). All monthly minimum elevations, and most monthly mean low tides and monthly mean water levels are undetermined. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum recorded, 4.48 ft (NAVD of 1988), December 6, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.7 ft (adjusted to NAVD of 1988), December 11, 1992, from high-water mark near the intersection of County Route 520 and Ocean Drive in Sea Bright.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.48 ft (NAVD of 1988), December 6.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.06	---	---	1.66	---	---
NOV	---	---	---	---	1.4e	---	---
DEC	6	4.48	---	---	1.41	---	---
JAN	---	---	---	---	---	---	---
FEB	21	2.75	---	---	---	---	---
MAR	17	3.12	---	---	1.41	---	---
APR	13	2.70	---	---	1.46	---	---
MAY	31	2.71	---	---	1.53	---	---
JUN	1	3.22	---	---	1.69	---	---
JUL	2	2.66	---	---	1.76	---	---
AUG	30	2.58	---	---	1.72	---	---
SEP	29	3.81	---	---	---	---	---

e Estimated



01398000 Neshanic River at Reaville, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°11'55", long 74°04'12", 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.

DRAINAGE AREA.--9.96 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 7.05 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges which are poor. Discharge reported is flow over the control only and does not include water returned to the river below the control. Diversion above station by New Jersey-American Water Co. for municipal supply (See Atlantic Coastal basin diversions) and by farmers for irrigation. Entire flow from 0.34 mi² of drainage area, subsequent to November 1962, 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 Atlantic Coastal Basins, diversions from). Several measurements of water temperature were made during the year.

COOPERATION.--Water-stage recorder inspected by New Jersey-American Water Co.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	11	11	11	e6.2	11	46	14	9.5	2.8	32	3.7
2	3.8	9.6	8.2	10	e6.2	12	26	14	3.3	3.7	4.2	3.5
3	7.4	6.8	7.6	10	e40	8.9	55	18	4.5	2.9	3.7	2.8
4	4.7	6.1	6.6	10	76	11	31	23	3.3	2.5	2.7	2.4
5	2.7	12	17	19	31	8.3	24	18	3.7	8.4	4.1	2.4
6	1.8	22	21	17	116	22	17	18	22	3.3	3.5	2.4
7	3.9	21	16	12	164	16	15	15	8.0	3.7	3.1	3.5
8	4.4	10	14	9.4	52	36	14	11	5.5	3.1	4.3	7.0
9	4.7	6.8	14	9.1	23	24	14	9.8	4.1	2.5	5.8	2.9
10	4.7	9.6	20	6.4	22	20	13	9.2	5.1	2.6	2.3	3.4
11	4.9	9.8	169	5.6	21	15	13	8.8	8.1	6.3	3.5	2.2
12	24	19	71	7.0	19	13	15	10	4.8	37	3.1	2.0
13	9.5	11	25	8.7	17	12	154	12	4.0	57	5.1	2.8
14	5.8	6.8	45	7.6	17	11	100	9.6	5.6	13	2.9	2.7
15	35	5.1	75	7.9	15	11	63	7.2	4.0	14	32	2.9
16	7.9	4.1	28	10	14	18	31	6.5	3.3	3.0	12	6.1
17	6.8	4.6	38	11	13	22	21	6.2	4.2	5.4	7.1	4.2
18	7.1	4.5	36	18	14	19	19	6.7	3.2	4.4	4.4	5.1
19	4.2	19	19	17	14	47	17	7.0	1.4	3.0	3.6	0.73
20	3.3	118	15	13	13	46	16	7.1	0.94	3.0	2.2	2.1
21	3.6	33	13	e9.5	14	43	16	1.8	1.1	2.4	20	2.4
22	3.7	15	12	e8.5	13	22	15	1.9	1.2	3.2	8.7	2.1
23	6.1	12	12	e7.7	13	17	16	1.9	3.7	6.8	2.7	2.1
24	6.2	11	70	e6.9	12	15	47	3.2	3.9	4.3	2.2	2.1
25	5.1	12	53	e6.2	12	15	19	5.0	3.4	2.8	2.0	2.3
26	3.7	10	20	e6.3	12	14	55	3.3	3.9	2.4	2.7	2.2
27	16	8.9	16	e6.6	11	13	86	3.7	3.1	5.0	3.3	2.4
28	21	13	13	e7.2	11	12	33	3.9	3.0	4.2	3.4	22
29	86	35	13	e6.7	11	12	19	3.7	3.3	3.9	3.0	202
30	31	15	12	e6.6	---	11	16	2.6	3.3	4.1	3.5	31
31	14	---	12	e6.3	---	61	---	6.0	---	4.4	36	---
TOTAL	347.4	481.7	902.4	298.2	802.4	618.2	1,026	268.1	138.44	225.1	229.1	335.43
MEAN	11.2	16.1	29.1	9.62	27.7	19.9	34.2	8.65	4.61	7.26	7.39	11.2
MAX	86	118	169	19	164	61	154	23	22	57	36	202
MIN	1.8	4.1	6.6	5.6	6.2	8.3	13	1.8	0.94	2.4	2.0	0.73

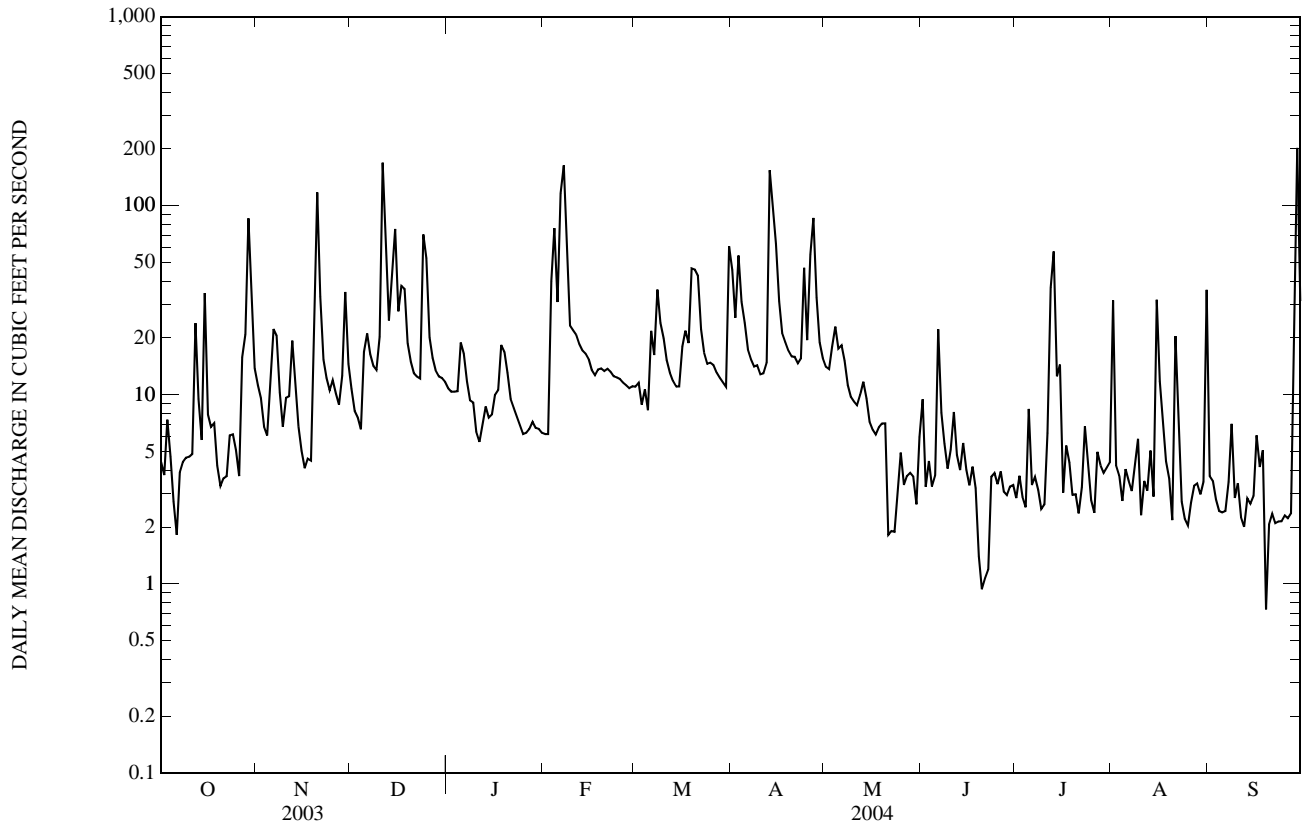
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	10.1	13.0	16.8	17.7	16.5	22.3	19.8	15.9	10.0	9.45	10.7	9.09
MAX	34.0	31.7	44.2	41.1	42.4	56.3	48.3	50.9	37.0	30.1	29.2	22.6
(WY)	(1990)	(1978)	(1970)	(1978)	(1998)	(1993)	(1983)	(1998)	(2003)	(1984)	(1992)	(1989)
MIN	2.81	1.73	4.07	3.57	3.56	6.53	6.39	3.51	2.13	2.39	3.11	1.28
(WY)	(1982)	(1982)	(1999)	(1981)	(2002)	(1986)	(1985)	(1986)	(1986)	(2002)	(1995)	(1988)

01407705 SHARK RIVER NEAR NEPTUNE CITY, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	7,109.0		5,672.47			
ANNUAL MEAN	19.5		15.5		14.3	
HIGHEST ANNUAL MEAN					24.9	1984
LOWEST ANNUAL MEAN					6.27	2002
HIGHEST DAILY MEAN	169	Dec 11	202	Sep 29	560	Dec 26, 1969
LOWEST DAILY MEAN	1.8	Oct 6	0.73	Sep 19	0.00	Sep 20, 1981
ANNUAL SEVEN-DAY MINIMUM	2.4	Aug 23	2.0	Sep 19	0.70	Sep 26, 1988
MAXIMUM PEAK FLOW			403	Sep 29	1,170	Aug 18, 1992
MAXIMUM PEAK STAGE			5.26	Sep 29	6.59	Aug 18, 1992
INSTANTANEOUS LOW FLOW			0.00	Many days	0.00a	Many days
10 PERCENT EXCEEDS	52		32		28	
50 PERCENT EXCEEDS	11		9.3		7.8	
90 PERCENT EXCEEDS	4.0		2.7		2.6	

a First occurrence of 0.00 cfs on Aug 20, 1978
 e Estimated



01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'12", long 74°03'57", Monmouth County, Hydrologic Unit 02030104, on left bank 100 ft downstream from dam on Jumping Brook Reservoir, 500 ft upstream of bridge on Old Corlies Avenue, 0.8 mi upstream from mouth, and 1.4 mi west of Neptune City.

DRAINAGE AREA.--6.46 mi².

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 Water Science Center.

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 NGVD of 1929.

REMARKS.--Records good, except discharges above 300 ft³/s which are fair. Diversion above station by New Jersey-American Water Co. for municipal supply (see Atlantic Coastal Basins, diversions) and by farmers and golf courses for irrigation. Several measurements of water temperature 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.5	5.6	5.7	3.9	4.5	23	8.3	11	1.7	26	7.6
2	3.6	5.5	4.9	5.6	3.9	4.8	16	7.9	5.5	2.9	7.8	4.3
3	3.3	5.0	6.6	5.4	46	4.6	32	12	5.2	1.7	4.3	3.3
4	3.2	5.0	4.4	5.4	48	6.8	16	13	4.1	1.7	3.1	3.0
5	3.5	10	11	14	14	5.5	13	8.9	5.0	8.7	2.7	2.8
6	3.1	17	14	9.8	143	16	9.0	11	29	4.2	2.3	2.7
7	2.8	13	9.5	5.9	77	8.9	7.3	9.9	8.7	2.4	2.0	3.3
8	2.8	6.7	7.8	5.3	19	19	6.9	7.3	5.0	1.8	1.9	9.1
9	3.1	5.4	7.8	5.1	11	13	7.2	6.7	3.7	1.7	1.9	7.2
10	3.1	5.1	12	4.3	10	10	6.1	6.4	5.9	1.5	1.8	4.3
11	3.0	4.9	121	4.3	9.2	7.4	6.2	6.1	5.6	1.4	2.0	3.2
12	20	14	19	4.7	7.4	5.9	8.7	7.3	3.5	30	2.0	3.0
13	7.6	7.7	11	5.0	6.8	5.2	136	6.7	2.9	50	3.9	2.8
14	4.4	5.3	21	4.4	6.5	5.0	45	5.7	2.8	14	4.0	2.6
15	32	4.9	31	4.6	6.4	4.9	27	5.7	2.6	15	32	2.7
16	7.5	4.7	11	5.0	5.4	11	15	5.5	2.5	5.0	16	4.3
17	6.0	4.8	20	4.7	5.2	15	11	5.2	2.8	6.1	12	3.0
18	6.3	4.9	19	11	5.9	10	9.5	5.5	3.3	6.2	5.3	6.3
19	4.7	16	9.4	11	5.9	26	8.7	6.0	2.3	4.1	4.2	3.9
20	4.1	67	7.7	6.1	5.5	19	8.1	5.9	2.0	3.1	3.3	2.8
21	3.9	14	6.5	5.0	5.6	17	7.9	5.1	2.0	2.6	17	2.9
22	3.8	9.0	6.2	4.8	5.3	9.5	7.4	4.8	1.9	2.3	12	2.4
23	3.5	7.0	6.1	4.5	5.1	7.3	9.1	4.5	2.1	7.3	4.2	2.4
24	3.4	6.2	45	4.2	5.2	7.2	24	4.2	1.9	5.7	3.0	2.2
25	3.2	6.9	21	3.8	5.0	7.0	9.9	4.3	2.2	3.1	2.5	2.1
26	3.4	5.3	11	3.9	4.7	6.4	31	4.3	1.9	2.6	2.3	2.2
27	12	5.0	8.3	4.2	4.9	6.4	43	4.4	1.7	4.2	2.1	2.1
28	15	7.4	6.9	4.7	4.5	5.8	16	5.3	1.8	4.8	2.1	26
29	61	17	6.8	4.3	4.5	5.4	11	4.5	3.2	3.1	1.9	244
30	13	6.9	6.7	4.2	---	5.2	9.6	3.8	1.8	3.0	2.0	16
31	8.1	---	5.9	4.0	---	40	---	6.9	---	5.8	28	---
TOTAL	258.3	298.1	484.1	174.9	484.8	319.7	580.6	203.1	133.9	207.7	215.6	384.5
MEAN	8.33	9.94	15.6	5.64	16.7	10.3	19.4	6.55	4.46	6.70	6.95	12.8
MAX	61	67	121	14	143	40	136	13	29	50	32	244
MIN	2.8	4.7	4.4	3.8	3.9	4.5	6.1	3.8	1.7	1.4	1.8	2.1

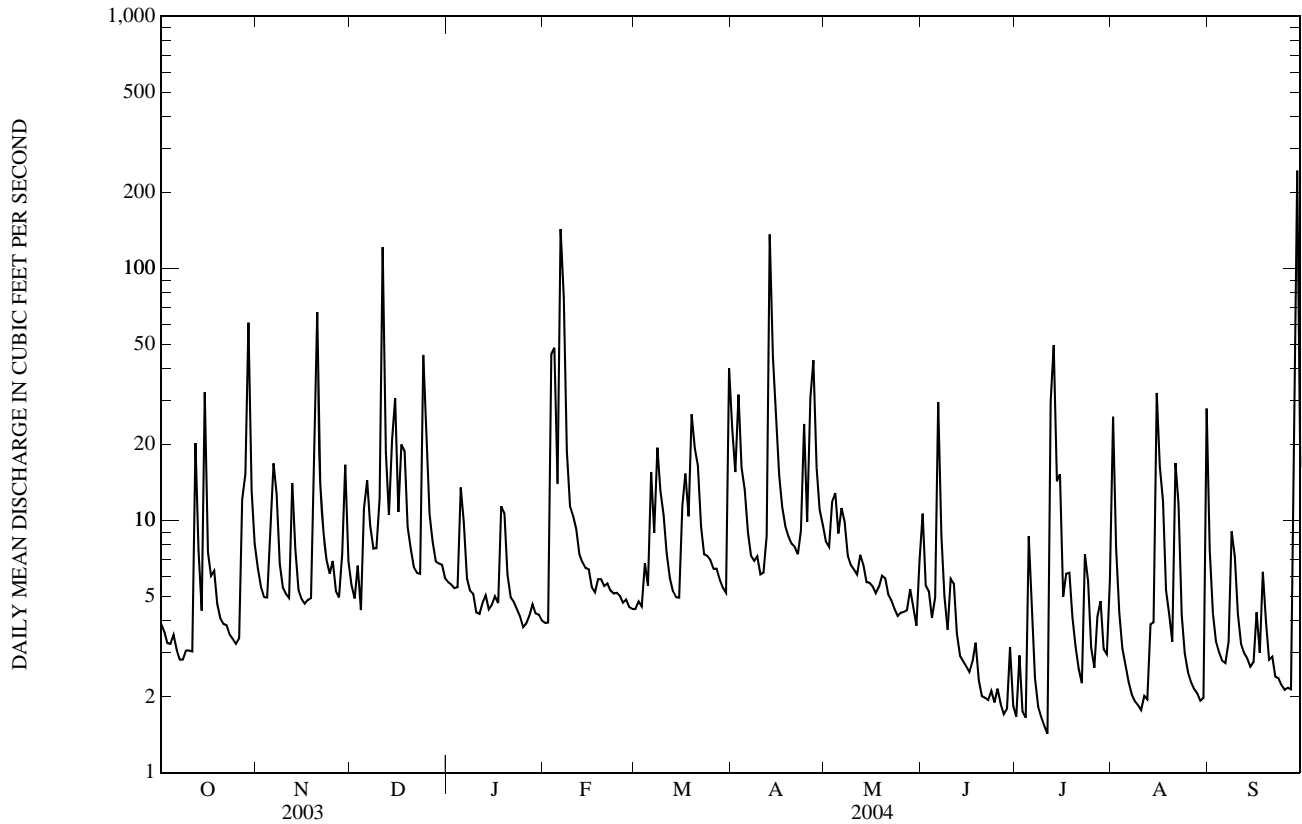
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	7.17	8.75	10.5	12.3	11.6	14.3	13.8	11.9	7.48	7.06	7.53	7.11
MAX	34.5	47.4	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	3.40	3.86	3.29	2.08	2.11	1.90	1.52	1.25
(WY)	(1982)	(1982)	(1981)	(1981)	(2002)	(1985)	(1985)	(1977)	(1986)	(2002)	(1982)	(1982)

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	4,481.6		3,745.3		9.96	
ANNUAL MEAN	12.3		10.2		20.4	
HIGHEST ANNUAL MEAN					4.05	1979
LOWEST ANNUAL MEAN					0.12	1981
HIGHEST DAILY MEAN	168	Feb 23	244	Sep 29	954	Jan 21, 1979
LOWEST DAILY MEAN	2.4	Aug 27	1.4	Jul 11	0.51	Sep 15, 1981
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 22	1.9	Jun 22	0.51	Oct 7, 1966
MAXIMUM PEAK FLOW			642	Sep 29	1,830 ^a	Sep 12, 1971
MAXIMUM PEAK STAGE			6.57	Sep 29	7.43	Aug 18, 1992
INSTANTANEOUS LOW FLOW			1.4	Jul 10-12	0.00	Jun 7, 1971
10 PERCENT EXCEEDS	26		19		18	
50 PERCENT EXCEEDS	6.8		5.5		4.9	
90 PERCENT EXCEEDS	3.6		2.4		2.0	

a From rating curve extended above 150 ft³/s.



MANASQUAN RIVER BASIN

01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'41", Long 74°09'17", Monmouth County, Hydrologic Unit 02040104, on right bank 50 ft upstream from northbound bridge on County Route 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi².

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 NGVD of 1929. 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 ft³/s, which are fair. Several measurements of water temperature were made during the year. Since 1990, 3.18 mi² of the basin is controlled by Manasquan Reservoir located on Timber Swamp Brook (see Reservoirs in Atlantic Coastal Basins). Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	1145	605	5.60	Apr 14	0445	662	5.90
Dec 11	2200	1,010	7.24	Sep 29	1300	*1,170	*7.77
Feb 7	0445	1,140	7.66				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

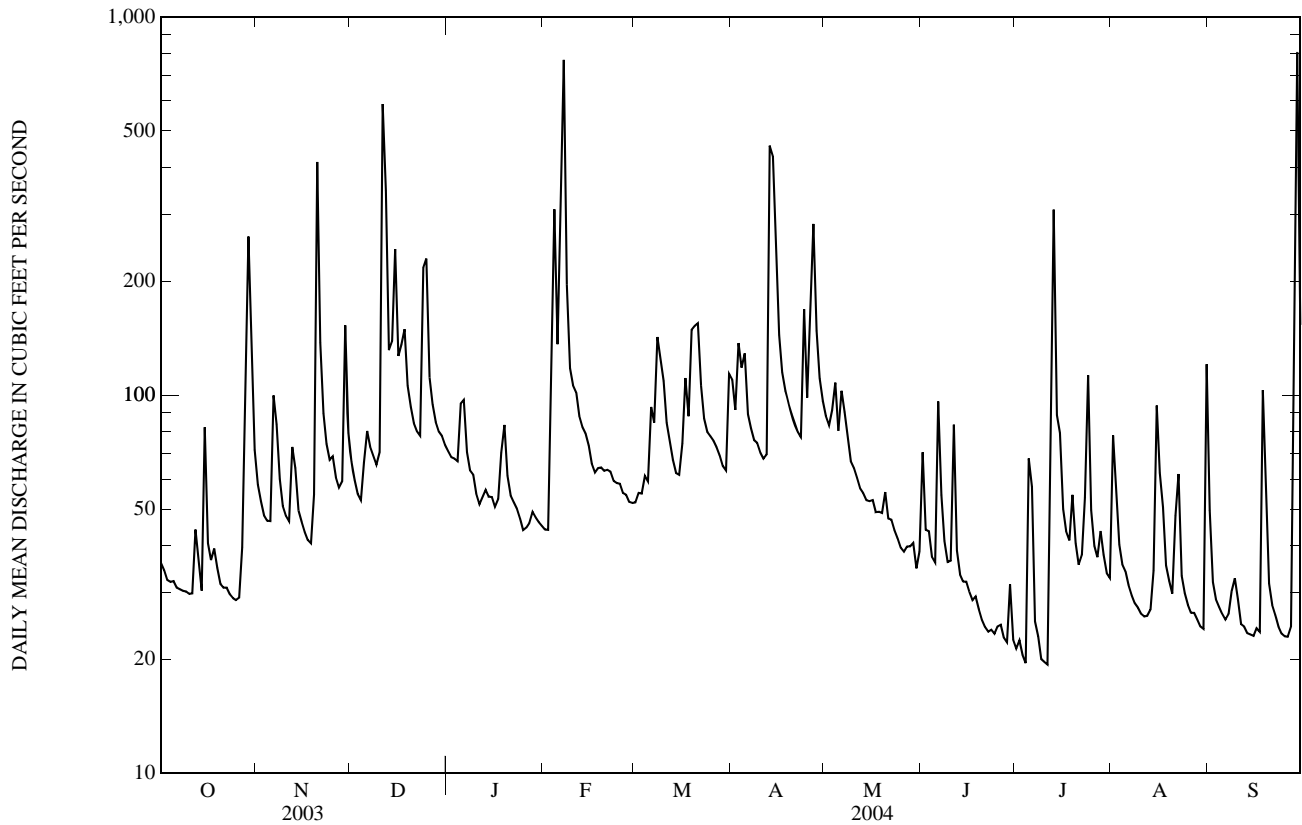
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	58	67	71	44	52	110	88	71	21	78	50
2	34	53	60	69	44	55	91	83	44	22	55	32
3	32	48	55	68	90	55	137	91	44	21	40	29
4	32	47	53	67	310	61	118	108	37	20	36	28
5	32	46	66	95	136	59	129	80	36	68	34	26
6	31	100	80	97	326	93	89	103	96	57	31	26
7	31	84	73	71	770	85	82	90	54	25	30	26
8	30	60	69	63	196	142	76	77	41	23	28	30
9	30	51	66	62	118	124	75	67	36	20	27	33
10	30	48	71	55	106	109	70	64	36	20	26	29
11	30	46	589	51	102	85	68	61	84	19	26	25
12	44	73	347	54	88	76	70	57	39	79	26	24
13	37	64	132	56	82	68	457	55	34	309	27	23
14	30	50	139	54	79	62	428	53	32	89	34	23
15	82	46	243	54	74	62	230	52	32	79	94	23
16	41	44	127	51	66	75	144	53	30	50	62	24
17	37	41	136	53	62	111	115	49	29	44	51	24
18	39	41	149	70	64	88	103	49	29	41	35	103
19	35	55	106	83	64	149	95	49	27	55	32	59
20	32	414	93	61	63	152	89	55	25	41	30	32
21	31	138	84	54	63	155	85	47	24	36	48	28
22	31	90	80	52	63	106	80	47	24	38	62	26
23	30	74	78	50	59	87	78	44	24	54	33	24
24	29	67	217	47	59	80	169	42	23	113	30	23
25	29	69	230	44	58	78	99	40	24	50	28	23
26	29	61	111	45	55	76	178	39	25	40	27	23
27	40	57	95	46	55	73	284	40	23	37	27	24
28	112	59	85	49	52	69	148	40	22	44	26	87
29	263	153	80	48	52	65	111	41	32	38	24	806
30	129	79	78	46	---	63	97	35	23	34	24	153
31	72	---	74	45	---	114	---	39	---	33	121	---
TOTAL	1,520	2,316	3,933	1,831	3,400	2,729	4,105	1,838	1,100	1,620	1,252	1,886
MEAN	49.0	77.2	127	59.1	117	88.0	137	59.3	36.7	52.3	40.4	62.9
MAX	263	414	589	97	770	155	457	108	96	309	121	806
MIN	29	41	53	44	44	52	68	35	22	19	24	23
CFSM	1.11	1.75	2.88	1.34	2.66	2.00	3.11	1.35	0.83	1.19	0.92	1.43
IN.	1.29	1.96	3.33	1.55	2.87	2.31	3.47	1.55	0.93	1.37	1.06	1.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

	50.3	68.3	80.9	88.7	94.9	112	99.3	78.4	57.9	51.0	50.2	51.4
MEAN	50.3	68.3	80.9	88.7	94.9	112	99.3	78.4	57.9	51.0	50.2	51.4
MAX	130	231	212	218	214	221	218	204	144	200	108	183
(WY)	(1972)	(1978)	(1978)	(1979)	(1979)	(1984)	(1983)	(1998)	(2003)	(1938)	(1948)	(1938)
MIN	20.9	19.2	24.3	30.7	27.7	47.2	38.6	38.8	26.6	17.9	16.7	16.7
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(1985)	(1995)	(1955)	(1957)	(2002)	(1932)	(1932)

01408000 MANASQUAN RIVER AT SQUANKUM, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	30,818		27,530		73.5	
ANNUAL MEAN	84.4		75.2		131	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					31.9	
HIGHEST DAILY MEAN	589	Dec 11	806	Sep 29	1,720	Nov 8, 1977
LOWEST DAILY MEAN	26	Aug 28	19	Jul 11	10	Dec 5, 1998
ANNUAL SEVEN-DAY MINIMUM	29	Aug 23	23	Jun 28	11	Aug 13, 2002
MAXIMUM PEAK FLOW			1,170	Sep 29	2,940	Sep 21, 1938
MAXIMUM PEAK STAGE			7.77	Sep 29	12.45	Sep 21, 1938
INSTANTANEOUS LOW FLOW			18	Jul 12	8.1	Aug 6, 1981
ANNUAL RUNOFF (CFSM)	1.92		1.71		1.67	
ANNUAL RUNOFF (INCHES)	26.06		23.28		22.70	
10 PERCENT EXCEEDS	166		128		129	
50 PERCENT EXCEEDS	64		55		53	
90 PERCENT EXCEEDS	32		26		26	



01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ

LOCATION.--Lat 40°08'48", long 74°07'20" (revised), Monmouth County, Hydrologic Unit 02040104, on left bank just downstream from pumping station of Manasquan Water Supply System, 1400 ft upstream from Hospital Road, 1.1 mi west of Allenwood, 1.2 mi downstream from Mill Run, 2.2 mi east of Squankum, and 7.9 mi upstream of mouth.

DRAINAGE AREA.--63.3 mi².

PERIOD OF RECORD.--June 1990 to current year.

REVISED RECORDS.--WDR NJ-92-1: 1991 Diversions.

GAGE.--Water-stage recorder and concrete control. Datum of gage is NGVD of 1929 (New Jersey Water Supply Authority benchmark).

REMARKS.--Records good except for estimated daily discharges, which are fair. 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 (see Atlantic Coastal Basins, diversions). 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	87	77	82	63	56	184	108	83	13	117	20
2	28	76	65	73	53	59	158	102	55	13	91	22
3	24	69	57	37	75	61	230	114	46	13	40	21
4	23	67	53	35	467	67	195	146	35	13	29	18
5	24	71	78	100	185	68	223	104	35	41	26	16
6	22	150	122	139	354	113	142	132	79	54	21	13
7	21	117	101	90	1,260	121	122	114	36	12	17	14
8	21	16	87	73	343	188	100	95	14	12	16	19
9	21	18	78	65	143	194	89	81	13	13	14	23
10	20	15	86	58	108	156	80	75	31	12	13	19
11	20	13	784	73	98	108	76	70	69	12	12	13
12	29	52	748	77	75	85	80	69	13	43	13	13
13	29	47	167	80	64	11	619	68	23	348	13	12
14	21	20	147	77	57	22	768	55	29	26	23	12
15	84	13	416	74	49	55	376	22	29	18	113	12
16	36	13	198	76	36	79	217	17	27	15	41	13
17	36	12	188	80	30	156	71	40	25	30	15	13
18	37	12	237	97	34	118	47	54	29	34	23	94
19	32	29	142	131	35	208	91	53	22	28	26	63
20	28	627	77	94	33	207	107	64	19	26	22	22
21	26	233	60	80	34	209	98	46	15	25	45	16
22	25	40	80	66	33	146	92	13	12	24	82	13
23	32	13	90	53	51	116	87	13	11	35	32	13
24	42	56	275	52	65	99	239	31	11	118	23	12
25	41	77	457	e50	64	95	141	39	12	42	18	12
26	42	66	185	e58	60	92	237	39	12	29	15	12
27	54	60	149	66	58	88	465	46	13	25	15	14
28	170	61	126	71	56	81	239	40	12	36	13	53
29	399	211	117	68	56	73	155	39	18	29	12	1,080
30	280	106	102	67	---	69	122	32	13	23	12	249
31	117	---	85	65	---	178	---	38	---	21	136	---
TOTAL	1,815	2,447	5,634	2,307	4,039	3,378	5,850	1,959	841	1,183	1,088	1,926
MEAN	58.5	81.6	182	74.4	139	109	195	63.2	28.0	38.2	35.1	64.2
MAX	399	627	784	139	1,260	209	768	146	83	348	136	1,080
MIN	20	12	53	35	30	11	47	13	11	12	12	12

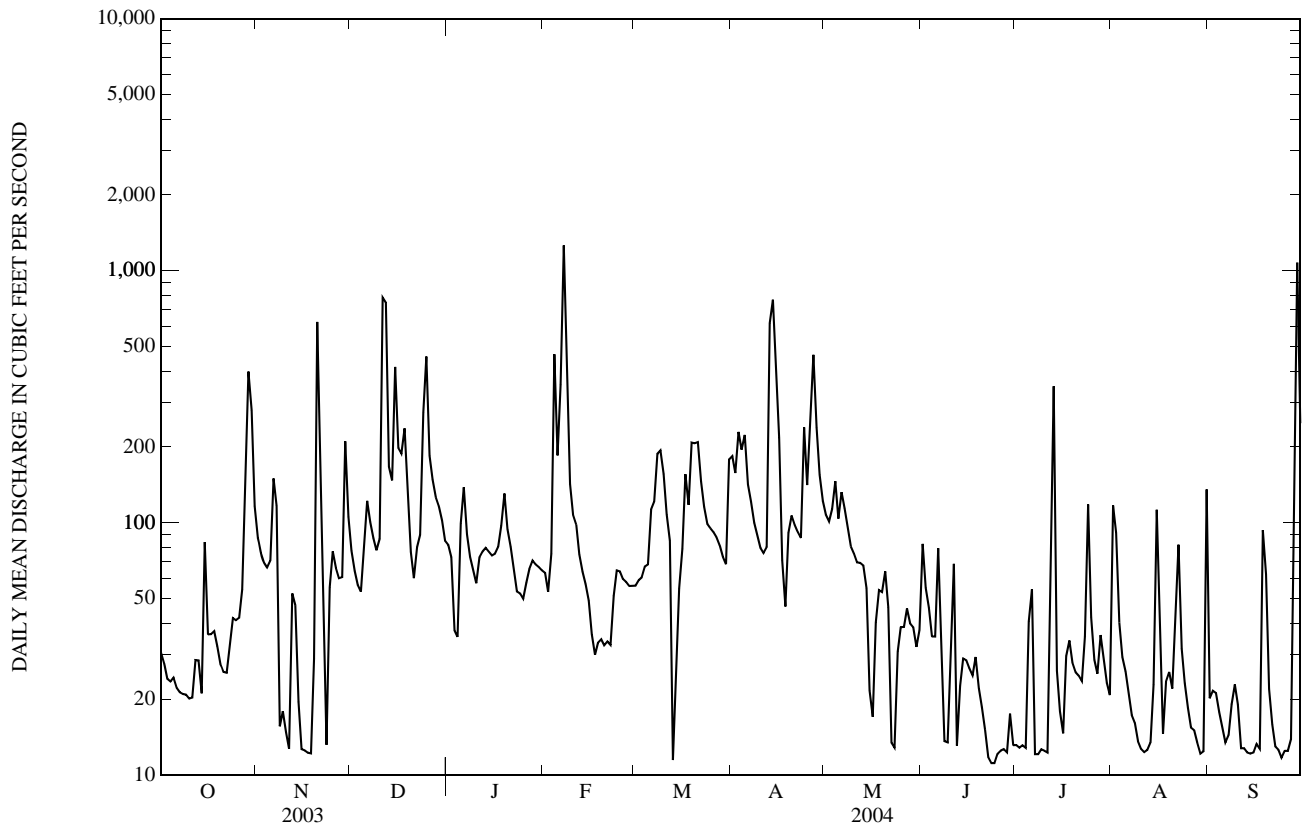
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

MEAN	46.7	56.1	96.1	115	102	155	116	78.9	60.3	35.8	51.2	45.5
MAX	152	129	227	218	270	319	195	312	216	66.4	131	89.9
(WY)	(1997)	(1996)	(1997)	(1996)	(1998)	(1993)	(2004)	(1998)	(2003)	(1990)	(1990)	(2000)
MIN	19.2	15.4	16.5	16.9	11.6	22.5	21.4	31.2	17.0	15.0	20.0	14.7
(WY)	(1995)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1992)	(1999)	(1999)	(2001)	(2001)

01408029 MANASQUAN RIVER NEAR ALLENWOOD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	40,089		32,467		79.2	
ANNUAL MEAN	110		88.7		133 1998	
HIGHEST ANNUAL MEAN					23.5 2002	
LOWEST ANNUAL MEAN					1,930 Dec 12, 1992	
HIGHEST DAILY MEAN	1,070	Feb 23	1,260	Feb 7	7.7	Mar 29, 2002
LOWEST DAILY MEAN	11	Sep 6	11	Many Days	8.8	Apr 5, 2002
ANNUAL SEVEN-DAY MINIMUM	13	Aug 23	12	Jun 22	2,580	Mar 9, 1999
MAXIMUM PEAK FLOW			1,650		15.87 Mar 9, 1999	
MAXIMUM PEAK STAGE			14.31		0.00a Jun 24, 1993	
INSTANTANEOUS LOW FLOW			1.8			
10 PERCENT EXCEEDS	246		186		161	
50 PERCENT EXCEEDS	66		55		42	
90 PERCENT EXCEEDS	21		13		14	

a Results of pumping to Manasquan Reservoir, also occurred on Nov 26, 2001
 e Estimated



MANASQUAN RIVER BASIN

01408050 MANASQUAN RIVER AT POINT PLEASANT, NJ

LOCATION.--Lat 40°06'09", long 74°02'17", revised, Ocean County, Hydrologic Unit 02040104, on left bank along Cooks Creek at the U.S. Coast Guard Station Manasquan Inlet in Point Pleasant, 0.3 mi west of inlet mouth, and 0.7 mi east of State Route 35 bridge over Manasquan River.

PERIOD OF RECORD.--September 1997 to May 2000 (unpublished fragmentary gage-height record), June 2000 to current year.

GAGE.--Water-stage, air temperature, water temperature, wind speed and direction, barometric pressure, and precipitation recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.10 ft. To determine approximate elevations in Mean Lower Low Water datum, add 2.43 ft (revised to Tidal Epoch 1983-2001).

REMARKS.-- Missing gage-height record October 18-22, January 14-19, February 20-29, and short portions of numerous other days. Ice effect apparent January 25 to February 2. Gage cannot measure tide levels below -2.82 ft (NAVD of 1988). Some monthly minimum statistics have been estimated where possible. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage and weather telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.33 ft (NAVD of 1988), December 25, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6.96 ft (adjusted to NAVD of 1988), December 11, 1992, from high-water mark at 58 Channel Drive across Cooks Creek from the U.S. Coast Guard Station.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.24 ft (NAVD of 1988), December 6, 2003.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	27	3.26	26	-3.6e	1.9e	-0.1e	-2.2e
NOV	24	3.76	14	-4.4e	1.66	-0.23	-2.23
DEC	6	4.24	26	-4.2e	1.48	-0.32	-2.26
JAN	22	2.58	21	-4.2e	---	---	---
FEB	---	---	9	-4.1e	---	---	---
MAR	11	3.10	13, 24	-3.6e	1.50	-0.28	-2.16
APR	8	2.76	6	-3.5e	1.52	-0.32	-2.26
MAY	31	3.00	5	-3.3e	1.65	-0.23	-2.21
JUN	1	3.55	4	-3.0e	1.80	-0.10	-2.07
JUL	2	3.03	3	-3.0e	1.91	0.01	-1.98
AUG	2	2.88	2, 29	-2.9e	1.87	-0.04	-2.01
SEP	16	3.78	1	-2.83	2.09	0.21	-1.73

e Estimated



01378570 Hackensack River at Hackensack, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

METEDECONK RIVER BASIN

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ

LOCATION.--Lat 40°05'30", long 74°09'09", Ocean County, Hydrologic Unit 02040301, on upstream right bank at bridge on County Route 549 (Lanes Mill Road) at Lanes Mills, 1.0 mi upstream from confluence with South Branch Metedeconk River, and 2.3 mi east of Lakewood.

DRAINAGE AREA.--34.9 mi².

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.89 ft above NGVD of 1929. 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. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	2000	251	6.16	Jul 1	1730	302	6.51
Dec 12	1000	309	6.54	Jul 13	1200	292	6.45
Feb 7	1015	*510	*7.33	Aug 2	1000	266	6.27
Apr 14	0800	381	6.85	Sep 29	2100	423	7.01

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	73	66	55	37	42	95	64	58	99	124	114
2	32	51	53	53	37	43	79	60	49	54	234	54
3	30	45	47	53	70	44	93	65	36	26	73	33
4	29	43	44	52	185	47	98	80	32	23	43	29
5	30	47	64	61	141	48	157	68	33	35	37	28
6	30	72	103	70	160	67	101	78	75	30	33	27
7	28	86	78	64	441	79	68	76	68	23	30	27
8	28	71	64	53	277	95	59	66	43	21	28	35
9	28	55	59	49	181	106	56	56	33	20	27	33
10	27	46	62	43	128	100	52	51	32	19	26	30
11	28	43	191	41	84	80	50	48	36	19	25	27
12	47	61	283	42	72	61	53	49	31	53	25	25
13	45	65	196	45	66	52	234	45	27	259	25	24
14	33	54	146	45	61	47	350	41	26	181	33	24
15	77	46	164	42	58	46	247	40	28	110	88	24
16	58	42	118	46	53	54	179	39	26	57	80	26
17	42	41	110	43	50	87	110	38	25	37	60	26
18	38	41	127	55	51	75	78	39	25	33	44	53
19	36	58	94	72	52	105	67	43	24	37	37	100
20	33	207	77	59	51	126	62	52	23	35	31	51
21	32	213	65	48	51	112	58	41	22	30	42	31
22	32	126	60	45	50	94	56	38	22	27	99	27
23	31	90	58	43	48	78	55	35	22	30	65	25
24	30	62	116	40	47	62	133	32	21	60	35	24
25	29	57	183	38	47	56	104	31	21	67	30	24
26	29	52	130	37	45	55	115	31	22	34	28	24
27	38	49	103	38	44	53	213	33	21	31	27	23
28	78	50	77	41	43	50	188	32	20	53	26	42
29	160	95	64	41	42	48	122	30	23	38	25	320
30	196	85	61	40	---	46	79	28	22	30	25	273
31	112	---	58	38	---	94	---	31	---	28	76	---
TOTAL	1,500	2,126	3,121	1,492	2,672	2,152	3,411	1,460	946	1,599	1,581	1,603
MEAN	48.4	70.9	101	48.1	92.1	69.4	114	47.1	31.5	51.6	51.0	53.4
MAX	196	213	283	72	441	126	350	80	75	259	234	320
MIN	27	41	44	37	37	42	50	28	20	19	25	23
CFSM	1.39	2.03	2.88	1.38	2.64	1.99	3.26	1.35	0.90	1.48	1.46	1.53
IN.	1.60	2.27	3.33	1.59	2.85	2.29	3.64	1.56	1.01	1.70	1.69	1.71

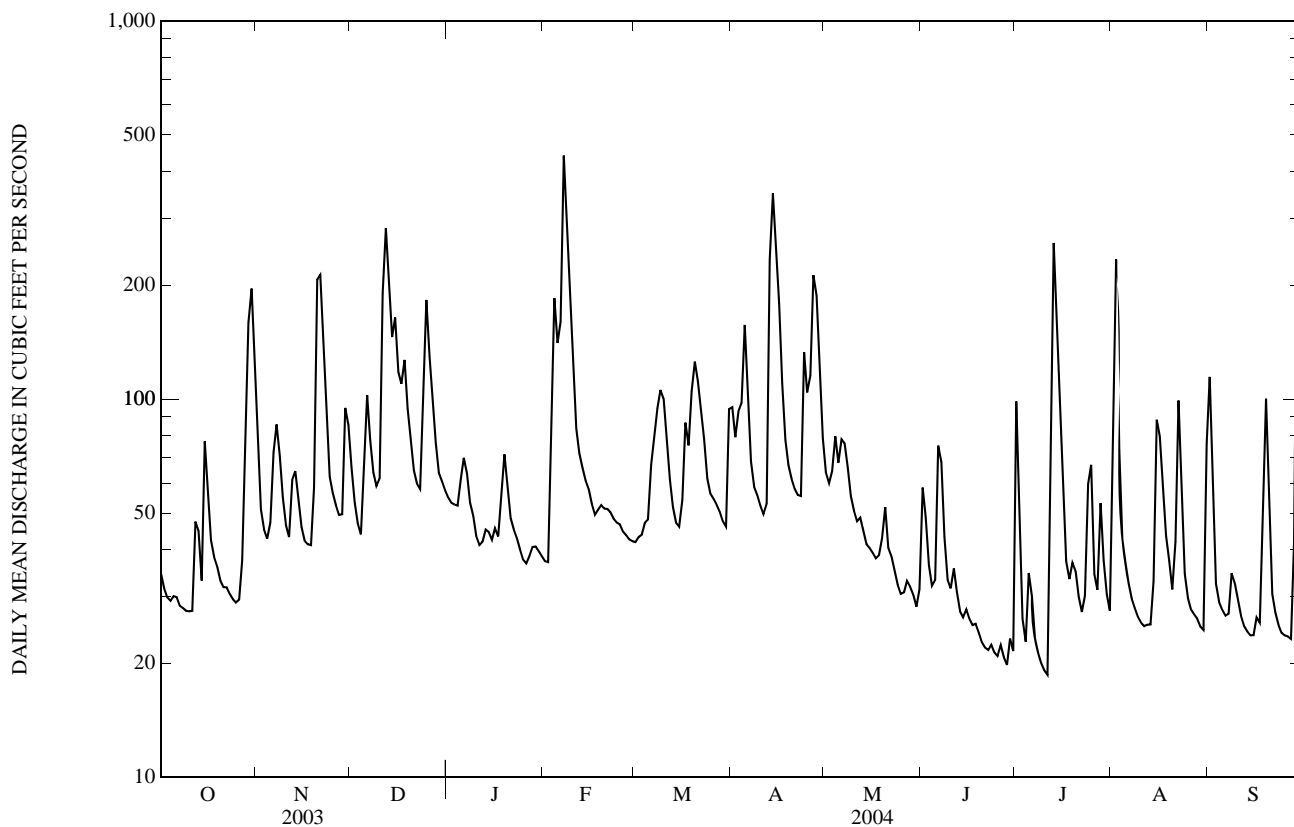
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2004, BY WATER YEAR (WY)

	43.5	57.4	69.8	73.8	70.9	83.4	80.9	63.7	49.3	42.3	42.6	39.8
MAX	92.6	141	129	153	153	160	153	160	116	107	88.8	80.9
(WY)	(1990)	(1973)	(1978)	(1979)	(1979)	(1984)	(1984)	(1998)	(2003)	(1984)	(1990)	(1989)
MIN	22.0	19.4	22.7	25.2	24.6	38.8	32.9	27.1	25.7	17.7	15.2	17.8
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(1981)	(1995)	(1977)	(1999)	(2002)	(1981)	(1988)

01408120 NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1973 - 2004	
ANNUAL TOTAL	26,757		23,663			
ANNUAL MEAN	73.3		64.7		59.7	
HIGHEST ANNUAL MEAN					91.5	1984
LOWEST ANNUAL MEAN					28.7	2002
HIGHEST DAILY MEAN	358	Feb 23	441	Feb 7	838	Feb 25, 1979
LOWEST DAILY MEAN	23	Aug 25	19	Jul 10,11	7.4	Aug 19, 2002
ANNUAL SEVEN-DAY MINIMUM	25	Aug 21	21	Jun 22	7.7	Aug 16, 2002
MAXIMUM PEAK FLOW			510	Feb 7	1,370a	Nov 8, 1977
MAXIMUM PEAK STAGE			7.33	Feb 7	9.28	Nov 8, 1977
INSTANTANEOUS LOW FLOW			18	Jul 10-12	10	Sep 8, 1995
ANNUAL RUNOFF (CFSM)	2.10		1.85		1.71	
ANNUAL RUNOFF (INCHES)	28.52		25.22		23.25	
10 PERCENT EXCEEDS	153		119		110	
50 PERCENT EXCEEDS	53		48		45	
90 PERCENT EXCEEDS	30		26		22	

a From rating curve extended above 600 ft³/s



RESERVOIRS IN ATLANTIC COASTAL BASINS

01407500 SWIMMING RIVER RESERVOIR. --Lat 40°19'09", long 74°06'58", Monmouth County, Hydrologic Unit 02030104, at dam on Swimming River, 3.3 mi southwest of Red Bank, and 4.8 mi upstream from mouth.

DRAINAGE AREA.-- 49.2 mi².

PERIOD OF RECORD.-- April 1962 to current year. Unpublished records 1962 to 1998 available from the USGS New Jersey Water Science Center.

REVISED RECORDS.-- WDR NJ-00-1: 1999 (elevation, contents).

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir formed by concrete core and earth embankment dam, with a Trenton-type overflow spillway. Capacity at spillway level, 2,610,000,000 gal, elevation, 35.0 ft. Reservoir used for storage and water diversion by New Jersey-American Water Company. Reservoir enlarged and dam raised in 1962. Outflow is controlled by gates on a pipe.

EXTREMES FOR PERIOD OF RECORD.-- Maximum contents 2,964,900,000 gal, Nov. 8, 1977, elevation 36.69 ft. Minimum extreme undetermined.

COOPERATION.--Water-stage recorder inspected by and records of diversion provided by New Jersey-American Water Company.

EXTREMES FOR CURRENT YEAR.--Maximum contents 2,894,000,000 gal, Sept. 29, elevation, 36.35 ft; minimum, 2,330,000,000 gal, July 12, elevation, 33.58 ft.

01407965 MANASQUAN RESERVOIR. --Lat 40°10'45", long 74°11'39", 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.1-- 3.18 mi² (revised).

PERIOD OF RECORD.-- March 1990 to current year.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

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 4,670,000,000 gal, Apr. 27, elevation, 103.03 ft; minimum, 3,920,000,000 gal, Nov. 7, elevation, 99.58 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)*	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01407500 SWIMMING RIVER RESERVOIR				01407965 MANASQUAN RESERVOIR		
Sept. 30.....	35.13	2,637		100.93	4,210	
Oct. 31.....	35.21	2,654	+8	100.10	4,030	-9.0
Nov. 30.....	35.22	2,656	+1	101.50	4,330	+15.5
Dec. 31.....	35.21	2,654	-1	101.74	4,380	+2.5
CAL YR 2003			0			-1.1
Jan. 31.....	35.17	2,646	-4	100.44	4,100	-14.0
Feb. 29.....	35.18	2,648	+1	102.46	4,540	+23.5
Mar. 31.....	35.31	2,675	+1.3	102.77	4,610	+3.5
Apr. 30.....	35.25	2,662	-7	102.94	4,650	+2.1
May 31.....	35.18	2,648	-7	102.53	4,560	-4.5
June 30.....	34.10	2,430	-11.2	101.83	4,400	-8.3
July 31.....	34.93	2,596	+8.3	101.72	4,380	-1.0
Aug. 31.....	34.92	2,594	-1	101.12	4,250	-6.5
Sept. 30.....	35.27	2,667	+3.8	100.87	4,190	-3.1
WTR YR 2004			+1			-1

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

* Elevation at 0600 on the first day of the following month.

DIVERSIONS IN ATLANTIC COASTAL BASINS

- 01407499 Water is diverted from Swimming River Reservoir just upstream of gaging station (01407500) near Red Bank by New Jersey-American Water Company for municipal supply. Records provided by New Jersey-American Water Company.
- 01407704 Water is diverted from Shark River just upstream of gaging station (01407705) near Neptune City by New Jersey-American Water Company (since 1962), for municipal supply. Records provided by New Jersey-American Water Company.
- 01407704 Water is diverted from Jumping Brook just upstream of gaging station (01407760) near Neptune City by New Jersey-American Water Company (since 1962), for municipal supply. Records provided by New Jersey-American Water Company. REVISED RECORDS.--WDR NJ-98-1: 1997.
- 0140802880 New Jersey Water Supply Authority diverts water from the Manasquan Reservoir System, for municipal supply. Figures include water pumped to Glendola Reservoir for New Jersey-American Water Company.
- 0140802890 New Jersey Water Supply Authority diverts water from the Manasquan Reservoir System to the Glendola Reservoir of New Jersey-American Water Company in the Shark River Basin, for municipal supply.
- 01408153 Brick Township Municipal Utilities Authority diverts water from the Metedeconk River at a site located 0.7 mi upstream of the dam on Forge Pond for municipal supply (since 1987). Beginning April 24, 2004, figures given herein include flow diverted to Brick Reservoir, located in northern Brick Township and eastern Wall Township, on the Monmouth-Ocean County line, east of the Garden State Parkway (capacity, approximately 860 million gallons). Records furnished by Brick Township Municipal Utilities Authority.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	<u>01407499</u> Swimming River diversion	<u>01407704</u> Shark River diversion	<u>01407759</u> Jumping Brook diversion	<u>0140802880</u> Manasquan Reservoir System diversion	<u>0140802890</u> Diversion to Glendola Reservoir	<u>01408153</u> Metedeconk River diversion
October	24.6	9.84	0	26.5	17.7	12.0
November	16.9	7.39	0	45.8	17.9	4.53
December	24.8	7.90	0	32.3	17.1	2.29
CAL YR 2003	29.7	8.76	0	28.7	18.9	9.67
January	32.1	6.38	0	16.4	14.3	8.81
February	31.9	7.41	0	48.2	14.3	9.57
March	36.1	4.07	0	34.3	14.4	9.75
April	32.3	1.08	0	30.0	15.9	31.2a
May	37.6	4.66	0	35.8	15.7	33.0a
June	47.4	4.89	0	36.4	18.8	9.89
July	41.2	4.49	0	42.0	22.5	7.86
August	36.8	2.92	0	36.4	18.7	5.43
September	35.2	2.72	0	39.9	19.1	9.81
WTR YR 2004	33.1	5.32	0	35.2	17.2	12.0

a From April 26 through May 25, 2004, additional water was diverted according to a Short-Term Water Use Permit-By-Rule issued by the New Jersey Department of Environmental Protection to accomplish the initial filling of the new Brick Reservoir, located in northern Brick Township and eastern Wall Township, on the Monmouth-Ocean County line, east of the Garden State Parkway (capacity, approximately 860 million gallons).

01408168 BARNEGAT BAY AT MANTOLOKING, NJ

LOCATION.--Lat. 40°02'24", long 74°03'09", Ocean County, Hydrologic Unit 02040301, on northeast abutment of bridge on County Route 528 (Mantoloking Road-Herbert Street) in Mantoloking, 2.1 mi south of Bay Head, and 4.7 mi north of Lavalette.

PERIOD OF RECORD.--Tidal crest-stage gage 1979-85, 1993, June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft NAVD of 1988. Data published for water years 1979-2000 was referenced to NGVD of 1929. Data for 1993-2000 was collected 1100 ft south of present gage at foot of Downer Avenue. This past data can be adjusted to NAVD of 1988 by subtracting 1.12 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 0.08 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing record January 11-12, 14-18, 20-21, January 23 to February 2, February 5 and 9. Gage was temporarily removed on July 29, 2004. Gage cannot accurately record tide levels below -1.45 ft. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation known, 3.81 ft (adjusted to NAVD of 1988), December 11, 1992, from crest-stage gage; minimum recorded, -1.55 ft (adjusted to NAVD of 1988, measured at 1993-2000 location), October 8, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 2.24 ft (NAVD of 1988), December 11.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	15	2.01	17	-0.93	0.44	0.17	-0.09
NOV	19	1.91	---	---	0.49	0.10	-0.11
DEC	11	2.24	3	-1.7e	0.22	-0.11	-0.40
JAN	---	---	---	---	---	---	---
FEB	21	0.99	---	---	---	---	---
MAR	12	1.60	13	-1.6e	0.17	-0.13	-0.39
APR	13	1.36	23	-1.11	0.21	-0.04	-0.33
MAY	2	1.23	19	-0.75	0.38	0.12	-0.15
JUN	1	1.38	5	-0.62	0.51	0.25	-0.03
JUL	14	1.07	25	-0.73	0.54	0.28	-0.01
AUG	---	---	---	---	---	---	---
SEP	---	---	---	---	---	---	---

e Estimated



01409280 Westecunk Creek at Stafford Forge, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01408500 TOMS RIVER NEAR TOMS RIVER, NJ

LOCATION.--Lat 39°59'11", long 74°13'24", Ocean County, Hydrologic Unit 02040301, on left bank 500 ft downstream from bridge on County 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 mi².

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October and 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 NGVD of 1929.

REMARKS.--Records good. Diversions by Ciba-Geigy Inc., 800 ft. upstream July 1966 through 1990; The effluent was returned by pipeline directly into the Atlantic Ocean, thus bypassing station. Temporary regulation also occurs from an unknown source. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	1815	634	7.19	Apr 29	0245	538	6.63
Feb 9	0100	*791	*8.05	Jul 15	0600	780	8.00
Apr 15	1800	708	7.60				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	332	251	254	159	182	233	371	176	96	235	193
2	127	275	231	226	159	175	246	297	189	98	353	198
3	124	231	206	217	178	172	277	275	180	94	351	165
4	121	188	189	211	263	181	305	279	162	90	277	142
5	120	175	204	214	278	175	340	277	157	99	245	132
6	118	187	257	222	354	192	316	277	170	107	198	128
7	114	208	252	227	540	212	287	283	171	99	171	124
8	115	213	243	222	724	272	253	284	161	92	154	126
9	114	207	230	209	710	321	234	265	145	88	144	130
10	112	187	224	192	580	357	223	242	137	84	138	128
11	113	174	308	183	455	358	215	224	133	82	130	123
12	127	184	398	180	365	317	211	214	134	117	128	120
13	127	194	572	181	317	264	364	204	128	604	132	116
14	118	189	573	148	286	230	507	191	123	641	133	112
15	146	183	487	141	264	213	674	186	124	746	197	109
16	153	172	408	168	246	213	668	181	124	581	228	113
17	157	165	385	175	231	246	552	179	121	388	235	112
18	145	159	373	186	223	254	433	178	120	247	238	162
19	140	166	334	204	219	301	345	178	116	207	236	158
20	134	276	311	209	213	337	299	193	111	204	198	136
21	146	330	281	199	217	360	268	190	107	196	182	124
22	128	408	256	188	212	365	250	184	104	179	223	115
23	124	408	242	181	208	344	238	176	108	164	252	110
24	120	317	278	167	205	301	316	166	106	200	232	107
25	117	247	309	160	200	258	325	154	102	232	188	105
26	117	218	348	164	196	237	363	151	101	211	164	104
27	124	201	392	162	192	227	439	153	98	191	148	103
28	156	192	354	167	188	219	504	152	96	237	139	116
29	229	228	306	168	184	209	530	148	100	232	133	315
30	294	240	279	166	---	202	476	143	100	203	127	348
31	329	---	283	161	---	225	---	143	---	181	177	---
TOTAL	4,443	6,854	9,764	5,852	8,566	7,919	10,691	6,538	3,904	6,990	6,086	4,274
MEAN	143	228	315	189	295	255	356	211	130	225	196	142
MAX	329	408	573	254	724	365	674	371	189	746	353	348
MIN	112	159	189	141	159	172	211	143	96	82	127	103
CFSM	1.17	1.86	2.56	1.53	2.40	2.08	2.90	1.71	1.06	1.83	1.60	1.16
IN.	1.34	2.07	2.95	1.77	2.59	2.40	3.23	1.98	1.18	2.11	1.84	1.29

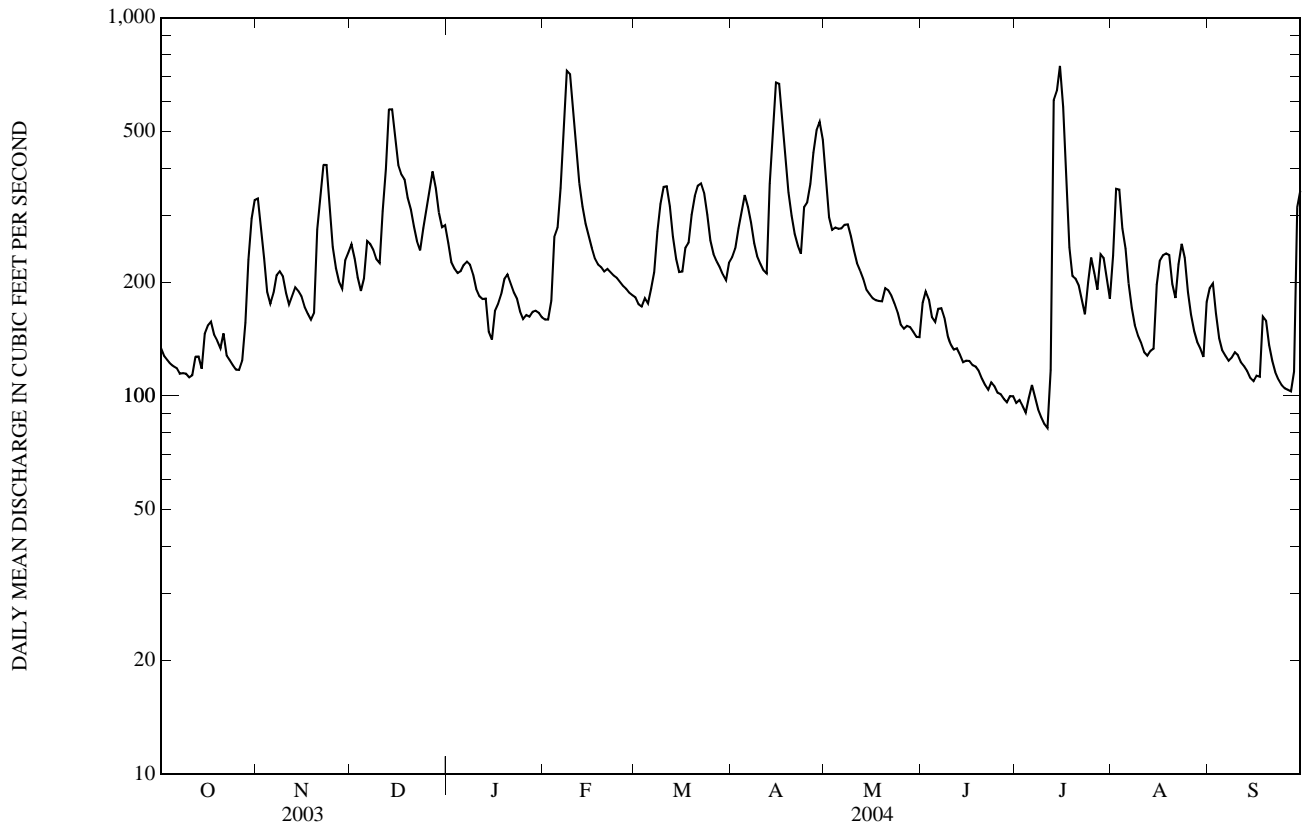
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	154	196	223	243	251	290	280	241	186	155	159	151
MAX	325	475	447	506	455	541	573	541	463	439	359	414
(WY)	(1972)	(1973)	(1973)	(1978)	(1973)	(1958)	(1984)	(1998)	(1968)	(1938)	(1990)	(1971)
MIN	83.3	84.2	93.6	104	103	143	120	118	96.8	71.0	57.9	63.0
(WY)	(1942)	(2002)	(1999)	(1981)	(2002)	(1985)	(1985)	(1992)	(1977)	(1999)	(1966)	(1995)

01408500 TOMS RIVER NEAR TOMS RIVER, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	89,127		81,881		210	
ANNUAL MEAN	244		224		111	
HIGHEST ANNUAL MEAN					335	1978
LOWEST ANNUAL MEAN					111	2002
HIGHEST DAILY MEAN	874	Feb 25	746	Jul 15	1,910	Sep 23, 1938
LOWEST DAILY MEAN	102	Aug 26	82	Jul 11	42	Aug 21, 2002
ANNUAL SEVEN-DAY MINIMUM	107	Aug 23	93	Jul 5	44	Sep 10, 1995
MAXIMUM PEAK FLOW			791	Feb 9	2,000a	Sep 23, 1938
MAXIMUM PEAK STAGE			8.05	Feb 9	12.50b	Sep 23, 1938
INSTANTANEOUS LOW FLOW			81	Jul 11, 12	37c	Aug 4, 2001
ANNUAL RUNOFF (CFSM)	1.99		1.82		1.71	
ANNUAL RUNOFF (INCHES)	26.96		24.76		23.25	
10 PERCENT EXCEEDS	415		357		352	
50 PERCENT EXCEEDS	206		196		182	
90 PERCENT EXCEEDS	127		115		96	

- a From rating curve extended above 1,500 ft³/s
- b From floodmark
- c From temporary regulation from unknown source



01408750 BARNEGAT BAY AT SEASIDE HEIGHTS, NJ

LOCATION.--Lat 39°56'18", long 74°04'56", Ocean County, Hydrologic Unit 02040301, on public fishing pier in Seaside Heights just north of Seaside Park, 0.2 mi southeast of the east end of bridge on State Route 37 over Barnegat Bay, and 5.5 mi east of Village of Toms River.

PERIOD OF RECORD.--June 1997 to March 2000 (unpublished fragmentary gage-height record), April 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929 elevation, add 1.15 ft. To determine approximate elevations in Mean Lower Low Water Datum, add 0.35 ft. (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing record December 13 to January 1, January 14-17, January 20 to February 17, February 27-29, March 28, May 13, and short portions of numerous other days. Summaries for months with short periods of missing 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. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 2.28 ft (NAVD of 1988), October 16, 2002; minimum elevation recorded, -1.92 ft (NAVD of 1988), November 15, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6.12 ft (adjusted to NAVD of 1988), December 11, 1992, from high-water mark at the foot of South Bayview Avenue in Seaside Park. Other significant peak elevation, 3.0 ft (adjusted to NAVD of 1988), March 6-7, 1962, from high-water mark on foot of 12th Avenue in Seaside Park.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 2.21 ft (NAVD of 1988), December 11; minimum elevation recorded, -1.92 ft (NAVD of 1988), November 15, although a lower tide elevation may have occurred during period of missing record.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	15	1.72	17	-0.98	0.52	0.19	-0.14
NOV	19	1.63	15	-1.92	0.43	0.06	-0.25
DEC	11	2.21	---	---	---	---	---
JAN	---	---	---	---	---	---	---
FEB	21	1.05	---	---	---	---	---
MAR	12	1.59	13	-1.48	0.30	-0.06	-0.3e
APR	13	1.16	23	-0.96	0.29	-0.04	-0.34
MAY	28	1.12	19	-0.8e	0.4e	0.1e	-0.2e
JUN	1	1.37	16	-0.64	0.52	0.21	-0.12
JUL	14	1.15	25	-0.61	0.61	0.29	-0.05
AUG	1	1.19	9	-0.62	0.62	0.30	-0.04
SEP	9	1.62	11	-0.56	0.69	0.37	0.00

e Estimated



01402000 Millstone River at Blackwells Mills, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01409000 CEDAR CREEK AT LANOKA HARBOR, NJ

LOCATION.--Lat 39°52'03", long 74°10'09", Ocean County, Hydrologic Unit 02040301, on right bank 50 ft upstream from bridge on U.S. Route 9, at village of Lanoka Harbor, 2.0 mi upstream from mouth, and 6.0 mi south of Toms River.

DRAINAGE AREA.--53.3 mi².

PERIOD OF RECORD.--July 1932 to September 1958, October 1970 to September 1971, October 2003 to current year. Operated as a crest-stage partial-record station 1979-84, also as a tidal crest-gage station 1979-85.

GAGE.--Water-stage recorder, crest-stage gage, tidal crest-stage gage, and concrete control. Auxiliary tide gage located downstream of control on right upstream wingwall of bridge on U.S. Route 9 and is used to adjust record for tide effect. Datum of gage is 7.44 ft above NGVD of 1929.

REMARKS.--Records good. Flow regulated by cranberry bogs. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	106	92	104	82	89	135	117	95	55	112	81
2	68	95	87	104	81	92	130	115	99	62	114	77
3	66	89	84	101	88	94	146	116	92	60	97	71
4	64	85	81	101	121	98	148	123	85	55	88	67
5	64	82	95	105	125	102	158	118	84	55	81	65
6	61	83	146	116	128	111	139	113	110	54	77	64
7	61	95	152	110	196	120	126	112	107	51	74	64
8	61	91	130	101	191	131	117	110	95	50	71	70
9	61	87	114	100	171	147	113	104	85	49	67	71
10	61	80	107	94	152	144	110	104	79	47	66	67
11	61	75	113	95	139	129	106	102	77	46	64	63
12	80	88	162	92	127	114	111	99	76	60	63	61
13	87	92	152	92	120	109	189	97	74	190	71	61
14	77	86	131	91	114	103	228	92	71	247	97	61
15	113	81	141	92	110	100	223	92	73	248	149	61
16	103	79	138	79	105	107	201	89	74	194	156	66
17	92	77	133	98	102	136	179	89	74	151	153	71
18	83	74	142	95	102	131	157	88	74	114	132	80
19	78	77	132	100	102	140	141	89	73	102	116	87
20	74	144	121	96	104	154	131	94	67	97	104	76
21	71	150	113	90	104	147	124	92	63	89	93	69
22	67	131	110	92	103	131	122	91	61	83	91	65
23	67	112	105	88	100	119	126	86	61	78	86	61
24	67	98	129	86	98	112	133	82	61	83	80	61
25	64	97	165	82	98	111	129	80	61	85	75	60
26	64	92	154	81	95	110	130	83	61	79	73	58
27	72	90	135	82	92	122	148	86	57	76	69	56
28	88	87	124	86	92	112	146	87	56	107	67	64
29	131	98	116	86	89	102	134	86	56	121	67	158
30	148	98	112	85	---	98	124	81	56	106	65	157
31	126	---	109	80	---	131	---	83	---	93	71	---
TOTAL	2,453	2,819	3,825	2,904	3,331	3,646	4,304	3,000	2,257	2,987	2,789	2,193
MEAN	79.1	94.0	123	93.7	115	118	143	96.8	75.2	96.4	90.0	73.1
MAX	148	150	165	116	196	154	228	123	110	248	156	158
MIN	61	74	81	79	81	89	106	80	56	46	63	56

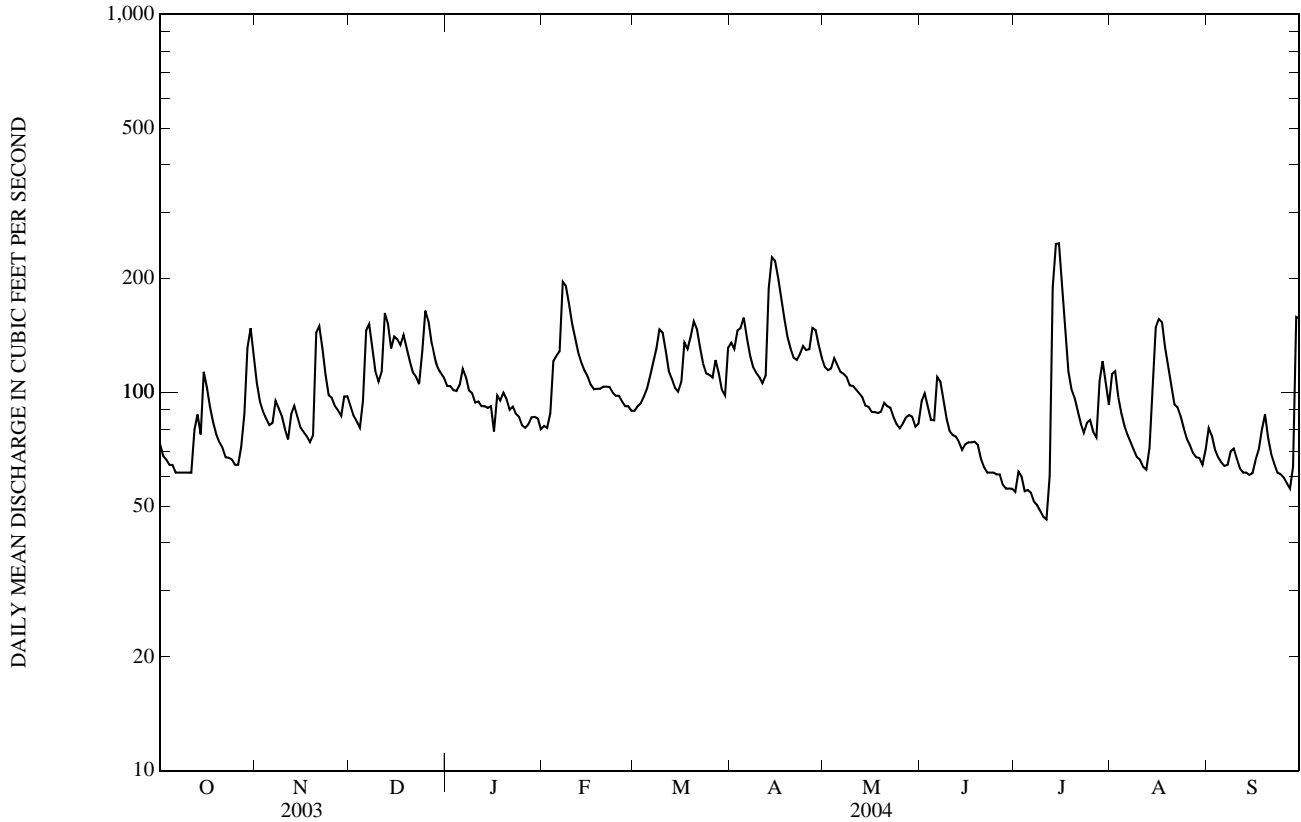
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

MEAN	82.1	102	100	114	122	136	131	119	101	88.6	99.5	89.2
MAX	169	152	159	166	220	227	206	231	182	223	267	193
(WY)	(1939)	(1948)	(1945)	(1949)	(1939)	(1958)	(1958)	(1958)	(1958)	(1958)	(1958)	(1938)
MIN	49.2	64.9	57.8	61.6	76.0	99.5	93.3	73.7	60.0	44.7	41.2	40.7
(WY)	(1958)	(1935)	(1956)	(1942)	(1934)	(1954)	(1947)	(1955)	(1957)	(1957)	(1957)	(1951)

01409000 CEDAR CREEK AT LANOKA HARBOR, NJ—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	36,508			
ANNUAL MEAN	99.7		107	
HIGHEST ANNUAL MEAN			169	1958
LOWEST ANNUAL MEAN			77.1	1957
HIGHEST DAILY MEAN	248	Jul 15	996	Oct 28, 1943
LOWEST DAILY MEAN	46	Jul 11	13	Jan 5, 1956
ANNUAL SEVEN-DAY MINIMUM	50	Jul 5	29	Aug 25, 1950
MAXIMUM PEAK FLOW	273	Jul 14	1,050a	Oct 28, 1943
MAXIMUM PEAK STAGE	3.44	Dec 11	6.50b	Feb 16, 1936
10 PERCENT EXCEEDS	145		173	
50 PERCENT EXCEEDS	93		95	
90 PERCENT EXCEEDS	63		58	

a From rating curve extended above 300 cfs.
 b Backwater from ice and tide.



01409110 BARNEGAT BAY AT WARETOWN, NJ

LOCATION.--Lat 39°47'28", long 74°10'55", Ocean County, Hydrologic Unit 02040301, on the public fishing pier near the Galley Restaurant 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 0.00 ft NAVD of 1988. To determine approximate elevations in Mean Lower Low Water Datum, add 0.14 ft. (revised to Tidal Epoch 1983-2001). Data published for water years 1993-2000 was referenced to NGVD of 1929. This past data can be adjusted to NAVD of 1988 by subtracting 1.23 ft.

REMARKS.--Gage cannot measure tide level below -0.84 ft. Missing gage-height record November 14-15, December 2, January 1, 8, 16-17, 21, 25, January 30 to February 1, February 9, May 13-18, September 8-16, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 2.40 ft, October 19, 1996 (adjusted to NAVD of 1988); minimum recorded, -1.87 ft, March 4, 1996 (adjusted to NAVD of 1988).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6.2 ft (adjusted to NAVD of 1988), December 11, 1992, from high-water mark at Waretown Fishing Station. Other significant peak elevation, 3.3 ft (adjusted to NAVD of 1988), March 7, 1962, from high-water mark at State Marina in Forked River, 2.6 mi north. Based on residents reports, the Nov. 25, 1950 flood was a foot higher than the 1962 flood at Southwind Marina in Forked River.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 2.00 ft (NAVD of 1988), December 11.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	12	1.32	---	---	0.41	0.13	-0.13
NOV	24	1.22	---	---	0.4e	0.2e	-0.1e
DEC	11	2.00	---	---	0.3e	---	---
JAN	---	---	---	---	---	---	---
FEB	21	0.87	---	---	-0.04	-0.3e	---
MAR	19	1.35	---	---	0.21	-0.1e	-0.3e
APR	3	0.91	6	-0.9e	0.17	-0.10	-0.37
MAY	27	1.00	1	-0.69	0.3e	0.0e	-0.3e
JUN	1	1.17	16, 21	-0.56	0.38	0.12	-0.15
JUL	14	0.95	10	-0.49	0.49	0.22	-0.07
AUG	6	0.90	9	-0.59	0.46	0.19	-0.10
SEP	29	1.69	---	---	---	---	---

e Estimated

01409125 BARNEGAT BAY AT BARNEGAT LIGHT, NJ

LOCATION.--Lat 39°45'38", long 74°06'37", Ocean County, Hydrologic Unit 02040301, on bulkhead at U.S. Coast Guard Station in Barnegat Light, 0.5 mi southwest of Barnegat Inlet, and 4.4 mi east of Pebble Beach in Barnegat Township.

PERIOD OF RECORD.--Tidal crest-stage gage 1965-1980. September 1997 to October 2000 (unpublished fragmentary gage-height record), November 2000 to current year.

GAGE.--Water-stage, air temperature, water temperature, wind speed/direction, barometric pressure, and precipitation recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevation corresponding NGVD of 1929, add 1.26 ft. To determine approximate corresponding elevation in Mean Lower Low Water datum, add 1.33 ft (revised to Tidal Epoch 1983-2001). Online peaks have been adjusted to NAVD of 1988.

REMARKS.--Missing gage-height record Oct. 18-26, Jan. 17, Jan. 24 to Feb. 1, Apr. 11-12, and short periods of numerous other days. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage and weather telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 3.66 ft (NAVD of 1988), Dec. 11, 2003. Minimum elevation recorded, -3.77 ft (NAVD of 1988), Jan. 14, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Maximum elevation recorded, 4.93 ft (adjusted to NAVD of 1988), Dec. 11, 1992, from mark on discontinued tidal crest-stage gage.

EXTREMES FOR CURRENT YEAR.-- Maximum elevation recorded, 3.66 ft (NAVD of 1988), Dec. 11. Minimum elevation recorded, -3.46 ft (NAVD of 1988), Feb. 9.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	2.72	---	---	---	---	---
NOV	24	2.97	14	-3.42	1.27	-0.09	-1.44
DEC	11	3.66	26	-3.11	1.17	-0.18	-1.58
JAN	22	1.98	8	-3.29	---	---	---
FEB	20	2.31	9	-3.46	1.01	-0.37	-1.80
MAR	10	2.52	24	-2.71	1.13	-0.2e	-1.45
APR	8	2.16	6	-2.63	1.17	-0.16	-1.56
MAY	31	2.38	5	-2.42	1.27	-0.13	-1.57
JUN	1	2.72	30	-2.00	1.41	0.02	-1.39
JUL	3	2.39	1	-2.16	1.51	0.13	-1.28
AUG	30	2.34	29	-1.98	1.49	0.10	-1.33
SEP	29	2.79	1	-1.75	1.68	0.36	-0.97

e Estimated

01409146 EAST THOROFARE AT SHIP BOTTOM, NJ

LOCATION.--Lat 39°39'14", long 74°11'09", Ocean County, Hydrologic Unit 02040301, on south side of bridge carrying State Route 72 across East Thorofare (Manahawkin Bay) between Bonnet Island and Long Beach Island, 2.0 mi southeast of Bayside, 9.0 mi southwest of Barnegat Inlet, and 11.5 mi northeast of Little Egg Inlet.

PERIOD OF RECORD.--July 1997 to May 5, 2000 (unpublished fragmentary gage-height record); May 5, 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929 add 1.25 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 0.64 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record October 30, November 1-9, January 11-12, 14-17, 20-26, January 29 to February 11, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 3.20 ft (NAVD of 1988), December 6, 2003; minimum elevation recorded, -2.27 ft (NAVD of 1988), November 14, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 3.20 ft (NAVD of 1988), December 6, although a higher elevation may have occurred during period of missing record in January; minimum elevation recorded, -2.27 ft (NAVD of 1988), November 14, although a lower elevation may have occurred during period of missing record in February.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	---	---	16	-1.40	0.89	0.19	-0.49
NOV	24	1.95	14	-2.27	---	---	---
DEC	6	3.20	16	-1.69	0.62	-0.09	-0.75
JAN	---	---	8	-1.87	---	---	---
FEB	21	1.60	---	---	---	---	---
MAR	11	2.12	13	-1.72	0.66	-0.06	-0.74
APR	13	1.51	30	-1.25	0.64	-0.09	-0.77
MAY	31	1.50	1	-1.19	0.68	-0.06	-0.74
JUN	1	1.78	30	-0.95	0.84	0.12	-0.56
JUL	15, 28	1.42	1	-0.97	0.94	0.20	-0.49
AUG	6	1.47	9	-0.93	0.93	0.18	-0.52
SEP	29	2.18	11	-0.70	1.15	0.42	-0.28



01409146 East Thorofare at Ship Bottom, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01409280 WESTECUNK CREEK AT STAFFORD FORGE, NJ

LOCATION.--Lat 39°40'00", Long 74°19'13", Ocean County, Hydrologic Unit 02040301, on upstream left bank at bridge on Martha road, 50 ft downstream from Stafford Forge Dam, 0.2 mi south of Stafford Forge, and 1.2 mi downstream from Log Swamp Branch.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--October 1973 to September 1988, July 2003 to current year. Occasional low-flow discharge measurements water years 1969-1973, at site 400 ft downstream.

REVISED RECORDS.--WRD NJ -83-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6.36 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1981, water-stage recorder and wooden control at site 50 ft upstream at datum 9.42 ft higher.

REMARKS.--Records fair. Flow occasionally regulated by dam 50 ft upstream. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 6	1430	75	11.22	Feb 8	0015	75	11.22
Jan 8	1245	81	11.30	Apr 14	1415	*85	*11.35

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	45	44	44	32	33	42	37	38	23	35	22
2	30	42	42	44	31	34	44	37	37	21	46	21
3	29	40	41	46	35	34	47	39	34	21	33	20
4	28	39	41	45	44	35	46	42	32	20	25	20
5	28	39	49	46	43	36	45	41	32	20	22	20
6	28	42	71	48	47	41	42	39	38	20	21	19
7	27	45	71	46	71	45	42	39	37	19	20	19
8	27	42	59	40	71	53	41	37	34	19	19	21
9	27	39	54	44	58	55	41	34	32	19	19	24
10	29	38	51	39	51	49	39	34	30	18	18	26
11	29	37	63	39	46	46	39	34	33	18	18	25
12	40	41	71	38	43	43	39	33	32	21	18	25
13	44	45	66	38	42	40	65	32	30	33	19	24
14	38	43	63	37	40	38	83	31	28	27	25	24
15	47	42	66	38	39	38	77	31	29	24	42	25
16	46	41	62	36	37	40	66	32	28	24	46	26
17	41	41	62	36	37	48	59	36	29	23	41	25
18	39	41	60	39	38	46	58	36	28	22	36	26
19	36	45	55	42	37	51	51	35	27	22	50	24
20	34	71	54	39	39	52	47	37	26	21	43	23
21	34	69	51	38	38	50	44	37	25	20	32	22
22	33	61	49	37	37	45	42	39	25	19	28	22
23	33	55	48	37	37	42	41	37	24	19	26	22
24	32	51	57	35	36	43	41	35	24	19	24	22
25	32	49	68	34	36	39	40	35	23	19	23	21
26	32	46	65	34	35	37	38	33	23	19	22	21
27	36	44	58	35	34	41	42	34	23	19	22	21
28	40	44	54	37	34	40	41	35	22	23	22	23
29	57	47	51	35	34	38	39	35	22	25	21	25
30	60	45	51	34	---	38	38	32	26	21	22	24
31	51	---	46	33	---	42	---	33	---	20	23	---
TOTAL	1,117	1,369	1,743	1,213	1,202	1,312	1,419	1,101	871	658	861	682
MEAN	36.0	45.6	56.2	39.1	41.4	42.3	47.3	35.5	29.0	21.2	27.8	22.7
MAX	60	71	71	48	71	55	83	42	38	33	50	26
MIN	27	37	41	33	31	33	38	31	22	18	18	19
CFSM	2.28	2.89	3.56	2.48	2.62	2.68	2.99	2.25	1.84	1.34	1.76	1.44
IN.	2.63	3.22	4.10	2.86	2.83	3.09	3.34	2.59	2.05	1.55	2.03	1.61

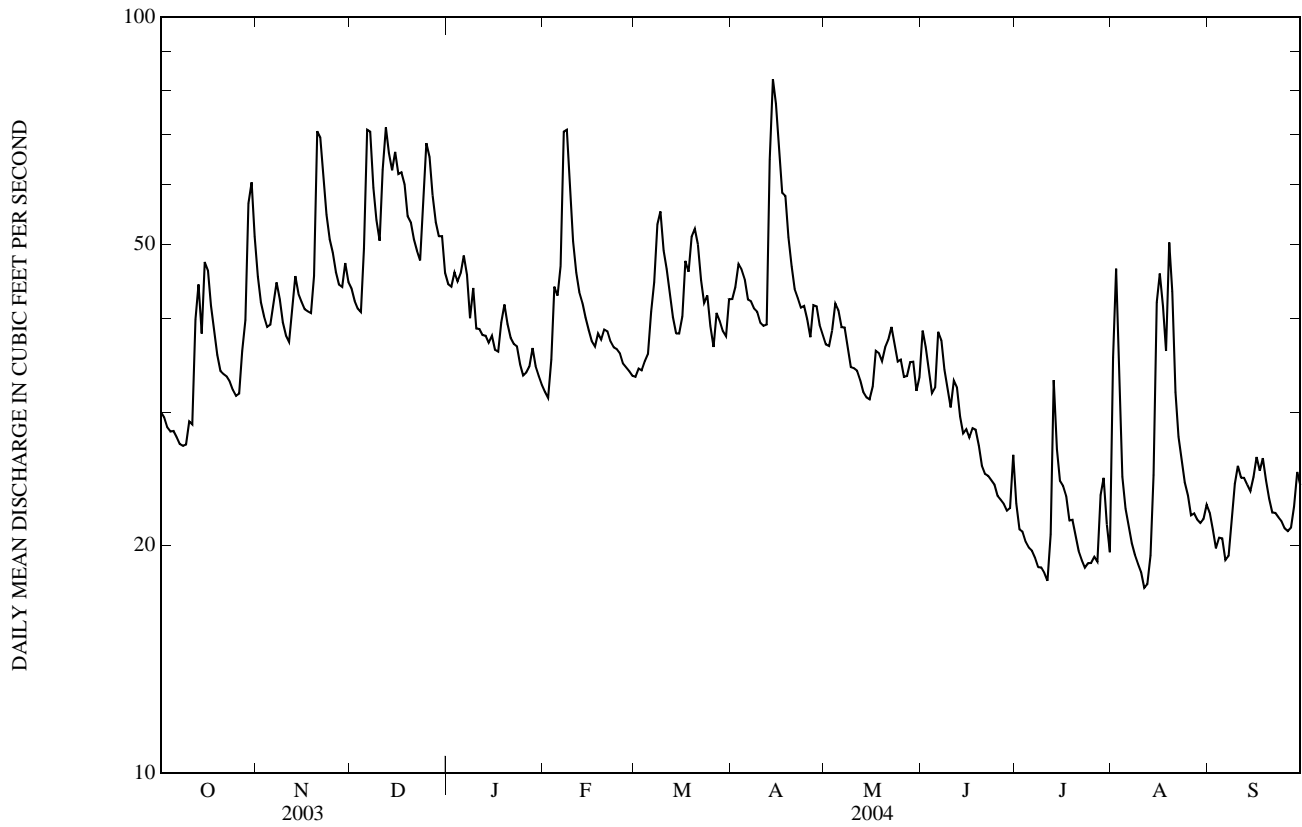
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	27.5	29.7	33.0	34.5	36.6	38.2	40.5	35.1	30.7	27.8	28.0	25.7
MAX	37.3	50.7	56.2	57.7	63.8	69.2	75.7	54.8	56.7	51.1	46.8	37.3
(WY)	(1980)	(1978)	(2004)	(1979)	(1979)	(1979)	(1984)	(1984)	(1984)	(1978)	(1978)	(1978)
MIN	16.6	17.6	21.5	19.6	23.5	24.3	20.9	16.2	16.7	13.8	18.0	13.6
(WY)	(1986)	(1986)	(1986)	(1986)	(1977)	(1982)	(1985)	(1986)	(1986)	(1985)	(1985)	(1985)

01409280 WESTECUNK CREEK AT STAFFORD FORGE, NJ—Continued

SUMMARY STATISTICS	JULY 8 - DECEMBER 31, 2003		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004	
ANNUAL TOTAL			13,548			
ANNUAL MEAN			37.0		32.2	
HIGHEST ANNUAL MEAN					46.9	1978
LOWEST ANNUAL MEAN					19.7	1986
HIGHEST DAILY MEAN	71	Many days	83	Apr 14	218	Feb 26, 1979
LOWEST DAILY MEAN	27	Oct 7-9	18	Many days	1.1	Sep 18, 1981
ANNUAL SEVEN-DAY MINIMUM			19	Aug 7	9.0	Jul 19, 1985
MAXIMUM PEAK FLOW			85	Apr 14	256	Jul 4, 1978
MAXIMUM PEAK STAGE			11.35	Apr 14	3.70a	Jul 4, 1978
INSTANTANEOUS LOW FLOW			2.7	Jan 8	0.00	May 17, 1974
ANNUAL RUNOFF (CFSM)			2.34		2.04	
ANNUAL RUNOFF (INCHES)			31.90		27.68	
10 PERCENT EXCEEDS			52		49	
50 PERCENT EXCEEDS			37		30	
90 PERCENT EXCEEDS			21		19	

a Site and datum then in use.



01409335 LITTLE EGG INLET NEAR TUCKERTON, NJ

LOCATION.--Lat 39°30'32", Long 74°19'30", Ocean County, Hydrologic Unit 02040301, on west end of docking pier at Rutgers University Marine Field Station (old U.S. Coast Guard Station) along Shooting Thorofare, 2.0 mi west of Atlantic Ocean, 4.3 mi southwest of Holgate (Long Beach Island), and 6.6 mi southeast of Tuckerton.

PERIOD OF RECORD.--1971-1975 (fragmentary gage-height record), July 1997 to Jan. 23, 2001 (unpublished fragmentary gage-height record), Jan. 24, 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.26 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 1.97 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for Oct.1 to Nov.6, Jan. 11 to Feb. 7, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.61 ft (adjusted to NAVD of 1988), Feb. 19, 1972; minimum elevation recorded, -3.99 ft (NAVD of 1988), Feb. 11, 2001.

EXTREMES FOR CURRENT WATER YEAR.--Maximum elevation recorded, 4.22 ft (NAVD of 1988), Dec. 6; minimum elevation recorded, -3.93 ft (NAVD of 1988), Nov. 14.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	---	---	---	---	---	---	---
NOV	24	3.04	14	-3.93	1.2e	0.0e	-1.8e
DEC	6	4.22	26	-3.35	1.13	-0.34	-1.81
JAN	---	---	---	---	---	---	---
FEB	20, 21	2.58	9	-3.28	1.2e	---	---
MAR	10	3.07	13	-2.87	1.31	-0.12	-1.52
APR	13	2.44	6	-2.63	1.21	-0.27	-1.73
MAY	31	2.38	7	-2.51	1.22	-0.30	-1.81
JUN	5	2.84	30	-2.19	1.38	-0.12	-1.61
JUL	3	2.42	1	-2.25	1.49	-0.03	-1.53
AUG	30	2.39	28	-2.16	1.46	-0.09	-1.58
SEP	29	2.91	1	-1.96	1.70	0.23	-1.19

e Estimated



01408500 Toms River near Toms River, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01409400 MULLICA RIVER NEAR BATSTO, NJ

LOCATION.--Lat 39°40'28", long 74°39'54", 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 mi².

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 NGVD of 1929.

REMARKS.--Records good except estimated discharges which are fair. Some regulation from upstream cranberry bogs and Atsion Lake. Diversions from Sleeper Branch enter river upstream from gage and substantially increase the discharge at the gage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 15	0845	314	3.02	Apr 16	0430	*452	*3.66
Feb 9	1345	418	3.53				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	163	129	154	83	106	112	135	71	42	140	118
2	80	160	130	145	82	107	116	134	69	42	122	144
3	78	155	135	138	87	104	137	132	67	41	101	141
4	78	141	126	e135	118	104	160	139	64	39	78	125
5	76	134	125	131	e142	105	198	136	77	41	84	114
6	71	128	145	135	e184	115	208	133	93	41	83	85
7	65	131	155	132	e279	133	189	124	72	41	78	75
8	59	117	142	125	e410	148	177	117	54	40	74	73
9	47	99	136	125	402	201	165	113	57	41	68	72
10	46	95	131	114	374	218	152	110	58	37	63	69
11	46	92	171	114	345	224	141	99	61	34	58	67
12	52	103	287	105	292	208	139	97	60	41	43	66
13	54	116	279	103	251	189	233	92	59	59	58	58
14	53	112	279	102	220	170	397	86	56	103	73	57
15	68	107	310	99	198	158	400	81	60	130	73	56
16	70	111	286	98	174	156	440	78	61	169	72	57
17	76	105	266	94	158	180	393	76	67	142	76	56
18	71	107	265	95	142	199	292	74	73	102	82	56
19	67	122	243	103	109	213	256	72	84	99	87	57
20	63	183	223	104	112	244	230	79	86	94	80	42
21	60	241	205	102	121	254	205	81	55	84	55	32
22	61	226	194	99	125	252	194	84	49	79	62	31
23	61	243	181	95	124	249	166	82	52	77	82	34
24	61	230	155	91	125	248	154	78	52	76	84	39
25	61	213	186	87	124	236	138	73	51	75	51	45
26	63	193	210	83	122	213	133	72	50	60	43	36
27	69	158	220	83	121	120	152	73	49	59	46	35
28	86	125	215	86	116	96	184	71	47	82	47	40
29	112	135	199	86	112	98	182	57	49	118	46	88
30	151	136	182	86	---	102	162	54	45	139	46	113
31	172	---	166	84	---	110	---	61	---	158	73	---
TOTAL	2,258	4,381	6,076	3,333	5,260	5,260	6,205	2,893	1,848	2,385	2,228	2,081
MEAN	72.8	146	196	108	181	170	207	93.3	61.6	76.9	71.9	69.4
MAX	172	243	310	154	418	254	440	139	93	169	140	144
MIN	46	92	125	83	82	96	112	54	45	34	43	31

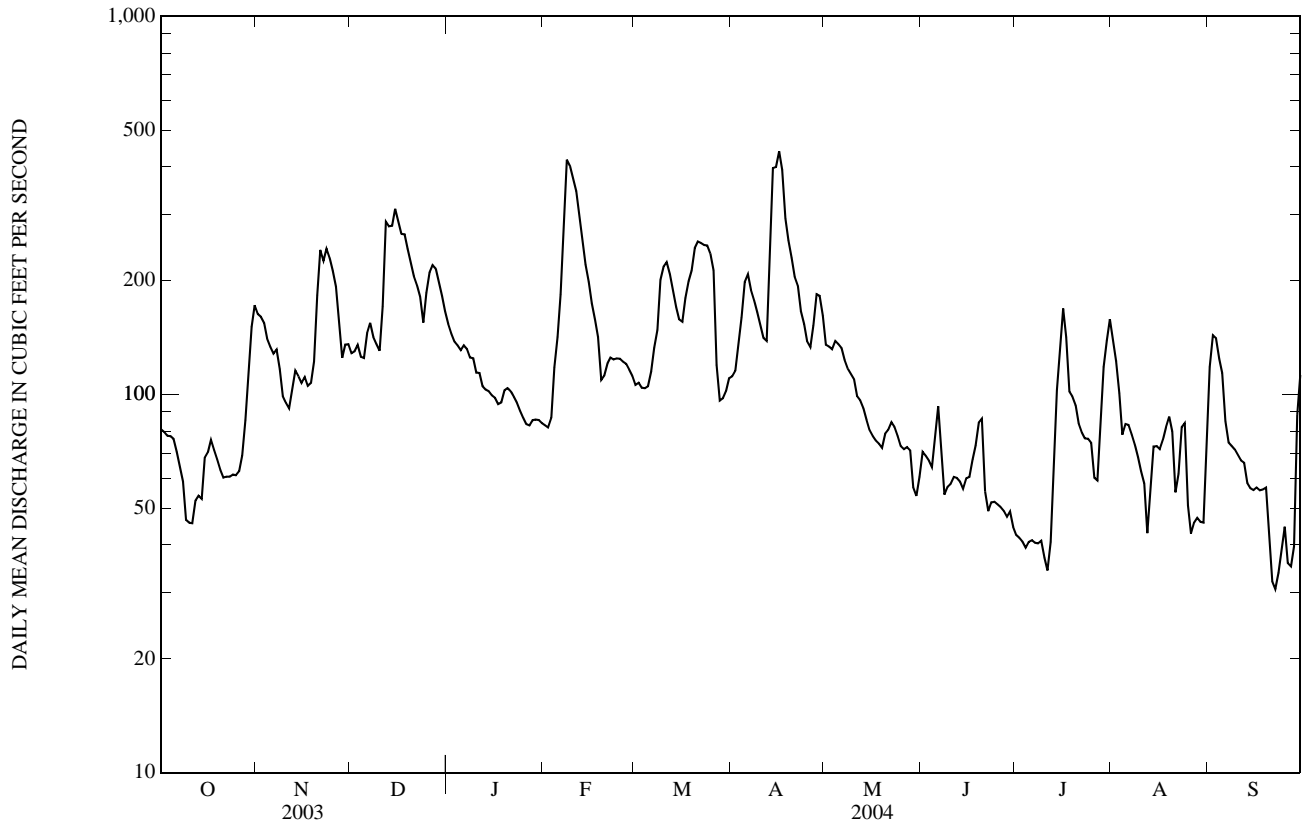
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2004, BY WATER YEAR (WY)

	66.7	87.0	118	136	140	162	151	119	78.7	68.5	71.7	61.2
MEAN	66.7	87.0	118	136	140	162	151	119	78.7	68.5	71.7	61.2
MAX	192	305	305	311	292	312	358	273	218	177	253	223
(WY)	(1976)	(1973)	(1973)	(1978)	(1979)	(1994)	(1983)	(1989)	(2003)	(1989)	(1958)	(1975)
MIN	24.1	22.0	21.8	29.3	41.1	59.1	50.3	53.3	32.3	21.9	19.8	17.6
(WY)	(1966)	(1966)	(1999)	(1981)	(2002)	(1985)	(1985)	(1992)	(1977)	(1977)	(1995)	(1995)

01409400 MULLICA RIVER NEAR BATSTO, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1957 - 2004	
ANNUAL TOTAL	50,750		44,208		105	
ANNUAL MEAN	139		121		168	
HIGHEST ANNUAL MEAN					44.7	1973
LOWEST ANNUAL MEAN					1,630	2002
HIGHEST DAILY MEAN	490	Feb 27	440	Apr 16	5.1	Feb 26, 1979
LOWEST DAILY MEAN	35	Aug 27	31	Sep 22	6.4	Sep 16, 1995
ANNUAL SEVEN-DAY MINIMUM	36	Aug 24	36	Sep 21	1,840	Sep 10, 1995
MAXIMUM PEAK FLOW			452	Apr 16	6.14	Feb 26, 1979
MAXIMUM PEAK STAGE			3.66	Apr 16	4.9	Feb 26, 1979
INSTANTANEOUS LOW FLOW			30	Sep 22	200	Sep 16, 1995
10 PERCENT EXCEEDS	267		220		84	
50 PERCENT EXCEEDS	109		103		31	
90 PERCENT EXCEEDS	60		51			

e Estimated



MULLICA RIVER BASIN

01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'30", long 74°39'01", Burlington County, Hydrologic Unit 02040301, on right bank 30 ft downstream from bridge on County Route 542 at Batsto, 0.6 mi east of Pleasant Mills, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi².

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 recorders above and below control. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft downstream. Prior to November 2003, auxiliary tide gage (01409510) located 0.9 mi downstream used to adjust record for tide effect. Datum of gage is 1.4 ft above NGVD of 1929.

REMARKS.--Records 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. Flow records are corrected for tide effect. The channel was straightened for approximately 800 ft downstream of the gage in 1939. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e92	e190	148	155	102	115	136	159	83	61	197	127
2	e90	e177	144	148	100	113	140	146	81	61	171	175
3	e88	e158	136	142	106	112	147	142	79	59	159	191
4	e87	e141	128	138	131	112	164	142	77	55	147	164
5	e86	e128	113	137	153	113	182	145	78	55	133	141
6	e84	e124	96	142	189	122	204	141	78	56	121	118
7	e81	e125	155	142	234	136	200	134	82	54	109	104
8	e78	e121	160	138	342	165	181	127	80	53	102	99
9	e75	e116	155	131	339	184	163	121	77	52	95	96
10	e72	e112	145	125	283	205	151	119	77	51	91	94
11	e72	e110	146	119	238	200	144	115	80	49	86	89
12	e74	e112	209	115	215	189	136	119	78	55	83	87
13	e74	e118	252	115	198	174	185	132	75	116	84	83
14	e75	e123	236	114	179	157	269	127	71	887	101	79
15	e84	e125	240	114	166	147	361	116	75	649	121	79
16	e91	e121	232	111	152	144	335	107	81	422	142	79
17	e93	e114	225	110	145	150	278	97	90	311	154	80
18	e90	e110	213	114	137	172	251	98	102	243	149	78
19	e86	113	206	119	133	193	223	99	100	173	136	80
20	e81	143	193	120	130	204	197	106	89	167	126	82
21	e78	175	181	118	131	222	183	109	80	143	114	81
22	e76	225	168	113	130	211	159	104	74	135	118	79
23	e75	230	157	111	128	192	156	99	71	123	143	76
24	e73	203	163	108	127	173	151	93	69	117	139	70
25	e72	181	187	104	125	160	144	89	68	119	119	69
26	e72	162	220	103	123	149	147	88	68	111	106	68
27	e75	149	220	102	121	143	160	92	66	104	97	65
28	e88	142	203	106	119	140	180	93	63	114	92	72
29	e103	143	189	106	117	134	193	87	63	223	86	108
30	e124	145	177	105	---	131	177	79	63	274	83	149
31	e181	---	162	103	---	132	---	77	---	237	100	---
TOTAL	2,670	4,336	5,559	3,728	4,793	4,894	5,697	3,502	2,318	5,329	3,704	2,962
MEAN	86.1	145	179	120	165	158	190	113	77.3	172	119	98.7
MAX	181	230	252	155	342	222	361	159	102	887	197	191
MIN	72	110	96	102	100	112	136	77	63	49	83	65
CFSM	1.27	2.13	2.64	1.77	2.44	2.33	2.80	1.67	1.14	2.54	1.76	1.46
IN.	1.46	2.38	3.05	2.05	2.63	2.69	3.13	1.92	1.27	2.92	2.03	1.63

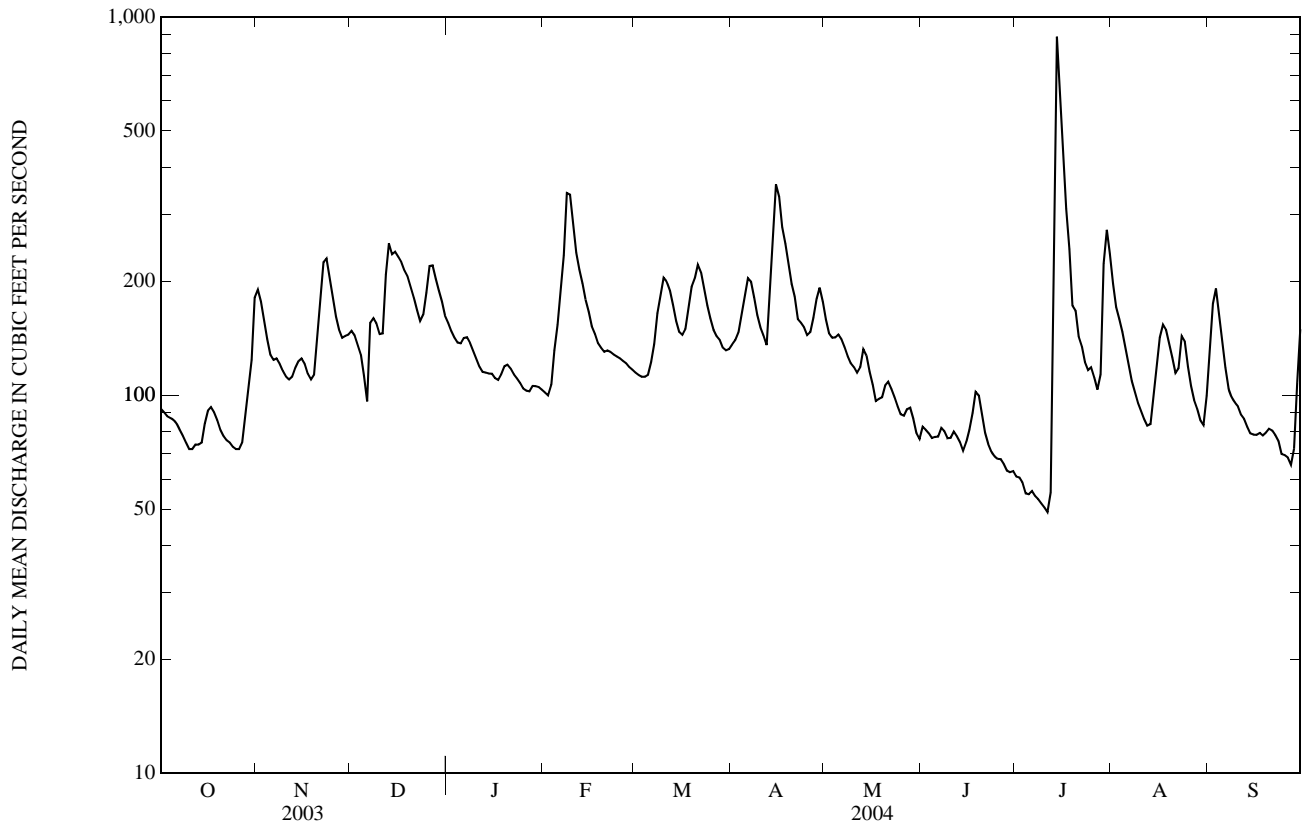
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	86.4	110	124	139	147	170	155	140	102	90.9	99.8	90.8
MAX	241	307	302	280	361	353	322	285	242	257	332	242
(WY)	(1959)	(1973)	(1973)	(1949)	(1939)	(1958)	(1970)	(1998)	(1948)	(1938)	(1958)	(1960)
MIN	43.9	43.4	46.0	51.5	54.0	68.5	71.8	65.1	50.9	40.6	40.8	40.5
(WY)	(1966)	(1966)	(1999)	(2002)	(2002)	(2002)	(1985)	(1977)	(1977)	(1977)	(2002)	(1995)

01409500 BATSTO RIVER AT BATSTO, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	49,896		49,492		120	
ANNUAL MEAN	137		135		193	
HIGHEST ANNUAL MEAN					56.7	1958
LOWEST ANNUAL MEAN					2,000	2002
HIGHEST DAILY MEAN	582	Feb 26	887	Jul 14	Aug 20, 1939	
LOWEST DAILY MEAN	59	Aug 30	49	Jul 11	5.7	Oct 4, 1959
ANNUAL SEVEN-DAY MINIMUM	62	Aug 27	53	Jul 5	34	Aug 17, 2002
MAXIMUM PEAK FLOW			1,020	Jul 14		
MAXIMUM PEAK STAGE			7.11	Jul 14	8.70a	Aug 20, 1939
ANNUAL RUNOFF (CFSM)	2.02		1.99		1.78	
ANNUAL RUNOFF (INCHES)	27.38		27.15		24.14	
10 PERCENT EXCEEDS	220		204		201	
50 PERCENT EXCEEDS	113		121		100	
90 PERCENT EXCEEDS	75		75		55	

a From floodmark
e Estimated



MULLICA RIVER BASIN

01409510 BATSTO RIVER AT PLEASANT MILLS, NJ

LOCATION.--Lat 39°37'55", long 74°38'39", 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 from highway bridge on County Route 542 at Batsto.

DRAINAGE AREA.--73.6 mi².

PERIOD OF RECORD.--July 1958 to September 2004 (discontinued). Annual maximum only published for 1958 to 1965.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is at -8.6 ft NGVD of 1929. Gage-height record converted to elevation above or below NGVD of 1929 for publication.

REMARKS.--Missing gage-height record for Jan. 10-14, 16-17, Jan. 24 to Feb. 3, and Feb. 16. Summaries for months with short periods of missing 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 dashed (---) lines.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 7.2 ft, Mar. 7, 1962; minimum record (after 1965), -0.67 ft, Jan. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.74 ft, Dec. 6; minimum recorded, 0.26 ft, May 19, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	11	3.66	26	0.54	2.83	1.81	0.81
NOV	24	3.98	10	0.78	2.75	1.94	1.11
DEC	6	4.74	5	0.79	2.70	2.01	1.31
JAN	5	3.36	---	---	---	---	---
FEB	20	3.63	28	0.42	2.69	1.76	0.95
MAR	17	3.84	3	0.31	2.75	1.84	0.87
APR	13	3.64	11	0.57	2.79	1.91	1.02
MAY	31	3.52	19	0.26	2.81	1.67	0.52
JUN	6	3.84	29	0.27	2.87	1.71	0.47
JUL	14	4.22	10	0.29	3.03	2.01	0.91
AUG	31	3.47	28	0.48	2.92	1.85	0.75
SEP	29, 30	3.72	26	0.35	3.09	2.06	0.83



2004 National Water Monitoring Day at Batsto, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

MULLICA RIVER BASIN

01410000 OSWEGO RIVER AT HARRISVILLE, NJ

LOCATION.--Lat 39°39'48", long 74°31'27", Burlington County, Hydrologic Unit 02040301, on right bank 50 ft downstream from bridge on County Route Spur 563 at Harrisville, and 0.3 mi upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--72.5 mi².

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 NGVD of 1929.

REMARKS.--Records good, except estimated daily discharges which are fair. 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 were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	110	79	89	66	65	80	83	54	34	42	37
2	45	90	65	86	64	67	90	80	53	34	45	35
3	40	78	55	83	68	68	107	80	52	33	43	34
4	35	69	51	80	112	71	111	82	51	31	42	33
5	35	65	57	81	118	73	119	80	52	32	39	32
6	33	68	85	87	118	90	112	74	55	30	36	31
7	36	82	98	83	245	103	101	72	57	28	33	30
8	43	79	94	78	284	133	92	72	55	28	32	32
9	38	72	85	77	231	154	89	73	52	27	32	31
10	42	66	81	73	181	150	83	73	48	28	31	30
11	41	60	125	71	155	131	80	69	51	28	29	29
12	43	e69	201	67	135	116	95	63	51	35	28	28
13	47	e75	196	67	120	103	189	59	47	48	32	28
14	41	71	162	67	109	94	328	58	46	47	36	28
15	61	e66	163	68	101	89	394	53	48	95	56	29
16	68	e64	145	67	93	95	336	51	46	97	65	30
17	61	61	132	67	87	122	259	49	52	48	71	28
18	55	58	133	70	86	125	181	49	49	43	69	31
19	50	58	124	78	86	143	136	49	47	49	61	29
20	48	132	113	77	86	155	108	60	e47	46	55	28
21	48	174	103	74	86	153	96	59	41	42	49	27
22	48	167	95	72	82	136	88	63	39	39	44	27
23	48	126	88	69	80	124	84	67	38	35	41	27
24	45	107	105	67	76	118	87	68	39	36	39	25
25	45	97	147	67	73	108	83	58	37	36	39	25
26	42	87	144	67	70	93	83	51	37	36	37	25
27	43	82	123	67	69	84	101	49	35	e35	36	25
28	48	80	111	72	67	75	97	50	34	40	34	33
29	58	87	103	72	65	77	90	e45	34	42	32	52
30	125	85	98	68	---	69	87	e43	34	39	32	54
31	130	---	93	67	---	75	---	e45	---	37	40	---
TOTAL	1,590	2,585	3,454	2,278	3,213	3,259	3,986	1,927	1,381	1,258	1,300	933
MEAN	51.3	86.2	111	73.5	111	105	133	62.2	46.0	40.6	41.9	31.1
MAX	130	174	201	89	284	155	394	83	57	97	71	54
MIN	33	58	51	67	64	65	80	43	34	27	28	25
CFSM	0.71	1.19	1.54	1.01	1.53	1.45	1.83	0.86	0.63	0.56	0.58	0.43
IN.	0.82	1.33	1.77	1.17	1.65	1.67	2.05	0.99	0.71	0.65	0.67	0.48

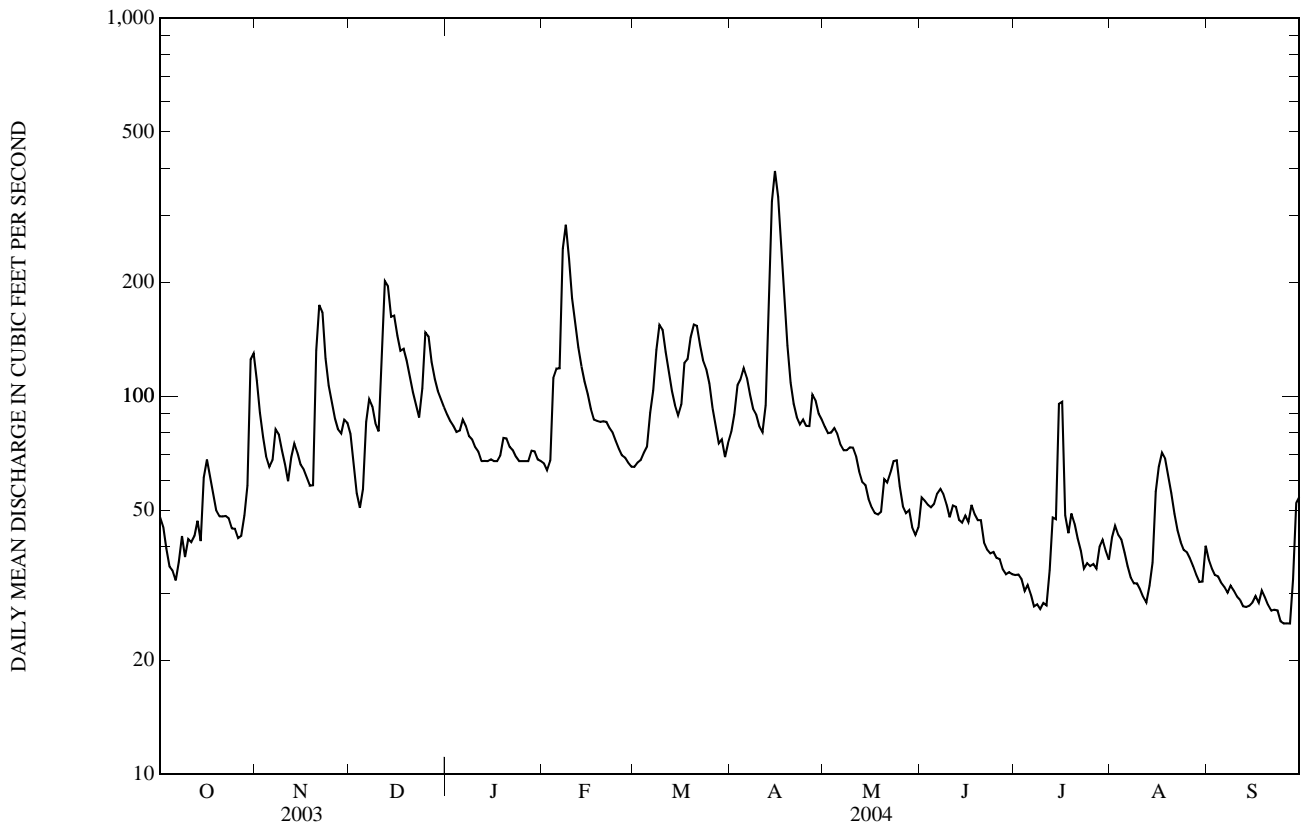
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2004, BY WATER YEAR (WY)

MEAN	62.8	80.6	83.1	99.8	103	118	112	96.0	72.0	65.4	74.5	61.3
MAX	176	234	200	242	210	255	253	261	162	201	207	163
(WY)	(1959)	(1973)	(1973)	(1979)	(1939)	(1998)	(1970)	(1998)	(1998)	(1938)	(1933)	(1938)
MIN	28.6	28.6	27.1	31.2	28.8	40.5	41.3	43.1	33.7	24.2	23.9	24.4
(WY)	(1966)	(2002)	(1966)	(2002)	(2002)	(2002)	(1985)	(2002)	(1966)	(1977)	(1957)	(1951)

01410000 OSWEGO RIVER AT HARRISVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1931 - 2004	
ANNUAL TOTAL	33,106		27,164		85.6	
ANNUAL MEAN	90.7		74.2		36.7	
HIGHEST ANNUAL MEAN					138	1978
LOWEST ANNUAL MEAN					36.7	2002
HIGHEST DAILY MEAN	383	Feb 25	394	Apr 15	1,220	Aug 20, 1939
LOWEST DAILY MEAN	33	Oct 6	25	Sep 24	4.0	Jun 23, 1967
ANNUAL SEVEN-DAY MINIMUM	35	Aug 23	26	Sep 21	14	Sep 7, 1966
MAXIMUM PEAK FLOW			422	Apr 15	1,390	Aug 20, 1939
MAXIMUM PEAK STAGE			4.47	Apr 15	9.54	Aug 20, 1939
INSTANTANEOUS LOW FLOW			25	Sep 23	0.00	Oct 26, 1932
ANNUAL RUNOFF (CFSM)	1.25		1.02		1.18	
ANNUAL RUNOFF (INCHES)	16.99		13.94		16.05	
10 PERCENT EXCEEDS	164		125		148	
50 PERCENT EXCEEDS	71		67		70	
90 PERCENT EXCEEDS	44		32		36	

- a From rating curve extended above 840 ft³/s extended by logarithmic plotting.
- b From high-water mark in gage house
- c While pond filling.
- e Estimated.



MULLICA RIVER BASIN

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

LOCATION.--Lat 39°37'23", long 74°26'29", Burlington County, Hydrologic Unit 02040301, on left bank upstream from 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 mi².

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 NGVD of 1929.

REMARKS.--Records good, except for estimated discharges and gage-height record above 200 ft³/s which are considered fair. Occasional regulation by Lake Absegami. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 65 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 14	0115	*61	*5.05				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	18	21	15	16	21	18	16	9.3	15	10
2	14	18	18	21	15	16	20	18	16	9.3	17	9.8
3	14	17	17	21	17	16	20	18	13	9.3	13	9.6
4	14	17	17	20	24	16	20	20	12	9.1	11	9.5
5	14	17	22	21	22	17	21	18	13	9.1	10	9.5
6	14	19	34	23	21	19	18	17	15	9.0	10	9.5
7	14	22	30	21	43	22	17	16	14	8.9	9.7	9.4
8	13	19	23	20	35	25	17	16	13	8.8	9.5	9.5
9	13	17	21	19	25	27	17	15	12	8.8	9.5	9.5
10	13	17	20	18	22	23	16	16	11	8.8	9.3	9.4
11	13	16	33	18	21	19	16	15	12	8.8	9.3	9.3
12	16	19	40	18	20	18	17	15	12	9.2	9.3	9.2
13	18	21	30	18	20	17	40	15	11	12	10	9.2
14	16	18	27	18	19	17	54	14	11	11	14	9.1
15	21	17	30	18	19	17	41	14	11	11	24	9.3
16	20	17	28	18	18	18	32	14	11	9.9	22	10
17	17	16	26	17	18	23	26	14	11	9.4	17	9.6
18	16	16	28	18	18	21	24	14	11	9.6	14	9.8
19	15	18	26	20	18	24	23	14	10	10	13	9.8
20	15	e34	24	19	18	27	22	17	10	9.5	13	9.4
21	14	33	23	17	18	23	21	15	10	9.2	11	9.2
22	14	25	22	17	18	20	20	15	9.9	9.1	11	9.1
23	15	21	22	17	17	18	20	15	9.8	9.1	11	9.0
24	14	20	28	16	17	18	20	14	9.8	9.2	10	9.0
25	14	20	36	16	17	18	20	13	9.7	9.2	10	9.0
26	14	19	29	16	17	18	19	13	9.6	9.3	10	8.8
27	15	19	25	16	16	17	25	13	9.5	9.2	9.9	8.9
28	18	19	23	17	16	17	23	13	9.4	10	9.8	9.0
29	e19	21	22	17	16	17	20	13	9.5	11	9.8	11
30	e31	20	22	16	---	16	18	12	9.4	9.9	9.7	10
31	25	---	22	16	---	20	---	13	---	9.4	10	---
TOTAL	497	591	786	568	580	600	688	467	341.6	295.4	371.8	283.4
MEAN	16.0	19.7	25.4	18.3	20.0	19.4	22.9	15.1	11.4	9.53	12.0	9.45
MAX	31	34	40	23	43	27	54	20	16	12	24	11
MIN	13	16	17	16	15	16	16	12	9.4	8.8	9.3	8.8
CFSM	1.98	2.43	3.13	2.26	2.47	2.39	2.83	1.86	1.40	1.17	1.48	1.16
IN.	2.28	2.71	3.61	2.61	2.66	2.75	3.16	2.14	1.57	1.35	1.71	1.30

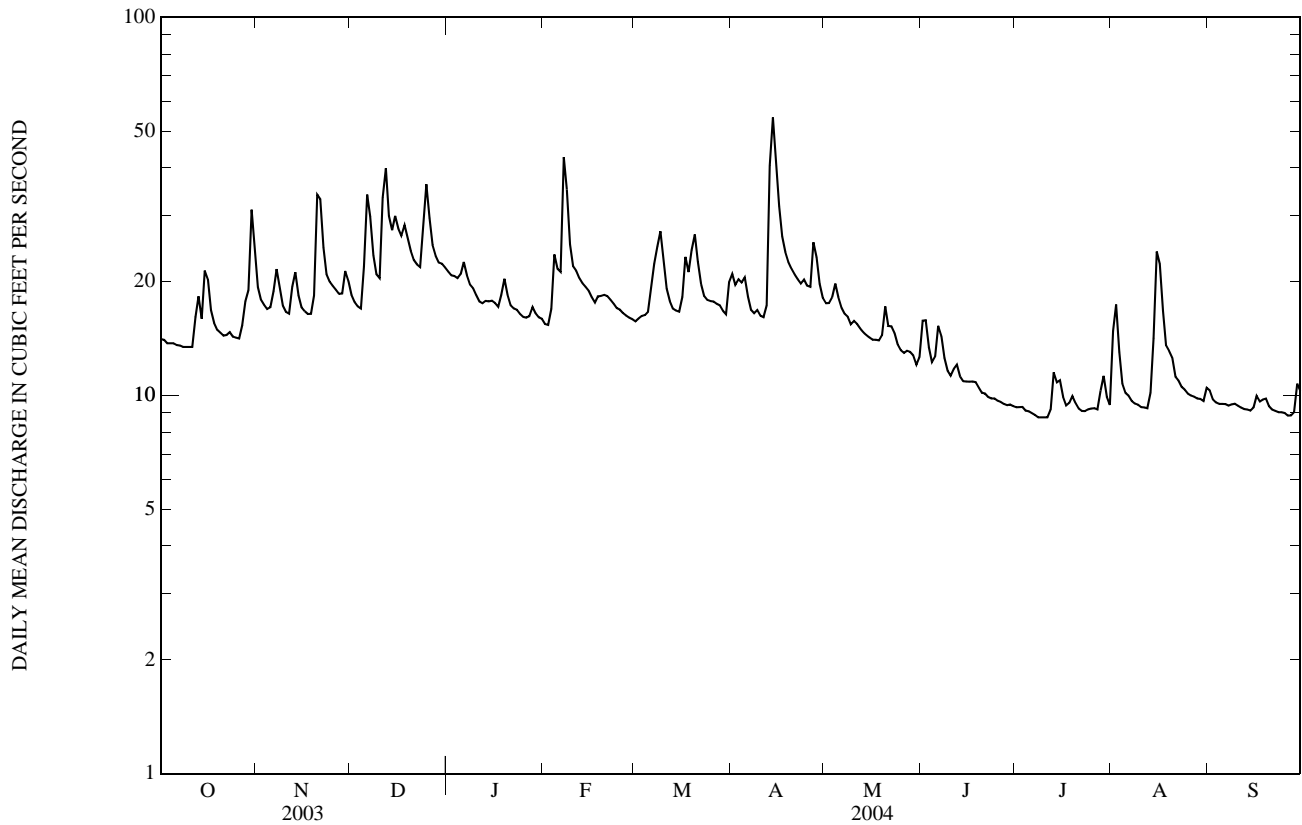
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	12.7	14.1	15.8	18.3	18.2	20.8	21.0	18.8	15.8	13.7	15.1	12.7
MAX	24.2	23.1	28.3	35.0	34.3	40.8	38.6	41.5	35.2	25.8	43.7	23.2
(WY)	(1990)	(1990)	(1997)	(1978)	(1998)	(1998)	(1984)	(1998)	(1998)	(1978)	(1997)	(2000)
MIN	8.13	8.75	9.78	9.28	9.19	10.4	9.06	8.95	8.11	7.80	6.54	6.77
(WY)	(1983)	(1982)	(1986)	(1981)	(2002)	(2002)	(1985)	(1985)	(1986)	(1985)	(1995)	(1995)

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	7,252		6,069.2			
ANNUAL MEAN	19.9		16.6		16.2	
HIGHEST ANNUAL MEAN					25.3	1998
LOWEST ANNUAL MEAN					9.60	1985
HIGHEST DAILY MEAN	70	Jun 8	54	Apr 14	533	Aug 21, 1997
LOWEST DAILY MEAN	13	Feb 14	8.8	Many days	4.8	Sep 15, 1995
ANNUAL SEVEN-DAY MINIMUM	13	Oct 5	8.9	Jul 5	5.0	Sep 10, 1995
MAXIMUM PEAK FLOW			61	Apr 14	1,130a	Aug 21, 1997
MAXIMUM PEAK STAGE			5.05	Apr 14	7.28	Aug 21, 1997
INSTANTANEOUS LOW FLOW			8.8	Many days	4.7	Sep 15, 1995
ANNUAL RUNOFF (CFSM)	2.45		2.04		2.00	
ANNUAL RUNOFF (INCHES)	33.26		27.84		27.11	
10 PERCENT EXCEEDS	28		24		26	
50 PERCENT EXCEEDS	18		16		14	
90 PERCENT EXCEEDS	14		9.4		8.9	

a From rating curve extended above 200 ft³/s extended by logarithmic plotting.
 e Estimated.



01410510 ABSECON CREEK AT US ROUTE 30, AT ABSECON, NJ

LOCATION.--Lat 39°25'21", long 74°29'59", Atlantic County, Hydrologic Unit 02040302, on left bank, 5 ft upstream of bridge on US Route 30 in Absecon, 200 ft downstream of AMTRAK railroad bridge, 1.7 mi downstream of dam at Atlantic City Reservoir (Doughty Pond), 1.8 mi upstream of mouth and Absecon Bay, and 2.4 mi northwest of Pleasantville.

PERIOD OF RECORD.--June 19, 1997 to April 4, 2000 (unpublished fragmentary gage-height record), April 5, 2000 to present year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.27 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.30 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for January 16-17, January 23 to February 1, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.56 ft (NAVD of 1988), February 17, 2003; minimum elevation recorded, -4.63 ft (NAVD of 1988), November 14, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.37 ft (NAVD of 1988), December 6; minimum elevation recorded, -4.63 ft (NAVD of 1988), November 14, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.17	26	-2.99	1.81	-0.02	-2.03
NOV	24	3.45	14	-4.63	1.55	-0.23	-2.24
DEC	6	4.37	26	-4.41	1.48	-0.33	-2.36
JAN	22	2.53	---	---	---	---	---
FEB	20	2.85	9	-4.20	1.40	-0.44	-2.55
MAR	11	3.30	13	-3.88	1.55	-0.19	-2.13
APR	13	2.71	6	-3.71	1.54	-0.29	-2.30
MAY	31	2.88	5	-3.30	1.62	-0.25	-2.27
JUN	6	3.40	30	-2.80	1.78	-0.06	-2.09
JUL	3	2.89	1	-2.83	1.92	0.05	-2.06
AUG	30	2.92	29	-3.11	1.90	-0.01	-2.17
SEP	29	3.20	1	-2.92	2.16	0.34	-1.78

01410560 INSIDE THOROFARE AT US ROUTE 40, AT ATLANTIC CITY, NJ

LOCATION.--Lat 39°21'12", long 74°27'24", Atlantic County, Hydrologic Unit 02040302, on wooden cribbing near east bank, about 10 ft south of bridge on US Routes 40 and 322 (Albany Street) in Chelsea Heights section of Atlantic City, 0.5 mi southwest of northern confluence with Beach Thorofare, 0.9 mi southwest of AMTRAK railroad bridge over Beach Thorofare, and 1.7 mi northeast of Ventnor post office.

PERIOD OF RECORD.--July 11, 1997 to June 2, 2000 (unpublished fragmentary gage-height record), June 3, 2000 to present year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.31 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.44 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for January 24 to February 1, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.61 ft (NAVD of 1988), December 25, 2002; minimum elevation recorded, -4.81 ft (NAVD of 1988), February 11, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6.5 ft (adjusted to NAVD of 1988), March 6 or 7, 1962, from high-water mark near Raleigh Avenue about 0.4 mi southwest of gage.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.48 ft (NAVD of 1988), December 6; minimum elevation recorded, -4.49 ft (NAVD of 1988), November 29, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.41	---	---	1.90	0.02	-2.04
NOV	24	3.75	29	-4.49	1.66	-0.22	-2.24
DEC	6	4.48	26	-4.25	1.57	-0.33	-2.35
JAN	22	2.64	---	---	---	---	---
FEB	20	3.01	9	-4.06	1.46	-0.42	-2.55
MAR	10	3.53	13	-3.66	1.59	-0.24	-2.17
APR	9	2.79	6	-3.48	1.58	-0.32	-2.31
MAY	31	2.90	5	-3.34	1.68	-0.28	-2.33
JUN	6	3.46	30	-2.84	1.85	-0.09	-2.12
JUL	3	3.11	1	-2.92	1.97	0.01	-2.06
AUG	30	3.07	29	-2.96	1.95	-0.04	-2.13
SEP	29	3.43	1	-2.77	2.18	0.27	-1.76

01410600 ABSECON CHANNEL AT ATLANTIC CITY, NJ

LOCATION.--Lat 39°22'39", long 74°25'24", Atlantic County, Hydrologic Unit 02040302, on bulkhead at U.S. Coast Guard Station Atlantic City on Clam Creek, 400 ft south of Absecon Channel, in Atlantic City, 2,200 ft southeast of the south end of bridge on State Route 87 over Absecon Channel, 1.3 mi northwest of Absecon Inlet, and 3.3 mi southwest of Brigantine city hall.

PERIOD OF RECORD.--June 16, 1997 to June 17, 2000 (unpublished fragmentary gage-height record), June 18, 2000 to current year.

GAGE.--Water-stage, water-temperature, air-temperature, wind speed/direction, barometric pressure, relative humidity, and precipitation recorders. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.33 ft. To determine elevations to Mean Lower Low Water Datum, add 2.49 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for September 9-30. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage and weather telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.74 ft (NAVD of 1988), February 17, 2003; minimum elevation recorded, -4.94 ft (NAVD of 1988), December 12, 2000.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 7.7 ft (adjusted to NAVD of 1988), March 6 or 7, 1962, from high-water mark at the U.S. Coast Guard Station.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.65 ft (NAVD of 1988), December 6; minimum elevation recorded, -4.78 ft (NAVD of 1988), November 29.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.44	26	-3.54	1.84	-0.13	-2.15
NOV	24	3.71	29	-4.78	1.61	-0.31	-2.36
DEC	6	4.65	26	-4.44	1.53	-0.41	-2.43
JAN	22	2.63	21	-4.45	1.13	-0.80	-2.81
FEB	20	2.99	9	-4.25	1.31	-0.62	-2.65
MAR	10	3.50	13	-3.88	1.53	-0.35	-2.30
APR	8	2.91	6	-3.81	1.61	-0.34	-2.38
MAY	31	3.21	5	-3.48	1.78	-0.21	-2.28
JUN	1, 5	3.69	4	-3.07	1.99	0.02	-2.04
JUL	30	3.37	1	-3.04	2.20	0.22	-1.88
AUG	30	3.22	29	-3.02	2.13	0.10	-2.00
SEP	---	---	1	-2.81	---	---	---



01411390 Cape May Harbor at Cape May, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

GREAT EGG HARBOR RIVER BASIN

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ

LOCATION.--Lat 39°35'42", long 74°51'05", Atlantic County, Hydrologic Unit 02040302, on left bank 25 ft upstream from bridge on State Route 54, 1.0 mi south of Folsom, and 2.0 mi upstream from Pennypot Stream.

DRAINAGE AREA.--57.1 mi².

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 NGVD of 1929. 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 except for estimated daily discharges, which are fair. Satellite rain and gage-height telemetry at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	189	108	122	81	87	98	122	83	47	107	115
2	79	163	106	115	79	87	105	110	86	46	86	139
3	74	134	100	110	83	87	114	107	83	45	88	132
4	72	113	94	107	100	87	127	112	79	42	93	96
5	70	100	93	105	118	89	142	119	77	43	112	74
6	68	95	104	108	147	95	144	118	86	42	122	67
7	65	98	111	111	213	109	136	111	89	41	93	62
8	64	100	110	110	346	129	123	104	84	40	72	67
9	64	99	104	107	363	143	113	98	76	40	63	67
10	62	95	100	100	294	144	107	96	71	38	57	62
11	62	91	114	e92	218	138	102	97	73	37	53	59
12	62	90	177	88	174	125	100	95	72	43	50	55
13	62	98	293	88	145	112	130	90	70	75	50	53
14	60	106	297	89	130	103	238	86	67	85	50	51
15	71	111	254	88	119	97	347	82	73	92	67	50
16	81	108	225	e86	111	96	349	79	77	96	72	50
17	82	99	221	84	104	108	286	78	79	85	72	50
18	78	92	215	86	100	127	220	76	81	74	68	52
19	72	90	198	91	99	152	172	78	78	90	69	61
20	67	116	181	95	99	168	145	92	70	97	63	58
21	64	167	159	93	99	177	130	98	64	98	57	54
22	62	203	141	89	98	163	120	103	61	86	57	51
23	62	193	127	86	97	141	114	101	59	71	56	50
24	61	161	128	84	95	123	112	88	57	76	53	48
25	61	135	162	82	93	112	111	80	56	79	51	47
26	61	119	257	81	92	106	110	77	55	70	49	47
27	63	108	269	81	91	102	120	82	53	63	48	46
28	80	102	217	82	90	99	137	80	50	80	46	46
29	100	103	172	82	88	96	148	75	49	97	44	79
30	128	107	147	81	---	93	139	71	48	111	50	102
31	175	---	132	81	---	93	---	71	---	126	88	---
TOTAL	2,317	3,585	5,116	2,904	3,966	3,588	4,539	2,876	2,106	2,155	2,106	1,990
MEAN	74.7	120	165	93.7	137	116	151	92.8	70.2	69.5	67.9	66.3
MAX	175	203	297	122	363	177	349	122	89	126	122	139
MIN	60	90	93	81	79	87	98	71	48	37	44	46
CFSM	1.31	2.09	2.89	1.64	2.40	2.03	2.65	1.62	1.23	1.22	1.19	1.16
IN.	1.51	2.34	3.33	1.89	2.58	2.34	2.96	1.87	1.37	1.40	1.37	1.30

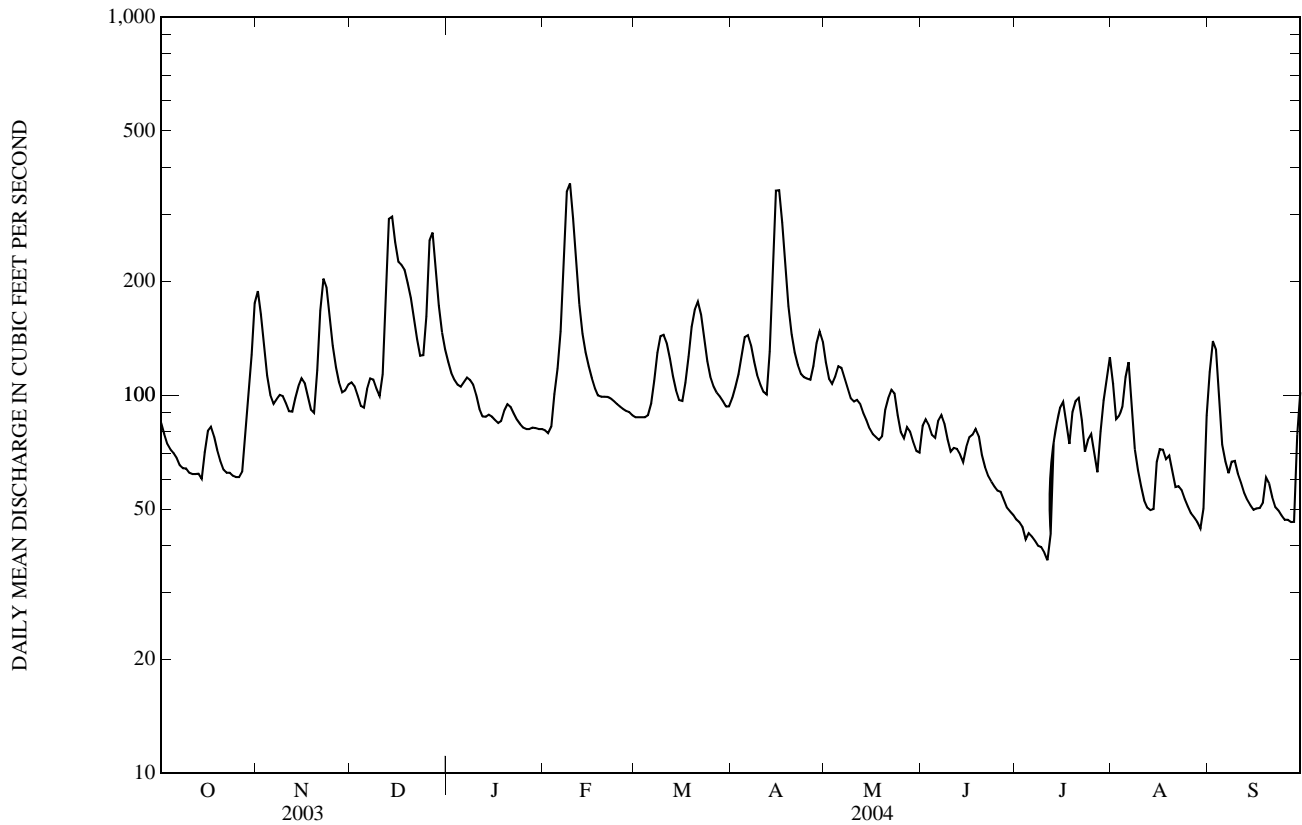
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2004, BY WATER YEAR (WY)

MEAN	60.0	77.2	92.5	102	106	121	114	94.5	72.2	61.8	63.1	60.3
MAX	148	213	212	203	228	229	234	199	167	187	182	215
(WY)	(1939)	(1973)	(1973)	(1936)	(1939)	(1958)	(1983)	(1958)	(2003)	(1938)	(1967)	(1940)
MIN	27.4	25.8	32.8	39.3	42.0	57.6	53.9	47.1	34.4	22.1	19.3	25.6
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(2002)	(1985)	(1955)	(1977)	(1966)	(1966)	(1964)

01411000 GREAT EGG HARBOR RIVER AT FOLSOM, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1925 - 2004	
ANNUAL TOTAL	40,404		37,248		85.3	
ANNUAL MEAN	111		102		133	
HIGHEST ANNUAL MEAN					40.2	1973
LOWEST ANNUAL MEAN					1,300	2002
HIGHEST DAILY MEAN	355	Feb 25	363	Feb 9	1,300	Sep 3, 1940
LOWEST DAILY MEAN	48	Aug 29	37	Jul 11	12	Aug 23, 2002
ANNUAL SEVEN-DAY MINIMUM	52	Jul 27	40	Jul 5	13	Aug 17, 2002
MAXIMUM PEAK FLOW			389	Feb 9	1,440	Sep 3, 1940
MAXIMUM PEAK STAGE			5.75	Feb 9	9.09	Sep 3, 1940
INSTANTANEOUS LOW FLOW			35	Jul 11	12	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	1.94		1.78		1.49	
ANNUAL RUNOFF (INCHES)	26.32		24.27		20.29	
10 PERCENT EXCEEDS	190		160		147	
50 PERCENT EXCEEDS	97		92		73	
90 PERCENT EXCEEDS	62		53		36	

e Estimated



TUCKAHOE RIVER BASIN

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ

LOCATION.--Lat 39°18'25", long 74°49'14", 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.

DRAINAGE AREA.--30.8 mi².

PERIOD OF RECORD.--December 1969 to current year.

REVISED RECORDS.--WDR NJ-78-1: 1975(M), 1976(M). WDR NJ-89-1: (M). WDR NJ-91-1: 1990. WRD NJ-97-1: 1971(M), 1978(M), 1979 (M), 1983 (P), 1994(P).

GAGE.--Upstream and downstream water-stage recorders, wooden control, and downstream tidal crest-stage gage. Datum of gage is NGVD of 1929.

REMARKS.--Records good, except for estimated daily discharges which are fair. Occasional regulation by ponds above station. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	38	42	45	35	37	51	55	42	19	20	24
2	20	36	39	44	35	37	54	51	45	19	23	21
3	19	34	37	43	41	38	53	54	40	19	21	18
4	19	32	35	43	62	38	53	60	38	18	20	16
5	19	32	44	43	63	37	58	58	41	17	24	16
6	19	46	77	48	67	45	54	54	44	17	22	15
7	19	59	80	47	132	57	49	50	42	16	19	15
8	19	53	68	44	e130	68	46	47	39	16	17	15
9	19	45	58	42	e107	75	45	45	36	16	16	15
10	18	39	52	40	e86	68	43	43	34	15	15	14
11	18	36	75	38	77	57	43	42	36	15	15	14
12	21	41	100	38	67	50	47	40	37	17	14	14
13	21	48	85	37	60	46	186	38	33	27	16	13
14	20	45	80	37	55	43	278	37	32	29	19	13
15	29	41	94	37	52	41	217	35	30	33	36	15
16	27	37	84	35	49	43	164	34	28	29	40	16
17	25	35	74	35	46	51	126	33	28	25	39	15
18	24	33	70	39	45	52	98	31	28	23	33	16
19	23	35	63	45	46	68	81	31	26	21	29	16
20	22	71	57	43	46	85	70	31	24	20	25	15
21	21	85	52	40	47	75	64	34	23	19	20	14
22	20	74	49	38	46	63	59	44	22	18	19	13
23	20	61	46	36	45	55	57	38	24	17	17	13
24	20	52	54	33	43	50	57	35	25	17	16	12
25	20	47	75	33	42	48	55	34	24	18	15	12
26	20	42	73	34	40	47	53	36	23	18	15	12
27	22	40	65	35	39	45	71	35	22	17	15	13
28	28	38	59	37	38	44	81	36	21	19	14	14
29	46	44	53	36	38	42	72	34	20	24	14	20
30	54	44	50	35	---	41	62	32	20	22	14	18
31	43	---	47	35	---	43	---	34	---	19	25	---
TOTAL	736	1,363	1,937	1,215	1,679	1,589	2,447	1,261	927	619	647	457
MEAN	23.7	45.4	62.5	39.2	57.9	51.3	81.6	40.7	30.9	20.0	20.9	15.2
MAX	54	85	100	48	132	85	278	60	45	33	40	24
MIN	18	32	35	33	35	37	43	31	20	15	14	12
CFSM	0.77	1.48	2.03	1.27	1.88	1.66	2.65	1.32	1.00	0.65	0.68	0.49
IN.	0.89	1.65	2.34	1.47	2.03	1.92	2.96	1.52	1.12	0.75	0.78	0.55

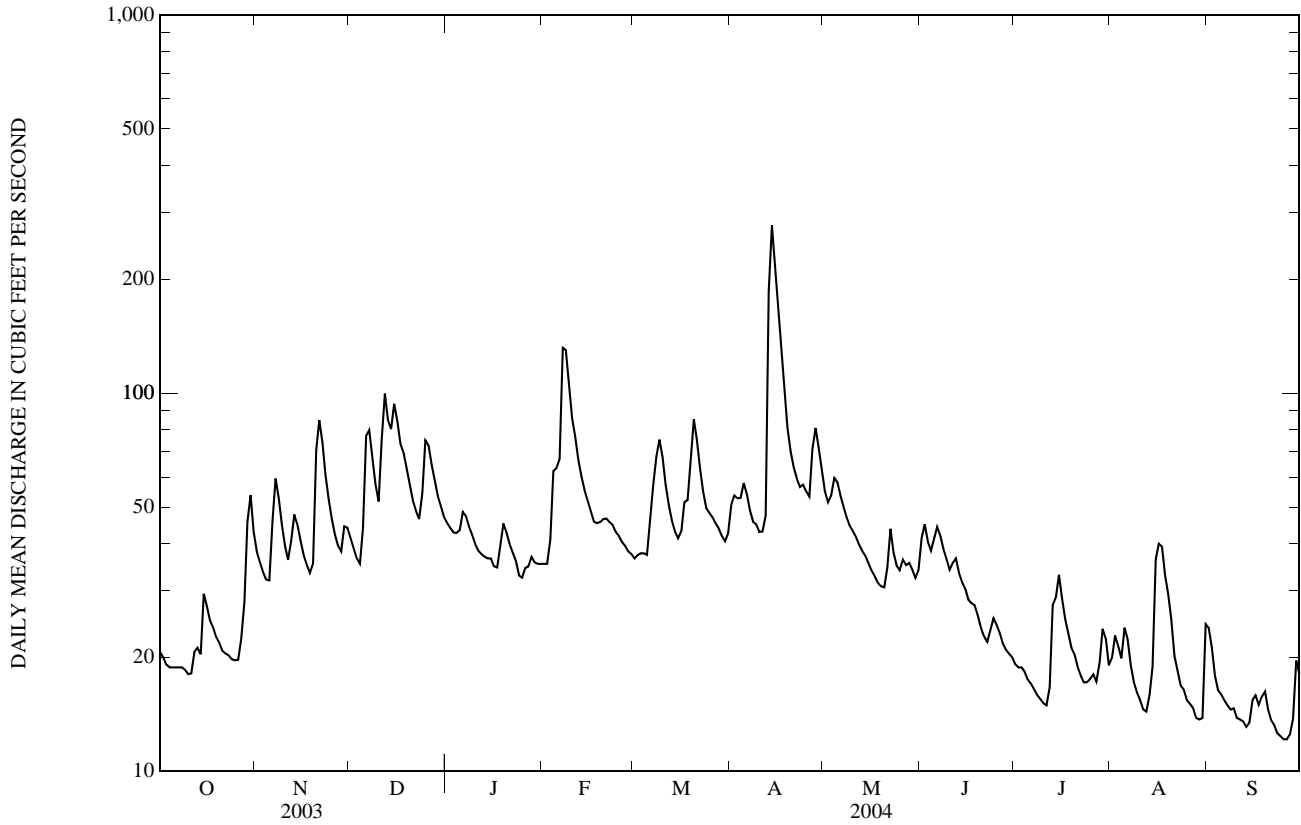
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2004, BY WATER YEAR (WY)

MEAN	25.8	33.3	41.4	49.9	53.3	68.0	68.4	52.6	38.7	26.8	26.9	22.4
MAX	59.9	81.4	97.0	101	101	162	174	123	107	55.8	99.3	64.7
(WY)	(1997)	(1973)	(1997)	(1978)	(1973)	(1998)	(1983)	(1998)	(2003)	(1996)	(1997)	(1989)
MIN	13.7	14.3	15.6	16.0	16.4	24.5	21.3	20.0	14.8	9.40	7.72	7.04
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(2002)	(1985)	(1977)	(1977)	(2002)	(2002)	(1980)

01411300 TUCKAHOE RIVER AT HEAD OF RIVER, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1970 - 2004	
ANNUAL TOTAL	18,419		14,877			
ANNUAL MEAN	50.5		40.6		42.1	
HIGHEST ANNUAL MEAN					66.0	1998
LOWEST ANNUAL MEAN					18.0	2002
HIGHEST DAILY MEAN	335	Jun 8	278	Apr 14	920	Aug 21, 1997
LOWEST DAILY MEAN	18	Oct 10	12	Sep 24-26	1.3	Sep 3, 1980
ANNUAL SEVEN-DAY MINIMUM	19	Oct 5	13	Sep 21	1.9	Sep 9, 1980
MAXIMUM PEAK FLOW			292	Apr 14	1,340	Aug 21, 1997
MAXIMUM PEAK STAGE			5.49	Apr 14	9.09	Aug 22, 1997
INSTANTANEOUS LOW FLOW			12	Sep 14,22-28	3.9	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	1.64		1.32		1.37	
ANNUAL RUNOFF (INCHES)	22.25		17.97		18.59	
10 PERCENT EXCEEDS	88		68		81	
50 PERCENT EXCEEDS	40		37		31	
90 PERCENT EXCEEDS	23		16		15	

e Estimated.



01411318 PECK BAY AT OCEAN CITY, NJ

LOCATION.--Lat 39°15'15", long 74°37'38", Cape May County, Hydrologic Unit 02040302, on left bank, about 300 ft north of bridge on County Route 623 (Roosevelt Boulevard) at All Seasons Marina, 1.3 mi southeast of Marmora, 2.1 mi south of Great Egg Harbor Bay, and 3.3 mi southwest of Ocean City city hall.

PERIOD OF RECORD.--Tidal crest-stage gage 1979-1985 and tidal gaging station 1974-1976, located 300 ft south of current station. May 22, 1997 to April 20, 2000 (unpublished fragmentary gage-height record), April 21, 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.28 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.31 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for January 11-13, January 16 to February 5, April 1, April 26 to May 5, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.33 ft (adjusted to NAVD of 1988), December 1, 1974; minimum elevation recorded, -4.41 ft (NAVD of 1988), December 13, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.51 ft (NAVD of 1988), December 6; minimum elevation recorded, -4.26 ft (NAVD of 1988), November 29, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.31	26	-2.86	1.93	0.16	-1.74
NOV	24	3.54	29	-4.26	1.67	-0.09	-1.99
DEC	6	4.51	---	---	1.61	-0.08	-2.03
JAN	---	---	---	---	---	---	---
FEB	19, 20	2.92	9	-3.70	1.6e	-0.2e	-2.2e
MAR	17	3.27	13	-3.31	1.69	0.01	-1.81
APR	13	2.81	6	-3.07	---	---	---
MAY	31	2.91	---	---	1.7e	-0.1e	-1.9e
JUN	6	3.45	30	-2.53	1.88	0.10	-1.80
JUL	3	3.00	1	-2.61	1.99	0.22	-1.73
AUG	30	2.99	28	-2.56	1.96	0.16	-1.79
SEP	29	3.34	26	-2.21	2.23	0.53	-1.36

e Estimated

01411330 BEACH THOROFARE AT MARGATE, NJ

LOCATION.--Lat 39°20'15", long 74°30'47", Atlantic County, Hydrologic Unit 02040302, on pier near southeast end of toll bridge on Margate-Northfield Road (County Route 563) at western edge of Margate, 500 ft east of Pork Island, and 3.2 mi northeast of Great Egg Harbor Inlet.

PERIOD OF RECORD.--June 1997 to March 2000 (unpublished fragmentary gage-height record), April 2000 to current year.

REVISED RECORDS.--WDR-02-1: 2001.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.30 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.49 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for January 25-26, 29, and short portions of several other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.50 ft (NAVD of 1988), February 17, 2003; minimum recorded, -4.63 ft (NAVD of 1988), February 11, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 9.8 ft (adjusted to NAVD of 1988), tides of March 6-7, 1962, from high-water mark near the intersection of Washington and Atlantic Avenues in Margate.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.38 ft (NAVD of 1988), December 6; minimum recorded, -4.36 ft (NAVD of 1988), November 29, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.38	26	-3.13	1.88	-0.05	-1.98
NOV	24	3.71	29	-4.36	1.63	-0.23	-2.18
DEC	6	4.38	26	-4.12	1.55	-0.36	-2.25
JAN	---	---	---	---	---	---	---
FEB	19, 20	3.01	9	-3.92	1.40	-0.50	-2.47
MAR	10	3.57	13	-3.57	1.58	-0.26	-2.10
APR	9	2.82	6	-3.37	1.57	-0.31	-2.26
MAY	31	2.85	5	-3.21	1.65	-0.30	-2.25
JUN	5	3.43	30	-2.72	1.81	-0.12	-2.05
JUL	3	3.06	1	-2.83	1.94	0.02	-2.00
AUG	30	3.04	28, 29	-2.77	1.91	-0.06	-2.03
SEP	29	3.36	1	-2.59	2.15	0.20	-1.67

01411350 LUDLAM THOROFARE AT SEA ISLE CITY, NJ

LOCATION.--Lat 39°09'27", long 74°41'52", Cape May County, Hydrologic Unit 02040302, on bulkhead at Sea Isle City Municipal Marina in Sea Isle City, 700 ft southeast of east side of bridge on John F. Kennedy Boulevard (County Route 625) over Ludlam Thorofare, and 0.9 mi south of Ludlam Bay.

PERIOD OF RECORD.--May 1975 to May 1978, October 1978 to September 1984 (annual maximum elevation only), May 1997 to January 2000 (unpublished fragmentary gage-height record), February 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.27 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.51 ft (revised to Tidal Epoch 1983-2001). From May 1975 to May 1978, water-stage recorder at NGVD of 1929 located at 44th Street, 800 ft southwest of current station. From October 1978 to September 1984, crest-stage gage at NGVD of 1929 located at 44th Street, 800 ft southwest of current station.

REMARKS.--Gage cannot measure a tide level of less than -1.50 (August 13, 2003 to present, -2.85 ft prior to August 13, 2003) (NAVD of 1988). Monthly minimum low tides, monthly mean low tides, and monthly mean water levels are undetermined. Missing gage-height record for January 25, April 11-12, April 19 to May 11, July 28, August 5, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 6.34 ft (adjusted to NAVD of 1988), March 29, 1984, from tidal crest-stage gage.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.57 ft (NAVD of 1988), December 6.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.33	---	---	1.83	---	---
NOV	24	3.60	---	---	1.65	---	---
DEC	6	4.57	---	---	1.51	---	---
JAN	22	2.55	---	---	1.16	---	---
FEB	20	2.91	---	---	1.38	---	---
MAR	11	3.66	---	---	1.57	---	---
APR	9	2.73	---	---	---	---	---
MAY	31	2.82	---	---	---	---	---
JUN	6	3.44	---	---	1.77	---	---
JUL	3	2.98	---	---	1.90	---	---
AUG	30	2.94	---	---	1.89	---	---
SEP	29	3.32	---	---	2.15	---	---

01411355 INGRAM THOROFARE AT AVALON, NJ

LOCATION.--Lat 39°06'39", long 74°44'03", Cape May County, Hydrologic Unit 02040302, on fishing pier at east end of Old Avalon Boulevard, 0.5 mi east of bridge carrying County Route 601 (Avalon Boulevard) over Ingram Thorofare, 1.0 mi west of Avalon, 1.0 mi southwest of Townsends Inlet, and 1.6 mi east of Upper Island in Great Sound.

PERIOD OF RECORD.--October 1977 to May 1978, 1979 to 1981 (annual maximum elevation only), May 1997 to May 2000 (unpublished fragmentary gage-height record), May 13, 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.29 ft. To determine approximate elevations in Mean Lower Low Water datum, add 2.26 ft, (revised to Tidal Epoch 1983-2001). From October 1977 to May 1978, water-stage recorder at NGVD of 1929 and from 1978 to 1981, crest-stage gage at NGVD of 1929 located 200 ft south of current station.

REMARKS.--Gage cannot measure tide level below -3.29 ft. Missing gage-height record January 31 to February 2 and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 6.29 ft (adjusted to NAVD of 1988), March 29, 1984, from tidal crest-stage gage.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, estimated at 4.4 ft (NAVD of 1988), Dec. 6; minimum recorded, estimated to be -4.6 ft, Jan 21 and Feb. 9.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.48	26	-3.33	1.90	-0.09	-2.10
NOV	24	3.62	14	-4.5e	1.61	-0.3e	-2.4e
DEC	6	4.4e	26	-4.1e	1.51	-0.4e	-2.4e
JAN	22	2.62	21	-4.6e	1.26	---	---
FEB	19, 20	3.02	9	-4.6e	1.43	-0.6e	-2.6e
MAR	10	3.70	7	-3.8e	1.57	-0.28	-2.18
APR	8	2.86	6	-3.7e	1.54	-0.40	-2.40
MAY	31	2.87	7	-3.34	1.61	-0.37	-2.39
JUN	5	3.51	30	-2.96	1.79	-0.18	-2.21
JUL	3	3.12	2	-3.04	1.93	-0.06	-2.14
AUG	30	3.03	1	-3.05	1.89	-0.11	-2.18
SEP	29	3.33	1	-2.81	2.15	0.24	-1.74

e Estimated

01411360 GREAT CHANNEL AT STONE HARBOR, NJ

LOCATION.--Lat 39°03'24", long 74°45'51", Cape May County, Hydrologic Unit 02040302, on county pier near east abutment of bridge on Stone Harbor Boulevard (County Route 657) at the west edge of Stone Harbor, 3.7 mi southeast of Cape May Court House, and 3.9 mi southwest of Avalon.

PERIOD OF RECORD.--1964 to 1977, 1979 to 1999 (annual maximum elevation only), October 1977 to May 1978, May 1997 to February 2000 (unpublished fragmentary gage-height record), March 2000 to current year.

GAGE.--Water-stage recorder and tidal crest-stage gage. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.31 ft (revised). To determine approximate elevations to Mean Lower Low Water Datum, add 2.61 ft (revised to Tidal Epoch 1983-2001). From October 1964 to September 1999, crest-stage gage at NGVD of 1929. From October 1977 to May 1978, water-stage recorder at south side of bridge to NGVD of 1929.

REMARKS.--Missing gage-height record January 23 to February 2 and portions of several other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 6.03 ft (adjusted to NAVD of 1988), March 29, 1984, from tidal crest-stage gage; minimum elevation recorded, -4.82 ft (NAVD of 1988), February 11, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.45 ft (NAVD of 1988), December 6; minimum elevation recorded, -4.59 ft (NAVD of 1988), November 14.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.52	26	-3.24	1.92	-0.07	-2.11
NOV	24	3.74	14	-4.59	1.65	-0.29	-2.36
DEC	6	4.45	26	-4.26	1.55	-0.40	-2.44
JAN	22	2.60	21	-4.41	1.3e	---	---
FEB	20	3.04	9	-4.13	1.46	-0.59	-2.61
MAR	10	3.70	13	-3.72	1.58	-0.29	-2.23
APR	9	2.85	6	-3.62	1.56	-0.39	-2.41
MAY	31	2.89	5	-3.41	1.65	-0.36	-2.44
JUN	5	3.50	30	-2.97	1.83	-0.16	-2.24
JUL	3	3.15	1	-3.07	1.97	-0.04	-2.15
AUG	30	3.14	28	-2.96	1.97	-0.06	-2.16
SEP	29	3.40	1	-2.69	2.22	0.30	-1.74

e Estimated

01411382 GRASSY SOUND CHANNEL AT WILDWOOD, NJ

LOCATION.--Lat 38°59'25", long 74°50'11", Cape May County, Hydrologic Unit 02040302, on pier in back of pumpout station at Lighthouse Pointe Marina in Wildwood, 900 ft southwest of bridge on State Route 47, and 1,000 ft north of Ephraim Island.

PERIOD OF RECORD.--May 1997 to February 2000 (unpublished fragmentary gage-height record), March 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.30 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 2.72 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for December 6, January 11, January 14 to February 3, March 15-29, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 4.58 ft, January 3, 2003, although a higher tide elevation likely occurred February 17, 2003, during period of ice effect; minimum recorded, -5.17 ft (NAVD of 1988), February 11, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 7.5 ft (adjusted to NAVD of 1988), tides of March 6-7, 1962, from high-water mark at the intersection of 15th Street and New Jersey Avenue in North Wildwood.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.40 ft, December 6; minimum recorded, -4.62 ft, November 29.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.62	26	-3.70	2.05	-0.12	-2.38
NOV	24	3.90	29	-4.62	1.75	-0.40	-2.60
DEC	6	4.40	26	-4.50	1.42	-0.45	-2.82
JAN	---	---	---	---	---	---	---
FEB	20	3.19	9	-4.39	1.5e	-0.7e	-2.8e
MAR	10	3.19	7	-4.12	---	---	---
APR	9	3.04	6	-4.17	1.69	-0.52	-2.70
MAY	31	3.08	5	-3.95	1.80	-0.40	-2.69
JUN	1	3.60	4	-3.31	1.82	-0.32	-2.45
JUL	3	3.41	2, 3	-3.34	2.18	-0.01	-2.37
AUG	30	3.38	1	-3.34	2.17	-0.04	-2.37
SEP	19	3.49	1	-3.03	2.37	0.28	-1.99

e Estimated

CAPE MAY HARBOR

01411390 CAPE MAY HARBOR AT CAPE MAY, NJ

LOCATION.--Lat 38°56'55", long 74°53'26", Cape May County, Hydrologic Unit 02040302, on Pier 4 at U.S. Coast Guard Station in Cape May, 0.7 mi east of east entrance to Cape May Canal, and 1.0 mi west of Cape May Inlet.

PERIOD OF RECORD.--Tidal crest-stage gage 1965-85, 1992, September 1997 to May 2000 (unpublished fragmentary gage-height record), June 2000 to current year.

GAGE.--Water-stage, air temperature, water temperature, wind speed and direction, barometric pressure, and precipitation recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate corresponding NGVD of 1929, add 1.31 ft. To determine approximate corresponding elevation in Mean Lower Low Water datum, add 2.77 ft (revised to Tidal Epoch 1983-2001). Online peaks have been adjusted to NAVD of 1988.

REMARKS.--Missing gage-height record Oct. 10-23, Jan. 24-26, Jan. 30 to Feb. 2, Apr. 17 to May 4, and short portions of numerous other days. Gage cannot measure a tide level below -4.66 ft (NAVD of 1988). Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage and weather telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.53 ft (adjusted to NAVD of 1988), October 25, 1980.

EXTREMES FOR CURRENT YEAR.-- Maximum elevation recorded, 3.98 ft (NAVD of 1988), November 24; minimum elevation recorded, -4.66 ft (NAVD of 1988), January 21.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.77	26	-3.87	---	---	---
NOV	24	3.98	29	-4.63	1.76	-0.38	-2.62
DEC	6	3.94	21	-4.59	1.61	-0.51	-2.70
JAN	22	2.91	21	-4.66	1.3e	-0.6e	---
FEB	20	3.23	9	-4.56	1.52	-0.64	-2.82
MAR	10	3.65	7	-4.22	1.66	-0.39	-2.51
APR	8	3.04	6	-4.31	---	---	---
MAY	31	3.07	---	---	1.7e	-0.4e	-2.6e
JUN	1	3.61	4	-3.51	1.94	-0.25	-2.52
JUL	3	3.39	2	-3.51	2.06	-0.14	-2.46
AUG	30	3.31	1	-3.53	2.06	-0.17	-2.46
SEP	19	3.39	1	-3.23	2.27	0.16	-2.04

e Estimated

01411435 SLUICE CREEK NEAR SOUTH DENNIS, NJ

LOCATION.--Lat 39°09'42", long 74°49'56", Cape May County, Hydrologic Unit 02040206, on left upstream wingwall of bridge on State Route 47, 1.2 mi southwest of South Dennis, 1.6 mi upstream from Dennis Creek, and 3.3 mi upstream from Delaware Bay.

DRAINAGE AREA.--9.37 mi².

PERIOD OF RECORD.--April 1997 to February 2000 (unpublished fragmentary gage-height record), March 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.27 ft. To determine approximate elevations to Mean Lower Low Water, add 3.38 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record Jan. 14-16, Jan. 19 to Feb. 6, July 3-5, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 3.74 ft (NAVD of 1988), Dec. 25, 2002; minimum recorded, -5.65 ft (NAVD of 1988), Mar. 1, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Dec. 11, 1992 reached a stage of 5.6 ft (adjusted to NAVD of 1988), from high-water mark near Reeds Beach, 4.5 mi southwest of station.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 3.58 ft (NAVD of 1988), Dec. 11; minimum recorded, -5.19 ft (NAVD of 1988), Dec. 22, although a lower tide elevation may have occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	3.32	26	-4.57	2.42	0.28	-3.05
NOV	24	3.49	30	-4.59	2.26	0.16	-3.15
DEC	11	3.58	22	-5.19	2.19	-0.06	-3.27
JAN	---	---	---	---	---	---	---
FEB	19	3.22	10	-4.65	---	---	---
MAR	12	3.26	7	-5.07	2.13	-0.04	-3.21
APR	9	2.99	6	-4.82	2.20	-0.10	-3.48
MAY	7	3.04	8	-5.17	2.33	0.00	-3.56
JUN	1	3.35	4	-4.33	2.41	0.19	-3.29
JUL	---	---	1	-4.31	2.4e	0.2e	-3.2e
AUG	1	3.16	1	-4.32	2.46	0.28	-3.24
SEP	30	3.15	2	-4.13	2.53	0.51	-2.84

e Estimated

MAURICE RIVER BASIN

01411456 LITTLE EASE RUN NEAR CLAYTON, NJ

LOCATION.--Lat 39°39'32", long 75°04'03", 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 mi².

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 NGVD of 1929.

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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	1830	70	3.80	Dec 25	0145	94	4.00
Dec 11	1745	*155	*4.50	Feb 7	0600	144	4.42
Dec 15	0500	97	4.03	Apr 14	1645	98	4.04

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

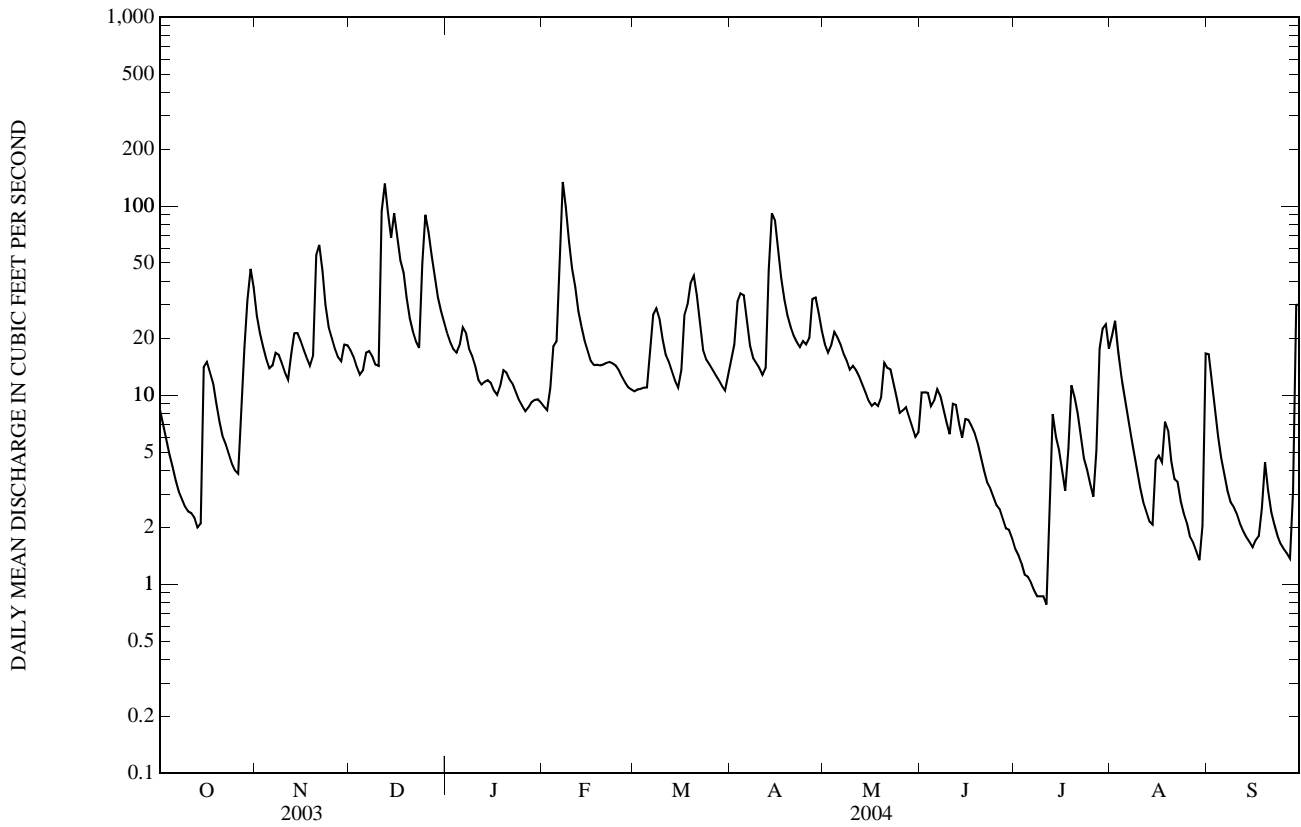
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	26	17	21	8.7	10	15	19	10	1.5	21	16
2	6.9	21	16	19	8.3	11	19	17	10	1.4	25	12
3	5.8	18	14	17	11	11	31	18	10	1.3	17	8.4
4	4.8	16	13	17	18	11	35	22	8.7	1.1	13	6.0
5	4.2	14	14	19	19	11	34	20	9.4	1.1	10	4.6
6	3.5	14	17	23	42	17	25	19	11	1.0	8.0	3.8
7	3.1	17	17	21	134	27	18	17	9.9	0.93	6.2	3.1
8	2.8	16	16	18	98	29	16	15	8.5	0.86	5.0	2.7
9	2.6	15	15	16	65	26	15	14	7.2	0.86	4.0	2.6
10	2.4	13	14	14	47	20	14	14	6.2	0.86	3.3	2.4
11	2.4	12	94	12	37	16	13	14	9.0	0.78	2.7	2.1
12	2.2	17	132	11	28	15	14	13	8.9	2.3	2.4	1.9
13	2.0	21	93	12	23	13	46	11	7.0	7.9	2.1	1.8
14	2.1	21	68	12	20	12	92	10	6.0	6.0	2.1	1.7
15	14	19	92	12	17	11	84	9.4	7.5	5.1	4.5	1.6
16	15	17	67	11	15	14	58	8.8	7.4	4.0	4.8	1.7
17	13	16	52	10	14	26	42	9.1	6.9	3.1	4.4	1.8
18	12	14	45	11	14	30	32	8.8	6.3	5.2	7.2	2.5
19	9.1	16	33	14	14	39	26	9.7	5.5	11	6.5	4.4
20	7.3	55	25	13	15	43	23	15	4.7	9.7	4.5	3.1
21	6.1	62	22	12	15	34	21	14	4.0	8.0	3.6	2.4
22	5.5	45	19	11	15	24	19	14	3.4	6.0	3.5	2.1
23	4.9	30	18	10	15	17	18	12	3.2	4.6	2.8	1.8
24	4.3	23	50	9.4	14	15	19	9.7	2.9	4.0	2.4	1.6
25	4.0	20	90	8.8	14	15	19	8.1	2.6	3.4	2.1	1.5
26	3.8	18	73	8.2	12	14	20	8.3	2.5	2.9	1.8	1.5
27	7.1	16	55	8.6	12	13	32	8.6	2.2	5.1	1.7	1.4
28	18	15	43	9.2	11	12	33	7.7	2.0	18	1.5	3.1
29	32	19	33	9.4	11	11	27	6.8	1.9	22	1.3	30
30	47	18	28	9.5	---	11	22	6.0	1.7	24	2.0	29
31	37	---	24	9.2	---	13	---	6.4	---	18	17	---
TOTAL	293.2	644	1,309	408.3	767.0	571	882	385.4	186.5	181.99	193.4	158.6
MEAN	9.46	21.5	42.2	13.2	26.4	18.4	29.4	12.4	6.22	5.87	6.24	5.29
MAX	47	62	132	23	134	43	92	22	11	24	25	30
MIN	2.0	12	13	8.2	8.3	10	13	6.0	1.7	0.78	1.3	1.4
CFSM	0.97	2.20	4.32	1.35	2.71	1.89	3.01	1.27	0.64	0.60	0.64	0.54
IN.	1.12	2.45	4.98	1.55	2.92	2.17	3.36	1.47	0.71	0.69	0.74	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

MEAN	5.30	8.36	13.5	13.6	14.6	20.0	17.0	11.5	7.55	4.42	4.89	5.22
MAX	19.7	21.5	42.2	26.5	26.4	38.7	29.4	29.3	25.5	19.0	15.2	21.5
(WY)	(1990)	(2004)	(2004)	(1991)	(2004)	(1994)	(2004)	(1989)	(2003)	(1989)	(1989)	(2003)
MIN	0.75	1.21	1.60	3.17	2.40	6.16	5.14	4.45	1.38	0.70	0.56	0.56
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(2002)	(2002)	(2001)

01411456 LITTLE EASE RUN NEAR CLAYTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	6,847.1		5,980.39		10.6	
ANNUAL MEAN	18.8		16.3		16.3	
HIGHEST ANNUAL MEAN					2.75	2004
LOWEST ANNUAL MEAN					0.41	2002
HIGHEST DAILY MEAN	132	Dec 12	134	Feb 7	134	Feb 7, 2004
LOWEST DAILY MEAN	2.0	Oct 13	0.78	Jul 11	0.41	Aug 16, 1988
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 8	0.91	Jul 5	0.42	Aug 17, 2002
MAXIMUM PEAK FLOW			155	Dec 11	155	Dec 11, 2003
MAXIMUM PEAK STAGE			4.50	Dec 11	4.50	Dec 11, 2003
INSTANTANEOUS LOW FLOW			0.78	Jul 11-12	0.35	Aug 15, 1988
ANNUAL RUNOFF (CFSM)	1.92		1.67		1.08	
ANNUAL RUNOFF (INCHES)	26.07		22.77		14.72	
10 PERCENT EXCEEDS	42		33		24	
50 PERCENT EXCEEDS	15		12		7.0	
90 PERCENT EXCEEDS	3.7		2.1		1.3	



MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ

LOCATION.--Lat 39°29'44", long 75°04'37", Salem County, Hydrologic Unit 02040206, on right bank just upstream from bridge on Almond Road (County Route 540) at Norma, 0.8 mi downstream from Blackwater Branch, and 2.9 mi west of Vineland.

DRAINAGE AREA.--112 mi².

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 NGVD of 1929.

REMARKS.--Records good. Occasional regulation by ponds above station. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 13	0830	*557	*4.09	Feb 9	0030	555	4.08
Dec 27	0345	480	3.80	Apr 16	0745	483	3.81

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	290	224	320	197	204	231	274	193	93	173	161
2	170	276	218	300	195	204	227	261	205	96	170	182
3	165	247	210	283	206	204	234	261	200	95	175	167
4	160	223	202	224	253	202	251	273	189	94	175	146
5	156	204	207	236	265	197	286	266	187	95	164	130
6	151	194	233	277	307	218	276	257	191	94	138	119
7	147	204	237	274	427	238	264	248	189	92	124	113
8	144	200	231	266	527	237	252	239	183	92	124	108
9	141	194	222	261	551	247	237	227	175	90	117	105
10	139	188	215	248	518	259	231	225	170	89	111	101
11	134	181	314	236	453	248	240	223	180	87	106	91
12	130	190	442	234	401	229	242	216	187	107	117	89
13	128	202	545	244	343	221	333	207	184	166	109	89
14	126	200	526	243	310	218	408	192	178	188	109	87
15	144	200	513	230	294	215	446	186	182	231	133	87
16	149	199	489	220	279	219	478	180	183	198	131	89
17	158	193	480	217	269	234	458	174	176	162	131	96
18	160	186	462	222	261	234	420	169	170	174	127	97
19	153	185	426	230	254	258	373	174	165	232	131	98
20	144	256	395	225	249	279	343	191	158	219	135	97
21	136	304	378	220	245	271	315	192	152	199	129	96
22	133	332	326	215	230	266	294	203	149	174	121	85
23	130	355	309	211	224	258	281	203	147	159	104	85
24	126	324	361	207	224	242	275	198	140	159	102	84
25	125	291	412	204	224	241	268	186	129	147	99	83
26	125	260	443	203	224	240	218	184	127	140	97	83
27	130	238	475	204	221	237	275	189	123	136	95	83
28	156	226	446	204	208	233	294	184	119	149	95	95
29	212	230	409	204	203	228	293	176	114	164	92	139
30	272	227	377	202	---	228	286	166	92	178	92	154
31	283	---	341	200	---	232	---	166	---	179	127	---
TOTAL	4,797	6,999	11,068	7,264	8,562	7,241	9,029	6,490	4,937	4,478	3,853	3,239
MEAN	155	233	357	234	295	234	301	209	165	144	124	108
MAX	283	355	545	320	551	279	478	274	205	232	175	182
MIN	125	181	202	200	195	197	218	166	92	87	92	83
CFSM	1.38	2.08	3.19	2.09	2.64	2.09	2.69	1.87	1.47	1.29	1.11	0.96
IN.	1.59	2.32	3.68	2.41	2.84	2.41	3.00	2.16	1.64	1.49	1.28	1.08

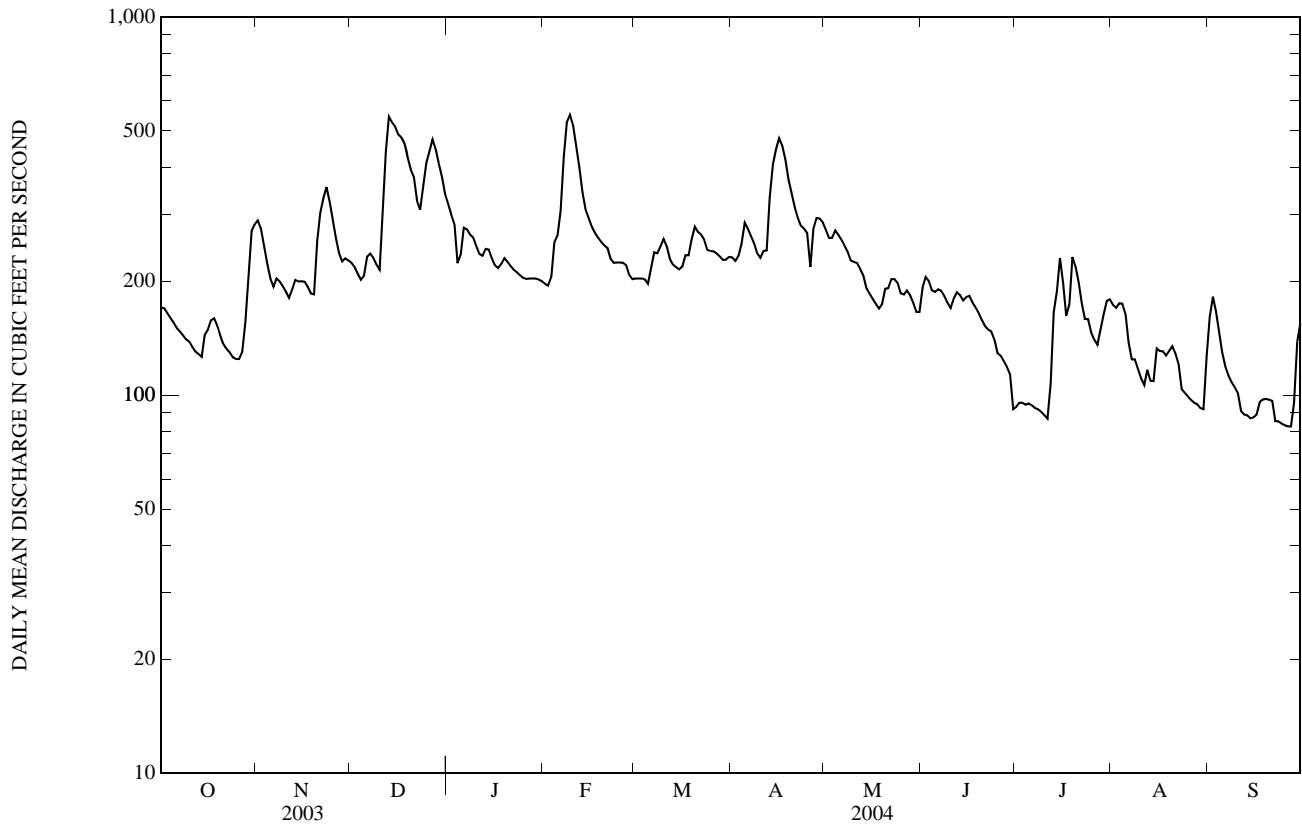
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2004, BY WATER YEAR (WY)

	111	138	167	188	200	230	225	188	148	122	123	120
MEAN	111	138	167	188	200	230	225	188	148	122	123	120
MAX	266	330	385	380	418	427	437	387	331	333	327	591
(WY)	(1990)	(1973)	(1973)	(1936)	(1939)	(1979)	(1984)	(1958)	(2003)	(1975)	(1958)	(1940)
MIN	48.6	46.7	57.1	64.7	69.4	89.9	90.9	79.5	57.7	35.6	32.1	40.6
(WY)	(1966)	(1966)	(1966)	(1966)	(2002)	(2002)	(1966)	(1977)	(1966)	(1966)	(2002)	(1965)

01411500 MAURICE RIVER AT NORMA, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1933 - 2004	
ANNUAL TOTAL	84,778		77,957		163	
ANNUAL MEAN	232		213		67.4	
HIGHEST ANNUAL MEAN					253	1973
LOWEST ANNUAL MEAN					67.4	1966
HIGHEST DAILY MEAN	545	Dec 13	551	Feb 9	5,260	Sep 2, 1940
LOWEST DAILY MEAN	117	Aug 30	83	Sep 25-27	20	Aug 16, 2002
ANNUAL SEVEN-DAY MINIMUM	124	Jan 25	85	Sep 22	20	Aug 16, 2002
MAXIMUM PEAK FLOW			557	Dec 13	7,360a	Sep 2, 1940
MAXIMUM PEAK STAGE			4.09	Dec 13	8.72	Sep 2, 1940
INSTANTANEOUS LOW FLOW			83	Sep 24-27	20	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	2.07		1.90		1.46	
ANNUAL RUNOFF (INCHES)	28.16		25.89		19.78	
10 PERCENT EXCEEDS	373		325		281	
50 PERCENT EXCEEDS	212		203		142	
90 PERCENT EXCEEDS	134		100		67	

a From rating curve extended above 3,000 ft³/s by logarithmic plotting, peak was highest since at least 1867, when Union Lake Dam in Millville was built.



01412150 MAURICE RIVER AT BIVALVE, NJ

LOCATION.--Lat 39°13'54", long 75°01'59", Cumberland County, Hydrologic Unit 02040406, on pier at Long Reach Marina in Bivalve, 1.1 mi south of Port Norris, and 1.4 mi northeast of Delaware Bay.

PERIOD OF RECORD.--October 1964 to September 1985 (annual maximum elevation only), May 1997 to February 2000 (unpublished fragmentary gage-height record), March 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is at 0.00 ft NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.20 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 3.30 ft (revised to Tidal Epoch 1983-2001). From October 1964 to September 1985, crest-stage gage at NGVD of 1929 located 0.3 mi downstream of current station.

REMARKS.--Gage cannot record a tide level of less than -4.96 ft (NAVD of 1988). Missing record October 31 to November 4, January 14, 16, 22, January 24 to February 5, February 9, 12-13, April 1-2, 9, 17, May 24-27, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 6.91 ft (adjusted to NAVD of 1988), October 25, 1980, from tidal crest-stage gage; minimum recorded, -5.2 ft (NAVD of 1988), estimated, December 13, 2000, March 11, 2002, and December 3, 2003.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation since 1878, 7.3 ft (adjusted to NAVD of 1988), November 25, 1950, from high-water mark reported by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.76 ft (NAVD of 1988), November 24; minimum recorded, -4.94 ft (NAVD of 1988), April 6, although a lower elevation likely occurred during period of missing record in January.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	4.44	26	-4.13	2.65	-0.03	-2.86
NOV	24	4.76	29	-4.89	2.6e	-0.2e	-3.1e
DEC	24	4.60	27	-4.86	2.34	-0.35	-3.24
JAN	---	---	---	---	---	---	---
FEB	19	4.01	---	---	---	---	---
MAR	12	4.19	13	-4.72	2.32	-0.23	-3.03
APR	---	---	6	-4.94	---	---	---
MAY	6	4.02	8	-4.32	2.6e	-0.2e	-3.5e
JUN	1	4.45	4	-3.95	2.74	-0.01	-3.02
JUL	30	4.33	2	-3.86	2.86	0.13	-2.95
AUG	30	4.04	1	-3.88	2.82	0.07	-2.96
SEP	30	4.13	1	-3.69	2.96	0.34	-2.59

e Estimated



Aerial photograph of Delaware River overflowing its banks in New Hope, Pennsylvania
on September 19, 2004
(photograph taken by William Ward)

COHANSEY RIVER BASIN

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'20", 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 mi².

PERIOD OF RECORD.--October 1977 to September 1988. October 1989 to September 1995 as crest-stage partial-record station. August 2003 to current.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 26.9 ft above NGVD of 1929.

REMARKS.--Records fair. Occasional regulation from lake gate operations, irrigation, or other activities upstream. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 3	2315	367	5.29	Jul 13	0315	260	5.05
Feb 7	0215	*1,350	*6.52	Jul 15	0200	461	5.49

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	33	31	37	29	32	57	31	61	24	26	62
2	25	31	29	38	28	36	57	31	37	24	31	31
3	24	30	28	38	93	35	59	44	38	22	25	28
4	25	30	28	37	273	34	66	47	29	21	24	28
5	25	31	46	43	143	35	72	35	40	28	45	27
6	23	42	61	47	260	80	47	33	44	26	25	27
7	23	50	39	36	691	79	45	32	33	22	22	27
8	24	36	32	33	154	52	45	32	30	22	21	27
9	24	30	31	34	66	46	47	30	28	20	21	27
10	25	28	36	29	52	44	44	41	27	18	20	26
11	25	28	157	28	48	42	45	34	55	19	20	26
12	24	56	140	31	43	41	54	32	47	55	22	26
13	23	53	57	34	42	40	141	30	29	171	20	25
14	23	34	59	33	41	39	168	30	28	88	22	26
15	65	30	117	32	38	40	113	29	52	257	35	28
16	40	29	72	28	36	54	51	28	36	59	28	29
17	27	28	50	28	35	72	36	31	31	29	25	28
18	26	28	52	37	37	50	34	28	46	66	24	30
19	25	35	41	41	37	76	34	35	32	105	26	30
20	24	95	37	33	37	62	33	36	27	42	22	27
21	25	67	35	29	38	48	32	35	26	28	21	27
22	26	37	35	30	36	43	32	38	29	26	21	26
23	25	33	35	29	34	42	32	31	76	52	20	25
24	24	33	157	29	35	41	37	28	32	54	20	25
25	24	34	153	28	34	44	32	29	28	28	19	26
26	25	31	67	30	33	43	36	46	29	26	19	25
27	38	30	44	33	33	43	60	37	26	29	19	26
28	75	32	41	34	32	42	37	30	25	53	19	39
29	118	52	41	32	32	41	32	28	26	30	19	176
30	107	36	40	32	---	41	32	27	24	26	21	88
31	50	---	38	29	---	65	---	38	---	24	157	---
TOTAL	1,082	1,142	1,829	1,032	2,490	1,482	1,610	1,036	1,071	1,494	859	1,068
MEAN	34.9	38.1	59.0	33.3	85.9	47.8	53.7	33.4	35.7	48.2	27.7	35.6
MAX	118	95	157	47	691	80	168	47	76	257	157	176
MIN	23	28	28	28	28	32	32	27	24	18	19	25
CFSM	1.25	1.36	2.11	1.19	3.07	1.71	1.92	1.19	1.27	1.72	0.99	1.27
IN.	1.44	1.52	2.43	1.37	3.31	1.97	2.14	1.38	1.42	1.98	1.14	1.42

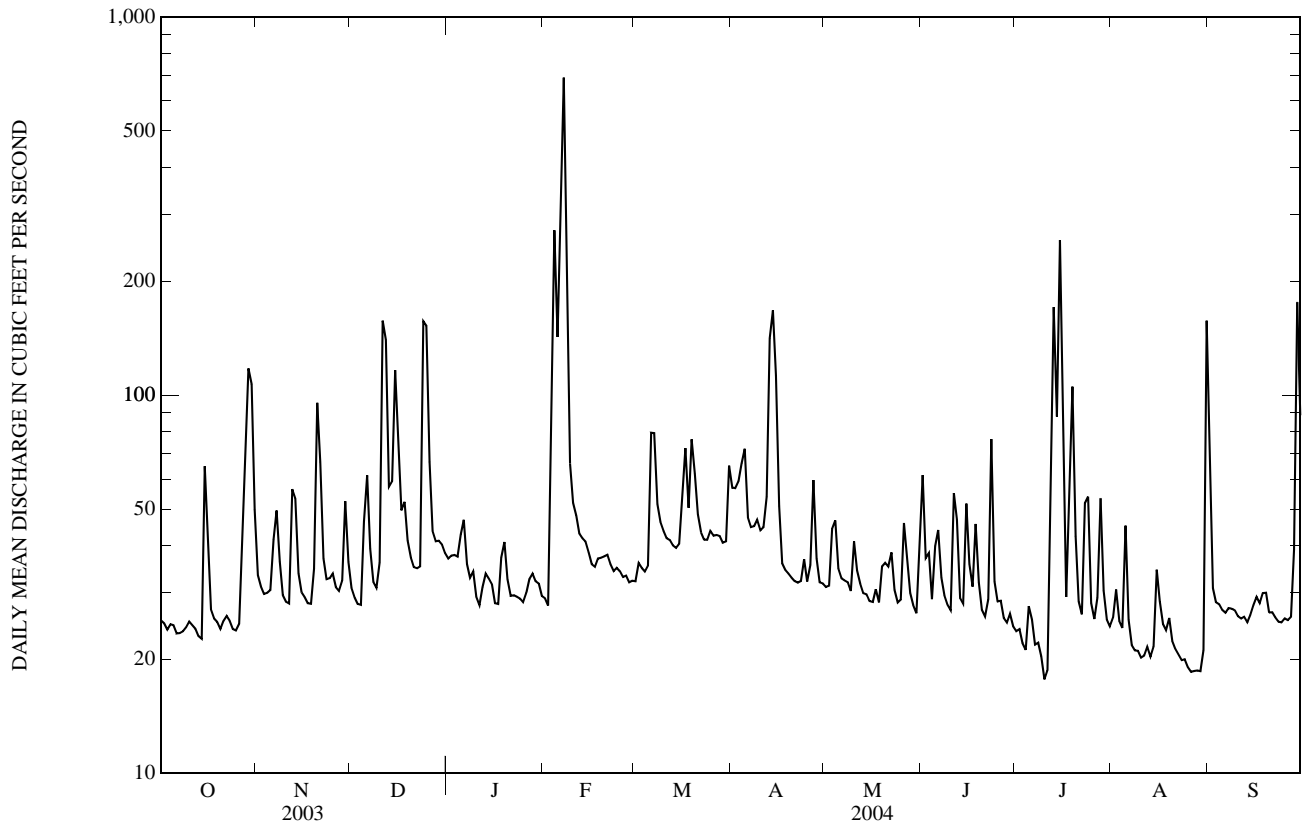
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

MEAN	28.7	31.7	37.6	39.9	44.7	39.2	44.0	41.3	41.8	30.6	27.0	28.5
MAX	58.4	48.1	59.0	84.7	105	58.4	76.4	57.3	121	50.0	43.0	43.5
(WY)	(1980)	(1984)	(2004)	(1978)	(1979)	(1978)	(1983)	(1983)	(1983)	(1984)	(1979)	(1979)
MIN	20.5	20.5	25.1	20.8	24.5	19.3	22.2	27.9	15.3	14.9	14.8	17.8
(WY)	(1987)	(1982)	(1981)	(1981)	(1983)	(1981)	(1985)	(1986)	(1988)	(1988)	(1988)	(1988)

01412800 COHANSEY RIVER AT SEELEY, NJ—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1978 - 2004	
ANNUAL TOTAL	16,195			
ANNUAL MEAN	44.2		36.1	
HIGHEST ANNUAL MEAN			46.3	1979
LOWEST ANNUAL MEAN			24.4	1988
HIGHEST DAILY MEAN	691	Feb 7	2,150	Jun 21, 1983
LOWEST DAILY MEAN	18	Jul 10	5.3	Jul 9, 1988
ANNUAL SEVEN-DAY MINIMUM	19	Aug 23	5.8	Jul 5, 1988
MAXIMUM PEAK FLOW	1,350	Feb 7	10,000 ^a	Jun 21, 1983
MAXIMUM PEAK STAGE	6.52	Feb 7	8.50	Jun 21, 1983
INSTANTANEOUS LOW FLOW	16	Jul 9, 10	4.7	Jul 9, 1988
ANNUAL RUNOFF (CFSM)	1.58		1.29	
ANNUAL RUNOFF (INCHES)	21.52		17.51	
10 PERCENT EXCEEDS	66		54	
50 PERCENT EXCEEDS	33		28	
90 PERCENT EXCEEDS	24		18	

a Discharge as a result of dam break at Seeley Lake, 3.1 mi upstream, from rating curve extended above 600 ft³/s.



01413038 COHANSEY RIVER AT GREENWICH, NJ

LOCATION.--Lat 39°22'45", long 75°21'18", Cumberland County, Hydrologic Unit 02040206, on private pier at Hancock Harbor Marina, 600 ft downstream of Pine Mount Creek, 0.5 mi downstream of Greenwich Pier, 1.2 mi southwest of Greenwich, 4.4 mi upstream of mouth and Delaware Bay, and 7.4 mi southwest of Bridgeton.

PERIOD OF RECORD.--Tidal crest-stage gage 1979-2001, located 0.5 mi upstream at Greenwich Pier. Oct. 28, 1996 to April 27, 2000 (unpublished fragmentary gage-height record), April 28, 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is NAVD of 1988. To determine approximate elevations to NGVD of 1929, add 1.34 ft. To determine approximate elevations to Mean Lower Low Water Datum, add 3.07 ft (revised to Tidal Epoch 1983-2001).

REMARKS.--Missing gage-height record for Oct. 1-13, Dec. 11, 14, 17, 24, Jan. 2, 5, 12, 16 to Feb. 16, April 4, May 21-27, June 22, 28, July 11, Aug. 7-8, and short portions of numerous other days. Summaries for months with short periods of missing 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 dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.--Maximum elevation recorded, 5.99 ft (adjusted to NAVD of 1988), Oct. 25, 1980; minimum elevation recorded, -5.65 ft (NAVD of 1988), Nov. 14, 2003, although a lower elevation possibly occurred during period of missing record January 16, 2004.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 7.5 ft (adjusted to NAVD of 1988), Nov. 25, 1950, from high-water mark reported by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.25 ft (NAVD of 1988), Nov. 24, although a higher elevation may have occurred during period of missing record Dec. 14 or 24; minimum elevation recorded, -5.65 ft (NAVD of 1988), Nov. 14, although a lower elevation possibly occurred during period of missing record Jan. 16.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	4.2e	25	-4.0e	---	---	---
NOV	24	4.25	14	-5.65	2.2e	-0.1e	-3.2e
DEC	---	---	27	-5.60	---	---	---
JAN	---	---	---	---	---	---	---
FEB	20	3.49	---	---	---	---	---
MAR	12	3.64	13	-5.21	2.14	-0.31	-3.18
APR	---	---	6	-5.48	2.1e	---	---
MAY	7, 31	3.41	4, 7	-4.38	---	---	---
JUN	1	3.85	3	-4.02	---	---	-3.2e
JUL	30	3.77	2	-3.92	2.72	0.09	-3.02
AUG	1, 31	3.65	1	-3.83	2.7e	0.04	-3.10
SEP	30	3.77	26	-3.81	2.83	0.31	-2.68

e Estimated



Aerial photograph of the confluence of the Lehigh and Delaware Rivers in Easton, Pennsylvania and Phillipsburg, New Jersey on September 19, 2004 (photograph taken by William Ward)

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, NY and Matamoras, PA, 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River.

DRAINAGE AREA.--3,070 mi².

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 NGVD of 1929. October 1904 to August 13, 1928, non-recording 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 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² 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. Satellite and telephone gage-height telemeters and National Weather Service telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to current degree of regulation, 233,000 ft³/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, outside gage height was 24.16 ft, from floodmark, from rating curve extended above 89,000 ft³/s, on basis of slope-area measurement of peak flow; maximum discharge since current degree of regulation, 151,000 ft³/s, Sept. 18, 2004, gage height, 19.52 ft, outside gage height was about 19.8 ft, from floodmark; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/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 ft³/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151,000 ft³/s, Sept. 18, gage height, 19.52 ft, outside gage height was about 19.8 ft, from floodmark; minimum discharge, 1,320 ft³/s, June 25, 30, July 2, gage height, 2.11 ft.

REVISIONS.--Revised daily (in **Bold**), monthly and yearly discharges for 2003 water year and statistical summaries for period of record through 2003 water year are given below. These figures supersede those published in the report for 2003.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,430	2,950	4,210	e5,000	2,920	4,330	16,000	5,240	10,100	5,180	2,370	1,970
2	1,190	2,890	e4,000	14,800	2,760	3,970	14,000	5,170	16,700	4,760	2,840	13,200
3	1,140	2,730	e3,800	15,800	2,870	e4,100	13,500	8,510	12,300	4,110	3,720	25,300
4	1,370	2,380	e3,400	11,700	3,210	e4,200	12,500	9,050	10,900	3,410	3,520	31,700
5	1,840	2,250	e2,900	9,600	3,680	4,360	12,200	7,800	10,200	3,320	5,720	31,900
6	1,730	2,460	e3,000	8,440	e4,500	e4,200	12,400	6,920	9,040	3,330	7,070	20,100
7	1,690	3,730	e2,700	7,540	4,250	e3,900	12,000	6,190	8,290	3,070	7,080	14,100
8	1,740	3,660	e2,600	e5,800	4,040	3,650	11,300	5,520	9,750	2,870	5,460	11,100
9	1,540	3,090	e2,500	e6,400	3,540	3,550	10,500	5,180	8,390	2,650	5,830	8,830
10	1,710	2,560	e2,400	e6,000	3,410	e3,400	9,800	4,440	7,210	2,540	5,760	7,450
11	2,100	2,530	e2,500	e5,600	3,410	e3,300	9,860	3,880	6,430	2,610	5,820	6,600
12	7,980	2,600	3,160	e5,200	e3,200	3,190	10,300	4,310	6,800	4,090	13,400	5,570
13	11,700	4,070	4,110	e4,900	e2,800	e3,100	9,520	5,560	8,760	2,740	10,500	4,300
14	7,270	5,070	5,700	e4,500	e2,900	e3,100	8,670	5,250	11,200	2,340	9,100	3,880
15	5,260	4,370	7,510	e4,000	e2,900	3,100	8,040	4,980	14,000	2,510	8,320	5,360
16	5,090	4,270	7,410	e3,700	e2,900	3,320	7,450	4,610	10,800	2,160	6,850	13,300
17	20,300	8,130	6,340	e3,400	e2,700	6,420	6,860	4,310	8,780	2,260	4,970	10,800
18	14,700	14,200	5,270	e3,300	e2,900	13,900	6,330	3,840	7,770	2,430	4,650	8,670
19	9,330	12,400	4,590	e3,200	e2,900	24,300	5,590	3,560	7,230	2,200	4,180	8,180
20	7,030	9,680	5,310	e3,200	2,990	21,200	4,950	3,450	6,330	1,840	3,760	7,640
21	5,650	8,570	10,300	e2,900	3,070	36,500	4,830	3,250	11,800	1,930	3,430	6,510
22	4,640	8,250	9,150	e3,000	3,510	45,600	5,140	3,100	19,500	2,690	3,140	5,530
23	3,900	9,620	8,030	e3,000	4,500	41,900	5,090	3,000	18,800	5,120	2,570	13,000
24	3,070	9,480	7,050	e3,100	5,930	30,700	4,860	2,690	14,500	5,170	2,020	23,900
25	2,940	8,110	e6,200	e3,200	6,150	23,900	4,290	2,780	11,000	4,130	2,080	15,700
26	3,590	7,040	e5,000	e3,300	6,050	21,300	3,970	3,630	9,230	3,090	2,530	12,500
27	5,820	6,460	e5,200	e3,000	5,530	19,300	6,110	4,890	8,070	2,880	2,320	10,100
28	4,840	5,740	e4,800	e2,900	5,180	15,800	6,990	4,610	7,190	3,300	2,270	11,600
29	3,950	4,860	e4,500	e3,100	---	14,300	6,210	4,290	6,170	3,370	1,840	17,600
30	3,530	4,420	e4,300	e3,300	---	18,700	5,590	3,920	5,670	3,100	2,360	13,700
31	3,200	---	e4,200	e3,400	---	18,800	---	3,480	---	3,010	1,980	---
TOTAL	151,270	168,570	152,140	166,280	104,700	411,390	254,850	147,410	302,910	98,210	147,460	370,090
MEAN	4,880	5,619	4,908	5,364	3,739	13,270	8,495	4,755	10,100	3,168	4,757	12,340
MAX	20,300	14,200	10,300	15,800	6,150	45,600	16,000	9,050	19,500	5,180	13,400	31,900
MIN	1,140	2,250	2,400	2,900	2,700	3,100	3,970	2,690	5,670	1,840	1,840	1,970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	2,981	4,026	5,061	4,724	5,038	8,059	9,380	6,100	4,102	2,684	2,277	2,629
MAX	10,440	10,310	17,280	12,980	13,730	17,520	23,650	12,670	12,650	6,680	4,757	12,340
(WY)	(1978)	(1973)	(1997)	(1996)	(1976)	(1977)	(1993)	(1984)	(1972)	(1973)	(2003)	(2003)
MIN	1,001	884	1,475	1,216	1,601	2,583	2,954	1,890	993	699	963	1,144
(WY)	(1965)	(1965)	(1999)	(1981)	(1980)	(1981)	(1985)	(1995)	(1965)	(1965)	(1965)	(1965)

01434000 DELAWARE RIVER AT PORT JERVIS, NY—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	1,480,735		2,475,280			
ANNUAL MEAN	4,057		6,782		4,750	
HIGHEST ANNUAL MEAN					7,216 1973	
LOWEST ANNUAL MEAN					2,028 1965	
HIGHEST DAILY MEAN	23,900	May 14	45,600	Mar 22	95,200	Jan 20, 1996
LOWEST DAILY MEAN	666	Jan 20	1,140	Oct 3	385	Jul 6, 1965
ANNUAL SEVEN-DAY MINIMUM	842	Jan 16	1,480	Oct 1	432	Jul 1, 1965
10 PERCENT EXCEEDS	8,470		13,400		10,300	
50 PERCENT EXCEEDS	2,900		4,860		2,860	
90 PERCENT EXCEEDS	1,440		2,540		1,500	

e Estimated

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,400	21,200	14,300	10,800	2,590	1,660	7,020	6,480	4,510	1,810	4,850	7,180
2	9,720	16,000	12,300	9,780	2,460	2,140	8,690	5,810	5,110	1,600	5,520	5,380
3	8,450	13,600	10,600	8,890	e2,600	3,840	8,060	8,060	5,420	1,590	4,950	4,260
4	7,000	11,800	9,350	10,100	2,680	6,810	7,130	9,490	5,150	1,700	3,860	3,520
5	7,740	10,800	8,590	16,200	2,660	9,110	7,110	8,180	4,390	1,690	3,430	2,760
6	7,880	11,400	8,200	16,400	2,500	11,900	6,790	8,010	3,940	1,750	3,780	2,530
7	6,820	10,500	7,730	13,200	2,430	19,400	5,900	7,960	4,190	2,110	3,140	2,690
8	6,340	8,720	6,780	11,100	e2,400	16,000	5,520	6,770	3,860	2,330	2,260	2,920
9	5,680	7,710	6,140	e9,000	e2,400	12,700	5,410	6,040	3,660	2,160	2,040	6,830
10	5,270	7,300	5,830	e8,000	e2,400	10,500	4,860	6,300	3,520	2,000	2,300	12,400
11	4,800	7,030	15,800	e7,200	2,520	9,090	4,060	7,430	3,020	1,780	2,370	9,940
12	4,360	6,960	38,000	e6,600	2,570	8,270	3,700	8,210	2,650	1,640	3,180	7,320
13	4,130	7,350	25,800	e6,000	2,350	7,250	5,030	9,280	2,020	1,950	35,900	6,080
14	4,170	6,680	18,700	e5,600	2,240	6,140	8,550	8,840	1,910	2,020	25,400	5,370
15	7,320	6,240	15,900	e5,200	1,940	5,900	9,560	7,180	2,020	2,600	13,900	4,840
16	10,700	5,960	13,700	e5,000	e2,000	6,200	8,050	6,310	1,900	3,350	13,300	4,370
17	8,470	5,410	12,200	e4,700	e2,100	5,540	6,980	6,380	2,030	3,030	13,900	4,450
18	7,060	5,230	14,200	e4,400	e2,000	5,110	5,990	6,070	2,210	2,400	11,700	90,400
19	6,130	5,420	12,900	e4,200	1,980	4,830	5,590	5,810	2,400	2,650	9,530	88,500
20	6,490	22,300	11,200	e4,000	1,990	4,400	5,440	5,330	2,040	3,310	8,180	42,400
21	6,440	28,700	10,200	e3,800	1,900	4,440	5,190	4,670	1,650	2,820	7,460	26,900
22	6,000	21,000	8,910	e3,600	1,590	5,370	4,680	3,880	1,830	2,640	8,700	18,600
23	5,730	16,400	8,380	e3,400	1,660	5,060	4,970	3,170	1,690	2,640	7,640	13,800
24	5,460	13,500	13,000	e3,200	1,860	4,590	5,740	3,520	1,730	3,340	6,190	11,600
25	4,640	12,300	34,300	e3,100	1,800	5,090	5,110	3,830	1,680	3,830	5,410	9,700
26	4,000	11,300	28,000	e3,000	1,710	5,440	5,870	3,620	1,630	2,980	4,990	7,730
27	6,760	9,480	20,800	e2,900	1,710	5,730	10,900	4,470	1,770	2,830	4,840	7,040
28	27,400	8,990	16,400	e2,800	1,570	7,710	9,260	5,770	1,790	11,900	4,310	9,340
29	33,700	15,900	13,700	e2,800	1,510	8,060	7,970	5,880	1,640	11,200	3,860	18,100
30	44,600	17,200	12,200	e2,700	---	7,650	7,260	5,300	1,610	8,630	4,380	16,600
31	30,400	---	11,700	e2,600	---	7,070	---	4,480	---	5,750	4,870	---
TOTAL	315,060	352,380	445,810	200,270	62,120	223,000	196,390	192,530	82,970	102,030	236,140	453,550
MEAN	10,160	11,750	14,380	6,460	2,142	7,194	6,546	6,211	2,766	3,291	7,617	15,120
MAX	44,600	28,700	38,000	16,400	2,680	19,400	10,900	9,490	5,420	11,900	35,900	90,400
MIN	4,000	5,230	5,830	2,600	1,510	1,660	3,700	3,170	1,610	1,590	2,040	2,530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

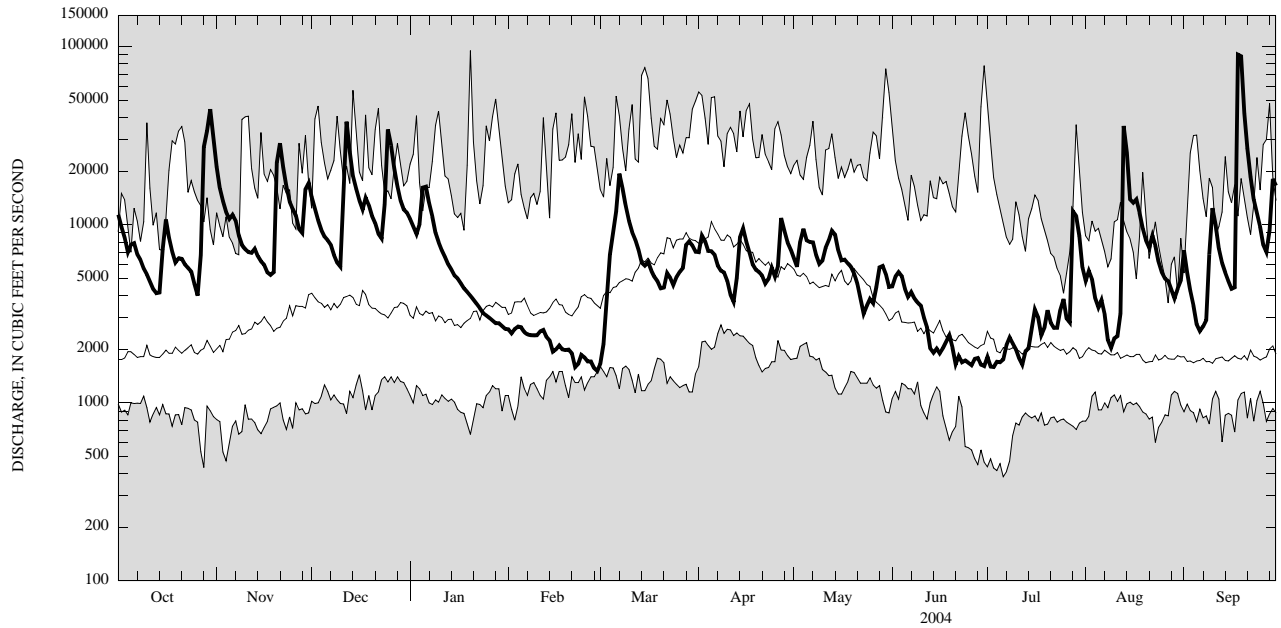
MEAN	3,156	4,214	5,288	4,766	4,966	8,038	9,311	6,103	4,070	2,699	2,407	2,934
MAX	10,440	11,750	17,280	12,980	13,730	17,520	23,650	12,670	12,650	6,680	7,617	15,120
(WY)	(1978)	(2004)	(1997)	(1996)	(1976)	(1977)	(1993)	(1984)	(1972)	(1973)	(2004)	(2004)
MIN	1,001	884	1,475	1,216	1,601	2,583	2,954	1,890	993	699	963	1,144
(WY)	(1965)	(1965)	(1999)	(1981)	(1980)	(1981)	(1985)	(1995)	(1965)	(1965)	(1965)	(1965)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	3,116,550		2,862,250			
ANNUAL MEAN	8,538		7,820		4,825	
HIGHEST ANNUAL MEAN					7,820 2004	
LOWEST ANNUAL MEAN					2,028 1965	
HIGHEST DAILY MEAN	45,600	Mar 22	90,400	Sep 18	95,200	Jan 20, 1996
LOWEST DAILY MEAN	1,840	Jul 20	1,510	Feb 29	385	Jul 6, 1965
ANNUAL SEVEN-DAY MINIMUM	2,180	Aug 26	1,660	Jun 29	432	Jul 1, 1965
10 PERCENT EXCEEDS	16,400		14,000		10,400	
50 PERCENT EXCEEDS	6,140		5,740		2,900	
90 PERCENT EXCEEDS	2,900		2,000		1,510	

e Estimated

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY—Continued



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.



01403150 West Branch Middle Brook at Martinsville, NJ
(photograph taken by William Ward)

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 mi².

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 NGVD of 1929 (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 mi² 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 prior to regulation, 24,500 ft³/s, Nov. 26, 1950, gage height, 11.79 ft; maximum discharge since regulation, 33,000 ft³/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft³/s, on basis of slope-area measurement of peak flow; minimum observed, no flow July 21, 22, 28, 1911, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,870 ft³/s, Sept. 18, gage height, 8.22 ft; minimum discharge, 152 ft³/s, July 9, 10; minimum gage height, 3.34 ft, July 9, 10, Aug. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	869	2,030	1,080	752	e320	253	701	393	281	164	272	1,310
2	680	1,670	e980	671	e310	334	847	369	281	166	287	941
3	597	1,450	e960	772	e300	603	690	581	255	166	245	763
4	537	1,260	e940	1,230	e300	832	614	600	228	162	266	607
5	763	1,190	e900	1,900	e290	817	547	492	219	162	340	480
6	587	1,330	896	1,580	e290	997	480	482	232	181	261	413
7	451	1,170	855	1,270	e290	1,060	447	448	239	163	211	361
8	397	1,000	754	1,080	e290	894	400	427	228	157	189	417
9	374	686	693	918	e280	785	368	425	230	154	179	1,570
10	345	561	663	e700	e280	696	345	392	293	156	184	1,610
11	319	527	2,660	e640	e280	640	328	432	231	157	216	1,080
12	301	558	4,110	e600	e270	619	313	400	235	165	243	883
13	282	516	2,300	e560	e270	555	524	392	224	217	1,220	752
14	276	476	1,730	e540	e270	498	859	344	220	205	1,510	613
15	992	455	1,590	e520	e260	471	715	311	226	203	1,100	526
16	755	425	1,320	e500	e260	462	589	292	224	200	813	475
17	548	409	1,330	e490	e260	447	520	264	239	185	891	432
18	495	394	1,660	e480	e260	422	474	267	751	251	793	4,490
19	476	491	1,370	e470	e250	404	438	409	295	327	585	4,680
20	468	2,410	1,180	e460	e250	388	404	314	221	302	494	2,420
21	437	1,460	1,040	e440	e240	458	393	269	178	223	855	1,710
22	440	1,170	941	e410	e240	450	369	279	170	187	945	1,130
23	410	1,030	867	e380	240	393	424	274	182	364	517	825
24	383	883	2,100	e360	239	391	499	267	174	1,450	352	655
25	362	887	4,440	e350	233	421	417	244	173	537	323	553
26	349	737	2,660	e350	225	441	552	256	191	300	305	501
27	1,290	646	1,940	e340	228	496	805	357	183	313	271	475
28	2,530	737	1,590	e340	229	500	569	315	169	838	264	1,040
29	3,500	1,780	1,350	e330	236	439	460	290	177	528	262	1,510
30	4,110	1,280	1,080	e330	---	395	427	244	168	340	849	1,060
31	2,730	---	931	e320	---	552	---	239	---	287	2,630	---
TOTAL	27,053	29,618	46,910	20,083	7,690	17,113	15,518	11,068	7,117	9,210	17,872	34,282
MEAN	873	987	1,513	648	265	552	517	357	237	297	577	1,143
MAX	4,110	2,410	4,440	1,900	320	1,060	859	600	751	1,450	2,630	4,680
MIN	276	394	663	320	225	253	313	239	168	154	179	361

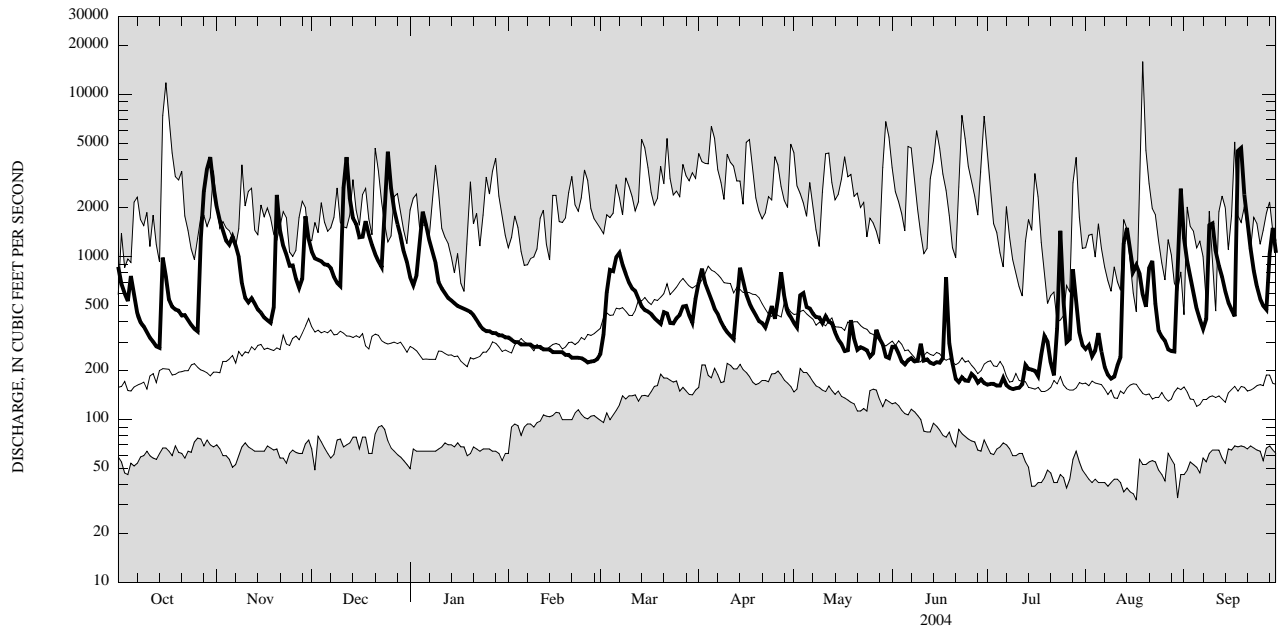
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

MEAN	308	390	457	376	401	687	825	537	397	239	230	248
MAX	2,033	1,094	1,513	1,053	981	1,370	2,080	1,392	1,722	652	1,327	1,143
(WY)	(1956)	(1956)	(2004)	(1979)	(1976)	(1977)	(1993)	(1989)	(1972)	(1972)	(1955)	(2004)
MIN	80.2	80.7	86.8	72.6	118	260	248	180	111	54.2	76.0	71.1
(WY)	(2002)	(2002)	(1999)	(1981)	(1980)	(2002)	(1985)	(1962)	(1957)	(1966)	(1968)	(1972)

01437500 NEVERSINK RIVER AT GODEFFROY, NY—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	258,722		243,534			
ANNUAL MEAN	709		665		424	
HIGHEST ANNUAL MEAN					704	1956
LOWEST ANNUAL MEAN					215	1965
HIGHEST DAILY MEAN	4,440	Dec 25	4,680	Sep 19	15,900	Aug 19, 1955
LOWEST DAILY MEAN	148	Jul 31	154	Jul 9	32	Aug 17, 1965
ANNUAL SEVEN-DAY MINIMUM	161	Jul 15	161	Jul 5	38	Aug 11, 1965
10 PERCENT EXCEEDS	1,520		1,330		886	
50 PERCENT EXCEEDS	440		444		275	
90 PERCENT EXCEEDS	216		222		107	

e Estimated



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
 SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'43", 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 mi².

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 NGVD of 1929. 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 which are fair. Diurnal fluctuation 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, diversions). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12,400	24,200	16,000	12,100	e3,000	2,000	8,030	7,420	4,770	1,840	5,040	8,820
2	10,600	18,400	13,700	11,100	e2,750	2,530	9,860	6,640	5,480	1,720	5,570	6,560
3	9,250	15,600	12,000	10,200	e2,900	4,330	9,450	8,320	5,640	1,610	5,110	5,130
4	7,750	13,500	10,800	11,400	e3,100	7,760	8,270	10,800	5,540	1,720	4,280	4,240
5	8,140	12,200	9,930	18,100	e2,900	10,200	7,990	9,170	4,790	1,770	3,780	3,350
6	8,710	12,900	9,480	19,000	e2,850	12,200	7,750	8,940	4,230	1,810	3,990	2,920
7	7,360	12,000	9,000	15,300	e3,150	19,400	6,880	8,820	4,420	2,170	3,620	2,820
8	6,830	10,100	7,950	12,700	e2,900	17,400	6,200	7,880	4,230	2,340	2,520	3,180
9	6,100	8,810	7,130	e10,500	e2,700	14,600	6,080	6,790	3,950	2,230	2,220	7,110
10	5,620	8,120	6,790	e7,500	e2,850	12,200	5,610	6,940	3,870	2,080	2,470	14,200
11	5,210	7,780	15,200	e6,100	e3,000	10,600	4,700	7,960	3,290	1,870	2,550	11,800
12	4,760	7,690	43,600	e7,250	e2,900	9,710	4,200	9,110	3,040	1,730	2,890	8,780
13	4,450	8,190	29,400	e7,850	e2,900	8,590	5,450	9,880	2,260	2,010	32,200	6,980
14	4,450	7,450	21,600	e7,200	e2,900	7,300	9,400	9,720	2,050	2,170	28,900	5,940
15	7,390	6,830	18,300	e5,650	e2,450	6,740	11,100	8,100	2,210	2,390	16,300	5,290
16	11,500	6,520	15,800	e4,500	e2,150	7,060	9,510	6,850	2,080	3,400	13,600	4,730
17	9,310	6,020	14,100	e5,000	e2,350	6,430	8,290	6,900	2,150	3,300	15,200	4,700
18	7,790	5,710	16,400	e5,450	e2,600	5,970	7,050	6,510	2,700	2,540	13,000	81,700
19	6,700	5,930	15,000	e5,450	e2,500	5,620	6,470	6,360	2,750	2,660	10,500	116,000
20	6,850	21,900	12,900	e5,200	e2,500	5,260	6,180	5,910	2,300	3,510	9,140	49,200
21	6,920	30,700	11,800	e4,600	e2,700	5,160	5,870	5,170	1,760	3,070	8,690	31,000
22	6,520	22,900	10,400	e4,350	2,430	6,040	5,450	4,470	1,910	2,750	10,300	22,100
23	6,190	18,200	9,790	e3,900	2,230	5,780	5,450	3,650	1,840	2,680	8,710	16,800
24	5,800	14,900	14,000	e3,550	2,490	5,250	6,430	3,750	1,820	4,510	6,710	13,900
25	5,260	13,500	38,600	e3,350	2,410	5,580	5,960	4,350	1,790	4,430	5,700	12,300
26	4,500	12,500	32,000	e3,350	2,190	6,050	6,060	3,950	1,740	3,360	5,280	9,850
27	6,950	10,700	24,000	e3,250	2,140	6,330	11,600	4,660	1,730	3,010	4,790	e7,650
28	28,500	10,000	19,100	e3,200	2,060	8,130	10,700	6,140	1,930	10,700	4,490	e10,500
29	36,000	17,700	15,900	e3,350	1,870	8,730	9,160	6,300	1,780	11,800	3,980	20,100
30	49,900	19,300	14,000	e3,300	---	8,390	8,290	5,770	1,700	9,780	4,420	18,500
31	34,300	---	13,200	e3,250	---	8,010	---	4,860	---	6,350	8,020	---
TOTAL	342,010	390,250	507,870	227,000	75,870	249,350	223,440	212,090	89,750	107,310	253,970	516,150
MEAN	11,030	13,010	16,380	7,323	2,616	8,044	7,448	6,842	2,992	3,462	8,193	17,200
MAX	49,900	30,700	43,600	19,000	3,150	19,400	11,600	10,800	5,640	11,800	32,200	116,000
MIN	4,450	5,710	6,790	3,200	1,870	2,000	4,200	3,650	1,700	1,610	2,220	2,820

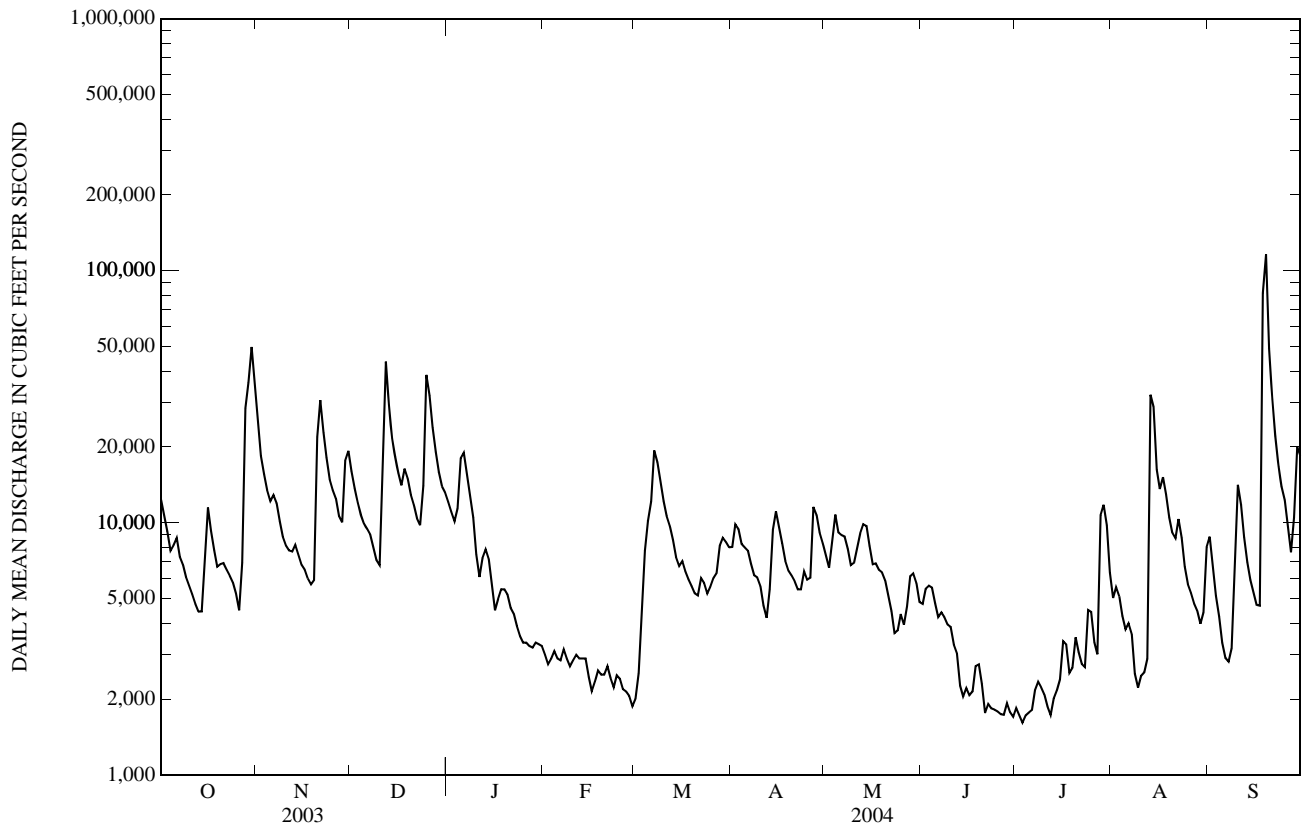
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	3,430	5,135	6,247	5,787	5,837	9,912	11,710	7,348	4,554	3,052	2,699	3,015
MAX	15,690	13,010	18,830	15,600	15,120	24,480	31,560	16,090	15,200	11,220	14,230	17,200
(WY)	(1956)	(2004)	(1997)	(1996)	(1976)	(1945)	(1940)	(1943)	(1972)	(1945)	(1955)	(2004)
MIN	807	995	1,665	1,318	1,748	3,191	3,322	2,215	1,214	864	715	892
(WY)	(1942)	(1965)	(1999)	(1981)	(1980)	(1981)	(1985)	(1965)	(1965)	(1954)	(1954)	(1941)

01438500 DELAWARE RIVER AT MONTAGUE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	3,430,550		3,195,060		5,722	
ANNUAL MEAN	9,399		8,730		2,309	
HIGHEST ANNUAL MEAN					8,730 2004	
LOWEST ANNUAL MEAN					2,309 1965	
HIGHEST DAILY MEAN	49,900	Mar 22	116,000	Sep 19	187,000	Aug 19, 1955
LOWEST DAILY MEAN	1,940	Feb 17	1,610	Jul 3	412	Aug 23, 1954
ANNUAL SEVEN-DAY MINIMUM	2,310	Aug 25	1,730	Jun 29	565	Jul 1, 1965
MAXIMUM PEAK FLOW			168,000	Sep 18	250,000a	Aug 19, 1955
MAXIMUM PEAK STAGE			28.37	Sep 18	35.15	Aug 19, 1955
INSTANTANEOUS LOW FLOW			1,410	Jul 3	382	Aug 24, 1954
10 PERCENT EXCEEDS	18,600		16,100		12,100	
50 PERCENT EXCEEDS	6,810		6,360		3,470	
90 PERCENT EXCEEDS	3,090		2,290		1,610	

a From rating curve extended above 90,000 ft³/s on basis of flood-routing study.
 e Estimated.



DELAWARE RIVER BASIN

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'22", 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 mi².

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 NGVD of 1929. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges which are fair. Flow occasionally regulated by ponds above station. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0615	876	4.14	Dec 18	0245	674	3.74
Oct 29	1930	1,680	5.56	Dec 25	0030	1,780	5.72
Nov 20	1300	866	4.12	Aug 22	0215	976	4.33
Nov 29	1130	759	3.91	Sep 18	1915	*3,670	*8.17
Dec 12	0230	1,250	4.82	Sep 29	1000	1,090	4.53

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	321	268	210	e77	85	253	117	92	30	33	80
2	104	258	226	194	e73	129	265	113	141	29	31	60
3	91	222	188	184	e72	215	198	141	106	27	29	51
4	86	190	168	202	e87	250	174	190	80	25	28	46
5	89	173	159	366	e82	240	154	146	69	24	27	43
6	81	193	157	319	e85	218	135	158	69	23	27	40
7	74	184	151	224	e132	204	127	173	66	23	23	38
8	69	162	139	189	e111	184	119	161	60	23	21	44
9	65	140	133	166	e98	181	114	158	54	23	20	263
10	62	130	130	136	85	166	107	157	52	22	19	220
11	59	127	474	132	81	157	101	221	51	21	18	128
12	56	129	907	138	74	146	97	191	48	22	33	93
13	52	125	401	142	73	130	240	275	44	58	130	74
14	51	114	293	116	71	120	405	198	42	50	84	62
15	154	108	268	109	68	115	339	165	43	46	54	56
16	128	102	231	112	62	111	247	155	42	36	60	58
17	94	98	359	124	73	112	204	139	53	30	59	55
18	83	93	544	114	64	108	180	125	178	28	47	1,850
19	78	119	328	e95	61	111	161	116	82	42	40	1,490
20	74	662	263	e95	65	111	146	107	57	40	36	463
21	73	381	221	e95	63	148	138	97	46	34	389	285
22	83	264	202	e90	69	149	129	92	44	31	606	207
23	79	214	196	e90	66	121	135	86	47	28	210	163
24	69	189	704	e100	66	113	135	80	41	34	137	141
25	66	212	1,250	e95	63	114	120	73	37	28	101	121
26	62	183	582	e90	61	115	184	78	36	24	83	109
27	200	160	398	e81	60	111	236	189	33	27	72	99
28	688	192	323	e88	61	108	166	117	31	80	72	308
29	1,020	614	280	e85	69	99	139	87	35	54	64	927
30	995	349	258	e85	---	92	126	72	33	40	56	465
31	458	---	232	e77	---	205	---	68	---	33	97	---
TOTAL	5,456	6,408	10,433	4,343	2,172	4,468	5,274	4,245	1,812	1,035	2,706	8,039
MEAN	176	214	337	140	74.9	144	176	137	60.4	33.4	87.3	268
MAX	1,020	662	1,250	366	132	250	405	275	178	80	606	1,850
MIN	51	93	130	77	60	85	97	68	31	21	18	38
CFSM	2.75	3.34	5.26	2.19	1.17	2.25	2.75	2.14	0.94	0.52	1.36	4.19
IN.	3.17	3.72	6.06	2.52	1.26	2.60	3.07	2.47	1.05	0.60	1.57	4.67

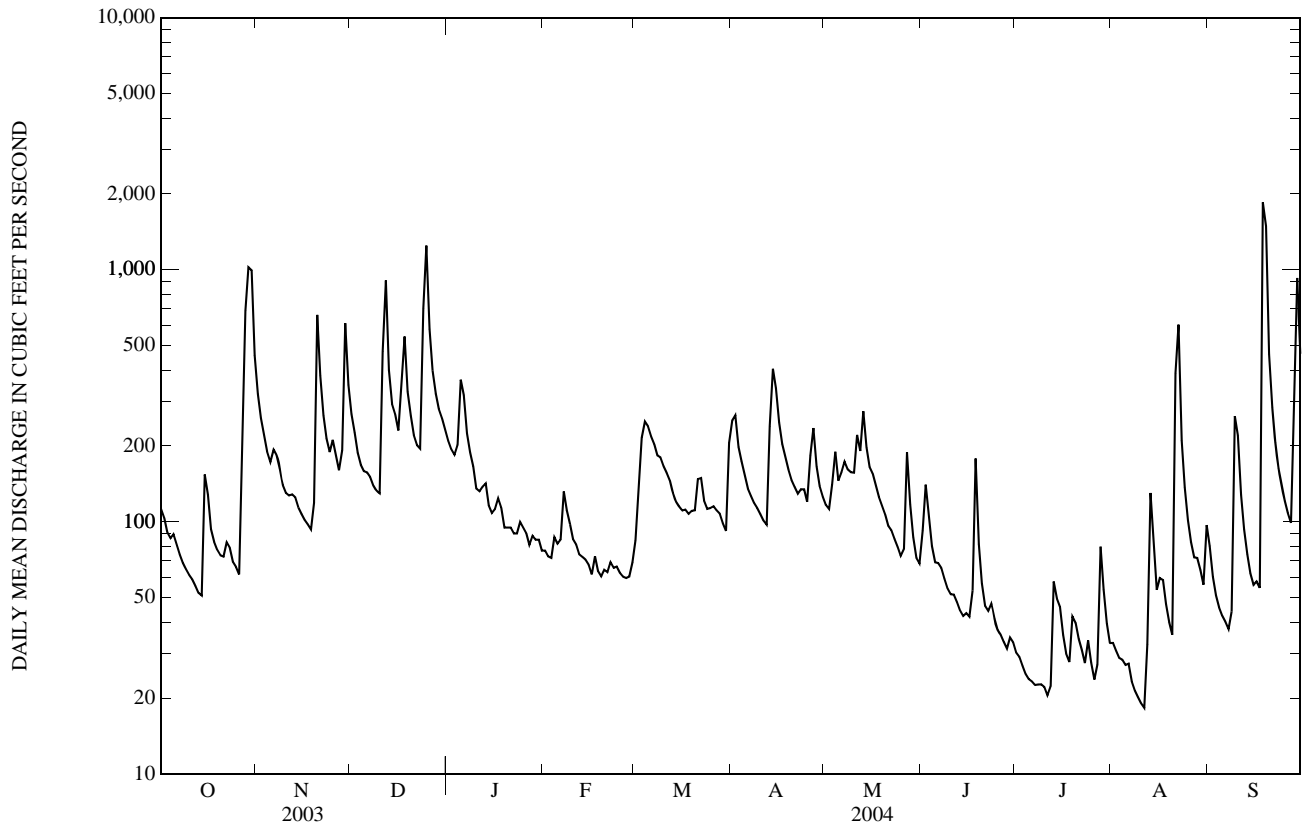
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
	57.2	306	9.57	(1964)	97.3	292	11.0	(2002)	124	412	16.7	(1999)
	121	367	23.5	(2002)	132	275	32.3	(2002)	204	513	62.0	(2002)
	203	570	65.9	(1946)	203	570	65.9	(1946)	142	372	44.0	(1941)
	55.9	384	23.7	(1965)	51.3	386	8.96	(1999)	51.3	386	8.96	(1999)
	50.6	268	7.01	(1964)	50.6	268	7.01	(1964)	50.6	268	7.01	(1964)

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	65,097		56,391		111	
ANNUAL MEAN	178		154		210	
HIGHEST ANNUAL MEAN					43.4	1928
LOWEST ANNUAL MEAN					6,310	1965
HIGHEST DAILY MEAN	1,600	Jun 22	1,850	Sep 18	4.1	Aug 19, 1955
LOWEST DAILY MEAN	30	Feb 17	18	Aug 11	5.3	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	35	Sep 8	22	Aug 5	9,560a	Sep 6, 1995
MAXIMUM PEAK FLOW			3,670	Sep 18	12.58b	Aug 19, 1955
MAXIMUM PEAK STAGE			8.17	Sep 18	3.6	Aug 19, 1955
INSTANTANEOUS LOW FLOW			18	Aug 11	1.73	Sep 25, 1964
ANNUAL RUNOFF (CFSM)	2.79		2.41		23.51	
ANNUAL RUNOFF (INCHES)	37.84		32.78		237	
10 PERCENT EXCEEDS	349		270		72	
50 PERCENT EXCEEDS	116		108		16	
90 PERCENT EXCEEDS	49		34			

- a From rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow.
- b From high-water mark in gage house.
- c Estimated



01443280 EAST BRANCH PAULINS KILL NEAR LAFAYETTE, NJ

LOCATION.--Lat 41°04'35", long 74°41'43", Sussex County, Hydrologic Unit 02020007, on right downstream wingwall of bridge on Garrison Road, 0.8 mi upstream from mouth, and 1.6 mi south of Lafayette.

DRAINAGE AREA.--13.0 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 555.40 ft above NGVD of 1929 (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 from gage, until April 2004 when it largely ceased. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	2030	167	4.89	Dec 25	0145	147	4.68
Nov 20	1430	131	4.50	Aug 22	0400	152	4.73
Nov 29	1200	106	4.19	Sep 18	2315	*200	*5.20
Dec 12	0000	164	4.86	Sep 29	1400	153	4.74
Dec 18	0515	109	4.23				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	76	56	45	e21	24	29	21	19	15	14	6.3
2	44	63	46	43	e20	28	31	20	18	10	8.6	5.7
3	43	54	e40	43	e20	33	26	21	19	9.0	5.9	5.3
4	38	48	e37	46	e24	34	24	28	16	8.3	5.8	5.1
5	38	47	e38	65	e24	34	21	21	15	7.9	5.3	4.8
6	35	57	e36	61	32	34	15	22	15	7.6	4.8	4.0
7	31	53	e35	e47	57	33	13	23	15	6.5	4.2	3.9
8	28	45	e34	e40	e38	32	13	19	14	2.7	2.9	7.8
9	27	39	e33	e36	e30	34	13	17	12	2.3	2.8	19
10	27	37	34	e27	e27	31	12	16	8.4	2.0	3.7	12
11	26	36	96	e27	e25	29	11	28	9.8	1.9	3.6	8.9
12	26	36	133	e30	e23	27	12	22	11	2.5	3.3	6.1
13	25	36	92	e29	e23	24	27	18	11	11	4.5	5.7
14	24	31	e62	e25	e22	23	42	15	11	6.9	4.4	6.4
15	44	26	e58	e24	e21	22	46	14	11	5.0	3.8	6.1
16	44	25	e57	e22	e20	22	33	18	11	4.0	4.3	8.2
17	34	26	71	e26	e20	24	24	15	11	3.3	4.6	7.2
18	32	28	103	e27	e19	23	21	13	13	4.0	4.1	101
19	28	33	78	e25	e20	24	19	12	12	13	3.7	145
20	27	109	61	e24	e20	25	17	12	10	8.0	3.6	58
21	27	92	52	e22	21	30	16	11	9.7	5.0	55	28
22	29	64	47	e23	23	28	15	11	11	3.7	127	19
23	27	51	46	e22	22	24	16	10	12	6.2	43	16
24	25	44	85	e21	22	23	19	11	10	16	19	14
25	24	46	131	e20	21	23	18	10	9.0	12	13	14
26	23	44	95	e20	21	23	34	12	26	9.2	10	12
27	44	39	76	e20	20	23	45	39	17	5.0	9.2	12
28	117	43	64	e20	21	23	28	29	12	15	8.4	35
29	135	94	57	e22	22	21	23	20	15	9.9	7.2	134
30	137	76	53	e21	---	20	21	15	12	6.7	6.7	100
31	97	---	49	e21	---	24	---	14	---	4.8	7.6	---
TOTAL	1,355	1,498	1,955	944	699	822	684	557	395.9	224.4	404.0	810.5
MEAN	43.7	49.9	63.1	30.5	24.1	26.5	22.8	18.0	13.2	7.24	13.0	27.0
MAX	137	109	133	65	57	34	46	39	26	16	127	145
MIN	23	25	33	20	19	20	11	10	8.4	1.9	2.8	3.9
CFSM	3.36	3.84	4.85	2.34	1.86	2.04	1.76	1.38	1.02	0.56	1.00	2.08
IN.	3.88	4.29	5.60	2.70	2.00	2.35	1.96	1.60	1.13	0.64	1.16	2.32

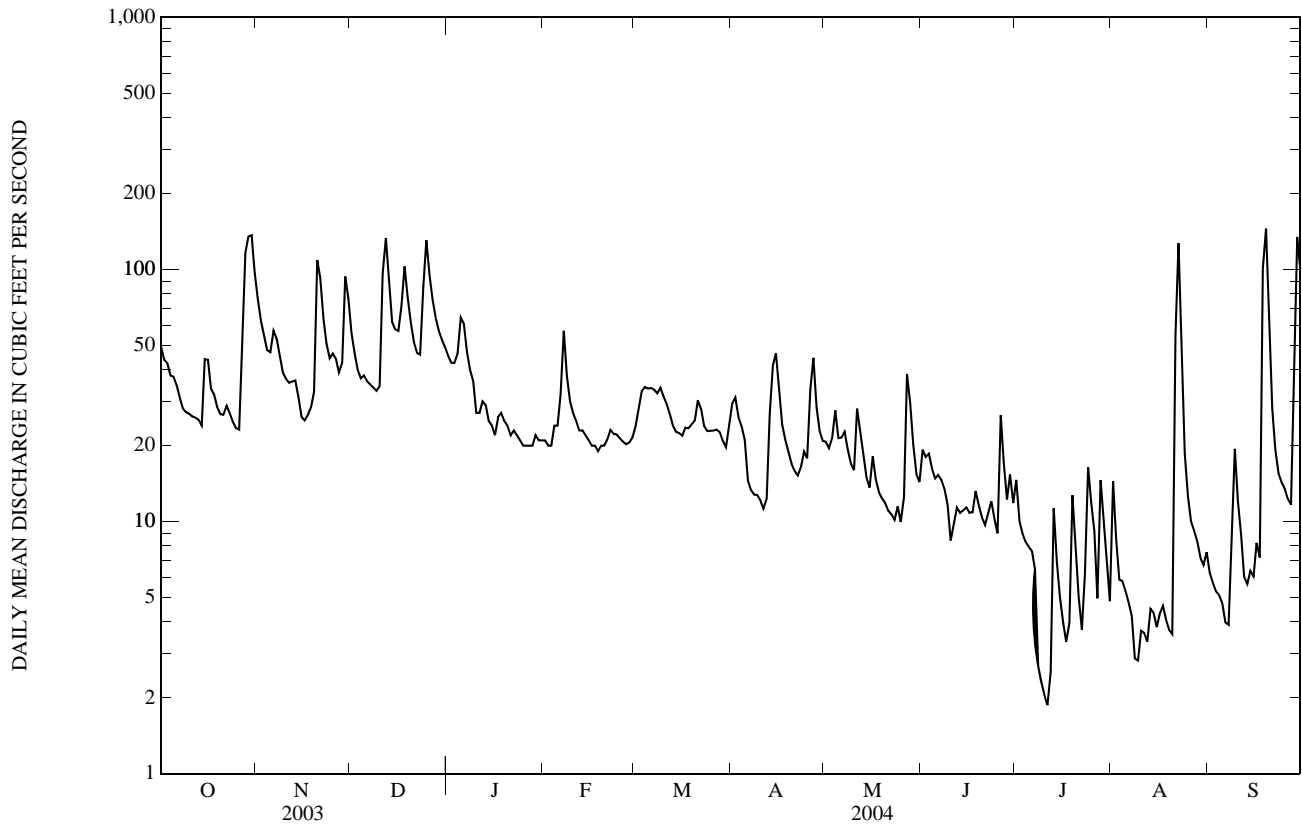
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2004, BY WATER YEAR (WY)

	17.1	19.7	26.1	24.4	22.6	35.9	33.8	23.6	19.6	12.5	14.2	15.7
MEAN	17.1	19.7	26.1	24.4	22.6	35.9	33.8	23.6	19.6	12.5	14.2	15.7
MAX	43.7	49.9	63.4	41.1	32.5	58.5	64.3	48.8	50.2	24.3	37.7	48.7
(WY)	(2004)	(2004)	(1997)	(1996)	(1996)	(1993)	(1993)	(1998)	(2003)	(2003)	(2000)	(2003)
MIN	7.25	6.06	6.77	7.22	6.33	9.90	15.2	14.3	8.27	6.68	6.21	6.04
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1995)	(1999)	(1999)	(2002)	(2002)

01443280 EAST BRANCH PAULINS KILL NEAR LAFAYETTE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1992 - 2004	
ANNUAL TOTAL	14,294		10,348.8		22.1	
ANNUAL MEAN	39.2		28.3		31.2	
HIGHEST ANNUAL MEAN					9.35	
LOWEST ANNUAL MEAN					210	
HIGHEST DAILY MEAN	171	Jun 22	145	Sep 19	210	Aug 13, 2000
LOWEST DAILY MEAN	10	Feb 17	1.9	Jul 11	1.9	Jul 11, 2004
ANNUAL SEVEN-DAY MINIMUM	13	Feb 12	3.6	Aug 7	3.6	Aug 7, 2004
MAXIMUM PEAK FLOW			200	Sep 18	275	Jan 20, 1996
MAXIMUM PEAK STAGE			5.20	Sep 18	5.81a	Jan 20, 1996
INSTANTANEOUS LOW FLOW			1.7	Jul 12	1.7	Jul 12, 2004
ANNUAL RUNOFF (CFSM)	3.01		2.18		1.70	
ANNUAL RUNOFF (INCHES)	40.93		29.64		23.16	
10 PERCENT EXCEEDS	76		57		43	
50 PERCENT EXCEEDS	31		22		16	
90 PERCENT EXCEEDS	16		5.8		7.6	

a From crest-stage gage.
e Estimated



01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 74°57'12" (revised), Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft upstream from bridge on State Route 94 in Blairstown, 1,400 ft upstream from Blair Creek, and 10 mi upstream from mouth.

DRAINAGE AREA.--126 mi².

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. Concrete control at current location since Aug. 1941. Datum of gage is 335.86 ft above NGVD of 1929. Prior to May 23, 1922, a non-recording gage was located at former highway bridge 1,300 ft downstream of current location. From May 23, 1922 to Jun. 24, 1931, a water-stage recorder was located 1,300 ft downstream at former highway bridge. Water-stage recorder was located 100 ft downstream of current location from Aug. 8, 1931 to Jul. 28, 1939 (same datum). Water-stage recorder was relocated to current site on Jul. 28, 1939. A concrete control was 280 ft downstream of current location from Aug. 1931 until it was destroyed on Jun. 1941. Water-stage recorder was temporarily relocated to old site (100 ft downstream of current location) from Jun. 9-Aug. 4, 1941 during construction of current control.

REMARKS.--Records good, except for estimated daily discharges which are fair and discharges below 75 ft³/s which are poor. Temporary fluctuations caused by unknown source and flow regulated slightly by Swartswood Lake and other lakes and ponds. Pumpage from limestone quarry enters tributary upstream from gage for decades, but largely ceased in April 2004. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0545	1,100	3.76	Dec 18	0330	1,080	3.71
Oct 29	2100	2,070	5.43	Dec 25	0115	1,860	5.10
Nov 20	1145	1,200	3.94	Aug 21	1745	1,230	4.00
Nov 29	1045	1,090	3.73	Sep 18	2045	*3,580	*7.41
Dec 12	0130	1,530	4.53	Sep 29	1315	2,690	6.32

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	849	620	479	162	181	386	241	199	76	211	116
2	282	694	531	441	149	231	427	226	194	72	168	96
3	260	601	447	420	142	294	367	246	200	65	120	80
4	247	535	416	442	172	313	338	312	174	59	104	70
5	235	510	410	587	167	325	308	265	156	55	96	62
6	217	528	405	555	197	315	269	261	152	52	86	54
7	200	506	389	463	319	316	241	275	141	47	78	47
8	188	450	371	400	291	303	229	269	131	49	70	92
9	181	396	351	371	254	316	220	243	121	42	63	243
10	161	365	341	e275	225	306	204	228	117	39	57	226
11	145	338	861	e265	210	297	197	584	109	36	54	155
12	135	312	1,250	e285	175	281	191	473	103	44	56	117
13	142	252	886	e272	168	261	385	527	95	100	103	97
14	161	232	707	e240	162	238	661	411	95	91	106	83
15	227	212	636	e225	153	227	655	339	94	119	87	74
16	177	200	572	e200	135	228	552	343	95	95	82	80
17	98	196	723	e235	133	229	457	297	90	81	84	77
18	109	186	961	e239	128	220	402	257	105	77	78	2,330
19	180	233	752	e222	124	233	348	242	99	117	70	2,510
20	179	962	630	e205	124	234	316	221	87	118	68	1,550
21	165	683	546	e195	130	298	283	201	77	96	746	920
22	180	545	500	e195	159	299	258	183	84	83	900	597
23	161	475	482	e180	151	255	256	172	90	80	589	427
24	145	430	1,040	e180	160	242	250	159	82	102	364	349
25	124	468	1,590	e170	146	238	230	147	74	93	272	303
26	117	418	1,130	e170	136	240	318	141	76	79	228	270
27	349	376	870	e165	132	237	422	345	86	86	197	240
28	913	431	719	e165	135	234	343	318	74	161	175	865
29	1,560	966	625	e170	159	210	288	251	81	140	163	2,470
30	1,650	757	571	167	---	195	263	193	76	111	142	1,920
31	1,140	---	523	170	---	309	---	172	---	97	139	---
TOTAL	10,336	14,106	20,855	8,748	4,898	8,105	10,064	8,542	3,357	2,562	5,756	16,520
MEAN	333	470	673	282	169	261	335	276	112	82.6	186	551
MAX	1,650	966	1,590	587	319	325	661	584	200	161	900	2,510
MIN	98	186	341	165	124	181	191	141	74	36	54	47
CFSM	2.65	3.73	5.34	2.24	1.34	2.08	2.66	2.19	0.89	0.66	1.47	4.37
IN.	3.05	4.16	6.16	2.58	1.45	2.39	2.97	2.52	0.99	0.76	1.70	4.88

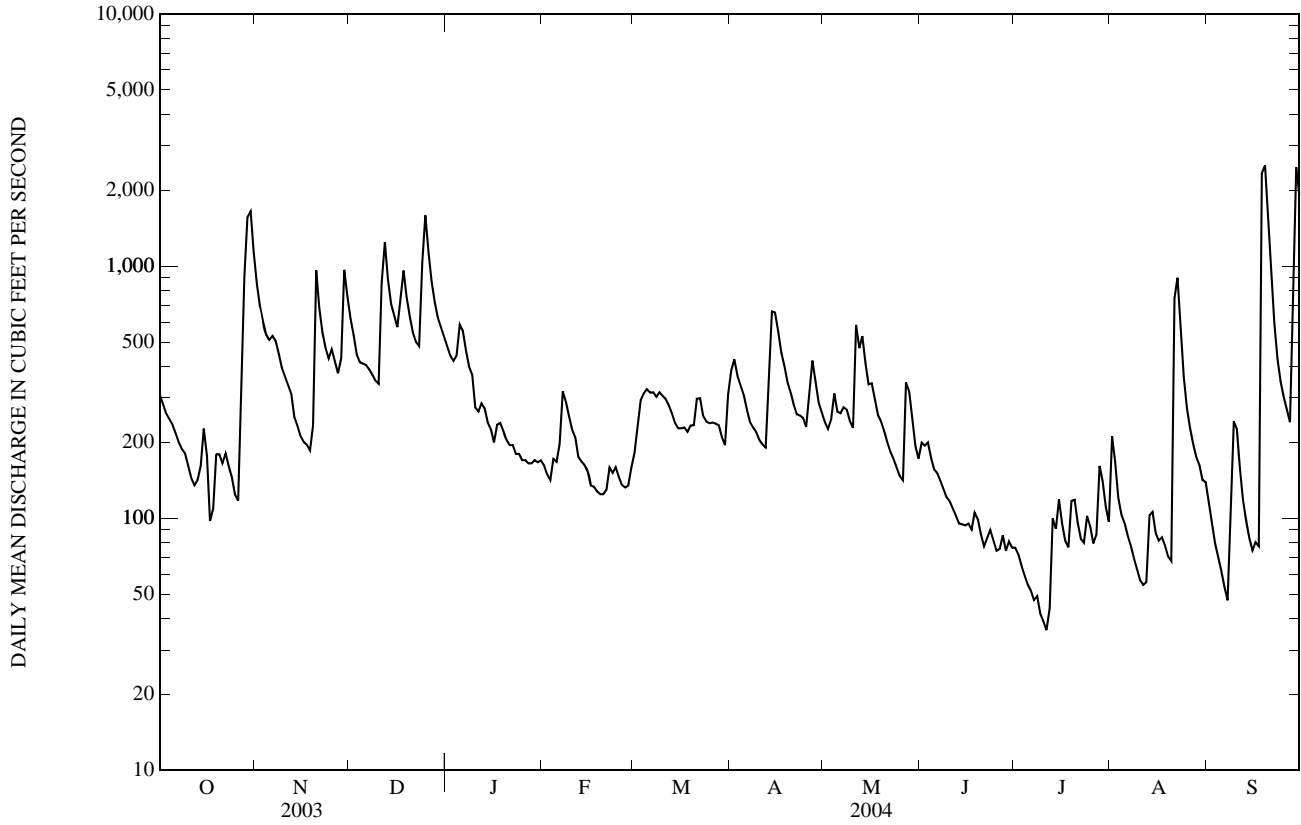
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

	110	168	219	222	244	370	335	223	160	113	106	111
MEAN	634	479	862	712	516	963	930	650	773	527	663	626
(WY)	(1956)	(1933)	(1997)	(1979)	(1951)	(1936)	(1983)	(1989)	(2003)	(1945)	(1955)	(1933)
MIN	20.5	22.1	35.5	37.8	47.3	65.0	106	54.6	41.0	19.4	19.6	18.2
(WY)	(1964)	(1965)	(1999)	(2002)	(2002)	(2002)	(1985)	(1941)	(1965)	(1955)	(1932)	(1964)

01443500 PAULINS KILL AT BLAIRSTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	135,326		113,849		198	
ANNUAL MEAN	371		311		362	
HIGHEST ANNUAL MEAN					67.4	1952
LOWEST ANNUAL MEAN					11	1965
HIGHEST DAILY MEAN	2,470	Jun 23	2,510	Sep 19	5,950	Aug 19, 1955
LOWEST DAILY MEAN	55	Feb 17	36	Jul 11	5.0	Aug 13, 1930
ANNUAL SEVEN-DAY MINIMUM	80	Jul 28	44	Jul 6	11	Aug 3, 1999
MAXIMUM PEAK FLOW			3,580	Sep 18	8,750	Aug 19, 1955
MAXIMUM PEAK STAGE			7.41	Sep 18	11.12a	Aug 19, 1955
INSTANTANEOUS LOW FLOW			32	Jul 12	2.8	Nov 1, 1922
ANNUAL RUNOFF (CFSM)	2.94		2.47		1.57	
ANNUAL RUNOFF (INCHES)	39.95		33.61		21.36	
10 PERCENT EXCEEDS	735		622		417	
50 PERCENT EXCEEDS	265		226		133	
90 PERCENT EXCEEDS	101		80		35	

a From high water mark in gage house
 e Estimated



DELAWARE RIVER BASIN

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'50", long 75°02'21", Warren County, Hydrologic Unit 02040105, on left bank 100 ft upstream from bridge on Hainesburg-Mount Vernon Road (Walnut Valley Road), 1.4 mi downstream from Lower Yards Creek Reservoir, 2.2 mi northeast of Hainesburg, 2.4 mi upstream from mouth, and 4.2 mi west of Blairstown.

DRAINAGE AREA.--5.34 mi².

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 NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges which are poor. Flow regulated by GPU Generation Corp., at the Lower 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	60	33	37	1.8	3.8	12	3.1	9.5	1.0	3.6	5.5
2	28	57	37	31	1.7	7.2	12	3.0	9.5	1.00	2.2	5.3
3	24	59	37	27	2.4	13	11	8.9	9.2	0.95	2.2	5.3
4	12	59	31	26	e6.5	16	11	11	7.4	0.92	2.0	5.2
5	10	45	27	28	e12	18	11	11	2.7	0.96	2.2	5.0
6	10	32	27	22	e12	16	7.1	7.1	2.5	0.88	1.7	4.9
7	11	23	25	11	e17	15	2.6	9.2	2.2	0.89	1.3	3.6
8	10	16	20	e3.6	e16	20	2.7	11	1.7	0.93	1.3	4.2
9	7.4	16	15	e2.9	e16	23	2.6	11	1.5	0.86	1.2	8.6
10	2.8	14	16	e2.9	16	22	2.4	11	1.5	0.81	1.2	9.8
11	2.2	8.3	37	e2.8	15	21	2.3	18	1.5	0.80	1.3	6.5
12	2.1	3.9	39	e2.7	12	18	5.1	25	1.4	1.9	1.9	6.1
13	1.9	5.4	39	e2.9	3.1	15	15	32	1.3	2.5	11	4.6
14	2.0	5.5	37	e2.2	2.9	15	19	29	1.5	2.3	11	2.4
15	9.8	3.3	38	e1.1	e3.0	9.9	24	16	1.5	2.1	12	2.4
16	13	3.0	43	e1.3	e3.1	6.9	21	16	1.5	1.6	14	2.8
17	13	2.9	57	2.4	e3.1	11	14	26	1.4	1.7	13	2.6
18	12	2.8	53	2.4	2.7	11	13	38	1.5	2.0	11	148
19	11	9.4	44	2.3	2.8	11	14	38	1.3	2.5	6.9	211
20	11	23	38	2.2	2.8	12	22	28	1.2	1.6	2.7	189
21	8.7	32	35	2.1	3.3	12	26	15	1.1	1.2	49	134
22	6.3	30	25	2.1	3.2	11	25	15	2.0	1.1	51	56
23	6.3	28	22	1.9	3.2	11	25	14	1.5	1.3	55	4.5
24	6.1	29	50	1.6	6.9	11	25	8.9	1.2	1.2	54	3.8
25	6.1	28	40	e1.6	e9.7	12	24	2.3	1.3	1.0	41	3.4
26	6.1	24	40	e1.5	e9.7	12	34	2.8	1.5	1.0	28	2.8
27	28	16	39	1.5	8.3	11	32	9.8	1.1	3.7	17	2.6
28	39	23	37	1.9	3.3	11	22	11	1.1	3.9	12	67
29	66	24	44	1.9	3.5	11	14	9.6	1.3	2.5	12	105
30	65	29	52	1.8	---	11	7.3	9.1	1.1	1.9	12	90
31	65	---	44	1.8	---	13	---	9.4	---	1.8	9.1	---
TOTAL	522.8	711.5	1,121	233.4	203.0	410.8	458.1	459.2	75.0	48.80	443.8	1,101.9
MEAN	16.9	23.7	36.2	7.53	7.00	13.3	15.3	14.8	2.50	1.57	14.3	36.7
MAX	66	60	57	37	17	23	34	38	9.5	3.9	55	211
MIN	1.9	2.8	15	1.1	1.7	3.8	2.3	2.3	1.1	0.80	1.2	2.4

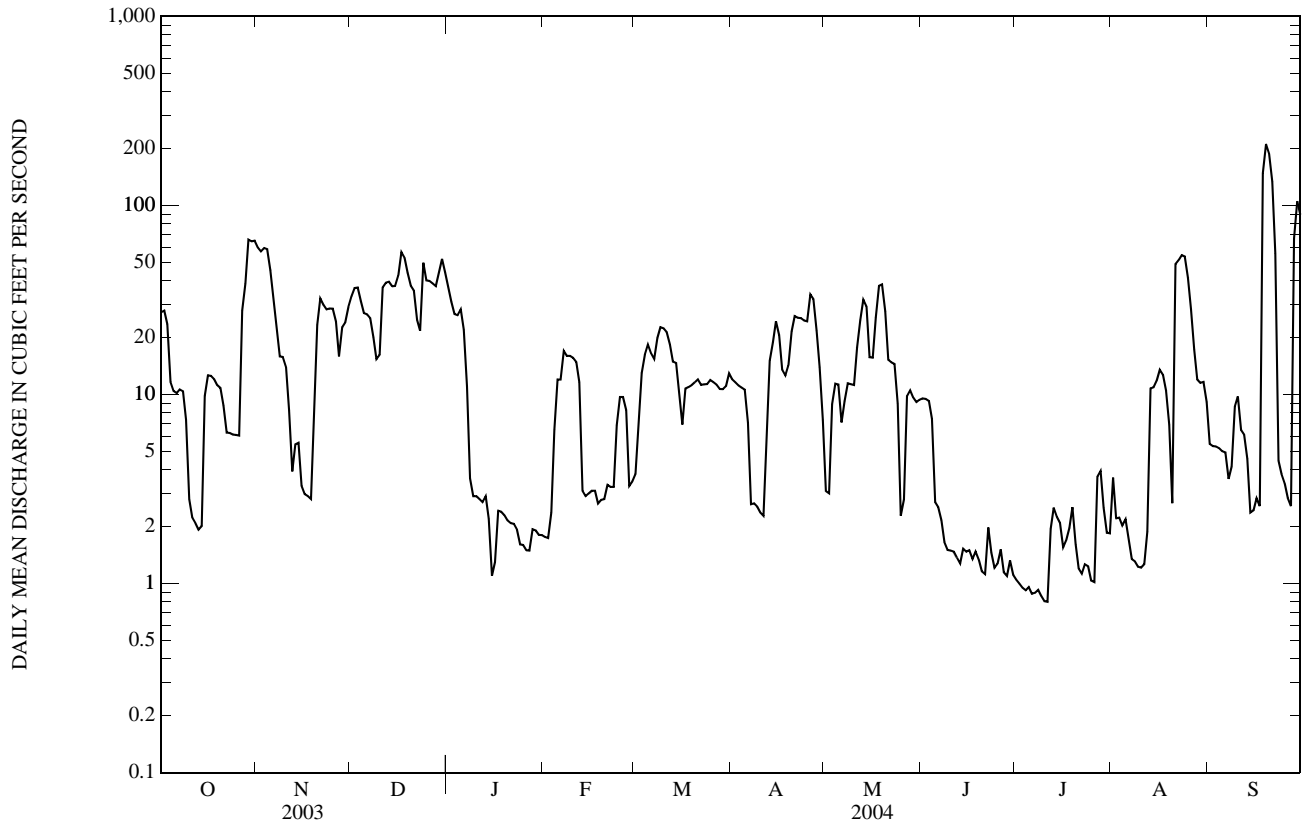
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	6.00	8.27	14.3	13.6	14.0	18.1	17.3	13.1	9.44	4.57	5.39	5.42
MAX	33.6	26.3	48.4	51.0	36.4	50.1	55.3	33.7	39.2	19.9	31.0	36.7
(WY)	(1990)	(1996)	(1997)	(1979)	(1979)	(1977)	(1983)	(1989)	(2003)	(1984)	(2003)	(2004)
MIN	0.97	1.20	0.91	1.66	2.17	3.42	4.43	1.58	1.00	0.89	0.65	0.58
(WY)	(1981)	(1967)	(1981)	(1981)	(2002)	(2002)	(1981)	(1970)	(1980)	(1980)	(1980)	(1980)

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	6,807.68		5,789.30		10.8	
ANNUAL MEAN	18.7		15.8		16.1	
HIGHEST ANNUAL MEAN					3.17	
LOWEST ANNUAL MEAN					1996	
HIGHEST DAILY MEAN	112	Aug 13	211	Sep 19	225	Jan 18, 1977
LOWEST DAILY MEAN	0.85	Jul 20	0.80	Jul 11	0.02	Jun 19, 1970
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 14	0.88	Jul 5	0.46	Oct 7, 1980
MAXIMUM PEAK FLOW			386	Sep 18	583	Feb 24, 1977
MAXIMUM PEAK STAGE			3.54	Sep 18	3.92	Feb 24, 1977
INSTANTANEOUS LOW FLOW			0.77	Jul 9	0.00	Sep 12, 1971
10 PERCENT EXCEEDS	44		38		24	
50 PERCENT EXCEEDS	13		9.6		4.7	
90 PERCENT EXCEEDS	2.0		1.5		1.3	

e Estimated



01445000 PEQUEST RIVER AT HUNTSVILLE, NJ

LOCATION.--Lat 40°58'51", long 74°46'35", Sussex County, Hydrologic Unit 02040105, on right bank 20 ft upstream from bridge on Pequest Road in Huntsville and 0.4 mi downstream from Kymers Brook.

DRAINAGE AREA.--31.0 mi².

PERIOD OF RECORD.--November 1939 to October 1962, October 2002 to current year. Annual maximum and minimum, water years 1963-74, and annual maximums, water years 1975-95, 1999, 2000.

REVISED RECORDS.--WSP 1332: 1945, 1949.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 553.81 ft above NGVD of 1929.

REMARKS.--Records good, except for estimated daily discharges which are fair. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0430	295	3.84	Jan 5	1500	161	3.34
Nov 20	1715	221	3.54	Apr 15	0530	140	3.27
Nov 25	1515	137	3.26	Apr 26	2145	137	3.26
Nov 29	1230	173	3.38	Aug 22	0430	189	3.43
Dec 12	0330	306	3.89	Sep 19	0430	*395	*4.30
Dec 18	0430	224	3.55	Sep 29	1715	323	4.02
Dec 25	0615	279	3.77				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	181	125	131	e39	45	84	73	50	13	36	20
2	74	154	116	121	e38	57	84	68	46	13	34	18
3	65	129	103	114	41	65	75	76	41	12	28	16
4	61	112	92	121	55	70	67	90	37	11	25	15
5	60	104	87	153	49	75	59	78	34	10	22	15
6	57	113	90	139	62	82	53	76	33	9.6	19	15
7	49	110	92	116	94	84	50	77	31	9.3	17	15
8	47	99	87	103	70	84	49	69	34	9.4	14	17
9	47	88	81	92	59	85	51	64	34	8.7	13	28
10	45	79	78	e72	56	82	53	61	29	8.3	12	29
11	44	77	187	e68	52	76	49	118	27	8.6	12	22
12	43	76	284	e71	50	70	49	95	24	12	13	20
13	40	73	226	e73	48	62	92	81	22	24	16	18
14	38	72	192	e61	48	56	127	72	21	18	15	17
15	65	71	190	e60	45	55	137	65	21	16	15	16
16	59	66	162	e56	41	56	115	78	20	14	15	20
17	46	63	174	e62	39	61	99	67	21	13	21	18
18	43	64	215	e61	38	58	91	60	23	15	17	215
19	41	92	177	e60	37	63	85	57	20	29	14	349
20	38	201	156	e55	36	63	84	55	17	23	13	238
21	35	171	139	e51	40	74	76	50	16	17	97	190
22	36	127	128	e53	43	70	70	48	19	14	152	137
23	37	116	124	e50	41	61	72	43	21	16	70	102
24	31	104	186	e49	41	59	73	42	18	20	51	79
25	29	121	267	e44	39	66	66	39	16	15	42	64
26	30	107	227	e47	38	67	103	37	20	13	35	62
27	67	93	205	e44	37	65	126	73	18	14	31	49
28	155	96	189	e41	37	61	100	67	15	27	28	93
29	214	162	171	e44	41	55	86	59	16	25	26	292
30	272	140	158	e40	---	52	78	45	15	19	24	261
31	214	---	145	e38	---	73	---	41	---	16	23	---
TOTAL	2,166	3,261	4,853	2,290	1,354	2,052	2,403	2,024	759	472.9	950	2,450
MEAN	69.9	109	157	73.9	46.7	66.2	80.1	65.3	25.3	15.3	30.6	81.7
MAX	272	201	284	153	94	85	137	118	50	29	152	349
MIN	29	63	78	38	36	45	49	37	15	8.3	12	15

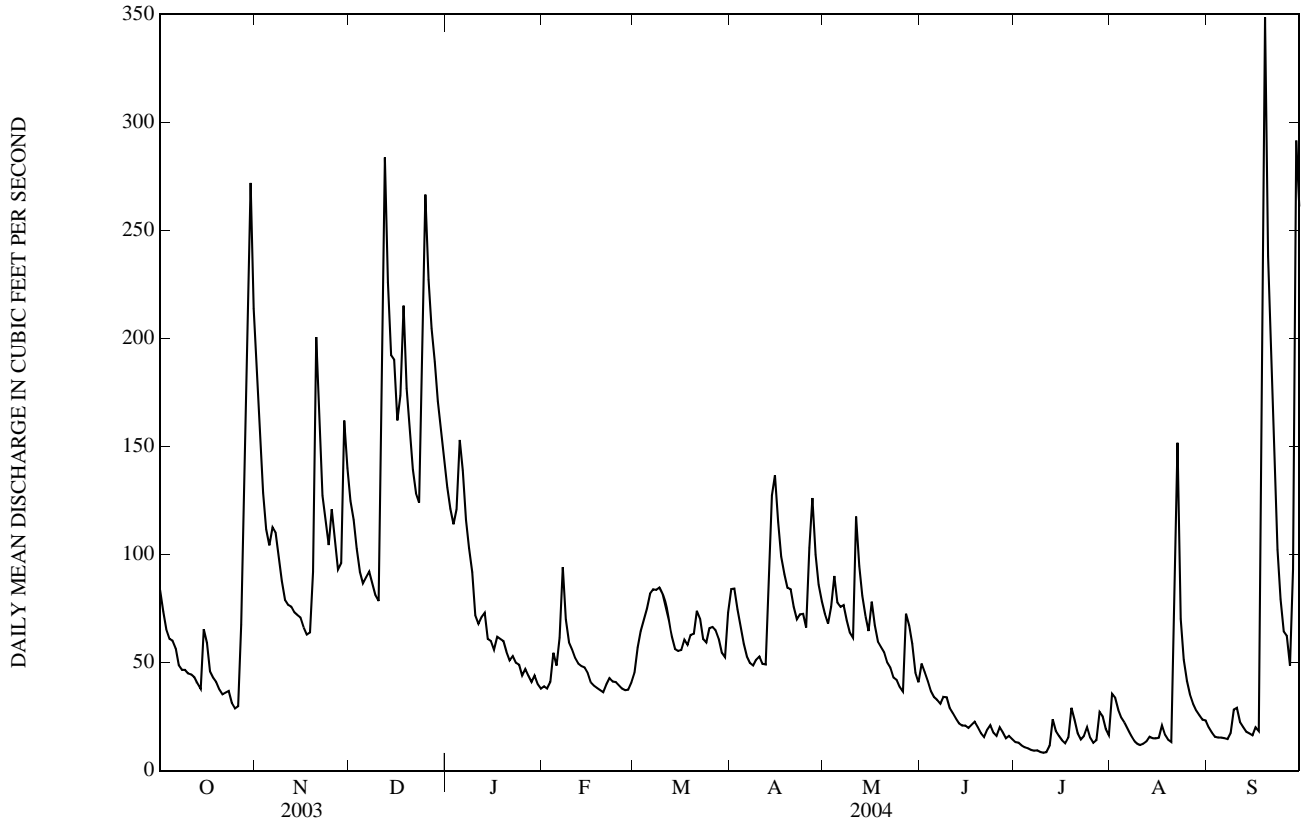
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	23.9	38.5	50.9	52.9	53.6	86.4	86.0	57.2	40.9	28.6	27.1	27.8
MAX	115	109	157	137	115	149	148	122	146	127	88.4	119
(WY)	(1956)	(2004)	(2004)	(1949)	(1951)	(1961)	(1952)	(1947)	(2003)	(1945)	(1955)	(1960)
MIN	3.97	6.38	7.02	11.3	15.7	46.7	42.5	16.9	10.2	3.31	2.77	3.17
(WY)	(1958)	(1950)	(1947)	(1940)	(1940)	(1960)	(1946)	(1941)	(1955)	(1955)	(1957)	(1957)

01445000 PEQUEST RIVER AT HUNTSVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	30,889		25,034.9		47.8	
ANNUAL MEAN	84.6		68.4		26.3	
HIGHEST ANNUAL MEAN					83.1	1952
LOWEST ANNUAL MEAN					26.3	1962
HIGHEST DAILY MEAN	392	Jun 23	349	Sep 19	481	Aug 20, 1955
LOWEST DAILY MEAN	17	Feb 17	8.3	Jul 10	1.6	Aug 3, 1955
ANNUAL SEVEN-DAY MINIMUM	23	Feb 13	9.1	Jul 5	1.8	Aug 1, 1955
MAXIMUM PEAK FLOW			395	Sep 19	640	Jan 25, 1979
MAXIMUM PEAK STAGE			4.30	Sep 19	5.44	Jan 25, 1979
INSTANTANEOUS LOW FLOW			7.7	Jul 10	1.1	Aug 2, 1955
10 PERCENT EXCEEDS	162		139		104	
50 PERCENT EXCEEDS	69		56		35	
90 PERCENT EXCEEDS	29		16		6.5	

e Estimated



01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'40", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft upstream from abandoned railroad bridge, and 500 ft downstream from Furnace Brook.

DRAINAGE AREA.--106 mi².

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 NGVD of 1929. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Some regulation from unknown sources upstream. Between 1958 and 1960 approximately ten miles of the Pequest River from Long Bridge to below Vienna was dredged and realigned by the U.S. Soil Conservation Service. This work may have affected peak flows at this gage. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0030	889	3.77	Dec 17	2230	897	3.79
Oct 29	2215	1,270	4.61	Dec 24	1945	1,200	4.47
Nov 20	0745	1,030	4.11	Sep 18	1600	*1,490	*5.03
Nov 29	0515	665	3.23	Sep 29	1015	1,160	4.39
Dec 11	1845	1,270	4.62				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	610	396	407	139	169	261	212	139	66	113	76
2	188	486	344	369	134	194	253	200	144	63	110	70
3	168	408	307	348	141	218	228	219	131	61	91	67
4	158	346	279	349	187	224	210	284	121	63	81	64
5	153	321	268	518	178	229	192	239	113	56	76	60
6	144	338	262	482	237	246	178	214	113	55	72	59
7	138	325	260	379	466	254	171	249	111	53	65	59
8	131	293	254	315	315	258	168	221	104	52	60	71
9	125	261	244	285	242	267	173	195	103	51	57	165
10	120	239	237	198	218	253	166	186	102	50	54	126
11	116	e235	862	213	213	238	161	316	101	48	59	94
12	115	e225	1,060	255	195	217	156	296	94	65	62	80
13	115	219	852	230	184	197	327	261	88	115	78	73
14	109	199	662	202	180	184	494	223	86	89	74	68
15	197	192	594	194	170	176	483	200	84	90	64	66
16	167	185	536	153	152	172	386	228	81	71	61	76
17	143	181	652	209	148	180	312	209	77	65	59	73
18	129	177	799	212	145	182	262	187	80	66	63	985
19	120	226	653	197	146	193	251	179	81	92	58	1,310
20	114	915	533	183	150	202	232	176	75	86	54	1,150
21	110	616	452	163	157	271	222	161	71	73	267	816
22	107	498	405	183	180	238	213	153	73	64	417	501
23	105	387	392	155	169	202	210	144	79	65	251	310
24	102	337	809	148	169	190	211	136	74	80	148	237
25	95	350	1,060	138	158	192	199	129	76	66	120	199
26	94	328	870	152	150	200	303	128	89	60	108	179
27	327	297	712	145	146	199	403	176	76	66	98	166
28	635	322	608	138	146	195	316	192	71	130	92	363
29	1,010	572	538	156	157	179	257	181	72	99	87	1,110
30	1,070	456	496	145	---	167	229	150	69	83	82	917
31	819	---	452	142	---	239	---	142	---	71	82	---
TOTAL	7,331	10,544	16,848	7,363	5,372	6,525	7,627	6,186	2,778	2,214	3,163	9,590
MEAN	236	351	543	238	185	210	254	200	92.6	71.4	102	320
MAX	1,070	915	1,060	518	466	271	494	316	144	130	417	1,310
MIN	94	177	237	138	134	167	156	128	69	48	54	59
CFSM	2.23	3.32	5.13	2.24	1.75	1.99	2.40	1.88	0.87	0.67	0.96	3.02
IN.	2.57	3.70	5.91	2.58	1.89	2.29	2.68	2.17	0.97	0.78	1.11	3.37

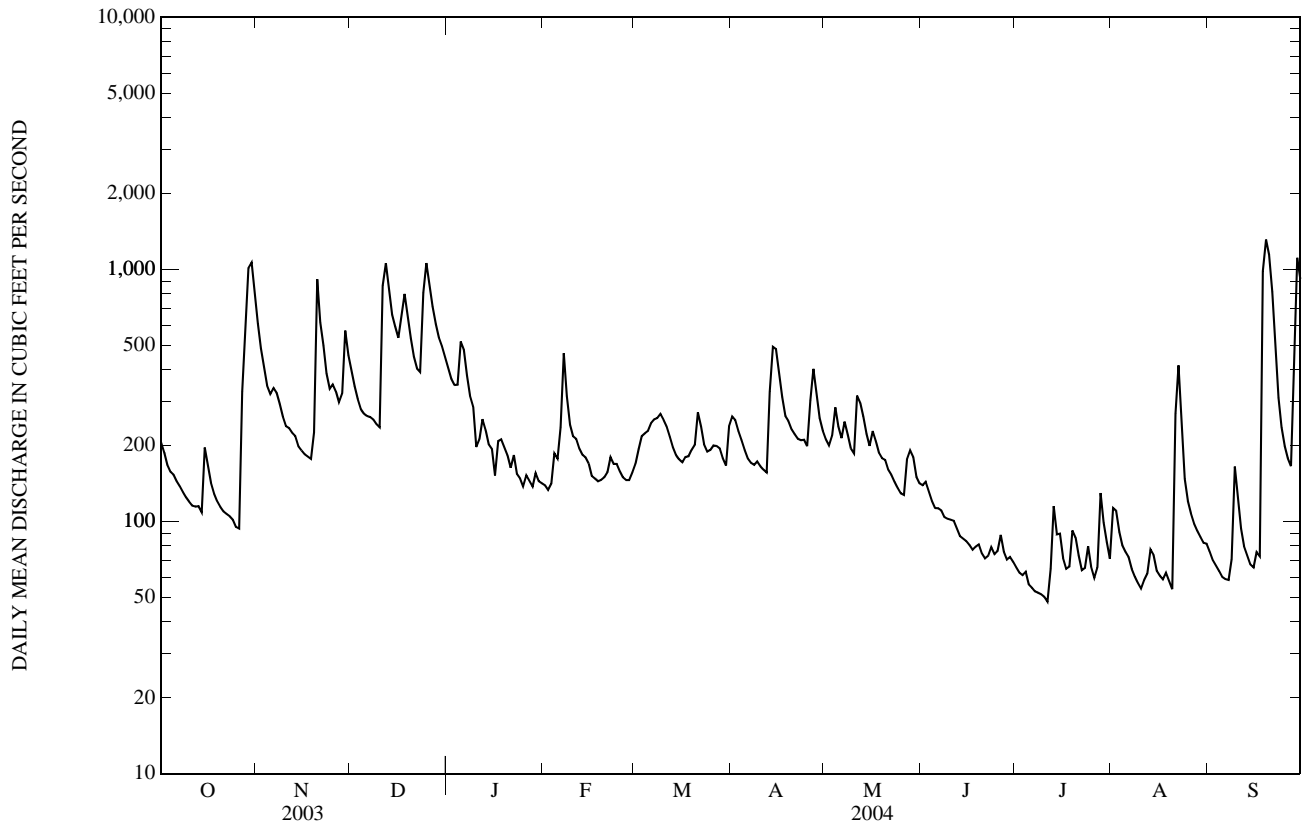
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	88.9	129	168	171	195	276	261	186	132	102	91.1	91.2
MAX	391	409	714	627	372	750	720	430	556	487	409	354
(WY)	(1990)	(1928)	(1997)	(1979)	(1939)	(1936)	(1983)	(1989)	(1972)	(1945)	(1928)	(1989)
MIN	18.0	21.4	27.0	33.9	42.9	52.1	76.9	55.7	35.0	19.0	15.1	16.6
(WY)	(1965)	(1966)	(1966)	(1966)	(2002)	(2002)	(1985)	(1965)	(1965)	(1965)	(1965)	(1964)

01445500 PEQUEST RIVER AT PEQUEST, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	100,396		85,541		158	
ANNUAL MEAN	275		234		45.8	
HIGHEST ANNUAL MEAN					285	1952
LOWEST ANNUAL MEAN					12	1965
HIGHEST DAILY MEAN	1,070	Oct 30	1,310	Sep 19	2,040	Jan 25, 1979
LOWEST DAILY MEAN	49	Feb 17	48	Jul 11	13	Aug 18, 1965
ANNUAL SEVEN-DAY MINIMUM	76	Feb 12	52	Jul 5	13	Aug 15, 1965
MAXIMUM PEAK FLOW			1,490	Sep 18	2,130	Jan 25, 1979
MAXIMUM PEAK STAGE			5.03	Sep 18	5.97a	Jan 25, 1979
INSTANTANEOUS LOW FLOW			47	Jul 11, 12	12	Sep 17, 1965
ANNUAL RUNOFF (CFSM)	2.59		2.20		1.49	
ANNUAL RUNOFF (INCHES)	35.23		30.02		20.19	
10 PERCENT EXCEEDS	545		484		329	
50 PERCENT EXCEEDS	207		179		112	
90 PERCENT EXCEEDS	101		67		36	

a From high-water mark.
e Estimated



01446000 BEAVER BROOK NEAR BELVIDERE, NJ

LOCATION.--Lat 40°50'36", long 75°02'47", Warren County, Hydrologic Unit 02040105, on right bank 2,000 ft upstream from mouth, 1.1 mi northwest of Bridgeville, and 2.0 mi northeast of Belvidere.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--May 1922 to October 1961, June 2003 to current year. Annual maximum and minimum, water years 1963-65, and annual maximums, water years 1966-95.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1923, 1924(M), 1928, 1931(M), 1934(M).

GAGE.--Water-stage recorder. Datum of gage 303.36 ft above NGVD of 1929.

REMARKS.--Records good, except for estimated daily discharges which are fair. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	0415	555	3.99	Dec 25	0645	450	3.72
Nov 20	2100	279	3.20	Aug 22	1230	285	3.22
Nov 29	1830	233	3.03	Sep 19	0015	*1,330	*5.51
Dec 12	0630	418	3.63	Sep 29	1745	614	4.13
Dec 18	0945	288	3.23				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	258	170	130	e45	56	115	73	45	12	68	33
2	65	206	150	118	e40	63	103	68	41	11	81	31
3	59	173	129	109	40	70	92	75	37	10	47	30
4	57	149	112	109	51	71	88	98	33	9.4	39	34
5	57	134	104	140	46	71	81	77	31	8.9	31	29
6	52	137	102	147	60	72	72	69	33	8.2	26	27
7	49	131	98	115	122	77	68	79	32	8.0	20	25
8	46	116	91	96	e100	76	68	80	29	8.1	17	28
9	44	99	85	88	e76	84	69	66	26	8.3	15	65
10	43	89	83	e60	69	77	62	62	26	7.7	14	58
11	41	84	185	e65	68	73	57	95	27	7.3	14	40
12	39	84	380	e80	61	67	56	107	24	12	19	32
13	37	81	291	e80	59	62	115	86	22	34	33	28
14	34	71	230	e65	57	59	176	74	21	21	40	25
15	73	64	204	e70	54	57	168	69	21	16	25	24
16	74	61	179	e60	53	56	135	84	19	13	22	31
17	53	60	190	e80	50	61	115	72	18	12	18	28
18	48	58	271	e75	46	61	111	61	20	12	16	512
19	45	70	227	e75	47	66	101	59	20	17	15	993
20	41	211	190	e70	48	67	92	60	18	15	13	478
21	40	236	162	e60	51	82	85	53	16	12	106	288
22	38	181	143	e70	59	80	79	49	18	10	251	203
23	36	153	133	e60	56	69	80	46	22	10	157	157
24	34	134	213	e60	57	67	80	45	19	13	90	129
25	32	137	424	e55	52	69	70	41	17	10	66	110
26	30	129	343	e55	50	72	103	40	16	8.6	54	98
27	74	112	270	e45	49	68	144	69	15	12	48	86
28	205	118	221	e45	49	65	103	66	14	47	43	140
29	319	201	186	e45	53	59	86	49	15	42	40	477
30	506	198	165	e35	---	57	78	41	14	26	37	468
31	351	---	148	e40	---	104	---	38	---	18	37	---
TOTAL	2,693	3,935	5,879	2,402	1,668	2,138	2,852	2,051	709	459.5	1,502	4,707
MEAN	86.9	131	190	77.5	57.5	69.0	95.1	66.2	23.6	14.8	48.5	157
MAX	506	258	424	147	122	104	176	107	45	47	251	993
MIN	30	58	83	35	40	56	56	38	14	7.3	13	24

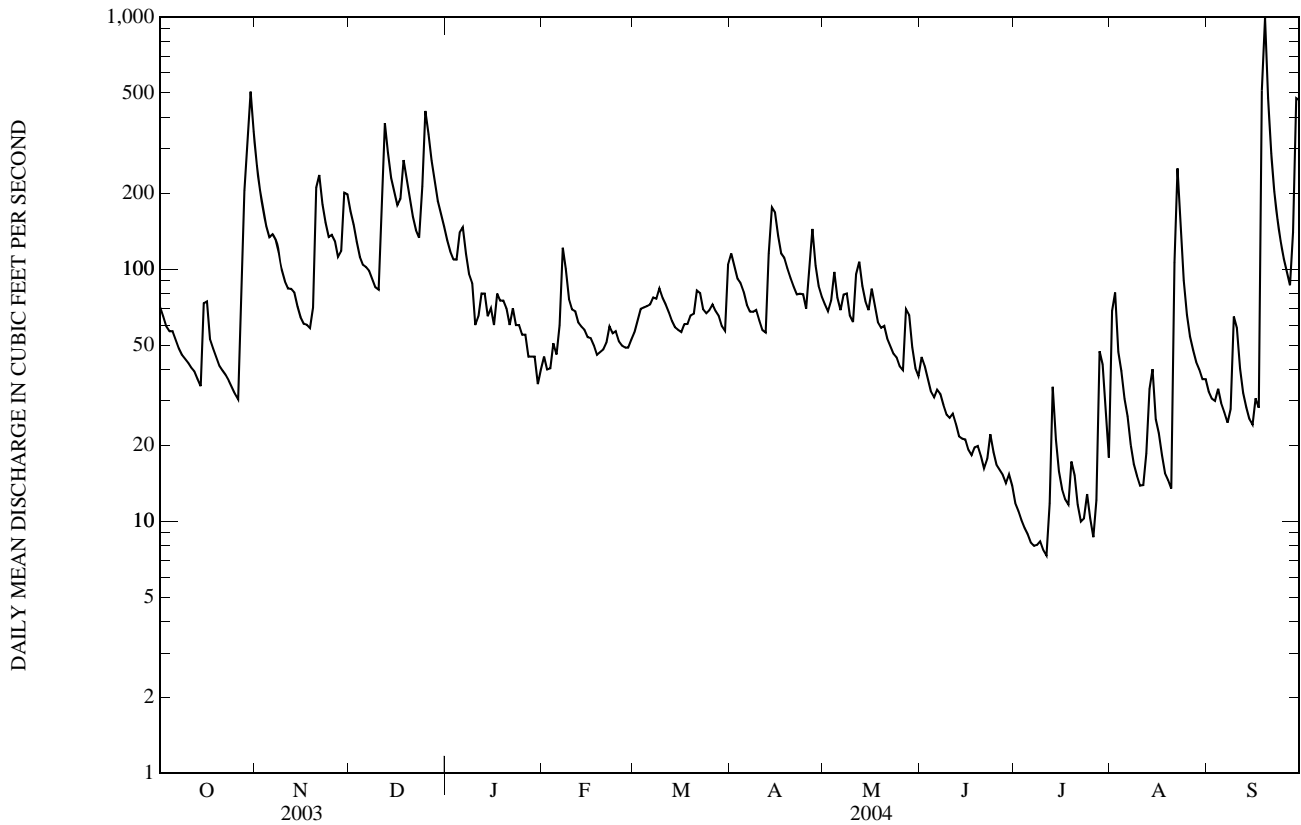
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																								
	25.8	114	2.63	(1956)	45.8	150	5.12	(1952)	57.0	190	11.9	(2004)	60.7	176	17.1	(1949)	71.2	150	21.3	(1925)	103	283	49.4	(1936)	90.4	209	40.7	(1952)	53.1	142	16.0	(1947)	33.6	78.4	8.47	(1946)	36.3	212	3.09	(1945)	34.8	236	2.42	(1942)	30.7	157	2.05	(2004)
				(1958)				(1932)				(1932)				(1925)				(1934)				(1932)							(1941)				(1955)				(1955)				(1957)				(1957)	

01446000 BEAVER BROOK NEAR BELVIDERE, NJ—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	30,995.5			
ANNUAL MEAN	84.7		53.2	
HIGHEST ANNUAL MEAN			106	1928
LOWEST ANNUAL MEAN			23.8	1932
HIGHEST DAILY MEAN	993	Sep 19	1,370	Mar 12, 1936
LOWEST DAILY MEAN	7.3	Jul 11	1.2	Sep 7, 1944
ANNUAL SEVEN-DAY MINIMUM	8.1	Jul 5	1.3	Sep 5, 1944
MAXIMUM PEAK FLOW	1,330	Sep 19	1,510 ^a	Mar 12, 1936
MAXIMUM PEAK STAGE	5.51	Sep 19	5.76	Mar 12, 1936
INSTANTANEOUS LOW FLOW	7.1	Jul 11, 12	0.3 ^b	Sep 25, 1954
10 PERCENT EXCEEDS	174		117	
50 PERCENT EXCEEDS	61		36	
90 PERCENT EXCEEDS	17		6.4	

- a From rating curve extended above 990 ft³/s on basis of slope-area and contracted-opening measurements of peak flow.
- b Some time during period Sept. 18-30, 1964.
- e Estimated



01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'34", long 75°04'57", revised, 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 mi².

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 NGVD of 1929. 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 lakes Wallenpaupack and Cliff, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). U. S. Geological Survey satellite gage-height telemetry and National Weather Service telephone gage-height telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft³/s, from rating curve extended above 170,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17,700	37,200	23,800	17,100	4,420	3,570	11,000	10,400	6,760	2,410	7,540	10,700
2	15,200	27,500	20,400	15,600	4,030	4,060	12,200	9,400	7,130	2,530	7,030	9,910
3	13,100	22,500	17,800	14,300	4,010	5,570	13,100	10,100	7,500	2,340	7,380	7,850
4	11,500	19,800	15,600	14,500	4,470	9,310	11,600	14,500	7,520	2,240	6,440	6,460
5	10,400	17,500	14,400	19,900	4,540	13,300	10,600	13,200	6,840	2,320	5,340	5,520
6	11,500	17,500	13,600	26,300	4,770	15,300	e10,200	12,200	6,140	2,320	4,990	4,610
7	10,400	17,500	13,000	21,800	5,880	22,700	e9,500	12,400	5,780	2,390	5,000	4,220
8	9,340	15,300	12,000	17,700	5,400	23,500	8,470	12,100	5,970	2,810	4,170	4,700
9	8,530	13,200	10,600	15,400	4,630	19,900	8,270	10,100	5,390	2,920	3,270	11,800
10	7,850	11,700	10,000	12,100	4,560	16,700	7,960	9,800	5,160	2,750	2,980	18,200
11	7,300	11,100	18,900	9,180	4,890	14,600	7,020	12,500	5,060	2,560	3,210	17,800
12	6,700	10,800	53,600	9,890	4,620	13,100	6,350	13,600	4,390	2,570	3,380	13,600
13	6,200	10,900	48,200	11,400	4,430	12,000	7,760	14,900	3,880	3,030	26,600	10,600
14	6,060	10,700	33,800	10,700	4,400	10,400	12,700	14,900	3,210	3,070	44,000	9,170
15	8,490	9,470	27,300	9,350	4,150	9,210	16,700	13,400	3,100	3,990	25,400	8,130
16	14,000	9,120	23,400	7,180	3,460	9,350	15,100	11,400	3,240	4,010	17,100	7,390
17	13,400	8,710	21,500	7,150	3,290	9,310	13,100	10,500	3,050	4,480	18,600	6,950
18	11,100	7,970	23,500	7,960	3,730	8,480	11,400	9,930	3,500	3,950	16,900	54,700
19	9,530	8,430	23,000	8,030	3,740	8,130	10,000	9,390	4,070	4,140	13,900	167,000
20	8,800	19,600	19,500	7,790	3,650	7,780	9,430	8,980	3,650	4,320	11,900	84,700
21	9,230	40,700	17,500	7,150	3,790	7,800	8,910	8,040	3,100	4,530	16,800	47,900
22	8,890	32,600	15,700	6,380	3,950	8,520	8,470	7,270	2,740	3,850	19,700	32,700
23	8,400	25,300	14,400	6,020	3,480	8,660	7,940	6,170	3,020	3,570	15,900	23,600
24	7,810	20,900	18,900	5,090	3,550	7,920	8,590	5,390	2,740	4,250	12,500	18,600
25	7,430	18,800	45,100	4,980	3,580	7,720	8,890	5,830	2,690	5,750	10,100	16,400
26	6,430	17,500	49,400	4,790	3,410	8,600	8,870	5,840	2,670	4,980	8,810	13,200
27	8,920	15,500	36,200	4,720	3,420	8,760	13,200	7,440	2,550	4,220	7,880	11,300
28	30,300	14,300	28,200	4,500	3,440	9,480	15,300	8,400	2,580	7,450	7,460	14,300
29	47,000	22,900	23,200	4,620	3,440	11,300	12,800	8,640	2,730	15,900	6,900	30,100
30	67,000	27,800	20,100	4,640	---	11,000	11,400	8,140	2,510	12,900	6,300	29,800
31	53,300	---	18,300	4,430	---	11,000	---	7,180	---	9,560	9,070	---
TOTAL	461,810	542,800	730,900	320,650	119,130	337,030	316,830	312,040	128,670	138,110	356,550	701,910
MEAN	14,900	18,090	23,580	10,340	4,108	10,870	10,560	10,070	4,289	4,455	11,500	23,400
MAX	67,000	40,700	53,600	26,300	5,880	23,500	16,700	14,900	7,520	15,900	44,000	167,000
MIN	6,060	7,970	10,000	4,430	3,290	3,570	6,350	5,390	2,510	2,240	2,980	4,220

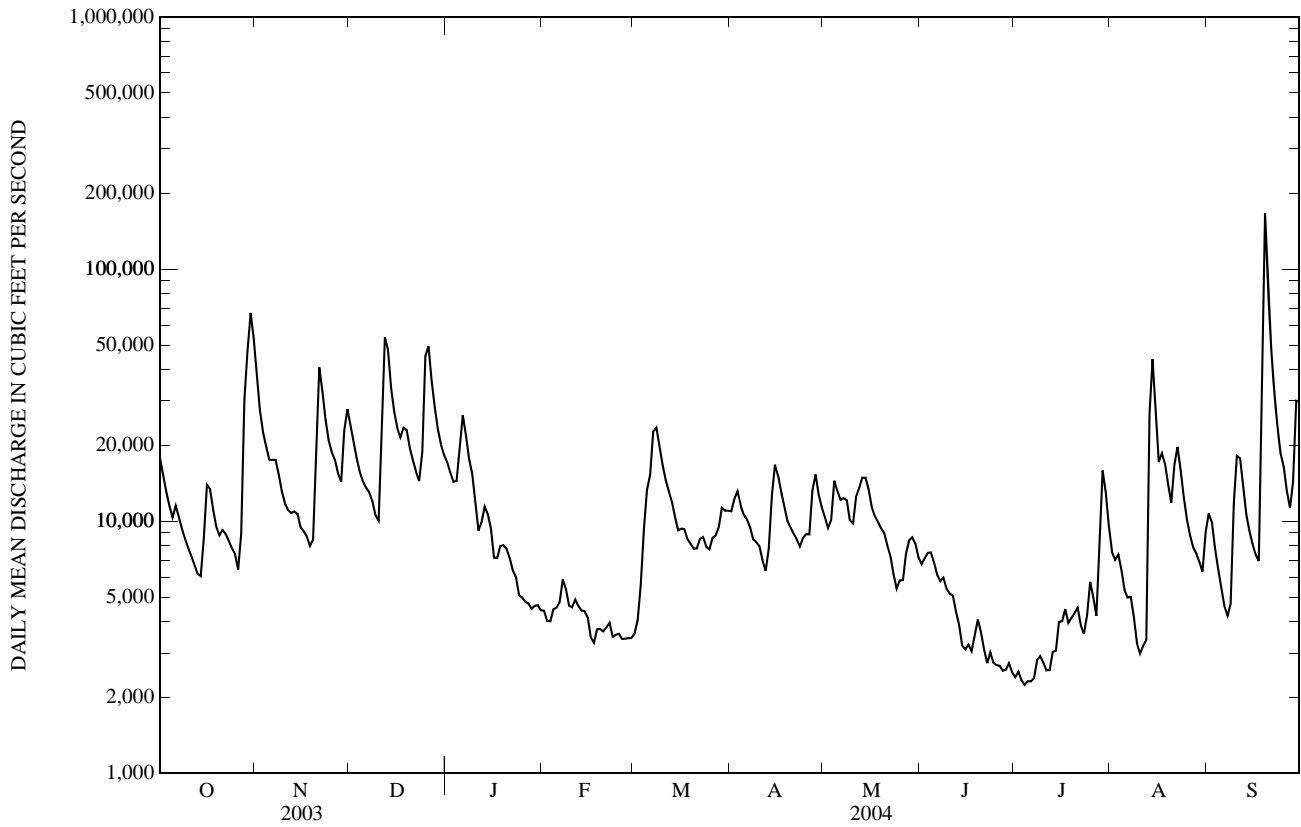
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2004, BY WATER YEAR (WY)

MEAN	4,732	7,203	8,547	7,994	8,218	13,910	15,650	9,877	6,163	4,305	3,760	4,124
MAX	19,570	21,140	27,730	21,020	19,930	42,520	40,720	21,470	22,280	16,840	19,260	23,400
(WY)	(1956)	(1928)	(1997)	(1996)	(1976)	(1936)	(1940)	(1989)	(1972)	(1928)	(1955)	(2004)
MIN	1,055	1,226	1,481	1,683	2,452	5,243	4,512	3,261	1,590	1,017	881	1,199
(WY)	(1942)	(1965)	(1923)	(1981)	(1980)	(1981)	(1985)	(1965)	(1965)	(1965)	(1954)	(1941)

01446500 DELAWARE RIVER AT BELVIDERE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1923 - 2004	
ANNUAL TOTAL	4,862,440		4,466,430		7,866	
ANNUAL MEAN	13,320		12,200		2,990	
HIGHEST ANNUAL MEAN					14,130	1928
LOWEST ANNUAL MEAN					2,990	1965
HIGHEST DAILY MEAN	67,500	Mar 22	167,000	Sep 19	184,000	Aug 19, 1955
LOWEST DAILY MEAN	2,920	Feb 17	2,240	Jul 4	610	Aug 25, 1954
ANNUAL SEVEN-DAY MINIMUM	3,340	Aug 26	2,360	Jul 1	782	Aug 14, 1954
MAXIMUM PEAK FLOW			184,000	Sep 19	273,000a	Aug 19, 1955
MAXIMUM PEAK STAGE			24.80	Sep 19	30.21b	Aug 19, 1955
INSTANTANEOUS LOW FLOW			2,100	Jul 3	609	Sep 28, 1943
10 PERCENT EXCEEDS	27,000		22,900		16,600	
50 PERCENT EXCEEDS	9,530		9,020		5,040	
90 PERCENT EXCEEDS	4,500		3,440		1,960	

- a From rating curve extended above 170,000 ft³/s on basis of flood-routing study.
- b From high-water mark in gage house.
- e Estimated



DELAWARE RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA
(National Water-Quality Assessment Station)

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft upstream from highway bridge in Hugh Moore Parkway at Glendon, 2.3 mi upstream from mouth, and 2.0 mi southwest of Easton.

DRAINAGE AREA.--1,359 mi².

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 164.30 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), Wild Creek Reservoir (station 01449700), and since February 1971, by Beltzville Lake (station 01449790) about 60 mi upstream. Flows above 10,000 ft³/s may be affected by backwater from the Delaware River. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5330	8420	6960	4700	1630	1930	2440	2550	2480	1170	2700	2450
2	4440	6420	6830	4440	1650	2030	2590	2620	2480	1140	2840	2070
3	3950	5210	6140	4140	1850	2480	2490	4500	2240	1080	2970	1840
4	3730	4270	5370	4330	2420	3060	2420	5780	1940	1030	2730	1730
5	3650	3910	4470	5900	2350	3810	2330	4610	1830	971	2610	1650
6	3580	4440	4040	7400	3540	4190	2030	3980	2570	959	2200	1560
7	3430	4050	3700	6120	6240	4550	1930	3510	2450	946	1820	1440
8	3030	3680	3480	5320	4240	4420	2000	3630	2170	949	1630	2160
9	2670	3450	3160	4300	3080	4910	2040	3540	1900	860	1470	3830
10	2460	3330	3070	e3500	3020	3850	1860	3260	1730	812	1370	4890
11	2360	3290	10600	e3400	2810	3610	1770	3120	2160	795	1360	4570
12	2350	3510	14000	e3500	2430	3240	1790	3350	2010	4300	1420	3850
13	2240	3870	12600	e3300	2240	2900	3040	3460	1820	5920	7120	3300
14	2220	3720	12100	3140	2120	2710	3740	2960	1660	2950	7440	2290
15	4450	3010	11100	e2900	2000	2640	4080	3460	1530	2560	5680	1890
16	4040	2530	6700	e2800	1750	2560	3880	3670	1610	1890	4750	1850
17	3350	2460	7280	2780	1780	2510	3190	3070	1590	1630	3940	1790
18	3260	2510	7370	2740	1850	2450	2940	2640	2180	1700	3010	e32000
19	3220	3110	6260	2530	1770	2610	2670	2660	1860	2770	2420	e25000
20	3200	5990	5420	2380	1800	2580	2420	2580	1730	2400	2200	e15000
21	3070	6110	4950	2400	1870	3010	2310	2370	1640	2050	7040	e13200
22	2530	5680	4620	2470	2230	3090	2240	2180	1530	1840	7770	11100
23	2060	5230	4100	2070	2070	2930	2200	2070	1680	1700	5530	10300
24	2360	4280	6930	1960	2080	2850	2310	2010	1550	2630	4870	8970
25	2650	4330	10500	1870	1950	2700	2250	1890	1440	1810	4070	6580
26	2580	4040	7810	1930	1790	2680	3220	1760	1600	1700	3340	5820
27	5360	3600	6530	1860	1750	2800	3920	2620	1590	2550	2820	5070
28	8850	4130	5800	1870	1750	3000	3730	4450	1370	4640	2580	8810
29	12000	9190	5480	1840	1830	2920	3370	3680	1300	3410	2450	14800
30	11900	7140	8410	1800	---	2730	2730	3110	1280	2840	2370	12300
31	9600	---	6010	1720	---	2540	---	2470	---	2400	3550	---
TOTAL	129920	134910	211790	101410	67890	94290	79930	97560	54920	64402	108070	212110
MEAN	4191	4497	6832	3271	2341	3042	2664	3147	1831	2077	3486	7070
MAX	12000	9190	14000	7400	6240	4910	4080	5780	2570	5920	7770	32000
MIN	2060	2460	3070	1720	1630	1930	1770	1760	1280	795	1360	1440
CFSM	3.08	3.31	5.03	2.41	1.72	2.24	1.96	2.32	1.35	1.53	2.57	5.20
IN.	3.56	3.69	5.80	2.78	1.86	2.58	2.19	2.67	1.50	1.76	2.96	5.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)

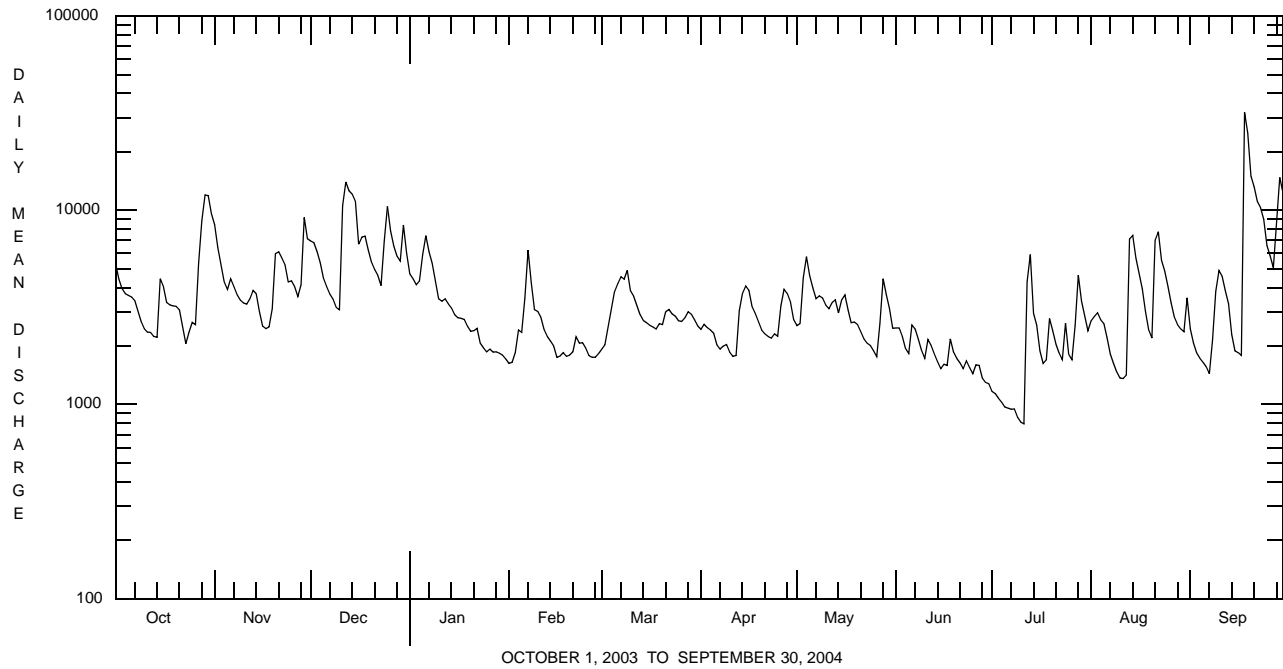
MEAN	2005	2675	3463	3042	3149	4267	4346	3374	2671	1833	1559	1876
MAX	5272	5438	9593	8414	5385	8344	10810	8542	8502	4641	4179	7920
(WY)	1977	1971	1997	1996	1976	1977	1993	1989	2003	1984	1969	1987
MIN	771	704	633	405	1278	1805	1639	1502	906	630	607	660
(WY)	1981	2002	1981	1981	1980	1981	1985	1995	1999	1999	1999	1983

e Estimated.

01454700 LEHIGH RIVER AT GLENDON, PA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1967 - 2004	
ANNUAL TOTAL	1583780		1357202			
ANNUAL MEAN	4339		3708		2852	
HIGHEST ANNUAL MEAN					3997	1984
LOWEST ANNUAL MEAN					1594	1985
HIGHEST DAILY MEAN	23000	Jun 21	e32000	Sep 18	44300	Jun 23, 1972
LOWEST DAILY MEAN	e1100	Feb 17	795	Jul 11	330	Jan 31, 1981a
ANNUAL SEVEN-DAY MINIMUM	1320	Feb 11	899	Jul 5	349	Jan 26, 1981
MAXIMUM PEAK FLOW			be6000	Sep 18	c60600	Jun 23, 1972d
MAXIMUM PEAK STAGE			f26.60	Sep 19	f26.60	Sep 19, 2004
INSTANTANEOUS LOW FLOW			760	Jul 6, 12	0.00	Sep 2, 1966b
ANNUAL RUNNOFF (CFSM)	3.19		2.73		2.10	
ANNUAL RUNNOFF (INCHES)	43.35		37.15		28.52	
10 PERCENT EXCEEDS	8590		6620		5630	
50 PERCENT EXCEEDS	3370		2800		2090	
90 PERCENT EXCEEDS	1620		1690		863	

- a Also Feb.1, 1981.
- b About.
- c From rating curve extended above 36,000ft³/s.
- d Gage height 24.86 ft.
- e Estimated.
- f From floodmarks; backwater from Delaware River.



01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ

LOCATION.--Lat 40°55'02", long 74°39'56", Morris County, Hydrologic Unit 02040105, on left bank just upstream of highway bridge on Lakeside Boulevard (County Route 607), 300 ft downstream from Lake Hopatcong Dam in Landing.

DRAINAGE AREA.--25.3 mi².

PERIOD OF RECORD.--July 1928 to September 1975, April 2002 to current year. Operated as crest-stage gage, water years 1976 to 1995.

REVISED RECORDS.-- WSP 781: 1928(M). WSP 1051: 1944-1945. NJ-82-2: Drainage area. WRD-NJ-03.1: 2000 (M).

GAGE.--Water-stage recorder, rain gage and concrete control. Prior to August 24, 1967, concrete control at site 40 ft downstream. Datum of gage is 904.99 ft above NGVD of 1929 (New Jersey Geological Survey bench mark).

REMARKS.--Records good, except discharges below 5.0 ft³/s which are fair and estimated daily discharges which are poor. Flow regulated by Lake Hopatcong (see Delaware River basin, reservoirs in). Several measurements of water temperature were made during the year. Satellite rain and gage-height telemetry at station.

REVISIONS.--The maximum peak stage for the period of record published in the 2003 water year has been revised to 10.90 ft. The published maximum discharge of 1,900 ft³/s is correct.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	209	124	13	24	24	8.9	10	27	14	14	18
2	176	222	124	10	24	25	9.9	10	25	14	13	15
3	174	219	122	9.1	24	25	11	10	25	13	11	12
4	173	215	120	9.1	36	25	10	11	21	13	13	12
5	172	212	97	8.9	43	25	9.1	11	21	13	13	12
6	171	213	85	8.9	58	25	9.1	11	19	13	12	11
7	181	174	85	e9.0	e69	19	9.1	11	15	13	10	10
8	198	165	85	e18	e68	15	9.1	11	11	12	10	10
9	197	182	84	e20	e68	15	9.1	10	16	11	10	11
10	196	194	84	e20	67	10	9.0	10	18	13	10	11
11	194	203	87	e21	43	8.6	8.9	22	14	14	9.8	11
12	193	198	114	e21	29	9.1	6.9	42	12	13	9.6	11
13	191	149	157	e21	29	9.6	5.4	63	11	12	10	11
14	188	103	168	e21	29	9.4	7.6	72	11	12	13	10
15	188	126	173	e21	e29	9.4	9.4	103	11	12	15	10
16	185	167	173	e21	e29	9.0	9.7	124	11	11	17	10
17	183	126	174	e21	e29	8.4	11	112	9.9	10	16	17
18	190	92	174	e21	e29	8.1	14	99	11	10	13	71
19	194	89	197	e20	e26	8.4	14	88	12	10	12	100
20	194	136	214	e20	24	8.4	14	69	10	10	12	93
21	196	182	207	e20	25	8.3	14	42	9.2	10	36	84
22	194	180	200	e20	25	8.2	14	31	9.3	10	59	75
23	191	177	196	e21	25	8.1	14	29	12	9.9	53	66
24	188	176	104	e21	25	8.3	10	28	14	11	48	59
25	186	167	49	e21	25	8.3	8.9	27	13	11	39	51
26	183	146	133	e21	25	8.2	10	24	14	10	33	47
27	168	124	175	e21	25	8.2	10	34	14	11	28	42
28	166	124	178	e21	25	9.1	10	38	14	13	26	61
29	178	124	73	e21	24	9.4	10	34	14	15	25	131
30	178	125	25	23	---	9.3	10	24	13	13	23	138
31	178	---	20	24	---	9.0	---	25	---	13	22	---
TOTAL	5,727	4,919	4,001	568.0	1,001	390.8	306.1	1,235	437.4	369.9	635.4	1,220
MEAN	185	164	129	18.3	34.5	12.6	10.2	39.8	14.6	11.9	20.5	40.7
MAX	198	222	214	24	69	25	14	124	27	15	59	138
MIN	166	89	20	8.9	24	8.1	5.4	10	9.2	9.9	9.6	10

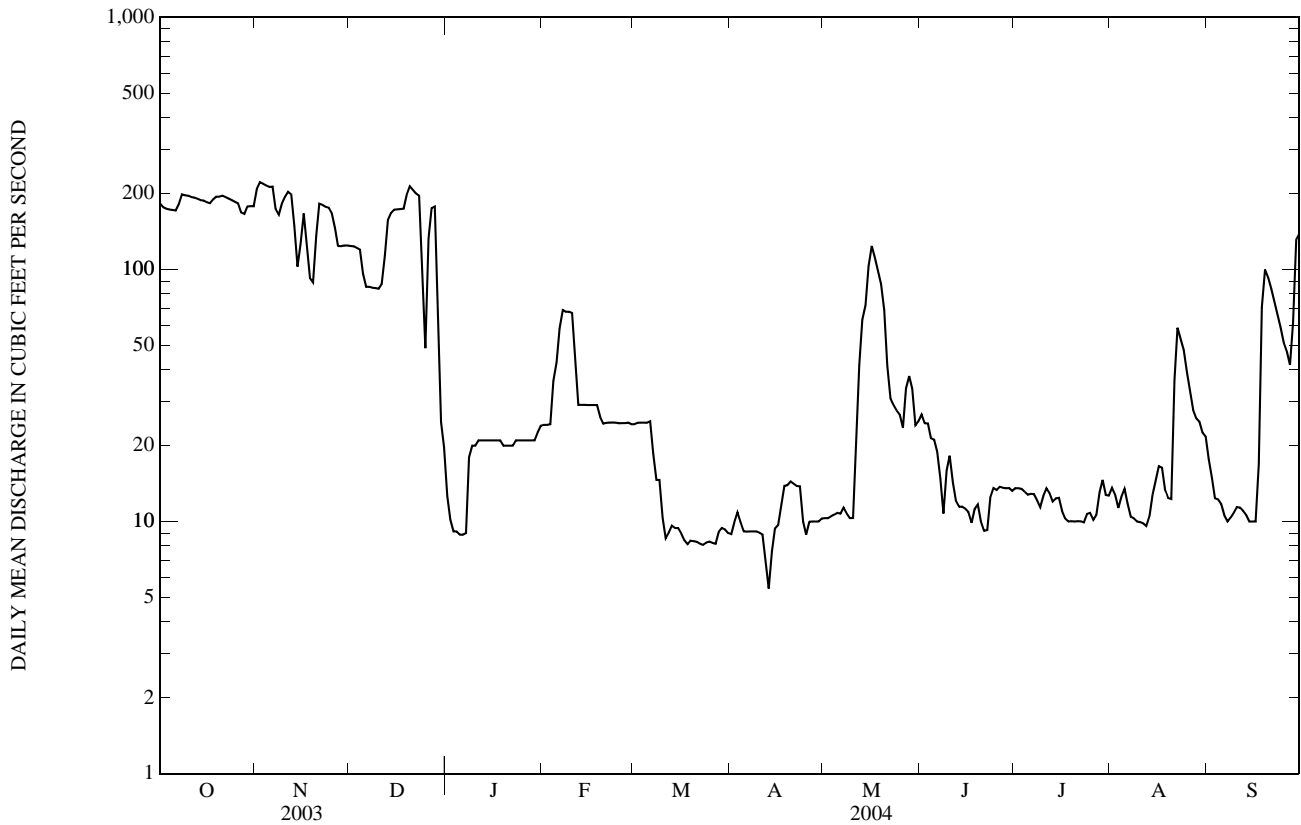
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2004, BY WATER YEAR (WY)

MEAN	55.8	57.2	63.3	52.8	46.0	33.4	45.8	44.0	35.6	26.6	27.6	45.9
MAX	227	164	168	129	134	173	133	124	167	133	146	175
(WY)	(1935)	(2004)	(1951)	(1974)	(1958)	(1936)	(1958)	(1947)	(1972)	(1975)	(1955)	(1948)
MIN	2.77	7.83	10.5	9.96	3.04	0.05	0.72	1.43	1.87	1.76	4.08	5.46
(WY)	(1967)	(1965)	(1966)	(1949)	(1966)	(1961)	(1960)	(1960)	(1960)	(1960)	(1954)	(2002)

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1928 - 2004	
ANNUAL TOTAL	31,332		20,810.6		44.3	
ANNUAL MEAN	85.8		56.9		71.9	
HIGHEST ANNUAL MEAN					8.02	1973
LOWEST ANNUAL MEAN					0.00	1966
HIGHEST DAILY MEAN	270	Jun 22	222	Nov 2	731	Aug 20, 1955
LOWEST DAILY MEAN	11	Jul 14	5.4	Apr 13	0.00	Many days
ANNUAL SEVEN-DAY MINIMUM	11	Jul 14	8.0	Apr 8	0.00	Many days
MAXIMUM PEAK FLOW			225	Nov 1	1,900a	Aug 13, 2000
MAXIMUM PEAK STAGE			3.58	Nov 1	10.90br	Aug 13, 2000
INSTANTANEOUS LOW FLOW			4.3	Jun 16	0.00	Many days
10 PERCENT EXCEEDS	185		181		105	
50 PERCENT EXCEEDS	76		21		29	
90 PERCENT EXCEEDS	16		9.4		8.5	

- a From rating curve extended above 340 ft³/s on basis of computation of peak flow over dam. Level of Lake Hopatcong highest since dam built in 1928.
- b From high-water mark in gage house
- e Estimated.
- r Revised.



01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'39", 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 mi².

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 NGVD of 1929. 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, except for estimated daily discharges which are fair. Flow occasionally regulated by Lake Hopatcong (see Delaware River basin, reservoirs in). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2030	1,520	4.40	Dec 24	1645	1,890	4.85
Oct 29	1530	2,280	5.24	Feb 6	2115	1,260	3.98
Nov 20	0230	1,630	4.56	Sep 18	1700	2,460	5.41
Dec 11	1200	*2,740	*5.66	Sep 29	0300	1,660	4.59
Dec 17	1700	1,460	4.31				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	511	860	580	461	222	240	288	257	224	120	123	107
2	464	763	547	425	219	263	284	244	218	115	119	101
3	423	711	503	407	239	281	262	270	194	108	119	95
4	408	654	471	409	329	290	254	315	180	103	117	92
5	402	621	461	545	285	290	241	278	173	100	111	88
6	385	637	453	483	594	311	226	260	173	98	114	87
7	369	603	419	407	833	317	217	291	170	96	107	87
8	363	535	399	e360	496	323	217	267	167	99	100	96
9	376	470	386	e340	389	318	224	235	159	99	96	194
10	371	478	394	e270	365	312	218	229	165	94	93	157
11	365	473	1,860	e285	352	302	208	282	166	91	102	126
12	356	506	1,460	e310	317	280	209	398	149	167	113	110
13	353	487	1,100	e300	288	261	381	401	139	215	137	102
14	346	423	936	e285	277	250	480	346	136	164	135	95
15	550	364	952	e270	264	244	494	316	135	153	125	94
16	451	357	811	e240	245	244	422	378	132	128	120	101
17	391	401	1,090	e300	241	256	363	374	128	119	112	97
18	388	374	1,140	e300	240	253	333	337	130	121	106	1,130
19	378	474	955	e290	241	260	313	319	133	164	104	665
20	382	1,190	857	e275	240	265	294	304	124	178	99	384
21	375	859	795	e255	247	296	280	269	118	141	154	292
22	373	752	744	e275	257	285	266	249	124	119	273	250
23	366	659	719	e250	246	262	273	220	129	114	207	219
24	369	606	1,340	e250	246	247	274	214	122	134	167	197
25	357	623	1,300	e235	238	250	251	201	118	120	149	182
26	330	569	930	e250	229	250	416	206	176	112	138	168
27	857	507	854	e235	223	253	429	235	146	128	127	159
28	973	544	830	e235	222	244	350	239	125	221	120	322
29	1,730	804	771	e240	230	233	298	235	130	175	127	1,100
30	1,480	659	635	230	---	224	269	215	124	141	121	677
31	1,090	---	510	227	---	275	---	200	---	124	119	---
TOTAL	16,332	17,963	25,202	9,644	8,814	8,379	9,034	8,584	4,507	4,061	3,954	7,574
MEAN	527	599	813	311	304	270	301	277	150	131	128	252
MAX	1,730	1,190	1,860	545	833	323	494	401	224	221	273	1,130
MIN	330	357	386	227	219	224	208	200	118	91	93	87

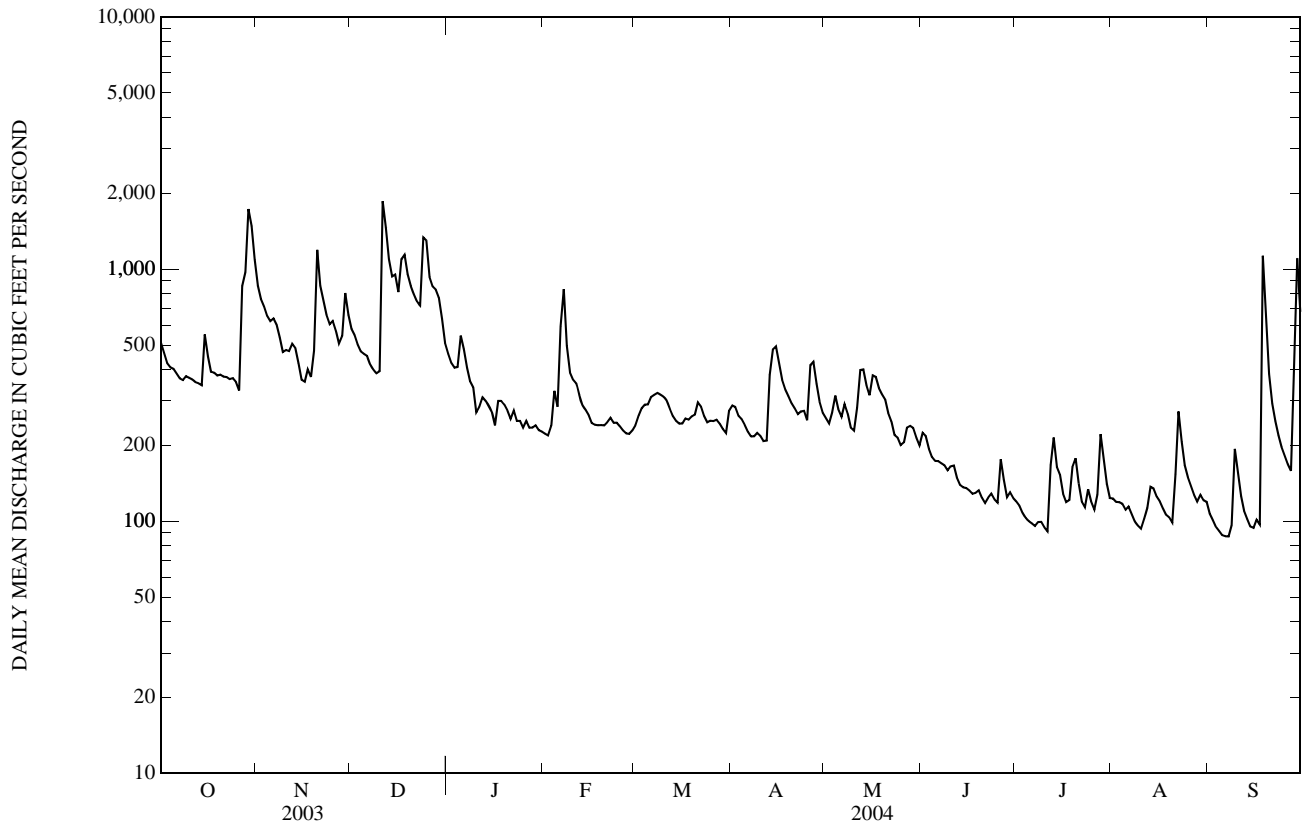
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2004, BY WATER YEAR (WY)

	179	231	274	264	276	345	350	274	204	160	152	160
MEAN	179	231	274	264	276	345	350	274	204	160	152	160
MAX	770	701	980	924	582	935	1,027	680	843	659	583	454
(WY)	(1904)	(1928)	(1997)	(1979)	(1973)	(1936)	(1983)	(1989)	(1972)	(1975)	(1928)	(1960)
MIN	41.2	61.2	57.3	73.7	77.8	99.9	103	98.1	56.8	38.1	38.5	37.3
(WY)	(1964)	(1966)	(1966)	(1977)	(2002)	(2002)	(1985)	(1965)	(1965)	(1965)	(1965)	(1965)

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1904 - 2004	
ANNUAL TOTAL	154,643		124,048			
ANNUAL MEAN	424		339		239	
HIGHEST ANNUAL MEAN					425	1928
LOWEST ANNUAL MEAN					82.6	1965
HIGHEST DAILY MEAN	1,860	Dec 11	1,860	Dec 11	5,850	Oct 10, 1903
LOWEST DAILY MEAN	99	Feb 17	87	Sep 6, 7	27	Sep 8, 1966
ANNUAL SEVEN-DAY MINIMUM	124	Feb 13	92	Sep 2	32	Aug 28, 1966
MAXIMUM PEAK FLOW			2,740	Dec 11	7,200a	Jan 25, 1979
MAXIMUM PEAK STAGE			5.66	Dec 11	8.50b	Jan 25, 1979
INSTANTANEOUS LOW FLOW			84	Sep 7	8.1	Aug 2, 1955
10 PERCENT EXCEEDS	783		661		460	
50 PERCENT EXCEEDS	363		262		183	
90 PERCENT EXCEEDS	165		114		77	

- a From rating curve extended 1,800 ft³/s on basis of slope-area measurement at gage height 6.95 ft.
- b From floodmark.
- c Estimated.



01460440 DELAWARE AND RARITAN CANAL AT PORT MERCER, NJ

LOCATION.--Lat 40°18'16", long 74°41'07", Mercer County, Hydrologic Unit 02030105, on right bank, 300 ft upstream from bridge on Province Line (Quaker Bridge) Road at Port Mercer, 2.2 mi east of Lawrenceville, and 3.5 mi southwest of Princeton.

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 NGVD of 1929.

REMARKS.--Records fair except for estimated daily discharges and flows under 10 ft³/s, which are poor. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Reverse flow (denoted by a negative symbol) can occur during periods of heavy precipitation due to waste gate operation upstream and inflow into canal downstream from gage. Gage is located at the drainage divide between the Delaware and Raritan River Basins. Satellite gage-height and velocity telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	148	132	130	e133	148	138	143	141	e125	145	144
2	145	150	140	125	e131	150	140	144	141	e123	146	145
3	144	150	141	124	e139	145	132	140	145	e135	139	145
4	145	148	140	124	e147	148	135	138	142	123	150	144
5	147	134	143	131	148	147	138	140	144	147	146	145
6	149	105	145	140	62	147	141	140	143	143	144	146
7	149	128	141	139	46	144	145	142	144	146	145	145
8	147	137	140	137	129	136	144	144	143	142	147	148
9	150	142	139	136	146	130	144	144	142	140	147	146
10	151	143	140	142	150	141	144	145	139	144	147	144
11	148	144	-78	153	146	143	143	146	140	147	147	144
12	146	139	77	153	152	142	145	145	141	131	117	144
13	146	139	130	152	150	141	103	142	142	123	138	144
14	146	140	85	149	141	140	65	141	145	140	143	144
15	133	143	-47	151	141	144	109	140	146	139	142	149
16	142	143	124	154	138	145	130	143	145	140	146	148
17	145	144	117	158	141	147	133	136	144	145	144	147
18	143	147	125	156	143	143	140	142	144	146	149	152
19	141	132	131	152	140	137	140	140	143	146	150	140
20	143	e40	135	152	141	132	142	131	139	144	150	136
21	145	123	136	153	140	128	140	120	144	145	152	93
22	144	138	136	154	140	134	141	143	e145	144	146	148
23	140	141	135	156	141	134	145	136	e140	134	146	153
24	143	143	63	157	142	139	140	e115	e142	137	149	153
25	143	143	107	159	142	144	136	e140	e142	147	147	150
26	146	142	127	159	141	146	133	e145	133	147	148	147
27	120	146	135	158	143	145	112	146	e132	146	146	142
28	119	139	137	159	142	147	130	148	e132	102	147	120
29	101	118	136	144	143	145	135	141	e130	141	144	-37
30	119	129	138	e139	---	142	141	142	e128	145	147	129
31	142	---	136	e136	---	140	---	143	---	146	147	---
TOTAL	4,369	4,058	3,586	4,532	3,938	4,394	4,004	4,345	4,221	4,303	4,501	4,098
MEAN	141	135	116	146	136	142	133	140	141	139	145	137
MAX	151	150	145	159	152	150	145	148	146	147	152	153
MIN	101	40	-78	124	46	128	65	115	128	102	117	-37

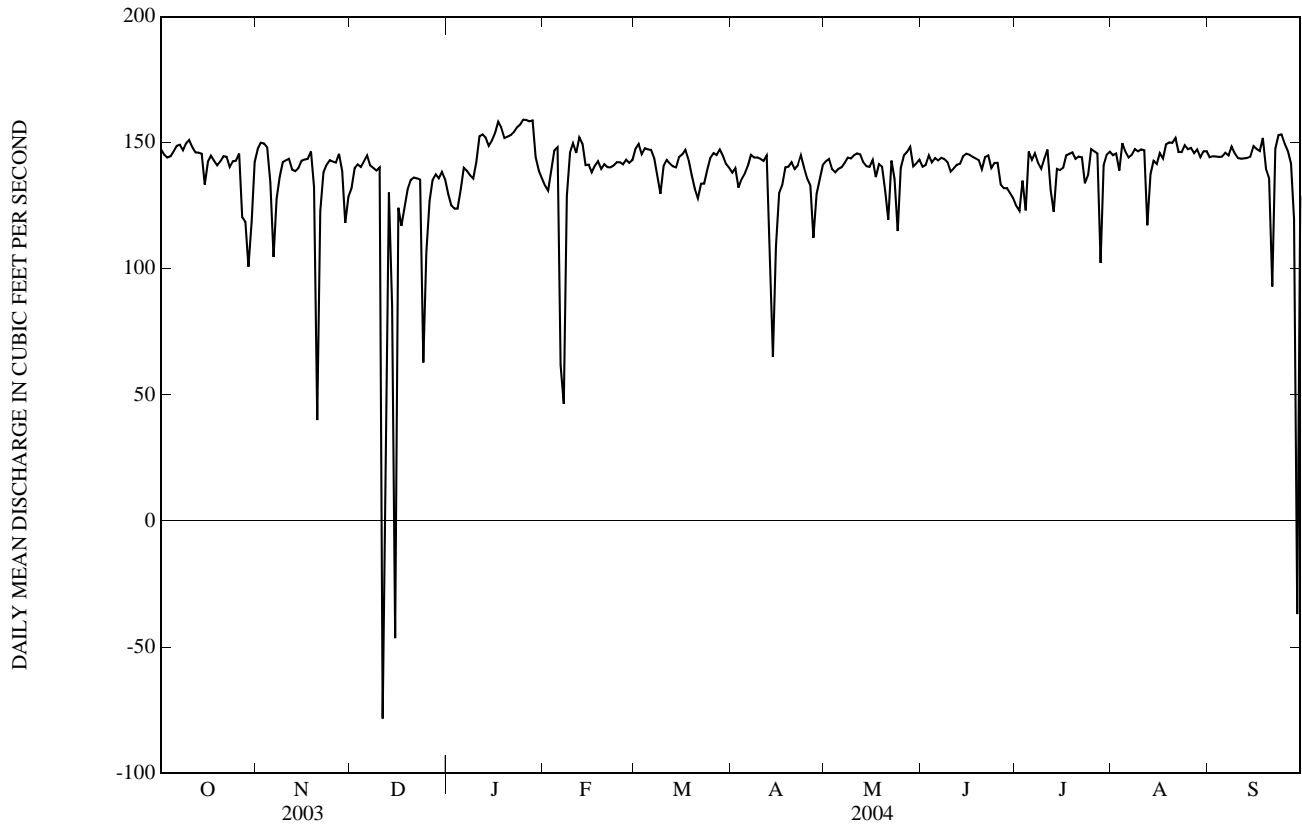
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2004, BY WATER YEAR (WY)

MEAN	139	132	125	126	128	123	130	139	142	146	144	141
MAX	159	154	143	146	143	148	153	152	159	163	156	155
(WY)	(1999)	(1999)	(1996)	(2004)	(1995)	(1997)	(2003)	(1999)	(1999)	(1999)	(2001)	(1992)
MIN	115	99.5	91.7	93.5	97.8	91.4	95.8	102	120	123	114	112
(WY)	(1992)	(2002)	(2002)	(2002)	(2002)	(1992)	(1992)	(2002)	(1996)	(1996)	(1996)	(1999)

01460440 DELAWARE AND RARITAN CANAL AT PORT MERCER, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1990 - 2004	
ANNUAL TOTAL	50,999		50,349		134	
ANNUAL MEAN	140		138		143	
HIGHEST ANNUAL MEAN					143	1991
LOWEST ANNUAL MEAN					116	2002
HIGHEST DAILY MEAN	164	May 11	159	Jan 25,26,28	222	Aug 22, 1990
LOWEST DAILY MEAN	-78	Dec 11	-78	Dec 11	-280	Sep 17, 1999
ANNUAL SEVEN-DAY MINIMUM	58	Dec 11	58	Dec 11	4.9	Sep 15, 1999
MAXIMUM PEAK STAGE					61.19	Sep 16, 1999
10 PERCENT EXCEEDS	155		149		154	
50 PERCENT EXCEEDS	145		142		140	
90 PERCENT EXCEEDS	122		125		104	

e Estimated



01463500 DELAWARE RIVER AT TRENTON, NJ

LOCATION.--Lat 40°13'18", long 74°46'41", 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 river mile 134.5.

DRAINAGE AREA.--6,780 mi².

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 NGVD of 1929. 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, except estimated discharges which are fair. 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 telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above NGVD of 1929, discharge estimated, 295,000 ft³/s. Maximum elevation known, 30.6 ft above NGVD of 1929, Mar. 8, 1904, from floodmark, due to ice jam.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 30	1915	84,800	16.78	Aug 14	0830	58,000	14.77
Nov 21	1915	52,600	14.33	Sep 19	1945	*201,000	*23.41
Dec 12	2245	77,700	16.28	Sep 29	0415	71,600	15.83
Dec 26	0645	69,300	15.66				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27,800	54,700	35,900	25,700	e7,100	6,710	15,800	15,300	11,000	4,240	14,500	14,100
2	23,000	41,700	31,800	23,400	e7,000	7,130	15,900	14,300	10,600	3,980	12,100	13,900
3	19,800	32,900	28,200	21,600	e7,000	8,260	17,800	14,400	10,900	4,010	11,500	11,800
4	17,500	28,600	24,600	20,300	e8,100	10,800	17,100	20,000	10,600	3,780	11,200	10,000
5	16,200	25,600	21,900	25,400	e8,500	16,500	15,500	21,400	10,200	3,630	10,100	8,610
6	15,800	25,300	20,400	35,700	e10,400	20,000	14,400	18,500	9,730	3,600	8,630	7,560
7	16,300	25,100	19,000	33,500	e20,000	24,300	13,600	17,600	9,580	3,590	7,860	6,550
8	14,400	22,900	17,900	27,800	e16,000	31,600	13,000	17,800	9,020	3,660	7,370	6,380
9	13,300	19,700	16,500	23,500	11,900	29,000	12,200	16,400	8,730	3,980	6,250	13,500
10	12,200	17,700	15,300	19,800	10,300	24,500	11,800	14,800	7,910	4,000	5,240	20,500
11	11,400	16,500	40,900	15,700	10,400	21,000	11,100	14,700	8,110	3,810	5,010	25,400
12	10,800	16,500	66,800	14,600	9,830	18,700	9,960	17,800	8,000	4,520	5,540	20,900
13	10,100	16,600	71,300	16,000	8,890	16,900	14,800	18,700	7,040	14,200	10,800	16,600
14	9,620	16,600	54,700	16,300	8,590	15,600	21,800	19,400	6,260	9,600	52,900	13,900
15	13,500	15,600	48,700	15,100	8,210	14,000	26,400	18,300	5,520	11,700	39,600	11,700
16	17,600	13,700	37,800	13,800	7,490	13,200	24,100	17,900	5,280	8,020	26,500	10,700
17	19,900	13,200	36,500	e13,400	6,530	13,700	20,100	15,700	5,420	7,160	22,300	9,950
18	17,300	12,700	38,900	e12,000	6,510	13,000	17,400	14,600	5,440	7,450	22,100	42,700
19	15,400	13,000	35,300	e12,400	6,870	12,900	15,700	13,600	6,370	8,140	18,900	181,000
20	14,100	30,200	30,900	12,600	6,910	13,200	14,300	13,400	6,370	8,500	15,800	139,000
21	13,500	45,300	27,000	12,600	6,940	14,600	13,400	12,500	5,830	7,830	17,600	72,300
22	13,700	45,900	24,400	11,700	7,570	14,000	12,800	11,300	5,180	7,240	32,300	50,800
23	12,400	36,600	21,900	e10,400	7,690	13,900	12,200	10,400	4,980	6,940	25,600	38,900
24	11,700	30,600	29,700	e9,000	7,100	13,300	11,900	9,020	5,220	8,140	20,400	31,100
25	11,600	26,800	52,000	e8,100	7,140	12,500	12,600	8,420	4,770	8,060	16,600	25,800
26	11,200	25,100	65,300	e8,000	6,800	12,500	13,800	8,770	4,990	8,290	14,200	22,000
27	16,200	22,800	50,800	e7,900	6,500	13,200	19,600	9,300	4,860	7,640	12,500	18,300
28	40,100	20,500	40,600	e7,800	6,420	13,600	22,000	13,200	4,610	23,400	11,200	22,100
29	68,600	32,400	34,200	e7,500	6,600	15,000	19,500	14,100	4,440	20,000	10,900	61,600
30	78,900	39,300	32,000	e7,600	---	15,500	16,800	13,000	4,530	19,100	9,800	49,400
31	74,400	---	29,600	e7,500	---	15,900	---	12,000	---	15,700	11,100	---
TOTAL	668,320	784,100	1,100,800	496,700	249,290	485,000	477,360	456,610	211,490	253,910	496,400	977,050
MEAN	21,560	26,140	35,510	16,020	8,596	15,650	15,910	14,730	7,050	8,191	16,010	32,570
MAX	78,900	54,700	71,300	35,700	20,000	31,600	26,400	21,400	11,000	23,400	52,900	181,000
MIN	9,620	12,700	15,300	7,500	6,420	6,710	9,960	8,420	4,440	3,590	5,010	6,380

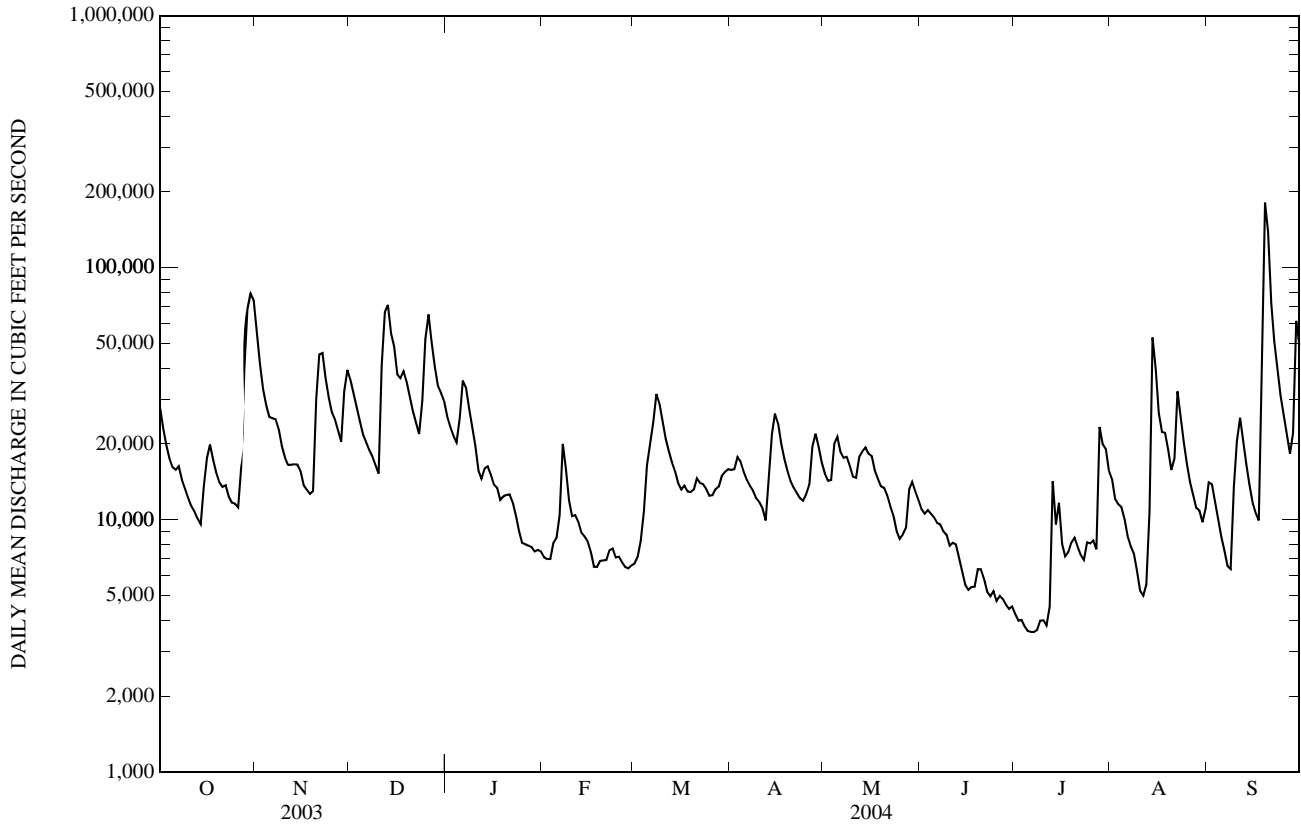
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2004, BY WATER YEAR (WY)

	7,014	10,530	12,820	12,420	12,680	20,530	22,080	14,140	9,365	7,018	6,047	6,209
MEAN	7,014	10,530	12,820	12,420	12,680	20,530	22,080	14,140	9,365	7,018	6,047	6,209
MAX	28,710	27,340	42,860	34,950	27,550	60,840	52,680	31,690	33,460	25,720	30,290	32,570
(WY)	(1956)	(1928)	(1997)	(1979)	(1951)	(1936)	(1940)	(1989)	(1972)	(1928)	(1955)	(2004)
MIN	1,632	1,868	2,037	2,539	3,500	7,715	6,828	5,074	2,572	1,548	1,808	1,762
(WY)	(1942)	(1915)	(1923)	(1981)	(1920)	(1981)	(1985)	(1995)	(1965)	(1965)	(1965)	(1932)

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1913 - 2004	
ANNUAL TOTAL	7,468,650		6,657,030			
ANNUAL MEAN	20,460		18,190		11,730	
HIGHEST ANNUAL MEAN					19,810	1928
LOWEST ANNUAL MEAN					4,708	1965
HIGHEST DAILY MEAN	79,000	Mar 23	181,000	Sep 19	279,000	Aug 20, 1955
LOWEST DAILY MEAN	5,350	Jul 21	3,590	Jul 7	1,240	Oct 31, 1914
ANNUAL SEVEN-DAY MINIMUM	5,780	Aug 26	3,750	Jul 4	1,310	Oct 31, 1914
MAXIMUM PEAK FLOW			201,000	Sep 19	329,000 ^a	Aug 20, 1955
MAXIMUM PEAK STAGE			23.41	Sep 19	28.60 ^b	Aug 20, 1955
INSTANTANEOUS LOW FLOW			3,570	Jul 4-7	1,180	Oct 31, 1963
10 PERCENT EXCEEDS	39,200		33,700		24,700	
50 PERCENT EXCEEDS	15,600		13,900		8,000	
90 PERCENT EXCEEDS	7,490		6,510		3,030	

- a From rating curve extended above 230,000 ft³/s, maximum flow since 1692.
- b From high-water mark in gage house, current datum.
- c Estimated



01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°44'19", Mercer County, Hydrologic Unit 02040105, on left bank 250 ft upstream from bridge on Quaker Bridge Road, 0.7 mi downstream from dam at Lake Mercer, 1.9 mi south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream from mouth.

DRAINAGE AREA.--34.3 mi².

PERIOD OF RECORD.--Occasional low-flow measurements water years 1963-67. Daily values for October 1972 to September 1981 and March 1992 to October 1995. Daily values for growing season only (growing season is April through October) for April 1996 to October 1999. Daily values for April 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft above NGVD of 1929.

REMARKS.--Records fair. Regulation from flood-control dams and ponds upstream. Diversions for irrigation upstream from station. Several measurements of water temperature made during the year. Satellite stage telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 28, 1971, reached a stage of 10.9 ft, discharge, 1,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s, Dec. 14, gage height, 6.66 ft; minimum discharge, 4.7 ft³/s, July 4, 5, gage height, 3.55 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	82	80	59	28	32	50	75	19	6.1	52	8.7
2	22	67	67	55	27	32	54	64	19	6.0	42	8.4
3	21	55	54	52	31	31	65	59	19	5.6	36	8.0
4	19	46	46	50	77	32	73	61	19	5.1	32	8.2
5	19	47	44	58	122	33	65	58	18	9.7	31	8.2
6	18	85	48	72	162	39	57	60	18	15	25	8.1
7	17	89	46	70	220	46	49	60	17	15	21	8.3
8	16	73	47	57	214	67	44	57	17	14	19	9.1
9	16	57	48	55	211	95	41	49	16	13	17	10
10	16	45	49	47	209	95	38	43	15	11	15	9.6
11	15	40	169	40	206	84	36	38	14	9.5	17	9.0
12	15	42	233	36	194	72	36	34	14	17	35	8.4
13	15	42	229	35	132	62	83	33	13	73	26	7.6
14	15	41	229	35	98	53	164	32	12	93	21	7.3
15	23	38	233	36	81	50	187	30	13	108	22	7.0
16	23	35	223	34	69	46	159	32	12	89	22	8.0
17	24	33	221	32	59	49	138	30	12	68	21	8.6
18	25	31	206	34	53	54	110	28	11	51	20	9.8
19	24	38	156	38	48	74	87	26	11	41	20	10
20	23	173	122	39	46	101	74	25	9.1	35	19	10
21	22	206	100	37	44	111	63	24	8.2	31	17	10
22	22	172	83	36	42	99	55	23	7.7	26	18	10
23	21	126	74	34	41	83	49	22	7.7	27	17	9.5
24	20	96	100	32	39	70	52	20	7.5	33	14	8.8
25	19	81	148	30	39	59	56	19	7.1	31	13	8.1
26	19	70	140	28	37	54	82	18	7.3	29	12	7.7
27	25	61	114	28	35	50	136	18	6.4	29	10	7.2
28	39	58	93	29	34	47	137	19	6.1	85	11	21
29	82	85	79	29	33	42	117	18	6.8	98	9.6	216
30	115	89	71	29	---	38	92	16	6.6	91	8.9	219
31	103	---	65	28	---	41	---	16	---	68	9.0	---
TOTAL	878	2,203	3,617	1,274	2,631	1,841	2,449	1,107	369.5	1,233.0	652.5	689.6
MEAN	28.3	73.4	117	41.1	90.7	59.4	81.6	35.7	12.3	39.8	21.0	23.0
MAX	115	206	233	72	220	111	187	75	19	108	52	219
MIN	15	31	44	28	27	31	36	16	6.1	5.1	8.9	7.0

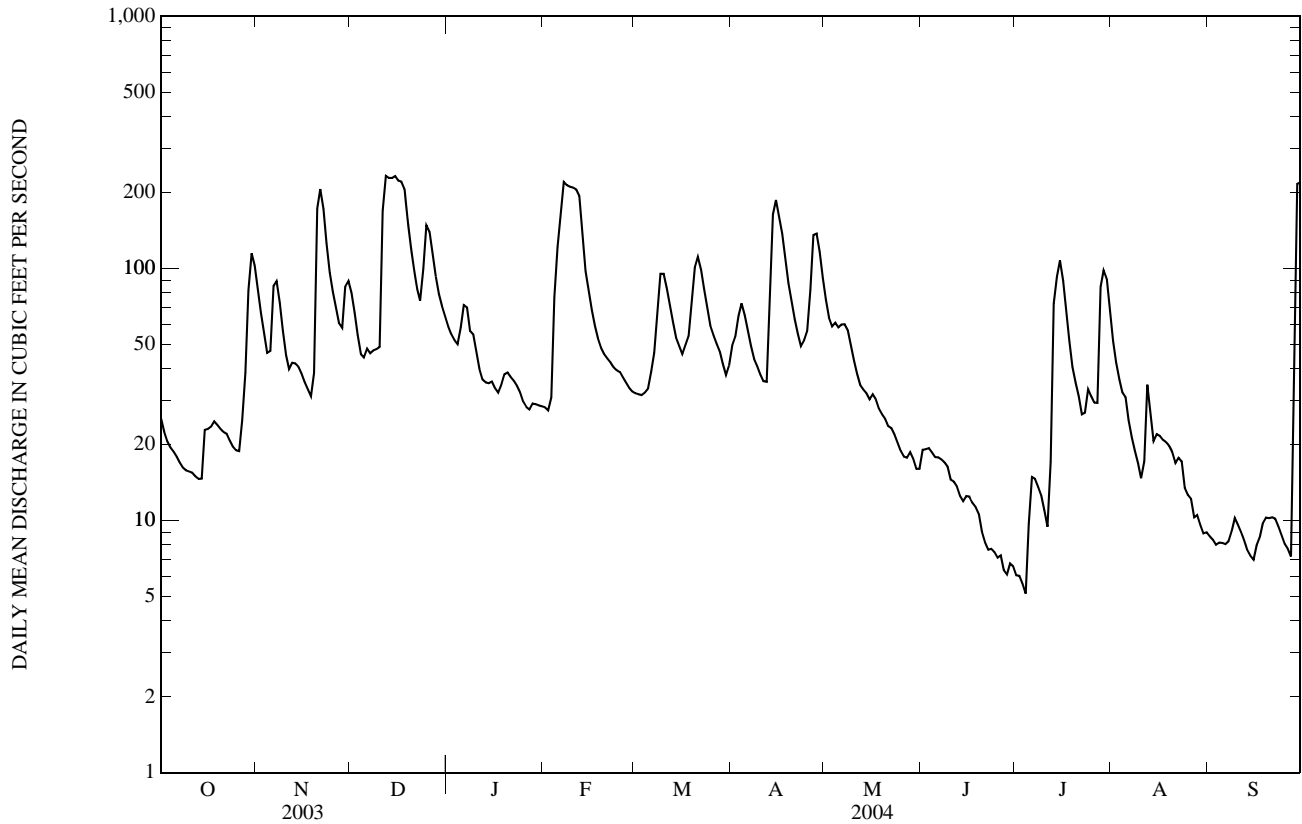
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2004, BY WATER YEAR (WY)

MEAN	33.3	42.9	72.3	71.4	67.7	84.1	64.2	45.0	39.4	27.4	27.6	31.6
MAX	93.8	112	142	151	136	204	115	115	92.7	142	77.4	126
(WY)	(1997)	(1973)	(1993)	(1979)	(1994)	(1994)	(1973)	(1998)	(2003)	(1975)	(1994)	(1999)
MIN	5.75	6.75	13.9	12.9	19.0	33.6	23.7	16.0	9.24	2.95	4.34	5.67
(WY)	(2002)	(2002)	(2002)	(1981)	(2002)	(2002)	(1995)	(1992)	(1999)	(2002)	(2002)	(2001)

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1973 - 2004	
ANNUAL TOTAL	22,184		18,944.6		50.3	
ANNUAL MEAN	60.8		51.8		74.7	
HIGHEST ANNUAL MEAN					16.6	
LOWEST ANNUAL MEAN					1994	
HIGHEST DAILY MEAN	233	Dec 12	233	Dec 12	832	Feb 26, 1979
LOWEST DAILY MEAN	11	Aug 28	5.1	Jul 4	1.0a	Sep 6, 1995
ANNUAL SEVEN-DAY MINIMUM	12	Aug 25	6.0	Jun 28	1.2a	Jul 26, 1999
MAXIMUM PEAK FLOW			248	Dec 14	1,050a	Jul 21, 1975
MAXIMUM PEAK STAGE			6.66	Dec 14	9.36a	Jul 21, 1975
INSTANTANEOUS LOW FLOW			3.5	Jul 4	1.0a	Sep 6, 1995
10 PERCENT EXCEEDS	145		112		102	
50 PERCENT EXCEEDS	38		36		34	
90 PERCENT EXCEEDS	18		9.4		11	

a Not all monthly record is included. See Period of Record section.



DELAWARE RIVER BASIN

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'57", Mercer County, Hydrologic Unit 02040105, on left bank 20 ft upstream from bridge on Chambers Street (Lincoln Avenue) in Trenton, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--90.6 mi².

PERIOD OF RECORD.--August 1923 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft above NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records good, except for estimated daily discharges which are fair. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi above station (records given herein). In addition there is an average inflow of about 2.0 ft³/s from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months. Flow regulated by several flood-control reservoirs upstream from gage since mid-1970's. U. S. Geological Survey satellite gage-height telemetry and National Weather Service telephone gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1230	933	6.68	Apr 14	0330	1,240	7.56
Nov 6	0000	952	6.74	Apr 14	2000	910	6.61
Nov 20	0315	1,370	7.90	Jul 12	1845	1,010	6.91
Dec 11	1515	1,620	8.52	Jul 23	1930	1,060	7.05
Dec 15	0130	1,340	7.81	Jul 28	0215	1,060	7.07
Dec 24	1515	1,050	7.02	Sep 29	0300	*2,840	*11.08
Feb 6	1900	1,720	8.75				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	203	171	140	75	85	162	173	113	44	175	45
2	76	169	150	129	75	84	158	154	81	44	232	41
3	69	144	133	124	192	89	251	192	79	40	182	40
4	64	127	122	124	318	96	215	209	68	31	106	38
5	62	270	123	230	279	95	175	163	65	117	195	36
6	58	456	133	196	825	156	143	197	67	66	100	35
7	54	337	130	170	862	138	128	193	63	51	81	35
8	52	229	127	146	551	293	120	154	60	44	71	57
9	51	176	126	135	443	278	120	131	57	39	64	57
10	49	150	150	117	412	225	108	119	56	36	59	46
11	48	135	1,020	e110	360	183	103	110	62	35	152	37
12	46	178	681	e108	323	155	116	107	55	414	246	35
13	44	140	500	104	271	134	554	102	49	292	119	34
14	49	124	587	99	202	119	877	95	48	239	91	33
15	246	114	838	100	169	111	651	90	62	269	149	31
16	86	105	526	92	147	122	460	140	49	164	113	33
17	79	102	524	91	131	154	352	98	48	121	91	33
18	98	97	480	139	122	147	286	93	52	109	82	87
19	72	262	386	137	116	287	227	93	43	108	72	45
20	62	919	297	116	113	312	188	89	38	82	66	35
21	60	497	242	104	112	343	164	76	36	72	81	34
22	59	398	209	97	109	264	146	73	36	64	72	32
23	55	291	184	93	104	205	143	69	40	387	59	31
24	50	229	615	88	103	168	169	66	37	268	55	31
25	47	206	546	82	104	152	144	62	39	136	51	30
26	46	167	385	81	100	141	375	78	46	95	51	28
27	318	149	302	81	94	133	497	65	43	168	61	28
28	260	204	247	84	92	125	349	86	42	575	52	430
29	607	369	210	81	90	115	260	69	80	262	46	1,680
30	349	236	191	79	---	108	207	61	50	179	44	568
31	254	---	171	78	---	149	---	90	---	137	59	---
TOTAL	3,554	7,183	10,506	3,555	6,894	5,166	7,848	3,497	1,664	4,688	3,077	3,725
MEAN	115	239	339	115	238	167	262	113	55.5	151	99.3	124
MAX	607	919	1,020	230	862	343	877	209	113	575	246	1,680
MIN	44	97	122	78	75	84	103	61	36	31	44	28
(I)	15.5	21.1	26.1	19.1	20.8	20.2	24.6	17.8	13.4	14.3	15.3	15.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2004, BY WATER YEAR (WY)

	80.7	114	150	167	185	214	181	132	102	98.8	93.1	94.3
MEAN	80.7	114	150	167	185	214	181	132	102	98.8	93.1	94.3
MAX	328	331	501	498	395	554	494	340	371	545	355	395
(WY)	(1997)	(1973)	(1997)	(1979)	(1939)	(1994)	(1983)	(1989)	(1996)	(1975)	(1971)	(1999)
MIN	19.1	27.6	32.0	44.2	52.0	76.7	65.2	40.0	25.9	17.2	17.3	15.8
(WY)	(1931)	(1932)	(1999)	(1981)	(1934)	(1985)	(1963)	(1941)	(1942)	(1955)	(1966)	(1943)

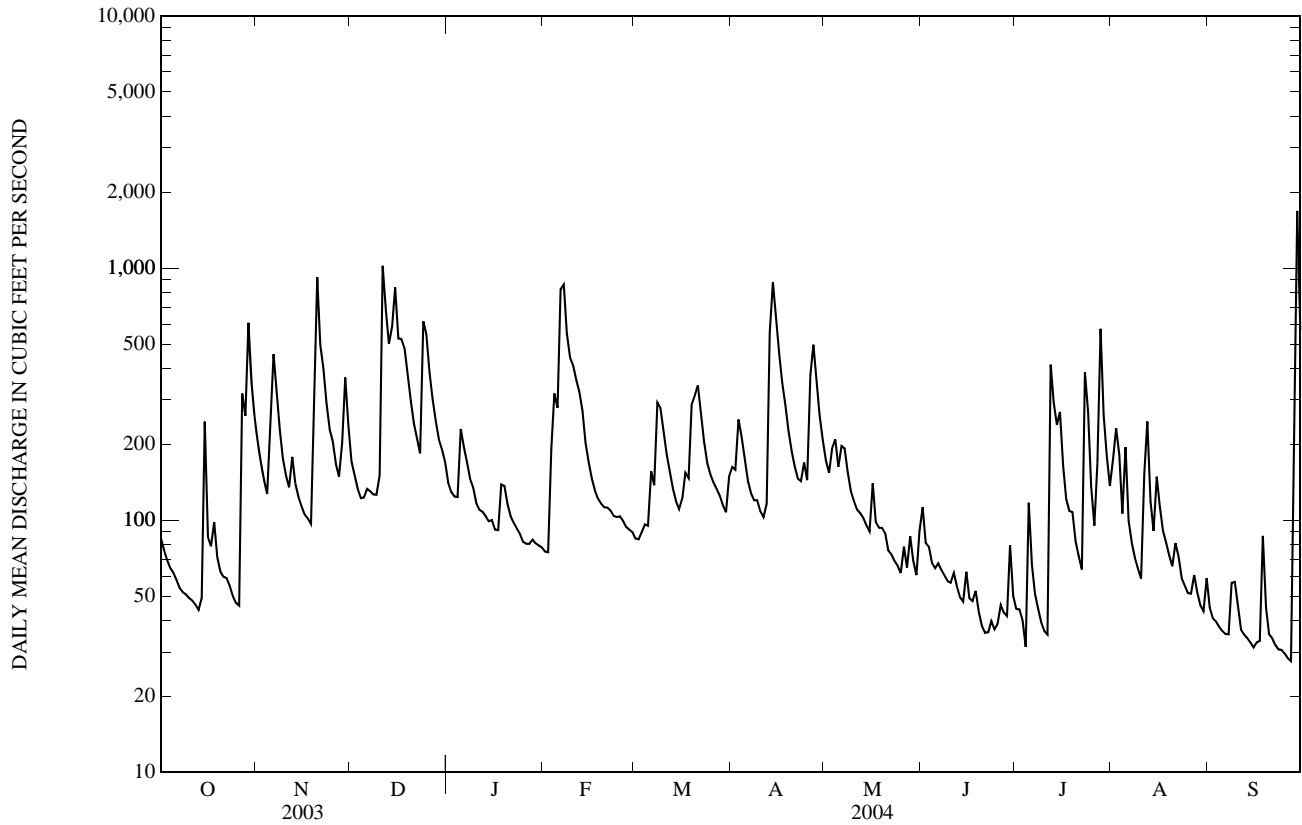
01464000 ASSUNPINK CREEK AT TRENTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1924 - 2004	
ANNUAL TOTAL	70,475		61,357			
ANNUAL MEAN	193		168		134	
(I)	19.7		18.6			
HIGHEST ANNUAL MEAN					233	1984
LOWEST ANNUAL MEAN					69.2	1931
HIGHEST DAILY MEAN	1,020	Dec 11	1,680	Sep 29	4,050	Jul 21, 1975
LOWEST DAILY MEAN	36	Aug 29	28	Sep 26, 27	4.0	Jul 21, 1929
ANNUAL SEVEN-DAY MINIMUM	41	Aug 23	31	Sep 21	9.6	Aug 25, 1944
MAXIMUM PEAK FLOW			2,840	Sep 29	5,450	Jul 21, 1975
MAXIMUM PEAK STAGE			11.08	Sep 29	14.61a	Jul 21, 1975
INSTANTANEOUS LOW FLOW			22	Sep 27	1.0	Aug 21, 1931
10 PERCENT EXCEEDS	445		354		277	
50 PERCENT EXCEEDS	127		114		87	
90 PERCENT EXCEEDS	60		44		33	

a From high-water mark in gage house

(I) Inflow from outside basin, equivalent in cubic feet per second, 2.4 mi. upstream of station through plant of Ewing-Lawrence Sewerage Authority.

e Estimated



01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'14", long 74°36'00", Mercer County, Hydrologic Unit 02040201, on right bank upstream from bridge on Extonville Road, 0.5 mi south of Extonville, 0.5 mi upstream from Pleasant Run, and 0.7 mi downstream from Mercer- Monmouth County line.

DRAINAGE AREA.--81.5 mi².

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 NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges which are poor. Flow regulated occasionally by lakes above station. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	2215	1,040	8.53	Feb 7	0800	*2,050	*11.20
Dec 12	0115	1,720	10.43	Apr 14	1130	975	8.32
Feb 4	1915	800	7.69	Jul 13	1930	1,280	9.25

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	162	150	136	e97	97	169	148	97	31	90	297
2	63	135	131	131	e91	100	165	135	94	28	123	150
3	58	117	117	129	166	101	250	151	75	28	277	101
4	55	106	107	128	680	107	242	179	61	27	111	81
5	56	102	117	149	602	118	317	147	57	76	80	72
6	54	182	167	185	635	156	207	148	67	74	70	65
7	52	215	181	143	1,820	232	168	141	66	40	61	61
8	51	167	168	121	911	281	142	135	58	32	56	61
9	54	133	156	116	357	425	137	112	51	28	53	64
10	56	117	155	e104	240	282	124	102	47	25	49	59
11	54	104	945	e94	207	212	113	95	47	24	47	55
12	53	127	1,280	e95	177	168	116	88	50	69	46	53
13	52	158	499	e96	163	143	382	80	44	813	45	52
14	48	132	299	e91	154	128	887	75	41	782	49	50
15	113	119	442	e91	144	122	643	72	45	307	108	50
16	117	107	313	e89	130	126	355	88	47	174	126	62
17	76	103	257	e86	120	224	229	82	42	117	121	59
18	72	115	342	e105	120	205	178	69	46	90	89	59
19	69	134	240	e127	121	285	152	68	44	125	77	68
20	64	717	190	e116	121	410	136	102	36	102	68	58
21	61	698	168	e99	125	307	124	82	32	82	64	51
22	59	289	155	e91	125	218	120	75	31	70	149	48
23	56	190	151	e87	118	167	114	68	37	67	102	45
24	54	159	246	e83	114	148	273	60	36	75	79	44
25	52	152	549	e79	113	145	214	54	33	72	68	45
26	53	140	322	e80	107	138	246	50	33	65	61	43
27	74	128	218	e84	103	132	532	56	32	62	57	42
28	267	125	177	e87	99	127	408	55	30	178	55	76
29	352	243	161	e86	98	116	230	52	38	105	51	520
30	508	194	154	e73	---	108	172	47	43	74	48	432
31	246	---	145	e99	---	142	---	50	---	63	155	---
TOTAL	3,066	5,570	8,702	3,280	8,058	5,670	7,545	2,866	1,460	3,905	2,635	2,923
MEAN	98.9	186	281	106	278	183	252	92.5	48.7	126	85.0	97.4
MAX	508	717	1,280	185	1,820	425	887	179	97	813	277	520
MIN	48	102	107	73	91	97	113	47	30	24	45	42
CFSM	1.21	2.28	3.44	1.30	3.41	2.24	3.09	1.13	0.60	1.55	1.04	1.20
IN.	1.40	2.54	3.97	1.50	3.68	2.59	3.44	1.31	0.67	1.78	1.20	1.33

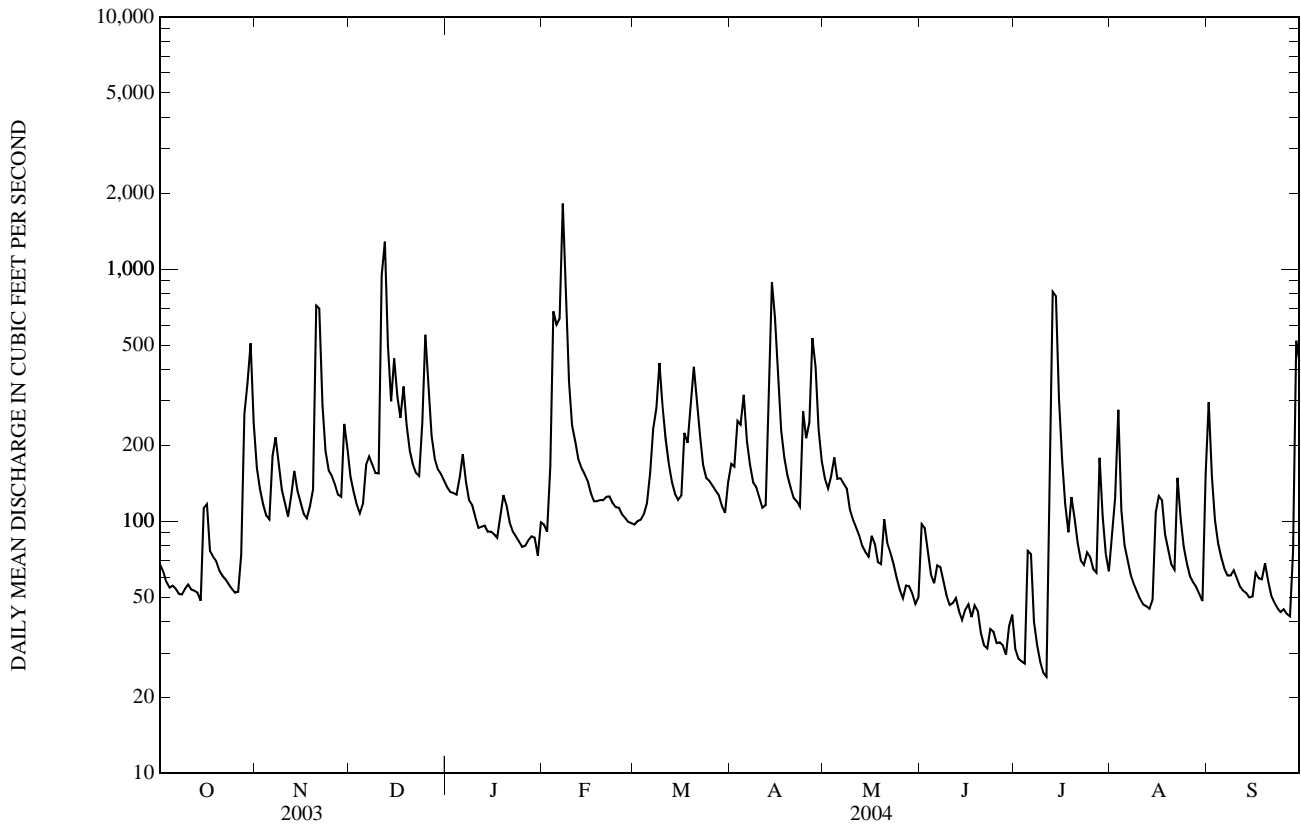
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	87.7	126	160	174	180	201	172	130	97.4	96.2	93.3	89.9
MAX	231	406	392	452	416	476	388	325	281	390	299	284
(WY)	(1997)	(1973)	(1997)	(1978)	(1979)	(1994)	(1983)	(1998)	(2003)	(1989)	(1971)	(1971)
MIN	32.9	36.6	42.6	62.1	55.6	86.1	68.4	55.0	35.7	20.2	22.4	28.3
(WY)	(1966)	(2002)	(1999)	(1981)	(2002)	(1985)	(1985)	(2001)	(1999)	(2002)	(2002)	(1995)

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	62,472		55,680		134	
ANNUAL MEAN	171		152		225	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,970	Feb 24	1,820	Feb 7	3,930	Aug 28, 1971
LOWEST DAILY MEAN	36	Jul 18	24	Jul 11	6.8	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	42	Jul 12	32	Jun 28	8.6	Aug 16, 2002
MAXIMUM PEAK FLOW			2,050	Feb 7	4,860	Sep 1, 1978
MAXIMUM PEAK STAGE			11.20	Feb 7	14.18	Sep 1, 1978
INSTANTANEOUS LOW FLOW			22	Jul 11-12	5.8	Aug 22, 2002
ANNUAL RUNOFF (CFSM)	2.10		1.87		1.64	
ANNUAL RUNOFF (INCHES)	28.51		25.41		22.28	
10 PERCENT EXCEEDS	352		286		249	
50 PERCENT EXCEEDS	107		107		92	
90 PERCENT EXCEEDS	56		47		40	

e Estimated



01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'43", long 74°52'26", Burlington County, Hydrologic Unit 02040201, on left bank in the intake canal of the Public Service Electric and Gas Company generating station, 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 mi².

PERIOD OF RECORD.--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 of the Army Corps of Engineers. July 1964 to current year.

REVISED RECORDS.--WDR NJ-76-1: 1973 (m).

GAGE.--Water-stage recorder. Datum of gage is 12.90 ft below NGVD of 1929. Gage-height record converted to elevation above or below NGVD of 1929 for publication. To determine corresponding NAVD of 1988 elevation, subtract 1.07 ft. To determine corresponding Mean Lower Low Water Datum elevation, add 2.41 ft (revised to Tidal Epoch 1983-2001, correction based on data from National Ocean Service station 8539094). Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum.

REMARKS.--Missing data January 10 to February 22, and short portions of several other days. Summaries for months with short periods of missing gage-height record have been estimated with little or no loss of accuracy, unless otherwise noted. The monthly minimum for November, January and February, and the monthly maximum for February were obtained from data collected at the National Ocean Service tide gage 8539094 Burlington, Delaware River. Some periods cannot be estimated and are noted by dashed (---) lines. Satellite stage telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 8.78 ft (NGVD of 1929), December 11, 1992; minimum recorded, -6.86 ft (NGVD of 1929), November 21, 1989.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft (NGVD of 1929), August 20, 1955, from high-water mark at site 1.4 mi upstream; minimum elevation known, -9.1 ft (NGVD of 1929), December 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 8.12 ft (NGVD of 1929), October 29; minimum recorded, -5.2a ft (NGVD of 1929), November 15, estimated using data collected at National Ocean Service tide gage 8539094 Burlington, Delaware River.

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Month	Maximum high tide		Minimum low tide		Monthly mean high tide	Monthly mean water level	Monthly mean low tide
	Date	Elevation	Date	Elevation			
OCT	29	8.12	16	-3.03	5.49	1.99	-1.82
NOV	24	7.34	15a	-5.2a	5.32	1.86	-1.71
DEC	11, 14	7.82	3	-3.74	5.23	1.99	-1.66
JAN	5	6.03	16a	-3.6a	---	---	---
FEB	7a	6.5a	15a	-3.3a	---	---	---
MAR	12	6.71	13	-3.93	4.97	1.59	-2.13
APR	9	6.12	5	-4.27	5.07	1.58	-2.25
MAY	7	6.34	3	-2.99	5.29	1.68	-2.28
JUN	2	6.65	29	-3.23	5.25	1.59	-2.44
JUL	31	6.69	6	-3.13	5.42	1.80	-2.15
AUG	1	6.50	9	-2.68	5.49	1.94	-1.96
SEP	19	8.03	2	-2.59	5.89	2.51	-1.25

a Estimated using data collected at NOS station 8539094.



01398500 North Branch Raritan River near Far Hills, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'24", long 74°45'47", Burlington County, Hydrologic Unit 02040202, on left bank 20 ft upstream from highway bridge on Lumberton-Vincentown Road (County Route 641), 0.8 mi west of Vincentown, 2.9 mi southwest of Lumberton, and 3.1 mi upstream from Southwest Branch Rancocas Creek.

DRAINAGE AREA.--64.5 mi².

PERIOD OF RECORD.--July 1961 to October 1975, October 1999 to June 2002, and July 2003 to current year. Operated as a crest-stage partial-record station 1976-95 and July 2002 to June 2003.

GAGE.--Water-stage recorder. Datum of gage is 13.17 ft above NGVD of 1929. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

REMARKS.--Records good. Occasional regulation by lakes and ponds above station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	1315	493	6.04	Jul 13	0815	*4,160	*12.34
Dec 11	1800	763	6.65	Jul 28	1130	436	5.39
Feb 7	0400	975	7.20	Aug 31	1600	1,090	7.46
Apr 15	0145	586	6.09	Sep 29	1245	413	5.27
Apr 27	1230	363	5.00				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

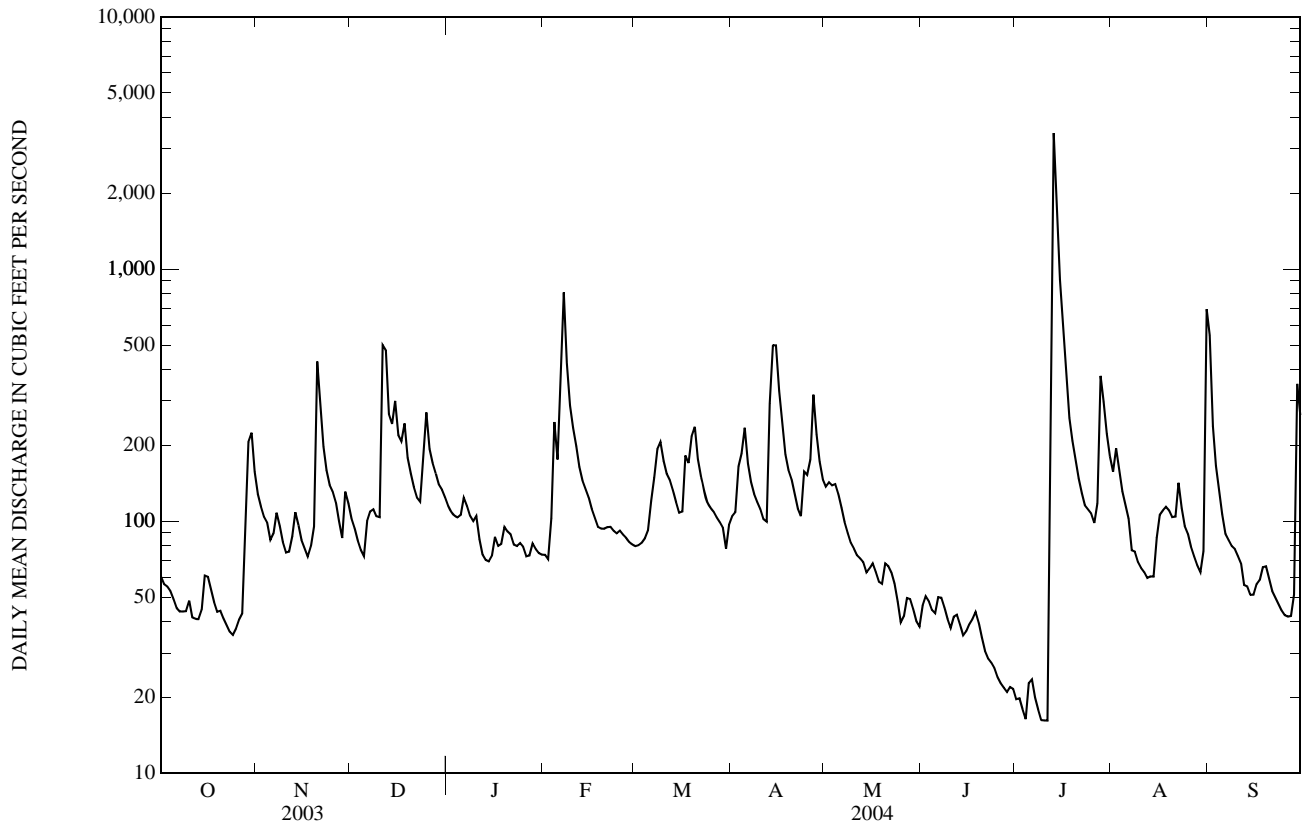
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	128	103	115	74	80	105	137	46	20	157	547
2	56	115	94	109	71	80	109	143	50	20	195	238
3	55	104	84	105	103	82	165	139	48	18	158	166
4	53	99	77	104	247	86	186	140	45	16	132	133
5	49	84	73	106	176	92	235	128	43	23	116	106
6	45	89	100	124	347	120	169	113	50	24	102	89
7	44	108	109	115	808	149	143	99	50	20	77	84
8	44	96	112	105	424	193	128	90	46	18	76	80
9	44	83	105	100	287	206	119	82	41	16	69	78
10	48	75	104	105	235	174	112	78	38	16	65	73
11	42	76	500	85	198	154	102	73	42	16	63	68
12	41	87	476	74	165	146	100	71	43	157	60	56
13	41	109	266	70	145	133	293	69	39	3,470	60	55
14	45	96	243	69	134	119	499	63	35	1,750	60	51
15	61	84	300	73	124	108	498	65	37	909	86	51
16	60	78	220	87	112	109	329	68	39	600	106	56
17	54	72	208	80	103	182	242	63	41	392	110	58
18	48	80	244	81	95	170	184	58	44	257	114	66
19	44	95	179	95	93	217	160	57	39	208	110	66
20	44	430	155	91	93	237	146	68	35	174	104	59
21	41	302	137	89	95	176	128	66	31	148	104	53
22	39	198	124	81	95	150	112	63	29	129	142	50
23	37	159	119	80	92	132	105	57	27	116	113	47
24	35	139	186	82	90	119	158	48	26	111	96	44
25	37	131	270	79	92	113	153	40	24	107	89	42
26	41	119	194	73	89	109	176	42	23	98	79	42
27	43	100	171	73	86	104	318	50	22	118	72	42
28	87	86	155	82	83	99	221	49	21	377	67	51
29	206	131	140	78	81	94	173	45	22	297	63	350
30	224	118	133	75	---	78	147	40	22	222	76	264
31	157	---	124	74	---	97	---	38	---	181	694	---
TOTAL	1,925	3,671	5,505	2,759	4,837	4,108	5,715	2,342	1,098	10,028	3,615	3,165
MEAN	62.1	122	178	89.0	167	133	190	75.5	36.6	323	117	106
MAX	224	430	500	124	808	237	499	143	50	3,470	694	547
MIN	35	72	73	69	71	78	100	38	21	16	60	42
CFSM	0.96	1.90	2.75	1.38	2.59	2.05	2.95	1.17	0.57	5.02	1.81	1.64
IN.	1.11	2.12	3.17	1.59	2.79	2.37	3.30	1.35	0.63	5.78	2.08	1.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

	64.8	93.0	126	112	125	135	125	84.6	61.0	70.0	67.7	65.8
MAX	155	325	291	177	238	200	243	184	165	323	169	155
(WY)	(1976)	(1973)	(1973)	(1964)	(1973)	(1962)	(1970)	(1972)	(1968)	(2004)	(1967)	(1975)
MIN	15.5	15.7	18.6	31.4	37.0	61.3	56.4	38.0	16.6	14.1	14.0	13.9
(WY)	(2002)	(2002)	(2002)	(1966)	(2002)	(2002)	(2002)	(1965)	(1965)	(1971)	(1964)	(1965)

01465850 SOUTH BRANCH RANOCAS CREEK AT VINCENTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 1961 - 2004	
ANNUAL TOTAL	48,768			
ANNUAL MEAN	133		96.4	
HIGHEST ANNUAL MEAN			157	1973
LOWEST ANNUAL MEAN			47.3	1966
HIGHEST DAILY MEAN	3,470	Jul 13	3,470	Jul 13, 2004
LOWEST DAILY MEAN	16	Jul 4, 9-11	3.1	Aug 9, 1966
ANNUAL SEVEN-DAY MINIMUM	19	Jul 4	7.7	Sep 7, 1966
MAXIMUM PEAK FLOW	4,160	Jul 13	4,160	Jul 13, 2004
MAXIMUM PEAK STAGE	12.34	Jul 13	12.34	Jul 13, 2004
INSTANTANEOUS LOW FLOW	16	Many days	2.8	Jul 17, 1966
ANNUAL RUNOFF (CFSM)	2.07		1.49	
ANNUAL RUNOFF (INCHES)	28.13		20.31	
10 PERCENT EXCEEDS	227		189	
50 PERCENT EXCEEDS	94		73	
90 PERCENT EXCEEDS	41		21	



DELAWARE RIVER BASIN

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'06", long 74°30'19", Burlington County, Hydrologic Unit 02040202, on right bank, 25 ft upstream from culvert on Butterworth Road in Lebanon State Forest, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi².

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest". Prior to October 2003, published as "McDonalds 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 NGVD of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair, except for estimated daily discharges, which are poor. 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 were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 7	1215	7.6	1.71	Jul 13	0015	*38	*2.33
Apr 14	0415	7.6	1.71	Jul 14	2015	9.5	1.78

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	2.0	2.5	e1.7	2.2	2.7	2.8	2.0	1.4	3.2	2.0
2	1.3	1.4	2.0	2.4	e1.8	2.2	2.8	2.9	2.0	1.4	3.1	1.8
3	1.3	1.4	2.0	2.4	e2.1	2.3	3.2	3.0	1.9	1.4	2.8	1.7
4	1.3	1.4	1.9	2.4	e2.5	2.3	3.6	3.0	1.8	1.4	2.5	1.7
5	1.3	1.4	2.1	2.5	e2.5	2.3	3.7	2.8	1.9	1.4	2.4	1.6
6	1.3	1.5	2.3	2.6	2.8	2.6	3.5	2.7	1.9	1.4	2.3	1.6
7	1.3	1.6	2.5	2.4	7.1	2.7	3.0	2.7	1.8	1.3	2.1	1.6
8	1.3	1.5	2.6	2.4	5.4	3.6	2.7	2.6	1.8	1.3	2.2	1.6
9	1.3	1.4	2.3	2.3	4.8	4.0	2.6	2.6	1.7	1.3	2.0	1.6
10	1.3	1.4	2.2	e2.2	3.6	3.7	2.5	2.6	1.7	1.2	2.0	1.5
11	1.3	1.4	4.2	e2.1	3.2	3.1	2.5	2.5	1.7	1.2	2.0	1.5
12	1.4	1.6	5.9	e2.1	3.2	2.8	2.5	2.4	1.7	3.5	1.9	1.5
13	1.3	1.5	4.3	e2.1	3.0	2.6	5.6	2.4	1.7	14	2.0	1.5
14	1.3	1.4	3.5	e2.0	2.6	2.4	7.4	2.3	1.6	7.8	2.1	1.4
15	1.5	1.4	3.4	e2.0	2.6	2.3	6.2	2.3	1.7	6.5	3.0	1.5
16	1.3	1.4	3.3	e2.0	2.5	2.5	4.4	2.3	1.7	4.2	2.9	1.5
17	1.3	1.4	3.2	e1.9	2.4	3.0	3.8	2.3	1.7	3.3	2.7	1.4
18	1.3	1.4	3.1	e2.0	2.4	3.0	3.5	2.3	1.7	3.0	2.5	1.5
19	1.3	1.6	3.0	e2.1	2.3	3.6	3.3	2.3	1.6	2.9	2.3	1.5
20	1.2	2.3	2.9	e2.0	2.4	3.7	3.1	2.4	1.6	2.7	2.1	1.4
21	1.2	2.5	2.6	e1.9	2.4	3.6	3.0	2.3	1.5	2.5	2.1	1.4
22	1.2	2.8	2.6	e1.9	2.5	3.1	3.0	2.3	1.5	2.3	2.2	1.4
23	1.2	2.3	2.5	e1.8	2.3	2.8	3.0	2.2	1.5	2.4	2.1	1.4
24	1.2	2.1	3.3	e1.8	2.3	2.6	3.1	2.1	1.5	2.4	1.9	1.4
25	1.2	2.0	3.9	e1.8	2.3	2.6	3.0	2.1	1.5	2.2	1.9	1.4
26	1.2	1.9	3.7	e1.8	2.2	2.5	3.2	2.1	1.5	2.1	1.8	1.4
27	1.3	1.8	3.2	e1.8	2.2	2.5	4.1	2.0	1.5	3.0	1.7	1.4
28	1.4	1.9	2.9	e1.8	2.2	2.4	3.7	2.0	1.4	6.1	1.7	1.6
29	1.9	2.1	2.7	e1.7	2.1	2.3	3.2	1.9	1.5	5.8	1.7	3.2
30	1.7	2.0	2.7	e1.7	---	2.3	3.0	1.9	1.4	4.5	1.7	2.2
31	1.5	---	2.6	e1.8	---	2.6	---	1.9	---	3.3	2.0	---
TOTAL	41.2	51.3	91.4	64.2	81.4	86.2	104.9	74.0	50.0	99.2	68.9	48.2
MEAN	1.33	1.71	2.95	2.07	2.81	2.78	3.50	2.39	1.67	3.20	2.22	1.61
MAX	1.9	2.8	5.9	2.6	7.1	4.0	7.4	3.0	2.0	14	3.2	3.2
MIN	1.2	1.4	1.9	1.7	1.7	2.2	2.5	1.9	1.4	1.2	1.7	1.4
CFSM	0.57	0.73	1.25	0.88	1.19	1.18	1.49	1.02	0.71	1.36	0.95	0.68
IN.	0.65	0.81	1.45	1.02	1.29	1.36	1.66	1.17	0.79	1.57	1.09	0.76

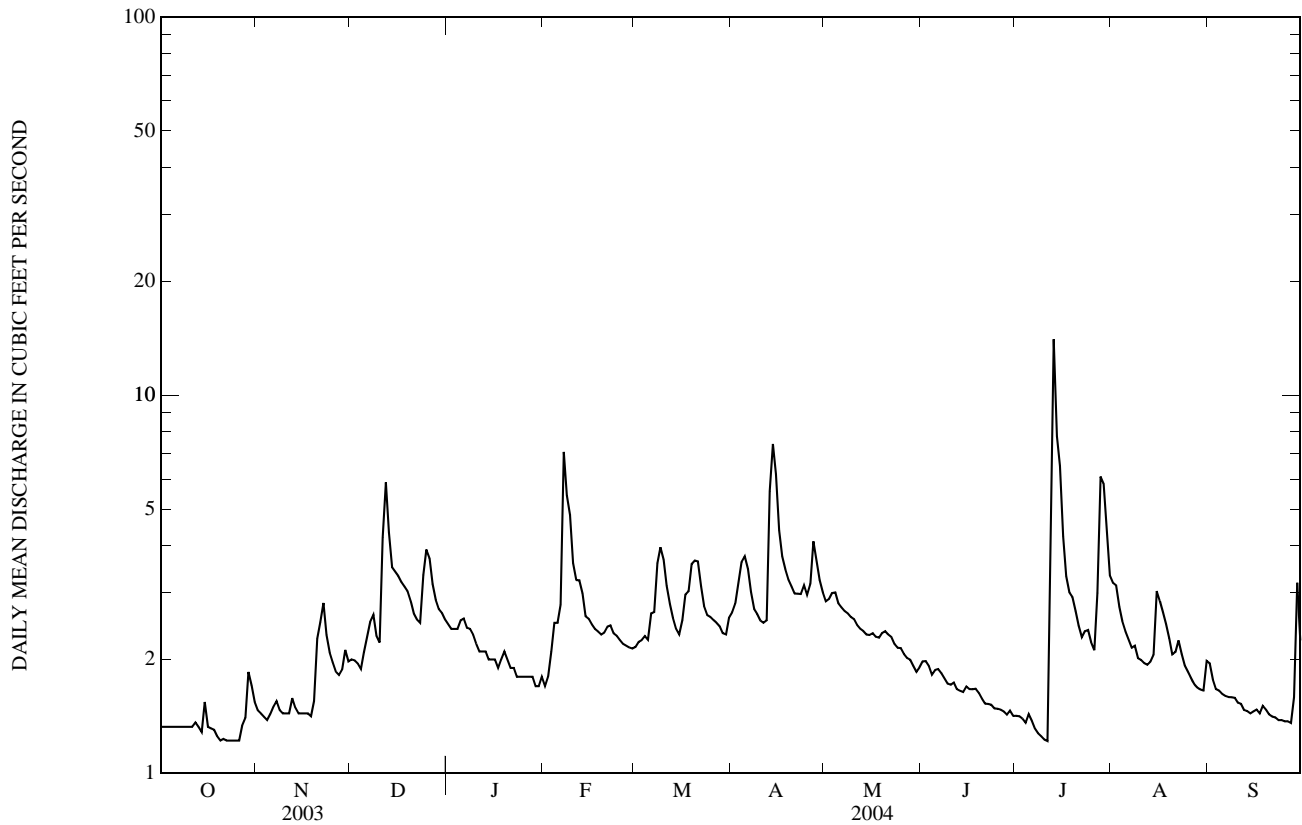
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

MEAN	1.53	1.68	2.03	2.24	2.38	2.85	2.88	2.60	2.14	1.84	1.78	1.61
MAX	4.45	4.82	5.75	4.78	5.69	5.67	5.74	6.86	5.35	4.15	5.65	4.31
(WY)	(1959)	(1973)	(1973)	(1973)	(1973)	(1979)	(1984)	(1998)	(1979)	(1958)	(1958)	(1958)
MIN	0.80	0.88	0.87	0.85	0.83	0.94	1.10	1.17	1.05	0.90	0.80	0.71
(WY)	(1996)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1995)	(1995)	(2002)	(2002)	(1995)

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	780.7		860.9			
ANNUAL MEAN	2.14		2.35		2.13	
HIGHEST ANNUAL MEAN					3.85	1973
LOWEST ANNUAL MEAN					0.95	2002
HIGHEST DAILY MEAN	5.9	Dec 12	14	Jul 13	20	Feb 28, 1958
LOWEST DAILY MEAN	1.2	Aug 29	1.2	Oct 20	0.50	Oct 13, 1995
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 20	1.2	Oct 20	0.58	Oct 8, 1995
MAXIMUM PEAK FLOW			38	Jul 13	38	Jul 13, 2004
MAXIMUM PEAK STAGE			2.33	Jul 13	2.33	Aug 25, 1958
INSTANTANEOUS LOW FLOW			1.2	many days	0.49	Oct 13, 1995
ANNUAL RUNOFF (CFSM)	0.910		1.00		0.906	
ANNUAL RUNOFF (INCHES)	12.36		13.63		12.31	
10 PERCENT EXCEEDS	3.3		3.3		3.6	
50 PERCENT EXCEEDS	1.9		2.2		1.8	
90 PERCENT EXCEEDS	1.3		1.4		1.1	

e Estimated



DELAWARE RIVER BASIN

01466900 GREENWOOD BRANCH AT NEW LISBON, NJ

LOCATION.--Lat 39°57'22", long 74°37'40", Burlington County, Hydrologic Unit 02040202, on right bank, 50 ft upstream of bridge on Fourmile Road (County Route 646), 0.1 mi south of in New Lisbon, 0.7 mi upstream from mouth, and 3.1 mi east of Pemberton.

DRAINAGE AREA.--77.9 mi².

PERIOD OF RECORD.--Occasional miscellaneous discharge measurements, water years 1954, 1973. May 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 34.18 ft above NAVD of 1988.

REMARKS.--Records good, except estimated daily discharges which are fair. Water diverted for water supply to Fort Dix Army Base just upstream from gage (see Delaware River Basin, diversions and withdrawals). Satellite rain and gage-height telemetry at station. Several measurements of water temperature were made during the year.

REVISIONS.--The maximum discharge for water year 1998, observed by field personnel before gage was established, has been revised to 810 ft³/s, May 11, 1998, gage height 7.78 ft. This figure, which was the maximum peak flow prior to water year 2004, supersedes that which was published in reports for 1998 - 2003. The maximum discharge for water year 2003 has been revised to 508 ft³/s, Feb. 24, 2003, gage height 5.57 ft; revised daily discharges for water year 2003 are given below. These figures supersede those published in the report for 2003.

Date	Discharge (ft ³ /s)	Date	Discharge (ft ³ /s)	Date	Discharge (ft ³ /s)
Feb 23, 2003	300	Feb 25, 2003	415	Feb 27, 2003	251
Feb 24	493	Feb 26	315		
		TOTAL	MEAN	MAX	MIN
February 2003	3,793		135	493	60
Water Year 2003	38,934		107	493	22

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	153	108	140	e77	80	128	177	82	45	190	155
2	60	149	103	134	e74	81	139	163	87	45	182	140
3	56	131	105	127	e87	83	154	158	84	43	170	112
4	55	117	109	122	e120	86	169	160	76	38	155	93
5	59	126	100	121	e137	94	194	157	72	42	140	80
6	56	127	106	123	e170	107	202	150	78	43	128	70
7	52	132	118	123	e274	130	188	e135	80	40	114	64
8	50	119	122	120	e310	157	169	e117	78	39	104	61
9	51	104	115	113	e262	191	154	e115	72	38	89	61
10	50	94	111	108	e220	203	147	e110	68	37	80	59
11	52	93	151	102	e191	199	145	108	71	36	73	56
12	53	111	279	98	e176	185	145	104	72	78	71	54
13	57	109	291	97	e160	165	184	99	64	844	69	52
14	57	112	232	96	e144	146	340	92	65	925	73	51
15	63	125	221	94	e134	130	396	87	65	657	94	50
16	65	111	214	94	e121	121	335	86	62	520	119	54
17	60	89	208	93	e110	134	282	87	60	376	140	54
18	57	80	194	95	e105	151	257	85	64	232	145	56
19	56	81	181	108	e102	175	232	83	64	209	148	62
20	53	120	175	110	e99	198	217	91	58	194	149	58
21	52	156	166	107	e98	204	216	88	55	180	138	55
22	52	165	153	103	e97	194	198	87	53	161	137	53
23	53	166	144	99	e95	178	179	85	52	146	148	52
24	52	158	148	94	e94	159	184	81	51	139	143	50
25	58	145	180	89	e92	148	180	76	50	144	126	49
26	66	133	205	86	e90	142	179	71	50	146	107	48
27	66	123	196	e86	e89	137	197	77	48	142	89	47
28	81	115	180	e85	e87	129	212	77	46	162	79	49
29	104	116	166	e82	83	121	204	74	48	206	73	100
30	133	118	156	e73	---	115	193	70	47	219	66	149
31	149	---	147	e77	---	118	---	71	---	202	112	---
TOTAL	1,991	3,678	5,084	3,199	3,898	4,461	6,119	3,221	1,922	6,328	3,651	2,094
MEAN	64.2	123	164	103	134	144	204	104	64.1	204	118	69.8
MAX	149	166	291	140	310	204	396	177	87	925	190	155
MIN	50	80	100	73	74	80	128	70	46	36	66	47

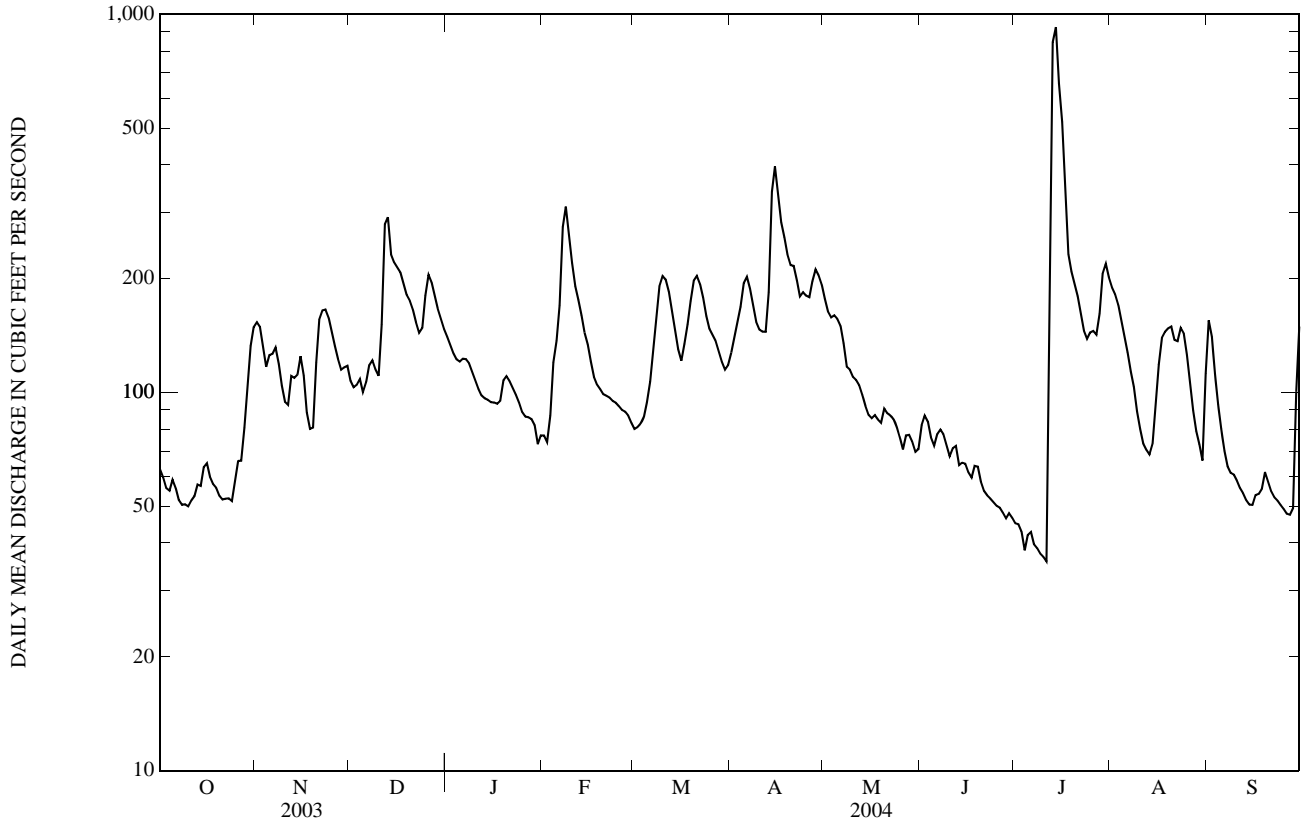
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																												
	56.8	89.7	32.8	(2000)	74.5	123	34.6	(1999)	85.5	164	29.3	(1999)	94.3	118	42.4	(2002)	113	174	37.2	(2002)	121	184	48.3	(2002)	122	204	61.8	(2002)	80.2	104	60.4	(2002)	77.1	162	39.0	(1999)	65.1	204	27.6	(2002)	59.5	118	21.8	(2002)	64.4	121	28.0	(2002)

01466900 GREENWOOD BRANCH AT NEW LISBON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	43,263		45,646			
ANNUAL MEAN	119		125		84.9	
HIGHEST ANNUAL MEAN					125	2004
LOWEST ANNUAL MEAN					40.7	2002
HIGHEST DAILY MEAN	863	Feb 24	925	Jul 14	925	Jul 14, 2003
LOWEST DAILY MEAN	41	Aug 29	36	Jul 11	17	Aug 4, 1999
ANNUAL SEVEN-DAY MINIMUM	43	Aug 26	39	Jul 5	18	Aug 15, 2002
MAXIMUM PEAK FLOW			1,080	Jul 13	1,080	Jul 13, 2004
MAXIMUM PEAK STAGE			8.91	Jul 13	8.91	Jul 13, 2004
INSTANTANEOUS LOW FLOW			34	Jul 12	15	Aug 16, 2002
10 PERCENT EXCEEDS	206		198		146	
50 PERCENT EXCEEDS	98		108		74	
90 PERCENT EXCEEDS	53		53		31	

e Estimated



01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'12", long 74°41'04", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street (County Route 616) in Pemberton, 12 mi upstream from confluence with South Branch Rancocas Creek.

DRAINAGE AREA.--118 mi².

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 NGVD of 1929. 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 from gage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

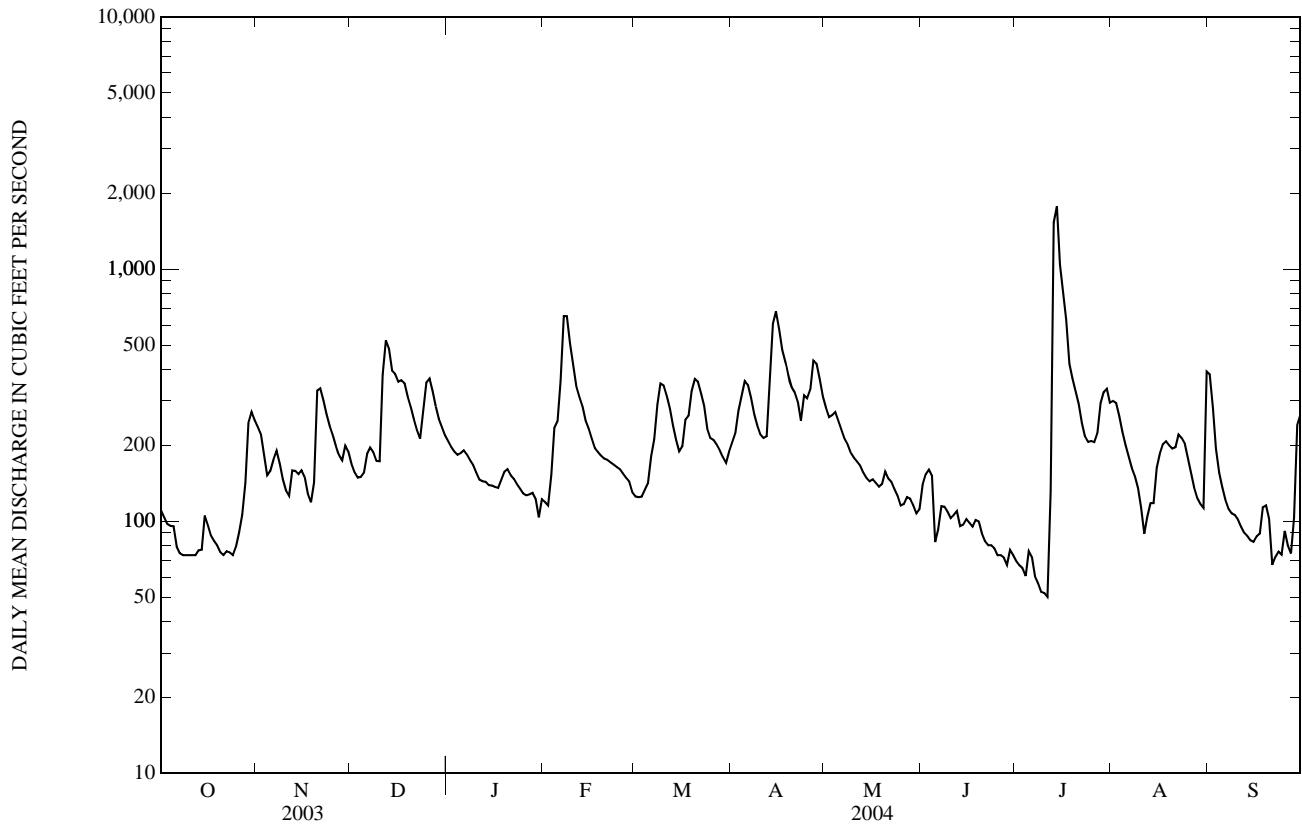
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	236	169	207	119	125	205	283	140	70	300	383
2	104	222	156	197	116	124	223	259	154	67	294	282
3	98	184	149	189	153	125	275	263	160	65	261	194
4	96	152	150	183	235	133	312	271	152	61	227	156
5	96	158	156	186	249	141	360	250	83	76	200	137
6	79	176	185	191	361	181	347	230	93	72	181	122
7	75	190	196	184	652	211	310	212	115	60	163	112
8	73	169	188	175	651	290	266	201	114	57	151	107
9	73	147	173	167	507	352	240	187	109	52	135	106
10	73	132	173	156	420	346	221	178	103	52	113	102
11	73	126	381	146	344	315	214	172	106	50	89	95
12	73	159	522	144	312	280	217	166	110	132	104	90
13	77	159	486	143	286	241	388	156	96	1,530	118	87
14	77	154	396	139	252	210	608	148	97	1,780	118	84
15	105	159	384	139	233	189	680	144	102	1,040	163	83
16	96	149	358	137	213	199	577	147	99	819	185	87
17	88	129	363	136	195	253	479	142	95	629	202	89
18	83	119	352	145	188	262	428	137	101	421	208	114
19	80	142	313	157	182	328	378	141	100	369	200	116
20	75	329	283	161	177	367	340	158	90	326	194	102
21	73	336	254	152	175	358	325	148	83	292	197	67
22	76	301	230	147	171	322	297	143	80	245	221	72
23	75	266	213	140	168	287	251	134	80	217	214	76
24	73	239	273	135	164	232	316	126	78	206	204	74
25	79	220	354	129	161	214	307	115	73	208	178	92
26	91	198	368	127	155	210	333	117	73	206	156	80
27	106	183	329	128	149	202	434	124	72	223	136	75
28	142	175	285	129	144	191	421	123	67	295	124	103
29	245	199	255	123	130	180	368	116	77	325	117	240
30	271	189	236	104	---	170	313	107	73	336	113	263
31	252	---	219	122	---	189	---	111	---	295	392	---
TOTAL	3,188	5,697	8,549	4,718	7,262	7,227	10,433	5,209	2,975	10,576	5,658	3,790
MEAN	103	190	276	152	250	233	348	168	99.2	341	183	126
MAX	271	336	522	207	652	367	680	283	160	1,780	392	383
MIN	73	119	149	104	116	124	205	107	67	50	89	67
CFSM	0.87	1.61	2.34	1.29	2.12	1.98	2.95	1.42	0.84	2.89	1.55	1.07
IN.	1.01	1.80	2.70	1.49	2.29	2.28	3.29	1.64	0.94	3.33	1.78	1.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	117	149	172	198	214	247	237	193	142	122	130	116
MAX	365	430	434	479	445	472	475	475	297	401	426	341
(WY)	(1928)	(1973)	(1973)	(1979)	(1939)	(1994)	(1984)	(1998)	(1968)	(1938)	(1958)	(1971)
MIN	38.7	45.7	47.1	62.1	57.1	88.5	85.4	72.0	54.1	36.6	35.6	36.5
(WY)	(1923)	(1923)	(1999)	(1981)	(2002)	(2002)	(1985)	(1992)	(1995)	(1999)	(1995)	(1995)

01467000 NORTH BRANCH RANOCAS CREEK AT PEMBERTON, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	71,344		75,282		170	
ANNUAL MEAN	195		206		69.0	
HIGHEST ANNUAL MEAN					286	1978
LOWEST ANNUAL MEAN					69.0	2002
HIGHEST DAILY MEAN	829	Feb 24	1,780	Jul 14	1,780	Jul 14, 2004
LOWEST DAILY MEAN	73	Jul 21	50	Jul 11	9.0	Sep 29, 1932
ANNUAL SEVEN-DAY MINIMUM	74	Oct 7	60	Jul 5	27	Oct 2, 1922
MAXIMUM PEAK FLOW			2,040	Jul 14	2,040	Jul 14, 2004
MAXIMUM PEAK STAGE			4.19	Jul 14	4.19	Jul 14, 2004
INSTANTANEOUS LOW FLOW			49	Jul 10-12	9.0	Sep 29, 1932
ANNUAL RUNOFF (CFSM)	1.66		1.74		1.44	
ANNUAL RUNOFF (INCHES)	22.49		23.73		19.52	
10 PERCENT EXCEEDS	358		353		310	
50 PERCENT EXCEEDS	156		168		139	
90 PERCENT EXCEEDS	88		79		61	



01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'04", 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 mi².

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 NGVD of 1929.

REMARKS.--Records fair. Diurnal fluctuations apparently due to a sewage treatment plant upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 20	0230	319	7.20	Jul 13	0400	*1,560	*11.76
Dec 11	0930	640	9.25	Jul 18	1945	335	7.36
Dec 14	2115	332	7.33	Jul 27	2000	305	7.06
Dec 24	1645	380	7.71	Aug 1	1200	380	7.71
Feb 6	2145	483	8.38	Sep 29	0730	488	8.41
Apr 13	2200	329	7.30				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

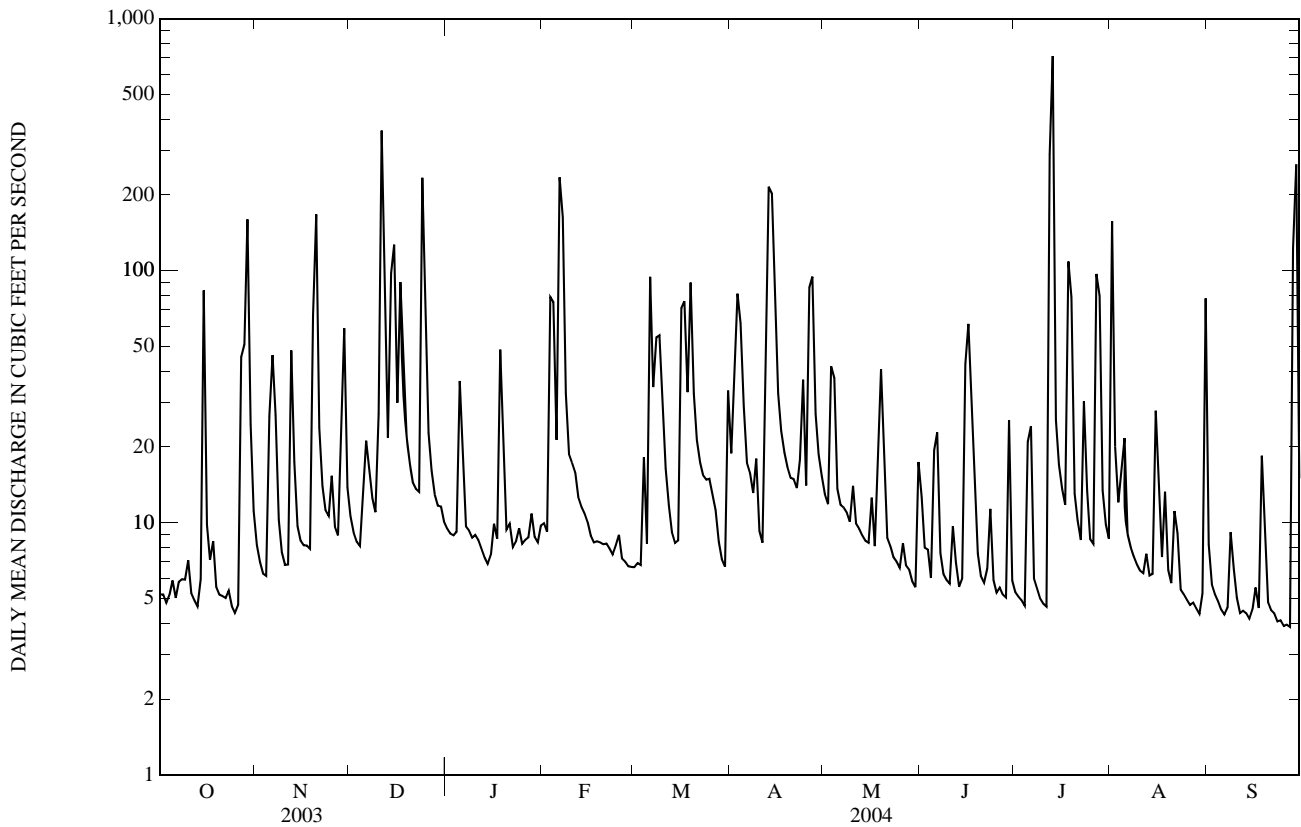
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	8.2	11	9.5	10	6.7	19	13	13	5.3	157	8.2
2	5.2	7.0	9.1	9.1	9.2	6.9	43	12	8.0	5.1	20	5.7
3	4.8	6.3	8.4	8.9	79	6.8	81	42	7.8	4.9	12	5.2
4	5.2	6.2	8.1	9.2	75	18	62	38	6.0	4.7	16	4.9
5	5.9	27	12	37	21	8.3	29	14	19	21	22	4.5
6	5.0	46	21	18	235	95	17	12	23	24	9.0	4.3
7	5.8	27	16	9.7	163	35	16	12	7.6	6.0	8.0	4.6
8	6.0	10	13	9.3	33	54	13	11	6.3	5.5	7.4	9.2
9	6.0	7.6	11	8.7	19	56	18	10	5.9	5.0	6.8	6.5
10	7.1	6.8	27	9.0	17	28	9.3	14	5.7	4.8	6.5	5.0
11	5.3	6.8	360	8.5	16	16	8.3	9.9	9.7	4.7	6.3	4.4
12	4.9	48	53	7.9	13	12	26	9.5	7.0	289	7.5	4.5
13	4.7	17	22	7.3	12	9.2	215	8.9	5.6	711	6.2	4.4
14	6.0	9.7	98	6.9	11	8.3	203	8.5	6.0	26	6.3	4.2
15	84	8.5	127	7.5	10	8.5	73	8.3	43	17	28	4.6
16	9.8	8.1	30	9.9	8.9	71	33	13	62	14	14	5.5
17	7.1	8.1	90	8.6	8.4	76	23	8.1	28	12	7.3	4.6
18	8.5	7.9	46	49	8.4	33	19	17	16	109	13	18
19	5.6	66	22	23	8.4	90	17	41	7.5	79	6.5	9.6
20	5.2	167	17	9.4	8.2	33	15	19	6.2	13	5.8	4.9
21	5.1	24	14	9.9	8.3	21	15	8.7	5.8	10	11	4.5
22	5.0	14	14	8.0	7.9	17	14	8.1	6.6	8.5	9.1	4.4
23	5.4	11	13	8.4	7.5	15	18	7.3	11	30	5.4	4.1
24	4.7	11	234	9.5	8.1	15	37	7.0	5.9	13	5.2	4.1
25	4.4	15	58	8.3	9.0	15	14	6.6	5.3	8.6	4.9	3.9
26	4.7	9.7	23	8.6	7.2	13	86	8.3	5.5	8.3	4.7	3.9
27	45	8.9	16	8.8	7.0	11	95	6.8	5.2	97	4.8	3.9
28	51	22	13	11	6.7	8.4	27	6.5	5.1	80	4.6	123
29	160	59	12	8.8	6.7	7.2	19	5.9	26	13	4.4	264
30	25	14	12	8.4	---	6.7	15	5.6	5.9	9.9	5.2	15
31	11	---	10	9.7	---	33	---	17	---	8.7	78	---
TOTAL	518.6	687.8	1,420.6	365.8	833.9	834.0	1,279.6	409.0	375.6	1,648.0	502.9	553.6
MEAN	16.7	22.9	45.8	11.8	28.8	26.9	42.7	13.2	12.5	53.2	16.2	18.5
MAX	160	167	360	49	235	95	215	42	62	711	157	264
MIN	4.4	6.2	8.1	6.9	6.7	6.7	8.3	5.6	5.1	4.7	4.4	3.9
CFSM	1.86	2.55	5.10	1.31	3.20	3.00	4.75	1.47	1.39	5.92	1.81	2.05
IN.	2.15	2.85	5.88	1.52	3.45	3.45	5.30	1.69	1.56	6.83	2.08	2.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2004, BY WATER YEAR (WY)

MEAN	13.4	16.9	22.3	21.6	20.3	24.4	21.7	18.5	15.4	17.6	15.5	14.4
MAX	26.0	48.8	60.4	50.5	44.7	46.5	49.8	47.0	39.1	53.2	58.2	38.8
(WY)	(1990)	(1973)	(1997)	(1979)	(1979)	(1994)	(1983)	(1989)	(2003)	(2004)	(1978)	(1975)
MIN	5.76	5.13	6.38	6.55	5.71	9.29	8.08	8.24	6.50	6.30	4.17	4.71
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(1985)	(1985)	(1993)	(1995)	(1999)	(1995)	(1968)

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1968 - 2004	
ANNUAL TOTAL	8,549.4		9,429.4			
ANNUAL MEAN	23.4		25.8		18.6	
HIGHEST ANNUAL MEAN					27.3	1978
LOWEST ANNUAL MEAN					10.2	2002
HIGHEST DAILY MEAN	360	Dec 11	711	Jul 13	711	Jul 13, 2004
LOWEST DAILY MEAN	2.9	Aug 24	3.9	Sep 25-27	2.2	Nov 14, 1998
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 23	4.1	Sep 21	2.3	Aug 15, 2002
MAXIMUM PEAK FLOW			1,560	Jul 13	1,560	Jul 13, 2004
MAXIMUM PEAK STAGE			11.76	Jul 13	11.76	Jul 13, 2004
INSTANTANEOUS LOW FLOW			3.0	Sep 26,27	1.1	Aug 7, 1999
ANNUAL RUNOFF (CFSM)	2.61		2.87		2.07	
ANNUAL RUNOFF (INCHES)	35.42		39.06		28.08	
10 PERCENT EXCEEDS	55		58		36	
50 PERCENT EXCEEDS	9.3		9.6		9.4	
90 PERCENT EXCEEDS	4.6		5.0		4.7	



DELAWARE RIVER BASIN

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'17". Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Route 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 mi².

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M), WDR NJ-82-2: Drainage area. WDR NJ-04-1: 1971(M).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft above NGVD of 1929.

REMARKS.--Records good except for daily discharges below 40 ft³/s, which are fair. Bypass gates were installed on both ends of the dam in August 1987. Bypass gate opened February 16, 2002 to clean out the fish ladder this year. Occasional regulation at low flow from small lakes and wastewater treatment plants (prior to summer 1987). Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	1300	878	3.41	Jul 13	0000	*3,300	*6.27
Dec 24	1200	581	2.93	Jul 27	2145	620	3.00
Feb 6	2000	722	3.17	Aug 1	1345	500	2.78
Jun 16	0030	620	3.00	Sep 29	0330	614	2.99

REVISIONS.--The maximum discharge for the water year 1971 has been revised to 2,940 ft³/s,

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	19	20	13	16	38	22	19	8.9	190	24
2	11	13	16	20	13	17	62	22	19	8.2	41	15
3	11	12	15	20	101	17	108	46	19	7.8	26	13
4	9.1	12	14	20	83	26	91	48	14	7.6	23	11
5	9.2	14	22	44	32	21	52	28	32	40	26	10
6	9.1	24	34	32	323	97	31	22	30	18	18	10
7	9.7	27	28	19	275	42	26	22	18	10	15	10
8	9.0	15	22	16	51	39	23	21	13	8.8	14	18
9	8.3	12	19	16	31	42	28	18	12	7.6	12	13
10	9.4	12	37	14	29	27	22	36	12	7.2	12	11
11	9.0	12	516	13	27	21	21	21	28	6.9	12	10
12	8.1	68	107	14	24	18	35	18	15	638	13	9.9
13	7.8	30	36	15	23	17	277	18	12	1,020	12	9.3
14	9.4	17	124	15	22	16	307	17	12	54	13	9.0
15	111	14	167	15	20	16	121	15	140	36	47	9.3
16	23	13	42	14	19	87	41	21	199	24	30	11
17	13	13	93	13	18	75	32	17	95	18	17	11
18	14	14	55	46	19	35	29	20	38	113	26	33
19	11	81	32	33	19	99	27	49	19	124	15	19
20	11	233	26	19	19	46	25	31	14	33	15	12
21	12	45	22	15	19	30	25	17	12	22	33	11
22	14	26	21	15	17	24	23	16	21	19	38	10
23	12	19	20	14	16	21	24	14	31	38	18	9.7
24	11	17	319	14	17	20	70	14	14	22	14	8.6
25	10	24	113	13	17	21	33	13	12	16	12	9.1
26	10	17	38	14	16	20	107	17	11	15	12	8.6
27	81	15	28	14	15	19	144	14	9.8	161	11	8.9
28	74	29	26	16	15	19	42	14	9.1	181	11	131
29	234	77	26	14	15	18	30	13	21	38	11	342
30	51	27	24	13	---	18	23	13	9.8	25	13	36
31	21	---	21	13	---	42	---	20	---	23	98	---
TOTAL	845.1	946	2,082	573	1,308	1,026	1,917	677	910.7	2,751.0	848	843.4
MEAN	27.3	31.5	67.2	18.5	45.1	33.1	63.9	21.8	30.4	88.7	27.4	28.1
MAX	234	233	516	46	323	99	307	49	199	1,020	190	342
MIN	7.8	12	14	13	13	16	21	13	9.1	6.9	11	8.6
CFSM	1.60	1.85	3.95	1.09	2.65	1.95	3.76	1.28	1.79	5.22	1.61	1.65
IN.	1.85	2.07	4.56	1.25	2.86	2.25	4.19	1.48	1.99	6.02	1.86	1.85

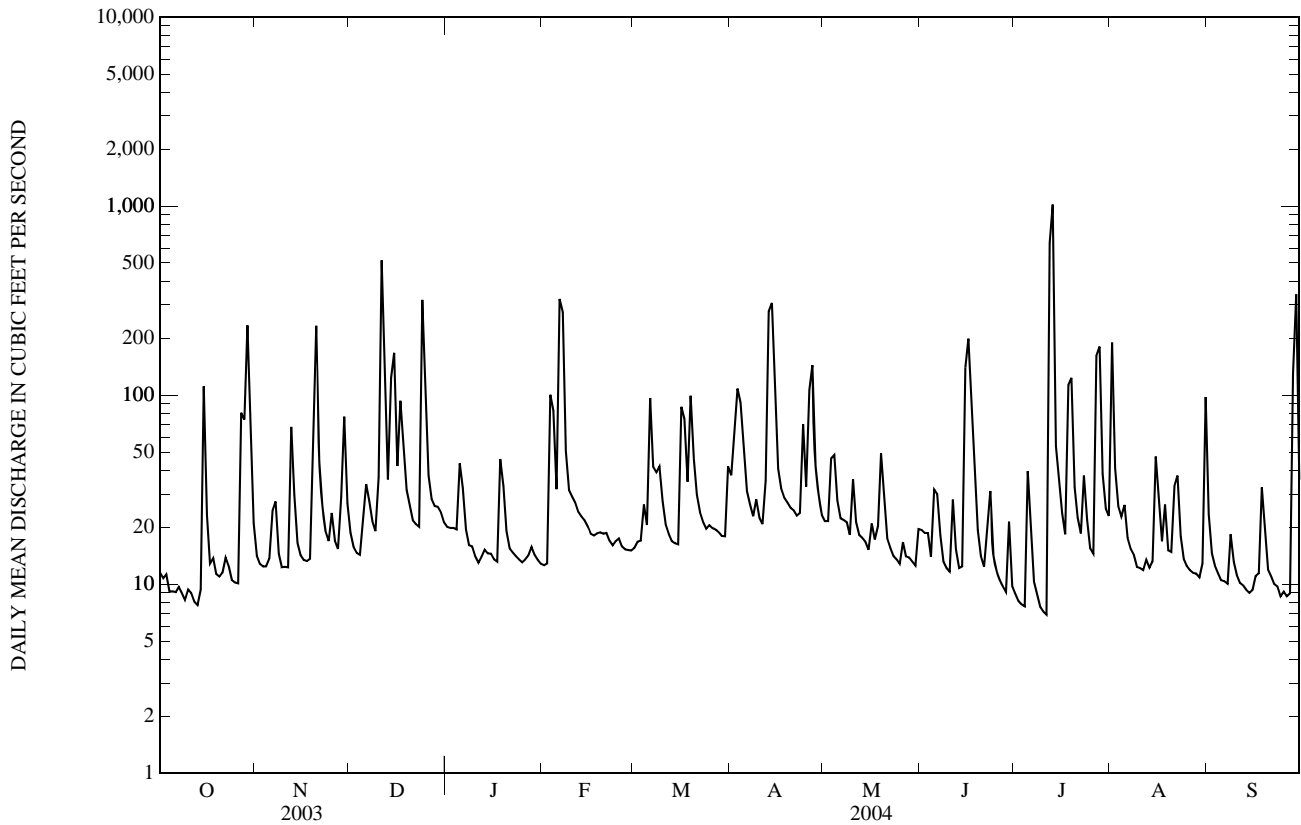
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	25.4	29.7	37.1	36.9	36.3	42.1	39.6	34.4	29.5	30.9	28.0	26.1
MAX	46.8	79.6	85.3	97.8	76.1	78.9	99.4	66.7	61.5	88.7	97.6	65.8
(WY)	(1976)	(1973)	(1997)	(1978)	(1979)	(1984)	(1983)	(1983)	(2003)	(2004)	(1971)	(1975)
MIN	9.26	8.03	8.21	14.6	11.0	23.2	15.1	14.2	10.9	10.5	7.79	5.67
(WY)	(1966)	(2002)	(1999)	(1992)	(2002)	(1981)	(1992)	(1965)	(1988)	(1999)	(1966)	(2001)

01467150 COOPER RIVER AT HADDONFIELD, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1964 - 2004	
ANNUAL TOTAL	13,067.8		14,727.2		33.0	
ANNUAL MEAN	35.8		40.2		50.6	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					15.6	
HIGHEST DAILY MEAN	516	Dec 11	1,020	Jul 13	1,510	Aug 28, 1971
LOWEST DAILY MEAN	7.3	Aug 26	6.9	Jul 11	1.2	Jun 27, 1964
ANNUAL SEVEN-DAY MINIMUM	7.9	Aug 23	8.7	Oct 8	3.6	Sep 4, 2001
MAXIMUM PEAK FLOW			3,300	Jul 13	3,300	Jul 13, 2004
MAXIMUM PEAK STAGE			6.27	Jul 13	6.27	Jul 13, 2004
INSTANTANEOUS LOW FLOW			6.6	Jul 10,11	0.80a	Nov 13, 1972
ANNUAL RUNOFF (CFSM)	2.11		2.37		1.94	
ANNUAL RUNOFF (INCHES)	28.60		32.23		26.36	
10 PERCENT EXCEEDS	77		84		58	
50 PERCENT EXCEEDS	18		19		22	
90 PERCENT EXCEEDS	9.8		10		10	

a Regulation from unknown source



DELAWARE RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National Water-Quality Assessment Station)

LOCATION.--Lat 39°58'04", long 75°11'20", Philadelphia County, 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.

DRAINAGE AREA.--1,893 mi².

PERIOD OF RECORD.--October 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, crest-stage gage, and concrete control. Datum of gage is 5.74 ft above National Geodetic Vertical Datum of 1929. 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.--No estimated daily discharges. Records good. 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. Daily mean discharges do not include diversion above station by city of Philadelphia for municipal water supply. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by Philadelphia Water Department.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869 reached a stage of 17.0 ft, discharge, about 135,000 ft³/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, about 98,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 28	0000	32,600	9.85	July 15	0630	23,400	8.97
Oct 29	1530	26,600	9.29	July 28	0800	44,600	10.84
Nov 20	0800	22,400	8.87	July 29	0300	21,900	8.81
Dec 11	1630	29,100	9.53	Aug 1	0930	21,500	8.77
Dec 17	2030	22,900	8.92	Aug 14	0430	20,000	8.62
Feb 7	0200	30,100	9.62	Sept 18	2230	51,100	11.33
July 13	0200	33,000	9.89	Sept 29	0400	*58,500	*11.86

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3740	7850	6620	4220	1550	2320	3050	3650	2250	1270	13700	3730
2	3340	6320	5940	4010	1770	2540	3080	3450	2220	1150	8960	2640
3	3000	5480	5360	3810	2480	2930	4230	4140	1850	1090	5860	2120
4	2780	4660	4700	3680	4650	3160	4080	6860	1650	1020	4790	2160
5	2870	4850	4270	5130	4470	3170	4270	4970	1590	1030	4360	2220
6	2720	7820	4170	7090	11500	3830	3010	4290	3190	986	4080	1890
7	2360	5260	3840	5440	22900	4470	2530	3780	4400	1010	3390	1780
8	2200	4310	3530	4590	11200	3930	2350	3610	3570	1150	2990	1780
9	2090	3750	3270	4200	6040	4120	2490	3290	2870	1060	2770	3460
10	1960	3440	3330	3710	5140	3810	2570	3130	2280	945	2470	2630
11	1870	3220	20300	3200	5610	3480	2230	2900	2070	844	2240	2120
12	1800	3730	21000	3520	4740	3150	2310	2670	2210	7050	2260	1760
13	1700	4130	13400	3390	4160	2890	6870	2410	1960	21800	9110	1560
14	1680	3430	11000	3120	3810	2690	9240	2200	1740	7810	16900	1420
15	5900	3030	14900	2850	3400	2590	9250	2140	2210	16900	10600	1340
16	5060	2770	9780	2390	2990	2560	6250	2920	4470	7160	7880	1340
17	3680	2740	13700	2550	2700	2720	4960	3110	3460	4980	5710	1320
18	3530	2550	14300	3000	2430	2720	4410	2600	2640	4750	4290	21200
19	3150	3430	9060	3150	2220	4020	4120	2790	2780	7270	3610	33900
20	2730	16600	7290	2660	2310	5220	3670	2750	2200	5030	3350	14700
21	2480	7880	6190	2310	2640	5960	3290	2260	1820	3690	3310	9430
22	2340	5750	5530	2250	3050	4950	3110	2120	1710	3040	9640	7280
23	2300	4830	5170	2040	3150	4220	3010	2010	2270	3130	7070	5800
24	2030	4390	8870	1930	2850	3760	3340	1880	1990	5150	4950	4420
25	1880	4350	10800	1820	3020	3400	2860	1650	1660	4890	3880	3640
26	1800	4480	8620	1940	2830	3160	4240	1600	2310	3810	3260	3200
27	13600	3820	7060	1860	2480	2970	10700	2510	1870	4720	2840	2890
28	19900	3860	6060	1980	2250	2870	5910	3320	1470	30700	2620	10700
29	20600	11700	5490	1840	2200	2670	4640	2510	1490	13600	2440	40100
30	15000	8320	4950	1790	---	2400	3940	2000	1440	6400	2540	14300
31	10500	---	4570	1570	---	3260	---	1800	---	4850	10200	---
TOTAL	150590	158750	253070	97040	130540	105940	130010	91320	69640	178285	172070	206830
MEAN	4858	5292	8164	3130	4501	3417	4334	2946	2321	5751	5551	6894
MAX	20600	16600	21000	7090	22900	5960	10700	6860	4470	30700	16900	40100
MIN	1680	2550	3270	1570	1550	2320	2230	1600	1440	844	2240	1320
(†)	199	186	199	211	208	200	182	184	190	197	196	192

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA—Continued

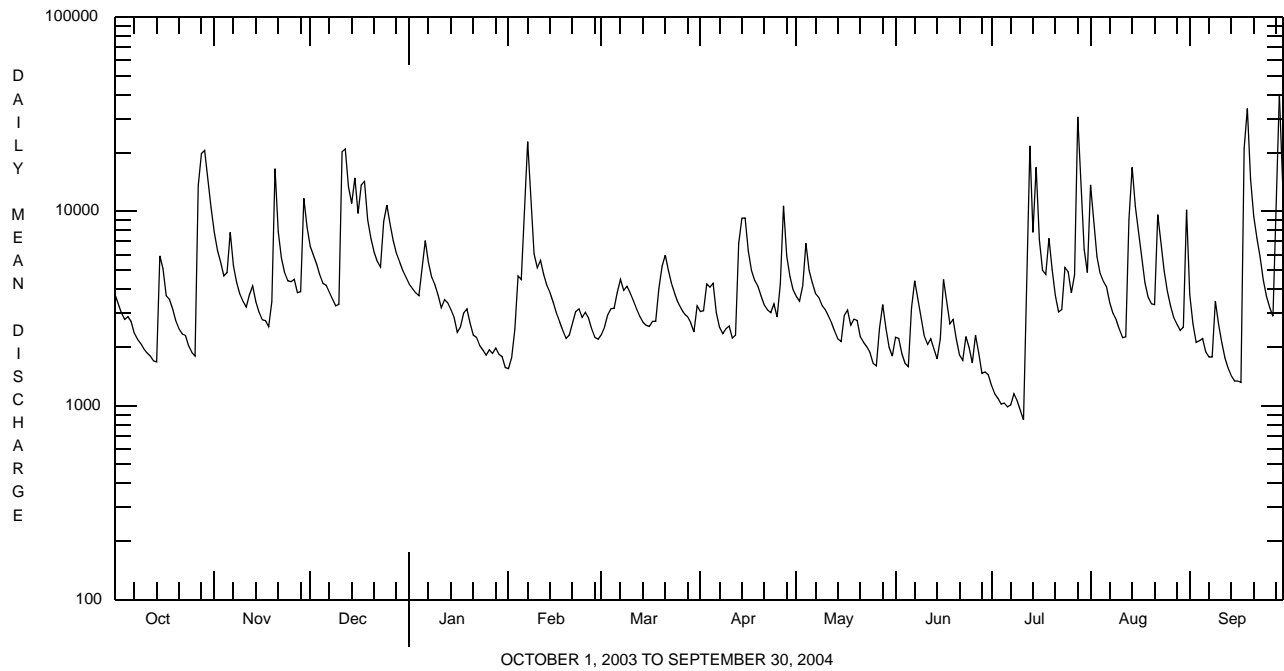
DISCHARGE, CUBIC FEET PER SECOND (CONTINUED)
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2004, BY WATER YEAR (WY)												
MEAN	1464	2350	3249	3338	3619	4864	4236	3115	2227	1684	1446	1561
MAX	5624	6272	11150	11400	8136	13320	11620	9943	11640	6434	7980	6894
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	1972	1984	1933	2004
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

† Diversion for municipal supply of City of Philadelphia, equivalent in cubic feet per second.

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1932 - 2004	
ANNUAL TOTAL	1898487		1744085			
ANNUAL MEAN	5201		4765		2758	
HIGHEST ANNUAL MEAN					4791	
LOWEST ANNUAL MEAN					1014	
HIGHEST DAILY MEAN	41200		40100		93400	
LOWEST DAILY MEAN	370		844		0.60	
ANNUAL SEVEN-DAY MINIMUM	880		1000		24	
MAXIMUM PEAK FLOW			58500		a103000	
MAXIMUM PEAK STAGE			11.86		14.65	
INSTANTANEOUS LOW FLOW			760		0.00	
10 PERCENT EXCEEDS	10900		9300		5930	
50 PERCENT EXCEEDS	3840		3320		1700	
90 PERCENT EXCEEDS	1450		1800		446	

a From rating curve extended above 92,000 ft³/s.
b No flow over dam at times.



DELAWARE RIVER BASIN

01475000 MANTUA CREEK AT PITMAN, NJ

LOCATION.--Lat 39°44'13", long 75°06'48", Gloucester County, Hydrologic Unit 02040202, on left abutment just downstream of Wadsworth Dam on Kressey Lake, 0.9 mi east of Pitman, and 2.0 mi upstream from Porch Branch.

DRAINAGE AREA.--6.05 mi².

PERIOD OF RECORD.--Daily values from April 1940 to September 1976. Operated as a crest-stage gage only from October 1976 to September 1994. May 2003 to current year.

REVISED RECORDS.--WRD-NJ 1971: Drainage area.

GAGE.--Water-stage recorder collected gage heights above Wadsworth Dam from April 1940 to September 1976 at datum 10.00 higher. Crest-stage gage from October 1976 to September 1994 at stage 10.00 ft higher. Water-stage recorder collects gage heights below Wadsworth Dam from May 2003 to current year. Present datum of gage is 57.11 ft above NAVD of 1988.

REMARKS.--Records fair until Kressey Lake was drained in June, after which records are considered poor. Occasional regulation from lake gate at Wadsworth Dam and/or other activities upstream. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	2215	63	3.01	Apr 13	0445	63	3.01
Oct 29	1115	88	3.27	Apr 14	0015	74	3.12
Nov 20	0430	113	3.55	May 19	2000	52	2.93
Dec 11	1045	433	6.79	Jul 12	2100	76	3.14
Dec 14	2315	82	3.20	Jul 18	1800	60	2.99
Dec 24	1145	157	4.06	Jul 27	1900	*457	*6.96
Feb 3	2100	70	3.08	Aug 1	1345	59	2.98
Feb 6	2115	248	5.17	Sep 29	0230	195	4.52
Mar 16	2145	52	2.93				

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	12	13	14	11	11	17	8.4	17	9.1	33	14
2	9.7	11	12	14	11	12	20	8.5	15	8.7	21	12
3	9.5	10	11	14	29	11	23	13	14	8.2	17	11
4	9.4	10	11	14	40	13	20	15	9.8	7.7	13	11
5	9.1	9.7	15	18	18	13	17	12	14	6.9	11	11
6	8.9	12	17	17	100	26	15	11	14	6.7	11	12
7	9.0	15	13	16	83	18	14	11	10	6.1	7.8	9.6
8	10	12	12	16	26	17	14	11	9.1	5.4	4.2	14
9	8.9	11	12	13	19	17	15	10	8.9	4.0	5.9	16
10	11	11	14	12	18	15	13	15	8.3	3.1	7.5	14
11	10	11	166	12	16	14	13	11	12	3.0	8.1	13
12	9.2	29	45	13	15	13	17	9.8	11	25	7.6	12
13	8.4	16	22	13	14	13	59	9.6	10	38	7.3	15
14	8.7	12	33	13	14	12	61	15	9.5	20	12	17
15	28	11	51	13	14	12	31	16	26	17	12	15
16	13	11	23	12	13	25	21	15	12	15	12	15
17	11	11	28	12	13	24	19	18	11	14	10	16
18	11	12	24	18	13	16	19	20	10	33	8.6	17
19	10	19	19	17	13	26	18	29	8.5	33	8.5	18
20	9.7	68	17	13	13	18	17	27	8.6	9.0	11	16
21	9.4	23	15	12	13	15	15	16	8.9	6.8	9.4	15
22	11	16	15	12	12	14	11	14	8.4	6.5	9.1	13
23	12	14	15	12	12	13	13	12	8.3	7.6	9.0	13
24	11	12	77	11	13	13	16	10	8.1	8.2	8.5	14
25	11	14	39	11	13	13	12	8.9	8.3	9.4	9.3	13
26	10	13	21	12	12	12	19	14	8.4	10	9.4	13
27	23	12	18	13	12	12	25	12	8.5	97	9.8	13
28	31	13	16	13	11	12	16	9.2	8.3	81	11	13
29	59	21	15	12	11	12	12	8.3	8.8	24	11	69
30	25	14	15	12	---	12	9.0	8.0	8.9	16	10	5.5
31	15	---	14	11	---	16	---	11	---	13	21	---
TOTAL	431.0	465.7	818	415	602	470	591.0	408.7	323.6	552.4	346.0	460.1
MEAN	13.9	15.5	26.4	13.4	20.8	15.2	19.7	13.2	10.8	17.8	11.2	15.3
MAX	59	68	166	18	100	26	61	29	26	97	33	69
MIN	8.4	9.7	11	11	11	11	9.0	8.0	8.1	3.0	4.2	5.5

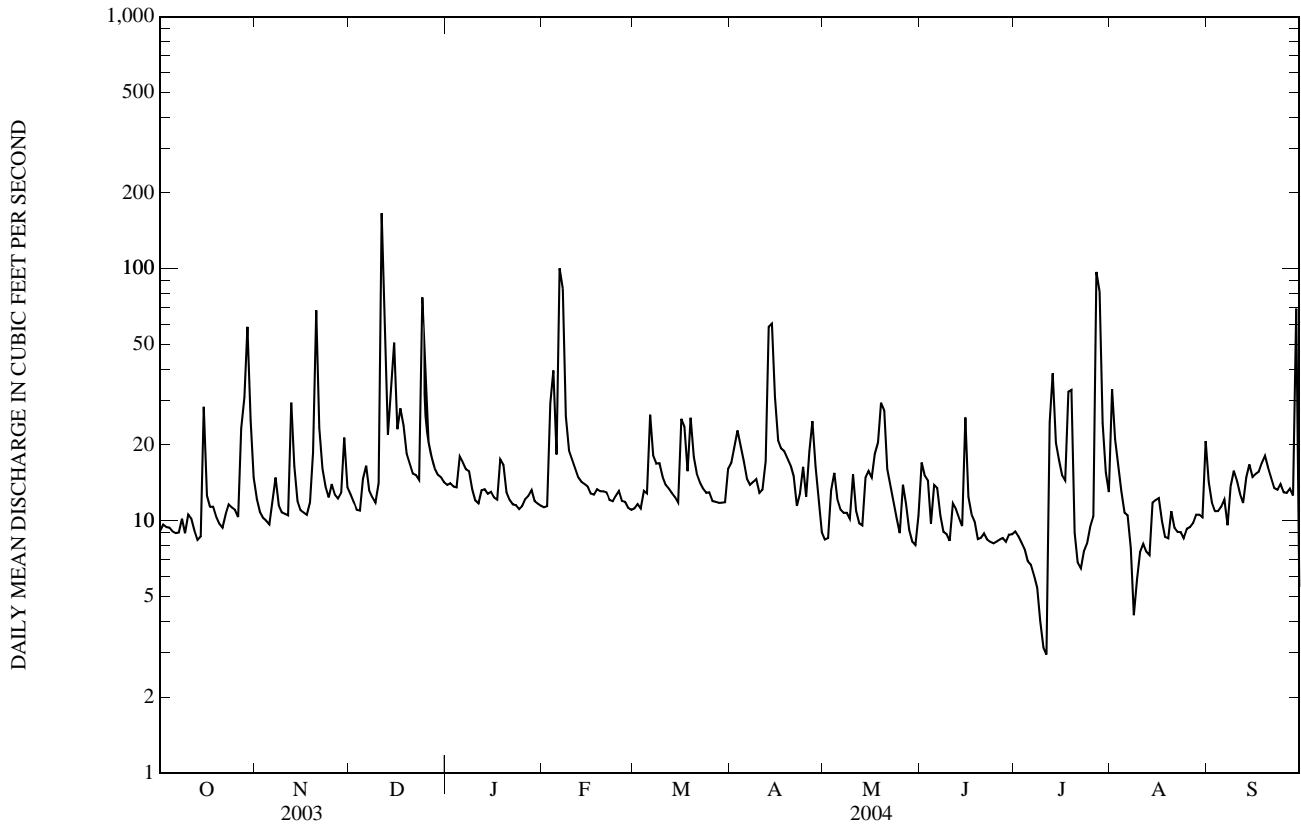
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

	10.1	11.6	12.2	12.3	12.9	13.6	13.1	11.9	10.7	10.6	11.0	10.5
MEAN	10.1	11.6	12.2	12.3	12.9	13.6	13.1	11.9	10.7	10.6	11.0	10.5
MAX	14.4	20.1	26.4	19.5	21.1	18.8	22.9	18.3	20.8	27.7	28.1	23.1
(WY)	(1976)	(1973)	(2004)	(1976)	(1973)	(1961)	(1973)	(1958)	(2003)	(1975)	(1971)	(1975)
MIN	6.49	6.37	6.58	6.60	8.16	8.16	7.80	5.93	4.72	3.18	3.44	5.12
(WY)	(1966)	(1966)	(1966)	(1966)	(1974)	(1966)	(1965)	(1965)	(1966)	(1966)	(1966)	(1968)

01475000 MANTUA CREEK AT PITMAN, NJ—Continued

SUMMARY STATISTICS	FOR MAY 1 TO DEC 31, 2003		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL			5,883.5			
ANNUAL MEAN			16.1		11.6	
HIGHEST ANNUAL MEAN					16.6	1975
LOWEST ANNUAL MEAN					6.44	1966
HIGHEST DAILY MEAN	166	Dec 11	166	Dec 11	470	Aug 27, 1971
LOWEST DAILY MEAN	6.5	Jul 20	3.0	Jul 11	2.6	Jul 15, 1966
ANNUAL SEVEN-DAY MINIMUM			5.0	Jul 5	2.7	Jul 12, 1966
MAXIMUM PEAK FLOW	433	Dec 11	457	Jul 27	4,200a	Sep 1, 1940
MAXIMUM PEAK STAGE	5.10	Dec 11	6.96	Jul 27	6.64b	Sep 1, 1940
INSTANTANEOUS LOW FLOW	5.0	Jul 18-20	2.3	Sep 30	2.3	Sep 30, 2004
10 PERCENT EXCEEDS			24		17	
50 PERCENT EXCEEDS			13		10	
90 PERCENT EXCEEDS			8.5		6.7	

- a By computation of peak flow over dam and earthen dike (peak occurred before the earthen dike broke).
- b Gage heights are from above Wadsworth Dam prior to May 2003.



DELAWARE RIVER BASIN

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'26", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft downstream from bridge on County Route 607 (Tomlin Station Road), 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi².

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 NGVD of 1929. 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. Occasional regulation from irrigation upstream of gage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 29	1915	303	11.62	Feb 7	0015	*1,020	*14.05
Dec 11	1515	717	13.31	Apr 14	0200	596	12.95
Dec 24	1730	606	12.98	Jul 28	0515	461	12.48

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	47	48	47	36	37	e69	47	42	21	78	24
2	29	42	44	45	33	37	e71	43	38	21	58	18
3	29	41	42	46	72	36	e97	46	37	20	37	17
4	28	39	41	45	203	38	e95	66	34	19	29	16
5	28	39	42	53	89	42	e92	50	34	25	26	16
6	27	42	56	64	302	92	e67	46	38	21	23	16
7	27	57	55	44	563	74	55	44	37	20	20	16
8	27	46	47	43	124	e57	49	43	34	20	19	16
9	27	40	44	43	70	e53	51	41	32	19	18	17
10	27	39	47	40	61	e50	47	59	31	18	18	16
11	27	38	395	39	56	e46	41	52	40	18	18	15
12	27	92	200	36	49	e44	46	44	44	46	17	15
13	26	82	79	39	47	e41	209	42	36	55	18	15
14	26	54	99	37	45	e38	422	39	33	33	18	15
15	77	45	216	36	43	e36	217	37	108	25	29	15
16	47	41	84	45	40	e61	95	35	55	26	25	17
17	40	39	100	34	38	e94	72	62	45	27	22	16
18	36	38	111	45	38	e64	64	88	42	41	28	34
19	32	44	66	54	39	e89	54	54	38	43	29	30
20	31	203	59	40	39	e82	49	79	33	25	22	19
21	30	111	51	35	39	e60	43	49	30	21	23	17
22	32	63	48	34	38	e55	40	47	28	19	25	16
23	32	51	47	33	36	e47	41	43	27	23	20	15
24	31	47	281	32	36	e50	59	37	26	22	18	15
25	30	46	231	38	36	e48	43	34	25	20	18	15
26	30	45	93	36	35	e47	70	33	25	20	17	15
27	52	44	75	33	35	e46	130	35	24	96	17	15
28	102	43	61	35	34	e44	75	33	23	283	17	31
29	208	62	56	35	33	e41	60	30	23	68	16	167
30	139	56	54	33	---	e38	52	29	22	44	16	45
31	60	---	50	39	---	e62	---	32	---	34	29	---
TOTAL	1,393	1,676	2,922	1,258	2,309	1,649	2,575	1,419	1,084	1,193	768	714
MEAN	44.9	55.9	94.3	40.6	79.6	53.2	85.8	45.8	36.1	38.5	24.8	23.8
MAX	208	203	395	64	563	94	422	88	108	283	78	167
MIN	26	38	41	32	33	36	40	29	22	18	16	15
CFSM	1.67	2.08	3.50	1.51	2.96	1.98	3.19	1.70	1.34	1.43	0.92	0.88
IN.	1.93	2.32	4.04	1.74	3.19	2.28	3.56	1.96	1.50	1.65	1.06	0.99

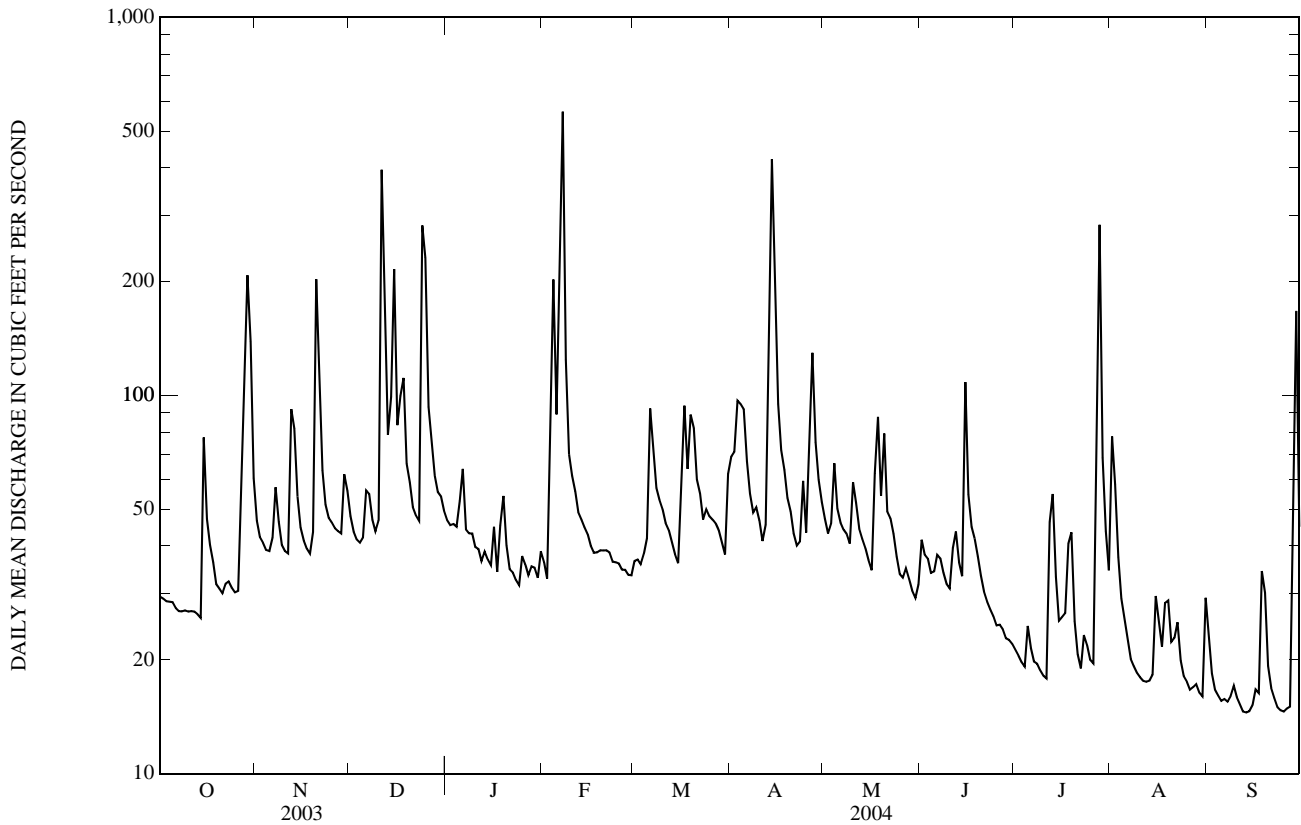
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2004, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)																								
	27.6	65.2	13.0	(1990)	33.9	93.9	15.3	(1993)	46.1	144	16.3	(1999)	48.7	123	20.2	(2002)	49.9	115	16.5	(2002)	56.3	132	22.7	(1981)	51.9	134	21.3	(1985)	40.5	72.6	15.9	(1977)	34.9	95.5	10.7	(1966)	27.6	121	6.01	(1966)	25.8	71.9	8.98	(2002)

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1966 - 2004	
ANNUAL TOTAL	22,106		18,960		39.7	
ANNUAL MEAN	60.6		51.8		64.7	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					16.5	
HIGHEST DAILY MEAN	778	Feb 23	563	Feb 7	1,260	Aug 28, 1971
LOWEST DAILY MEAN	19	Feb 16	15	Sep 11	2.9	Jul 14, 1966
ANNUAL SEVEN-DAY MINIMUM	22	Feb 11	15	Sep 9	3.3	Aug 25, 1966
MAXIMUM PEAK FLOW			1,020	Feb 7	3,530	Aug 10, 1967
MAXIMUM PEAK STAGE			14.05	Feb 7	17.44a	Aug 10, 1967
INSTANTANEOUS LOW FLOW			14	Sep 12	2.9	Jul 14, 1966
ANNUAL RUNOFF (CFSM)	2.25		1.93		1.48	
ANNUAL RUNOFF (INCHES)	30.57		26.22		20.04	
10 PERCENT EXCEEDS	104		85		66	
50 PERCENT EXCEEDS	42		40		29	
90 PERCENT EXCEEDS	26		18		14	

a Adjusted to current datum
e Estimated



01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'38", long 75°19'49", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.3 mi upstream from Chestnut Run and 0.3 mi downstream from Salem County railroad bridge.

DRAINAGE AREA.--14.6 mi².

PERIOD OF RECORD.--March to September 1940, December 1941 to January 1984, June to December 1989, October 2002 to current year. Operated as crest-stage gage 1985-95.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 29.49 ft above NGVD of 1929.

REMARKS.--Records good, expect for daily discharges below 5 ft³/s which are poor. Occasional regulation from lake gate or other activities upstream. Satellite gage-height telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 11	1315	510	11.99	Feb 6	2315	*1,510	*12.75
Dec 24	1615	530	12.01	Apr 14	0215	656	12.13
Feb 3	2330	423	11.90	Jul 27	2230	948	12.37

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	16	17	18	12	12	34	16	25	8.2	22	12
2	8.6	14	15	18	11	14	34	15	21	6.9	21	6.4
3	8.6	14	13	18	76	14	65	24	15	7.8	12	5.0
4	8.6	14	12	18	153	14	57	39	11	6.9	10	3.6
5	8.6	15	20	25	37	14	55	21	13	9.3	10	2.6
6	8.6	25	36	34	365	58	24	17	18	10	8.9	2.1
7	8.6	46	22	20	470	50	20	15	14	9.7	6.9	2.1
8	8.6	20	18	16	47	24	18	15	12	7.7	6.9	3.0
9	9.9	14	16	16	25	20	20	14	10	6.9	6.9	3.3
10	9.7	14	23	13	22	18	19	23	10	6.9	5.4	2.4
11	8.6	14	279	12	21	16	18	20	20	6.9	5.0	2.1
12	8.6	63	70	13	18	14	21	17	19	13	5.0	2.1
13	7.7	41	28	15	18	13	153	15	12	32	5.0	2.1
14	7.1	16	49	15	16	12	311	13	10	16	5.4	2.1
15	52	13	135	14	15	13	83	12	19	14	9.9	2.1
16	16	13	34	12	13	30	33	11	18	11	11	2.9
17	9.1	12	44	11	12	72	28	16	18	9.2	7.8	4.2
18	8.6	13	53	18	13	27	24	14	17	18	34	6.3
19	7.7	18	28	25	14	57	21	46	13	28	17	9.1
20	6.9	131	22	15	14	43	21	72	11	15	9.2	5.0
21	6.9	34	19	13	14	26	19	28	10	11	8.2	2.6
22	6.9	21	18	12	14	20	18	26	9.1	10	8.0	2.1
23	6.9	18	18	12	13	18	18	16	7.2	10	6.1	2.1
24	6.9	18	223	11	12	17	24	13	8.8	8.7	5.0	2.1
25	6.9	18	96	11	12	17	19	12	10	7.5	5.0	2.1
26	6.9	17	35	11	12	18	24	13	10	9.1	3.4	2.1
27	17	17	28	13	12	17	55	15	10	177	3.8	3.2
28	65	20	24	15	12	17	25	13	9.5	158	5.0	12
29	166	44	23	14	12	14	18	11	9.6	22	4.4	94
30	51	21	23	13	---	14	17	10	8.6	12	3.4	20
31	19	---	19	13	---	38	---	13	---	9.8	9.2	---
TOTAL	580.1	754	1,460	484	1,485	751	1,296	605	398.8	678.5	280.8	222.8
MEAN	18.7	25.1	47.1	15.6	51.2	24.2	43.2	19.5	13.3	21.9	9.06	7.43
MAX	166	131	279	34	470	72	311	72	25	177	34	94
MIN	6.9	12	12	11	11	12	17	10	7.2	6.9	3.4	2.1

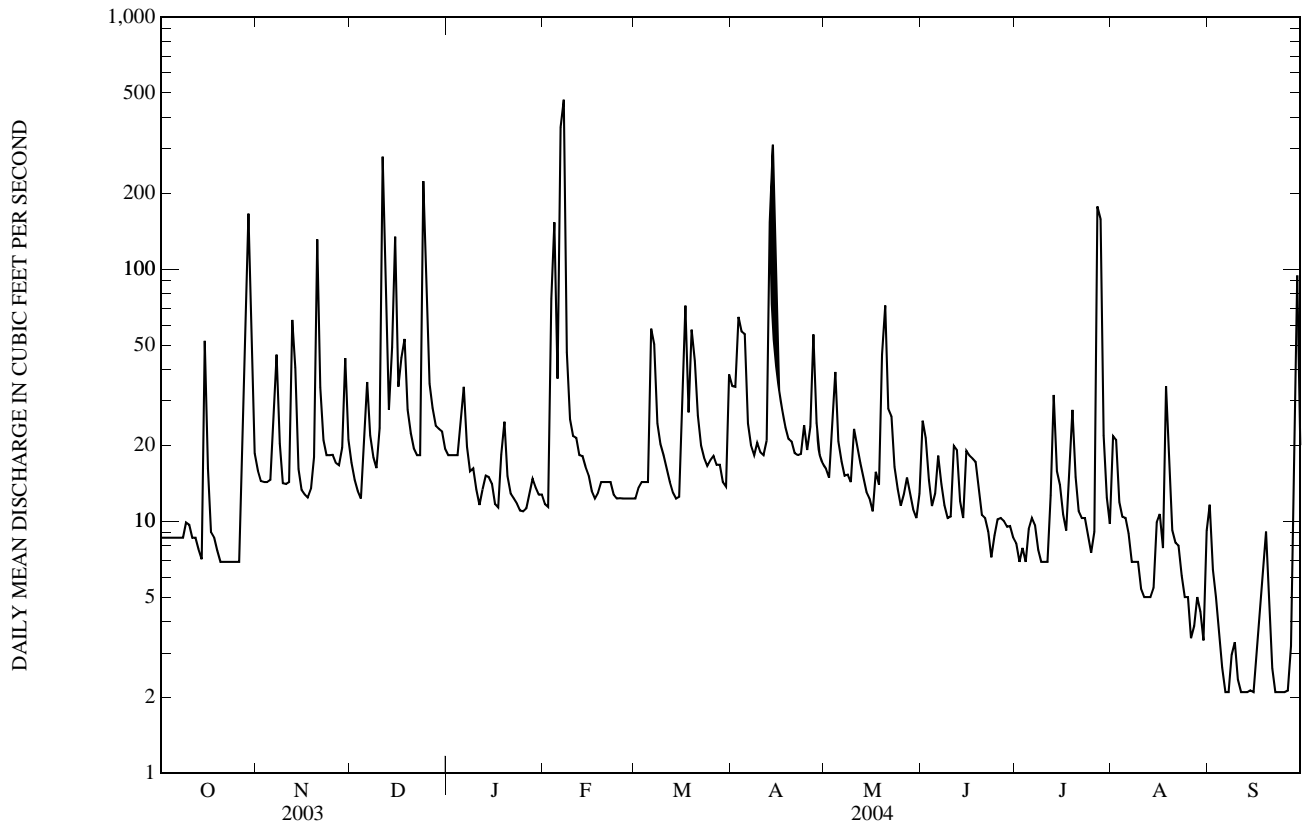
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

MEAN	12.5	19.0	23.6	25.0	28.0	29.6	25.3	17.5	15.2	14.6	13.6	15.7
MAX	34.6	50.9	52.6	82.7	55.7	52.4	65.7	38.5	45.6	66.1	47.5	172
(WY)	(1980)	(1973)	(1973)	(1978)	(1971)	(2003)	(1983)	(1983)	(1983)	(1984)	(1958)	(1940)
MIN	3.11	3.91	4.99	5.22	11.5	9.33	7.67	4.99	2.75	0.98	0.55	2.66
(WY)	(1966)	(1966)	(1966)	(1966)	(1980)	(1966)	(1966)	(1955)	(1954)	(1955)	(1966)	(1964)

01482500 SALEM RIVER AT WOODSTOWN, NJ—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	10,893.2		8,996.0		19.6	
ANNUAL MEAN	29.8		24.6		5.71	
HIGHEST ANNUAL MEAN					30.8	1984
LOWEST ANNUAL MEAN					5.71	1966
HIGHEST DAILY MEAN	509	Feb 23	470	Feb 7	4,460	Sep 1, 1940
LOWEST DAILY MEAN	4.4	Sep 18	2.1	Many Days	0.00	Jul 21, 1949
ANNUAL SEVEN-DAY MINIMUM	6.9	Oct 20	2.3	Sep 10	0.20	Jul 24, 1954
MAXIMUM PEAK FLOW			1,510	Feb 6	22,000a	Sep 1, 1940
MAXIMUM PEAK STAGE			12.75	Feb 6	17.98b	Sep 1, 1940
INSTANTANEOUS LOW FLOW			2.1	Many Days	0.00c	Many Days
10 PERCENT EXCEEDS	59		44		35	
50 PERCENT EXCEEDS	17		14		12	
90 PERCENT EXCEEDS	8.6		6.2		4.4	

- a From rating curve extended above 220 ft³/s on basis of slope-area measurement of peak flow at site 0.5 mi downstream.
- b From floodmark.
- c No flow short periods during many days just after waste gate was closed and water was below spillway.



RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTION RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsview Dam on East Branch Delaware River, and 1.6 mi east of Downsview.

DRAINAGE AREA.-- 372 mi².

PERIOD OF RECORD.-- September 1954 to current year.

REVISED RECORDS.-- WDR NY-90-1: Drainage area.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (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. Records provided by New York City Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 154,761 mil gal, Sept. 19, 2004, elevation, 1,282.66 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, 154,761 mil gal, Sept. 19, elevation, 1,282.66 ft; minimum observed, 128,866 mil gal, Mar. 2, 3, elevation, 1,268.16 ft.

01424997 CANNONVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville.

DRAINAGE AREA.-- 454 mi².

PERIOD OF RECORD.-- October 1963 to current year.

REVISED RECORDS.-- WDR NY-71-1: 1966.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (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. 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), 6,157 mil gal, Nov. 26, 2001, elevation, 1,051.76 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 107,057 mil gal, Sept. 19, elevation, 1,155.23 ft; minimum observed, 83,469 mil gal, July 26, elevation, 1,139.77 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 mi².

PERIOD OF RECORD.-- December 1960 to current year.

GAGE.-- Data collection platform. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 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.

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, 8,020 acre-ft, Sept. 18, elevation, 1,138.01 ft; minimum contents, 3,120 acre-ft, July 13, elevation, 1,123.66 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 mi².

PERIOD OF RECORD.-- October 1959 to current year.

GAGE.-- Data collection platform. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,053.00 ft. Storage began 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. Since Oct. 1, 1996, pool elevations below 990 ft NGVD are not recorded.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,810 acre-ft, Sept. 19, 2004, elevation, 1,018.16 ft; minimum contents, no storage many times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,810 acre-ft, Sept. 19, elevation, 1,018.16 ft; minimum contents, no storage many times.

01431700 LAKE WALLEPAUPACK.--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 mi².

PERIOD OF RECORD.-- January 1926 to current year.

GAGE.-- Vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (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. Minimum pool elevation for controlled storage is 1,170.00 ft. 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, 178,200 acre-ft, (pre-1984 contents), Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft (pre-1984 contents), Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,390 acre-ft, May 16, elevation, 1,187.3 ft; minimum contents, 51,960 acre-ft, Feb. 26, elevation 1,179.9 ft.

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

- 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 mi², 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 National Geodetic Vertical Datum of 1929 (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 ft³ 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 ft³. 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. Records provided by Mirant New York, Inc.
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,461.6 mil ft³, Mar. 14, 1977, elevation, 1,071.8 ft; minimum observed (after first filling), -141.4 mil ft³, Dec. 2, 1938, elevation, 987.5 ft.
 EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,375.2 mil ft³, Dec. 12, elevation, 1,069.7 ft; minimum observed, 1,102.6 mil ft³, Mar. 1, 2, June 16, elevation, 1,062.6 ft.
- 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 mi².
 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 National Geodetic Vertical Datum of 1929 (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 ft³ 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 ft³. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records provided by Mirant New York, Inc.
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,171.2 mil ft³, July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft³, Nov. 15, 1928, elevation, 1,144.5 ft.
 EXTREMES OF CURRENT YEAR.--Maximum contents observed, 1,152.7 mil ft³, Sept. 20, elevation, 1,221.5 ft; minimum observed, 783.6 mil ft³, Feb. 20, 23, 25, Mar. 1, 3, elevation, 1,210.1 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 mi², 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 National Geodetic Vertical Datum of 1929 (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 ft³ 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 ft³. 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. Records provided by Mirant New York, Inc.
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 145.44 mil ft³, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft³, Mar. 16, 1963, elevation, 1,038.0 ft.
 EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 137.76 mil ft³, Sept. 20, elevation, 1,072.2 ft; minimum observed, 68.06 mil ft³, June 16, elevation, 1,062.5 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 mi².
 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 National Geodetic Vertical Datum of 1929 (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. 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, 37,743 mil gal, Dec. 25, elevation, 1,441.20 ft; minimum observed, 33,128 mil gal, Oct. 27, elevation, 1,431.59 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 mi².
 PERIOD OF RECORD.-- February 1961 to current year.
 GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).
 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.
 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 recorded contents, 44,670 acre-ft, Sept. 19, elevation, 1,401.33 ft; minimum contents, 1,480 acre-ft, Dec. 22, elevation, 1,295.77 ft.

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

- 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 mi².
PERIOD OF RECORD.-- October 1958 to current year.
GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).
REMARKS.--Reservoir formed by a roller-compacted concrete dam with ungated concrete spillway at elevation 1,000.60 ft (capacity, 18,510 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, 0 acre-ft, many days during 1996, 1997, 1998, and 1999 water years, elevation, 890.60 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 19,060 acre-ft, Sept. 19, elevation, 1,001.67 ft; minimum contents, 18,490 acre-ft, July 7, elevation, 1,000.55 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 mi².
PERIOD OF RECORD.-- January 1941 to current year.
GAGE.-- Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (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, 12,440 acre-ft, Sept. 19, elevation, 821.47 ft; minimum contents, 11,840 acre-ft, July 12, elevation 819.20 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 mi².
PERIOD OF RECORD.-- February 1971 to current year.
GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).
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.
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, 49,660 acre-ft, Sept. 19, elevation, 636.19 ft; minimum contents, 40,580 acre-ft, Sept. 28, elevation, 627.29 ft.
- 01455221 MERRILL CREEK RESERVOIR.**--Lat 40°43'38", long 75°06'10", Warren County, NJ, 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 mi².
PERIOD OF RECORD.-- March 1988 to current year.
GAGE.-- Measurement from reference point. Datum of gage is National Geodetic Vertical Datum of 1929.
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. Usable 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 ft³/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, 15,649,000,000 gal, May 7, elevation 922.81 ft; minimum, 15,368,000,000 gal, Sept. 17, elevation 921.43 ft.
- 01455400 LAKE HOPATCONG.**--Lat 40°55'03", long 74°39'51", Morris County, NJ, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing.
DRAINAGE AREA.-- 25.3 mi².
PERIOD OF RECORD.-- February 1887 to current year.
REVISED RECORDS.-- WDR NJ-82-2: Drainage area; WDR NJ-83-2: Corrections 1981 (m/m).
GAGE.-- Staff gage and water-stage recorder re-installed March 12, 2004. 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 above National Geodetic Vertical Datum of 1929.
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. Data collected at 0700 on the first day of the following month between Jan. 1985 and Feb. 2004. Subsequent data collected at 2400 on the last day of each month. Lake used for recreation.
COOPERATION.--Records provided by New Jersey Department of Environmental Protection.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,745,000,000 gal, Aug. 13, gage height, 11.80 ft; minimum, 1,525,000,000 gal, Dec. 29, 1960, gage height, 0.65 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,872,000,000 gal, Sept. 29, gage height, 9.49 ft; minimum, 3,507,000,000 gal, Nov. 26, Dec. 6, 7, gage height, 3.86 ft.

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

- 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, 1.3 mi east of Ottsville, and 2.9 mi upstream from Mink Run.
DRAINAGE AREA.-- 73.3 mi².
PERIOD OF RECORD.-- December 1973 to September 2000. October 2003 to current year.
GAGE.-- Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (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 is 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, 45,390 acre-ft, Sept. 17, 1999, elevation, 398.50 ft; minimum contents (after first filling), 15,900 acre-ft, around Dec. 31, 1975, elevation, 372.78 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 mi².
PERIOD OF RECORD.-- January 1933 to current year.
GAGE.-- Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (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, 8,400 acre-ft, Dec. 12, elevation, 1,182.4 ft; minimum contents, 7,190 acre-ft, Sept. 16, elevation, 1,178.0 ft.
- 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 mi².
PERIOD OF RECORD.-- April 1979 to current year.
GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).
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, 30,900 acre-ft, Aug. 13, elevation, 296.22 ft; minimum contents, 15,700 acre-ft, Mar. 25, elevation, 282.92 ft.
- 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 mi².
PERIOD OF RECORD.-- December 1956 to current year.
GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).
REMARKS.--Reservoir formed by concrete, gravity-type dam with ungated spillway at elevation 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, 14,500 acre-ft, July 28, elevation, 287.20 ft; minimum contents, 13,170 acre-ft, Apr. 12, elevation, 285.70 ft.
- 01480399 CHAMBERS LAKE.**--40°01'40", long 75°51'03", Chester County, PA, Hydrologic Unit 02040205, at Hibernia Dam on Birch Run, 0.6 mi upstream from gaging station on Birch Run (station 01480400), 0.9 mi upstream from mouth, and 1.4 mi northwest of Wagontown.
DRAINAGE AREA.-- 4.5 mi².
PERIOD OF RECORD.-- May 1997 to current year.
GAGE.-- Non-recording gage. Manual measurement from top of concrete riser at upstream flank of Hibernia Dam. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Chester County Water Resources Authority, Chester County Parks and Recreation Department).
REMARKS.--Reservoir formed by earthfill dam with principle spillway at elevation 587.5 ft, capacity 2,000 acre-ft. Dam crest at elevation 596.5 ft. Normal elevation 580 ft, capacity 1,226 acre feet. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent total contents. **COOPERATION.**--Records provided by Chester County Water Resources Authority, in cooperation with City of Coatesville Authority and Chester County Parks and Recreation Department.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,440 acre-ft, March 22, 2000, elevation, 582.76 ft; minimum contents, 605 acre-ft, Oct. 10, 2002, elevation, 571.23 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,396 acre-ft, Dec. 11, elevation, 582.25 ft; minimum contents, 1,170 acre-ft, Sept. 7, elevation, 579.9 ft.
- 01480684 MARSH CREEK LAKE.**--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 mi².
PERIOD OF RECORD.-- November 1973 to current year.
GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Protection).
REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity, 22,190 acre-ft, 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 Protection.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,500 acre-ft, Sept. 18, 1999, elevation, 363.49 ft; minimum contents (after first filling), 10,410 acre-ft, Mar. 3, 1976, elevation, 351.75 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,760 acre-ft, Sept. 29, elevation, 362.36 ft; minimum contents, 12,940 acre-ft, Feb. 1, elevation, 357.07 ft.

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)
01416900 Pepacton Reservoir			01424997 Cannonsville Reservoir			01428900 Prompton Reservoir			
Sept. 30.....	1,280.83	151,336		1,151.20	100,549		1,126.05	3,790	
Oct. 31.....	1,281.13	151,895	+27.9	1,152.74	103,027	+124	1,128.44	4,460	+10.9
Nov. 30.....	1,280.92	151,503	-20.2	1,151.48	101,000	-105	1,128.03	4,350	-1.8
Dec. 31.....	1,280.49	150,707	-39.7	1,151.61	101,209	+10.4	1,127.13	4,100	-4.1
CAL YR 2003			+122			+53.9			+0.6
Jan. 31.....	1,274.73	140,261	-521	1,149.45	97,782	-171	1,124.78	3,440	-10.7
Feb. 29.....	1,268.37	129,223	-589	1,145.59	91,910	-313	1,124.29	3,300	-2.4
Mar. 31.....	1,278.57	147,173	+896	1,151.49	101,016	+454	1,126.22	3,840	+8.8
Apr. 30.....	1,280.40	150,540	+174	1,151.13	100,436	-29.9	1,126.37	3,880	+0.7
May 31.....	1,280.19	150,151	-19.4	1,150.83	99,953	-24.1	1,125.08	3,520	-5.9
June 30.....	1,276.49	143,406	-348	1,146.08	92,655	-376	1,124.32	3,310	-3.5
July 31.....	1,275.17	141,043	-118	1,144.48	90,261	-119	1,125.38	3,610	+4.8
Aug. 31.....	1,279.57	149,009	+398	1,149.74	98,223	+397	1,125.08	3,520	-1.5
Sept. 30.....	1,280.56	150,836	+94.2	1,150.25	99,021	+41.2	1,126.60	3,950	+7.2
WTR YR 2004			-2.1			-6.5			+0.2
Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)***	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
01429400 General Edgar Jadwin Reservoir			01431700 Lake Wallenpaupack			01433000 Swinging Bridge Reservoir			
Sept. 30.....	--	0		1,181.7	60,830		1,069.5	1,367.1	
Oct. 31.....	--	0	0	1,185.1	80,790	+325	1,068.3	1,319.0	-18.0
Nov. 30.....	--	0	0	1,184.9	79,630	-19.5	1,068.3	1,319.0	0.0
Dec. 31.....	--	0	0	1,184.6	77,640	-32.4	1,068.7	1,335.0	+6.0
CAL YR 2003			0			-9.9			+1.6
Jan. 31.....	--	0	0	1,180.8	56,380	-346	1,062.7	1,106.2	-85.4
Feb. 29.....	--	0	0	1,180.5	54,970	-24.5	1,062.6	1,102.6	-1.4
Mar. 31.....	--	0	0	1,183.9	73,200	+296	1,066.9	1,264.0	+60.3
Apr. 30.....	--	0	0	1,186.1	85,880	+213	1,067.0	1,267.9	+1.5
May 31.....	--	0	0	1,186.4	87,460	+25.7	1,065.9	1,225.5	-15.8
June 30.....	--	0	0	1,186.1	85,880	-26.6	1,064.2	1,161.4	-24.7
July 31.....	--	0	0	1,183.7	71,980	-226	1,068.7	1,335.0	+64.8
Aug. 31.....	--	0	0	1,182.0	62,380	-156	1,069.0	1,346.9	+4.4
Sept. 30.....	--	0	0	1,186.1	85,880	+395	1,067.5	1,287.5	-22.9
WTR YR 2004			0			+34.5			-2.5
Date	Elevation (feet)***	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)***	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)††	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01433100 Toronto Reservoir			01433200 Cliff Lake			01435900 Neversink Reservoir			
Sept. 30.....	1,219.3	1,073.7		1,069.3	114.20		1,440.20	37,246	
Oct. 31.....	1,220.1	1,101.8	+10.5	1,070.3	122.09	+2.9	1,440.58	37,434	+9.4
Nov. 30.....	1,219.9	1,094.7	-2.7	1,071.3	130.25	+3.1	1,439.57	36,934	-25.8
Dec. 31.....	1,220.2	1,105.4	+4.0	1,071.4	131.08	+0.3	1,439.61	36,954	+1.0
CAL YR 2003			+2.3			+1.0			+32.3
Jan. 31.....	1,217.1	998.0	-40.1	1,065.9	89.60	-15.5	1,440.19	37,241	+14.3
Feb. 29.....	1,210.1	783.6	-85.6	1,062.9	70.46	-7.7	1,440.12	37,206	-1.9
Mar. 31.....	1,213.9	895.0	+41.6	1,067.1	97.88	+10.2	1,435.32	34,876	-116
Apr. 30.....	1,216.0	961.4	+25.6	1,066.7	95.09	-1.1	1,438.04	36,184	+67.5
May 31.....	1,219.4	1,077.2	+43.2	1,065.9	89.60	-2.0	1,439.28	36,791	+30.3
June 30.....	1,217.5	1,011.6	-25.3	1,065.4	86.30	-1.3	1,436.47	35,426	-70.4
July 31.....	1,212.4	850.1	-60.3	1,068.9	111.11	+9.3	1,439.73	37,013	+79.2
Aug. 31.....	1,216.7	984.6	+50.2	1,068.0	104.36	-2.5	1,438.94	36,624	-19.4
Sept. 30.....	1,220.6	1,119.8	+52.2	1,071.1	128.59	+9.3	1,439.65	36,974	+18.0
WTR YR 2004			+1.5			+0.5			-1.1

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)*	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)*	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)††	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)
01447780 Francis E. Walter Reservoir			01449400 Penn Forest Reservoir			01449700 Wild Creek Reservoir			
Sept. 30.....	1,305.96	2,350		1,000.90	18,660		820.42	12,130	
Oct. 31.....	1,325.86	5,230	+46.8	1,000.96	18,690	+0.5	820.54	12,160	+0.5
Nov. 30.....	1,337.53	7,810	+43.4	1,001.01	18,720	+0.5	820.60	12,180	+0.3
Dec. 31.....	1,330.48	6,150	-27.0	1,000.79	18,610	-1.8	820.39	12,120	-1.0
CAL YR 2003			+5.5			0			+0.1
Jan. 31.....	1,301.26	1,910	-69.0	1,000.69	18,560	-0.8	820.12	12,040	-1.3
Feb. 29.....	1,298.89	1,710	-3.5	1,000.64	18,530	-0.5	820.00	12,000	-0.7
Mar. 31.....	1,302.90	2,050	+5.5	1,000.76	18,590	+1.0	820.18	12,050	+0.8
Apr. 30.....	1,305.77	2,330	+4.7	1,000.73	18,580	-0.2	820.14	12,040	-0.2
May 31.....	1,307.20	2,490	+2.6	1,000.73	18,580	0	820.14	12,040	0
June 30.....	1,301.04	1,890	-10.1	1,000.63	18,530	-0.8	819.92	11,980	-1.0
July 31.....	1,300.99	1,880	-0.2	1,000.66	18,540	+0.2	819.92	11,980	0
Aug. 31.....	1,299.69	1,770	-1.8	1,000.73	18,580	+0.7	820.12	12,040	+1.0
Sept. 30.....	1,308.89	2,670	+15.1	1,001.03	18,730	+2.5	820.50	12,150	+1.8
WTR YR 2004			+0.4			+0.1			0
Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01449790 Beltzville Lake			01455221 Merrill Creek Reservoir			01455400 Lake Hopatcong			
Sept. 30.....	628.38	41,610		922.27	15,539		9.10	7,543	
Oct. 31.....	628.39	41,620	+0.2	922.54	15,594	+2.7	6.20	5,212	-116
Nov. 30.....	629.87	43,070	+24.4	922.77	15,641	+2.4	4.10	3,673	-79.4
Dec. 31.....	628.04	41,290	-29.0	922.65	15,616	-1.2	5.18	4,445	+38.5
CAL YR 2003			+3.0			+2.6			-5.4
Jan. 31.....	628.08	41,330	+0.7	922.67	15,620	+2	5.86	4,952	+25.3
Feb. 29.....	628.09	41,340	+0.2	922.42	15,569	-2.7	5.94	5,013	+3.3
Mar. 31.....	628.05	41,300	-0.7	922.56	15,598	+1.4	7.09	5,906	+44.6
Apr. 30.....	628.17	41,410	+1.8	922.67	15,620	+1.1	8.43	6,988	+55.8
May 31.....	628.10	41,340	-1.1	922.40	15,565	-2.7	9.16	7,594	+30.2
June 30.....	628.11	41,350	+0.2	922.13	15,510	-2.8	8.85	7,335	-13.4
July 31.....	628.13	41,370	+0.3	922.04	15,492	-9	8.97	7,434	+4.9
Aug. 31.....	628.12	41,360	-0.2	921.68	15,419	-3.6	9.04	7,493	+2.9
Sept. 30.....	627.65	40,920	-7.4	922.52	15,590	+8.8	9.46	7,846	+18.2
WTR YR 2004			-1.0			+2			+1.3
Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)**	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)
01459350 Nockamixon Reservoir			01469200 Still Creek Reservoir			01470870 Blue Marsh Lake			
Sept. 30.....	395.84	41,370		1,181.7	8,210		286.38	19,000	
Oct. 31.....	395.80	41,320	-1.6	1,182.2	8,340	+2.1	285.28	17,900	-17.9
Nov. 30.....	a395.20	40,480	-13.4	1,182.2	8,340	0	287.17	19,800	+31.9
Dec. 31.....	395.10	40,340	-3.3	1,182.1	8,320	-0.3	285.18	17,800	-32.5
CAL YR 2003			---			0			+0.3
Jan. 31.....	b395.20	40,480	+3.3	1,182.0	8,290	-0.5	285.00	17,600	-3.3
Feb. 29.....	b395.20	40,480	0	1,182.1	8,320	+0.5	285.43	18,000	+7.0
Mar. 31.....	395.28	40,590	+1.6	1,182.1	8,320	0	284.03	16,700	-21.1
Apr. 30.....	395.20	40,480	-1.7	1,182.1	8,320	0	290.19	23,100	+108
May 31.....	395.00	40,200	-4.9	1,180.8	7,960	-5.9	289.78	22,600	-8.1
June 30.....	394.80	39,920	-5.0	1,180.8	7,960	0	290.17	23,100	+8.4
July 31.....	395.20	40,480	+9.8	1,180.2	7,800	-2.6	290.12	23,000	-1.6
Aug. 31.....	395.04	40,260	-3.3	1,179.3	7,550	-4.1	290.09	23,000	0
Sept. 30.....	397.40	43,690	+57.1	1,182.1	8,320	+12.9	292.12	25,400	+40.3
WTR YR 2004			+3.2			+0.2			+8.8

DELAWARE RIVER BASIN

RESERVOIRS IN DELAWARE RIVER BASIN—Continued

MONTH-END ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (acre-feet)	Change in contents (equivalent in ft ³ /s)
01472200 Green Lane Reservoir				01480399 Chambers Lake			01480684 Marsh Creek Lake		
Sept. 30.....	286.17	13,600		580.20	1,190		360.35	14,650	
Oct. 31.....	286.30	13,700	+1.6	580.40	1,210	+0.3	362.25	15,700	+17.9
Nov. 30.....	286.25	13,600	-1.7	580.30	1,200	-0.2	359.92	14,420	-21.8
Dec. 31.....	286.15	13,600	0	580.10	1,180	-0.3	360.17	14,550	+3.2
CAL YR 2003			0			0			+0.8
Jan. 31.....	286.07	13,500	-1.6	580.30	1,200	+0.3	357.10	12,960	-26.0
Feb. 29.....	286.11	13,500	0	580.22	1,200	0	357.90	13,360	+7.0
Mar. 31.....	286.10	13,500	0	580.20	1,190	-0.2	359.65	14,270	+14.6
Apr. 30.....	286.14	13,600	+1.7	580.40	1,210	+0.3	360.96	14,990	+11.8
May 31.....	286.04	13,500	-1.6	580.23	1,200	-0.2	360.18	14,560	-6.5
June 30.....	286.01	13,400	-1.7	580.10	1,180	-0.3	360.31	14,630	0.0
July 31.....	286.17	13,600	+3.3	580.20	1,190	+0.2	360.62	14,800	+3.2
Aug. 31.....	286.45	13,800	+3.3	580.00	1,180	-0.2	360.45	14,710	-1.6
Sept. 30.....	286.32	13,700	-1.7	580.27	1,200	+0.3	362.20	15,670	+16.8
WTR YR 2004			+0.1			0			+1.5

* Elevation at 0900 on the first day of the following month.

** Elevation at 0700 on the first day of the following month.

*** Elevation from reading on or nearest last day of month.

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

†† Elevation at daily reading on the first day of the following month.

a Estimated. No reading.

b Estimated. Ice cover on reservoir.

DIVERSIONS AND WITHDRAWALS IN DELAWARE RIVER BASIN

WITHDRAWALS FROM THE 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.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Pennsylvania-American Water Company 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). Prior to Aug. 1, 1990, records of discharge were collected at Kingston.

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

WITHDRAWALS BY CITY OF NEW YORK

MONTH	WITHDRAWALS BY CITY OF NEW YORK		
	01415200 Pepacton Reservoir	01423900 Cannonsville Reservoir	01435800 Neversink Reservoir
October	301	72.2	459
November.....	192	0.0	411
December.....	375	0.0	49.2
CAL YR 2003	368	115	213
January	747	242	0.0
February.....	764	399	0.0
March.....	392	44.4	390
April.....	445	0.0	272
May.....	712	86.8	221
June.....	621	374	159
July.....	379	252	221
August.....	218	102	303
September.....	153	0.0	388
WTR YR 2004	441	130	240

MISCELLANEOUS WITHDRAWALS FROM BASIN, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	MISCELLANEOUS WITHDRAWALS FROM BASIN		
	01447750 Bear Creek	01448830 Hazle Creek	01460440 Delaware and Raritan Canal
October	0	5.39	141
November.....	0	7.46	135
December.....	0	7.26	116
CAL YR 2003	0	6.39	140
January	0	6.53	146
February.....	0	6.70	136
March.....	0	6.37	142
April.....	0	6.47	133
May.....	0	6.60	140
June.....	0	5.01	141
July.....	0	6.75	139
August.....	0	7.01	145
September.....	0	5.96	137
WTR YR 2004	0	6.46	138

DIVERSIONS WITHIN THE BASIN

01446572 Diversion from Delaware River at Brainards, NJ to Merrill Creek Reservoir for storage to augment low flow in the Delaware River. There is a conservation release of 3 ft³/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. REVISED RECORDS.--WDR NJ-00-1: 1999.

DIVERSIONS AND WITHDRAWALS IN DELAWARE RIVER BASIN—Continued

- 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. REVISED RECORDS.--WDR NJ-00-1: 1999.
- 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.
- 01466899 Diversion from the Delaware River just above New Lisbon gaging station (see station 01466900) by Fort Dix, NJ, 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 Fort Dix Directorate of Public Works. Diversions started in 1935.
- 01467029 Diversion from Delaware River at Delran, 0.7 mi downstream of Rancocas Creek, by New Jersey-American Water Company for municipal supply in Burlington, Camden, and Gloucester Counties (since April 1996). The water being withdrawn at this intake is returned to the basin at several locations after treatment, only slightly diminished by consumptive uses and losses in transmission. Records provided by Delaware River Basin Commission. Unpublished records 1996-2002 available from Delaware River Basin Commission
- 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 Lane 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.
- 01480642 Diversion from impoundment of Rock Run, just upstream of Rock Run Reservoir near Coatesville, PA, by Pennsylvania-American Water Company for municipal supply (since October 2003). 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 Delaware River Basin Commission.

WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	<u>01446572</u> Merrill Creek Reservoir	<u>01459005</u> Point Pleasant	<u>01463480</u> Borough of Morrisville	<u>01463490</u> City of Trenton	<u>01466899</u> Greenwood Branch
October	0	24.3	4.23	38.8	1.60
November	0	10.9	4.39	39.3	1.07
December	0	10.7	4.46	39.4	1.52
CAL YR 2003	0	31.3	4.48	45.6	1.08
January	0	11.2	4.57	40.3	1.30
February	0	10.5	4.41	43.2	1.46
March	0	10.9	4.46	39.1	1.01
April	0	15.4	4.50	43.4	1.13
May	0	42.3	4.70	40.9	1.35
June	0	65.3	4.61	49.6	1.39
July	-.01	47.8	4.93	47.1	.98
August	0	58.9	4.72	40.7	.97
September	0	33.0	4.34	40.2	1.13
WTR YR 2004	0	28.5	4.53	41.8	1.24

DIVERSIONS AND WITHDRAWALS IN DELAWARE RIVER BASIN—Continued

WITHDRAWALS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

MONTH	City of Philadelphia				
	01467029 Delran	01467030 Delaware River Torresdale	01474500 Schuylkill River		01480642 Rock Run
			Belmont	Queen Lane	
October	26.7	229	80.4	118	6.55
November	25.6	238	64.2	122	6.49
December	32.8	231	74.3	125	6.46
CAL YR 2003	29.7	243	82.7	121	---
January	26.4	255	79.9	131	6.18
February	28.6	265	83.5	124	6.49
March	30.3	234	76.3	124	5.88
April	30.2	245	73.7	108	6.01
May	30.7	255	76.1	108	6.32
June	32.8	251	75.0	115	6.24
July	32.2	258	75.4	122	6.31
August	29.2	246	76.1	120	6.45
September	28.6	237	74.9	117	6.22
WTR YR 2004	29.5	245	75.8	120	6.30

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. Plant no longer in service as of October 2003.

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 2003 TO SEPTEMBER 2004

MONTH	OCTORARO CREEK		
	01367630 Morris Lake	01578420 Coatesville Water Authority	
		01578450 Chester Water Authority	
October	1.55	0	51.3
November	1.57	0	54.2
December	1.53	0	51.5
CAL YR 2003	1.53	.33	72.6
January	1.74	0	75.8
February	1.78	0	67.5
March	1.76	0	51.1
April	1.55	0	51.6
May	1.54	0	53.5
June	1.60	0	54.9
July	1.56	0	64.2
August	1.55	0	60.5
September	1.60	0	72.8
WTR YR 2004	1.61	0	59.0

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 U.S. 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. Previously published peaks for these stations are available at <http://nj.usgs.gov>.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
HACKENSACK RIVER BASIN								
Bear Brook at Park Ridge, NJ (01377440)	Lat 41°01'40", long 74°02'48", Bergen County, Hydrologic Unit 02030103, on upstream right wingwall of bridge on Pascack Road, 0.2 mi upstream from mouth, 0.8 mi southwest of Silver Lake, and 0.8 mi south of Park Ridge. Drainage area is 2.38 mi ² .	1998-2004	7-23-04	5.76	443	9-16-99	11.05	a
Woodcliff Lake at Hillsdale, NJ (01377450)	Lat 41°00'46", long 74°02'57", Bergen County, Hydrologic Unit 02030103, at Woodcliff Lake Dam on Pascack Brook, 0.7 mi north of Hillsdale, and 1.5 mi north of Westwood. Datum of gage is 0.00 ft above NGVD of 1929. Drainage area is 19.4 mi ² . Radio stage telemetry at station.	1998-2004	7-23-04 @ 1800	95.73	a	9-16-99	96.54	a
Pascack Brook at Woodcliff Lake outlet, at Hillsdale, NJ (01377451)	Lat 41°00'43", long 74°02'52", Bergen County, Hydrologic Unit 02030103, 700 ft downstream from spillway of Woodcliff Lake Dam, 0.7 mi north of Hillsdale, and 1.5 mi northwest of Westwood. Datum of gage is 59.08 ft above NGVD of 1929. Drainage area is 19.4 mi ² . Radio stage telemetry at station.	1998-2004	7-23-04	8.69	a	9-16-99	11.25	a
Pascack Brook at Hillsdale, NJ (01377460)	Lat 41°00'06", long 74°02'35", Bergen County, Hydrologic Unit 02030103, on upstream left wingwall of at bridge on Patterson Street, 0.5 mi north of Westwood, and 1.1 mi downstream from Woodcliff Lake. Drainage area is 20.7 mi ² .	1998-2004	7-23-04	11.69	2,420	9-16-99	15.48	7,610
Musquapsink Brook at Westwood, NJ (01377490)	Lat 40°59'11", long 74°01'50", Bergen County, Hydrologic Unit 02030103, on the left bank downstream side of bridge on Prospect Avenue in Westwood, 330 ft upstream from the railroad bridge, 1,100 ft downstream from former site at Bogert Pond Dam (prior to 1998 at datum 47.67 ft, drainage area 6.53 mi ²), and 1.0 mi upstream from mouth. Drainage area is 6.59 mi ² . Radio stage telemetry at station	1966-86, 1998-2004	7-23-04	6.20	a	9-16-99	7.83	465
Tenakill Brook at Closter, NJ *(01378385)	Lat 40°58'29", long 73°58'04", Bergen County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on High Street in Closter, 0.7 mi upstream from mouth. Datum of gage is 23.85 ft above NGVD of 1929. Drainage area is 8.56 mi ² .	1965-2004	9-19-04	3.13	616	9-16-99	6.30	1,300 r
Van Saun Mill Brook at Oradell, NJ (01378550)	Lat 40°57'21", long 74°02'18", Bergen County, Hydrologic Unit 02030103, on the right bank, just downstream of culvert on Oradell Avenue (County Route 6), 3.3 mi west of Dumont, and 4.0 mi upstream of mouth. Drainage area is 0.37mi ² .	2001-04	9-18-04	3.06	a	6-17-01	3.68	a

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
HACKENSACK RIVER BASIN--Continued								
Metzler Brook at Englewood, NJ *(01378590)	Lat 40°54'29", long 73°59'11", Bergen County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth. Datum of gage is 43.10 ft above NGVD of 1929. Drainage area is 1.54 mi ² .	1965-2004	9-18-04	2.69	396	9-16-99	2.91z	534
PASSAIC RIVER BASIN								
Passaic River near Bernardsville, NJ *(01378690)	Lat 40°44'03", long 74°32'25", Somerset County, Hydrologic Unit 02030103, on downstream right wingwall of 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 NGVD of 1929. Drainage area is 8.83 mi ² .	1968-76†, 1977-2004	7-23-04	14.88	840	8-28-71	18.56	3,850
Penns Brook tributary at Basking Ridge, NJ (01378708)	Lat 40°42'30", long 74°32'52", Somerset County, Hydrologic Unit 02030103, on upstream right wingwall of culvert on North Maple Avenue in Basking Ridge, 0.3 mi upstream of mouth, and 1.2 mi west of the Passaic River. Datum of gage is 270 ft above NGVD of 1929, from topographic map. Drainage area is 0.19 mi ² .	1999-2004	7-23-04	5.96	62	8-11-03	7.37	147
Passaic River tributary at Summit, NJ (01379490)	Lat 40°42'59", long 74°23'02", Union County, Hydrologic Unit 02030103, on left bank upstream wingwall of bridge on Passaic Avenue in Summit, 0.3 mi north of intersection of Passaic Avenue and Springfield Avenue, and 0.4 mi upstream of mouth. Datum of gage is 260 ft above NGVD of 1929, from topographic map. Drainage area is 0.27 mi ² .	1999-2004	9-18-04	6.25	206	9-16-99	7.75	300
Cub Brook at Northfield, NJ (01379520)	Lat 40°46'16", long 74°18'38", Essex County, Hydrologic Unit 02030103, on upstream left wingwall of culvert on Chestnut Street in Northfield, 230 ft from intersection of Chestnut Street and Northfield Road, and 280 ft upstream of confluence with Bear Brook. Datum of gage is 280 ft above NGVD of 1929 from topographic map. Drainage area is 0.48 mi ² .	1999-2004	7-27-04	8.76	366	9-16-99	11.77	610
Spring Garden Brook at Madison, NJ (01379555)	Lat 40°45'16", long 74°24'23", Morris County, Hydrologic Unit 02030103, on the right bank at the upstream side of the culvert on Dean Street in Madison, 0.2 mi downstream of culvert on Main Street (State Route 124), 0.2 mi southeast of the high school in Madison, 1.5 mi northwest of Chatham, and 2.5 mi upstream of mouth. Datum of gage is 200 ft above NGVD of 1929, from topographic map. Drainage area is 1.20 mi ² .	2000-04	9-18-04	5.00	a	9-18-04	5.00	a
North Branch Foulerton Brook at Roseland, NJ (01379590)	Lat 40°49'11", long 74°17'21", Essex County, Hydrologic Unit 02030103, on left bank upstream wingwall of culvert on Harrison Avenue in Roseland, 300 ft southeast of intersection of Harrison Avenue and Eagle Rock Avenue, and 0.5 mi downstream of unnamed pond. Datum of gage is 375 ft above NGVD of 1929, from topographic map. Drainage area is 0.42 mi ² .	1999-2004	7-23-04	2.20	45	9-16-99	6.11	130
Rockaway River at Warren Street, at Dover, NJ (01379845)	Lat 40°53'08", long 74°33'35", Morris County, Hydrologic Unit 02030103, on left bank, 100 ft upstream from bridge on Warren Street in Dover, 4.0 mi west of Den-ville, and 6 mi southeast of Lake Hopatcong. Datum of gage is 561.83 ft above NGVD of 1929. Drainage area is 52.1 mi ² .	1981-94, 1999-2004	12-11-03	5.47	1,190	9-17-99	8.91	3,440

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued								
Whippany River tributary no. 5 at Boulevard Road, at Cedar Knolls, NJ (01381510)	Lat 40°49'07", long 74°26'53", Morris County, Hydrologic Unit 02030103, on left upstream wingwall of culvert on Boulevard Road, in Cedar Knoll, just north of intersection with Cedar Knolls Road, 0.2 mi upstream from mouth, and 3.8 mi north-east of Morristown. Datum of gage is 266 feet above NGVD of 1929, from topographic map. Drainage area is 0.06 mi ² .	1999-2004	7-23-04	6.24	44	9-16-99	7.60	63
Mahwah River near Suffern, NY (01387450)	Lat 41°08'28", long 74°06'58", Rockland County, NY, Hydrologic Unit 02030103, on left bank 13 ft upstream from bridge on U.S. Route 202, 4.8 mi upstream from mouth, and 2.5 mi northeast of Suffern. Datum of gage is 321.57 ft above NGVD of 1929. Drainage area is 12.3 mi ² . Satellite stage telemetry at station.	1959-95†, 1996-2004	9-18-04 @ 1215	5.39	531	11-08-77	9.91	1,840
Masonicus Brook at Ramsey, NJ (01387485)	Lat 41°04'32", long 74°08'25", Bergen County, Hydrologic Unit 02030103, on the left bank, just upstream of the culvert on Spring Street, 1.3 mi north of Ramsey, 2.9 mi upstream of mouth, and 0.5 mi southeast of the Camp Hlond Reservoir. Drainage area is 0.78 mi ² .	2001-04	9-18-04	6.16	a	6-23-01	7.48	a
Pond Brook at Oakland, NJ *(01387880)	Lat 41°01'36", long 74°14'03", Bergen County, Hydrologic Unit 02030103, on upstream right wingwall of bridge on Interstate 287/State 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 NGVD of 1929. Drainage area is 6.76 mi ² .	1968-71, 1976-2004	7-23-04	2.96	654	9-16-99	7.83	1,680
Passaic River below Pompton River, at Two Bridges, NJ (01389005)	Lat 40°53'47", long 74°16'09", Passaic County, Hydrologic Unit 02030103, at right bank on Fairfield Road in Two Bridges, 400 ft downstream from the Pompton River, and 1.4 mi northwest of Little Falls. Datum of gage is 155.00 ft above NGVD of 1929. Drainage area is 734 mi ² . Satellite stage telemetry at station.	1989-2004	12-13-03 @ 1300	10.27	a	9-18-99	12.71	a
Preakness (Singac) Brook near Preakness, NJ (01389030)	Lat 40°56'55", long 74°13'24", Passaic County, Hydrologic Unit 02030103, on downstream side of bridge on Ratzler Road, 1.0 mi north of Preakness, and 2.0 mi upstream from Naachpunkt Brook. Datum of gage is 230.8 ft above NGVD of 1929. Drainage area is 3.24 mi ² .	1979-2004	9-08-04	4.19	616	9-16-99	7.91	1,920
Passaic River above Beatties Dam, at Little Falls, NJ (01389492)	Lat 40°53'04", long 74°14'04", Passaic County, Hydrologic Unit 02030103, on left bank at Little Falls, 100 ft upstream of Beatties Dam, 600 ft upstream from bridge on Union Boulevard and 1.5 mi upstream from Peckman River. Datum of gage is 150.00 ft above NGVD of 1929. Drainage area is 762 mi ² .	1984, 1991-2004†	12-13-03 @ 1430	11.21	a	4-07-84	14.0	a
Peckman River at Ozone Avenue, at Verona, NJ *(01389534)	Lat 40°50'42", long 74°14'08", Passaic County, Hydrologic Unit 02030103, on right downstream wingwall of bridge on Ozone Avenue in Verona, 4.0 mi west of Clifton and 1.0 mi southwest of Cedar Grove Reservoir. Datum of gage is 300.08 ft above NGVD of 1929. Drainage area is 4.45 mi ² . Satellite/radio stage telemetry at station.	1945, 1979-2004	7-27-04 @ 1900	3.68	803	7-23-45	b	3,800 s

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued								
Molly Ann Brook tributary near Franklin Lakes, NJ *(01389738)	Lat 40°58'51", long 74°12'10", Bergen County, Hydrologic Unit 02030103, on the right bank, just upstream of the culvert on Belmont Avenue, 0.5 mi upstream of mouth at Haledon Reservoir, 1.6 mi southeast of Franklin Lakes and 2.1 mi north of North Haledon. Drainage area is 0.33 mi ² .	2001-04	12-11-03	3.22	a	12-17-00	3.83	a
Molly Ann Brook at North Haledon, NJ *(01389765)	Lat 40°57'11", long 74°11'06", Passaic County, Hydrologic Unit 02030103, on left upstream wingwall of culvert on Overlook Avenue in North Haledon, 0.5 mi upstream from Oldham Pond Dam, and 1.5 mi west of Hawthorne. Datum of gage is 209.68 ft above NGVD of 1929. Drainage area is 3.89 mi ² . Satellite/radio stage telemetry at station.	1945, 1979-2004	7-23-04 @ 1145	6.76	504	7-23-45	b	3,100 f
Fleischer Brook at Market Street, at Elmwood Park, NJ (01389900)	Lat 40°53'57", long 74°06'53", Bergen County, Hydrologic Unit 02030103, on left bank upstream wingwall of culvert on Market Street in Elmwood Park, and 2.0 mi upstream from mouth. Datum of gage is 33.83 ft above NGVD of 1929. Prior to 1995 at datum 1.44 ft higher. Drainage area is 1.37 mi ² .	1967-2004	5-30-95 7-08-96 10-19-96 4-10-98 9-04-00 8-14-01 5-14-02 8-04-03 9-18-04	2.25 2.82 2.65 2.35 2.45 3.80 b 3.69 3.10	90r 115r 108r 95r 99r 150r 106r 146r 125	9-16-99	5.66	a
Hohokus Brook at Allendale, NJ (01390810)	Lat 41°01'37", long 74°08'43", Bergen County, Hydrologic Unit 02030103, at upstream right wingwall of bridge on Brookside Avenue in Allendale and 0.2 mi downstream from Valentine Brook. Datum of gage is 277.46 ft above NGVD of 1929. Drainage area is 9.11 mi ² .	1969-2004	9-18-04	5.86	494	9-16-99	12.15	3,010
Ramsey Brook at Allendale, NJ *(01390900)	Lat 41°01'44", long 74°08'06", Bergen County, Hydrologic Unit 02030103, at downstream side of bridge on Brookside Avenue in Allendale and 0.6 mi upstream from Hohokus Brook. Datum of gage is 270.79 ft above NGVD of 1929. Drainage area is 2.55 mi ² .	1975-2004	9-18-04	3.45	a	9-16-99	5.41	987
Hohokus Brook at Ho-Ho-Kus, NJ (01391000)	Lat 40°59'52", long 74°06'43" (revised), 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. Datum of gage is 120.09 ft above NGVD of 1929. Drainage area is 16.4 mi ² . Satellite stage telemetry at station.	1954-73†, 1977-96†, 1997-2004	9-18-04 @ 0915	3.54	1610	9-16-99	7.32	4,670
Weasel Brook at Garden State Parkway, at Clifton, NJ (01391950)	Lat 40°52'39", long 74°10'08", Passaic County, Hydrologic Unit 02030103, on the right bank, just upstream of the culvert under the southbound exit ramp of the Garden State Parkway, 150 ft downstream of culvert on Grove Street in Clifton, 1.2 mi east of Great Notch Reservoir, and 2.9 mi south of Paterson. Datum of gage is 170 ft above NGVD of 1929 from topographic map. Drainage area is 0.71 mi ² .	2001-04	7-23-04	5.00	a	8-04-03	5.76	a
Third River at Bloomfield, NJ (01392170)	Lat 40°47'59", long 74°11'17", Essex County, Hydrologic Unit 02030103, on downstream left wingwall of bridge on entrance ramp at Interchange 149 to the Garden State Parkway in Bloomfield, 0.6 mi west of Nutley, and 5.1 mi upstream from Passaic River. Drainage area is 7.71 mi ² . Radio stage telemetry at station.	1988-2004	9-08-04 @ 0915	5.26	681	9-16-99	9.97	2,670

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
RAHWAY RIVER BASIN								
East Branch Rahway River at Maplewood, NJ *(01393890)	Lat 40°44'06", long 74°16'12", Essex County, Hydrologic Unit 02030104, on downstream right wingwall of bridge on Jefferson Avenue in Maplewood, 1,100 ft west of Fielding School, and 2.5 mi upstream of confluence of West Branch River and East Branch Rahway River. Datum of gage is 114.60 ft above NGVD of 1929. Drainage area is 5.11 mi ² . Radio stage telemetry at station.	1998-2004	8-03-04 @ 1715	6.19	966	9-16-99	10.08	3,470
East Branch Rahway River at Millburn Avenue, at Millburn, NJ (01393895)	Lat 40°43'22", long 74°17'06", Essex County, Hydrologic Unit 02030104, on downstream right wingwall of bridge on Millburn Avenue at Millburn, 0.9 mi east of Millburn, and 1.5 mi upstream of confluence with West Branch Rahway River. Datum of gage is 88.9 ft above NGVD of 1929. Drainage area is 7.09 mi ² . Radio stage telemetry at station.	1998-2004	9-08-04 @ 1200	6.37	a	9-16-99	11.36	a
West Branch Rahway River at Millburn, NJ *(01394000)	Lat 40°43'54", long 74°18'27", Essex County, Hydrologic Unit 02030104, on right bank 100 ft upstream from Diamond Mill Pond dam, 1,000 ft upstream from Glen Avenue in Millburn, and 1.9 mi upstream from confluence with East Branch. Datum of gage is 173.65 ft above NGVD of 1929. Drainage area is 7.10 mi ² . Radio stage telemetry at station.	1940-50†, 1973, 1998-2004	12-11-03 @ 1015	2.81	740	9-16-99	5.2	2,840
West Branch Rahway River at Millburn Avenue, at Millburn, NJ (01394100)	Lat 40°43'26", long 74°18'24", Essex County, Hydrologic Unit 02030104, on downstream right wingwall of bridge on Millburn Avenue, in Millburn, just upstream of Taylor Park, 0.6 mi downstream of Diamond Mill Pond, and 0.9 mi east of Short Hills. Datum of gage is 111.87 ft above NGVD of 1929 (levels by Killam Associates). Drainage area is 7.74 mi ² .	1999-2004	7-27-04	13.30	a	9-16-99	19.6	a
Rahway River at Morris Avenue, at Springfield, NJ (01394200)	Lat 40°42'29", long 74°18'06", Union County, Hydrologic Unit 02030104, on upstream right bank of bridge on Morris Avenue (State Route 82), 0.7 mi east of Springfield Municipal building, 1.4 mi west of Hamilton School, and 0.7 mi upstream of unnamed tributary. Datum of gage is 71.15 ft above NGVD of 1929. Drainage area is 18.1 mi ² .	1999-2004	7-27-04	12.46	a	9-17-99	16.6	a
Rahway River at Kenilworth, NJ (01394620)	Lat 40°40'23", long 74°18'47", Union County, Hydrologic Unit 02030104, on right downstream wingwall of bridge on Kenilworth Boulevard at Kenilworth, 0.9 mi west of Harding School, 1.7 mi west of Kenilworth Municipal building, and 4.7 mi northwest of confluence of Rahway River and Robinsons Branch. Datum of gage is 57.16 ft above NGVD of 1929. Drainage area is 32.0 mi ² . Telephone stage telemetry at station.	1971, 1973, 1999-2004	7-28-04 @ 0345	9.19	a	8-02-73	13.8	a
Robinsons Branch at Rahway, NJ (01396000)	Lat 40°36'21", long 74°17'59", Union County, Hydrologic Unit 02030104, on right bank, 70 ft upstream of dam on Milton Lake, 0.4 mi upstream from Maple Avenue at Milton Lake in Rahway, 0.6 mi downstream from Middlesex Reservoir Dam, and 1.6 mi upstream from mouth. Datum of gage is 19.99 ft above NGVD of 1929. Drainage area is 21.6 mi ² . Telephone stage telemetry at station.	1937-96†, 1999-2004	5-12-04 @ 1745	5.31	1,400	9-16-99	6.48	4,800

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
WOODBIDGE CREEK BASIN								
Spa Spring Creek at Perth Amboy, NJ (01396050)	Lat 40°32'34", long 74°16'37", Middlesex County, Hydrologic Unit 02030104, on the left bank at upstream side culvert of Convery Boulevard (State Route 35) in Perth Amboy, 0.7 mi upstream of mouth, and 1.0 mi south of Woodbridge. Datum of gage is 30 ft above NAVD of 1988 (from topographic map). Drainage area is 0.68 mi ² .	2001-04	7-27-04	5.86	a	8-13-01	8.38	a
RARITAN RIVER BASIN								
Alpaugh Brook at Hampton, NJ (01396570)	Lat 40°42'13", long 74°56'51", Hunterdon County, Hydrologic Unit 02030105, on upstream left wingwall of culvert on State Route 31 at Hampton, 0.1 mi upstream of mouth, 0.6 mi north of Glen Gardner. Drainage area is 0.41 mi ² .	1995-2004	9-18-04	3.68	139	9-18-04	3.68	139
South Branch Raritan River at Black Point Road, at Neshanic Station, NJ (01397420)	Lat 40°30'07", long 74°44'33", Somerset County, Hydrologic Unit 02030105, on downstream left wingwall of bridge on Black Point Road, 0.7 mi southwest of Neshanic Station, and 3.2 mi southwest of Flagtown. Drainage area is 190 mi ² .	2004	12-11-03 @ 1430	14.29	a	12-11-03	14.29	a
Walnut Brook near Flemington, NJ (01397500)	Lat 40°30'55", long 74°52'51", Hunterdon County, Hydrologic Unit 02030105, on right bank, 1.2 mi northwest of Flemington, and 2.3 mi upstream from mouth. Datum of gage is 267.33 ft above NGVD of 1929. Drainage area is 2.24 mi ² .	1936-61†, 1963-2004	7-14-04	4.61	1,630	9-16-99	5.72	3,230
Back Brook tributary near Ringoes, NJ (01398045)	Lat 40°25'41", long 74°49'51", Hunterdon County, Hydrologic Unit 02030105, at right upstream wingwall 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 NGVD of 1929. Drainage area is 1.98 mi ² .	1978-88†, 1989-2004	7-27-04	5.34	1,360	9-16-99	5.95	1,580
South Branch Raritan River at South Branch, NJ (01398102)	Lat 40°32'49", long 74°41'47", Somerset County, Hydrologic Unit 02030105, on left downstream wingwall of bridge on Studdiford Drive (South Branch Road) at village of South Branch, and 2.0 mi north of Flagtown. Drainage area is 265 mi ² . Radio stage telemetry at station.	1998-2004	12-11-03 @ 1800	12.38	a	9-16-99	20.29	a
Holland Brook at Readington, NJ (01398107)	Lat 40°33'30", long 74°43'47", 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 is 9.00 mi ² .	1978-96†, 1999-2004	7-23-04	9.21	a	9-16-99	10.67	4,150
Axle Brook near Pottersville, NJ (01399525)	Lat 40°41'40", long 74°43'04", 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 NGVD of 1929. Drainage area is 1.22 mi ² .	1977-88†, 1989-2004	7-27-04	5.48	764	9-16-99	6.32	960
Rockaway Creek at Whitehouse, NJ (01399700)	Lat 40°37'49", long 74°44'10", Hunterdon County, Hydrologic Unit 02030105, on right bank just upstream of 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 NGVD of 1929. Drainage area is 37.1 mi ² .	1959-62, 1964-65, 1977-84†, 1985-95, 1999	9-16-99	9.70d	3,670d	7-07-84	11.33	4,600

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
RARITAN RIVER BASIN--Continued								
Lamington River at Burnt Mills, NJ (01399780)	Lat 40°38'05", long 74°41'12", Somerset County, Hydrologic Unit 02030105, on downstream left wingwall of bridge on Walsh Road at Burnt Mills, 0.2 mi upstream of mouth, and 4.4 mi southwest of Far Hills. Drainage area is 100 mi ² . Radio stage telemetry at station.	1964, 1973, 1975-78, 1981-2004	7-23-04 @ 2330	12.10	a	7-07-84	90.0p	a
North Branch Raritan River at North Branch, NJ (01399830)	Lat 40°36'00", long 74°40'26", Somerset County, Hydrologic Unit 02030105, on right bank, 5 ft upstream from bridge on County Route 614 in village of North Branch, 0.1 mi downstream from River Brook, and 3.6 mi upstream from confluence with South Branch Raritan River. Datum of gage is 56.94 ft above NGVD of 1929. Drainage area is 174 mi ² . Radio stage telemetry at station.	1977-81†, 1982-95, 1997-2004	7-23-04 @ 2100	15.15	11,600	9-16-99	21.53	27,800
North Branch Raritan River at South Branch, NJ (01400010)	Lat 40°33'25", long 74°41'16", Somerset County, Hydrologic Unit 02030105, on upstream left wingwall of bridge on Old York Road, 0.8 mi northeast of village of South Branch, and 500 ft upstream from confluence with South Branch Raritan River. Datum of gage is 46.03 ft above NGVD of 1929. Drainage area is 190 mi ² . Radio stage telemetry at station.	1993-2004	9-29-04 @ 0400	11.08	a	9-16-99	18.98	a
Peters Brook at Mercer Street, at Somerville, NJ (01400360)	Lat 40°34'32", long 74°36'57", 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 NGVD of 1929. Drainage area is 7.37 mi ² . Radio stage and rainfall telemetry at station.	1991-2004	7-23-04 @ 2000	7.08	a	9-16-99	13.97	a
Baldwins Creek at Pennington, NJ *(01400930)	Lat 40°20'18", long 74°47'49", Mercer County, Hydrologic Unit 02030105, on upstream left wingwall of culvert 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 NGVD of 1929. Drainage area is 1.99 mi ² .	1960-2004	12-11-03	5.39	422	9-16-99	8.95	1,430
Hart Brook near Pennington, NJ (01400950)	Lat 40°19'17", long 74°45'37", Mercer County, Hydrologic Unit 02030105, on upstream right wingwall 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 NGVD of 1929. Drainage area is 0.57 mi ² .	1968-2004	7-27-04	3.45	113	8-28-71 7-14-87	6.77 5.27	a 470
Millstone River at Carnegie Lake, at Princeton, NJ (01401301)	Lat 40°22'11", long 74°37'14", Middlesex County, Hydrologic Unit 02030105, at right end of Carnegie Lake dam, 2.5 mi northeast of Princeton. Datum of gage is 50.00 ft above NGVD of 1929. Drainage area is 159 mi ² .	1971, 1973-74†, 1977-87, 1988-89†, 1990-2004	12-11-03	4.87	5,980	8-28-71	7.09	13,000
Rock Brook near Blawenburg, NJ (01401595)	Lat 40°25'47", long 74°41'04", Somerset County, Hydrologic Unit 02030105, on downstream left wingwall of bridge on Burnt Hill Road, 0.7 mi upstream from mouth, 1.0 mi northeast of Blawenburg, and 2.8 mi northwest of Rocky Hill. Datum of gage is 63.45 ft above NGVD of 1929. Drainage area is 9.03 mi ² .	1967-2004	12-11-03	5.03	969	8-28-71	10.00	4,530

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
RARITAN RIVER BASIN--Continued								
Beden Brook near Rocky Hill, NJ *(01401600)	Lat 40°24'52", long 74°39'02", Somerset County, Hydrologic Unit 02030105, on downstream right wingwall of 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 NGVD of 1929. Drainage area is 27.0 mi ² .	1967-2004	12-11-03	11.60	5,390	9-16-99	18.61	15,300
Millstone River at Griggstown, NJ (01401750)	Lat 40°26'20", long 74°37'05", Somerset County, Hydrologic Unit 02030105, on left bank, 300 ft downstream from bridge at Griggstown, 200 ft downstream from Simonson Brook, and 300 ft downstream from Griggstown Causeway. Datum of gage is 26.52 ft above NGVD of 1929. Drainage area is 229 mi ² . Satellite/radio stage telemetry at station.	1938, 1960-61, 1971, 1997, 1999-2004	12-11-03 @ 2315	15.44	a	9-16-99	23.2	a
Six Mile Run near Middlebush, NJ (01401870)	Lat 40°28'12", long 74°32'41", Somerset County, Hydrologic Unit 02030105, on upstream left wingwall of 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 NGVD of 1929. Drainage area is 10.7 mi ² .	1966-2004	2-06-04	6.95	662	7-14-75	11.77	10,200
Millstone River at Millstone, NJ (01402500)	Lat 40°30'11", long 74°35'14", Somerset County, Hydrologic Unit 02030105, at left bank at downstream side of bridge on County Route 514 (Amwell Road), in Millstone Borough, 2.7 mi south of Manville, and 4.4 mi upstream from mouth. Datum of gage is 24.4 ft above NGVD of 1929. Drainage area is 264 mi ² . Radio stage telemetry at station.	1903-04†, 1999-2004	12-12-03 @ 0330	12.92	a	9-17-99	22.30	a
Millstone River at Weston, NJ (01402540)	Lat 40°31'47", long 74°35'18", Somerset County, Hydrologic Unit 02030105, at downstream center pier on Wilhouski Street bridge over bypass channel at Weston, 0.8 mi south of Manville College, and 1.9 miles north of Millstone. Datum of gage is 21.9 ft above NGVD of 1929. Drainage area is 271 mi ² . Radio stage telemetry at station.	1999-2004	12-12-03 @ 0100	13.15	a	9-17-99	23.21	a
Royce Brook tributary near Belle Mead, NJ (01402600)	Lat 40°29'56", long 74°39'03", Somerset County, Hydrologic Unit 02030105, on right bank 25 ft upstream from bridge on County Route 514 (Amwell Road), 1,200 ft upstream from the mouth, and 2.0 mi north of Belle Mead. Datum of gage is 66.98 ft above NGVD of 1929. Drainage area is 1.20 mi ² .	1964-74†, 1980-95†, 1999, 2001-04	11-20-03	5.16	a	9-16-99	7.96	2,850
Cuckels Brook at U.S. Route 22, near Somerville, NJ (01403010)	Lat 40°34'43", long 74°35'11", Somerset County, Hydrologic Unit 02030105, on left upstream wingwall of culvert on U.S. Route 22, 0.7 mi northwest of Adamsville School, 1.5 mi northeast of Somerville, 2.7 mi upstream of mouth, and 3.0 mi west of Bound Brook. Datum of gage is 95 ft above NGVD of 1929, from topographic map. Drainage area is 0.32 mi ² .	1999-2004	7-23-04	8.76	296	9-16-99	10.1	562
Middle Brook at Bound Brook, NJ (01403200)	Lat 40°33'38", long 74°32'53", Middlesex County, Hydrologic Unit 02030105, on downstream left wingwall of 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 NGVD of 1929. Drainage area is 17.2 mi ² . Radio stage and rainfall telemetry at station.	1993-2004	4-14-04	8.03	a	9-17-99	19.76m	a

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
RARITAN RIVER BASIN--Continued								
Blue Brook at Seeleys Pond Dam, near Berkeley Heights, NJ *(01403395)	Lat 40°40'02", long 74°24'12", Union County, Hydrologic Unit 02030105, on wall on right bank, upstream from Seeleys Pond dam, 300 ft from mouth, 1.0 mi north of Scotch Plains, 1.0 mi west of Mountainside, and 4.5 mi southeast of Berkeley Heights. Datum of gage is 202.05 ft above NGVD of 1929. Drainage area is 3.59 mi ² .	1927, 1969, 1973, 1981-2004	12-11-03	4.67	209	8-02-73	7.55	2,080
Green Brook at Plainfield, NJ (01403500)	Lat 40°36'53", Long 74°25'54", Union County, Hydrologic Unit 02030105, on downstream left wingwall of bridge on Sycamore Avenue in Plainfield and 1.0 mi upstream from Stony Brook. Datum of gage is 70.37 ft above NGVD of 1929. Drainage area is 9.75 mi ² .	1938-84†, 1985-2004	7-27-04	3.81	962	7-23-38	5.82	2,890
East Branch Stony Brook at Best Lake, at Watchung, NJ (01403535)	Lat 40°38'25", Long 74°26'51", Somerset County, Hydrologic Unit 02030105, 700 ft upstream from dam on Best Lake in Watchung, 1,400 ft upstream from mouth, and 1.4 mi west of Plainfield. Datum of gage is 193.87 ft above NGVD of 1929. Drainage area is 1.57 mi ² .	1973, 1980-2000†, 2001-04	9-18-04	2.22	295	8-02-73	5.90	2,840
Stony Brook at North Plainfield, NJ (01403570)	Lat 40°37'19", long 74°26'10", Somerset County, Hydrologic Unit 02030105, on upstream right wingwall of 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 NGVD of 1929. Drainage area is 6.88 mi ² . Radio stage and rainfall telemetry at station.	1938, 1975-83, 1991-2004	7-27-04 @ 1930	5.22	1,140	7-23-38 10-19-96	10.00 7.35	a 3,130
Green Brook at Rock Avenue, at Plainfield, NJ (01403600)	Lat 40°36'07", long 74°27'27", Somerset County, Hydrologic Unit 02030105, on downstream left wingwall of bridge on Rock Avenue in Plainfield, 0.3 mi north of West Front Street, and 0.6 mi south of U.S. Route 22. Datum of gage is 45.70 ft above NGVD of 1929. Drainage area is 18.2 mi ² . Radio stage and rainfall telemetry at station.	1972-79, 1992-2004	7-27-04 @ 2200	8.45	a	8-02-73 10-19-96 9-16-99	10.65 11.40 12.17	10,400 a a
Sawmill Brook at South River, NJ (01405010)	Lat 40°26'01", long 74°24'02", Middlesex County, Hydrologic Unit 02030105, on upstream right wingwall of culvert at intersection of County Route 535 and Merrill Road at entrance to East Brunswick High School, 0.2 mi north of St. Mary Cemetery, 1.3 mi northwest of Duhernal Lake, and 1.6 mi southwest of South River. Drainage area is 0.49 mi ² .	1998-2004	7-27-04	4.59	a	7-27-04	4.59	a
Manalapan Brook tributary at Smithburg, NJ (01405304)	Lat 40°12'37", long 74°21'16", Monmouth County, Hydrologic Unit 02030105, on upstream left wingwall of culvert on Woodville Road at Smithburg, 0.1 mi north of intersection of Woodville Road and Freehold-Mt. Holly Road, and 0.7 mi south of Pasture Pond. Datum of gage is 190 ft above NGVD of 1929, from topographic map. Drainage area is 0.47 mi ² .	1999-2004	2-07-04	2.72	37	3-30-01	3.25	70
EAST CREEK BASIN								
East Creek at NJ Route 35, at Centerville, NJ (01407051)	Lat 40°25'00", long 74°10'08", Monmouth County, Hydrologic Unit 02030104, on upstream left wingwall of culvert on State Route 35, 0.5 mi east of Bethany Road and Route 35, and 0.7 mi west of Centerville. Datum of gage is 79 ft above NGVD of 1929, from topographic map. Drainage area is 0.59 mi ² .	1999-2004	9-29-04	5.55	a	8-03-02	5.79	a

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
MANY MIND CREEK BASIN								
Many Mind Creek at Atlantic Highlands, NJ (01407130)	Lat 40°24'12", long 74°01'48", Monmouth County, Hydrologic Unit 02030104, upstream left wingwall of culvert on State Route 36 at Atlantic Highlands, 190 ft east of intersection of State Route 36 and Valley Drive, and 1.0 mi southeast of mouth. Datum of gage is 29.54 ft above NGVD of 1929. Drainage area is 0.26 mi ² .	1999-2004	9-29-04	4.89	a	8-03-02	6.79u	a
MANASQUAN RIVER BASIN								
Mingam-ahone Brook at Farmingdale, NJ (01408015)	Lat 40°11'38", long 74°09'41", Monmouth County, Hydrologic Unit 02040301, on upstream right wingwall of culvert on Belmar Boulevard, 0.3 mi east of Farmingdale, and 3.0 mi upstream from mouth. Datum of gage is 48.64 ft above NGVD of 1929. Drainage area is 6.20 mi ² .	1969-2004	2-07-04	5.03	167	7-21-75	7.31	425
METEDECONK RIVER BASIN								
North Branch Metedeconk River at Smithburg, NJ (01408052)	Lat 40°12'04", long 74°21'56", Monmouth County, Hydrologic Unit 02040301, at spillway of pond just upstream from culvert on Monmouth Road (County Route 537), at Charleston Springs, 0.8 mi southwest of Smithburg, and 4.1 mi east of Clarksburg. Datum of gage is 188 ft above NGVD of 1929, from topographic map. Drainage area is 0.10 mi ² .	1999-2004	9-29-04	6.07	2.0	9-16-99	6.43	3.2
TOMS RIVER BASIN								
Michaels Branch tributary at Keswick Grove, NJ (01408582)	Lat 39°56'48", long 74°20'15", Ocean County, Hydrologic Unit 02040301, on upstream right wingwall of culvert on Pinewald Road (County Route 530), 0.1 mi upstream from mouth, 1.5 mi east of intersection of Pinewald Road and Whiting-Lacey Road, and 0.4 mi southeast of Keswick Grove. Datum of gage is 98 ft above NGVD of 1929, from topographic map. Drainage area is 0.67 mi ² .	1999-2004	7-13-04	3.34	a	9-16-99	3.65	a
OYSTER CREEK BASIN								
Brookville Creek at Brookville, NJ (01409088)	Lat 39°46'58", long 74°18'09" (revised), Ocean County, Hydrologic Unit 02040301, at downstream side of bridge on Brookville Road, 0.1 mi east of Brookville, 0.9 mi south of intersection of Brookville Road, and Wells Mills Road, and 1.2 mi southwest of Wells Mills Lake. Datum of gage is 110 ft above NGVD of 1929, from topographic map. Drainage area is 0.50 mi ² . Formerly published as Oyster Creek tributary.	1999-2004	7-14-04	4.34	4.7	9-16-99	4.92	10
MULLICA RIVER BASIN								
Biddle Branch near Woodmansie, NJ (01409710)	Lat 39°50'17", long 74°28'12", Burlington County, Hydrologic Unit 02040301, on upstream left wingwall of culvert on State Route 72, 1.6 mi upstream of Pope Branch, 2.4 mi southeast of Woodmansie, and 7.9 mi east of Four Mile Circle. Datum of gage is 120 ft above NGVD of 1929, from topographic map. Drainage area is 1.06 mi ² .	2004	7-13-04	2.42	a	7-13-04	2.42	a
GREAT EGG HARBOR RIVER BASIN								
Deep Run at U.S. Route 40, at Buena, NJ (01411120)	Lat 39°30'41", long 74°55'14", Atlantic County, Hydrologic Unit 02040302, downstream left wingwall of culvert on U.S. Route 40, 0.2 mi upstream of Pennsylvania-Reading-Seashore railroad tracks, 0.3 mi southeast of Buena, 1.1 mi northwest of Pancoast Lake, and 1.3 mi southeast of Landisville. Drainage area is 0.33 mi ² .	1997-2004	2-07-04	1.91	6.6	2-25-03	2.86	a

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
GREAT EGG HARBOR RIVER BASIN--Continued								
Deep Run tributary at NJ Route 54, at Landisville, NJ (01411122)	Lat 39°31'20", long 74°55'12", Atlantic County, Hydrologic Unit 02040302, upstream right wingwall of culvert on State Route 54, 0.4 mi southwest of Pancoast Road, 0.6 mi southeast of Landisville, and 1.0 mi northeast of Pancoast Lake. Drainage area is 1.18 mi ² .	1997-2004	2-07-04	2.94	68	8-23-97	4.18	300
CROOKED CREEK BASIN								
Crooked Creek at Cape May Court House, NJ (01411356)	Lat 39°05'08", long 74°49'15", Cape May County, Hydrologic Unit 02040302, on upstream left wingwall of culvert on U.S. Route 9, 0.3 mi northeast of Cape May Court House, and 3.6 mi upstream from mouth. Datum of gage is 10 ft above NGVD of 1929 (from topographic map). Drainage area is 1.08 mi ² .	2004	7-03-04	5.42	a	7-03-04	5.42	a
COHANSEY RIVER BASIN								
West Branch Cohansy River at Seeley, NJ (01412500)	Lat 39°29'06", long 75°15'32", Cumberland County, Hydrologic Unit 02040206, on right bank 15 ft upstream from bridge on County Route 31 at Seeley, 450 ft upstream from mouth, and 4.1 mi northwest of Bridgeton. Datum of gage is 42.23 ft above NGVD of 1929. Drainage area is 2.58 mi ² .	1952-67+, 1968-2004	2-07-04	4.52	227	6-20-83	11.17	885
DELAWARE RIVER BASIN								
White Brook tributary at Montague, NJ (01438520)	Lat 41°18'05", long 74°47'40", Sussex County, Hydrologic Unit 02040104, on upstream right wingwall of culvert on County Route 521 just north of U.S. Route 206, 0.2 mi south of Montague, 0.4 mi east of Milford Toll Bridge, and 0.5 mi upstream of mouth. Datum of gage is 515 ft above NGVD of 1929, from topographic map. Drainage area is 0.23 mi ² .	1999-2004	8-21-04	2.77	a	8-21-04	2.77	a
Delaware River near Delaware Water Gap, PA (01440200)	Lat 41°00'48", long 75°05'10", Warren County, Hydrologic Unit 02040105, on left bank 700 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, and 4.0 mi upstream from bridge on Interstate Route 80. Datum of gage is 293.64 ft above NGVD of 1929. Drainage area is 3,850 mi ² .	1955, 1964-96+, 2002-04	1-20-96 9-19-04 @ 0845	28.4r 30.32	155,000 176,000	8-19-55	37.4	260,000
Paulins Kill tributary at Ross Corner, NJ (01443305)	Lat 41°07'02, long 74°42'38", Sussex County, Hydrologic Unit 02040105, on upstream left wingwall of culvert on State Route 15, 0.1 mi southeast of Ross Corner, 0.2 mi upstream of mouth, and 2.0 mi northwest of Lafayette. Datum of gage is 500 ft above NGVD of 1929, from topographic map. Drainage area is 0.35 mi ² .	1999-2004	9-18-04	6.84	43	9-18-04	6.84	43
Lapahnock Creek at Ridge Road, at Roxburg, NJ (01446564)	Lat 40°46'06", long 75°06'10", Warren County, Hydrologic Unit 02040105, on upstream left wingwall of culvert on Ridge Road, 0.2 mi south of unnamed pond and 0.8 mi east of County Route 519 at Roxburg. Drainage area is 0.86 mi ² .	1995-2004	9-18-04	9.27	360	9-18-04	9.27	360
Pohatcong Creek tributary near Washington, NJ (01455130)	Lat 40°47'55", long 74°56'47", Warren County, Hydrologic Unit 02040105, on downstream left wingwall of culvert on County Route 628, 1.0 mi southwest of Karrsville, 0.3 mi upstream of Pohatcong Creek, and 0.5 mi upstream of Willever Lake. Datum of gage is 530 ft above NGVD of 1929, from topographic map. Drainage area is 0.55 mi ² .	1999-2004	9-18-04	4.58	a	9-18-04	4.58	a

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued								
Delaware River at Riegelsville, NJ (01457500)	Lat 40°35'41", long 75°11'24", Warren County, Hydrologic Unit 02040105, on left bank 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 above NGVD of 1929. Drainage area is 6,328 mi ² . Satellite stage telemetry at station.	1906-71†, 1972-2004	9-19-04 @ 1100	30.95	216,000	8-19-55	38.85	340,000
Delaware River tributary at Byram, NJ (01459010)	Lat 40°25'23", long 75°03'41", Hunterdon County, Hydrologic Unit 02040105, at left bank on downstream side of culvert on State Route 29, 0.1 mi south of Byram, 0.1 mi upstream from mouth, and 0.9 mi north of Bulls Island. Datum of gage is 69.7 ft above NGVD of 1929. Drainage area is 1.23 mi ² .	1945, 1955, 1995-2004	3-22-03 9-19-04	9.31k 20.90k	130r 260	7-09-45 8-20-55	18.4 28.37k	2,900 a
Moore's Creek tributary at Valley Road, near Lambertville, NJ (01462197)	Lat 40°20'12", long 74°54'58", Mercer County, Hydrologic Unit 02040105, at upstream left wingwall of culvert on Valley Road, 0.3 mi east of Belle Mountain, and 0.7 mi upstream of mouth, and 2.3 mi south of Lambertville. Drainage area is 0.73 mi ² .	1989, 1995-2004	7-27-04	3.25	362	8-15-89	b	1,150j
Shabakunk Creek tributary at Texas Avenue, near Lawrenceville, NJ (01463812)	Lat 40°15'36", long 74°43'35", Mercer County, Hydrologic Unit 02040105, at downstream right wingwall of culvert on Texas Avenue, just upstream of Lawrence Shopping Center, 2.6 mi south of Lawrenceville, 600 ft west of Brunswick Pike, and 0.2 mi north of Colonial Lake. Drainage area is 0.27 mi ² .	1995-2004	11-20-03	4.25	380	9-16-99	5.13	1,780
Stony Ford Brook at New Egypt, NJ (01464405)	Lat 40°04'21", long 74°30'59", Ocean County, Hydrologic Unit 02040201, on upstream right wingwall of culvert on Lakewood Road, 0.7 mi northwest of New Egypt, and 0.9 mi upstream from mouth. Drainage area is 0.99 mi ² .	1979, 1995-2004	2-07-04	5.16	61	8-31-78	13.65	340
Doctors Creek at Clarksburg, NJ (01464510)	Lat 40°11'37", long 74°26'42", Monmouth County, Hydrologic Unit 02040201, on upstream left wingwall at bridge on Stage Coach Road (County Routes 524 and 571), 0.2 mi north of Clarksburg, 2.2 mi upstream of Red Valley Lake, and 2.4 mi southeast of Roosevelt. Datum of gage is 194 ft above NGVD of 1929. Drainage area is 0.25 mi ² .	1999-2004	4-14-04	1.82	24	9-16-99 8-02-02	2.02 2.17	53 a
Crosswicks Creek tributary no. 3 at U.S. Route 206, near Bordentown, NJ (01464524)	Lat 40°10'15", long 74°41'58", Burlington County, Hydrologic Unit 02040201, on upstream left wingwall of culvert on U.S. Route 206, 0.4 mi south of Sylvan Glen, and 1.9 mi northeast of Bordentown. Drainage area is 0.43 mi ² .	1995-2004	7-27-04	2.11	51	3-30-01	4.26	107
Thorton Creek at Bordentown, NJ (01464525)	Lat 40°08'50", long 74°41'45", Burlington County, Hydrologic Unit 02040201, on right bank upstream side of abandoned dam, 50 ft upstream of Thorton Lane, 0.4 mi upstream of unnamed pond, 0.9 mi east of Bordentown, and 2.5 mi west of Crosswicks. Drainage area is 0.84 mi ² .	1976-77†, 1995-2004	7-24-04	3.01	179	9-16-99	4.21	310
Crafts Creek at Route 68, at Georgetown, NJ (01464533)	Lat 40°04'37", long 74°39'47", Burlington County, Hydrologic Unit 02040201, on upstream right wingwall of 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 ² .	1995-2004	2-07-04	4.15	36	9-16-99	4.57	43

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued								
Crafts Creek at Columbus, NJ (01464538)	Lat 40°04'44", long 74°43'06", Burlington County, Hydrologic Unit 02040201, on downstream right wingwall of culvert 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 NGVD of 1929. Drainage area is 5.38 mi ² .	1978-2004	2-7-04	4.77	107	7-06-89	10.25	880
Southwest Branch Rancocas Creek at Medford, NJ *(01465880)	Lat 39°53'43", long 74°49'25", Burlington County, Hydrologic Unit 02040202, at upstream left wingwall of bridge on Argonne Highway (County Route 541), 0.6 mi south of intersection of Argonne Highway and State Route 70 at Medford, and 5.3 mi upstream from the mouth.	1983-95, 2004	9-16-99 7-13-04	b 19.7	5,000d 12,400	7-13-04	19.7	12,400
Cooper River at Kirkwood, NJ (01467130)	Lat 39°50'11", long 75°00'05", Camden County, Hydrologic Unit 02040202, 5 ft upstream of dam at Kirkwood Lake in Kirkwood, and 1.0 mi north of Laurel Springs. Datum of gage is 57.82 ft above NGVD of 1929. Drainage area is 5.10 mi ² .	1964-80, 2004	7-12-04	2.63	450	7-12-04	2.63	450
North Branch Cooper River near Marlton, NJ (01467160)	Lat 39°53'20", long 74°58'07", Camden County, Hydrologic Unit 02040202, on right downstream wingwall of bridge on Springdale Road, 2.5 mi west of Marlton. Datum of gage is 36.36 ft above NGVD of 1929. Drainage area is 5.34 mi ² .	1964-88, 2004	7-12-04	7.4	1,200	7-12-04	7.4	1,200
North Branch Cooper River at Ellisburg, NJ (01467180)	Lat 39°54'27", long 75°00'41", Camden County, Hydrologic Unit 02040202, on right downstream wingwall of bridge on Brace Road, 0.4 mi south of Ellisburg, 1.3 mi northwest of Haddonfield, and 0.9 mi upstream of confluence with Cooper River. Datum of gage is 9.80 ft above NGVD of 1929. Drainage area is 9.80 mi ² .	1964-75, 2004	7-12-04	7.63q	a	8-28-71 7-12-04	6.65 7.63	1,000 aq
Newton Creek at Collingswood, NJ *(01467305)	Lat 39°54'30", long 75°03'12", Camden County, Hydrologic Unit 02040202, on upstream left wingwall of bridge on Park Avenue in Westmont, 0.3 mi east of Cuthbert Avenue, and 1.0 mi east of Collingswood. Datum of gage is 18.74 ft above NGVD of 1929. Drainage area is 1.33 mi ² .	1964-2004	7-12-04	4.99	264	7-14-94	6.82	328
South Branch Newton Creek at Haddon Heights, NJ *(01467317)	Lat 39°52'45", long 75°04'25", Camden County, Hydrologic Unit 02040202, on upstream right wingwall of bridge on 13th Avenue in Haddon Heights Park, and 2.6 mi south of Collingswood. Datum of gage is 23.34 ft above NGVD of 1929. Drainage area is 0.63 mi ² .	1964-2004	7-12-04	3.22	232	9-01-78	4.62	295
Gravelly Run at Somerdale, NJ (01467357)	Lat 39°50'41", long 75°01'48", Camden County, Hydrologic Unit 02040202, upstream left wingwall of culvert, on Warwick Road (County Route 669) in Somerdale 0.8 mi south of Evesham Road, 0.8 mi north of Sterling High School, and 1.2 mi upstream of mouth, where it feeds Otter Brook. Drainage area is 0.35 mi ² .	1997-2004	12-11-03	4.65	176	12-11-03	4.65	176
Bees Branch at Hurffville, NJ (01475017)	Lat 39°46'17", long 75°06'20", Gloucester County, Hydrologic Unit 02040202, upstream right bank at culvert, on State Route 47, 0.4 mi south of Barnsboro Road, 0.6 mi north of Hurffville, and 0.8 mi southwest of headwater at unnamed lake. Drainage area is 0.43 mi ² .	1997-2004	12-11-03	4.54	52	9-16-99	5.99	76 r

CREST-STAGE PARTIAL-RECORD STATIONS—Continued
Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2004 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued								
Plank Run at Glassboro, NJ *(01475033)	Lat 39°42'54", long 75°08'24", Gloucester County, Hydrologic Unit 02040202, upstream right wingwall of culvert, on U.S. Route 322, 0.4 mi southeast of intersection with State Route 55, 0.6 mi west of Glassboro, and 0.7 mi south of Alcyon Lake. Datum of gage is 106.85 ft above NGVD of 1929. Drainage area is 0.71 mi ² .	1997-2004	7-27-04	3.57	80	7-27-04	3.57	80
Miery Run near Ewan, NJ (01477102)	Lat 39°42'52", Long 75°11'40", Gloucester County, Hydrologic Unit 02040202, downstream left wingwall of culvert on County Route 623, 0.3 mi southeast of mouth of Raccoon Creek, 1.2 mi northwest of Ewan, and 1.5 mi southeast of intersection with U.S. Route 322. Drainage area is 0.73 mi ² .	1997-2004	2-07-04	2.09	63	6-08-03	2.79	109
Raccoon Creek tributary no. 3 near Mullica Hill, NJ (01477123)	Lat 39°44'47", long 75°16'04", Gloucester County, Hydrologic Unit 02040202, downstream left wingwall of culvert, on Mullica Hill Road, 0.3 mi upstream of mouth, 2.0 mi east of Swedesboro, and 2.3 mi northwest of Mullica Hill. Datum of gage is 65 ft above NGVD of 1929 (from topographic map). Drainage area is 0.47 mi ² .	1997-2004	7-12-04	.95	11	2-22-03	1.43	32

- * Also a low-flow partial-record station.
† Operated as a continuous-record gaging station.
a Discharge not determined.
b Gage height not determined.
c Recorded at previous site.
d Previously unpublished.
e Estimated.
f Determined at Squaw Lake Dam, 0.2 mi upstream of gage.
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 mi²), adjusted for change in drainage area.
k Due to backwater from Delaware River.
m Due to backwater from Raritan River.
p Elevation above NGVD of 1929.
q Streambed is 3-4 ft lower than it was before 1971 peak.
r Revised.
s Determined at Bradford Avenue, 0.2 mi downstream of gage, adjusted for change in drainage area.
t Due to backwater from debris and snow at upstream side of culvert.
u Due to backwater from debris pile-up at upstream side of culvert.
v Was probably exceeded by peak of May 24 when gage was out of operation.
w Peak gage height was less than 12.14 ft.
x From rating curve extended above 125 ft³/s on basis of slope area measurement at gage height 3.91 ft.
z Backwater condition.

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Measurements of streamflow in New Jersey made at stream locations other than continuous-record stations and crest-stage partial-record stations are listed below as low-flow partial-record stations (labeled with an "†") or miscellaneous sites. Low-flow partial-record stations are normally measured during base-flow conditions, however, some measurements at these stations may not be base-flow conditions if the station was measured for other study purposes requiring runoff discharges. Low-flow partial-record 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. Miscellaneous sites are stream locations chosen for special studies (seepage studies for example) and may be measured during base flow or rainfall-runoff conditions. If low-flow partial-record stations and miscellaneous sites are or were operated to collect other types of data, they will be footnoted as such.

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
HUDSON RIVER BASIN						
01367625	Wallkill River at Sparta, NJ	Lat 41°02'25", long 74°37'47", Sussex County, Hydrologic Unit 02020007, at bridge on State Route 15, 0.4 mi northeast of Sparta, 1.2 mi downstream from outlet of Lake Mohawk, and 1.8 mi east of Fox Hollow Lake.	5.88	1998-2004	11-18-03 2-18-04 5-04-04 8-09-04	13 14 24 3.9
†01367770	Wallkill River near Sussex, NJ	Lat 41°11'38", long 74°34'31", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.6 mi upstream from Papakating Creek, 1.7 mi southwest of Independence Corner, and 2.0 mi southeast of Sussex.	60.8	1977-82, 1985, 1987-2004	2-18-04 6-02-04 8-04-04 8-26-04	77 164 46 114
†01367850	West Branch Papakating Creek at McCoy's Corner, NJ	Lat 41°11'49", long 74°37'54", Sussex County, Hydrologic Unit 02020007, 0.1 mi southwest of McCoy's Corner, 1.0 mi upstream of mouth, and 4.2 mi northwest of Hamburg.	11.0	1967-72, 2001-04	3-01-04	17
†01367875	Clove Brook at Unionville Road, near Colesville, NJ	Lat 41°15'43", long 74°37'47", Sussex County, Hydrologic Unit 02020007, at bridge on Unionville Road, 1.3 mi southeast of Colesville, and 4.4 mi downstream of Clove Acres Lake.	7.25	2001-04	09-14-04	9.2
01368000	Wallkill River near Unionville, NY	Lat 41°15'36", long 74°32'56", Sussex County, NJ, Hydrologic Unit 02020007, at 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 Unionville.	140	1958-81a, 1991-97, 1999, 2001-04	12-09-03 3-01-04 6-02-04 8-26-04	328 239 351 215
01368820	Double Kill at Wawayanda, NJ	Lat 41°11'13", long 74°25'12", Sussex County, Hydrologic Unit 02020007, at bridge on Laurel Pond Road, 0.4 mi downstream from Wawayanda Lake, 3.5 mi east of Vernon, and 4.6 mi upstream from Wawayanda Creek.	6.46	1998-2004	11-18-03 3-02-04 6-02-04 8-19-04	7.4 6.0 21 4.1
HACKENSACK RIVER BASIN						
01377358	Pascack Brook 1600 ft above Grand Avenue, at Montvale, NJ	Lat 41°02'36", long 74°01'51", Bergen County, Hydrologic Unit 02030103, 450 ft downstream of Muddy Creek, 1600 ft upstream of Grand Avenue, and 0.4 mi west of Montvale.	13.0	2003-04	11-25-03 2-24-04 5-13-04 8-16-04	21 14 21 47
†01377490	Musquapsink Brook at Westwood, NJ	Lat 40°59'11", long 74°01'50", Bergen County, Hydrologic Unit 02030103, on the left bank downstream side of bridge on Prospect Avenue in Westwood, 330 ft upstream from the railroad bridge, 1,100 ft downstream from former site at Bogert Pond Dam (prior to 1998, drainage area 6.53 mi ²), and 1.0 mi upstream from mouth.	6.59	1965-66, 1968, 1972, 1977-78, 1983, 2002, 2004	9-27-04	9.2

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
HACKENSACK RIVER BASIN--Continued						
*†01378385	Tenakill Brook at Closter, NJ	Lat 40°58'29", long 73°58'04", Bergen County, Hydrologic Unit 02030103, at bridge on High Street in Closter, 0.7 mi upstream from mouth, and 2.7 mi downstream from former crest-stage gage on Madison Avenue in Cresskill.	8.56	1964-73, 1975, 1978, 1982, 1985, 1987-89, 1991-93, 1996-97, 1999-2000, 2002-04	9-27-04	10
01378400	Dwars Kill at Anderson Avenue, at Alpine, NJ	Lat 40°58'36", long 73°56'03", Bergen County, Hydrologic Unit 02030103, at dead-end of Anderson Avenue, 1.5 mi north of Alpine, and 2.0 mi upstream of Oradell Reservoir.	.35	2003-04	3-01-04 5-18-04 8-19-04	2.5 .44 .05
†01378410	Dwars Kill at Norwood, NJ	Lat 40°59'00", long 73°57'29", Bergen County, Hydrologic Unit 02030103, 400 ft upstream of Blanche Avenue, 600 ft upstream of Oradell Reservoir, and 1.0 mi south of Norwood.	3.23	1973-80, 1999, 2002-04	9-27-04	2.2
01378475	Dorotockeys Run at Harrington Park, NJ	Lat 40°59'14", long 73°58'29", Bergen County, Hydrologic Unit 02030103, at bridge on Tappan Road, 0.3 mi north of Harrington Park, 0.4 mi upstream of Oradell Reservoir.	4.10	2003-04	3-01-04 5-18-04 8-19-04	5.3 4.4 3.6
†01378520	Hirshfeld Brook at New Milford, NJ	Lat 40°56'49", long 74°00'59", Bergen County, Hydrologic Unit 02030103, at bridge on The Boulevard in New Milford, 0.45 mi upstream from mouth and 0.7 mi west of Dumont.	4.54	1965-72, 2002-04	9-27-04	3.5
†01378560	Coles Brook at Hackensack, NJ	Lat 40°54'40", long 74°02'25", Bergen County, Hydrologic Unit 02030103, at bridge on Main Street in Hackensack, 0.8 mi upstream from mouth and 1.9 mi northwest of Teaneck.	7.00	1965-72, 1998-2004	11-17-03 2-23-04 5-12-04 8-03-04	3.1 5.7 4.8 4.4
*†01378590	Metzler Brook at Englewood, NJ	Lat 40°54'29", long 73°59'11", Bergen County, Hydrologic Unit 02030103, at bridge on Lantana Avenue in Englewood, and 1.6 mi upstream from mouth.	1.54	1964-72, 1977-78, 1982, 1987-89, 1991, 1993-94, 1996, 1998, 2004	10-15-03	.83
PASSAIC RIVER BASIN						
01378780	Primrose Brook at Morristown National Historical Park, NJ	Lat 40°45'54", long 74°31'47", Morris County, Hydrologic Unit 02030103, at bridge on Grand Loop Trail Road in Morristown National Historic Park, 20 ft downstream from West Branch Primrose Brook, 0.5 mi west of Mount Kemble, and 3.7 mi southwest of Morristown.	1.07	1998-2004	12-16-03 2-24-04 8-10-04	3.6 2.0 .79
†01378855	Black Brook at Madison, NJ	Lat 40°44'13", long 74°25'21", Morris County, Hydrologic Unit 02030103, at bridge on Southern Boulevard, 1.0 mi southwest of Madison, 1.0 mi south of intersection with Shunpike Road, 1.7 mi upstream of unnamed tributary, and 2.2 mi west of Chatham.	.42	2004	9-14-04	.12
†01379200	Dead River near Millington, NJ	Lat 40°38'59", long 74°31'27", Morris County, Hydrologic Unit 02030103, at bridge on King George Road (Spur County Route 527), 100 feet upstream from mouth, 2.0 mi south of Millington, and 4.2 mi south of Basking Ridge.	20.8	1962-67, 1973-75, 1986-89, 1998-2004	12-02-03 2-18-04 5-24-04 8-30-04	32 26 25 12

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued						
†01379450	Passaic River at South Street, at Oakwood Park, NJ	Lat 40°42'49", long 74°24'28", Union County, Hydrologic Unit 02030103, at bridge on South Street at Oakwood Park, 0.6 mi downstream from Salt Brook, and 2.3 mi southwest of Chatham.	97.6	1983-84, 2004	9-14-04	37
†01379525	Canoe Brook near Millburn, NJ	Lat 40°44'55", long 74°20'13", 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	1989-2004	8-10-04	.59
†01379560	Passaic River at Florham Park, NJ	Lat 40°46'45", long 74°22'09", Morris County, Hydrologic Unit 02030103, at bridge on South Orange Avenue, 1.2 mi southeast of Florham Park, and 1.6 mi downstream from Spring Garden Brook.	125	1988-89, 2004	9-14-04	49
†01379700	Rockaway River at Berkshire Valley, NJ	Lat 40°55'51", long 74°35'41", Morris County, Hydrologic Unit 02030103, at bridge on Berkshire Valley Road in Berkshire Valley, 2.7 mi upstream from Stephens Brook and 3.8 mi northwest of Dover.	24.4	1960-69, 1971-72, 1981, 1984-96a, 1997-98, 2002-04	8-10-04	6.7
†01380090	White Meadow Brook near Denville, NJ	Lat 40°54'59", long 74°30'19", Morris County, Hydrologic Unit 02030103, 100 ft west of Sanders Road, 0.7 mi downstream of White Meadow Lake, and 0.8 mi north of Denville.	3.40	1984-86, 2004	9-14-04	2.7
†01380100	Beaver Brook at Rockaway, NJ	Lat 40°54'08", long 74°30'05", Morris County, Hydrologic Unit 02030103, at bridge on Gill Avenue, and 0.2 mi upstream from mouth, and 0.7 mi east of Rockaway.	22.2	1963-64, 1985-86, 1998-2004	11-19-03 2-09-04 5-13-04 8-10-04 9-01-04	48 68 56 4.7 6.2
†01380133	Den Brook at Denville, NJ	Lat 40°53'25", long 74°28'17", Morris County, Hydrologic Unit 02030103, at bridge on Broadway Avenue, at Denville, 150 ft from mouth, and 0.6 mi downstream from Indian Lake.	8.78	1986, 2002-04	8-10-04	2.4
†01380300	Stony Brook near Rockaway Valley, NJ	Lat 40°56'25", long 74°25'38", Morris County, Hydrologic Unit 02030103, at bridge on Rockaway Valley Road, 0.2 mi downstream of unnamed tributary, 1.2 mi northeast of Rockaway Valley, and 1.7 mi west of Taylortown.	8.43	1963-67, 1985-86, 2002-04	8-25-04	5.0
†01382000	Passaic River at Two Bridges, NJ	Lat 40°53'50", long 74°16'22", Essex County, Hydrologic Unit 02030103, at bridge on Two Bridges Road, just upstream from confluence with Pompton River, 0.3 mi northeast of Two Bridges, and 2.6 mi northwest of Little Falls.	361	1902-03, 1963-68, 1983-84, 1986-98, 2002-04	8-10-04 9-27-04	218 240
†01382050	Pequannock River near Stockholm, NJ	Lat 41°06'55", long 74°30'49", Sussex County, Hydrologic Unit 02030103, at bridge on County Route 515, 1.6 mi upstream of Paddock Brook, and 1.8 mi north of Stockholm.	5.39	1959-64, 2002-04	8-25-04	10
†01382090	Paddock Brook near Highland Lakes, NJ	Lat 41°08'11", long 74°28'21", Sussex County, Hydrologic Unit 02030103, at bridge on Canistear Road, 0.3 mi upstream from Canistear Reservoir, and 2.8 mi south of Highland Lakes.	2.78	2002-04	8-25-04	9.5

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued						
†01382360	Kanouse Brook at Newfoundland, NJ	Lat 41°02'50", long 74°25'47", Passaic County, Hydrologic Unit 02030103, at culvert on Kanouse Road, 0.3 mi east of Newfoundland, and 0.6 mi upstream from mouth.	3.87	1963-67, 2002-04	8-25-04	4.8
†01383600	Hewitt Brook at Hewitt, NJ	Lat 41°08'28", long 74°18'54", Passaic County, Hydrologic Unit 02030103, at bridge on Lake Road, 0.2 mi west of Hewitt, 0.4 mi upstream from mouth.	3.24	2002-04	8-26-04	6.5
†01385000	Cupsaw Brook near Wanaque, NJ	Lat 41°06'37", long 74°15'22", Passaic County, Hydrologic Unit 02030103, at bridge on Carletondale Road, just upstream from Wanaque Reservoir, 0.3 mi downstream from Cupsaw Lake, and 4.3 mi north of Wanaque.	4.37	1935-58a, 2001-04	8-26-04	2.6
†01387008	Meadow Brook at Highland Avenue, at Wanaque, NJ	Lat 41°02'34", long 74°17'09", Passaic County, Hydrologic Unit 02030103, at culvert on Highland Avenue, in Wanaque, 0.3 mi upstream from mouth, and 0.5 mi east of Raymond Dam.	5.81	2002-04	9-03-04	3.3
†01387020	Posts Brook diversion to Wanaque Reservoir near Wanaque, NJ	Lat 41°02'35", long 74°19'36", Passaic County, Hydrologic Unit 02030103, 0.2 mi upstream from Wanaque Reservoir, 1.7 mi west of Wanaque, and 2.8 mi north of Bloomingdale.	---	1935, 1937, 1941-48, 1950-52, 1954, 1956-57, 1959-64, 2002-04	8-26-04	1.1
†01387021	Posts Brook below Wanaque diversion near Wanaque, NJ	Lat 41°02'35", long 74°19'38", Passaic County, Hydrologic Unit 02030103, 0.7 mi upstream from inlet to Lake Isoscoe, 1.7 mi west of Wanaque, and 2.8 mi north of Bloomingdale.	3.55	2002-04	8-26-04	.30
01387450	Mahwah River near Suffern, NY	Lat 41°08'27", long 74°07'01", Rockland County, NY, Hydrologic Unit 02030103, on left bank, 13 ft upstream from bridge on U.S. Route 202, 2.5 mi northeast of Suffern, and 4.8 mi upstream from mouth.	12.30	1959-95a, 1996-2004	8-26-04	21
*†01387880	Pond Brook at Oakland, NJ	Lat 41°01'36", long 74°14'03", Bergen County, Hydrologic Unit 02030103, at bridge on Interstate 287/State 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.	6.76	1963-73, 1976-77, 1982-84, 1986, 1989, 1991-94, 1996-97, 2002-04	9-03-04	4.6
01388720	Beaver Dam Brook at Ryerson Road, at Lincoln Park, NJ	Lat 40°55'35", long 74°17'34", Morris County, Hydrologic Unit 02030103, at bridge on Ryerson Road in Lincoln Park, 1.7 mi northwest of Mountain View, and 0.3 mi upstream of mouth.	13.1	2001-04	11-19-03 2-02-04 5-06-04	19 7.4 19
01389005	Passaic River below Pompton River, at Two Bridges, NJ	Lat 40°53'47", long 74°16'09", Passaic County, Hydrologic Unit 02030103, at right bank on Fairfield Road in Two Bridges, 400 ft downstream from the Pompton River, and 1.4 mi northwest of Little Falls. Satellite stage telemetry at station.	734	1991, 1996-2004	8-27-04	592
†01389090	Naachtpunkt Brook at Totowa, NJ	Lat 40°54'48", long 74°13'51", Passaic County, Hydrologic Unit 02030103, at bridge on Totowa Road, 1.0 mi upstream from Preakness Brook and Singac Brook, and 1.0 mi northwest of Totowa.	1.14	2002-04	8-27-04	.62

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued						
†01389100	Singac Brook at Singac, NJ	Lat 40°53'37", long 74°15'56", 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 northwest of Singac, and 1.8 mi northwest of Little Falls.	11.1	1963-67, 1983-84, 1986-2004	8-27-04	20
01389110	Passaic River at Route 46, at Singac, NJ	Lat 40°53'32", long 74°15'57", Passaic County, Hydrologic Unit 02030103 at bridge on U.S. Route 46, 400 ft downstream of Singac Brook, 1.4 mi west of Singac, and 0.6 mi downstream from Pompton River.	745	1996-2004	8-27-04	612
01389534	Peckman River at Ozone Avenue, at Verona, NJ	Lat 40°50'42", long 74°14'09", Passaic County, Hydrologic Unit 02030103, at bridge on Ozone Avenue in Verona, 1.0 mi southwest of Cedar Grove Reservoir, and 4.0 mi west of Clifton.	4.45	1979-2002, 2004	3-15-04 9-02-04 @ 1228 9-02-04 @ 1322	9.6 4.8 3.9
*†01389738	Molly Ann Brook tributary near Franklin Lakes, NJ	Lat 40°58'51", long 74°12'10", Bergen County, Hydrologic Unit 02030103, at culvert on Belmont Avenue, 0.5 mi upstream of mouth at Haledon Reservoir, 1.6 mi southeast of Franklin Lakes, and 2.1 mi north of North Haledon.	.33	2001-04	9-03-04 9-08-04 @ 1200 9-08-04 @ 1230	.05 4.3 6.1
*†01389765	Molly Ann Brook at North Haledon, NJ	Lat 40°57'11", long 74°11'06", Passaic County, Hydrologic Unit 02030103, Overlook Avenue in North Haledon, 0.5 mi upstream from Oldham Pond Dam, and 1.5 mi west of Hawthorne.	3.89	1979-81, 1983-85, 1988-93, 1996-2004	3-11-04 9-03-04	8.2 1.4
01389785	Molly Ann Brook at Preakness Avenue, at Paterson, NJ	Lat 40°55'16", long 74°11'37", Passaic County, Hydrologic Unit 02030103, at Bridge on Preakness Avenue, 1.0 mi upstream of mouth, and 2.0 mi west of Paterson.	7.08	2003-04	10-28-03 1-22-04 4-20-04 7-22-04	37 8.9 14 3.6
†01389844	Deep Brook at Goffle Road, at Hawthorne, NJ	Lat 40°57'54", long 74°09'31", Passaic County, Hydrologic Unit 02030103, at bridge on Goffle Road, 270 ft upstream from mouth, and 0.8 mi north of Hawthorne.	2.04	2002-04	9-02-04	1.0
†01389845	Goffle Brook at Arnold Dam, at Hawthorne, NJ	Lat 40°57'46", long 74°09'35", Passaic County, Hydrologic Unit 02030103, at Arnold Dam, at foot of Van Winkle Avenue in Hawthorne, and 700 ft downstream of Deep Brook.	7.20	2002-04	9-02-04	2.5
†01389850	Goffle Brook at Hawthorne, NJ	Lat 40°56'20", long 74°09'47", Passaic County, Hydrologic Unit 02030103, at bridge on Wagaraw Road, 0.1 mi upstream from mouth, 1.9 mi north of Paterson and 1.1 mi southwest of Hawthorne.	8.77	1963-67, 1983-84, 1998, 2003-04	10-28-03 1-22-04 4-20-04 7-22-04	15 10 12 1.4
†01389860	Diamond Brook at Fair Lawn, NJ	Lat 40°56'37", long 74°08'30", Bergen County, Hydrologic Unit 02030103, at culvert on Bindery Entrance Road in Fair Lawn, 1,200 ft upstream from mouth, and 1.9 mi north of Paterson.	3.19	2001-04	9-02-04	2.6
01389870	Passaic River at Morlot Avenue, at Fair Lawn, NJ	Lat 40°55'26", long 74°08'25", Bergen County, Hydrologic Unit 02030103, at bridge on Morlot Avenue, 1.3 mi south of Fair Lawn, and 2.6 mi downstream of Goffle Brook.	797	1970, 2001-04	10-30-03 4-22-04 7-26-04	4,830 1,830 1,540

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
PASSAIC RIVER BASIN--Continued						
01389895	Passaic River at Outwater Lane, at Garfield, NJ	Lat 40°52'45", long 74°07'14", Bergen County, Hydrologic Unit 02030103, at bridge on Outwater Lane (Ackerman Avenue), at Garfield, 0.4 mi downstream from Dundee Dam, and 1.2 mi upstream from Passaic Street Bridge at Passaic.	806	1970-71, 1986-87, 1992-97, 2004	5-05-04	1530
					5-10-04	1150
					5-14-04	2380
					5-24-04	743
					6-02-04	1090
					6-14-04	435
					6-21-04	370
					6-23-04	412
					6-29-04	617
7-07-04	245					
†01390250	Saddle River at Brook Road, near Upper Saddle River, NJ	Lat 41°04'32", long 74°05'06", Bergen County, Hydrologic Unit 02030103, at bridge on Brook Road, 430 ft downstream from Penners Lake, 875 ft south of the NJ-NY state line, and 1.0 mi northeast of Upper Saddle River.	2.36	2002-04	8-26-04	2.0
01390600	Hohokus Brook at Franklin Lakes, NJ	Lat 41°00'58", long 74°11'43", Bergen County, Hydrologic Unit 02030103, at bridge on Woodside Avenue, 0.5 mi east of Franklin Lakes, and 0.6 mi upstream of De Yoe Pond.	.70	2003-04	11-25-03	1.6
					2-24-04	1.5
					5-13-04	2.5
					8-16-04	1.3
01392210	Third River at Passaic, NJ	Lat 40°49'47", long 74°08'31", Passaic County, Hydrologic Unit 02030103, 400 ft upstream from bridge on State Route 3, 0.8 mi south of Passaic, and 1.2 mi upstream from Passaic River	11.8	1977-97a, 1998, 2000, 2002-2004	11-18-03	11
					2-18-04	14
					5-06-04	14
					8-09-04	11
ELIZABETH RIVER BASIN						
01393440	Elizabeth River above Ursino Lake, at Elizabeth, NJ	Lat 40°40'37", long 74°13'35", Union County, Hydrologic Unit 02030104, at bridge on North Avenue, 0.9 mi northwest of Elizabeth, and 4.5 mi upstream of mouth.	16.8	2003-04	11-18-03	8.7
					2-18-04	12
					5-06-04	14
					8-09-04	12
MORSES CREEK BASIN						
01393690	Morses Creek at West Stimpson Avenue, at Linden, NJ	Lat 40°37'32", long 74°14'55", Union County, Hydrologic Unit 02030104, at bridge on West Stimpson Avenue, 0.8 mi southeast of Linden, and 3.6 mi upstream of mouth.	5.90	2003-04	10-15-03	3.0
					1-13-04	1.9
					4-12-04	1.1
					7-13-04	13
RAHWAY RIVER BASIN						
*†01393890	East Branch Rahway River at Maplewood, NJ	Lat 40°44'06", long 74°16'13", Essex County, Hydrologic Unit 02030104, at bridge on Jefferson Avenue in Maplewood, 1,100 ft west of Fielding School, and 2.5 mi upstream of confluence of West Branch Rahway River and East Branch Rahway River.	5.11	1999-2004	3-15-04	4.6
					9-14-04	4.9
†01393960	West Branch Rahway River at Northfield Avenue, at West Orange, NJ	Lat 40°46'11", long 74°16'59", Essex County, Hydrologic Unit 02030104, at bridge on Northfield Avenue in West Orange, 0.1 mi upstream of Orange Reservoir, and 2.2 mi east of Northfield.	3.92, revised	2002-04	10-30-03	6.8
					2-02-04	1.7
					4-22-04	3.6
					7-26-04	2.2
01394630	Rahway River at Eastman Street, at Cranford, NJ	Lat 40°39'30", long 74°18'36", Union County, Hydrologic Unit 02030104, at bridge on Eastman Street in Cranford, 1.8 mi downstream of Nomahegan Brook, and 8.0 mi upstream of Robinsons Branch.	34.1	2003-04	11-18-03	11
					2-18-04	30
					5-06-04	37
					8-09-04	14
01396003	Robinsons Branch at Central Avenue, at Rahway, NJ	Lat 40°36'34", long 74°17'17", Union County, Hydrologic Unit 02030104, at bridge on Central Avenue, 0.4 mi west of Rahway, and 0.8 mi upstream of mouth.	21.7	2001, 2003-04	10-15-03	79
					1-13-04	9.5
					4-12-04	11
					7-13-04	277

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
RAHWAY RIVER BASIN--Continued						
01396028	South Branch Rahway River at Elm Street, at Colonia, NJ	Lat 40°34'44", long 74°18'19", Middlesex County, Hydrologic Unit 02030104, at foot of Elm Street, 100 ft downstream of unnamed tributary, 250 ft northwest of intersection of Chain O Hills Road and South Cliff Road in Colonia, and 2.5 mi southwest of Rahway.	9.05	2000-01, 2003-04	10-23-03 1-20-04 4-15-04 7-19-04	2.2 5.5 25 12
RARITAN RIVER BASIN						
†01396108	Turkey Brook at Mount Olive, NJ	Lat 40°51'04", long 74°43'50", Morris County, Hydrologic Unit 02030105, at bridge on Jakestown Road in Mount Olive, 1.0 mi southeast of Budd Lake, and 1.2 mi above mouth.	1.33	1965, 2002-04	9-14-04	.46
†01396180	Drakes Brook at Bartley, NJ	Lat 40°48'43", long 74°43'44", Morris County, Hydrologic Unit 02030105, at bridge on Bartley Road, 0.25 mi upstream from mouth, 0.9 mi southwest of Bartley and 2.5 mi of Chester.	16.6	1964-69, 1971-73, 1975-76, 1988-91, 2000, 2002-04	8-10-04	6.8
01396550	Spruce Run at Newport, NJ	Lat 40°43'29", long 74°54'33", Hunterdon County, Hydrologic Unit 02030105, at bridge on Newport Road in Newport, 1.2 mi northwest of Woodglen, and 6.4 mi upstream from Spruce Run Reservoir.	5.67	1998-2004	11-12-03 2-09-04 8-09-04	27 12 2.0
†01396587	Rocky Run near Clinton, NJ	Lat 40°40'48", long 74°55'14", Hunterdon County, Hydrologic Unit 02030105, at bridge on State Route 31, 260 ft upstream of mouth, and 2.0 mi north of Clinton.	1.99	2002-04	9-03-04	.93
01396588	Spruce Run near Glen Gardner, NJ	Lat 40°40'41", long 74°55'05", 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.	15.3	1979, 1981-83, 1985-93, 1995-97, 1999, 2003-04	11-12-03 2-09-04 8-09-04	49 39 6.3
01396812	Beaver Brook at Annandale, NJ	Lat 40°38'16", long 74°52'56", Hunterdon County, Hydrologic Unit 02030105, at bridge on Allerton Road in Annandale, 1.5 mi east of Clinton, and 1.9 mi upstream of mouth.	4.63	2003-04	3-17-04 6-08-04 9-09-04	7.2 4.1 8.0
†01396815	Beaver Brook at Clinton, NJ	Lat 40°38'10", long 74°54'35", Hunterdon County, Hydrologic Unit 02030105, at bridge on River Road in Clinton, 0.24 upstream of mouth, and 1.0 mi northeast of Franklin.	6.90	2002-04	9-03-04	2.9
†01396865	Sidney Brook at Grandin, NJ	Lat 40°37'07", long 74°55'58", Hunterdon County, Hydrologic Unit 02030105, at bridge on County Route 513 (Grandin Road) in Grandin, 1.3 mi upstream of mouth, 1.8 mi southwest of Clinton, and 2.7 mi northeast of Pittstown.	4.71	1997-99, 2001-04	9-14-04	2.2
01396868	Sidney Brook near Lansdowne, NJ	Lat 40°36'50", long 74°55'28", Hunterdon County, Hydrologic Unit 02030105, at bridge on Sidney Road, 0.8 mi upstream of mouth, and 1.0 mi west of Lansdowne.	5.19	2003-04	12-17-03 3-17-04 6-08-04 9-09-04	150 7.5 3.2 4.9
†01396900	Capoolong Creek at Lansdowne, NJ	Lat 40°36'28", long 74°54'57", Hunterdon County, Hydrologic Unit 02030105, at bridge on Lower Lansdown Road, 0.4 mi upstream from mouth, 0.5 mi west of Lansdowne, and 2.1 mi south of Clinton.	14.1	1959-65, 2002-04	9-03-04	7.2

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
RARITAN RIVER BASIN--Continued						
01398180	India Brook at Mount Freedom, NJ	Lat 40°50'05", long 74°34'42", Morris County, Hydrologic Unit 02030105, at bridge on Carrell Road, 0.6 mi north of Mount Freedom, and 5.9 mi upstream from mouth.	.25	2004	7-08-04 7-26-04 8-13-04 9-08-04 9-29-04	.08 .05 .32 .14 .75
†01399190	Lamington (Black) River at Succasunna, NJ	Lat 40°51'02", long 74°38'03", Morris County, Hydrologic Unit 02030105, at bridge on Righter Road, 0.4 mi upstream from Succasunna Brook, and 0.7 mi south of Succasunna.	7.37	1977-87a, 1988-2004	6-25-04	4.2
†01399200	Lamington (Black) River near Ironia, NJ	Lat 40°50'07", long 74°38'39", Morris County, Hydrologic Unit 02030105, at bridge on Ironia Road, 1.0 mi downstream from Succasunna Brook, and 1.3 mi northwest of Ironia.	10.9	1964-73, 1976-87a, 1988-2004	6-25-04	6.4
†01399570	Rockaway Creek at McCrea Mills, NJ	Lat 40°39'42", long 74°45'57", Hunterdon County, Hydrologic Unit 02030105, at bridge on Rockaway Road in McCrea Mills, 1.1 mi southwest of Oldwick, 3.1 mi above South Branch Rockaway Creek, and 4.0 mi northeast of Lebanon.	17.0	1961-65, 2002-04	9-07-04	11
01399650	South Branch Rockaway Creek at Cushetunk, NJ	Lat 40°37'32", long 74°47'29", Hunterdon County, Hydrologic Unit 02030105, at bridge on Mountain Road in Cushetunk, 1.3 mi northwest of Whitehouse Station, and 1.7 mi upstream of Cushetunk Lake.	9.70	2003-04	12-17-03 3-17-04 6-08-04 9-09-04	313 13 7.1 13
†01400360	Peters Brook at Mercer Street, at Somerville, NJ	Lat 40°34'29", long 74°36'58", Somerset County, Hydrologic Unit 02030105, at bridge on Mercer Street, 0.4 mi downstream from Macs Brook and 0.6 mi upstream from Ross Brook.	7.37	1992, 2002, 2004	9-03-04	.8
†01400640	Millstone River near Grovers Mill, NJ	Lat 40°18'48", long 74°35'21", 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, 1971-72, 1986-88, 1992-93, 1995, 1998-2004	2-23-04 5-25-04 8-30-04	53 31 21
†01400725	Cranbury Brook at Plainsboro, NJ	Lat 40°19'34", long 74°36'10", Middlesex County, Hydrologic Unit 02030105, at bridge on Maple Avenue at outlet of Plainsboro Pond in Plainsboro, and 0.7 mi upstream of mouth.	22.1	1967, 1971-72, 1987-1989, 2001-04	9-14-04	4.2
†01401400	Heathcote Brook at Kingston, NJ	Lat 40°22'10", long 74°36'58", Middlesex County, Hydrologic Unit 02030105, at bridge on Mapleton Road, at abandoned railroad bridge, 0.3 mi south of Kingston, and 0.4 mi upstream from mouth.	9.00	1971-72, 1979-84, 1989, 1991-1992 1998-2004	11-05-03 2-04-04 6-08-04 8-19-04	5.9 50 3.5 30
*01403200	Middle Brook at Bound Brook, NJ	Lat 40°33'38", long 74°32'55", Middlesex 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. Radio stage and rainfall telemetry at station.	17.2	1955, 1975, 1982-83, 1985-87, 1991-94, 1996-97, 2001-2004	12-12-03 3-23-04	92 27
01403385	Bound Brook at Route 28, at Middlesex, NJ	Lat 40°34'51", long 74°29'57", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 28, 0.3 mi upstream from Green Brook, 0.9 mi northeast of Middlesex, 2.4 mi west of the intersection of State Route 28, and Washington Avenue in Dunellen.	23.9	1998-2004	11-12-03 2-02-04 5-10-04 8-10-04	20 12 14 11

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
RARITAN RIVER BASIN--Continued						
†01405290	Matchaponix Brook at Texas, NJ	Lat 40°21'35", long 74°22'04", Middlesex County, Hydrologic Unit 02030105, at bridge on County Route 520 (Texas Road), 0.1 mi east of Texas, and 4.9 mi upstream of Duhernal Lake.	41.7	2001-04	9-14-04	20
01405340	Manalapan Brook at Federal Road, near Manalapan, NJ	Lat 40°17'46", long 74°23'52", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.0 mi west of Englishtown, 2.6 mi north of Manalapan, and 3.0 mi downstream from Still House Brook.	20.9	1969,1971, 1979-81, 1986-95, 1997-2004	11-06-03 2-19-04 5-05-04 8-18-04	66 28 38 19
01405435	Cedar Brook at Spotswood, NJ	Lat 40°23'26", long 74°23'30", 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, 1957-87, 1987, 1989-91, 1993-2004	10-21-03 12-22-03 2-03-04 3-24-04 4-14-04 5-11-04 6-29-04 8-11-04 9-30-04	3.9 9.4 5.0 8.7 24 7.4 3.7 4.4 24
SHREWSBURY RIVER BASIN						
†01407200	Hop Brook at Holmdel, NJ	Lat 40°20'41", long 74°10'28", Monmouth County, Hydrologic Unit 02030104, at bridge on County Route 520, 0.5 mi east of its intersection with South Street in Holmdel and 1.7 mi downstream from Big Brook.	5.72	1969-74, 1989, 2002-04	8-10-04	3.1
†01407250	Willow Brook at Holmdel, NJ	Lat 40°20'17", long 74°11'13", Monmouth County, Hydrologic Unit 02030104, at bridge on South Street, 0.5mi south of its intersection with County Route 520 in Holmdel, and 1.9 mi upstream from Hop Brook.	6.88	1969-74, 1989, 2002-04	8-10-04	3.7
†01407400	Yellow Brook at Colts Neck, NJ	Lat 40°17'47", long 74°10'15", Monmouth County, Hydrologic Unit 02030104, at bridge on Creamery Road, 0.3 mi upstream from Mine Brook, and 0.7 mi north of Colts Neck.	9.71	1969-74, 1980-82, 1989, 2002-04	8-10-04	6.2
†01407450	Mine Brook at Colts Neck, NJ	Lat 40°17'29", long 74°10'10", Monmouth County, Hydrologic Unit 02030104, at bridge on Creamery Road, 0.4 mi northeast of Colts Neck and 0.5 mi upstream from Yellow Brook.	5.48	1969-74, 1979-80, 1982, 1989, 2002-04	8-10-04	2.3
SHARK RIVER BASIN						
†01407700	Shark River at Glendola, NJ	Lat 40°12'10", long 74°04'52", Monmouth County, Hydrologic Unit 02030104, at bridge on Gully Road, 0.5 mi upstream from Robins Swamp Brook, 0.8 mi north of Glendola, and 2.8 mi west of Neptune City.	9.14	1956-57, 1959-63, 1966, 2002-04	8-27-04	7.0
†01407755	Jumping Brook above reservoir, near Neptune City, NJ	Lat 40°12'30", long 74°04'11", Monmouth County, Hydrologic Unit 02030104, at bridge on State Route 33, 0.2 mi upstream of Jumping Brook Reservoir, and 2.3 mi west of Neptune City.	5.58	1989-99, 2001-04	8-27-04	2.2
MANASQUAN RIVER BASIN						
01407851	Burkes Creek at Jerseyville, NJ	Lat 40°14'34", long 74°14'08", Monmouth County, Hydrologic Unit 02040104, at bridge on State Route 33 (Park Avenue), 0.4 mi northwest of Jerseyville, and 2.5 mi upstream from mouth.	.23	2004	6-22-04 8-31-04 @ 0830 8-31-04 @ 1030	.15 2.1 1.7

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
MANASQUAN RIVER BASIN--Continued						
†01407860	Debois Creek at Adelphia, NJ	Lat 40°13'02", long 74°15'49", Monmouth County, Hydrologic Unit 02040104, at bridge on U.S. Route 9, 0.4 mi west of Adelphia, and 0.9 mi upstream from mouth.	7.21	1966, 1969-74, 2002-04	8-10-04	3.0
†01407900	Manasquan River at West Farms, NJ	Lat 40°11'34", long 74°11'43", Monmouth County, Hydrologic Unit 02040104, at bridge on West Farms Road, 0.3 mi east of West Farms, 0.6 mi south of County Route 524, and 1.5 mi west of Farmingdale.	33.5	1959-63, 1966, 1972-74, 2002-04	8-27-04	18
01408009	Mingamahone Brook near Earle, NJ	Lat 40°12'45", long 74°10'06", Monmouth County, Hydrologic Unit 02040104, at bridge on Cranberry Bog Road, 0.6 mi upstream from Branch Mingamahone Brook, and 1.7 mi southwest of Earle.	3.32	1998-2004	11-13-03 2-17-04 5-05-04 8-18-04	5.7 6.2 9.4 2.6
†01408015	Mingamahone Brook at Farmingdale, NJ	Lat 40°11'38", long 74°09'42", Monmouth County, Hydrologic Unit 02040104, at bridge on Belmar Road in Farmingdale and 3.0 mi upstream from mouth.	6.20	1969-74, 1981-2002, 2004	8-27-04	3.4
METEDECONK RIVER BASIN						
01408080	Titmouse Creek at Southard, NJ	Lat 40°08'23", long 74°14'06", Ocean County, Hydrologic Unit 02040301, at bridge on New Friendship Road, 0.5 mi west of Southard, and 0.9 mi upstream from mouth.	.18	2004	6-23-04 8-01-04 @ 1100 8-01-04 @ 1130 8-01-04 @ 1145 8-01-04 @ 1200 8-01-04 @ 1230	.06 24 12 6.2 3.8 2.6
†01408100	North Branch Metedeconk River at Lakewood, NJ	Lat 40°06'35", long 74°13'09", Ocean County, Hydrologic Unit 02040301, at bridge on U.S. Route 9, 0.3 mi north of County Line Road in Lakewood, and 3.6 mi upstream from Muddy Ford Brook.	19.4	1959-63, 1966, 1998-2004	11-13-03 2-17-04 5-17-04 8-16-04	35 27 22 44
01408123	North Branch Metedeconk River near Laurelton, NJ	Lat 40°04'53", long 74°09'08", Ocean County, Hydrologic Unit 02040301, at bridge on State Route 88 (Ocean Avenue), 0.3 mi upstream of mouth and 1.6 mi northwest of Laurelton.	38.6	2003-04	11-13-03 2-10-04 5-03-04 8-03-04	72 140 69 83
01408136	South Branch Metedeconk River at Bennetts Mills, NJ	Lat 40°07'36", long 74°16'40", Ocean County, Hydrologic Unit 02040301, at bridge on Bennetts Mills Road in Bennetts Mills, at outlet of Bennetts Pond, and 4.7 mi upstream of Lake Carasaljo.	18.2	2003-04	12-03-03 3-08-04 5-27-04 8-30-04	25 62 18 11
†01408150	South Branch Metedeconk River near Lakewood, NJ	Lat 40°05'09", long 74°11'08", Ocean County, Hydrologic Unit 02040301, at outlet of Lake Shenandoah, 0.3 mi upstream from New Hampshire Avenue, and 1.6 mi east of Lakewood.	27.5	1966, 1992-99, 2002-04	8-27-04	25
01408152	South Branch Metedeconk River near Laurelton, NJ	Lat 40°04'42", long 74°09'24", Ocean County, Hydrologic Unit 02040301, at bridge on Chambers Bridge Road, 0.4 mi upstream of mouth, and 1.7 mi northwest of Laurelton.	30.8	2003-04	11-13-03 2-10-04 5-03-04 8-03-04	65 122 72 89
KETTLE CREEK BASIN						
01408175	Kettle Creek at Cedarwood Park, NJ	Lat 40°02'30", long 74°08'33", Ocean County, Hydrologic Unit 02040301, at bridge on Brick Boulevard, at outlet of Lower Lake Riviera, and 0.9 mi south of Cedarwood Park.	6.29	2003-04	11-13-03 2-10-04 5-03-04 8-03-04	3.6 7.2 10 8.4
TOMS RIVER BASIN						
01408260	Toms River near Van Hiseville, NJ	Lat 40°06'35", long 74°22'25", Ocean County, Hydrologic Unit 02040301, at bridge on West Veterans Highway, 1.6 mi west of Van Hiseville, and 6.6 mi upstream of Maple Root Branch.	17.2	1966, 2003-04	12-03-03 3-08-04 5-27-04 8-30-04	18 47 17 9.9

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
TOMS RIVER BASIN--Continued						
01408462	Union Branch near Lakehurst, NJ	Lat 40°00'29", long 74°17'36", Ocean County, Hydrologic Unit 02040301, at bridge on Colonial Drive, 1.0 mi west of Lakehurst, and 2.3 mi upstream of Pine Lake.	27.2	2003-04	10-09-03 1-08-04 4-06-04 7-08-04	22 55 67 16
01408485	Ridgeway Branch near Legler, NJ	Lat 40°03'17", long 74°21'18", Ocean County, Hydrologic Unit 02040301, at bridge on High Bridge Road, 0.3 mi east of Jackson State Wildlife and Game Refuge, 1.0 mi west of Legler, and 7.9 mi upstream of Pine Lake.	23.7	2003-04	12-03-03 3-08-04 5-27-04 8-30-04	32 64 14 13
01408492	Ridgeway Branch at Route 70, near Lakehurst, NJ	Lat 40°01'15", long 74°16'25", Ocean County, Hydrologic Unit 02040301, at bridge on State Route 70, 1.4 mi upstream of Pine Lake, and 2.0 mi east of Lakehurst.	32.1	2003-04	10-09-03 1-08-04 4-06-04 7-08-04	25 57 85 17
01408600	Wrangel Brook near Toms River, NJ	Lat 39°57'39", long 74°13'41", Ocean County, Hydrologic Unit 02040301, at bridge on Southampton Road in Berkeley Township, 0.5 mi upstream of mouth, and 1.7 mi west of Toms River.	19.5	1993-2000, 2003-04	10-09-03 1-08-04 4-06-04 7-08-04	29 39 51 22
CEDAR CREEK BASIN						
01408830	Cedar Creek at Cedar Crest, NJ	Lat 39°53'50", long 74°18'59", Ocean County, Hydrologic Unit 02040301, at bridge on Whiting-Lacey Road in Cedar Crest, 0.2 mi downstream from outlet of Bamber Lake, and 3.7 mi southeast of Keswick Grove.	20.1	1998-2004	11-25-03 2-23-04 5-10-04 8-02-04	30 39 39 41
FORKED RIVER BASIN						
01409048	North Branch Forked River at power lines, at Barnegat Pines, NJ	Lat 39°51'30", long 74°13'31", Ocean County, Hydrologic Unit 02040301, at power lines 0.1 mi upstream of Garden State Parkway, 0.5 mi upstream of Deer Head Lake, and 0.7 mi north of Barnegat Pines.	13.2	2003-04	11-12-03 2-09-04 4-29-04 8-02-04	16 30 23 26
WARETOWN CREEK BASIN						
01409108	Waretown Creek at U.S. Route 9, at Waretown, NJ	Lat 39°47'34", long 74°11'46", Ocean County, Hydrologic Unit 02040301, at bridge on U.S. Route 9 in Waretown, 0.3 mi upstream of mouth, and 1.8 mi north of Pebble Beach.	2.98	2003-04	11-12-03 2-09-04 4-29-04 8-02-04	3.9 6.9 4.7 7.1
MILL CREEK BASIN						
†01409150	Mill Creek near Manahawkin, NJ	Lat 39°42'54", long 74°16'55", Ocean County, Hydrologic Unit 02040301, at bridge on State Route 72, 0.3 mi northwest of intersection of State Route 72 and Garden State Parkway, 1.8 mi northwest of Manahawkin, and 6.5 mi above mouth.	10.4	1961-67, 2002-04	11-12-03 2-09-04 4-29-04 8-02-04	27 23 21 32
TUCKERTON CREEK BASIN						
01409305	Mill Branch at Nugentown Road, at Tuckerton, NJ	Lat 39°36'37", long 74°21'01", Ocean County, Hydrologic Unit 02040301, at bridge on Nugentown Road, 0.5 mi upstream of Pohatcong Lake, and 0.7 mi northwest of Tuckerton.	9.86	2003-04	10-27-03 1-21-04 4-19-04 7-20-04	9.6 11 17 6.7
MULLICA RIVER BASIN						
†01409375	Mullica River near Atco, NJ	Lat 39°47'08", long 74°51'37", Camden County, Hydrologic Unit 02040301, at bridge on Jackson-Medford Road, 0.7 mi north of intersection of County Route 534 with Jackson-Medford Road, and 1.6 mi east of Atco.	3.22	1974-85, 1991-2004	10-10-03 2-24-04 6-22-04	1.7 3.7 1.8

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
MULLICA RIVER BASIN--Continued						
01409385	Mullica River at Burnt House Road, near Atsion, NJ	Lat 39°44'35", long 74°45'26", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, on Burlington-Camden County line, 0.7 mi upstream of Atsion Lake, and 1.6 mi west of Atsion.	25.3	2001, 2003-04	12-16-03 3-16-04 6-07-04 9-07-04	101 42 26 32
†01409387	Mullica River at outlet of Atsion Lake, at Atsion, NJ	Lat 39°44'25", long 74°43'36", 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.	26.7	1980-81, 1985-93, 1995-2004	11-24-03 2-17-04 5-12-04 9-08-04	102 70 43 38
0140940050	Mullica River at Constable Bridge, near Batsto, NJ	Lat 39°39'33", long 74°39'32", Burlington County, Hydrologic Unit 02040301, at Constable Bridge on Batsto Fireline Road, 1.0 mi upstream of Sleeper Branch, 1.2 mi northwest of Batsto, and 1.6 mi northeast of Nescochague Lake.	47.0	1996-1998, 2003-04	12-04-03 3-03-04 5-24-04 8-24-04	135 107 81 84
†01409401	Hays Mill Creek at Atco, NJ	Lat 39°45'32", long 74°53'01", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 (White Horse Pike), at outlet of Atco Lake in Atco, and 3.3 mi southeast of Berlin.	3.80	1979, 1991-2004	10-10-03 2-24-04 6-22-04	2.6 3.7 3.2
†0140940200	Hays Mill Creek near Chesilhurst, NJ	Lat 39°45'02", long 74°50'27", Camden County, Hydrologic Unit 02040301, at bridge on Tremont Avenue in Wharton State Forest, 0.6 mi upstream of mouth, and 2.0 mi northeast of Chesilhurst.	7.13	1974-80, 1991-2004	10-10-03 2-24-04 6-22-04	7.8 12 9.2
†0140940310	Wildcat Branch near Chesilhurst, NJ	Lat 39°42'21", long 74°49'59", 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	1979, 1991-2004	10-10-03 2-24-04 6-22-04	2.7 3.9 1.8
0140940360	Sleeper Branch above diversion near Atsion, NJ	Lat 39°43'46", long 74°46'15", Camden County, Hydrologic Unit 02040301, 500 ft upstream of Burnt House Road, just upstream of Sleeper Branch diversion channel (Saltars Ditch), and 2.4 mi west of Atsion (discharge is sum of 0140940365 & 0140940370).	16.1	1991-2004	10-10-03 2-24-04 6-22-04	17 29 17
†0140940365	Sleeper Branch Diversion (Saltars Ditch) near Atsion, NJ	Lat 39°43'48", long 74°46'08", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 600 ft downstream from Sleeper Branch, and 2.3 mi west of Atsion.	---	1979, 1991-2004	10-10-03 2-24-04 6-22-04	.74 3.0 .86
†0140940370	Sleeper Branch near Atsion, NJ	Lat 39°43'42", long 74°46'11", Camden County, Hydrologic Unit 02040301, at bridge on Burnt House Road, 500 ft downstream from Sleeper Branch diversion (Saltars Ditch) and 2.3 mi west of Atsion.	16.1	1991-2004	10-10-03 2-24-04 6-22-04	16 26 16
†0140940480	Clark Branch at railroad bridge, near Atsion, NJ	Lat 39°42'53", long 74°46'24", Camden County, Hydrologic Unit 02040301, at abandoned railroad bridge, 0.2 mi downstream from Price Branch and 2.8 mi west of Atsion.	6.42	1979, 1991-2004	10-10-03 2-24-04 6-22-04	1.0 6.8 .61
0140940607	Pump Branch at Cedar Brook, NJ	Lat 39°42'57", long 74°53'54", Camden County, Hydrologic Unit 02040301, at bridge on New Cedarbrook Road in Cedar Brook, 1.7 mi southeast of Florence, and 2.2 mi upstream of Hobb Lake.	3.39	2004	7-01-04 8-03-04 8-31-04	.21 .51 1.5

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
MULLICA RIVER BASIN--Continued						
†01409408	Pump Branch near Waterford Works, NJ	Lat 39°41'59", long 74°50'39", 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.	9.78	1991-2004	10-10-03	8.4
					2-24-04	16
					6-22-04	8.5
†0140940950	Blue Anchor Brook at Elm, NJ	Lat 39°41'17", long 74°50'05", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 (White Horse Pike) at Elm, at outlet of unnamed lake, and 1.4 mi upstream from confluence with Pump Branch.	4.86	1991-2004	10-10-03	3.1
					11-20-03	11
					2-17-04	4.4
					2-24-04	4.3
					5-17-04	4.4
					6-22-04	2.3
9-08-04	3.3					
†0140940970	Albertson Branch near Elm, NJ	Lat 39°41'34", long 74°48'23", 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	1991-2004	10-10-03	18
					2-24-04	30
					6-22-04	17
†01409411	Nescochague Creek at Pleasant Mills, NJ	Lat 39°38'29", long 74°39'42", Atlantic County, Hydrologic Unit 02040301, at bridge on West Mill Road in Pleasant Mills, 0.2 mi upstream from Mullica River and 0.6 mi west of Batsto	43.7	1975-86, 1996-98, 2003-04	12-04-03	74
					3-03-04	65
					5-24-04	55
					8-24-04	37
†01409412	Hammonton Creek at Route 30, at Hammonton, NJ	Lat 39°37'51", long 74°46'17", Atlantic County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 in Hammonton, at outlet of Hammonton Lake, and 2.0 mi west of Wescoatville.	2.54	1974, 1994, 2004	9-22-04	2.5
01409416	Hammonton Creek at Wescoatville, NJ	Lat 39°38'02", long 74°43'04", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road, 0.4 mi south of Wescoatville, and 1.6 mi upstream from Norton Branch.	9.57	1974, 1978-81, 1983, 1985-2004	11-25-03	22
					2-23-04	15
					5-17-04	12
					8-24-04	13
01409425	Batsto River near Tabernacle, NJ	Lat 39°50'16", long 74°39'47", Burlington County, Hydrologic Unit 02040301, at bridge on Chatsworth Road in Tabernacle, approximately 1.8 mi from headwater, and 2.6 mi north of Hampton Gate.	1.59	2004	6-24-04	26
					8-03-04	3.0
					8-31-04	6.4
01409431	Batsto River near High Crossing, NJ	Lat 39°46'55", long 74°40'21", Burlington County, Hydrologic Unit 02040301, 0.9 mi northeast of Hampton Furnace, 1.5 mi upstream of Skit Branch, and 1.8 mi northwest of High Crossings.	13.54	2004	6-24-04	10
					8-06-04	24
					8-31-04	39
01409439	Skit Branch at Hampton Furnace, NJ	Lat 39°46'01", long 74°40'40", Burlington County, Hydrologic Unit 02040301, at Hampton Furnace, 0.2 mi upstream from mouth, 2.5 mi south of Hampton Gate, and 3.9 mi southeast of Indian Mills.	10.8	1996-98, 2004	5-25-04	9.3
					8-06-04	17
					8-31-04	30
01409440	Batsto River near Hampton Furnace, NJ	Lat 39°45'19", long 74°40'45", Burlington County, Hydrologic Unit 02040301, at abandoned railroad bridge on Central Railroad of New Jersey tracks, 0.9 mi south of Hampton Furnace, 2.9 mi southwest of Caranza Memorial, and 4.4 mi southeast of Indian Mills.	25.6	2004	7-01-04	13
					8-06-04	43
					8-31-04	63
01409444	Muskingum Brook at Oriental, NJ	Lat 39°49'05", long 74°44'16", Burlington County, Hydrologic Unit 02040301, at bridge on Tuckerton Road, 0.6 mi west of Oriental, 1.1 mi east of Flyat, and 1.6 mi north of Indian Mills Lake.	2.97	2004	6-24-04	1.7
					9-27-04	2.3

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
MULLICA RIVER BASIN--Continued						
01409455	Springers Brook near Hampton Furnace, NJ	Lat 39°45'19", long 74°41'47", Burlington County, Hydrologic Unit 02040301, at bridge on Hampton Road, 1.3 mi southwest of Hampton Furnace, 1.7 mi downstream from Bard Branch, and 3.7 mi southeast of Indian Mills.	18.3	1996-98, 2004	5-25-04 8-06-04 8-31-04	17 25 32
†01409460	Springers Brook near Atsion, NJ	Lat 39°44'25", long 74°41'00", Burlington County, Hydrologic Unit 02040301, at bridge on sand road, 110 ft upstream from small unnamed left-bank tributary, 700 ft downstream from Deep Run, and 2.8 mi east of Atsion.	21.2	1975-78, 1980-83, 2004	9-27-04	9.6
01409470	Batsto River at Quaker Bridge, NJ	Lat 39°42'34", long 74°39'59", Burlington County, Hydrologic Unit 02040301, at Quaker Bridge on sand road, 1.1 mi southeast of Lower Forge, 2.3 mi upstream from Penn Swamp Brook, and 4.7 mi north of Batsto.	55.7	1996-98, 2003-04	12-16-03 3-16-04 9-07-04	225 117 84
01409480	Penn Swamp Branch near Batsto, NJ	Lat 39°41'03", long 74°39'01", Burlington County, Hydrologic Unit 02040301, at Quaker Bridge on sand road, 1.1 mi southeast of Lower Forge, 2.3 mi upstream from Penn Swamp Brook, and 4.7 mi north of Batsto.	4.80	2004	9-21-04	.36
01409571	Landing Creek at Hamburg Avenue, at Egg Harbor City, NJ	Lat 39°32'13", long 74°39'05", Atlantic County, Hydrologic Unit 02040301, at bridge on Hamburg Avenue, 0.5 mi northwest of Egg Harbor City, and 2.1 mi upstream of Union Creek.	3.78	2003-04	11-20-03 2-19-04 5-10-04 8-10-04	10 5.1 3.8 .69
†01409575	Landing Creek at Philadelphia Avenue, at Egg Harbor City, NJ	Lat 39°32'52", long 74°37'32", Atlantic County, Hydrologic Unit 02040301, at bridge on Philadelphia Avenue (County Route 563), 0.1 mi upstream from Union Creek, 1.7 mi northeast of intersection of Routes 30, 563, and 50 in Egg Harbor City, and 6.1 mi upstream from mouth.	4.86	1974, 1976-81, 2004	9-14-04	2.5
*01409710	Biddle Branch near Woodmansie, NJ	Lat 39°50'17", long 74°28'12", Burlington County, Hydrologic Unit 02040301, at culvert on State Route 72, 1.6 mi upstream of Pope Branch, 2.4 mi southeast of Woodmansie, and 7.9 mi east of Four Mile Circle.	1.06	2004	6-15-04 7-13-04 7-13-04 @ 1105 7-14-04 @ 1745 7-28-04 8-01-04	.39 3.2 2.4 1.6 1.8 .55
01409815	West Branch Wading River at Maxwell, NJ	Lat 39°40'30", long 74°32'27", Burlington County, Hydrologic Unit 02040301, at bridge on County Route 563 in Maxwell, 1.6 mi southeast of Washington, 1.8 mi southwest of Jenkins, and 2.2 mi upstream from mouth.	85.9	1985-90, 1998-2004	11-25-03 2-23-04 5-24-04 8-24-04	190 134 84 85
†01410225	Morses Mill Stream at Port Republic, NJ	Lat 39°30'23", long 74°30'20", Atlantic County, Hydrologic Unit 02040301, at bridge on Moss Mill Road (County Alternate Route 561), 0.6 mi upstream of Mill Pond, and 1.2 mi southwest of Port Republic.	8.25	2004	9-14-04	3.0
01410230	Mattix Run near Smithville, NJ	Lat 39°29'39", long 74°28'46", Atlantic County, Hydrologic Unit 02040301, at bridge on East Moss Hill Road, 1.2 mi west of Smithville, and 2.4 mi upstream of mouth.	5.33	2003-04	11-20-03 2-19-04 5-10-04 8-10-04	12 3.6 3.5 .54

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
ABSECON CREEK BASIN						
01410455	South Branch Absecon Creek near Pomona, NJ	Lat 39°26'23", long 74°33'58", Atlantic County, Hydrologic Unit 02040302 at bridge on Atlantic Avenue, 0.3 mi upstream of Atlantic City Reservoir, and 2.7 mi south of Pomona.	5.73	2003-04	12-09-03 3-02-04 5-20-04 8-23-04	6.7 7.7 8.2 4.3
GREAT EGG HARBOR RIVER BASIN						
†01410784	Great Egg Harbor River near Sicklerville, NJ	Lat 39°44'01", long 74°57'04", Camden County, Hydrologic Unit 02040302, at bridge on Williamstown-New Freedom Road, 1.5 mi northeast of Sicklerville and 3.2 mi upstream from Fourmile Branch.	15.1	1971-81, 1985-87, 1989-99, 2001, 2003-04	12-08-03 3-04-04 5-25-04 8-26-04	20 18 11 7.7
†01410803	Fourmile Branch at Winslow Crossing, NJ	Lat 39°42'07", long 74°58'10", Camden County, Hydrologic Unit 02040302, at bridge on Andrews Road in Winslow Crossing, 1.4 mi northeast of Williamstown, and 2.1 mi upstream of Great Egg Harbor.	6.22	1972-80, 1990-96, 2001-04	2-25-04	7.5
†01410810	Fourmile Branch at New Brooklyn, NJ	Lat 39°41'47", long 74°56'24", Camden County, Hydrologic Unit 02040302, at bridge on Malaga Road in New Brooklyn, 0.4 mi upstream of mouth, and 2.7 mi northeast of Williamstown.	7.74	1971-72, 1973-79a, 1983, 1985, 1989-97, 2001-04	2-25-04	12
†01410865	Squankum Branch at Malaga Road, near Williamstown, NJ	Lat 39°40'04", long 74°57'38", Gloucester County, Hydrologic Unit 02040302, at bridge on Malaga Road, 1.0 mi upstream of Hedges Branch, and 2.2 mi east of Williamstown.	3.02	1974, 1990-96, 2001-04	2-25-04	2.2
†01411035	Hospitality Branch at Blue Bell Road, near Cecil, NJ	Lat 39°38'40", long 74°59'09", Gloucester County, Hydrologic Unit 02040302, at bridge on Blue Bell Road, 1.2 mi upstream of Timber Lakes, and 2.0 mi west of Cecil.	4.51	1990-96, 1998-2004	11-24-03 2-09-04 2-25-04 5-19-04 9-09-04	6.9 12 7.1 6.1 2.4
†01411047	Whitehall Branch below Victory Lakes, near Cecil, NJ	Lat 39°37'59", long 74°56'44", Gloucester County, Hydrologic Unit 02040302, at bridge on Sunnyside Lane, off of Yardley Road in Friendly Village trailer park, 800 ft below Victory Lakes and 1.0 mi south of Cecil.	4.60	1990-96, 2001-04	2-25-04	6.3
01411071	Hospitality Branch at railroad bridge, near Folsom, NJ	Lat 39°35'16", long 74°51'30", Atlantic County, Hydrologic Unit 02040302, at railroad bridge 100 ft downstream of State Route 54 (Twelfth Street), 0.3 mi upstream of Three Pond Branch, and 1.3 mi southwest of Folsom.	62.2	2003-04	12-08-03 3-04-04 5-25-04 8-26-04	90 65 66 23
01411110	Great Egg Harbor River at Weymouth, NJ	Lat 39°30'50", long 74°46'46", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream of Deep Run, and 8.5 mi east of Landisville.	154	1978-81, 1985-2004	2-10-04 5-18-04 8-19-04	810 174 184
†01411140	Deep Run at Weymouth, NJ	Lat 39°30'26", long 74°46'55", Atlantic County, Hydrologic Unit 02040302, at bridge on County Route 559, 0.3 mi upstream of mouth and 0.5 mi southwest of Weymouth.	20.0	1976-86, 2003-04	12-08-03 3-04-04 5-25-04 8-26-04 9-22-04	58 32 25 12 11
01411196	Babcock Creek near Mays Landing, NJ	Lat 39°28'08", long 74°41'33", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322, 2.2 mi northeast of Mays Landing, and 2.8 mi upstream from Watering Race Branch.	16.3	1998-2004	11-19-03 2-10-04 5-18-04 8-19-04	13 44 12 9.8

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
GREAT EGG HARBOR RIVER BASIN--Continued						
†01411200	Babcock Creek at Mays Landing, NJ	Lat 39°27'18", long 74°43'03", Atlantic County, Hydrologic Unit 02040302, at bridge on Old Egg Harbor Road, 0.6 mi northeast of Mays Landing and 0.7 mi upstream from mouth.	20.0	1959-63, 2002, 2004	9-14-04	5.7
†01411250	English Creek near Scullville, NJ	Lat 39°22'07", long 74°39'46", Atlantic County, Hydrologic Unit 02040302, at bridge on Honey Suckle Lane, 1.8 mi upstream from County Route 559 in the community of English Creek, and 2.5 mi northwest of Scullville.	3.80	1986-93, 2004	9-14-04	3.0
PATCONG CREEK BASIN						
†01411305	Mill Branch near Northfield, NJ	Lat 39°23'44", long 74°35'35", Atlantic County, Hydrologic Unit 02040302, at bridge on County Route 684, 0.4 mi downstream of Cedar Branch, 1.1 mi south of Cardiff, and 4.5 mi northwest of Northfield.	7.47	1986-93, 2003-04	12-09-03 3-02-04 5-20-04 8-23-04	9.5 8.1 12 5.5
MILL CREEK BASIN						
*01411356	Crooked Creek at Cape May Court House, NJ	Lat 39°05'08", long 74°49'15", Cape May County, Hydrologic Unit 02040302, at bridge on U.S. Route 9 in Cape May Court House, 1.4 mi northeast of Mayville, and 2.1 mi upstream from Oyster Creek.	1.08	2004	10-16-03 11-05-03 11-06-03 @ 0715 11-06-03 @ 0745 11-06-03 @ 0900	.26 .85 8.5 8.3 7.7
FISHING CREEK BASIN						
†01411400	Fishing Creek at Rio Grande, NJ	Lat 39°01'39", long 74°53'47", Cape May County, Hydrologic Unit 02040206, at bridge on State Route 47, at Wildwood pumping station, and 1.4 mi northwest of Rio Grande.	2.29	1965-72, 1990-92, 1998-2004	11-25-03 2-10-04 5-26-04 8-24-04	3.1 5.1 1.4 .79
DENNIS CREEK BASIN						
01411440	Old Robins Branch near North Dennis, NJ	Lat 39°11'50", long 74°52'09", Cape May County, Hydrologic Unit 02040206, at culvert on Beaver Causeway in Belleplain State Forest, 1.0 mi west of North Dennis, 1.9 mi upstream from mouth.	2.96	1998, 2003-04	11-05-03 2-03-04 4-26-04 7-27-04	1.6 2.0 3.6 .19
01411441	Savages Run in Belleplain State Forest, NJ	Lat 39°14'32", long 74°52'33", Cape May County, Hydrologic Unit 02040206, at bridge on Sunset Road in Belleplain State Forest, 1.0 mi upstream of East Creek Pond, and 3.6 mi west of Woodbine.	5.55	2003-04	11-05-03 2-03-04 4-26-04 7-27-04	3.2 5.5 11 1.6
WEST CREEK BASIN						
01411444	West Creek near Leesburg, NJ	Lat 39°15'36", long 74°54'41", Cumberland County, Hydrologic Unit 02040206, at bridge on County Route 550, 1.3 mi upstream from Hands Mill Pond, and 3.7 mi east of Leesburg.	6.64	1999-2004	11-25-03 2-10-04 5-26-04 8-24-04	13 11 12 .47
MAURICE RIVER BASIN						
01411453	Still Run near Malaga, NJ	Lat 39°35'07", long 75°04'54", Gloucester County, Hydrologic Unit 02040206, at bridge on U.S. Route 40, 1.5 mi northwest of Malaga, and 2.3 mi upstream of Willow Grove Lake.	26.9	1957, 2003-04	12-10-03 3-09-04 6-01-04 9-02-04	77 106 66 51
01411466	Indian Brook near Malaga, NJ	Lat 39°35'27", long 75°03'35", Gloucester County, Hydrologic Unit 02040206, at bridge on State Route 47 (Delsea Drive), 0.4 mi upstream from Malaga Lake, and 1.4 mi north of Malaga.	6.50	1957, 1998-2004	11-24-03 2-09-04 5-19-04 9-09-04	13 23 8.8 5.2

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
MAURICE RIVER BASIN--Continued						
01411495	Blackwater Branch at Norma, NJ	Lat 39°30'20", long 75°04'21", Cumberland County, Hydrologic Unit 02040206, at bridge on Maurice River Parkway, 0.7 mi northeast of Norma, and 0.4 mi from mouth.	12.5	1992-95a, 2003-04	12-10-03 3-09-04 6-01-04 9-02-04	20 26 24 16
†01411680	Palatine Branch at Palatine, NJ	Lat 39°33'25", long 75°10'27", Salem County, Hydrologic Unit 02040206, at bridge on Elmer-Palatine Road, at Palatine, 0.6 mi upstream of Palatine Lake, and 2.5 mi south of Elmer.	5.39	1994-99, 2001-2004	12-11-03 3-10-04 6-10-04 9-13-04	275 7.8 4.5 2.8
01411907	White Marsh Run at Millville, NJ	Lat 39°23'23", long 75°02'40", Cumberland County, Hydrologic Unit 02040206, at bridge on South Race Street in Millville, 0.2 mi upstream from mouth, and 2.1 mi northeast of Millville Municipal Airport.	8.77	2003-04	12-01-03 2-26-04 5-17-04 8-17-04	2.0 3.0 2.6 1.9
01411955	Gravelly Run at Laurel Lake, NJ	Lat 39°20'14", long 75°03'03", Cumberland County, Hydrologic Unit 02040206, at bridge on Battle Lane, 0.3 mi upstream from mouth, and 1.1 mi west of community of Laurel Lake.	3.19	1998-2004	10-09-03 11-19-03@1500 11-19-03@1900 11-20-03 2-10-04 5-19-04 6-23-04 8-12-04	1.1 2.2 3.7 6.0 4.9 3.3 1.9 .77
01412005	Menantico Creek at Route 49, at Millville, NJ	Lat 39°23'11", long 74°59'21", Cumberland County, Hydrologic Unit 02040206, at bridge on State Route 49 (East Main Street) in Millville, 0.2 mi upstream of Berryman Branch, and 2.8 mi northwest of Cumberland.	26.3	2003-04	12-09-03 3-02-04 5-20-04 8-23-04	54 45 38 23
01412080	Manumuskin River at Cumberland, NJ	Lat 39°22'24", long 74°56'44", Cumberland County, Hydrologic Unit 02040206, at bridge on State Route 49, at outlet of Cumberland Pond, 0.3 mi northwest of Cumberland, and 1.6 mi upstream of Hooks Branch.	27.4	1967, 1997, 2003-04	5-17-04 8-17-04	39 51
NANTUXENT CREEK BASIN						
01412200	Pages Run at Newport, NJ	Lat 39°18'18", long 75°09'51", Cumberland County, Hydrologic Unit 02040206, at bridge on County Route 553, 0.7 mi downstream of Shaws Mill Pond, and 0.9 mi northeast of Newport.	3.86	2003-04	12-01-03 2-26-04 5-17-04 8-17-04	4.1 5.2 4.7 4.2
COHANSEY RIVER BASIN						
01412409	Cohansey River tributary 1 at Center Road, near Deerfield, NJ	Lat 39°31'28", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, at bridge on Center Road, 0.9 mi upstream from mouth, and 1.0 mi west of Deerfield.	1.07	2004	4-22-04 5-13-04 6-24-04 8-23-04	1.2 .98 .98 1.1
01412420	Cohansey River tributary 1 at pipeline, near Deerfield, NJ	Lat 39°31'03", long 75°15'58", Cumberland County, Hydrologic Unit 02040206, at pipeline 220 ft north of County Route 540, 230 ft upstream from mouth, and 1.7 mi west of Deerfield.	1.30	2004	4-21-04 5-11-04 6-24-04 8-23-04	1.6 1.6 1.4 1.4
01412430	Cohansey River at Route 540, near Deerfield, NJ	Lat 39°31'00", long 75°16'01", Cumberland County, Hydrologic Unit 02040206, at bridge on County Route 540 (Cohansey-Deerfield Road), 0.9 mi downstream from Bostwick Lake, and 1.7 mi west of Deerfield.	12.8	2004	4-21-04 5-12-04 6-24-04 7-12-04 8-23-04	13 12 10 6.7 7.6

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
COHANSEY RIVER BASIN--Continued						
01412438	Cohansey River tributary 2 near Seeley, NJ	Lat 39°30'21", long 75°16'14", Cumberland County, Hydrologic Unit 02040206, at bridge on Seeley-Cohansey Road, 0.5 mi upstream from mouth, and 1.8 mi northwest of Seeley.	.45	2004	4-22-04	.18
					5-13-04	.16
					6-25-04	.37
					8-23-04	.24
01412440	Cohansey River near Deerfield, NJ	Lat 39°30'10", long 75°15'37", Cumberland County, Hydrologic Unit 02040206, at bridge on Harmony-Deerfield Road (Walters Road), 0.6 mi upstream from Harrow Run, and 1.9 mi southwest of Deerfield.	14.9	2004	4-22-04	18
					5-12-04	16
					6-25-04	15
					7-12-04	11
					8-23-04	11
01412485	Harrow Run at Cake Road, near Seabrook, NJ	Lat 39°30'00", long 75°14'58", Cumberland County, Hydrologic Unit 02040206, at bridge on Cake Road, 0.6 mi upstream from mouth, and 1.7 mi west of Seabrook.	1.80	2004	5-13-04	2.1
					6-25-04	1.9
					8-23-04	1.8
01412710	Foster Run at Seeley, NJ	Lat 39°29'15", long 75°15'14", Cumberland County, Hydrologic Unit 02040206, at bridge on Finley Road, 0.4 mi north of Seeley, and 0.5 mi upstream from mouth.	5.75	1951, 2003-04	12-11-03	40
					3-10-04	10
					6-10-04	11
					9-13-04	7.7
DELAWARE RIVER BASIN						
†01438400	Shimers Brook near Montague, NJ	Lat 41°18'47", long 74°46'51", Sussex County, Hydrologic Unit 02040104, at culvert on County Route 521 (River Road), 0.8 mi upstream of mouth, and 1.0 mi northeast of Montague.	7.06	1943, 1958-64, 1966, 2001-04	10-09-03	4.5
					10-22-03	7.9
					11-19-03	11
					12-17-03	31
					5-05-04	15
					5-19-04	8.8
					6-02-04	7.8
					6-16-04	3.4
					6-30-04	5.4
					8-11-04	2.4
					8-25-04	13
					9-08-04	4.6
					9-15-04	8.1
†01439830	Big Flat Brook at Tuttle's Corner, NJ	Lat 41°12'00", long 74°48'55", Sussex County, Hydrologic Unit 02040104, at bridge on County Route 560, 0.7 mi west of Tuttle's Corner, and 2.4 mi upstream of mouth.	28.3	1964, 1970-73, 1978-81, 2001-04	10-09-03	20
					10-22-03	44
					11-19-03	44
					12-17-03	283
					5-05-04	58
					5-19-04	42
					6-02-04	73
†01439920	Little Flat Brook at Peters Valley, NJ	Lat 41°11'54", long 74°50'09", Sussex County, Hydrologic Unit 02040104, at bridge on Ennis Road, 0.8 mi east of Peters Valley, 1.1 mi upstream of mouth, and 5.5 mi downstream of bridge on U.S. Route 206.	14.7	1964, 2001-04	10-09-03	9.6
					10-22-03	13
					11-19-03	16
					5-05-04	27
					5-19-04	22
					6-02-04	26
†01440100	Vancampens Brook near Millbrook, NJ	Lat 41°03'28", long 75°00'12", Warren County, Hydrologic Unit 02040104, at bridge on Francis Road, 2.3 mi upstream of mouth, and 2.5 mi southwest of Millbrook.	7.40	1958-64, 1966-68, 2002-04	10-09-03	10
					11-19-03	16
					6-02-04	7.2
01442760	Dunnfield Creek at Dunnfield, NJ	Lat 40°58'14", long 75°07'34", Warren County, Hydrologic Unit 02040104, at foot bridge on Appalachian Trail/Dunnfield Rest Area in Dunnfield, 1,300 ft upstream from mouth, and 3.5 mi northwest of Columbia.	3.56	1998-2004	11-12-03	11
					2-19-04	6.3
					5-03-04	26
					8-03-04	1.8
†01443250	Paulins Kill at Warbasse Junction Road, near Lafayette, NJ	Lat 41°05'08", long 74°41'57", Sussex County, Hydrologic Unit 02040105, at bridge on Warbasse Junction Road, 0.4 mi upstream of East Branch Paulins Kill and 1.0 mi south of Lafayette.	11.4	2002, 2004	9-14-04	14

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
01443462	Neldons Brook at Mt. Benevolence Road, near Swartswood, NJ	Lat 41°06'22", long 74°50'57", Sussex County, Hydrologic Unit 02040105, at bridge on Mt. Benevolence Road, 1.7 mi northwest of Swartswood, and 2.6 mi downstream from Quick Pond.	2.56	2004	4-29-04	4.0
					5-25-04	2.2
					6-23-04	1.4
					7-30-04	1.5
					8-27-04	2.6
9-23-04	6.6					
01443464	Neldons Brook at Old Tannery Road, near Swartswood, NJ	Lat 41°05'55", long 74°50'29", Sussex County, Hydrologic Unit 02040105, at bridge on Old Tannery Road, 1.1 mi northwest of Swartswood, and 2.3 mi upstream from Swartswood Lake.	7.18	2004	4-30-04	12
					5-25-04	7.8
					6-23-04	3.0
					7-30-04	7.5
					8-27-04	5.6
9-21-04	29					
01443466	Neldons Brook at Swartswood Road, at Swartswood, NJ	Lat 41°05'05", long 74°49'37", Sussex County, Hydrologic Unit 02040105, at bridge on Swartswood Road in Swartswood, 0.5 mi upstream from Swartswood Lake, and 2.7 mi northeast of Middleville.	9.68	2004	4-29-04	17
					5-25-04	8.0
					6-22-04	3.3
					7-29-04	17
					8-26-04	7.9
9-22-04	21					
01443468	Indian Creek at Swartswood Road, at Swartswood, NJ	Lat 41°04'58", long 74°49'15", Sussex County, Hydrologic Unit 02040105, at bridge on Swartswood Road, 850 ft downstream from Little Swartswood Lake, and 0.5 mi southeast of Swartswood.	3.04	2004	4-28-04	7.4
					5-25-04	6.3
					6-22-04	2.0
					7-29-04	.83
					8-26-04	6.1
9-21-04	22					
†01445100	Pequest River at Long Bridge, NJ	Lat 40°55'16", long 74°50'26", Warren County, Hydrologic Unit 02040105, at bridge on Long Bridge Road at Long Bridge, 0.3 mi downstream of Trout Brook, and 4.8 mi north of Hackettstown.	48.4	1940-42, 1974, 2004	9-14-04	25
01445160	Bear Brook at Dark Moon Road, near Johnsonburg, NJ	Lat 40°58'30", long 74°50'56", Warren County, Hydrologic Unit 02040105, at bridge on Dark Moon Road 1.3 mi northeast of Johnsonburg, and 0.4 mi northwest of Francis Lake.	5.1	2001-2004	11-06-03	17
					2-05-04	3.7
					5-04-04	22
					8-05-04	1.6
†01445400	Pequest River at Great Meadows, NJ	Lat 40°51'38", long 74°54'21", Warren County, Hydrologic Unit 02040105, at bridge on Cemetery Road, 0.5 mi east of Great Meadows, and 0.6 mi downstream of U.S. Route 46.	90.1	1940-43, 1954-55, 2004	9-14-04	46
01445430	Pequest River at Townsburry, NJ	Lat 40°51'06", long 74°56'01", Warren County, Hydrologic Unit 02040105, at bridge on Pequest Road in Townsburry, 2.8 mi northeast of Pequest, and 3.7 mi upstream of Furnace Brook.	92.5	1977-81a, 1983, 1989, 1991, 1993, 2003-04	10-23-03	76
					1-20-04	132
					4-15-04	404
					7-19-04	55
01445498	Furnace Brook at mouth, at Pequest, NJ	Lat 40°49'46", long 74°58'40", Warren County, Hydrologic Unit 02040105, 100 ft upstream from mouth, in Pequest, 0.1 mi downstream of abandoned railroad bridge over Pequest River, and 4.8 mi north of Washington.	7.74	2003-04	10-30-03	68
01446400	Pequest River at Belvidere, NJ	Lat 40°49'45", long 75°04'43", Warren County, Hydrologic Unit 02040105, at bridge on County Route 519 (Greenwich Street) in Belvidere, 0.3 mi upstream of mouth, and 2.8 mi west of Bridgeville.	157	1974, 1977-2004	10-02-03	277
					12-29-03	845
					2-19-04	216
					4-06-04	272
					5-20-04	254
					7-27-04	73
					8-31-04	122

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
01457400	Musconetcong River at Riegelsville, NJ	Lat 40°35'32", long 75°11'19", Warren County, Hydrologic Unit 02040105, at bridge on County Route 627 in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.	156	1940-55, 1973, 1977-81, 1983, 1985-86, 1988-2004	2-18-04 8-31-04	265 140
†01458100	Hakihokake Creek at Milford, NJ	Lat 40°34'06", long 75°05'43", Hunterdon County, Hydrologic Unit 02040105, at bridge on Bridge Street, in Milford, 4,000 ft upstream from mouth.	17.2	1944, 1958-64, 1977-81, 2002-04	10-22-03 1-15-04 4-13-04 7-15-04	16 32 69 29
01458300	Harihokake Creek at Harpence Road, near Mount Pleasant, NJ	Lat 40°36'01", long 75°01'51", Hunterdon County, Hydrologic Unit 02040105, at culverts on Harpence Road, 1.7 mi northeast of Mount Pleasant, and 7.1 mi upstream from mouth.	.98	2003-04	10-22-03 1-15-04 4-13-04 7-15-04	.80 1.8 5.6 1.1
†01458400	Harihokake Creek near Frenchtown, NJ	Lat 40°32'53", long 75°04'08", Hunterdon County, Hydrologic Unit 02040105, at bridge on Frenchtown-Milford Road, 1,600 ft upstream from mouth, and 1.5 mi north of Frenchtown.	9.75	1944, 1958-65, 1979-81, 2002-04	10-22-03 1-15-04 4-13-04 7-15-04	6.8 14 46 44
01458570	Nishisakawick Creek near Frenchtown, NJ	Lat 40°32'39", long 75°02'47", Hunterdon County, Hydrologic Unit 02040105, site along Creek Road, 1.3 mi north of Frenchtown, 2.1 mi upstream from mouth, and 3.1 mi southeast of Milford.	10.1	1998-2004	11-13-03 2-18-04 5-11-04 8-02-04	13 11 15 20
01460500	Delaware and Raritan Canal at Kingston, NJ	Lat 40°22'25", long 74°37'06", Hunterdon County, Hydrologic Unit 02040105, at canal lock at Kingston near dam at Carnegie Lake, 160 ft upstream from bridge on State Route 27.	---	1961-94a, 1997, 2002-04	7-06-04	159
†01460900	Locketong Creek near Raven Rock, NJ	Lat 40°24'28", long 75°00'51", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29, 1.1 mi east of Raven Rock, and 300 ft upstream from mouth.	23.2	1944-45, 1958-64, 2002-04	11-17-03 2-17-04 5-04-04 8-05-04	15 17 67 15
01461282	Wickecheoke Creek at Sergeantsville, NJ	Lat 40°26'38", long 74°57'58", Hunterdon County, Hydrologic Unit 02040105, at bridge on Rosemont Ringoes Road, 1.2 mi west of Sergeantsville, and 3.5 mi upstream from mouth.	22.8	2003-04	11-17-03 2-17-04 5-04-04 8-05-04	12 18 49 14
†01461900	Alexauken Creek near Lambertville, NJ	Lat 40°22'51", long 74°56'53", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29, 0.4 mi upstream from mouth and 1.1 mi north of Lambertville.	14.8	1945, 1955, 1958-62, 1964, 1977-82, 2000, 2002-04	10-06-03 1-05-04 4-01-04 7-06-04	3.8 151 31 .64
01462739	Jacobs Creek at Bear Tavern, NJ	Lat 40°18'26", long 74°50'01", Mercer County, Hydrologic Unit 02040105, at bridge on Pennington Road, 0.5 mi upstream from Woolsey Brook, and 0.8 east of Bear Tavern.	5.16	2003-04	11-17-03 2-17-04 5-04-04 8-05-04	3.9 3.6 9.3 4.1
01463610	Assumpink Creek at Edinburg, NJ	Lat 40°15'28", long 74°37'04", Mercer County, Hydrologic Unit 02040105, at bridge on Old Trenton Road (County Route 535), 0.1 mi west of Edinburg, 0.1 mi upstream from Bridegroom Run and 3.0 mi north of Robbinsville.	25.0	1981, 1983-84, 2001, 2003-04	10-06-03 1-05-04 4-01-04 7-06-04	10 44 47 13
01463850	Miry Run at Route 533 at Mercerville, NJ	Lat 40°14'50", long 74°41'13", Mercer County, Hydrologic Unit 02040105, at bridge on County Route 533 (Quaker Bridge Road), 2.1 mi upstream of mouth, 0.7 mi north of Mercerville, and 3.8 mi northwest of Robbinsville.	10.7	1998-2004	11-05-03 2-04-04 6-08-04 8-17-04	3.4 49 2.6 4.4

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
01463920	Pond Run near White Horse, NJ	Lat 40°12'55", long 74°41'25", Mercer County, Hydrologic Unit 02040105, at bridge on Whitehorse-Mercerville Road, 2.0 mi north of White Horse, and 4.2 mi upstream from mouth.	3.89	2003-04	10-06-03 1-05-04 4-01-04 7-06-04	.54 16 5.8 4.1
01464020	Assunpink Creek at Peace Street, at Trenton, NJ	Lat 40°13'02", long 74°46'07", Mercer County, Hydrologic Unit 02040105, at bridge on Peace Street in Trenton, 0.1 mi upstream of mouth, and 4.4 mi west of Mercerville.	91.4	1963, 1967, 1998-2004	11-24-03 2-19-04 5-18-04 8-03-04	235 122 91 152
†01464300	Crosswicks Creek near Cookstown, NJ	Lat 40°02'44", long 74°32'22", Burlington County, Hydrologic Unit 02040201, at bridge on Bunting Bridge Road, 0.7 mi upstream from North Run, and 1.2 mi east of Cookstown.	24.9	1966, 1969-70, 1972-74, 2002-04	11-06-03 2-05-04 4-27-04 7-29-04	47 96 209 27
†01464380	North Run at Cookstown, NJ	Lat 40°02'58", long 74°33'46", Burlington County, Hydrologic Unit 02040201, at bridge on Spur County Route 528, at downstream end of Cookstown Pond at Cookstown.	7.28	1966, 1969-74, 2002-04	11-06-03 2-05-04 4-27-04 7-29-04	16 19 43 7.9
01464445	Lahaway Creek tributary near Prospertown, NJ	Lat 40°06'53", long 74°27'27", Ocean County, Hydrologic Unit 02040201, 100 ft downstream of culvert on North Stump Tavern Road, 1.0 mi southeast of Prospertown, and 2.1 mi upstream from mouth.	2.15	2003-04	12-15-03 4-14-04 7-13-04 9-27-04	3.9 5.2 6.6 3.1
†01464460	Lahaway Creek near Hornerstown, NJ	Lat 40°06'24", long 74°32'11", Monmouth County, Hydrologic Unit 02040201, at bridge on Allentown-New Egypt Road, 1.0 mi west of Hornerstown.	21.4	1966, 1969-74, 2002-04	10-07-03 1-06-04 4-05-04 7-07-04	17 50 65 15
01464504	Crosswicks Creek at Groveville Road, at Groveville, NJ	Lat 40°10'02", long 74°40'39", Mercer County, Hydrologic Unit 02040201, at bridge on Groveville Road (Main Street) in Groveville, 1.2 mi upstream from Doctors Creek, and 2.2 mi northeast of Bordentown.	98.0	1966, 1998-2004	12-10-03 2-24-04 5-18-04 9-01-04	164 119 89 392
01464512	Doctors Creek at Red Valley, NJ	Lat 40°09'41", long 74°28'07", Monmouth County, Hydrologic Unit 02040201, at bridge on Allentown-Red Valley Road (County Route 526) in Red Valley, 100 ft downstream of Red Valley Lake, and 2.5 mi east of Imlaystown.	3.83	2003-04	10-07-03 1-06-04 4-05-04 7-07-04	2.0 9.9 9.6 1.3
†01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'56", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road, 0.8 mi west of Allentown and 0.8 mi downstream from Conines Mill Pond.	17.4	1966, 1968-72, 1974-75, 1979, 1981-95, 1998-2004	11-06-03 2-02-04 5-10-04 8-05-04	28 14 23 13
01464523	Back Creek at Yardville, NJ	Lat 40°11'31", long 74°39'55", Mercer County, Hydrologic Unit 02040201, at bridge on Yardville-Hamilton Square Road, 0.7 mi downstream of Edges Brook, and 0.9 mi north of Yardville.	6.51	2003-04	11-06-03 2-05-04 4-27-04 7-29-04	21 13 57 3.1
01464527	Blacks Creek at Chesterfield, NJ	Lat 40°06'34", long 74°38'30", Burlington County, Hydrologic Unit 02040201, at bridge on Chesterfield-Georgetown Road, 0.4 mi south of Chesterfield, 2.2 mi north of Georgetown, and 2.4 mi upstream of mouth.	8.91	1969, 2001-04	11-05-03 2-02-04 5-13-04 8-05-04	9.6 7.6 8.1 12

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
0146452750	Blacks Creek near Chesterfield, NJ	Lat 40°06'52", long 74°40'48", Burlington County, Hydrologic Unit 02040201, at bridge on Bordentown Road, 0.8 mi upstream of Bacons Run, and 2.1 mi west of Chesterfield.	13.3	2002-04	12-17-03 5-10-04	27 16
01464529	Bacons Run near Mansfield Square, NJ	Lat 40°06'27", long 74°41'05", Burlington County, Hydrologic Unit 02040201, at bridge on White Pine Road, 0.2 mi upstream of Blacks Creek, and 1.3 mi southeast of Mansfield Square.	4.41	2003-04	11-24-03 2-23-04 5-11-04 8-12-04	5.2 4.0 3.6 1.8
01464537	Crafts Creek at Island Road, at Columbus, NJ	Lat 40°04'26", long 74°42'05", Burlington County, Hydrologic Unit 02040201, at bridge on Island Road, 1.0 mi east of Columbus, and 8.6 mi upstream from mouth.	3.43	2003-04	11-24-03 2-23-04 5-11-04 8-12-04	5.7 2.9 2.6 .71
†01464540	Crafts Creek at Hedding, NJ	Lat 40°06'01", long 74°45'22", Burlington County, Hydrologic Unit 02040201, at bridge on Old York Road, 0.8 mi southwest of Hedding, and 3.6 mi upstream from mouth.	10.6	1959-63, 2003-04	10-14-03 1-12-04 4-07-04 7-12-04	4.0 9.4 16 .56
01464578	Annaricken Brook near Jobstown, NJ	Lat 40°03'19", long 74°42'07", Burlington County, Hydrologic Unit 02040201, at bridge on Island Road, 500 ft upstream of Assiscunk Creek, and 1.3 mi north of Jobstown.	2.82	2003-04	11-24-03 2-23-04 5-11-04 8-12-04	3.3 1.7 1.4 .53
01464587	Assiscunk Creek at Jacksonville, NJ	Lat 40°03'52", long 74°45'25", Burlington County, Hydrologic Unit 02040201, at bridge on Jacksonville Road, 1.0 mi north of Jacksonville, and 10 mi upstream from mouth.	33.6	2003-04	10-14-03 1-12-04 4-07-04 7-12-04	8.9 20 46 2.1
†01465847	Jade Run at Vincentown, NJ	Lat 39°56'10", long 74°44'36", Burlington County, Hydrologic Unit 02040202, at bridge on U.S. Route 206, 0.4 mi east of Vincentown, and 0.08 mi upstream of mouth.	11.3	2001-04	9-15-04	0
†01465865	Barton Run at Tuckerton Road, near Medford, NJ	Lat 39°52'43", long 74°51'37", Burlington County, Hydrologic Unit 02040202, at bridge on Tuckerton Road, 1.5 mi upstream of Southwest Branch Rancocas Creek, and 2.5 mi southwest of Medford.	12.0	2001-04	9-22-04	7.6
01465893	Little Creek at Chairville, NJ	Lat 39°53'53", long 74°47'18", Burlington County, Hydrologic Unit 02040202, at bridge on State Route 70 in Chairville, 1.9 mi east of Medford, and 4.7 mi upstream from mouth.	6.32	1998-2004	2-03-04 5-12-04 8-23-04	6.2 9.0 8.0
†01465930	Masons Creek near Springville, NJ	Lat 39°56'02", long 74°51'03", Burlington County, Hydrologic Unit 02040202, at bridge on Ark Road, 0.2 mi upstream of unnamed tributary, 0.9 mi east of Springville, and 3.1 mi southwest of Lumberton.	1.10	1998, 2004	9-22-04	0
†01465950	North Branch Rancocas Creek at Hanover Furnace, NJ	Lat 39°58'46", long 74°31'30", Burlington County, Hydrologic Unit 02040202, at bridge on Military Road at outlet of Hanover Lake at Hanover Furnace, 1.0 mi upstream of Mirror Lake, and 2.6 mi east from Browns Mills.	13.5	2004	9-15-04	17

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
†01465965	Ong Run at Browns Mills, NJ	Lat 39°58'35", long 74°34'36", Burlington County, Hydrologic Unit 02040202, at bridge on West Lakeshore Drive, 200 ft upstream of Mirror Lake, 0.7 mi north of Browns Mills, and 1.5 mi downstream of bridge on County Route 545.	1.87	2001-04	9-15-04	1.5
01467005	North Branch Rancocas Creek at Iron Works Park, at Mount Holly, NJ	Lat 39°59'31", long 74°46'57", Burlington County, Hydrologic Unit 02040202, at Iron Works Park in Mount Holly, 2.4 mi east of Hainesport, and 4.0 mi downstream of Smithville Lake.	140	1970, 1998-2004	11-24-03 2-03-04 8-23-04	264 128 217
†01467020	Mill Creek at Willingboro, NJ	Lat 40°01'58", long 74°52'45", Burlington County, Hydrologic Unit 02040202, at bridge on Kennedy Parkway at Willingboro, 0.7 mi upstream from South Branch Mill Creek, and 3.1 mi southeast of Beverly.	7.77	1959-64, 1976, 2002, 2004	9-15-04	.64
†0146702680	Swede Run at Conrow Road, at Delran, NJ	Lat 40°00'21", long 74°56'46", Burlington County, Hydrologic Unit 02040202, at bridge on Conrow Road, in Delran, 3.0 mi upstream from mouth.	4.29	2002-04	9-15-04	1.5
01467075	South Branch Pennsauken Creek at Springdale, NJ	Lat 39°54'21", long 74°57'08", on Burlington-Camden County line, Hydrologic Unit 02040202, at bridge on Green Tree Road, 0.7 mi west of Springdale, and 10.7 mi from mouth.	2.47	1998, 2002-04	9-22-04	1.2
01467327	South Branch Big Timber Creek tributary at Grenloch, NJ	Lat 39°46'46", long 75°03'14", Gloucester County, Hydrologic Unit 02040202, at bridge on unnamed road, 250 ft west of Black Horse Pike (State Route 168), 50 ft upstream of Grenloch Lake, and 0.4 mi south of Grenloch.	4.27	2003-04	5-10-04 7-14-04	9.0 7.7
01467359	North Branch Big Timber Creek at Glendora, NJ	Lat 39°50'04", long 75°04'01", Camden County, Hydrologic Unit 02040202, at bridge on Chews Landing-Clementon Road (County Route 683), 0.7 mi south of Glendora, 1.8 mi upstream from South Branch Big Timber Creek, and 2.5 mi north of Blackwood.	18.8	1998-2004	12-08-03 2-24-04 6-03-04 8-31-04	30 35 112 190
01475031	Chestnut Branch at Glassboro, NJ	Lat 39°42'32", long 75°06'58", Gloucester County, Hydrologic Unit 02040202, 0.3 mi north of Glassboro, 1.4 mi upstream from mouth of Plank Run, and 1.5 mi south of Pitman.	.36	1995-96, 1998-99, 2004	11-20-03 12-16-03	.72 .52
01475032	Chestnut Branch at footbridge, at Glassboro, NJ	Lat 39°42'38", long 75°07'18", Gloucester County, Hydrologic Unit 02040202, at footbridge, 0.7 mi northwest of Glassboro, 1.0 mi upstream from mouth, and 1.4 mi south of Pitman.	.47	1995-96, 1998-99, 2004	11-20-03 12-16-03	1.1 .92
*†01475033	Plank Run at Glassboro, NJ	Lat 39°42'54", long 75°08'24", Gloucester County, Hydrologic Unit 02040202, at culvert on U.S. Route 322, 0.6 mi west of Glassboro, and 0.7 mi south of Alcyon Lake.	.71	1996-97, 1999-2000, 2002-04	9-15-04	.82
0147503330	Plank Run at Pitman, NJ	Lat 39°43'01", long 75°08'13", Gloucester County, Hydrologic Unit 02040202, 0.1 mi upstream from Chestnut Branch, 1.0 mi south of Pitman, and 1.5 mi northwest of Glassboro.	.96	1995-96, 1998-99, 2004	11-20-03 12-16-03	3.1 2.0

LOW-FLOW PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES—Continued

Discharge measurements made at low-flow partial-record stations and miscellaneous sites during water year 2004

Station Number	Station Name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
DELAWARE RIVER BASIN--Continued						
01475034	Lost Lake Run at outlet Glen Lake, at Pitman, NJ	Lat 39°43'26", long 75°07'37", Gloucester County, Hydrologic Unit 02040202, at outlet of Glen Lake, 0.4 mi south of Pitman, 0.7 mi upstream from Chestnut Branch, and 1.5 mi north of Glassboro.	.33	1995-96, 1998-99, 2004	11-20-03 12-16-03	.44 .29
0147503450	Cabin Run at Pitman, NJ	Lat 39°43'41", long 75°08'34", Gloucester County, Hydrologic Unit 02040202, 0.1 mi upstream from mouth and Alcyon Lake, 1.0 mi west of Pitman, and 1.3 mi east of Richwood.	.51	1995-96, 1998-99, 2004	11-20-03 12-16-03	.19 .22
†01475100	Edwards Run near Mantua, NJ	Lat 39°46'19", long 75°11'35", Gloucester County, Hydrologic Unit 02040202, at bridge on State Route 45 (Bridgeton Pike), 1.7 mi southwest of Mantua, and 3.3 mi above mouth.	6.45	1957, 1966, 2002-04	9-15-04	3.0
†01475210	Clonmell Creek near Gibbstown, NJ	Lat 39°49'07", long 75°15'04", Gloucester County, Hydrologic Unit 02040202, at bridge on Swedesboro Avenue, 2.3 mi east of Gibbstown, and 2.7 mi above mouth.	1.13	1957, 1966, 2002-04	9-15-04	0
†01476640	Pargey Creek at Swedesboro Avenue, at Repaupo, NJ	Lat 39°47'34", long 75°17'12", Gloucester County, Hydrologic Unit 02040202, at bridge on Swedesboro Avenue, 0.8 mi southeast of Repaupo, 1.5 mi upstream of bridge on U.S. Route 130/Interstate Route 295, and 6.0 mi upstream of Delaware River	4.44	2001-04	9-15-04	5.8
†01477110	Raccoon Creek at Mullica Hill, NJ	Lat 39°44'10", long 75°13'29", Gloucester 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.	15.6	1940, 1977-79, 1983, 1985-86, 1988-90, 1992, 1994-95, 2002-04	9-15-04	11
01482455	Salem River at Route 77, near Pole Tavern, NJ	Lat 39°36'09", long 75°14'16", Salem County, Hydrologic Unit 02040206, at bridge on State Route 77, 1.1 mi southwest of Pole Tavern, and 2.0 mi upstream of Slabtown Lake.	.65	2003-04	12-15-03 3-11-04 6-03-04 8-31-04	2.8 1.1 1.1 1.2
†01482530	Major Run at Sharptown, NJ	Lat 39°38'56", long 75°22'28", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway, 0.4 mi upstream from mouth, and 0.7 mi southwest of Sharptown.	3.04	1966-72, 1974-75, 2003-04	12-15-03 3-11-04 6-03-04 8-31-04	15 2.4 1.6 1.4
01482880	Alloway Creek near Yorktown, NJ	Lat 39°35'28", long 75°17'46", Salem County, Hydrologic Unit 02040206, at bridge on Watsons Mill Road, 1.6 mi upstream of Cool Run, and 1.6 mi south of Yorktown.	2.42	2003-04	12-15-03 3-11-04 6-03-04 8-31-04	6.1 2.6 2.7 2.8
01482890	Alloway Creek near Watson Corner, NJ	Lat 39°35'13", long 75°18'21", Salem County, Hydrologic Unit 02040206, at bridge on Stockington-Pleasant Hill Road, 0.9 mi upstream of Cool Run, and 1.5 mi northwest of Watson Corner.	3.00	2002-04	10-09-03 4-14-04 6-23-04	2.7 30 3.2

† Active low-flow partial-record station

* Active crest-stage partial-record station.

a Operated as a continuous-record gaging station by U.S. Geological Survey.

The following table contains annual maximum elevations for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage 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 NGVD of 1929 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 2004 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Hackensack River below dam, at New Milford, NJ (01378501)	Lat 40°56'54", long 74°01'36", Bergen County, Hydrologic Unit 02030103, on right bank approximately 50 ft downstream from gaging station at New Milford, on dam wingwall 10 ft downstream from dam.	1997-2004	09-19-04	11.59	9-16-99	17.7d
Hackensack River at NJ Route 3, near Lynhurst, NJ (01378626)	Lat 40°47'59", long 74°03'58", Bergen County, Hydrologic Unit 02030103, on downstream side of concrete left channel pier on the westbound State Route 3 bridge, 0.5 mi east of East Rutherford, and 0.6 mi east of Lynhurst.	1997-2004	12-08-03	6.05	10-19-96	6.90
Passaic River at Garfield, NJ (01390000)	Lat 40°51'53", long 74°06'36", Bergen County, Hydrologic Unit 02030103, on left downstream wingwall of bridge on Passaic Street at Garfield, 0.3 mi west of intersection of Midland Avenue and Passaic Street.	1997-2004	12-13-03	7.40	9-16-99	14.7
Elizabeth River at Linden, NJ (01393510)	Lat 40°38'50", long 74°12'18", Union County, Hydrologic Unit 02030104, on upstream right concrete wingwall of bridge on Atlantic Avenue in Linden, just east of Mattano Park, and 0.8 mi east of Bayway Circle.	1997-2004	12-06-03	5.23	10-19-96	6.98
Rahway River at U.S. Route 1, at Rahway, NJ (01396035)	Lat 40°35'57", long 74°16'15", Union County, Hydrologic Unit 02030104, on downstream right abutment of bridge on U.S. Route 1 (at Lawrence Street prior to 1999) in Rahway, 930 ft downstream of South Branch Rahway River, and 1.6 mi south of Linden.	1997-2004	12-06-03	6.38	10-19-96	8.57
Raritan River at State Route 18, at New Brunswick, NJ (01404171)	Lat 40°30'31", long 74°27'25", Middlesex County, Hydrologic Unit 02030105, on left bank on the downstream end of culvert headwall over small tributary in Johnson Park, next to unnamed road, 100 ft downstream from bridge on State Route 18, and 0.8 mi northwest of New Brunswick.	1997-2004	12-07-03	9.54	9-16-99	17.2
Raritan River at Perth Amboy, NJ (01406700)	Lat 40°30'31", long 74°17'29", Middlesex County, Hydrologic Unit 02030105, on upstream left bridge pier of Victory Bridge on State Route 35 in Perth Amboy, 0.5 mi downstream from Garden State Parkway bridge, and 1.5 mi upstream from mouth.	1938, 1944, 1950, 1953, 1955, 1960, 1967-70†, 1980-2004	12-06-03	6.27	12-11-92	10.4
Luppataong Creek at Keyport, NJ (01407030)	Lat 40°26'08", long 74°12'26", Monmouth County, Hydrologic Unit 02030104, on left bank upstream side of bridge on West Front Street (Amboy Avenue) in Keyport, 0.1 mi upstream from mouth, and 2.0 mi northwest of Matawan.	1944, 1950, 1960, 1980-2004	12-06-03	6.84	9-12-60	10.3
Navesink River at Red Bank, NJ (01407535)	Lat 40°21'14", long 74°03'59", Monmouth County, Hydrologic Unit 02030104, on wooden piling upstream side of old boat ramp at right bank, in Red Bank, 0.15 mi north of East Front Street, on the east side of Riverview Hospital.	1997-2004	12-06-03	5.27	10-19-96	5.77
Branchport Creek at Oceanport, NJ (01407590)	Lat 40°19'12", long 74°00'10", Monmouth County, Hydrologic Unit 02030104, on wooden piling at right bank bulkhead, just upstream from bridge on Monmouth Boulevard in Oceanport, and 1.2 mi north of Long Branch.	1997-2004	12-06-03	4.88b	2-24-98	5.11b
Metedeconk River at Laurelton, NJ (01408155)	Lat 40°03'58", long 74°08'00", Ocean County, Hydrologic Unit 02040301, on downstream right wingwall of the bridge on State Route 70, just downstream of Forge Pond, at Laurelton.	1997-2004	12-11-03	2.12b	2-24-98	2.54b

Maximum elevation at tidal crest-stage partial-record stations--Continued

Station name and number	Location	Period of record	Water year 2004 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Barnegat Bay at Bay Shore, NJ (01408200)	Lat 39°56'56", long 74°06'52", Ocean County, Hydrologic Unit 02040301, at downstream side of the 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.	1965-86, 1992, 1993-2004	12-11-03	<2.15bf	10-30-91	4.27
Toms River at Toms River, NJ (01408700)	Lat 39°57'02", long 74°11'57", Ocean County, Hydrologic Unit 02040301, on fourth piling at the left bank bulkhead, downstream from bridge on South Main Street in Toms River, upstream from bridge on State Route 166, and 0.8 mi northwest of Beechwood.	1962, 1997-2004	12-11-03	3.56	3-06-62	4.1
Cedar Creek at Lanoka Harbor, NJ (01409000)	Lat 39°52'03", long 74°10'09", Ocean County, Hydrologic Unit 02040301, at bridge on U.S. Route 9 in Lanoka Harbor, 0.6 mi south of Toms River, and 2.0 mi upstream from mouth.	1936-37†, 1945-46†, 1951†, 1962, 1979-85, 1993, 2004†	12-11-03	3.42	2-16-36	6.50
Barnegat Bay at Loveladies, NJ (01409135)	Lat 39°43'24", long 74°08'06", Ocean County, Hydrologic Unit 02040301, on the bulkhead at Matthew'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.	1962, 1993-2002, 2004	12-06-03	2.64b	3-06-62	4.83b
Manahawkin Bay near Manahawkin, NJ (01409145)	Lat 39°40'01", long 74°12'53", Ocean County, Hydrologic Unit 02040301, at west end of bridge on State Route 72 over Manahawkin Bay, 2.5 mi northwest of Ship Bottom, and 3.1 mi southeast of Manahawkin.	1965-2004	12-06-03	4.54	12-11-92	6.02
Little Egg Harbor at Beach Haven, NJ (01409285)	Lat 39°33'10", long 74°15'06", Ocean County, Hydrologic Unit 02040301, in Beach Haven at U.S. Coast Guard station, 6.0 mi east of Tuckerton and 7.4 mi southwest of Ship Bottom.	1979-2004	12-06-03	5.28	12-11-92	6.93
Batsto River at Pleasant Mills, NJ (01409510)	Lat 39°37'55", long 74°38'50", Ocean County, Hydrologic Unit 02040301, on right bank, 1.0 mi southeast of Pleasant Mills, and 0.5 mi upstream from mouth.	1958-2004†	12-06-03	4.74	3-07-62	7.2
Mullica River near Port Republic, NJ (01410100)	Lat 39°33'17", long 74°27'47", 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, 1965-2004	12-06-03	4.93	3-06-62	7.9
Absecon Creek at Absecon, NJ (01410500)	Lat 39°25'45", long 74°31'15", Atlantic County, Hydrologic Unit 02040302, on right abutment of bridge on Mill Road, 50 ft downstream of former gaging station, 1.0 mi west of Absecon, and 3.4 mi upstream from mouth.	1923-29†, 1933-38†, 1946-84†, 1985-2004	12-06-03	5.60	3-29-84	7.77
Beach Thorofare at Atlantic City, NJ (01410570)	Lat 39°21'56", long 74°26'43", Atlantic County, Hydrologic Unit 02040302, on south side of east abutment of AMTRAK railroad swivel bridge in Atlantic City, 0.5 mi northeast of former Bader Field airport, and 2.7 mi northeast of Ventnor City.	1944, 1950, 1960, 1962, 1978†, 1969-2004	12-06-03	5.85	3-06-62	8.3
Great Egg Harbor River at U.S. 40, at Mays Landing, NJ (01411175)	Lat 39°26'55", long 74°43'37", Atlantic County, Hydrologic Unit 02040302, at Mays Landing river access parking lot on the south side of the intersection of River Drive and Farragut Avenue, in Mays Landing, 0.1 mi downstream of bridge on U.S. Route 40.	1997-2004	12-06-03	5.06	2-05-98	6.21

Maximum elevation at tidal crest-stage partial-record stations--Continued

Station name and number	Location	Period of record	Water year 2004 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Tuckahoe River at Head of River, NJ (01411300)	Lat 39°18'25", long 74°49'14", 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.	1979-2004†	12-06-03	4.95	12-11-92	7.01
Great Egg Harbor Bay at Beesleys Point, NJ (01411315)	Lat 39°17'18", long 74°37'39", Cape May County, Hydrologic Unit 02040302, on upstream side of earth filled pier at Tuckahoe Inn, 250 ft east of U.S. Route 9 toll bridge over Great Egg Harbor Bay at Beesleys Point, 2.5 mi southwest of Somers Point.	1963-78†, 1979-81, 1997-2004	12-06-03	5.94	2-05-98	7.12
Great Egg Harbor Bay at Ocean City, NJ (01411320)	Lat 39°17'03", long 74°34'40", Cape May County, Hydrologic Unit 02040302, on bulkhead at west end of 7th Street (prior to October 1974, gage was located at 5th Street), in Ocean City, and 2.5 mi southeast of Somers Point.	1965-2004	12-06-03	6.09	12-11-92	7.89
Lakes Bay at Pleasantville, NJ (01411325)	Lat 39°23'01", long 74°31'03", Atlantic County, Hydrologic Unit 02040302, on west shore of Lakes Bay, at end of East Bayview Avenue on end of pier 95 north of yacht club in Pleasantville, and 5.2 mi west of Atlantic City.	1997-2004	12-06-03	4.34	2-05-98	5.97
Strathmere Bay at Strathmere, NJ (01411335)	Lat 39°12'04", long 74°39'18", Cape May County, Hydrologic Unit 02040302, on right bank upstream side of Corsons Inlet Bridge on County Route 619, in Strathmere, 3.9 mi north of Sea Isle City, and 5.5 mi south of Ocean City.	1997-2004	12-06-03	4.46b	2-05-98	6.47b
Grassy Sound Channel at Nummy Island, near North Wildwood, NJ (01411370)	Lat 39°01'43", long 74°48'04", Cape May County, Hydrologic Unit 02040302, on pier at Dad's Place Marina at the south end of bridge from Nummy Island, 1.0 mi west of Hereford Inlet, and 1.1 mi northwest of North Wildwood.	1993-96†, 1997-2004	12-06-03	6.04	2-05-98	8.19
Maurice River at Millville, NJ (01411900)	Lat 39°23'43", long 75°02'26", Cumberland County, Hydrologic Unit 02040206, at bridge on State Route 49 on downstream concrete wall at left bank bridge abutment in Millville, 300 ft west of intersection with High Street, and 0.4 mi south of Broad Street.	1997-2004	11-24-03	4.17b	8-22-97	4.53b
Cohansey River at Bridgeton, NJ (01413015)	Lat 39°25'45", long 75°14'03", Cumberland County, Hydrologic Unit 02040206, at bridge on Commerce Street on upstream concrete wall at right bank bridge abutment, approximately 700 ft north of bridge on Broad Street (State Route 49) in Bridgeton.	1997-2004	11-24-03	5.86	2-05-98	6.38
Delaware River at Marine Terminal, at Trenton, NJ (01464040)	Lat 40°11'21", long 74°45'21", Mercer County, Hydrologic Unit 02040201, on downstream left bank concrete wall near Trenton Marine Terminal on Lambertson Road, approximately 0.2 mi south of the intersection with State Route 29.	1921-46†, 1951-55†, 1957-92†, 1997-2004	9-19-04	10.86b	8-20-55	16.8b
Delaware River near Gibbstown, NJ (01476550)	Lat 39°49'52", long 75°19'57", Gloucester County, Hydrologic Unit 02040202, on left bank on floodgate at mouth of Repaupo Creek 2.2 mi northeast of Bridgeport, 5.5 mi north of Swedesboro, and at river mile 84.00, prior to October 1980 located at Reynolds Aluminum Company pier in Chester, PA at river mile 82.30.	1972-77†, 1979-85, 1997-2004	9-19-04	6.83	2-26-79	7.53
Delaware River below Christina River, at Wilmington, DE (01481602)	Lat 39°43'00", long 75°31'03", New Castle County, Hydrologic Unit 02040205, on right bank, 1,000 ft from mouth of Christina River at the Wilmington Marine Terminal, 2.0 mi upstream of Delaware Memorial Bridge, and at river mi 69.70.	1951, 1967-91†, 1995-99†, 2000-04	12-14-03	6.20	11-23-50	8.40

Maximum elevation at tidal crest-stage partial-record stations--Continued

Station name and number	Location	Period of record	Water year 2004 maximum		Period of record maximum	
			Date	Elevation (ft)	Date	Elevation (ft)
Salem River at Salem, NJ (01482650)	Lat 39°34'40", long 75°28'36", Salem County, Hydrologic Unit 02040206, on downstream left wingwall of bridge on State Route 49 at Salem, 400 ft northwest of intersection of Front Street and Griffith Street, and 1.9 mi southeast of Harrisonville.	1997-2004	11-24-03	3.99b	2-05-98	4.42b
Alloway Creek at Hancocks Bridge, NJ (01483050)	Lat 39°30'31", long 75°27'38", Salem County, Hydrologic Unit 02040206, on left bank at downstream side of bridge on Locust Island Road (County Route 658) in Hancocks Bridge, 3.7 mi southwest from Quinton, and 4.0 mi south of Salem.	1980-85, 1993, 1997-2004	11-24-03	5.65	12-11-93	7.57

b Elevation is to North American Datum of 1988, not National Geodetic Vertical Datum of 1929.

d Peak based on high-water marks at the New Milford gage house, not the actual crest-stage gage.

f Peak gage-height for the period was less than minimum recordable gage height.

† Operated as a continuous-record gaging station.

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Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter (m)
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.233×10^3	cubic meter (m ³)
	1.233×10^{-3}	cubic hectometer (hm ³)
	1.233×10^{-6}	cubic kilometer (km ³)
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second (m ³ /s)
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton (short)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

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

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