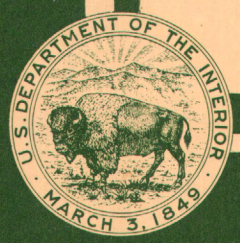
1972

Water Resources Data for New Jersey

Part 1. Surface Water Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of New Jersey
and with other agencies

CALENDAR FOR WATER YEAR 1972

OCTOBER 1971

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JANUARY 1972

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SEPTEMBER 1972

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1972

Water Resources Data for New Jersey

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of New Jersey and with other agencies

Prepared in cooperation with

State Department of Environmental Protection
Water Resources Division
North Jersey District Water Supply Commission
Passaic Valley Water Commission
County of Bergen
City of Philadelphia, Water Department
Corps of Engineers, U.S. Army
Delaware River Basin Commission

Water resources records, 1972 for New Jersey are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for New Jersey
   Part 1: Surface Water Records

2. Water Resources Data for New Jersey
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
420 Federal Building
P.O. Box 1238
Trenton, New Jersey 08607

1973

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INDEX OF GAGING STATIONS SHOWN ON MAP ON OPPOSITE PAGE

Map No.	Station No.	Station Name
1	3680	Wallkill River near Unionville, N.Y.
2	3687.2	†Aux Outlet of Upper Greenwood Lake at Moe
3	3770	Hackensack River at Rivervale
4	3775	Pascack Brook at Westwood
5	3785	Hackensack River at New Milford
6	3786.9	Passaic River near Bernardsville
7	3790	Passaic River near Millington
8	3795	Passaic River near Chatham
9	3795.3	†Canoe Brook near Summit
10	3796.3	Russia Brook tributary at Milton
11	3800	*†Beaver Brook at outlet of Splitrock Reservoir
12	3805	Rockaway River above reservoir, at Boonton
13	3810	Rockaway River below reservoir, at Boonton
14	3815	Whippany River at Morristown
15	3825	Pequannock River at Macopin intake dam
16	3830	‡Greenwood Lake at Awosting
17	3835	Wanaque River at Awosting
18	3840	Wanaque River at Monks
19	3845	Ringwood Creek near Wanaque
20	3850	*Cupsaw Brook near Wanaque
21	3855	*Erskine Brook near Wanaque
22	3860	West Brook near Wanaque
23	3865	*Blue Mine Brook near Wanaque
24	3870	Wanaque River at Wanaque
25	3875	Ramapo River near Mahwah
26	3880	Ramapo River at Pompton Lakes
27	3885	Pompton River at Pompton Plains
28	3895	Passaic River at Little Falls
29	3898	*Passaic River at Paterson
30	3905	Saddle River at Ridgewood
31	3910	Hohokus Brook at Hohokus
32	3915	Saddle River at Lodi
33	3920	*Weasel Brook at Clifton
34	3925	*Second River at Belleville
35	3930	*Elizabeth River at Irvington
36	3935	Elizabeth River at Elizabeth
37	3940	*West Branch Rahway River at Millburn
38	3945	Rahway River near Springfield
39	3950	Rahway River at Rahway
40	3955	*Robinsons Branch Rahway River at Goodmans
41	3960	Robinsons Branch Rahway River at Rahway
42	3965	South Branch Raritan River near High Bridge
43	3968	Spruce Run at Clinton
44	3970	South Branch Raritan River at Stanton
45	3975	*Walnut Brook near Flemington
46	3980	Neshanic River at Reaville
47	3985	North Branch Raritan River near Far Hills
48	3995	Lamington (Black) River near Pottersville
49	4000	North Branch Raritan River near Raritan
50	4005	Raritan River at Manville
51	4007.3	Millstone River at Plainsboro
52	4009.32	*Baldwin Creek at Baldwin Lake near Pennington
53	4009.53	Honey Branch near Pennington
54	4010	Stony Brook at Princeton
55	4013	‡Lake Carnegie at Princeton
56	4015	*Millstone River near Kingston
57	4020	Millstone River at Blackwells Mills
58	4025.9	Royce Brook tributary at Frankfort
59	4026	Royce Brook tributary near Belle Mead
60	4030.6	Raritan River below Calco Dam at Bound Brook
61	4035	Green Brook at Plainfield
62	4040	*Green Brook at Bound Brook
63	4045	*Lawrence Brook at Patricks Corner
64	4050	Lawrence Brook at Farrington Dam
65	4053	*Matchaponix Brook at Spotswood
66	4054	Manalapan Brook at Spotswood
67	4055	South River at Old Bridge
68	4060	*Deep Run near Browntown
69	4065	*Tennent Brook near Browntown
70	4066.8	††Raritan River at Metuchen
71	4070	*Matawan Creek at Matawan
72	4075	Swimming River near Red Bank
73	4077.05	Shark River near Neptune City
74	4077.6	Jumping Brook near Neptune City
75	4080	Manasquan River at Squankum
76	4085	Toms River near Toms River
77	4090	Cedar Creek at Lanoka Harbor
78	4090.95	Oyster Creek near Brookville
79	4094	Mullica River near Batsto
80	4095	Batsto River at Batsto
81	4100	Oswego River at Harrisville
82	4105	Absecon Creek at Absecon
83	4107.87	Great Egg Harbor tributary at Sicklerville
84	4108.20	Great Egg Harbor River near Blue Anchor
85	4110	Great Egg Harbor River at Folsom
86	4113	Tuckahoe River at Head of River
87	4115	Maurice River at Norma
88	4120	*Manantico Creek near Millville
89	4125	*West Branch Cohansey River at Seeley
90	4130	*Loper Run near Bridgeton
91	4340	Delaware River at Port Jervis, N.Y.
92	4385	Delaware River at Montague
93	4390	*‡Delaware River at Dingmans Ferry, Pa.
94	4400	Flat Brook near Flatbrookville
95	4402	Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa.
96	4430	*‡Delaware River at Portland, Pa.
97	4435	Paulins Kill at Blairstown
98	4439	Yards Creek near Blairstown
99	4445	*‡Delaware River at Delaware
100	4450	*Pequest River at Huntsville
101	4455	Pequest River at Pequest
102	4460	*Beaver Brook near Belvidere
103	4465	Delaware River at Belvidere
104	4467	‡Delaware River at Easton, Pa.
105	4552	*Pohatcong Creek at New Village
106	4553.55	*Beaver Brook near Weldon
107	4554	‡Lake Hopatcong at Landing
108	4555	Musconetcong River at outlet of Lake Hopatcong
109	4560	Musconetcong River near Hackettstown
110	4570	Musconetcong River near Bloomsbury
111	4575	*Delaware River at Riegelsville
112	4580	‡Delaware River at Milford
113	4585	‡Delaware River at Frenchtown
114	4590	*‡Delaware River at Point Pleasant, Pa.
115	4605	Delaware & Raritan Canal at Kingston
116	4610	*‡Delaware River at Lumberville, Pa.
117	4615	‡Delaware River at Stockton
118	4620	‡Delaware River at Lambertville
119	4625	‡Delaware River at Washington Crossing
120	4630	*‡Delaware River at Yardley, Pa.
121	4635	Delaware River at Trenton
122	4640	Assunpink Creek at Trenton
123	4640.4	††Delaware River at Marine Terminal, Trenton
124	4645	Crosswicks Creek at Extonville
125	4645.6	*††Delaware River at Florence
126	4645.98	††Delaware River at Burlington
127	4658.5	South Branch Rancocas Creek at Vincentown
128	4660	*Middle Branch Mount Misery Brook in Lebanon State Forest
129	4665	McDonalds Branch in Lebanon State Forest
130	4670	North Branch Rancocas Creek at Pemberton
131	4670.6	††Delaware River at Palmyra
132	4670.81	South Branch Pennsauken Creek at Cherry Hill
133	4671.5	Cooper River at Haddonfield
134	4750	Mantua Creek at Pitman
135	4766	*Still Run near Mickleton
136	4771.2	Raccoon Creek near Swedesboro
137	4775	*Oldmans Creek near Woodstown
138	4821	††Delaware River at Delaware Memorial Bridge, Wilmington, Del.
139	4825	Salem River at Woodstown
140	4830	Alloway Creek at Alloway

* Station discontinued prior to period of this report.
† Discharge records published in State of New Jersey Special Reports only.
‡ Gage-height record only, published in State of New Jersey Special Reports.
†† Tidal gaging station.

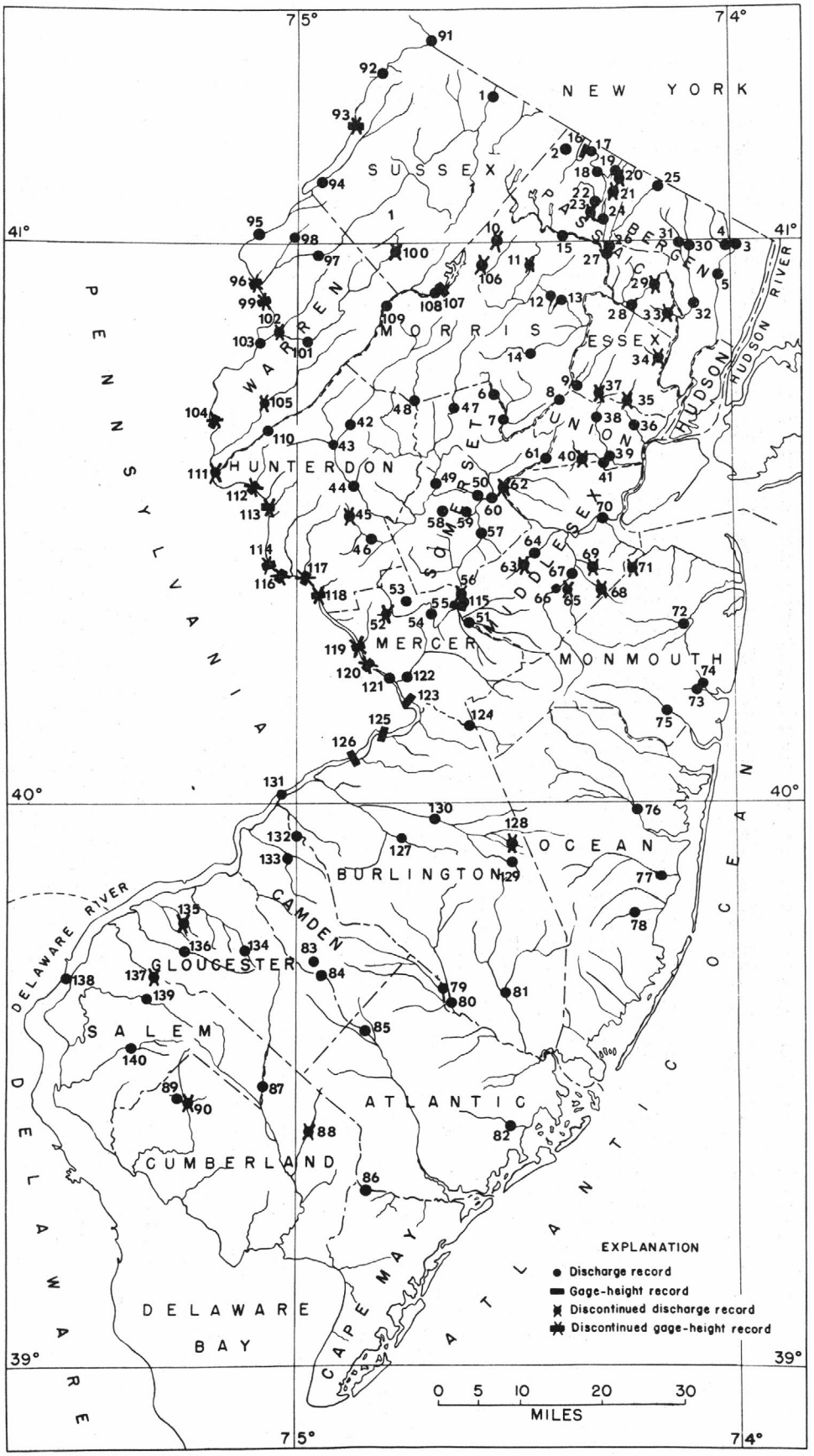
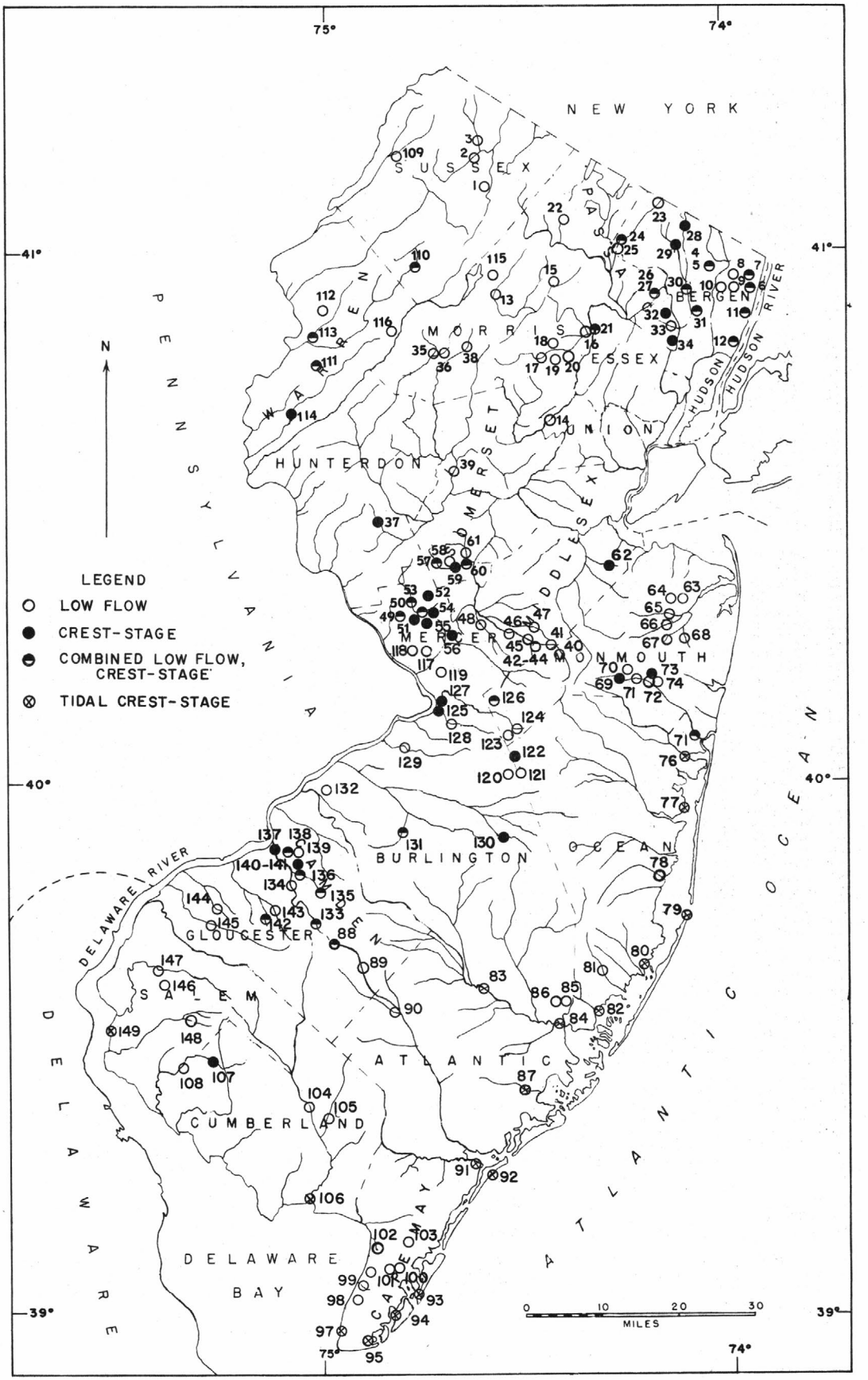


Figure 1.--LOCATION OF GAGING STATIONS

INDEX OF PARTIAL-RECORD STATIONS SHOWN ON MAP ON OPPOSITE PAGE, 1972

Map No.	Station No.	Station Name
1	3677.50	(L)Beaver Run nr Hamburg
2	3678.50	(L)West Branch Papakating Creek at McCoys Corner
3	3678.90	(L)Clove Brook above Clove Acres Lake at Sussex
4	3774.75	(C)Musquapsink Brook nr Westwood
5	3774.90	(M)Musquapsink Brook at Westwood
6	3783.50	(C)Tenakill Brook at Cresskill
7	3783.85	(C)Tenakill Brook at Closter
8	3785.20	(L)Hirshfeld Brook at New Milford
9	3785.30	(L)French Brook at New Bridge
10	3785.60	(L)Coles Brook at Hackensack
11	3785.90	(C)Metzler Brook at Englewood
12	3786.15	(C)Wolf Creek at Ridgefield
13	3793.00	(L)Passaic River at Stirling
14	3797.00	(L)Rockaway River at Berkshire Valley
15	3800.50	(L)Hirbernia Brook at outlet of Lake Telemark
16	3812.00	(L)Rockaway River at Pine Brook
17	3814.00	(L)Whippany River nr Morristown
18	3814.70	(L)Whippany River tributary No. 2 at Greystone Park State Hospital
19	3814.90	(L)Whippany River tributary at Morris Plains
20	3817.00	(L)Troy Brook at Troy Hills
21	3819.00	(C)Passaic River at Pine Brook
22	3824.50	(L)Macopin River at Macopin Reservoir
23	3875.20	(L)Stag Brook nr Mahwah
24	3878.80	(C)Pond Brook at Oakland
25	3897.90	(L)Molly Ann Brook at Paterson
26	3899.00	(M)Fleischer Brook at Market Street at East Paterson
27	3899.05	(L)Fleischer Brook at East Paterson
28	3904.50	(C)Saddle River at Upper Saddle River
29	3908.10	(M)Hohokus Brook at Allendale
30	3911.10	(C)Saddle River at Paramus
31	3914.85	(C)Sprout Brook at Rochelle Park
32	3920.00	(M)Weasel Brook at Clifton
33	3922.00	(L)Third River at Nutley
34	3925.00	(M)Second River at Belleville
35	3961.20	(L)South Branch Raritan River at Bartley
36	3961.80	(L)Drakes Brook at Bartley
37	3975.00	(M)Walnut Brook nr Flemington
38	3992.00	(L)Lamington River nr Ironia
39	3998.20	(L)Chambers Brook nr North Branch
40	4005.40	(L)Millstone River nr Manalapan
41	4005.60	(L)Millstone River at Applegarth
42	4005.80	(L)Millstone River at Hightstown
43	4005.93	(L)Rocky Brook at Hightstown
44	4005.96	(L)Peddie Brook at Hightstown
45	4006.00	(L)Millstone River at Locust Corner
46	4006.40	(L)Millstone River nr Grovers Mills
47	4007.00	(L)Cranbury Brook at Cranbury Station
48	4008.10	(L)Big Bear Brook at Princeton Junction
49	4008.50	(C)Woodsville Brook at Woodsville
50	4009.00	(C)Stony Brook at Glenmoore
51	4009.30	(M)Baldwin Creek at Pennington
52	4009.47	(C)Stony Brook at Pennington
53	4009.50	(M)Hart Brook nr Pennington
54	4009.60	(M)Honey Branch nr Mount Rose
55	4009.70	(M)Honey Branch nr Rosedale
56	4012.00	(M)Duck Pond Run at Clarksville
57	4015.20	(C)Beden Brook nr Hopewell
58	4015.90	(L)Rock Brook at Blawenburg
59	4015.95	(M)Rock Brook nr Blawenburg
60	4016.00	(C)Beden Brook nr Rocky Hill
61	4017.00	(L)Pike Run nr Rocky Hill
62	4018.70	(M)Six Mile Run nr Middlebush
63	4072.00	(L)Hop Brook at Holmdel
64	4072.50	(L)Willow Brook at Holmdel
65	4073.00	(L)Big Brook at Vanderburg
66	4074.00	(L)Yellow Brook at Colts Neck
67	4074.50	(L)Mine Brook at Colts Neck
68	4075.20	(L)Pine Brook at Tinton Falls
69	4078.30	(C)Manasquan River nr Georgia
70	4078.60	(L)Debois Creek at Adelphia
71	4078.90	(L)Manasquan River tributary No. 7 at West Farms
72	4079.70	(L)Manasquan River tributary nr Farmingdale
73	4080.15	(C)Mingamahone Brook at Farmingdale
74	4080.20	(L)Mingamahone Brook at Squankum
75	4080.30	(C)Manasquan River at Allenwood
76	4081.60	(T)Metedeconk River nr Laurelton
77	4082.00	(T)Barnegat Bay at Bay Shore
78	4090.80	(L)South Branch Forked River nr Forked River
79	4091.25	(T)Barnegat Bay at Barnegat Light
80	4091.45	(T)Manahawkin Bay nr Manahawkin
81	4092.80	(L)Westecunk Creek at Stafford Forge
82	4092.90	(T)Tuckerton Cove nr Tuckerton
83	4095.10	(T)Batsto River at Pleasant Mills
84	4101.00	(T)Mullica River nr Port Republic
85	4101.50	(L)East Branch Bass River nr New Gretna
86	4102.00	(L)West Branch Bass River nr New Gretna
87	4105.00	(T)Absecon Creek at Absecon
88	4107.75	(C)Great Egg Harbor River at Berlin
89	4108.03	(L)Fourmile Branch at Winslow Crossing
90	4110.20	(L)Penny Pot Stream nr Folsom
91	4113.15	(T)Great Egg Harbor Bay at Beesleys Point
92	4113.20	(T)Great Egg Harbor Bay at Ocean City
93	4113.60	(T)Great Channel at Stone Harbor
94	4113.80	(T)Grassy Sound at West Wildwood
95	4113.90	(T)Cape May Harbor at Cape May
96	4113.95	(T)Cape May Canal at North Cape May
97	4114.00	(L)Fishing Creek at Rio Grande
98	4114.04	(L)Green Creek at Green Creek
99	4114.08	(L)Dias Creek nr Cape May Court House
100	4114.10	(L)Bidwell Ditch tributary nr Cape May Court House
101	4114.12	(L)Bidwell Ditch tributary No. 2 nr Cape May Court House
102	4114.18	(L)Goshen Creek at Goshen
103	4114.30	(L)Sluice Creek at Clermont
104	4118.00	(L)Maurice River nr Millville
105	4121.00	(L)Manumuskin River nr Manumuskin
106	4121.50	(T)Maurice River at Bivalve
107	4125.00	(M)West Branch Cohansey River at Seeley
108	4130.50	(L)Stow Creek at Jericho
109	4398.30	(L)Big Flat Brook at Tuttles Corner
110	4450.00	(C)Pequest River at Huntsville
111	4454.90	(C)Furnace Brook at Oxford
112	4459.00	(L)Honey Run nr Hope
113	4460.00	(C)Beaver Brook nr Belvidere
114	4552.00	(M)Pohatcong Creek at New Village
115	4553.60	(L)Beaver Brook nr Woodport
116	4561.00	(L)Hatchery Brook at Hackettstown
117	4636.90	(L)Little Shabakunk Creek at Bakersville
118	4637.90	(L)West Branch Shabakunk Creek nr Ewingville
119	4639.80	(L)Pond Run at Trenton
120	4643.00	(L)Crosswicks Creek nr Cookstown
121	4643.80	(L)North Run at Cookstown
122	4644.00	(M)Crosswicks Creek at New Egypt
123	4644.60	(L)Lahaway Creek nr Hornerstown
124	4644.80	(L)Miry Run at Holmes Mills
125	4645.05	(M)Crosswicks Creek at Groveville
126	4645.15	(C)Doctors Creek at Allentown
127	4645.20	(M)Doctors Creek at Groveville
128	4645.30	(L)Blacks Creek at Mansfield Square
129	4645.90	(L)Assiscunk Creek nr Burlington
130	4660.00	(M)Middle Branch Mount Misery Brook in Lebanon State Forest
131	4670.10	(C)Parksers Creek nr Mount Laurel
132	4670.57	(L)Pompeston Creek at Cinnaminson
133	4671.30	(C)Cooper River at Kirkwood
134	4671.40	(L)Cooper River at Lawnside
135	4671.60	(C)North Branch Cooper River nr Marlton
136	4671.80	(C)North Branch Cooper River at Ellisburg
137	4671.90	(M)Cooper River at Camden
138	4673.05	(C)Newton Creek at Collingswood
139	4673.12	(L)Newton Creek at West Collingswood
140	4673.15	(L)South Branch Newton Creek at Glover Avenue, at Haddon Heights
141	4673.17	(M)South Branch Newton Creek at Haddon Heights
142	4673.30	(C)South Branch Big Timber Creek at Blackwood
143	4673.50	(L)North Branch Big Timber Creek at Laurel Springs
144	4750.20	(L)Mantua Creek at Sewell
145	4771.18	(L)South Branch Raccoon Creek nr Mullica Hill
146	4825.10	(L)Nichomus Run nr Woodstown
147	4825.20	(L)Salem River at Sharptown
148	4825.30	(L)Major Run at Sharptown
149	4827.05	(Delaware River at Oakwood Beach

(L) Low-flow partial-record station.
(M) Crest-stage partial-record station.
(C) Combined low-flow crest-stage partial-record station.
(T) Tidal crest-stage partial-record station.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MIDDLESEX
MERCER
MONMOUTH
OCEAN
BURLINGTON
GLOUCESTER
SALEM
CUMBERLAND
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WATER RESOURCES DATA FOR NEW JERSEY, 1972

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1972 water year for New Jersey, including records of streamflow, diversions, withdrawals, or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. E. McCall, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Since 1951 there have been 20 volumes in the series; each volume covered an area whose boundaries coincided with those of certain natural drainage areas. The records in New Jersey were contained in Part 1B of that series. This part included the North Atlantic Slope Basins from New York to York River, Virginia.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these basic-data reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The discharge and reservoir storage records for 1961-65 also are published in a Geological Survey water-supply paper series entitled "Surface Water Supply of the United States 1961-65." The records for New Jersey appear in WSP 1902. There will be a similar series of water-supply papers for water years 1966-70, in which WSP 2102 will contain New Jersey records.

There are also 5-year volumes published, since 1929, as Special Reports on Surface Water Supply of New Jersey by the New Jersey Department of Conservation

and Economic Development, Division of Water Policy and Supply, now known as the New Jersey Department of Environmental Protection, Water Resources Division.

This report contains a table of annual maximum crest stages at the tidal crest-stage stations in estuaries, bays, coves, and sounds along the Atlantic Coast and the Delaware Bay. Monthly and annual summaries of tidal stages in Delaware estuary at Trenton, Burlington, Palmyra and Wilmington, Del., the Raritan estuary at Metuchen, and the special tidal studies of the New Jersey Wetlands near Tuckerton and Salem are included in this report. See map p.

The U.S. Geological Survey and organizations of the State of New Jersey have had cooperative agreements for the systematic collection of surface-water records since 1921. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Protection, Water Resources Division, C. M. Pike, director.

North Jersey District Water Supply Commission, D. Noll, chief engineer.

Passaic Valley Water Commission, W. R. Inhoffer, general superintendent and chief engineer.

County of Bergen, B. H. Walenczyk, director of Public Works and E. R. Ranuska, county engineer.

City of Philadelphia, Water Department, C. F. Guarino, commissioner.

Delaware River Basin Commission, J. F. Wright, executive director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for nine gaging stations published in this report. Assistance was also furnished by the National Weather Service.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark,

and New Brunswick; American Cyanamid Co.; E. I. DuPont de Nemours & Co.; Elizabethtown Water Co.; Hackensack Water Co.; Johns-Manville Products Corp.; Monmouth Consolidated Water Co.; and Morris Canal & Banking Co.

DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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.

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

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

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

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

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

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

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

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

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

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

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

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from man-made changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

International Hydrological Decade (IHD) River Stations provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such

as 01463500, includes the part number "01" and a 6-digit station number. The complete number 01463500 appears just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents 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 gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 5-, 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For a stream-gaging station rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change

because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in 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 control, the daily mean discharge is computed by what is basically the shifting-control method.

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

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is 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 gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1972 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median

of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only

peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. When the summary total exceeds 6 figures (999,999) the figure is expressed in thousands of cubic feet per second to the nearest tenth because of limitations in the computer. That is, one million cubic feet per second is expressed as 1,000.0 M. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average rainfall on the drainage basin is usually less than 20 inches.

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage

height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height. For some reservoirs a tabulation of monthly evaporation from the water surface also is included.

In the yearly summary below the monthly summary, the figures following MAX are the maximum daily discharges for the calendar and water years; likewise, those following MIN are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year. For some reservoirs the yearly evaporation also is included.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any streams for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE" certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

The accuracy of discharge 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 interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures 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 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. 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 unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of

water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in New Jersey through 1967 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for

selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year. These statistical summaries were published in New Jersey Water Resources Circular No. 23 in 1970.

Records of discharge not published by the Geological Survey were collected in New Jersey at 31 sites during the water years October 1960 to September 1972 by the following agencies: records at 6 sites were collected by New Jersey State Department of Environmental Protection (formerly Department of Conservation and Economic Development); at 4 sites by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 2 sites by the National Weather Service (formerly Weather Bureau - ESSA); at 2 sites by the National Ocean Survey - NOAA and at 3 sites by the Corps of Engineers.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on the water temperature, and on the sediment. These data are mostly published in Water Resources Data for New Jersey, Part 2: Water Quality Records.

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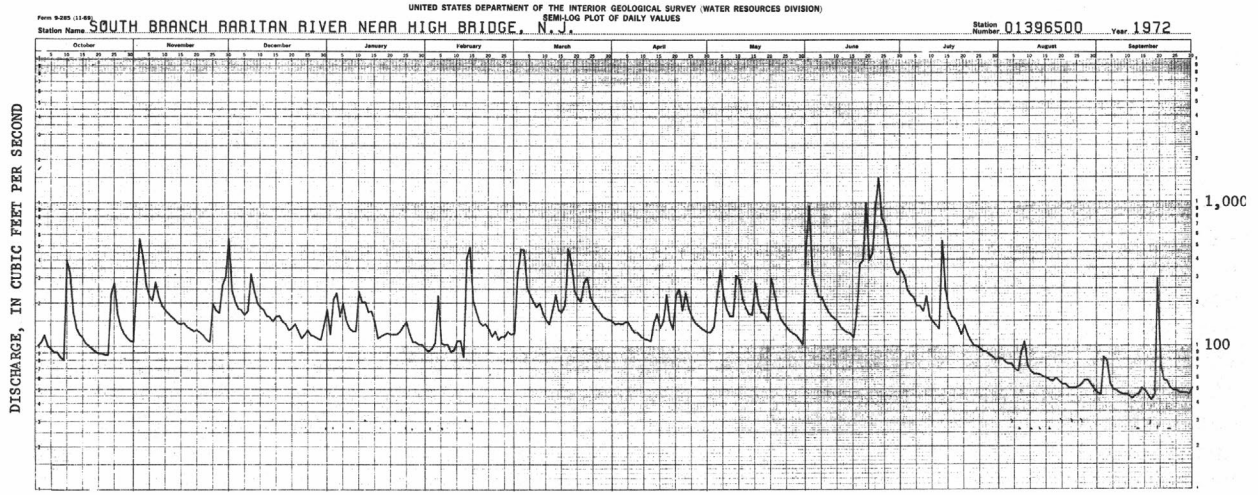
HYDROLOGIC CONDITIONS

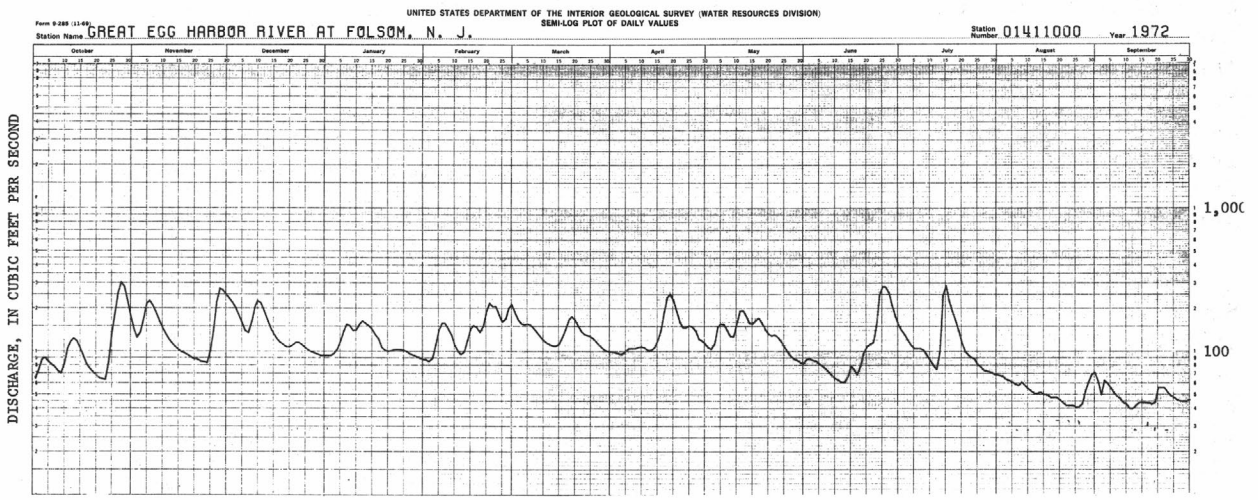
Runoff for the 1972 Water Year averaged from 130 to 150 percent of normal over New Jersey except in the southern Coastal region, which was slightly lower. The peak flows for the year in most streams occurred on June 22-23 and were the result of the tropical storm "Agnes". However, the State was spared the severe flooding that occurred in the neighboring states of Maryland, Pennsylvania and New York, as the maximum flows in New Jersey were of a magnitude that could be expected at least every seven years. In general, the mean streamflow for this water year is the highest of Northern and Central New Jersey since 1952 and since 1958 in the southern Coastal regions. The runoff ranks third or fourth highest of the water years, since systematic stream gaging began in the early 1920's, in most areas of the State.

Graphical illustrations of stream conditions during the year, in comparison with long term records for three index stations are shown on the adjacent pages. The streamflow stations chosen for illustration were the South Branch Raritan River near High Bridge and the Great Egg Harbor River at Folsom, which reflect runoff conditions in the northern and southern parts of the State, respectively, and Delaware River at Trenton in which there is widespread interest. The variation in streamflow from day to day, month to month, and year to year may be observed in the separate illustrations provided.

Streamflow for the year averaged 173 cfs, 150 percent of normal, at South Branch Raritan River at High Bridge. The average flow during the 1972 Water Year at Great Egg Harbor River at Folsom was 304 cfs, 138 percent of normal. The yearly mean (observed) discharge on the Delaware River at Trenton was 15,540 cfs (136 percent of normal). The natural flow of the Delaware River at Trenton (adjusted for diversion and storage upstream) was about 147 percent of normal for the water year.

The combined storage in the 13 major water-supply reservoirs in New Jersey dropped from 97 percent of capacity on October 1, 1971, (following floods during the latter part of the previous water year) to about 80 percent at the end of September, 1972, which is still above the seasonal normal. Pumped storage at Round Valley Reservoir was 53.0 billion gallons (96 percent of total usable capacity) at the end of the year. Low-flow augmentation and quality-control releases were made from Round Valley to small outlet streams during the year.





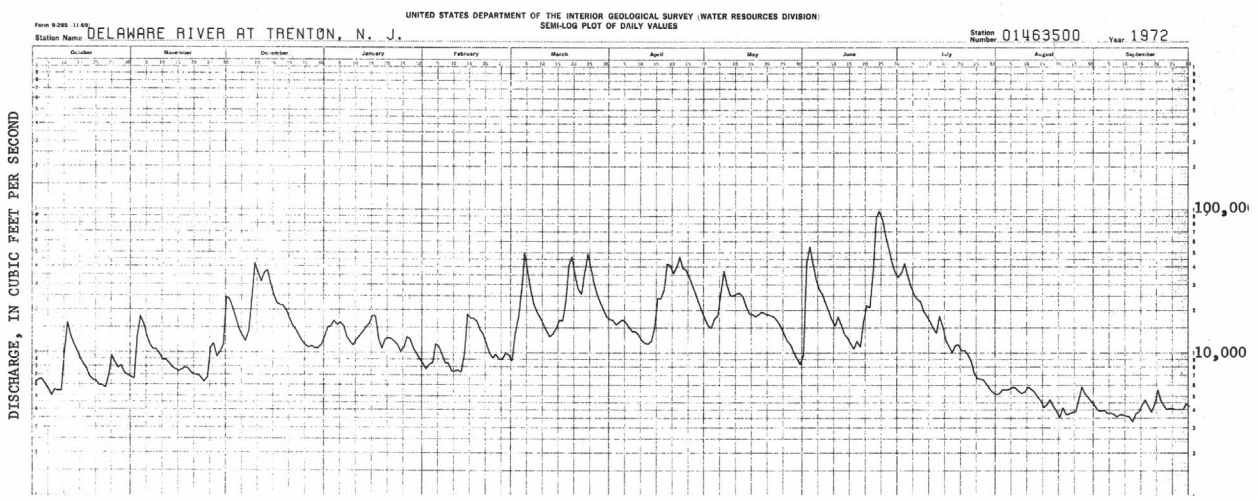
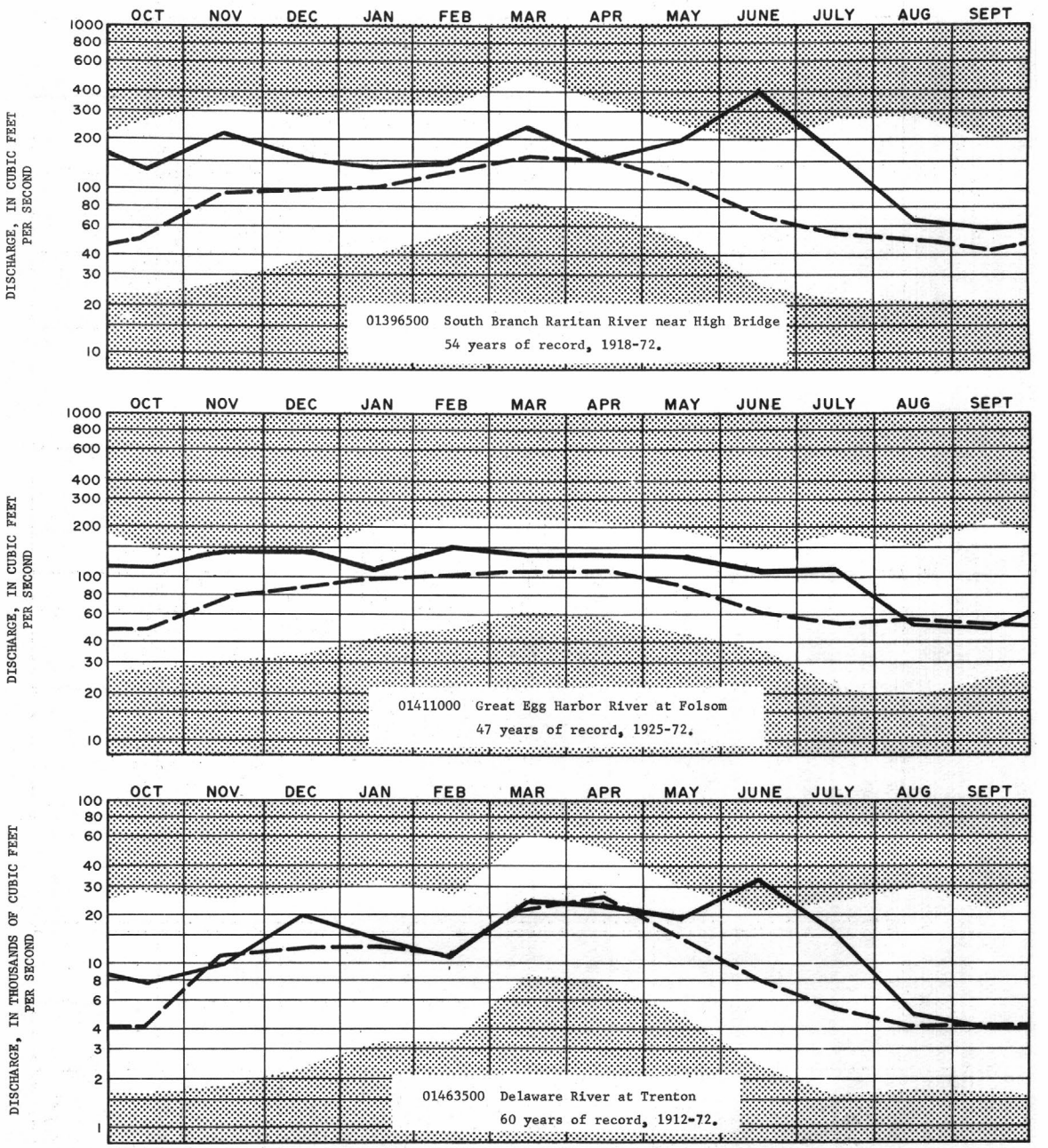


FIGURE 3.--DAILY STREAMFLOW AT KEY GAGING STATIONS



Unshaded area.--Indicates range between highest and lowest mean recorded for the month prior to 1972 water year.

Dashed line.--Indicates normal (median of the monthly means) for the standard reference period 1931-60.

Solid line.--Indicates observed monthly mean flow for the 1972 water year.

FIGURE 4.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS

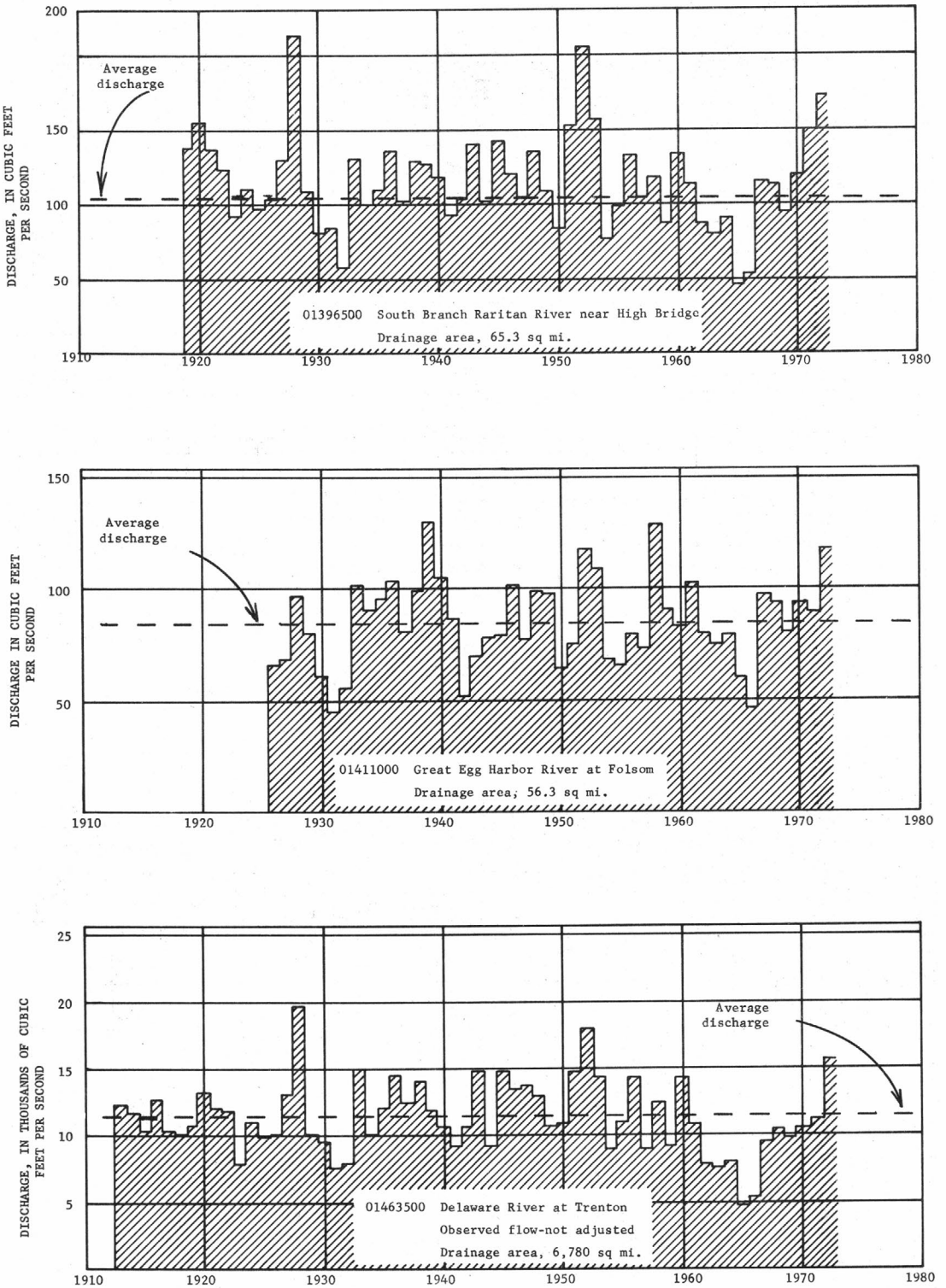


FIGURE 5.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS

01358000 HUDSON RIVER AT GREEN ISLAND, N.Y.

LOCATION.--Lat 42°45'08", long 73°41'22", Albany County, on right bank at Green Island, just upstream from Troy lock and dam, 0.5 mile downstream from 5th branch Mohawk River.

DRAINAGE AREA.--8,090 sq mi, approximately (including that above site of former auxiliary gage).

PERIOD OF RECORD.--February 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.31 ft below mean sea level (Corps of Engineers bench mark). From July 1, 1946 to Mar. 12, 1962 auxiliary water-stage recorder on bypass channel at datum 10.59 ft higher.

AVERAGE DISCHARGE.--26 years, 12,830 cfs.

EXTREMES.--Current year: Maximum discharge, 99,300 cfs May 5 (gage height, 22.48 ft); minimum daily, 3,740 cfs Oct. 3; minimum gage height, 14.54 ft Nov. 8.
Period of record: Maximum discharge, 181,000 cfs Dec. 31, 1948 (gage height, 27.05 ft, from high-water mark in gage well); maximum daily, 141,000 cfs Dec. 31, 1948, Jan. 1, 1949; minimum daily, 882 cfs Sept. 2, 1968; minimum gage height, 13.92 ft Sept. 2, 1946. Flood of Mar. 19, 1936, reached a stage of 29.48 ft at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 cfs). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft higher than flood in 1936, from information by Corps of Engineers.

REMARKS.--Records fair. Records include flow over spillway, estimates of flow through lock, and flow through powerplant (leakage estimated prior to February 1971 and flow through generators thereafter). Power plant which is located on right bank just downstream from gage was inoperative from Nov. 30, 1960 to Feb. 23, 1971. See Diversions in Hudson River basin for regulation and diversions upstream from this station. Water-quality records for current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,800	6,820	12,800	12,600	11,100	11,300	29,600	28,600	16,900	53,000	8,180	4,960
2	6,980	7,540	9,820	12,600	11,100	14,100	34,700	35,400	25,800	42,800	7,170	5,390
3	3,740	8,060	8,390	11,500	10,700	36,000	32,400	49,100	21,500	35,200	8,600	4,900
4	6,740	9,020	7,310	14,300	11,600	39,100	30,700	78,600	24,900	38,200	9,530	4,110
5	7,800	9,020	7,170	12,200	10,700	28,300	24,700	94,500	33,900	35,300	8,720	6,070
6	7,520	6,270	8,430	12,400	10,300	23,100	21,200	76,000	25,200	27,800	7,880	6,910
7	8,180	6,440	14,800	10,100	10,000	20,100	18,700	61,600	19,900	25,000	6,250	6,910
8	8,070	4,070	25,100	9,640	10,600	20,900	19,700	56,800	18,100	20,600	8,080	6,300
9	6,450	8,800	20,600	10,100	10,400	20,700	18,400	69,900	26,000	18,000	11,200	5,510
10	6,410	8,920	21,500	8,980	10,500	18,800	18,600	67,700	29,800	17,400	11,200	4,820
11	9,330	8,860	31,700	13,300	9,690	17,300	20,000	54,400	23,100	17,300	8,230	5,720
12	11,900	8,900	35,000	15,100	9,730	16,800	22,400	45,600	17,400	17,500	7,720	5,640
13	10,900	8,600	23,800	16,800	9,540	16,700	30,700	38,300	16,500	17,200	7,140	5,640
14	10,600	6,460	19,100	19,300	10,900	17,200	47,800	33,500	14,600	14,500	5,680	7,280
15	10,300	7,110	19,000	19,300	14,300	17,100	43,100	36,200	13,300	13,300	9,270	9,320
16	7,710	6,230	26,300	13,900	14,800	17,700	39,400	39,400	18,000	12,100	9,820	9,070
17	6,790	6,790	29,100	9,560	14,400	23,400	50,500	50,200	23,000	14,200	8,900	6,110
18	6,630	5,270	24,100	11,900	12,100	48,700	59,600	48,100	19,200	12,600	7,710	5,100
19	8,340	5,530	18,300	12,800	11,700	46,500	56,600	41,700	18,000	12,400	7,480	6,800
20	9,050	5,180	15,100	14,100	9,960	34,700	65,800	36,200	16,400	13,200	7,170	7,240
21	8,720	4,720	15,100	13,500	9,400	28,400	79,900	34,300	17,400	10,100	6,170	7,230
22	7,870	6,530	15,100	12,500	10,000	30,000	58,600	31,700	33,500	9,090	7,220	7,880
23	6,360	7,740	9,800	11,900	10,400	49,300	57,300	27,500	54,100	9,830	6,900	6,260
24	5,490	8,990	7,810	14,800	10,200	46,000	53,300	23,200	78,900	10,200	5,790	4,810
25	4,930	7,650	11,300	15,900	10,200	35,700	46,500	20,000	68,000	12,500	6,980	5,420
26	8,140	7,640	12,200	20,100	10,600	30,500	39,500	16,900	59,000	12,000	4,860	6,970
27	8,930	7,330	12,500	15,900	10,600	26,200	32,900	14,400	46,700	10,000	4,660	6,130
28	9,180	7,370	15,000	14,000	10,600	23,100	28,900	13,500	39,000	10,000	5,620	8,730
29	9,200	7,090	18,300	13,300	10,800	23,000	27,900	11,200	30,600	9,680	7,540	6,140
30	6,020	9,780	17,500	12,500	------	25,200	29,500	9,990	40,200	9,530	7,320	5,890
31	5,060	------	14,900	10,900	------	26,800	------	11,700	------	9,220	7,110	------
TOTAL	242,140	218,730	526,930	415,780	316,920	832,700	1,138.9M	1,256.2M	888,900	569,750	236,100	189,260
MEAN	7,811	7,291	17,000	13,410	10,930	26,860	37,960	40,520	29,630	18,380	7,616	6,309
MAX	11,900	9,780	35,000	20,100	14,800	49,300	79,900	94,500	78,900	53,000	11,200	9,320
MIN	3,740	4,070	7,170	8,980	9,400	11,300	18,400	9,990	13,300	9,090	4,660	4,110

CAL YR 1971 TOTAL 5,412,780 MEAN 14,830 MAX 59,700 MIN 2,160
WTR YR 1972 TOTAL 6,832,300 MEAN 18,670 MAX 94,500 MIN 3,740

NOTE.--No gage-height record Dec. 19 to Jan. 28.

01368000 WALLKILL RIVER NEAR UNIONVILLE, N.Y.

LOCATION.--Lat 41°15'36", long 74°32'56", Sussex County, New Jersey on right bank on downstream side of bridge on the Bassetts Bridge Road, 0.6 mile upstream from small tributary, 2.0 miles south of the New York-New Jersey State line, and 3.0 miles south of Unionville.

DRAINAGE AREA.--140 sq mi.

PERIOD OF RECORD.--September 1937 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (from topographic map). Prior to Nov. 16, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--35 years, 209 cfs (20.27 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,620 cfs June 25 (gage height, 9.29 ft); minimum, 30 cfs Sep. 18 (gage height, 3.08 ft).
Period of record: Maximum discharge, 6,880 cfs Aug. 19, 1955 (gage height, 13.35 ft); minimum daily, 4.2 cfs Aug. 8-10, 1966.

REMARKS.--Records poor.

REVISIONS.--WRD N.Y. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	180	827	260	120	353	281	251	775	655	76	37
2	102	300	809	278	120	593	264	269	1,060	593	73	35
3	99	408	600	400	130	945	255	290	1,080	442	76	59
4	97	403	437	350	160	1,150	240	511	914	326	78	50
5	91	338	372	280	220	1,060	249	617	702	274	64	44
6	86	281	343	240	170	861	240	499	533	281	56	45
7	88	274	518	210	140	614	231	374	468	249	57	42
8	83	295	637	210	125	450	224	329	394	218	100	40
9	73	255	663	235	115	370	205	338	322	200	86	37
10	191	231	607	372	110	300	191	434	348	176	66	34
11	526	218	509	415	105	270	180	427	331	152	56	31
12	581	198	434	386	100	358	176	353	262	134	50	35
13	439	185	398	346	100	583	209	295	229	176	49	37
14	312	172	350	367	250	612	353	262	209	312	46	44
15	238	172	346	300	600	475	288	300	196	278	64	42
16	202	211	360	180	450	434	286	398	185	202	73	37
17	174	194	329	170	340	668	470	386	242	202	59	33
18	156	172	293	170	271	945	509	317	246	191	55	34
19	145	158	242	190	235	1,050	384	307	492	176	52	109
20	136	158	233	211	220	936	394	379	640	154	49	138
21	129	154	233	207	200	751	610	574	571	218	45	83
22	124	149	227	202	200	598	653	564	671	220	41	59
23	118	130	170	198	190	627	653	446	1,020	168	38	50
24	142	110	170	240	190	622	629	343	1,470	127	39	45
25	298	120	190	281	180	504	530	286	1,600	104	38	41
26	276	172	220	200	180	430	449	244	1,480	99	46	40
27	231	196	229	170	180	377	379	216	1,310	89	97	39
28	187	281	211	150	180	338	329	194	1,150	83	80	39
29	160	398	196	140	235	312	295	176	920	78	55	35
30	147	629	205	130	------	307	269	160	723	75	45	40
31	138	------	300	120	------	305	------	310	------	72	40	------
TOTAL	5,884	7,142	11,658	7,608	5,816	18,198	10,425	10,849	20,543	6,724	1,849	1,434
MEAN	190	238	376	245	201	587	348	350	685	217	59.6	47.8
MAX	581	629	827	415	600	1,150	653	617	1,600	655	100	138
MIN	73	110	170	120	100	270	176	160	185	72	38	31

CAL YR 1971 TOTAL 92,765 MEAN 254 MAX 1,730 MIN 18
WTR YR 1972 TOTAL 108,130 MEAN 295 MAX 1,600 MIN 31

PEAK DISCHARGE (BASE, 1,200 CFS).--June 25 (0430) 1,620 cfs (9.29 ft).

01377000 Hackensack River at Rivervale, N. J.

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

DRAINAGE AREA.--58.0 sq mi.

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

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

AVERAGE DISCHARGE.--31 years, 89.2 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,480 cfs June 19 (gage height, 6.18 ft); minimum, 27 cfs Jan. 29, Sept. 23-25 (gage height, 1.66 ft).
Period of record: Maximum discharge, 1,500 cfs May 29, 1968 (gage height, 6.23 ft); no flow for part of Jan. 16, 1970 due to upstream regulation.

REMARKS.--Records excellent. Flow regulated by Lake De Forest and Lake Tappan (see p. 25). Diversions at Lake De Forest and West Nyack, N.Y., for municipal water supply (see p. 26). Records of water quality for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	83	206	82	38	178	74	79	446	458	60	168
2	51	207	179	124	38	239	91	156	306	466	53	168
3	52	166	120	135	55	524	79	150	232	273	41	168
4	50	132	68	114	225	379	96	283	129	354	44	165
5	50	101	54	141	123	280	84	205	126	406	40	162
6	50	69	59	107	97	196	81	144	74	306	37	162
7	50	77	182	86	88	158	89	121	81	177	53	159
8	60	65	174	71	67	169	74	121	61	153	104	159
9	98	51	138	67	56	133	57	186	55	135	52	156
10	137	47	105	108	51	91	49	259	67	115	38	153
11	105	44	106	107	46	86	55	186	49	101	35	147
12	55	40	93	105	46	209	49	138	40	94	35	112
13	81	40	85	95	226	212	121	101	40	470	37	112
14	74	41	76	106	215	213	144	89	40	795	35	112
15	60	45	91	86	154	213	109	514	40	466	94	109
16	56	73	83	69	119	229	109	358	53	219	57	106
17	50	57	76	55	103	351	209	273	263	320	38	106
18	37	49	71	51	91	570	129	192	189	171	50	104
19	35	40	50	52	133	422	101	159	959	123	89	109
20	36	41	59	52	104	222	215	317	1,030	84	86	30
21	34	39	58	56	84	153	296	362	626	84	86	28
22	33	38	52	53	76	186	256	256	522	79	123	28
23	36	34	41	53	72	229	303	162	738	57	156	28
24	61	34	50	59	80	183	236	132	762	53	180	27
25	97	100	60	62	69	132	177	109	642	46	180	55
26	80	69	54	52	88	96	141	89	662	41	180	86
27	58	58	58	44	76	89	109	68	514	38	186	84
28	47	117	54	51	87	84	86	47	296	38	192	84
29	39	116	48	45	131	81	79	50	195	38	177	89
30	42	283	94	43	------	84	68	52	330	38	174	109
31	38	------	117	39	------	84	------	147	------	50	171	------
TOTAL	1,802	2,356	2,761	2,370	2,838	6,475	3,766	5,505	9,567	6,248	2,883	3,285
MEAN	58.1	78.5	89.1	76.5	97.9	209	126	178	319	202	93.0	110
MAX	137	283	206	141	226	570	303	514	1,030	795	192	168
MIN	33	34	41	39	38	81	49	47	40	38	35	27

CAL YR 1971 TOTAL 24,584 MEAN 67.4 MAX 630 MIN 14
WTR YR 1972 TOTAL 49,856 MEAN 136 MAX 1,030 MIN 27

01377500 Pascack Brook at Westwood, N. J.

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

DRAINAGE AREA.--29.6 sq mi.

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

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

AVERAGE DISCHARGE.--38 years, 53.1 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,260 cfs June 19 (gage height, 5.34 ft); minimum, 24 cfs Sept. 17, 18 (gage height, 1.62 ft).
Period of record: Maximum discharge, 2,440 cfs Sept. 12, 1971 (gage height, 7.57 ft); minimum, 5.6 cfs June 29, 1965.

REMARKS.--Records excellent. Flow regulated by Woodcliff Lake 3.0 miles above station (see p. 25). Water diverted for municipal supply by Spring Valley Water Works and Supply Co., by pumpage from well fields in headwater area of Pascack Brook in vicinity of Spring Valley, N.Y., and by Park Ridge Water Department by pumping from wells above Woodcliff Lake probably reduces flow past this station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	81	84	42	37	114	57	57	317	278	47	28
2	75	97	58	67	37	155	58	106	111	150	44	28
3	74	72	50	74	54	307	57	118	94	168	43	29
4	71	64	49	58	96	155	64	189	84	205	44	28
5	71	52	45	71	55	106	66	101	96	109	42	28
6	71	46	58	54	44	91	56	73	71	97	42	27
7	70	54	127	46	42	75	56	65	69	93	44	27
8	59	51	103	43	41	83	52	66	56	94	48	27
9	39	45	70	45	40	75	46	143	53	117	44	27
10	128	44	59	52	39	62	44	141	58	79	42	26
11	79	44	55	59	39	57	44	87	50	72	39	26
12	52	43	51	58	39	129	43	70	46	66	32	25
13	46	44	49	52	139	160	100	62	45	568	32	29
14	44	43	48	58	157	97	100	59	46	255	31	29
15	43	47	51	48	73	99	70	427	46	110	46	27
16	42	46	51	42	57	105	76	150	79	102	38	25
17	41	43	50	40	49	229	138	97	205	119	34	25
18	38	43	46	41	46	259	77	80	111	82	32	26
19	35	43	42	42	56	120	63	71	914	70	31	102
20	33	41	43	41	52	92	157	257	252	65	30	31
21	33	40	42	40	43	85	154	191	195	79	29	28
22	35	40	38	40	43	107	112	102	437	83	29	28
23	40	40	40	40	42	124	154	81	355	61	28	26
24	52	40	43	40	43	89	91	72	211	54	28	25
25	53	64	42	40	43	75	74	65	384	51	28	25
26	44	50	42	38	47	69	65	60	210	48	28	52
27	42	50	42	38	46	65	60	57	140	47	58	79
28	41	61	41	38	51	63	56	54	114	46	71	79
29	39	82	41	38	74	61	54	52	103	45	32	81
30	40	220	57	38	------	60	52	55	291	44	28	90
31	39	------	50	38	------	59	------	222	------	46	27	------
TOTAL	1,642	1,730	1,667	1,461	1,624	3,427	2,296	3,430	5,243	3,503	1,171	1,133
MEAN	53.0	57.7	53.8	47.1	56.0	111	76.5	111	175	113	37.8	37.8
MAX	128	220	127	74	157	307	157	427	914	568	71	102
MIN	33	40	38	38	37	57	43	52	45	44	27	25

CAL YR 1971 TOTAL 27,759 MEAN 76.1 MAX 1,770 MIN 28
WTR YR 1972 TOTAL 28,327 MEAN 77.4 MAX 914 MIN 25

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0315	3.01	339	5-20	1715	3.23	427	6-30	2345	3.34	471
3-03	1445	3.25	435	5-31	2245	3.59	566	7-04	0030	3.06	359
3-18	0200	3.07	363	6-19	1400	5.34	1,260	7-13	1815	4.73	992
4-20	2000	2.94	314	6-22	2300	3.69	602	9-19	0130	3.06	359
5-15	0900	3.83	650	6-25	1530	3.53	546				

01378500 Hackensack River at New Milford, N. J.

LOCATION.--Lat 40°56'52", long 74°01'34", Bergen County, on right bank upstream from two masonry dams and two lift gates at pumping plant of Hackensack Water Co., New Milford, 4.0 miles downstream from Pascack Brook, and 21.8 miles upstream from mouth.

DRAINAGE AREA.--113 sq mi.

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

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

AVERAGE DISCHARGE.--51 years, 108 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 3,830 cfs June 19 (gage height, 6.34 ft); no flow part of July 13; minimum daily discharge, 10 cfs Aug. 21.
Period of record: Maximum discharge, 4,040 cfs May 30, 1968 (gage height, 6.60 ft); no flow on many days during most years.

REMARKS.--Records good. Records given herein represent flow over waste weirs only. Flow regulated by Lake De Forest, Lake Tappan, Woodcliff Lake 9.0 miles upstream from station, and Oradell Reservoir 1.0 mile upstream from station (see p. 25). Water diverted at gage, Lake De Forest, and West Nyack, N.Y., for municipal supply (see p. 26). Records of water quality for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

REVISIONS (WATER YEARS).--WSP 601: Drainage area. WSP 711: 1927-28(M). WRD-NJ 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	22	192	63	18	306	73	16	1,040	862	14	136
2	17	207	192	164	18	449	52	18	312	603	15	386
3	16	279	80	145	20	1,060	46	46	247	350	15	73
4	15	150	49	106	17	603	73	736	102	603	15	70
5	16	66	30	183	17	404	84	263	222	482	14	49
6	15	35	17	77	34	290	44	128	70	456	14	36
7	16	51	16	36	60	183	46	80	38	436	14	41
8	16	76	18	36	58	202	46	115	16	328	13	32
9	16	20	212	32	26	141	36	423	16	334	14	34
10	19	19	475	80	24	95	20	380	16	132	14	34
11	17	17	222	88	18	44	18	187	16	15	13	26
12	17	17	34	77	17	334	17	84	16	14	13	14
13	19	16	26	77	312	462	136	58	16	24	13	14
14	16	17	26	80	582	290	95	73	16	1,780	15	15
15	16	17	73	38	164	295	102	1,200	16	638	15	15
16	16	17	36	34	91	356	115	624	18	274	13	15
17	16	17	34	30	60	743	334	295	659	514	13	14
18	14	16	28	28	63	1,090	111	159	258	141	14	15
19	14	15	30	28	207	456	77	124	2,880	88	13	192
20	15	16	30	28	91	263	290	862	2,700	41	11	24
21	16	15	28	17	63	141	443	638	1,090	17	10	14
22	16	15	20	18	55	253	374	306	1,490	102	13	14
23	17	16	15	18	41	339	482	136	1,080	60	14	14
24	17	16	15	18	17	150	279	66	982	26	13	14
25	17	16	15	18	17	150	145	66	1,300	14	14	14
26	16	16	15	17	18	66	217	38	1,160	14	15	14
27	17	16	16	18	20	60	258	22	1,010	15	13	15
28	16	43	14	17	30	60	98	14	603	15	15	15
29	16	187	14	17	60	60	17	13	274	15	14	14
30	16	798	15	17	------	46	17	15	701	14	15	14
31	17	------	32	17	------	36	------	449	------	15	15	------
TOTAL	502	2,228	2,019	1,622	2,218	9,427	4,145	7,634	18,364	8,422	426	1,377
MEAN	16.2	74.3	65.1	52.3	76.5	304	138	246	612	272	13.7	45.9
MAX	19	798	475	183	582	1,090	482	1,200	2,880	1,780	15	386
MIN	14	15	14	17	17	36	17	13	16	14	10	14

CAL YR 1971 TOTAL 21,712.50 MEAN 59.5 MAX 2,420 MIN 0
WTR YR 1972 TOTAL 58,384.00 MEAN 160 MAX 2,880 MIN 10

Reservoirs in Hackensack River basin

01376700 LAKE DE FOREST.--Lat 41°06', long 74°57', Rockland County, N.Y., (formerly published as "De Forest Lake") at dam on Hackensack River, 0.85 mile north of West Nyack, N.Y. Drainage area, 26.6 sq mi. Period of record, February 1956 to current year in reports of Geological Survey. Bristol recording water-level gage. Datum of gage is at mean sea level.

Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam (elevation, 80.00 ft), 4,068,000,000 gal. Crest of dam topped by two 50-foot Bascule gates 5 ft high. 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 Hackensack Water Co., for public water supply. Elevation record and capacity table furnished by Hackensack Water Co.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, at dam on Hackensack River, 0.50 mile north of Old Tappan. Drainage area, about 49 sq mi. Period of record, October 1966 to current year in reports of Geological Survey. Water-stage recorder. Datum of gage is at mean sea level.

Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level (elevation, 55.00 ft), 3,378,000,000 gal. Flow regulated by four Bascule gates and one sluice gate. Water is released by Hackensack Water Co., for public water supply. Elevation record and capacity table furnished by Hackensack Water Co.

01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, at dam on Pascack Brook, 0.75 mile north of Hillsdale. Drainage area, 19.4 sq mi. Period of record, December 1929 to current year in reports of Geological Survey. Monthend contents only prior to September 1953, published in WSP 1302, 1722. Water-stage recorder. Datum of gage is at mean sea level. Gage readings to 0.1 ft above or below spillway level and capacity table furnished by Hackensack Water Co.

Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level (elevation, 94.33 ft), 835,000,000 gal. Flow is regulated by flashboards and one 36-inch gate in center of dam. Water is released for diversion at New Milford by Hackensack Water Co., for municipal supply.

01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, at dam on Hackensack River at Oradell. Drainage area, 113 sq mi. Period of record, December 1922 to current year in reports of Geological Survey. Monthend contents only prior to September 1953, published in WSP 1302, 1722. Water-stage recorder. Datum of gage is at mean sea level.

Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level (elevation, 22.66 ft), 2,850,000,000 gal. Flow regulated by seven sluice gates (7 by 9 ft). Water is released for diversion by Hackensack Water Co., 1 mile downstream from dam for municipal supply. Elevation record and capacity table furnished by Hackensack Water Co.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
	01376700 Lake De Forest†			01376950 Lake Tappan†		
Sept.30	85.06	5,659	-	54.94	3,466	-
Oct. 31	85.12	5,680	+1.0	54.95	3,469	+.2
Nov. 30	85.29	5,740	+3.1	55.01	3,488	+1.0
Dec. 31	85.28	5,737	-.2	55.00	3,485	-.2
CAL YR 1971	-	-	+13.6	-	-	+10.9
Jan. 31	85.14	5,687	-2.5	55.00	3,485	0
Feb. 29	85.29	5,740	+2.8	55.02	3,492	+.4
Mar. 31	85.27	5,733	-.4	55.00	3,485	-.4
Apr. 30	85.20	5,709	-1.2	55.00	3,485	0
May 31	85.49	5,811	+5.1	55.12	3,524	+2.0
June 30	85.68	5,878	+3.4	55.12	3,524	0
July 31	84.89	5,603	-13.7	55.02	3,492	-1.6
Aug. 31	84.22	5,393	-10.5	52.00	2,545	-47.3
Sept.30	82.59	4,881	-26.4	46.58	1,138	-72.6
WTR YR 1972	-	-	-3.3	-	-	-9.8
	01377450 Woodcliff Lake†			01378480 Oradell Reservoir†		
Sept.30	94.23	830	-	18.50	2,017	-
Oct. 31	93.63	798	-1.6	19.25	2,154	+6.8
Nov. 30	95.53	899	+5.2	21.05	2,513	+18.6
Dec. 31	95.13	878	-1.0	21.56	2,618	+5.2
CAL YR 1971	-	-	+.1	-	-	+3.5
Jan. 31	94.13	824	-2.7	20.02	2,304	-15.6
Feb. 29	95.53	899	+4.0	22.01	2,711	+21.7
Mar. 31	95.33	889	-.5	22.12	2,734	+1.1
Apr. 30	95.23	883	-.3	21.74	2,655	-4.1
May 31	96.23	940	+2.8	22.75	2,871	+10.8
June 30	96.23	940	0	20.03	2,306	-29.1
July 31	94.83	862	-3.9	20.87	2,477	+8.5
Aug. 31	95.03	873	+.5	19.53	2,208	-13.4
Sept.30	91.63	694	-9.2	17.44	1,833	-19.3
WTR YR 1972	-	-	-.6	-	-	-.8

† Elevation at 0800 on first day of following month.

Diversions from Hackensack River basin

01376699 Spring Valley Water Co., diverts water at Lake De Forest for public supply in Rockland County, N.Y. Records furnished by Spring Valley Water Co.

01376810 Village of Nyack, N.Y., diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, N.Y., for municipal supply. Records furnished by Board of Water Commissioners of Nyack, N.Y.

01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 miles upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft above gaging station on Hackensack River at New Milford, N.J. Records furnished by Hackensack Water Co.

01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, N.J., for municipal supply. Records furnished by Hackensack Water Co.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Spring Valley Water Co.	West Nyack, N.Y.	Hackensack Water Co.
October	5.72	2.71	140
November	4.26	2.32	133
December	3.12	2.32	132
CAL YR 1971	6.20	2.68	143
January	2.04	2.31	133
February	2.19	2.29	135
March	2.24	2.38	137
April	2.45	2.45	140
May	5.67	2.69	151
June	6.24	2.92	152
July	7.45	3.23	156
August	9.12	3.31	166
September	10.1	2.91	155
WTR YR 1972	5.06	2.66	144

Tabulation of diversion by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Sparkill Creek (Hudson River Basin)	Hirshfeld Brook (Hackensack River Basin)	Saddle River (Passaic River Basin)	Wells to Surface Supply
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
CAL YR 1971	0.11	0.86	5.75	0.36
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
WTR YR 1972	0	0	0	0

01378690 Passaic River near Bernardsville, N. J.

LOCATION.--Lat 40°44'03", long 74°32'26", Somerset County, on right bank on downstream wingwall of bridge on U.S. Route 202, 1.8 miles northeast of Bernardsville, and 3.0 miles upstream from Great Brook.

DRAINAGE AREA.--8.83 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 238.07 ft above mean sea level. Prior to May 4, 1972, at datum 10.00 ft higher.

AVERAGE DISCHARGE.--5 years, 16.8 cfs (25.84 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,410 cfs May 31 (gage height, 15.12 ft), from rating curve extended above 600 cfs on the basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily, 5.0 cfs Sept. 1.
Period of record: Maximum discharge, 3,850 cfs Aug. 28, 1971 (gage height, 18.56 ft, present datum), from rating curve extended above 600 cfs on the basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.1 cfs Dec. 7, 1970 (gage height, 1.10 ft).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. The stage-discharge relationship may be affected at high stages by backwater from Osborne Pond, approximately 0.8 mile downstream.

REVISIONS (WATER YEARS).--WRD N.J. 1971: 1970(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	52	28	16	12	49	20	17	88	75	14	5.0
2	20	73	23	36	13	63	21	20	50	41	13	7.0
3	20	57	22	25	18	76	19	87	45	42	15	11
4	19	32	22	21	40	38	23	72	40	39	13	10
5	18	27	20	28	14	36	20	45	38	34	11	8.2
6	17	25	24	20	13	30	19	35	32	32	11	8.6
7	13	31	45	18	14	29	19	31	30	29	11	7.7
8	15	24	31	17	15	31	17	35	27	30	12	7.4
9	16	22	25	20	15	25	17	60	25	30	11	7.0
10	56	22	24	33	14	23	16	54	24	24	10	6.9
11	33	21	23	28	13	22	16	37	22	22	10	6.8
12	20	20	21	24	15	35	16	30	22	22	9.8	6.6
13	17	20	21	22	132	31	30	38	22	95	9.5	5.6
14	17	19	20	22	44	28	22	36	21	37	9.3	7.6
15	16	19	22	19	25	20	19	75	20	26	9.0	7.9
16	15	19	22	15	23	37	25	50	33	23	8.8	8.0
17	14	18	20	16	20	63	37	32	45	22	8.9	7.7
18	13	17	19	16	20	41	20	30	60	20	9.4	12
19	12	17	18	17	24	32	19	32	156	20	8.8	57
20	12	17	20	17	19	29	41	81	49	24	8.0	25
21	11	17	19	17	19	28	26	45	58	24	7.8	9.5
22	11	16	17	17	18	38	26	36	169	19	7.7	7.8
23	11	15	16	18	17	35	29	32	120	16	7.8	6.8
24	49	15	18	18	18	28	26	30	75	16	8.0	6.0
25	37	40	18	18	17	25	22	28	90	15	8.0	6.3
26	22	27	17	14	20	24	20	26	60	15	10	6.6
27	19	31	17	14	18	23	19	26	50	14	16	7.0
28	17	44	17	15	20	23	18	24	43	13	11	8.0
29	16	67	16	14	33	22	17	24	43	12	8.7	9.0
30	16	61	27	14	------	22	17	27	65	12	6.7	10
31	16	------	21	13	------	22	------	37	------	13	5.7	------
TOTAL	608	885	673	602	683	1,028	656	1,232	1,622	856	309.9	300.0
MEAN	19.6	29.5	21.7	19.4	23.6	33.2	21.9	39.7	54.1	27.6	10.0	10.0
MAX	56	73	45	36	132	76	41	87	169	95	16	57
MIN	11	15	16	13	12	20	16	17	20	12	5.7	5.0
CFSM	2.22	3.34	2.46	2.20	2.67	3.76	2.48	4.50	6.13	3.13	1.13	1.13
IN.	2.56	3.73	2.84	2.54	2.88	4.33	2.76	5.19	6.83	3.61	1.31	1.26

CAL YR 1971 TOTAL 8,629.9 MEAN 23.6 MAX 646 MIN 2.9 CFSM 2.67 IN 36.36
WTR YR 1972 TOTAL 9,454.9 MEAN 25.8 MAX 169 MIN 5.0 CFSM 2.92 IN 39.83

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-01	1815	3.39	210	6-19	0845	12.82	416
11-29	2330	3.69	279	6-22	1815	13.34	606
2-13	1645	4.42	521	6-30	2330	12.35	290
5-03	1745	4.00	388	7-13	1415	12.91	443
5-31	2215	15.12	1,410	9-19	0315	13.10	510

NOTE.--No gage-height record July 27 to Sept. 30.

01379000 Passaic River near Millington, N. J.

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

DRAINAGE AREA.--55.4 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 215.60 ft above mean sea level (New Jersey Geological Survey bench mark). Nov. 25, 1903, to July 15, 1906, nonrecording gage at bridge 0.8 mile 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.

AVERAGE DISCHARGE.--52 years (1904-5, 1921-72), 85.5 cfs (20.95 inches per year) adjusted for diversion since 1970.

EXTREMES.--Current year: Maximum discharge, 1,070 cfs June 23 (gage height, 8.02 ft); minimum, 4.0 cfs Sept. 16 (gage height, 4.07 ft).
Period of record: Maximum discharge, 2,000 cfs Jan. 9, 1905 (gage height, 7.8 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 1,400 cfs on basis of velocity-area study; maximum gage height, 9.73 ft Aug. 29, 1971; minimum discharge, 0.2 cfs Sept. 12, 13, 1966 (gage height, 3.76 ft).

REMARKS.--Records excellent except those for periods of no gage-height record, which are fair. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, since June 24, 1903, for municipal supply (records given herein). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1552: 1905(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	97	440	72	29	248	67	58	150	412	27	14
2	53	262	370	96	32	440	63	60	210	368	24	18
3	51	500	310	170	36	636	60	89	230	266	22	25
4	48	440	280	150	124	675	60	283	210	205	27	16
5	45	350	160	180	135	564	70	252	190	156	22	12
6	43	270	120	150	103	396	66	185	150	130	20	12
7	38	220	190	120	71	262	61	130	115	113	20	10
8	36	180	202	100	53	185	58	126	90	99	20	10
9	34	150	193	80	42	154	52	202	70	88	18	9.7
10	81	120	178	150	38	128	48	380	60	77	16	8.9
11	213	110	150	160	36	101	46	357	50	66	15	8.0
12	213	95	130	150	32	106	44	276	42	56	14	7.1
13	186	82	110	140	106	141	55	183	37	119	14	8.3
14	150	75	100	130	448	147	103	137	36	329	14	11
15	117	68	90	115	444	156	94	252	36	241	13	12
16	92	62	92	90	396	183	92	290	50	183	12	8.0
17	75	58	90	70	262	297	152	255	120	132	12	7.7
18	63	55	80	46	147	420	147	210	180	91	13	9.7
19	53	52	70	48	83	372	119	130	320	71	14	83
20	48	50	63	53	77	276	110	190	350	63	12	103
21	43	48	67	54	98	188	173	300	370	89	10	40
22	41	47	66	55	79	152	158	290	470	71	9.7	31
23	40	45	56	61	67	168	180	260	1,030	53	9.7	22
24	87	42	52	71	61	156	170	220	987	45	9.7	17
25	210	200	54	74	63	130	152	160	903	39	10	16
26	214	250	54	59	70	108	124	110	794	35	16	14
27	199	240	52	50	79	92	99	84	608	31	22	12
28	161	270	51	40	91	82	82	66	404	28	20	12
29	141	330	50	38	128	74	70	54	266	25	22	12
30	121	420	60	39	------	70	61	50	238	23	19	18
31	100	------	82	34	------	70	------	60	------	23	16	------
TOTAL	3,057	5,188	4,062	2,845	3,430	7,177	2,836	5,699	8,766	3,727	513.1	587.4
MEAN	98.6	173	131	91.8	118	232	94.5	184	292	120	16.6	19.6
MAX	214	500	440	180	448	675	180	380	1,030	412	27	103
MIN	34	42	50	34	29	70	44	50	36	23	9.7	7.1
(†)	2.4	2.4	2.4	2.4	2.3	2.4	2.6	2.9	2.9	3.1	3.4	2.6
MEAN‡	101	175	133	94.2	120	234	97.1	187	295	123	20.0	22.2
CFSM‡	1.82	3.16	2.40	1.70	2.17	4.22	1.75	3.38	5.32	2.22	.36	.40
IN.‡	2.10	3.52	2.77	1.96	2.34	4.87	1.96	3.89	5.94	2.56	.42	.45

CAL YR 1971 TOTAL 53,246.0 MEAN 146 MAX 1,660 MIN 3.2 MEAN‡ 148 CFSM‡ 2.69 IN.‡ 36.29
WTR YR 1972 TOTAL 47,887.5 MEAN 131 MAX 1,030 MIN 7.1 MEAN‡ 134 CFSM‡ 2.40 IN.‡ 32.78

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE
3-03	2330	7.00	710
6-23	1115	8.02	1,070

† Diversion, in cubic feet per second, from Osborn Pond for municipal supply. Records of diversion furnished by Commonwealth Water Co., Bernards Division.
‡ Adjusted for diversion.
NOTE.--No gage-height record Nov. 4 to Dec. 8, Dec. 10 to Jan. 17, and May 18 to June 22.

01379500 Passaic River near Chatham, N. J.

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

DRAINAGE AREA.--100 sq mi.

PERIOD OF RECORD.--February 1903 to December 1911, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1302.

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

AVERAGE DISCHARGE.--43 years (1903-11, 1937-72), 162 cfs (22.00 inches per year) adjusted for diversion since 1970

EXTREMES.--Current year: Maximum discharge, 1,520 cfs June 22 (gage height, 6.57 ft); minimum, 13 cfs Sept. 18 (gage height, 3.12 ft).
Period of record: Maximum discharge observed, about 3,000 cfs Jan. 9, 1905 (gage height, 8.3 ft, site and datum then in use); minimum, 2.0 cfs on many days in May and June 1903, August and October 1905, September and October 1906, and Sept. 11, 1944.

REMARKS.--Records excellent. Diversion from Osborn Pond by Commonwealth Water Co., Bernards Division, since June 24, 1903, for municipal supply (records given herein). Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	190	740	143	60	543	109	103	346	618	43	25
2	80	401	658	202	58	681	105	115	443	555	44	36
3	75	467	537	345	104	907	100	204	443	490	41	39
4	69	511	408	306	396	939	107	473	391	407	42	33
5	65	520	265	359	301	895	123	483	370	304	42	24
6	61	484	201	321	261	789	113	397	272	228	35	23
7	57	439	321	242	161	625	104	287	195	185	33	23
8	52	358	356	191	148	481	96	255	147	154	33	20
9	48	265	330	161	158	335	88	430	118	135	32	19
10	228	211	290	320	114	232	80	574	102	120	29	18
11	447	177	249	320	107	182	77	555	86	105	27	18
12	381	153	206	294	70	191	73	488	75	92	25	17
13	304	135	177	266	297	271	118	391	70	354	24	18
14	235	120	155	266	554	265	198	289	68	493	25	20
15	203	110	150	226	685	312	171	555	68	450	24	21
16	154	107	154	146	645	381	176	538	152	349	23	20
17	119	100	144	126	546	557	330	467	342	250	22	16
18	97	93	130	122	415	667	290	365	359	167	23	20
19	84	88	113	88	239	629	221	257	686	121	24	92
20	73	85	104	91	180	541	234	536	686	142	22	123
21	67	82	112	94	192	432	316	603	714	147	20	97
22	63	79	107	94	164	342	299	569	1,010	127	19	53
23	59	75	90	99	134	343	365	487	1,290	93	18	41
24	174	69	87	117	118	290	359	395	1,410	74	20	31
25	421	332	90	124	124	239	311	269	1,400	65	97	26
26	387	423	88	106	167	196	245	183	1,290	59	79	26
27	327	390	87	85	199	164	193	140	1,140	53	131	24
28	265	427	85	72	207	144	156	116	954	48	52	22
29	207	534	82	68	338	128	132	101	740	45	36	25
30	160	697	103	69	------	119	114	95	616	41	33	46
31	130	------	162	61	------	114	------	169	------	41	29	------
TOTAL	5,176	8,122	6,781	5,524	7,142	12,934	5,403	10,889	15,983	6,512	1,147	1,016
MEAN	167	271	219	178	246	417	180	351	533	210	37.0	33.9
MAX	447	697	740	359	685	939	365	603	1,410	618	131	123
MIN	48	69	82	61	58	114	73	95	68	41	18	16
(†)	2.4	2.4	2.4	2.4	2.3	2.4	2.6	2.9	2.9	3.1	3.4	2.6
MEAN‡	169	273	221	180	248	419	183	354	536	213	40.4	36.5
CFSM‡	1.69	2.73	2.21	1.80	2.48	4.19	1.83	3.54	5.36	2.13	.40	.36
IN.‡	1.95	3.05	2.55	2.08	2.67	4.83	2.04	4.08	5.98	2.46	.46	.41

CAL YR 1971 TOTAL 91,306 MEAN 250 MAX 2,020 MIN 12 MEAN ‡ 252 CFSM‡ 2.52 IN.‡ 34.27
WTR YR 1972 TOTAL 86,629 MEAN 237 MAX 1,410 MIN 16 MEAN ‡ 240 CFSM‡ 2.40 IN.‡ 32.56

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE
11-29	1945	5.55	920
3-03	0830	5.74	1,020
6-22	1830	6.57	1,520

† Diversion, in cubic feet per second, from Osborn Pond for municipal supply. Records of diversion furnished by Commonwealth Water Co., Bernards Division.
‡ Adjusted for diversion.

01380500 Rockaway River above reservoir, at Boonton, N. J.

LOCATION.--Lat 40°54'06", long 74°24'40", Morris County, on right bank at Morris Avenue in Boonton, 1.8 miles upstream from dam on Boonton Reservoir.

DRAINAGE AREA.--116 sq mi.

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

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

AVERAGE DISCHARGE.--35 years, 209 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,200 cfs June 1 (gage height, 5.40 ft); minimum, 37 cfs Sept. 11, (gage height, 1.90 ft).
Period of record: Maximum discharge, 3,250 cfs June 2, 1952 (gage height, 6.62 ft), from rating curve extended above 2,400 cfs; minimum, 1.5 cfs Mar. 1, 1938 (gage height, 1.26 ft).

REMARKS.--Records excellent. Flow regulated by Splitrock Reservoir 14.5 miles above station (see p. 47). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook (capacity, 75,000,000 gal) and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.9 cfs. Rockaway Valley trunk sewer bypasses the station (see station 01381000). Records of water quality for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record collected in cooperation with Jersey City.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	382	696	245	129	435	290	241	1,900	916	117	57
2	190	920	514	310	133	651	288	322	1,140	748	110	86
3	186	808	437	412	149	1,010	280	532	903	582	110	79
4	170	626	394	337	414	909	282	1,080	731	491	108	65
5	153	500	359	348	238	727	283	757	771	439	96	56
6	142	430	348	310	213	589	258	556	621	409	89	51
7	135	430	507	277	201	494	249	479	523	374	143	47
8	124	418	521	250	174	483	233	487	453	389	238	47
9	117	370	444	225	167	448	211	630	382	359	317	45
10	354	337	400	343	153	388	199	765	339	315	221	40
11	577	310	382	343	140	343	192	558	297	280	133	39
12	376	293	354	343	137	368	181	468	265	246	158	51
13	293	277	332	315	376	484	273	411	240	601	159	50
14	240	260	304	321	907	447	348	379	233	824	157	60
15	206	250	321	299	519	428	290	749	229	481	111	49
16	182	255	332	215	420	436	288	653	279	365	80	44
17	163	245	304	240	353	690	406	490	426	400	75	42
18	153	220	282	215	310	883	334	425	446	333	76	61
19	149	210	240	202	286	698	284	397	1,300	286	74	559
20	142	202	235	202	283	564	392	711	1,050	252	70	198
21	133	198	245	202	270	504	545	890	853	254	65	106
22	121	190	230	194	308	528	434	644	1,500	265	63	85
23	119	174	198	198	266	664	506	524	2,060	224	61	70
24	282	163	198	220	253	538	440	441	1,920	190	60	62
25	640	250	210	235	248	461	399	384	1,650	166	62	62
26	424	299	198	210	256	415	351	340	1,400	147	70	64
27	315	277	194	178	250	382	322	305	1,110	134	121	60
28	255	412	194	167	249	350	291	275	855	124	96	56
29	200	430	186	163	301	322	260	251	696	112	75	54
30	202	948	235	156	------	316	250	237	845	110	64	80
31	190	------	315	146	------	305	------	607	------	114	59	------
TOTAL	7,139	11,084	10,109	7,821	8,103	16,260	9,359	15,988	25,417	10,930	3,438	2,425
MEAN	230	369	326	252	279	525	312	516	847	353	111	80.8
MAX	640	948	696	412	907	1,010	545	1,080	2,060	916	317	559
MIN	117	163	186	146	129	305	181	237	229	110	59	39

CAL YR 1971 TOTAL 107,019 MEAN 293 MAX 2,140 MIN 27
WTR YR 1972 TOTAL 128,073 MEAN 350 MAX 2,060 MIN 39

PEAK DISCHARGE (BASE, 950 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0745	3.91	1,070	6-01	0730	5.40	2,200
2-14	0330	4.01	1,140	6-19	1045	4.37	1,390
3-03	1715	4.06	1,170	6-23	1545	5.29	2,090
5-04	0215	4.21	1,280				

01381000 Rockaway River below reservoir, at Boonton, N. J.

LOCATION.--Lat 40°53'47", long 74°23'36", Morris County, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton.

DRAINAGE AREA.--119 sq mi.

PERIOD OF RECORD.--March to December 1903; January, February 1904 (gage height only); January 1906 to September 1950 (monthly discharge only, published in WSP 1302); October 1950 to current year (figures of daily discharge for October 1950 to September 1954 published in Special Report 16 of New Jersey Department of Environmental Protection. Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

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

AVERAGE DISCHARGE.--66 years (1906-72), 132 cfs (adjusted for sewage effluent since October 1930).

EXTREMES.--Current year: Maximum discharge, 2,780 cfs June 1 (gage height, 7.36 ft); minimum, 6.9 cfs (regulated) Aug. 7, Sept. 5 (gage height, 1.49 ft); minimum daily, 7.9 cfs Sept. 26, 29.
Period of record: Maximum daily discharge, 7,560 cfs Oct. 10, 1903; practically no flow for many days in some years.

REMARKS.--Records excellent. Records represent flow in river only. Sewage effluent enters river about 600 ft below station (records given herein). Flow regulated by Boonton Reservoir (see p. 47) 2,000 ft above station, and by Splitrock Reservoir (see p. 47) 16.5 miles above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see p. 50).

COOPERATION.--Gage-height records for station and records of sewage effluent furnished by Jersey City, Bureau of Water.

REVISIONS (WATER YEARS).--WSP 1902: 1951-54.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	134	411	156	17	242	161	113	1,970	636	14	10
2	62	656	327	167	20	344	156	129	906	442	13	9.6
3	55	588	312	270	31	557	150	261	573	351	12	9.1
4	49	370	267	232	203	690	144	859	419	326	12	9.0
5	43	333	223	220	144	459	160	464	448	275	11	9.7
6	41	297	434	199	93	352	133	338	370	264	10	9.8
7	39	305	345	169	79	336	119	328	337	245	9.9	9.5
8	35	311	346	136	43	336	110	265	316	250	9.1	9.5
9	21	253	322	118	23	315	93	367	263	233	9.4	9.2
10	49	255	264	171	18	263	78	456	178	193	9.1	8.7
11	344	226	240	210	11	217	68	351	147	132	9.1	9.2
12	273	198	228	214	8.7	221	41	277	137	117	9.0	9.1
13	174	177	297	197	83	311	16	287	120	299	8.9	9.0
14	148	174	222	195	455	323	15	239	105	561	9.3	9.4
15	124	173	188	179	351	301	14	403	108	298	9.2	8.9
16	99	173	279	128	311	290	15	406	116	216	9.1	9.0
17	68	91	216	96	246	361	85	334	293	214	8.9	8.8
18	39	15	166	99	196	517	182	287	292	189	8.9	11
19	21	22	133	92	207	411	169	234	1,190	148	8.8	11
20	16	53	118	85	163	356	196	421	809	120	8.6	8.4
21	36	70	117	82	158	347	357	656	522	94	9.3	8.5
22	28	63	108	80	166	348	297	348	1,460	94	9.5	8.4
23	19	46	88	82	159	370	335	340	2,110	82	9.6	8.2
24	44	36	85	91	150	357	317	268	1,950	60	13	8.3
25	318	87	87	129	129	334	270	242	1,550	29	18	8.3
26	325	147	88	95	133	293	193	192	1,210	17	9.7	7.9
27	196	149	80	81	125	248	183	165	838	14	9.1	8.0
28	153	243	74	52	120	221	176	144	533	14	10	8.1
29	119	286	75	52	139	196	129	129	396	15	10	7.9
30	120	649	84	50	------	184	124	113	466	15	11	8.3
31	111	------	173	42	------	172	------	395	------	14	10	------
TOTAL	3,238	6,580	6,397	4,169	3,981.7	10,272	4,486	9,811	20,132	5,957	318.5	269.8
MEAN	104	219	206	134	137	331	150	316	671	192	10.3	8.99
MAX	344	656	434	270	455	690	357	859	2,110	636	18	11
MIN	16	15	74	42	8.7	172	14	113	105	14	8.6	7.9
(†)	10.2	11.2	11.3	10.5	10.0	13.8	11.4	13.4	14.2	12.4	10.0	9.4

CAL YR 1971 TOTAL 60,857.3 MEAN 167 MAX 2,080 MIN 8.9 † 11.4
WTR YR 1972 TOTAL 75,612.0 MEAN 207 MAX 2,110 MIN 7.9 † 11.5

† Sewage effluent, in cubic feet per second.

01381500 Whippany River at Morristown, N. J.

LOCATION.--Lat 40°48'21", long 74°27'22", Morris County, on left bank at Morristown sewage-disposal plant. 0.8 mile downstream from Morristown, and 9.0 miles upstream from mouth.

DRAINAGE AREA.--29.4 sq mi.

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

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

AVERAGE DISCHARGE.--51 years, 49.1 cfs (22.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 946 cfs June 19 (gage height, 5.04 ft); minimum, 6.4 cfs Sept. 27 (gage height, 1.61 ft).
Period of record: Maximum discharge, 2,280 cfs Aug. 28, 1971 (gage height, 7.60 ft); minimum, 2.8 cfs Aug. 27, 1932 (gage height, 0.73 ft).

REMARKS.--Records fair. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 miles above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1925-27(M), 1928-29, 1930-32(M), 1933-34.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	87	170	48	37	146	63	55	439	170	42	14
2	46	220	90	105	39	193	64	71	226	135	36	22
3	46	200	78	97	60	309	60	137	175	120	45	34
4	44	150	75	64	140	182	70	261	142	110	41	29
5	41	100	72	83	57	126	68	154	135	100	33	20
6	41	86	67	60	43	108	59	108	110	87	31	25
7	39	94	135	55	45	95	59	97	101	78	32	22
8	37	84	105	51	41	104	55	99	88	81	34	21
9	36	74	82	62	42	89	51	177	83	76	30	21
10	114	70	76	105	39	78	50	195	78	65	29	20
11	146	67	74	90	37	72	50	115	69	61	29	20
12	73	65	67	79	36	95	48	96	66	119	28	19
13	51	62	65	68	230	109	89	85	66	329	28	16
14	45	60	62	73	313	85	88	90	65	101	27	23
15	42	58	68	59	96	94	62	240	63	74	26	23
16	40	57	67	56	75	105	71	166	102	72	26	23
17	37	56	59	65	65	220	126	106	188	70	26	22
18	37	54	57	50	62	190	63	94	126	66	28	23
19	36	52	53	52	67	109	56	86	748	62	25	166
20	35	53	56	51	70	93	109	262	262	58	23	123
21	35	54	57	52	61	89	131	214	214	54	23	69
22	35	50	52	51	59	113	78	119	485	52	22	56
23	35	47	48	53	52	123	102	104	711	49	23	45
24	76	52	55	56	57	89	78	92	390	44	23	44
25	174	68	52	56	55	80	68	83	305	43	23	40
26	95	86	51	46	62	75	62	76	273	42	44	30
27	62	78	50	42	58	73	59	69	198	40	50	21
28	49	110	50	44	62	70	58	68	168	39	30	18
29	48	150	47	42	91	67	56	65	150	37	24	20
30	45	210	80	42	------	67	53	97	185	37	19	38
31	54	------	77	41	------	64	------	198	------	42	16	------
TOTAL	1,741	2,654	2,197	1,898	2,151	3,512	2,106	3,879	6,411	2,513	916	1,067
MEAN	56.2	88.5	70.9	61.2	74.2	113	70.2	125	214	81.1	29.5	35.6
MAX	174	220	170	105	313	309	131	262	748	329	50	166
MIN	35	47	47	41	36	64	48	55	63	37	16	14
CFSM	1.91	3.01	2.41	2.08	2.52	3.84	2.39	4.25	7.28	2.76	1.00	1.21
IN.	2.20	3.36	2.78	2.40	2.72	4.44	2.66	4.91	8.11	3.18	1.16	1.35

CAL YR 1971 TOTAL 26,181 MEAN 71.7 MAX 1,510 MIN 13 CFSM 2.44 IN 33.13
WTR YR 1972 TOTAL 31,045 MEAN 84.8 MAX 748 MIN 14 CFSM 2.88 IN 39.28

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-13	1630	4.22	618	6-23	0200	4.89	886
6-01	1700	3.98	522	7-12	2215	3.81	459
6-19	1345	5.04	946				

NOTE.--No gage-height record Oct. 28 to Dec. 8.

01382500 Pequannock River at Macopin intake dam, N. J.

LOCATION.--Lat 41°01'00", long 74°23'47", Morris County, on left bank at Macopin intake dam of Newark waterworks, 0.4 mile downstream from Macopin River, and 3.0 miles upstream from Butler.

DRAINAGE AREA.--63.7 sq mi.

PERIOD OF RECORD.--January 1898 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 above dam. Datum of gage is 570.00 ft above mean sea level (New Jersey Geological Survey bench mark). Prior to May 22, 1970, at datum 13.55 ft higher.

AVERAGE DISCHARGE.--74 years, 51.8 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,800 cfs June 23 (gage height, 15.33 ft), from rating curve extended above 320 cfs on basis of computation of peak flow through culvert; no flow over dam on Mar. 7, Sept. 4, 9, 22.
Period of record: Maximum discharge recorded, about 6,100 cfs over intake dam Oct. 10, 1903 (gage height, 3.85 ft, datum then in use); no flow over dam during several months of most years.

REMARKS.--Records good except those for the period Jan. 20 to Mar. 8, which are fair. Records given herein represent flow over intake dam only. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see p. 47). Water diverted above intake dam for municipal supply of city of Newark (see p. 50).

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 furnished by city of Newark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	80	419	20	28	137	60	48	793	451	4.5	2.2
2	10	293	324	38	28	368	59	70	618	313	4.2	2.3
3	9.7	254	286	82	35	723	58	159	430	215	3.2	2.0
4	8.2	192	125	68	62	678	53	316	315	165	3.2	1.3
5	7.3	134	24	69	46	503	54	260	289	147	3.2	1.6
6	6.1	103	29	52	49	209	39	186	250	145	2.8	1.3
7	6.0	126	168	34	53	48	38	131	226	145	15	1.4
8	5.3	109	238	21	52	142	39	129	159	102	11	1.4
9	4.6	76	209	21	54	142	22	197	134	19	4.8	.99
10	31	59	164	31	50	103	16	259	132	14	4.1	1.4
11	28	49	147	59	48	78	16	194	49	9.8	2.9	1.4
12	77	36	116	75	48	124	14	138	10	8.8	2.5	1.4
13	73	24	92	68	101	223	25	91	9.8	70	2.2	2.4
14	44	21	72	64	101	193	38	79	8.8	192	2.3	1.8
15	27	18	69	54	267	219	58	189	8.2	96	5.7	2.2
16	15	20	72	24	248	202	63	167	9.1	64	3.6	1.7
17	10	18	60	17	187	228	116	115	52	120	3.2	1.5
18	10	16	47	16	150	458	95	94	139	46	2.7	1.9
19	9.9	16	28	15	189	401	70	62	417	18	2.4	3.4
20	8.2	15	20	13	169	311	199	309	361	23	2.2	2.0
21	8.0	13	20	13	113	247	336	418	382	95	2.2	1.9
22	6.2	13	20	13	101	264	291	332	807	204	1.8	1.1
23	6.2	12	16	14	93	346	306	226	1,240	118	1.7	1.6
24	36	9.1	17	19	101	285	249	153	1,100	16	1.6	1.8
25	50	15	17	143	91	200	184	118	819	12	1.6	2.2
26	35	15	14	120	90	172	132	51	639	9.3	2.6	1.4
27	30	15	14	25	86	77	104	23	463	8.1	2.5	1.3
28	31	28	14	27	78	52	80	32	345	6.3	1.8	1.4
29	36	45	13	31	83	70	68	27	250	5.7	1.8	1.9
30	29	361	21	27	------	71	58	17	356	4.5	1.8	2.6
31	19	------	27	31	------	69	------	154	------	4.5	1.8	------
TOTAL	687.7	2,185.1	2,902	1,304	2,801	7,343	2,940	4,744	10,810.9	2,847.0	106.9	52.79
MEAN	22.2	72.8	93.6	42.1	96.6	237	98.0	153	360	91.8	3.45	1.76
MAX	77	361	419	143	267	723	336	418	1,240	451	15	3.4
MIN	4.6	9.1	13	13	28	48	14	17	8.2	4.5	1.6	.99

CAL YR 1971 TOTAL 24,854.80 MEAN 68.1 MAX 640 MIN .90
WTR YR 1972 TOTAL 38,724.39 MEAN 106 MAX 1,240 MIN .99

01383500 Wanaque River at Awosting, N. J.

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

DRAINAGE AREA.--27.1 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft above mean sea level (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.

AVERAGE DISCHARGE.--53 years, 51.4 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 692 cfs June 23 (gage height, 4.16 ft); minimum, 0.5 cfs (regulated) Sept. 27, 28; minimum daily. 0.5 cfs Sept. 27.
Period of record: Maximum discharge, 1,300 cfs Oct. 16, 1955 (gage height, 5.85 ft), from rating curve extended above 300 cfs on basis of laboratory rating; no flow at times when gates at Greenwood Lake were closed and no water passed over spillway.

REMARKS.--Records good except those above 300 cfs, which are fair. Flow completely regulated by Greenwood Lake (see p. 48).

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

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	66	199	51	32	60	60	60	222	212	12	5.4
2	31	96	174	61	31	94	56	62	233	181	10	5.4
3	30	116	146	75	36	209	51	70	199	148	9.5	5.6
4	25	108	127	76	65	247	47	135	164	123	10	5.4
5	23	96	105	81	63	225	44	162	142	103	8.0	5.4
6	21	84	98	75	58	189	43	146	118	90	6.5	5.4
7	19	88	123	68	58	155	45	131	105	78	6.5	5.4
8	15	82	135	62	52	138	43	119	84	69	7.6	5.4
9	12	70	129	56	48	119	38	131	69	60	7.4	5.4
10	38	66	119	62	45	103	32	140	70	49	7.6	5.4
11	68	63	114	63	42	88	34	127	54	43	5.9	5.4
12	66	56	101	68	39	94	32	114	43	39	5.6	5.4
13	57	56	91	66	62	108	39	96	38	58	5.9	5.4
14	50	51	81	68	121	112	50	87	38	79	5.6	5.4
15	46	52	78	61	125	116	49	105	34	70	8.7	5.4
16	42	58	76	56	119	105	55	105	34	63	5.9	5.4
17	38	54	69	47	108	142	75	94	42	56	5.6	5.4
18	33	49	68	44	98	233	69	84	43	49	5.6	5.4
19	29	48	54	42	118	233	66	79	121	43	5.9	3.4
20	24	46	50	41	114	201	103	101	153	41	5.6	3.2
21	23	43	48	40	91	171	160	146	155	52	5.4	2.3
22	21	42	47	38	81	162	164	142	292	54	5.4	2.0
23	21	36	38	38	69	169	191	123	615	47	5.4	1.5
24	32	30	38	40	69	146	179	105	601	40	5.4	1.1
25	63	54	42	43	62	121	155	90	460	33	5.4	.70
26	73	44	39	43	63	116	129	75	370	26	5.4	.60
27	72	41	40	38	58	98	110	62	280	20	5.4	.50
28	66	52	40	39	54	88	93	54	214	16	5.4	3.9
29	61	72	36	37	52	76	82	46	169	12	5.4	5.1
30	55	184	44	35	------	72	69	41	186	10	5.4	5.1
31	50	------	58	34	------	69	------	66	------	9.5	5.4	------
TOTAL	1,237	2,003	2,607	1,648	2,033	4,259	2,363	3,098	5,348	1,973.5	204.8	126.80
MEAN	39.9	66.8	84.1	53.2	70.1	137	78.8	99.9	178	63.7	6.61	4.23
MAX	73	184	199	81	125	247	191	162	615	212	12	5.6
MIN	12	30	36	34	31	60	32	41	34	9.5	5.4	.50

CAL YR 1971 TOTAL 26,005.80 MEAN 71.2 MAX 900 MIN 2.2
WTR YR 1972 TOTAL 26,901.10 MEAN 73.5 MAX 615 MIN .50

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	2100	3.16	212	6-01	2045	3.31	253
3-04	0100	3.33	259	6-23	2230	4.16	692
3-19	0030	3.29	247	7-01	0900	3.19	219

01384000 Wanaque River at Monks, N. J.

LOCATION.--Lat 41°07'14", long 74°17'41", Passaic County, on left bank just upstream from Wanaque Reservoir and 0.3 mile downstream from highway bridge at Monks.

DRAINAGE AREA.--40.4 sq mi.

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

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 303.17 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--38 years, 78.9 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 921 cfs June 23 (gage height, 2.09 ft); minimum, 3.7 cfs Sept. 27 (gage height, 0.06 ft).
Period of record: Maximum discharge, 3,640 cfs Aug. 19, 1955 (gage height, 4.15 ft, from high-water mark in gage house), from rating curve extended above 1,000 cfs; no flow for part of day in some years just after the waste gate was closed and water was below intake to ports.

REMARKS.--Records good. Records given herein include flow over spillway, through ports in dam, and down fish ladder in dam. Flow regulated by Greenwood Lake (see p. 48).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	106	296	80	49	107	90	95	422	310	22	7.3
2	44	161	246	105	48	215	87	102	330	251	18	6.8
3	44	158	206	127	55	440	82	149	273	202	15	6.8
4	41	142	178	118	124	368	76	264	224	170	16	6.8
5	34	127	149	127	97	315	74	269	194	142	14	6.3
6	28	116	146	110	85	260	70	224	163	124	9.6	6.3
7	24	127	206	102	82	219	72	194	149	107	19	6.3
8	20	114	210	95	80	202	70	178	115	100	20	5.8
9	16	100	190	87	70	170	64	219	97	87	13	5.8
10	45	100	170	105	66	142	55	224	100	76	13	5.8
11	110	102	163	102	62	124	55	194	80	66	6.7	5.4
12	95	92	142	107	60	153	55	167	66	60	14	5.4
13	84	90	129	100	146	174	72	142	60	129	17	5.4
14	76	85	115	102	219	163	85	129	58	124	14	5.4
15	68	90	115	92	182	167	78	186	55	102	12	5.4
16	62	100	113	90	170	160	85	167	53	90	11	4.9
17	49	90	102	87	149	282	127	142	80	82	9.6	4.9
18	52	85	97	72	135	422	107	127	74	72	5.8	4.9
19	45	80	82	68	153	345	102	115	278	66	5.8	4.9
20	39	80	78	66	153	287	215	186	246	62	5.4	4.9
21	35	74	76	66	124	242	273	233	242	80	4.9	4.9
22	33	72	74	62	113	255	264	206	540	80	4.9	4.0
23	32	64	62	62	97	251	310	170	832	68	5.8	3.6
24	35	58	62	68	100	210	264	146	688	60	7.3	3.1
25	102	92	68	74	90	174	228	124	589	49	7.3	2.7
26	98	87	64	68	90	163	190	105	477	42	7.3	2.2
27	91	82	64	60	87	139	160	92	374	33	7.3	2.2
28	88	118	62	60	80	124	135	82	287	27	7.3	2.7
29	78	170	58	57	87	110	121	72	228	22	7.3	3.1
30	71	356	76	55	------	107	105	66	305	18	7.3	2.7
31	66	------	100	53	------	102	------	132	------	16	7.3	------
TOTAL	1,756	3,318	3,899	2,627	3,053	6,592	3,771	4,901	7,679	2,917	334.9	146.7
MEAN	56.6	111	126	84.7	105	213	126	158	256	94.1	10.8	4.89
MAX	110	356	296	127	219	440	310	269	832	310	22	7.3
MIN	16	58	58	53	48	102	55	66	53	16	4.9	2.2

CAL YR 1971 TOTAL 38,788.1 MEAN 106 MAX 1,120 MIN 3.3
WTR YR 1972 TOTAL 40,994.6 MEAN 112 MAX 832 MIN 2.2

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0015	1.43	428	6-01	0545	1.50	470
3-03	1015	1.63	561	6-23	1545	2.09	921
3-18	0330	1.51	477				

01384500 Ringwood Creek near Wanaque, N. J.

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

DRAINAGE AREA.--19.1 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 302.67 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--38 years, 32.3 cfs (22.96 inches per year).

EXTREMES.--Current year: Maximum discharge, 444 cfs June 23 (gage height, 2.31 ft); minimum, 1.5 cfs Sept. 18 (gage height, 0.08 ft).
Period of record: Maximum discharge, 1,150 cfs Mar. 30, 1951 (gage height, 3.74 ft, from floodmark), from rating curve extended above 240 cfs on basis of laboratory rating and approximate determination of discharge at gage height 3.18 ft; no flow for part of day in most years just after waste gate was closed and water was below intake to ports.

REMARKS.--Records excellent except those for the periods Oct. 1 to 22 and Aug. 9 to 14, which are poor. Records given herein include flow over spillway and through ports in dam or through waste gate in dam. Flow slightly regulated by Ringwood Mill Pond, Sterling, and Sterling Forest Lakes, and several smaller lakes above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	46	101	29	17	52	43	43	193	170	10	2.5
2	18	75	82	45	16	103	43	49	125	115	9.8	2.3
3	17	70	74	60	22	223	40	111	103	91	9.0	2.8
4	17	63	69	51	69	150	37	185	77	75	9.0	2.7
5	14	54	54	55	35	127	37	132	72	64	6.6	2.3
6	13	46	60	48	27	101	39	111	69	60	5.6	2.2
7	13	52	93	44	26	90	37	95	60	49	12	2.2
8	17	48	91	41	26	84	29	88	49	44	15	2.2
9	16	40	77	37	26	70	27	111	43	41	9.0	2.0
10	80	37	69	48	23	61	26	109	39	34	7.0	1.6
11	74	35	66	49	20	54	25	88	34	33	3.5	1.6
12	45	32	60	49	20	75	23	75	29	29	2.8	1.6
13	32	29	54	45	82	86	33	66	27	78	2.7	1.8
14	20	26	48	44	93	70	39	60	26	64	2.5	2.3
15	19	31	49	40	58	67	32	97	24	43	9.4	2.5
16	16	34	48	31	55	69	36	74	24	35	7.4	2.3
17	14	29	44	29	46	136	58	63	45	32	6.2	2.0
18	12	26	40	31	45	213	44	57	36	29	6.2	1.9
19	11	25	35	29	44	143	39	51	175	26	5.3	3.2
20	11	24	33	28	49	117	97	84	119	23	4.2	2.7
21	10	23	33	28	49	101	113	91	111	25	3.9	2.2
22	10	22	29	27	39	111	105	70	306	26	3.7	2.0
23	12	20	25	27	35	113	132	61	440	22	3.2	2.0
24	25	20	25	31	35	91	105	54	390	19	3.2	1.6
25	51	26	26	33	33	80	90	46	267	16	3.7	1.6
26	35	28	25	25	33	70	77	41	215	14	4.2	1.8
27	29	28	25	21	32	63	67	36	158	12	3.4	2.0
28	26	43	24	20	32	57	60	33	119	12	3.4	2.0
29	23	74	23	20	37	49	54	28	93	9.8	3.2	2.0
30	22	158	33	19	------	45	48	28	175	9.8	2.8	3.0
31	21	------	44	18	------	46	------	77	------	9.0	2.7	------
TOTAL	742	1,264	1,559	1,102	1,124	2,917	1,635	2,314	3,643	1,309.6	180.6	64.9
MEAN	23.9	42.1	50.3	35.5	38.8	94.1	54.5	74.6	121	42.2	5.83	2.16
MAX	80	158	101	60	93	223	132	185	440	170	15	3.2
MIN	10	20	23	18	16	45	23	28	24	9.0	2.5	1.6

CAL YR 1971 TOTAL 14,943.9 MEAN 40.9 MAX 367 MIN 2.0
WTR YR 1972 TOTAL 17,855.1 MEAN 48.8 MAX 440 MIN 1.6

PEAK DISCHARGE (BASE, 230 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-03	0900	1.90	300	6-23	2030	2.31	444
5-03	1745	2.05	348	6-30	1645	2.18	393

01386000 West Brook near Wanaque, N. J.

LOCATION.--Lat 41°04'16", long 74°18'45", Passaic County, on right bank just upstream from Wanaque Reservoir, 0.3 mile downstream from Burnt Meadow Brook, and 2.5 miles northwest of Wanaque.

DRAINAGE AREA.--11.8 sq mi.

PERIOD OF RECORD.--October 1934 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 mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--38 years, 23.4 cfs (26.93 inches per year).

EXTREMES.--Current year: Maximum discharge, 392 cfs June 23 (gage height, 2.40 ft); no flow for part of Oct. 22, Aug. 11 when the waste gate was closed and water was below weir.
Period of record: Maximum discharge, 1,900 cfs Mar. 30, 1951 (gage height, 6.6 ft, from floodmark), from rating curve extended above 630 cfs; no flow part of day in most years just after waste gate was closed and water was below intake to ports.

REMARKS.--Records good. Records given herein include flow over spillway and through ports in dam or through waste gate in dam. Flow slightly regulated by several lakes above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	40	82	33	9.1	48	24	24	206	84	7.1	2.1
2	15	72	53	41	9.6	130	23	28	78	46	6.2	2.3
3	15	59	42	42	12	217	21	93	54	35	5.9	2.3
4	13	44	39	34	52	114	22	142	39	28	5.8	3.1
5	11	35	34	35	40	73	22	92	44	26	5.2	2.6
6	11	34	36	31	23	53	20	55	43	27	4.5	2.1
7	11	42	68	28	21	45	19	44	42	24	14	1.6
8	15	35	61	25	18	47	18	45	30	38	16	1.5
9	14	31	48	24	15	38	16	93	23	31	8.5	1.4
10	71	29	40	34	14	33	13	92	21	22	4.1	1.3
11	64	27	41	34	12	29	13	56	18	18	3.4	1.3
12	37	25	38	33	12	51	12	42	15	15	3.5	1.3
13	25	24	31	30	79	61	23	36	15	86	3.5	1.6
14	17	22	25	29	109	48	27	33	14	57	3.1	1.8
15	15	25	28	26	53	42	24	90	14	31	7.4	1.6
16	13	27	32	19	42	44	25	55	14	25	5.4	1.3
17	11	23	27	21	34	139	42	40	31	36	4.9	1.3
18	10	20	24	20	31	183	29	34	32	24	4.5	1.4
19	9.6	16	20	18	29	100	25	30	169	22	3.9	2.5
20	9.4	16	19	17	33	65	117	116	84	20	3.5	1.8
21	9.2	15	19	17	28	52	116	116	90	40	2.8	1.8
22	8.8	12	17	16	25	72	80	58	264	28	2.5	1.9
23	8.6	11	14	15	24	68	89	41	293	19	2.3	1.7
24	33	11	15	17	23	48	58	33	157	14	2.3	1.9
25	60	19	17	21	21	40	45	28	148	11	2.3	2.2
26	38	18	15	16	22	36	37	24	105	9.6	2.8	1.9
27	29	20	15	12	21	33	33	20	63	8.3	2.5	1.7
28	25	40	15	11	22	30	29	17	45	7.7	2.1	1.7
29	22	78	14	11	31	28	27	15	37	6.9	1.9	1.7
30	18	178	23	11	------	28	25	17	115	6.8	1.9	1.8
31	16	------	36	9.4	------	26	------	82	------	6.6	1.8	------
TOTAL	670.6	1,048	988	730.4	864.7	2,021	1,074	1,691	2,303	852.9	145.6	54.5
MEAN	21.6	34.9	31.9	23.6	29.8	65.2	35.8	54.5	76.8	27.5	4.70	1.82
MAX	71	178	82	42	109	217	117	142	293	86	16	3.1
MIN	8.6	11	14	9.4	9.1	26	12	15	14	6.6	1.8	1.3

CAL YR 1971 TOTAL 11,884.0 MEAN 32.6 MAX 472 MIN 1.8
WTR YR 1972 TOTAL 12,443.7 MEAN 34.0 MAX 293 MIN 1.3

PEAK DISCHARGE (BASE, 400 CFS).--No peak above base.

01387000 Wanaque River at Wanaque, N. J.

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, on left bank 750 ft downstream from Raymond Dam in Wanaque, and 50 ft upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 sq mi (considered as 94 sq mi Oct. 1, 1928, to Sept. 30, 1934, when flow diverted from Post Brook was included in all records).

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 mean sea level (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.

AVERAGE DISCHARGE.--55 years (1912-14, 1919-72), 78.0 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,070 cfs June 23 (gage height, 6.32 ft); minimum, 11 cfs (regulated) Dec. 2 (gage height, 1.22 ft); minimum daily, 16 cfs on some days in August and September.
Period of record: Maximum discharge, 8,470 cfs Mar. 31, 1951 (gage height, 9.12 ft), from rating curve extended above 4,300 cfs; minimum daily, 0.5 cfs Dec. 11, 12, 14-23, 1949, Sept. 11, 12, 1965.

REMARKS.--Records excellent. Flow regulated by Greenwood Lake (see p. 48) 11 miles above station, and since 1928 by Wanaque Reservoir (see p. 48). North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir. Water is diverted to Wanaque Reservoir from Post Brook at Wanaque and from Ramapo River at Pompton Lakes (see p. 50). Records of water quality for the current year are published in Part 2 of this report.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	18	19	110	17	17	51	69	818	754	20	17
2	100	18	19	110	17	19	57	84	706	498	19	16
3	100	18	18	110	18	23	72	247	506	324	19	16
4	107	17	18	110	17	26	41	398	327	261	19	16
5	113	17	19	110	17	108	43	566	267	198	19	16
6	113	17	19	110	17	282	38	443	208	158	19	18
7	124	17	20	110	17	279	56	342	198	120	19	18
8	124	17	20	110	17	282	68	303	106	112	17	17
9	124	18	21	110	17	233	49	394	62	120	17	17
10	126	18	27	110	17	176	26	474	120	68	17	17
11	126	18	40	110	17	136	27	336	53	35	17	17
12	124	18	37	108	17	193	25	242	23	23	17	17
13	63	18	51	108	20	276	25	186	22	68	17	17
14	18	18	87	108	17	252	29	166	22	181	17	17
15	17	18	112	108	17	261	24	333	21	122	18	17
16	17	18	126	108	17	198	25	291	21	75	17	19
17	17	17	122	94	17	370	31	213	21	66	17	19
18	17	17	161	66	17	562	26	158	21	30	17	19
19	17	17	124	30	17	462	23	122	54	21	16	19
20	17	18	122	17	17	582	38	223	282	21	16	19
21	17	17	120	17	17	405	226	419	349	21	16	19
22	17	17	133	17	17	387	373	327	609	21	16	19
23	17	17	116	17	17	436	574	223	1,380	22	18	19
24	18	17	114	17	17	356	478	166	1,690	21	18	19
25	17	18	118	17	17	233	359	118	1,330	20	17	19
26	17	18	114	17	17	221	264	65	1,120	20	17	19
27	17	18	112	17	17	166	211	36	798	19	17	19
28	17	18	112	17	17	138	156	27	514	19	17	18
29	17	19	110	17	18	68	126	25	330	20	17	19
30	17	19	110	17	------	53	88	25	506	20	17	19
31	17	------	112	17	------	62	------	62	------	19	17	------
TOTAL	1,748	530	2,453	2,144	498	7,262	3,629	7,083	12,484	3,477	541	537
MEAN	56.4	17.7	79.1	69.2	17.2	234	121	228	416	112	17.5	17.9
MAX	126	19	161	110	20	582	574	566	1,690	754	20	19
MIN	17	17	18	17	17	17	23	25	21	19	16	16

CAL YR 1971 TOTAL 23,066 MEAN 63.2 MAX 790 MIN 15
WTR YR 1972 TOTAL 42,386 MEAN 116 MAX 1,690 MIN 16

01387450 MAHWAH RIVER NEAR SUFFERN, N.Y.

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, on right bank at upstream side of bridge on U.S. Highway 202, 2.5 miles northeast of Suffern, and 4.8 miles upstream from mouth.

DRAINAGE AREA.--12.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 22.8 cfs (25.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 580 cfs June 30 (gage height, 5.53 ft); minimum, 1.1 cfs Sep. 28-29 (gage height, 1.24 ft). Period of record: Maximum discharge, 1,650 cfs May 29, 1968 (gage height 7.78 ft), from rating extended above 850 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.05 cfs Oct. 20, 21, 1970, result of temporary pumping from gage pool.

REMARKS.--Records fair. Occasional regulation from unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	40	80	22	10	46	24	26	162	223	6.9	2.6
2	12	64	57	33	10	95	23	31	75	109	6.2	2.5
3	11	55	46	41	13	202	21	53	55	73	5.7	2.4
4	10	44	42	31	87	132	21	101	43	62	6.4	2.3
5	9.2	35	36	38	46	85	22	70	43	50	6.4	2.3
6	12	29	40	28	22	63	19	52	35	44	6.2	2.3
7	9.2	31	75	25	17	53	18	44	29	37	14	2.2
8	8.3	28	67	23	14	56	17	43	24	31	13	2.2
9	7.1	23	53	21	13	46	16	62	21	30	8.9	2.1
10	46	21	47	31	13	38	15	66	21	25	7.1	1.9
11	50	20	44	32	14	34	15	53	18	22	5.9	1.8
12	29	19	38	31	30	54	15	43	16	20	4.6	1.9
13	19	18	34	26	68	65	23	37	15	75	3.9	2.0
14	16	16	30	27	89	52	27	34	14	58	3.7	2.2
15	14	23	33	23	53	46	22	132	14	35	8.3	2.1
16	12	22	34	20	42	49	22	77	14	26	5.3	2.1
17	12	18	29	19	34	104	41	58	37	24	4.6	2.2
18	12	17	25	16	30	162	28	47	29	20	4.1	2.3
19	11	16	22	16	31	99	25	40	211	18	3.7	2.9
20	10	16	22	16	29	70	62	90	139	16	3.3	2.7
21	9.8	15	21	16	31	59	72	96	97	18	3.1	2.3
22	10	14	19	16	23	64	62	64	217	16	2.8	2.1
23	9.5	12	16	17	22	68	82	49	274	14	2.7	1.7
24	21	12	18	18	21	54	60	41	165	13	2.8	1.7
25	37	17	19	19	21	46	50	34	158	12	2.7	1.6
26	30	20	19	16	21	40	42	29	141	9.2	2.9	1.4
27	22	20	19	13	20	35	37	26	95	7.8	3.4	1.3
28	19	42	17	15	20	32	32	23	67	7.1	3.2	1.1
29	18	58	16	13	29	29	29	21	54	6.6	2.9	1.2
30	16	144	23	12	------	28	26	21	197	5.9	2.8	1.4
31	16	------	34	12	------	26	------	60	------	6.2	2.7	------
TOTAL	531.1	909	1,075	686	873	2,032	968	1,623	2,480	1,113.8	160.2	60.8
MEAN	17.1	30.3	34.7	22.1	30.1	65.5	32.3	52.4	82.7	35.9	5.17	2.03
MAX	50	144	80	41	89	202	82	132	274	223	14	2.9
MIN	7.1	12	16	12	10	26	15	21	14	5.9	2.7	1.1
CFSM	1.39	2.46	2.82	1.80	2.45	5.33	2.63	4.26	6.72	2.92	.42	.17
IN.	1.61	2.75	3.25	2.07	2.64	6.15	2.93	4.91	7.50	3.37	.48	.18

CAL YR 1971 TOTAL 11,470.6 MEAN 31.4 MAX 488 MIN 1.3 CFSM 2.55 IN 34.69
WTR YR 1972 TOTAL 12,511.9 MEAN 34.2 MAX 274 MIN 1.1 CFSM 2.78 IN 37.84

PEAK DISCHARGE (BASE, 200 CFS, REVISED)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-30	0100	4.09	228	6-1	0330	4.06	224
2-13	2030	3.97	210	6-19	1015	4.51	302
3-3	1200	4.46	292	6-22	2315	4.94	410
3-18	0345	3.96	209	6-30	2030	5.53	580
5-15	0615	4.10	230				

01387500 Ramapo River near Mahwah, N. J.

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, on left bank 350 ft downstream from State Highway 17, 0.6 mile downstream from Mahwah River, and 1.0 mile west of Mahwah.

DRAINAGE AREA.--118 sq mi.

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.--Water-stage recorder. Datum of gage is 253.10 ft above mean sea level. Prior to Dec. 31, 1906, non-recording 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.

AVERAGE DISCHARGE.--54 years (1902-6, 1922-72), 224 cfs (25.78 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,630 cfs June 23 (gage height, 8.55 ft); minimum, 16 cfs Sept. 11 (gage height, 2.24 ft).
Period of record: Maximum discharge, about 12,400 cfs Oct. 9, 1903 (gage height, 11.0 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 1,400 cfs; minimum, 7 cfs Dec. 16, 1930, Sept. 12, 1932: minimum daily, 8 cfs Aug. 25, 1929, Sept. 5, 12, 1932.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Diurnal fluctuation occasionally at low flow caused by powerplants above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	238	899	240	101	333	243	244	1,330	1,560	71	28
2	100	405	601	285	101	722	240	281	1,010	1,010	69	27
3	90	390	462	400	146	1,810	236	465	646	900	65	28
4	88	337	405	332	516	1,450	226	1,120	469	530	62	29
5	82	289	357	342	331	898	229	984	494	450	59	25
6	78	249	374	289	222	673	207	696	456	360	55	27
7	76	273	684	249	196	523	199	533	357	315	90	25
8	73	277	764	221	173	514	186	471	292	280	155	29
9	70	257	617	202	158	440	170	579	243	250	90	21
10	170	240	493	260	143	357	156	675	248	220	54	17
11	300	223	443	280	136	305	151	551	216	190	49	19
12	370	190	379	282	126	417	150	456	175	170	45	20
13	250	170	334	255	391	526	204	386	158	220	41	30
14	190	155	294	251	1,020	474	270	344	148	450	40	24
15	146	165	302	221	645	434	224	779	142	600	76	25
16	124	190	307	194	447	410	230	619	142	350	63	24
17	110	164	271	185	357	784	362	474	280	260	52	24
18	102	146	240	174	313	1,780	302	391	250	230	48	35
19	97	137	206	164	324	1,140	253	338	1,160	190	44	50
20	89	134	194	158	332	755	480	545	1,080	155	39	39
21	84	128	192	155	291	609	778	826	832	160	36	35
22	81	121	181	149	249	658	643	622	1,810	180	34	34
23	77	111	162	149	214	772	806	455	2,580	200	32	31
24	137	103	174	162	217	615	684	366	1,880	135	36	30
25	287	158	192	183	204	484	532	304	1,350	112	51	31
26	238	185	186	172	204	409	433	254	1,220	92	48	31
27	190	174	181	138	197	357	368	222	925	82	42	32
28	162	268	164	130	193	319	321	196	681	75	39	33
29	162	432	151	121	230	288	284	173	525	70	39	35
30	136	1,150	190	115	------	277	255	187	946	66	34	43
31	123	------	314	109	------	262	------	438	------	66	30	------
TOTAL	4,392	7,459	10,713	6,567	8,177	19,795	9,822	14,974	22,045	9,928	1,688	881
MEAN	142	249	346	212	282	639	327	483	735	320	54.5	29.4
MAX	370	1,150	899	400	1,020	1,810	806	1,120	2,580	1,560	155	50
MIN	70	103	151	109	101	262	150	173	142	66	30	17
CFSM	1.20	2.11	2.93	1.80	2.39	5.42	2.77	4.09	6.23	2.71	.46	.25
IN.	1.38	2.35	3.38	2.07	2.58	6.24	3.10	4.72	6.95	3.13	.53	.28

CAL YR 1971 TOTAL 102,580 MEAN 281 MAX 3,480 MIN 21 CFSM 2.38 IN 32.34
WTR YR 1972 TOTAL 116,441 MEAN 318 MAX 2,580 MIN 17 CFSM 2.69 IN 36.71

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-03	1315	8.02	2,100	6-23	1315	8.55	2,630
3-18	Unknown	About 7.96	About 2,040	7-01	0345	7.77	1,850
6-01	1130	7.21	1,410				
6-19	1715	7.33	1,490				

NOTE.--No gage-height record July 3 to Aug. 15.

01388000 Ramapo River at Pompton Lakes, N. J.

LOCATION.--Lat 40°59'33", long 74°16'44", Passaic County, on right end of dam at pumping station in Pompton Lakes and 2.0 miles upstream from mouth.

DRAINAGE AREA.--160 sq mi.

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

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 201.08 ft above mean sea level.

AVERAGE DISCHARGE.--51 years, 293 cfs (24.88 inches per year), adjusted for diversion since Dec. 1, 1953.

EXTREMES.--Current year: Maximum discharge, 3,190 cfs June 23 (gage height, 1.96 ft); minimum, 25 cfs Sept. 9, 10 (gage height, 0.09 ft).
Period of record: Maximum discharge, 12,300 cfs Mar. 12, 1936 (gage height, 3.56 ft), from rating curve extended above 2,000 cfs on basis of theoretical weir formula (revised); maximum gage height, 4.40 ft Oct. 16, 1955; practically no flow for several days in October, November 1922, August, September 1923, July 1927, and on Oct. 20, 1933.

REMARKS.--Records excellent. Diversion by North Jersey District Water Supply Commission to Wanaque Reservoir, since December 1953, for municipal supply (see p. 50). Slight regulation by Pompton Lakes (capacity, 300,000,000 gal).

REVISIONS (WATER YEARS).--WSP 1552: 1922(M), 1924-25, 1929-31(M), 1934-35(M). WRD-NJ 1970: CORRECTIONS 1968-69.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	329	1,210	363	160	428	335	330	1,670	2,100	117	44
2	164	603	819	361	158	793	322	398	1,400	1,400	110	49
3	151	600	626	512	186	1,850	321	532	928	914	103	44
4	152	519	536	464	623	1,950	309	1,360	674	756	103	44
5	139	459	472	463	446	1,240	310	1,380	642	597	96	44
6	133	405	450	419	334	899	287	961	631	544	89	44
7	131	390	745	381	289	693	268	730	526	453	171	44
8	125	400	914	348	249	656	255	649	432	430	254	44
9	120	370	808	303	236	600	235	761	359	441	131	54
10	341	349	657	354	221	487	221	934	343	336	103	54
11	664	340	584	396	245	409	208	788	325	295	89	32
12	477	293	513	397	213	493	204	647	276	264	75	32
13	363	247	457	370	603	715	259	553	246	668	69	35
14	302	244	405	359	1,150	640	359	494	226	914	64	44
15	244	246	409	330	907	590	323	1,090	213	570	110	35
16	211	289	419	270	614	550	307	907	229	406	103	39
17	195	264	393	233	498	895	455	704	392	418	82	35
18	172	238	358	253	429	1,780	421	578	371	315	75	44
19	160	225	316	242	440	1,570	346	501	1,480	264	69	89
20	145	222	292	236	460	1,030	541	762	1,570	243	64	54
21	143	209	291	230	361	795	971	1,110	1,110	264	59	54
22	135	204	268	224	338	783	824	888	1,830	326	54	49
23	125	187	241	223	284	962	987	650	3,080	243	54	44
24	194	171	242	232	291	808	882	522	2,600	207	54	44
25	479	212	261	247	280	641	700	430	1,850	163	64	44
26	405	278	258	255	278	541	574	362	1,700	145	64	44
27	334	288	262	216	271	475	495	321	1,310	131	64	44
28	289	412	242	200	260	419	437	289	982	124	59	39
29	271	523	242	189	304	389	388	260	756	117	54	44
30	235	1,270	269	182	------	383	348	274	1,050	110	54	54
31	209	------	407	173	------	365	------	646	------	110	49	------
TOTAL	7,394	10,786	14,366	9,425	11,128	24,829	12,892	20,811	29,201	14,268	2,706	1,364
MEAN	239	360	463	304	384	801	430	671	973	460	87.3	45.5
MAX	664	1,270	1,210	512	1,150	1,950	987	1,380	3,080	2,100	254	89
MIN	120	171	241	173	158	365	204	260	213	110	49	32
CFSM	1.49	2.25	2.89	1.90	2.40	5.01	2.69	4.19	6.08	2.88	.55	.28
IN.	1.72	2.51	3.34	2.19	2.59	5.77	3.00	4.84	6.79	3.32	.63	.32
(†)	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 1971 TOTAL 132,304 MEAN 362 MAX 4,270 MIN 30 MEAN‡ 378 CFSM‡ 2.36 IN.‡ 31.90
WTR YR 1972 TOTAL 159,170 MEAN 435 MAX 3,080 MIN 32 MEAN‡ 435 CFSM‡ 2.72 IN.‡ 37.01

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-03	2100	1.62	2,330	6-19	1730	1.44	1,920
3-18	1345	1.43	1,900	6-23	1415	1.96	3,190
6-01	0800	1.36	1,750	7-01	0215	1.55	2,160

† Diversion, in cubic feet per second, at station to Wanaque Reservoir for municipal supply. Records of diversion furnished by North Jersey District Water Supply Commission.
‡ Adjusted for diversion.

01388500 Pompton River at Pompton Plains, N. J.

LOCATION.--Lat 40°58'09", long 74°16'56", Passaic County, 800 ft below confluence of Pequannock and Ramapo Rivers, 100 ft upstream from Jackson Avenue Bridge, and 0.7 mile east of Pompton Plains.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--March 1903 to December 1904, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 160.00 ft above mean sea level. Auxiliary water-stage recorder at Pequannock, 7,400 ft downstream at same datum and used during high stages. 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.

AVERAGE DISCHARGE.--33 years (1903-4, 1940-72), 460 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 7,240 cfs June 23 (gage height, 18.04 ft); minimum, 58 cfs (regulated) Sept. 12 (gage height, 7.20 ft); minimum daily, 65 cfs Sept. 11.
Period of record: Maximum discharge observed 28,340 cfs Oct. 10, 1903 (gage height, 14.3 ft, site and datum then in use), by computation of peak flow over dam; no flow Aug. 18-20, 1904.

REMARKS.--Records good. Water diverted from reservoirs on Pequannock and Wanaque Rivers for municipal supply (see p. 50). Water also diverted at station (just above weir) by Passaic Valley Water Commission to Point View Reservoir for low-flow augmentation (see p. 50). Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg, and Echo Lake Reservoirs on Pequannock River and by Greenwood Lake and Wanaque Reservoir on Wanaque River (see p. 47,48). Some diurnal fluctuations at low flow caused by powerplant on Wanaque River. Water-stage recorder graph and record of pumpage furnished by Passaic Valley Water Commission. Records include pumpage to and release from Point View Reservoir. Records of water quality for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

REVISIONS (WATER YEARS).--WSP 1202: 1945(M). WRD N.J. 1969: longitude.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	573	2,070	554	214	671	579	543	4,000	3,770	180	86
2	314	1,200	1,430	591	215	1,340	562	667	3,390	2,710	166	89
3	308	1,130	1,130	810	260	3,100	573	1,140	2,380	1,830	157	88
4	308	932	880	748	940	3,270	524	2,970	1,700	1,480	155	83
5	303	778	657	758	636	2,270	542	2,850	1,560	1,140	145	85
6	289	700	645	679	457	1,860	472	2,030	1,360	996	133	85
7	281	640	1,170	604	403	1,430	463	1,520	1,180	845	303	86
8	269	670	1,440	538	323	1,370	460	1,340	859	816	380	83
9	259	576	1,260	497	293	1,230	409	1,650	697	704	201	92
10	676	522	1,020	582	279	948	346	2,080	707	540	233	92
11	1,020	500	933	646	289	783	323	1,690	574	441	215	65
12	798	441	810	688	275	979	313	1,310	394	382	205	67
13	659	388	727	641	696	1,550	440	1,030	346	1,110	198	82
14	481	340	665	630	1,510	1,370	568	877	317	1,620	187	91
15	376	338	675	559	1,300	1,340	540	2,070	300	987	302	87
16	307	404	705	474	952	1,210	537	1,750	336	671	243	80
17	274	363	657	402	784	1,910	793	1,300	600	777	182	75
18	242	326	620	398	660	3,590	726	1,000	639	519	127	86
19	227	303	531	348	715	3,320	593	828	2,610	394	120	178
20	214	291	480	315	692	2,370	1,000	1,560	2,850	366	110	115
21	215	272	475	304	554	1,840	1,860	2,430	2,370	457	101	106
22	205	264	465	294	518	1,780	1,750	1,970	4,060	660	100	105
23	191	246	418	291	435	2,150	2,200	1,370	6,900	499	98	101
24	346	232	418	304	455	1,830	1,940	1,040	6,530	299	97	99
25	786	330	438	386	435	1,380	1,540	819	4,880	245	104	100
26	628	407	430	479	427	1,160	1,220	631	4,190	221	113	99
27	495	398	433	275	422	907	986	477	3,310	197	116	100
28	445	596	407	258	394	751	812	423	2,320	188	104	97
29	415	782	400	244	470	683	693	388	1,700	175	99	104
30	345	2,140	456	237	------	642	603	395	2,240	163	95	127
31	297	------	621	228	------	629	------	1,140	------	166	89	------
TOTAL	12,321	17,082	23,466	14,762	16,003	49,663	24,367	41,288	65,299	25,368	5,058	2,833
MEAN	397	569	757	476	552	1,602	812	1,332	2,177	818	163	94.4
MAX	1,020	2,140	2,070	810	1,510	3,590	2,200	2,970	6,900	3,770	380	178
MIN	191	232	400	228	214	629	313	388	300	163	89	65

CAL YR 1971 TOTAL 230,459 MEAN 631 MAX 6,310 MIN 59
WTR YR 1972 TOTAL 297,510 MEAN 813 MAX 6,900 MIN 65

PEAK DISCHARGE (BASE 3,200 CFS) REVISED

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-03	2100	14.07	3,780	6-19	1845	13.41	3,320
3-18	1330	14.13	3,820	6-23	2400	18.04	7,240
5-04	2030	13.33	3,260	7-01	0645	14.36	3,970
6-01	1515	14.70	4,220				

01389500 Passaic River at Little Falls, N. J.

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, on left bank 0.6 mile downstream from Beatties Dam in Little Falls and 1.0 mile upstream from Peckman River.

DRAINAGE AREA.--762 sq mi.

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. Datum of gage is 120.00 ft above mean sea level (Passaic Valley Water Commission bench mark). Prior to Jan. 8, 1933, nonrecording gage and Jan. 8, 1933, to Sept. 30, 1955, water-stage recorder, at site 3.7 miles downstream at mean sea level datum (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--75 years, 1,146 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 10,300 cfs June 25 (gage height, 9.27 ft); minimum, 70 cfs (regulated) Sept. 1 (gage height, 0.50 ft); minimum daily, 147 cfs Sept. 12, 13.
Period of record: Maximum daily discharge, 28,000 cfs Oct. 10, 1903; no flow July 3-5, 1904, July 16, 23, 1905.

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by hydroelectric plant at Beatties Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Pompton River basins (see p. 47). Large diversions for municipal supply from Passaic River above Beatties Dam, and from Rockaway, Pequannock, and Wanaque Rivers (see p. 50). In addition, the Commonwealth Water Co., diverts small amounts from Canoe Brook near Summit (average for 1972 was 2.8 cfs) and from Passaic River (average for 1972 was 20.4 cfs); that company and the city of East Orange also divert water for municipal supply by pumping from wells. Records of water quality for the current year are published in Part 2 of this report.

COOPERATION.--Gage-height record collected in cooperation with Passaic Valley Water Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	644	1,170	3,380	1,030	411	1,640	1,010	912	4,260	6,070	347	154
2	601	2,350	3,170	1,060	389	2,460	948	1,020	4,730	5,740	328	186
3	577	2,440	2,950	1,410	468	4,010	945	1,350	4,700	4,870	313	257
4	551	2,420	2,680	1,490	1,440	4,940	914	3,340	4,220	4,110	333	223
5	528	2,400	2,230	1,560	1,400	4,900	943	3,860	3,920	3,390	285	194
6	494	2,330	1,980	1,480	1,120	4,580	891	3,570	3,520	2,890	281	160
7	473	2,240	2,380	1,330	944	4,060	839	3,220	3,150	2,430	298	157
8	446	2,110	2,670	1,170	703	3,650	804	2,940	2,580	2,340	540	155
9	422	1,880	2,550	1,000	571	3,300	731	3,080	2,060	2,080	327	176
10	1,060	1,690	2,320	1,130	500	2,780	648	3,470	1,720	1,520	265	178
11	1,980	1,500	2,130	1,330	453	2,330	613	3,290	1,320	1,140	234	150
12	1,770	1,270	1,880	1,430	458	2,230	579	3,040	864	880	223	147
13	1,650	1,060	1,640	1,410	1,140	2,650	765	2,690	719	1,830	231	147
14	1,390	883	1,440	1,400	2,460	2,480	1,040	2,350	639	2,850	209	176
15	1,120	803	1,340	1,310	2,490	2,430	1,000	3,410	612	2,470	278	183
16	853	813	1,280	1,120	2,390	2,380	976	3,290	736	2,220	255	166
17	698	768	1,240	851	2,270	2,940	1,400	3,030	1,330	2,170	221	150
18	570	660	1,130	731	2,110	4,250	1,430	2,750	1,560	1,760	216	157
19	475	565	970	672	2,040	4,710	1,280	2,410	4,260	1,350	206	796
20	425	541	843	616	1,880	4,390	1,550	3,180	5,020	1,060	205	493
21	401	540	801	612	1,470	3,870	2,590	3,850	5,210	1,060	170	462
22	399	521	777	598	1,320	3,600	2,740	3,860	6,390	1,170	168	358
23	382	506	715	593	988	3,700	3,140	3,540	8,020	933	168	239
24	674	463	665	619	866	3,430	3,090	3,090	9,600	654	166	219
25	1,780	721	697	678	808	2,980	2,740	2,610	10,100	496	193	209
26	1,650	1,050	685	837	836	2,540	2,380	2,130	9,570	431	348	197
27	1,530	1,140	679	607	883	2,180	2,010	1,640	8,680	389	443	176
28	1,400	1,480	661	532	908	1,750	1,620	1,250	7,410	358	443	178
29	1,230	1,730	642	475	1,120	1,470	1,290	945	6,190	334	275	193
30	1,010	3,120	711	457	------	1,250	1,050	815	5,610	320	221	268
31	813	------	1,020	441	------	1,110	------	1,550	------	325	191	------
TOTAL	27,996	41,164	48,256	29,979	34,836	94,990	41,956	81,482	128,700	59,640	8,381	6,904
MEAN	903	1,372	1,557	967	1,201	3,064	1,399	2,628	4,290	1,924	270	230
MAX	1,980	3,120	3,380	1,560	2,490	4,940	3,140	3,860	10,100	6,070	540	796
MIN	382	463	642	441	389	1,110	579	815	612	320	166	147

CAL YR 1971 TOTAL 520,517 MEAN 1,426 MAX 3,380 MIN 78
WTR YR 1972 TOTAL 604,284 MEAN 1,651 MAX 10,100 MIN 147

PEAK DISCHARGE (BASE, 4,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-04	1645	6.25	5,020	6-02	2400	6.12	4,810
3-19	1515	6.09	4,760	6-25	1145	9.27	10,300

013905000 Saddle River at Ridgewood, N. J.

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, on left bank 15 ft upstream from bridge on State Highway 17 in Ridgewood and 2.8 miles upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 sq mi.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 71.74 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--18 years, 34.2 cfs (21.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 811 cfs June 19 (gage height, 6.03 ft); minimum, 6.6 cfs Sept. 23, 27-29 (gage height, 2.43 ft).
Period of record: Maximum discharge, 2,920 cfs Aug. 28, 1971 (gage height, 11.24 ft); minimum daily, 0.2 cfs Sept. 17, 18, 1966.
Maximum discharge known, 6,400 cfs July 23, 1945, at site 1.6 miles upstream (drainage area, 19.1 sq mi) by slope-area measurement.

REMARKS.--Records excellent. Diurnal fluctuation at low flow caused by unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	85	52	30	18	90	43	47	210	180	31	9.0
2	27	114	41	65	19	140	46	73	77	86	25	10
3	26	60	37	51	46	225	42	108	63	116	24	13
4	23	45	36	38	154	90	50	140	54	140	25	9.5
5	23	34	33	48	38	78	46	69	57	78	20	12
6	23	30	55	33	31	66	40	54	44	70	19	12
7	21	46	96	30	27	58	38	48	48	65	61	9.0
8	19	40	67	28	25	67	35	59	36	90	48	8.0
9	19	32	46	30	25	53	33	126	34	89	22	12
10	160	31	42	46	21	46	34	93	42	54	19	9.5
11	85	30	42	47	20	43	32	44	31	51	17	8.7
12	38	27	40	37	20	126	32	51	30	45	17	7.3
13	28	27	38	33	154	104	84	47	29	283	16	9.5
14	26	27	37	38	86	67	58	44	28	114	15	15
15	30	38	44	28	43	71	46	283	27	71	44	12
16	25	41	43	27	36	89	53	99	82	57	20	10
17	22	32	38	30	32	190	92	71	130	82	18	8.3
18	20	30	34	26	31	170	41	61	66	52	17	8.7
19	19	30	31	24	39	80	36	55	508	45	15	54
20	18	31	33	23	35	67	146	182	150	43	14	11
21	18	32	34	23	37	65	86	110	162	59	12	8.3
22	18	32	30	23	29	99	90	75	338	63	11	8.3
23	18	32	27	23	25	90	102	59	253	37	11	7.3
24	57	30	31	25	28	60	61	54	160	38	10	7.0
25	64	59	32	25	27	57	53	46	283	32	11	7.3
26	32	55	32	23	32	53	47	37	156	30	14	7.3
27	27	57	31	22	30	51	44	38	113	29	51	7.0
28	23	95	30	21	35	48	43	37	89	28	20	7.0
29	20	108	28	20	61	47	44	36	80	27	13	7.3
30	20	144	58	19	------	48	40	47	250	24	11	14
31	23	------	51	18	------	45	------	184	------	28	9.5	------
TOTAL	998	1,474	1,269	954	1,204	2,583	1,637	2,477	3,630	2,206	660.5	329.3
MEAN	32.2	49.1	40.9	30.8	41.5	83.3	54.6	79.9	121	71.2	21.3	11.0
MAX	160	144	96	65	154	225	146	283	508	283	61	54
MIN	18	27	27	18	18	43	32	36	27	24	9.5	7.0
CFSM	1.49	2.27	1.89	1.43	1.92	3.86	2.53	3.70	5.60	3.30	.99	.51
IN.	1.72	2.54	2.19	1.64	2.07	4.45	2.82	4.27	6.25	3.80	1.14	.57

CAL YR 1971 TOTAL 14,360.5 MEAN 39.3 MAX 722 MIN 4.3 CFSM 1.82 IN 24.73
WTR YR 1972 TOTAL 19,421.8 MEAN 53.1 MAX 508 MIN 7.0 CFSM 2.46 IN 33.45

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	2345	4.77	392	6-22	2300	5.01	463
2-13	1730	4.75	388	6-25	1345	5.01	463
5-15	0715	5.60	660	6-30	2330	5.65	678
5-31	1900	5.10	490	7-13	1745	6.01	804
6-19	1445	6.03	811				

01391000 Hohokus Brook at Hohokus, N. J.

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, on left bank 500 ft upstream from Maple Avenue Bridge in Hohokus, and 3.5 miles upstream from mouth.

DRAINAGE AREA.--16.4 sq mi.

PERIOD OF RECORD.--April 1954 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.09 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--18 years, 29.6 cfs (24.68 inches per year).

EXTREMES.--Current year: Maximum discharge, 684 cfs June 19 (gage height, 3.17 ft); minimum daily, 11 cfs, Sept. 28.
Period of record: Maximum discharge, 2,350 cfs Aug. 19, 1955 (gage height, 4.71 ft in well, 4.50 ft from outside gage), from rating curve extended above 750 cfs; minimum, 1.9 cfs Aug. 2, 1966.

REMARKS.--Records excellent except those for the period of no gage-height record, which are fair. Some regulation at low and medium flows caused by unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	96	55	34	23	88	39	42	199	159	27	15
2	30	130	43	58	23	152	41	71	73	71	26	14
3	29	69	39	52	60	203	38	112	61	70	25	15
4	29	51	38	42	148	91	42	136	56	70	24	16
5	26	43	35	49	43	71	41	70	57	54	22	14
6	25	34	51	39	33	59	36	53	47	54	21	15
7	24	46	85	34	31	53	35	45	51	50	56	14
8	26	39	63	31	25	59	35	47	41	139	45	13
9	24	30	48	33	24	50	32	120	35	106	24	12
10	152	30	42	46	24	42	31	87	42	54	21	12
11	93	31	42	48	23	39	31	59	32	45	20	12
12	45	30	38	42	23	103	31	48	29	42	19	12
13	39	31	37	38	130	91	77	42	28	239	20	13
14	37	29	35	42	99	61	59	38	29	103	19	14
15	31	37	40	39	49	64	47	217	28	61	32	15
16	29	39	40	33	40	73	54	77	84	51	21	14
17	27	33	35	31	37	156	73	54	98	57	19	13
18	27	31	34	28	35	147	44	44	66	48	20	12
19	25	30	31	28	45	71	42	39	412	44	18	20
20	25	29	31	27	39	57	125	156	145	41	17	80
21	25	28	31	28	34	53	84	96	136	54	15	20
22	25	27	30	29	33	82	80	57	250	51	15	15
23	26	25	28	29	30	80	87	48	206	35	16	14
24	67	25	31	30	30	56	56	44	136	32	15	13
25	96	49	33	30	30	50	47	38	189	28	15	13
26	48	49	31	28	37	47	39	35	112	27	16	13
27	39	54	30	26	34	44	39	35	80	25	23	12
28	34	82	29	27	38	42	38	32	70	26	36	11
29	31	123	28	26	57	41	36	31	66	25	30	12
30	30	148	52	26	------	42	32	54	172	24	18	13
31	29	------	52	25	------	41	------	185	------	27	16	------
TOTAL	1,222	1,498	1,237	1,078	1,277	2,308	1,491	2,212	3,030	1,912	711	481
MEAN	39.4	49.9	39.9	34.8	44.0	74.5	49.7	71.4	101	61.7	22.9	16.0
MAX	152	148	85	58	148	203	125	217	412	239	56	80
MIN	24	25	28	25	23	39	31	31	28	24	15	11
CFSM	2.40	3.04	2.43	2.12	2.68	4.54	3.03	4.35	6.16	3.76	1.40	.98
IN.	2.77	3.40	2.81	2.45	2.90	5.24	3.38	5.02	6.87	4.34	1.61	1.09

CAL YR 1971 TOTAL 17,089.8 MEAN 46.8 MAX 1,100 MIN 9.7 CFSM 2.85 IN 38.76
WTR YR 1972 TOTAL 18,457.0 MEAN 50.4 MAX 412 MIN 11 CFSM 3.07 IN 41.87

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-15	0145	2.68	380	6-22	1900	2.60	340
5-31	1500	2.85	475	7-08	1815	2.59	336
6-19	0915	3.17	684	7-13	1100	2.94	529

NOTE.--No gage-height record Aug. 28 to Sept. 30.

01391500 Saddle River at Lodi, N. J.

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, on left bank 560 ft upstream from Outwater Lane Bridge in Lodi and 3.2 miles upstream from mouth.

DRAINAGE AREA.--54.6 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft above mean sea level. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

AVERAGE DISCHARGE.--49 years, 96.2 cfs (23.93 inches per year), adjusted for diversion since 1966.

EXTREMES.--Current year: Maximum discharge, 2,240 cfs June 19 (gage height, 6.57 ft); minimum, 30 cfs Sept. 28 (gage height, 1.85 ft).
Period of record: Maximum discharge, 3,770 cfs Sept. 12, 1971 (gage height, 10.98 ft, from high-water mark in gage house); minimum, 1.0 cfs May 25, 1938 (gage height, 1.03 ft, site and datum then in use); minimum daily, 6.0 cfs Aug. 4, 1930, Aug. 23, 1934.

REMARKS.--Records excellent. Occasional regulation at low flow by mills above station. Diversion above station by Hackensack Water Co., for municipal supply (no diversion for the water year). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD N.J. 1969: CORRECTIONS 1967. WRD N.J. 1970: CORRECTIONS 1968-69.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	253	152	87	56	209	110	98	642	544	95	42
2	89	363	115	157	56	289	115	175	216	235	81	42
3	83	194	103	151	94	560	109	246	172	228	91	46
4	78	137	98	112	384	283	122	377	175	312	87	42
5	76	108	92	138	112	198	119	187	182	188	72	50
6	73	94	128	102	80	169	102	140	130	173	67	43
7	70	124	250	88	77	143	99	122	135	162	87	39
8	67	106	181	82	67	159	94	138	112	239	158	38
9	64	87	130	87	65	139	88	296	103	317	80	39
10	386	84	112	124	62	119	87	259	117	160	66	36
11	314	83	108	119	61	111	87	155	93	143	60	39
12	127	78	100	110	60	236	85	133	88	128	59	37
13	98	77	96	97	312	291	226	118	84	775	58	44
14	91	73	91	106	309	169	177	109	85	479	57	52
15	88	88	106	90	126	199	129	692	83	199	137	49
16	80	101	106	75	103	186	137	270	191	159	70	39
17	73	82	93	76	90	411	234	170	419	205	60	36
18	71	76	88	71	86	462	121	130	192	148	60	36
19	67	75	79	72	107	210	108	118	1,680	133	57	330
20	63	75	82	70	98	165	259	500	626	124	51	58
21	63	75	83	71	84	152	277	300	377	185	49	43
22	63	72	78	69	84	220	195	175	844	193	49	43
23	62	67	71	70	73	238	270	147	719	117	48	38
24	132	64	80	73	82	159	158	135	472	108	47	38
25	213	163	83	72	79	140	134	119	634	98	46	39
26	116	122	79	65	100	131	118	108	433	92	76	37
27	87	117	78	61	91	125	110	100	287	87	133	38
28	76	213	76	63	106	120	107	100	231	84	109	36
29	76	227	72	61	163	116	103	96	204	83	52	39
30	70	429	129	60	------	121	98	115	364	76	46	73
31	67	------	144	59	------	113	------	478	------	86	44	------
TOTAL	3,167	3,907	3,283	2,738	3,267	6,343	4,178	6,306	10,090	6,260	2,252	1,561
MEAN	102	130	106	88.3	113	205	139	203	336	202	72.6	52.0
MAX	386	429	250	157	384	560	277	692	1,680	775	158	330
MIN	62	64	71	59	56	111	85	96	83	76	44	36
CFSM	1.87	2.38	1.94	1.62	2.07	3.75	2.55	3.72	6.15	3.70	1.33	.95
IN.	2.16	2.66	2.24	1.87	2.23	4.32	2.85	4.30	6.87	4.27	1.53	1.06

CAL YR 1971 TOTAL 43,735 MEAN 120 MAX 2,680 MIN 22 MEAN‡ 126 CFSM‡ 2.31 IN.‡ 31.25
WTR YR 1972 TOTAL 53,352 MEAN 146 MAX 1,680 MIN 36 MEAN‡ 146 CFSM‡ 2.67 IN.‡ 36.35

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-10	1400	3.77	675	5-31	1845	4.46	1,060
11-30	0215	3.69	635	6-19	1200	6.57	2,240
2-13	1945	3.68	630	6-22	1845	4.60	1,140
3-03	1645	3.81	696	7-01	0530	4.12	870
3-17	2315	3.66	620	7-13	2215	4.90	1,320
5-15	1130	4.24	934	9-19	0330	4.03	818

NOTE.--No diversion from Saddle River by Hackensack Water Co., during the water year.
‡ Adjusted for diversion (only calendar year is affected).

Reservoirs in Passaic River basin

01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, at dam on Beaver Brook, 2 miles northeast of Hibernia, N.J. Drainage area, 5.50 sq mi. Period of record, September 1925 to September 1931, December 1948 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents only 1925-31, 1948-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Water-stage recorder. Datum of gage is at mean sea level.

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 at spillway level (elevation, 835 ft), 3,310,000,000 gal. Flow is regulated by two 30-inch sluice gates. Flow is released for diversion for municipal supply of Jersey City. Elevation record and capacity table furnished by Jersey City, Bureau of Water.

01380900 BOONTON RESERVOIR.--Lat 40°53', long 74°24', Morris County, at dam on Rockaway River at Boonton, N.J. Drainage area, 119 sq mi. Period of record, April 1904 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents only 1904-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Hook gage. Datum of gage is at mean sea level.

Reservoir is formed by a cyclopean masonry dam with earth wings; dam completed and storage began in 1904. Total capacity at elevation 305.25 ft (crest of spillway) 7,620,000,000 gal, of which 7,366,000,000 gal is usable contents above elevation 259.75 ft (sill of lowest outlet gate). Flow regulated by flashboards, 3 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 Jersey City. Elevation record and data for capacity table furnished by Jersey City, Bureau of Water.

01382100. CANISTEAR RESERVOIR.--Lat 41°06'30", long 74°29'30", Sussex County, at dam on Pacock Brook, 1.8 miles northeast of Stockholm, N.J. Drainage area, 5.6 sq mi. Period of record, October 1923 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Staff gage. Datum of gage is at mean sea level.

Reservoir is formed by earth-embankment type dam; dam completed about 1896. Capacity at spillway level (elevation, 1,086.0 ft), 2,407,000,000 gal. 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. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.

01382200 OAK RIDGE RESERVOIR.--Lat 41°02'30", long 74°30'10", Passaic County, at dam on Pequannock River, 0.9 mile southwest of Oak Ridge, N.J. Drainage area, 27.3 sq mi. Period of record, October 1923 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents only 1924-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Staff gage. Datum of gage is at mean sea level.

Reservoir is formed by earthfill dam with concrete-core wall and ogee overflow section; dam constructed between 1889-92; dam raised 10 ft during 1917-19. Capacity at spillway level (elevation, 846.0 ft), 3,895,000,000 gal. 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 of city of Newark. Outflow is controlled mostly by operation of gates in pipes through dam. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.

01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, at dam on Clinton Brook, 2.0 miles north of Newfoundland, N.J. Drainage area, 10.5 sq mi. Period of record, October 1923 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents only 1923-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Staff gage. Datum of gage is at mean sea level.

Reservoir is formed by earthfill dam constructed between 1889 and 1892. Capacity at spillway level (elevation, 992.0 ft), 3,518,000,000 gal. 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. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.

01382350 CHARLOTTEBURG RESERVOIR.--Lat 41°01'34", long 74°25'30", Passaic County, at dam on Pequannock River, 1.1 miles upstream from Macopin River, and 1.5 miles southeast of Newfoundland, N.J. Drainage area, 56.2 sq mi. Period of record, May 1961 to current year. Water-stage recorder. Datum of gage is at mean sea level.

Reservoir is formed by concrete-masonry dam and earth embankment, with concrete spillway at elevation 738.00 ft. Spillway equipped with Bascule gate 5 ft high. Storage began May 19, 1961. Capacity at elevation 743.00 ft (top of Bascule gate) is 2,964,000,000 gal. 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. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.

01382400 ECHO LAKE.--Lat 41°03'00", long 74°24'30", Passaic County, at Echo Lake Dam on Macopin River, 1.6 miles north of Charlotteburg, N.J., and 1.9 miles upstream from mouth. Drainage area, 4.35 sq mi. Period of record, October 1927 to September 1950, October 1953 to current year in report of Geological Survey. Monthend contents only 1928-50, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Staff gage. Datum of gage is at mean sea level.

Lake is formed by earth-embankment type dam completed about 1925. Capacity at spillway level (elevation, 893.0 ft), 1,583,000,000 gal 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. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.

Reservoirs in Passaic River basin--Continued

01383000 GREENWOOD LAKE.--Lat 41°09'36", long 74°20'03", Passaic County, in gatehouse near right end of Greenwood Lake Dam on Wanaque River at Awosting. Drainage area, 27.1 sq mi. Period of record, June 1898 to November 1903, June 1907 to current year (gage heights only prior to October 1953). Water-stage recorder. Datum of gage is 608.86 ft above mean sea level (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. Maximum contents during water year 7,650,000,000 gal June 24(gage height,11.27 ft)minimum, 6,738,000,000 gal Sept.30 (gage height,9.80a ft). Maximum contents during period 1898-1903, 1907 to current year, 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).

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.

01386990 WANAQUE RESERVOIR.--Lat 41°02'33", long 74°17'36", Passaic County, at Raymond Dam on Wanaque River at Wanaque. Drainage area, 90.4 sq mi. Period of record, February 1928 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents only 1928-1950, published in WSP 1302. October 1950 to September 1953 in Special Report 16, New Jersey Department of Environmental Protection. Water-stage recorder. Datum of gage is at mean sea level (North Jersey District Water Supply Commission datum).

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 (elevation, 300.3 ft), 28,010,000,000 gal. Capacity available by gravity at spillway level, 26,230,000,000 gal. Outflow mostly controlled by sluice gates in intake conduits in gage house. Water is diverted from reservoir for municipal supply. Diversion to reservoir from Post Brook and Ramapo River (see p. 50). Elevation record and capacity table furnished by North Jersey District Water Supply Commission.

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
	01379990 Splitrock Reservoir*			01380900 Boonton Reservoir*		
Sept. 30	835.50	3,405	-	307.22	8,132	-
Oct. 31	835.80	3,464	+2.9	307.32	8,158	+1.2
Nov. 30	835.60	3,424	-2.0	307.77	8,275	+6.0
Dec. 31	835.60	3,424	0	305.67	7,755	-26.0
CAL YR 1971	-	-	+1.4	-	-	+.5
Jan. 31	835.50	3,405	-.9	305.44	7,669	-4.3
Feb. 29	835.50	3,405	0	305.53	7,693	+1.2
Mar. 31	835.60	3,424	+.9	305.70	7,737	+2.2
Apr. 30	835.50	3,405	-.9	307.47	8,197	+23.7
May 31	835.70	3,444	+2.0	307.57	8,223	+1.2
June 30	835.90	3,484	+2.0	307.61	8,234	+.6
July 31	835.50	3,405	-3.9	306.67	7,989	-12.2
Aug. 31	835.40	3,385	-.9	302.52	6,918	-53.4
Sept. 30	834.90	3,282	-5.3	298.34	5,882	-53.4
WTR YR 1972	-	-	-.5	-	-	-9.4
	01382100 Canistear Reservoir†			01382200 Oak Ridge Reservoir†		
Sept. 30	1,086.10	2,417	-	846.10	3,909	-
Oct. 31	1,086.20	2,427	+.5	846.10	3,909	0
Nov. 30	1,086.30	2,437	+.5	846.30	3,938	+1.5
Dec. 31	1,086.10	2,417	-.9	846.10	3,909	-1.4
CAL YR 1971	-	-	0	-	-	0
Jan. 31	1,086.10	2,417	0	846.10	3,909	0
Feb. 29	1,086.20	2,427	+.5	846.10	3,909	0
Mar. 31	1,086.20	2,427	0	846.20	3,923	+.8
Apr. 30	1,086.20	2,427	0	846.10	3,909	-.8
May 31	1,086.10	2,417	-.5	846.10	3,909	0
June 30	1,086.20	2,427	+.5	846.40	3,952	+2.2
July 31	1,086.00	2,407	-.9	846.10	3,909	-2.2
Aug. 31	1,086.00	2,407	0	842.40	3,393	-25.7
Sept. 30	1,086.00	2,407	0	836.40	2,605	-40.7
WTR YR 1972	-	-	-.05	-	-	5.6

* Elevation at 0900.
† Elevation at 0800 on first day of following month.
a Gage height estimated.

Reservoirs in Passaic River basin--Continued

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
	01382300 Clinton Reservoir†			01382350 Charlotteburg Reservoir†		
Sept. 30	992.10	3,530	-	742.95	2,958	-
Oct. 31	992.30	3,556	+1.2	743.05	2,970	+.6
Nov. 30	992.40	3,569	+.6	743.30	3,001	+1.5
Dec. 31	992.20	3,543	-1.2	742.95	2,958	-2.2
CAL YR 1971	-	-	+.05	-	-	+2.2
Jan. 31	992.20	3,543	0	740.55	2,680	-13.9
Feb. 29	992.20	3,543	0	743.00	2,964	+15.2
Mar. 31	992.20	3,543	0	743.10	2,976	+.6
Apr. 30	992.20	3,543	0	743.10	2,976	0
May 31	992.10	3,530	-.6	742.95	2,958	-.9
June 30	992.30	3,556	+1.4	743.20	2,989	+1.5
July 31	992.10	3,530	-1.2	740.50	2,675	-15.6
Aug. 31	990.60	3,338	-9.6	736.40	2,244	-21.5
Sept. 30	988.20	3,031	-15.8	736.00	2,205	-2.0
WTR YR 1972	-	-	-2.2	-	-	-3.2
	01382400 Echo Lake†			01383000 Greenwood Lake**		
Sept. 30	893.00	1,583	-	10.16	6,959	-
Oct. 31	893.10	1,592	+.5	10.23	7,003	+2.2
Nov. 30	893.20	1,601	+.5	10.68	7,282	+14.4
Dec. 31	893.00	1,583	-.9	10.25	7,015	-13.3
CAL YR 1971	-	-	-.03	-	-	+.5
Jan. 31	893.00	1,583	0	10.18	6,972	-2.2
Feb. 29	893.10	1,592	+.5	a10.50	7,170	+10.5
Mar. 31	893.10	1,592	0	10.27	7,027	-7.1
Apr. 30	893.10	1,592	0	10.29	7,040	+.6
May 31	893.10	1,592	0	10.67	7,275	+11.8
June 30	893.20	1,601	+.5	a11.00	7,480	+10.5
July 31	893.00	1,583	-.9	10.03	6,879	-30.0
Aug. 31	892.90	1,573	-.5	a9.90	6,799	-4.0
Sept. 30	892.60	1,546	-1.4	a9.80	6,738	-3.1
WTR YR 1972	-	-	-.2	-	-	-.9
	01386990 Wanaque Reservoir†					
Sept. 30	300.38	28,070	-			
Oct. 31	298.28	26,500	-78.3			
Nov. 30	300.18	27,920	+73.2			
Dec. 31	300.93	28,490	+28.5			
CAL YR 1971	-	-	+14.9			
Jan. 31	299.44	27,350	-56.9			
Feb. 29	300.42	28,100	+40.1			
Mar. 31	302.35	29,590	+74.4			
Apr. 30	302.39	29,620	+1.5			
May 31	302.78	29,920	+15.0			
June 30	302.76	29,910	-.5			
July 31	300.87	28,450	-72.9			
Aug. 31	295.60	24,590	-193			
Sept. 30	289.72	20,640	-204			
WTR YR 1972	-	-	-31.4			

** Gage height at 2400.
† Elevation at 0800 on first day of following month.
a Gage height estimated.

Diversions in Passaic River basin

01380800 Jersey City diverts water from Boonton Reservoir on Rockaway River at Boonton for municipal supply. Records furnished by Jersey City, Bureau of Water.

01382490 City of Newark diverted water from reservoir formed by Macopin intake dam on Pequannock River prior to May 21, 1961, and from Charlotteburg Reservoir on Pequannock River since May 21, 1961, for municipal supply. Records furnished by city of Newark, Division of Water Supply.

North Jersey District Water Supply Commission diverts water for municipal supply from Wanaque Reservoir on Wanaque River (01386980). In addition to water from Wanaque Reservoir, the Commission stores water diverted into Wanaque Reservoir from Post Brook near Wanaque (01387020) and Ramapo River by pumping from Pompton Lakes (01387990). Figures of diversion from Wanaque Reservoir given herein show total diversion from Passaic River basin by North Jersey District Water Supply Commission. Records furnished by North Jersey District Water Supply Commission.

01388500 Passaic Valley Water Commission supplements the dependable yield of its supply at Little Falls by diverting water at high flows at the Jackson Avenue Pumping Station into Point View Reservoir on Haycock Brook for release as required to sustain minimum flow requirements. Also water may be released into Haycock Brook for maintenance of flow in that stream. These diversions and releases occur upstream of Pompton Plains gaging station. Records furnished by Passaic Valley Water Commission.

01389490 The Passaic Valley Water Commission diverts water from Passaic River above Beattie's Dam at Little Falls for municipal supply. Records furnished by Passaic Valley Water Commission.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Jersey City	Newark	North Jersey District Water Supply Commission		Passaic Valley Water Commission
			From Wanaque Reservoir	From Ramapo River to Wanaque Reservoir	
October	104	96.8	167	0	75.3
November	103	101	162	0	76.0
December	106	105	157	0	76.2
CAL YR 1971	103	100	175	13.8	80.1
January	105	101	170	0	76.2
February	110	98.4	174	0	77.7
March	106	97.2	176	0	74.4
April	108	96.9	162	0	73.0
May	107	98.2	165	0	75.4
June	108	95.0	175	0	76.6
July	114	110	164	0	78.3
August	113	94.0	192	0	91.6
September	110	75.9	200	0	76.7
WTR YR 1972	108	97.4	172	0	77.3

NOTE.--Records for diversion from Post Brook to Wanaque Reservoir not available for this water year. Estimated diversion of 4.4 cfs for year made on the basis of records for West Brook near Wanaque.

Diversions from and releases to Pompton River by Point View Reservoir

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Stored	*Released
October	0	0
November	0	0
December	0	0
CAL YR 1971	0	0
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
WTR YR 1972	0	0

* Water released into Haycock Brook to maintain minimum flow conditions not included in these figures.

01393500 Elizabeth River at Elizabeth, N. J.

LOCATION.--Lat 40°40'03", long 74°13'09", Union County, on left bank 85 ft upstream from Westfield Avenue Bridge in Elizabeth and 3.3 miles upstream from mouth.

DRAINAGE AREA.--20.2 sq mi, of which 2.2 sq mi contributes to a storm sewer which bypasses the station.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.23 ft above mean sea level. Prior to Oct. 1, 1922, nonrecording gage at same site at datum 4.14 ft higher and Oct. 1, 1922, to May 18, 1923, at present datum.

AVERAGE DISCHARGE.--51 years, 25.0 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,260 cfs July 13 (gage height, 11.13 ft); minimum daily, 4.0 cfs Oct. 19.
Period of record: Maximum discharge, 4,110 cfs Aug. 28, 1971 (gage height, 18.7 ft, from floodmarks), from rating curve extended above 1,100 cfs on basis of contracted-opening measurement of peak flow; no flow many times.

REMARKS.--Records excellent. Diversion by pumpage from Hammock well field, in Union, for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	94	130	11	11	34	12	14	52	50	14	12
2	21	94	46	87	12	26	19	26	27	18	13	23
3	28	55	25	21	159	184	13	151	19	29	21	12
4	7.0	22	15	37	118	39	40	70	80	18	16	8.5
5	8.0	16	20	53	22	39	18	24	29	24	12	9.9
6	8.0	14	51	19	16	21	14	17	19	17	10	11
7	8.0	40	130	16	17	19	15	15	28	23	12	11
8	6.0	14	64	14	14	26	13	38	16	48	13	11
9	6.0	13	44	52	13	17	11	135	15	14	13	10
10	280	13	30	34	13	16	12	45	20	14	12	8.0
11	320	13	17	19	13	14	13	22	11	14	12	8.8
12	90	12	14	23	12	43	13	18	13	14	11	8.4
13	30	11	39	33	177	23	120	16	14	428	9.8	14
14	17	9.1	35	23	37	30	23	15	14	52	12	21
15	17	12	20	14	23	79	21	192	13	26	11	11
16	15	12	15	11	17	29	86	30	90	22	12	9.7
17	12	11	13	12	15	130	40	21	77	24	12	7.8
18	7.0	11	12	13	17	75	18	18	128	35	13	8.7
19	4.0	12	10	13	77	25	16	19	238	18	11	41
20	12	14	14	14	37	19	96	537	39	18	9.6	11
21	12	10	12	13	19	18	23	64	69	34	11	10
22	12	11	11	11	21	52	75	33	193	20	12	9.8
23	11	11	10	10	16	25	36	26	96	15	12	8.2
24	155	11	13	20	20	18	44	24	39	15	12	6.2
25	61	234	9.6	14	30	16	19	22	174	18	16	7.9
26	19	28	11	12	79	14	17	21	42	14	78	9.3
27	15	41	10	12	31	14	16	18	27	14	43	9.6
28	14	67	11	14	39	15	15	15	22	14	21	10
29	14	269	11	12	45	15	14	13	22	12	15	16
30	13	350	71	11	------	16	12	26	97	11	14	47
31	10	------	17	11	------	13	------	45	------	15	13	------
TOTAL	1,242.0	1,524.1	930.6	659	1,120	1,104	884	1,730	1,723	1,088	496.4	391.8
MEAN	40.1	50.8	30.0	21.3	38.6	35.6	29.5	55.8	57.4	35.1	16.0	13.1
MAX	320	350	130	87	177	184	120	537	238	428	78	47
MIN	4.0	9.1	9.6	10	11	13	11	13	11	11	9.6	6.2

CAL YR 1971 TOTAL 19,115.3 MEAN 52.4 MAX 1,900 MIN 4.0
WTR YR 1972 TOTAL 12,892.9 MEAN 35.2 MAX 537 MIN 4.0

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.H.	DISCHARGE
7-13	1045	11.13	2,260

01394500 Rahway River near Springfield, N. J.

LOCATION.--Lat 40°41'11", long 74°18'44", Union County, on left bank 50 ft downstream from bridge on U.S. Highway 22, 100 ft downstream from Pope Brook, and 1.5 miles south of Springfield.

DRAINAGE AREA.--25.5 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 66.17 ft above mean sea level.

AVERAGE DISCHARGE.--34 years, 25.7 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,160 cfs June 22 (gage height, 5.67 ft); minimum, 2.3 cfs Aug. 31 (gage height, 1.21 ft).
Period of record: Maximum discharge, 2,560 cfs Aug. 28, 1971 (gage height, 8.54 ft); minimum, 0.1 cfs Sept. 11, 1966.

REMARKS.--Records good except those for the period of no gage-height record and those below 10 cfs, which are fair. Water for municipal supply diverted from river by city of Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co.

REVISIONS (WATER YEARS).--WSP 1622: 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	150	36	8.4	5.3	116	12	14	113	168	10	4.8
2	22	188	24	75	4.0	125	16	22	32	35	9.0	14
3	6.9	94	19	32	120	422	12	173	24	30	7.6	4.8
4	4.8	35	16	30	268	80	30	86	109	24	10	3.7
5	5.3	23	14	54	26	55	13	31	52	24	7.0	4.0
6	5.3	20	40	23	16	33	11	20	20	19	4.5	3.7
7	4.8	51	70	16	14	26	12	49	30	15	6.2	3.7
8	4.8	18	38	12	12	32	11	73	16	36	8.0	4.0
9	4.2	14	23	33	9.0	24	9.0	219	15	20	5.4	3.4
10	295	12	18	51	9.0	16	9.0	80	19	13	5.0	3.4
11	78	11	16	24	7.4	15	9.0	36	11	13	4.5	3.4
12	17	9.5	12	22	7.9	51	10	24	10	12	4.0	4.0
13	9.5	9.0	12	24	330	33	75	20	11	514	4.0	5.3
14	9.0	7.9	11	24	90	29	27	28	10	62	3.5	8.4
15	7.4	9.0	14	14	30	72	16	441	10	24	3.0	3.7
16	6.4	9.5	13	9.5	24	46	52	47	100	26	3.5	3.4
17	5.3	7.9	11	9.0	19	217	64	31	75	25	3.4	3.4
18	5.3	8.4	9.0	8.4	18	209	20	25	120	41	3.2	3.4
19	8.4	7.4	7.9	8.4	52	47	15	20	759	17	3.4	28
20	5.8	6.9	9.0	8.4	35	32	90	647	80	27	3.0	3.7
21	4.2	6.4	7.9	7.9	19	27	35	145	92	32	2.5	3.4
22	4.5	5.8	6.9	6.9	19	61	67	47	484	17	3.0	3.7
23	5.3	5.8	7.4	6.9	12	44	67	32	400	12	2.8	3.1
24	135	26	8.4	10	16	26	48	26	78	10	15	2.8
25	113	203	7.4	7.4	23	22	24	20	287	11	4.6	3.1
26	26	33	6.9	5.3	51	19	20	17	70	9.5	206	3.4
27	15	65	6.4	5.8	28	19	17	15	41	9.2	42	3.4
28	11	59	6.9	6.9	44	17	16	14	29	8.5	9.5	3.1
29	8.4	300	6.9	6.9	88	16	13	13	28	7.8	6.4	4.2
30	7.9	188	55	5.8	------	16	12	37	163	7.2	5.8	51
31	7.4	------	13	5.3	------	14	------	254	------	8.0	4.8	------
TOTAL	848.7	1,583.5	546.0	561.2	1,396.6	1,961	832.0	2,706	3,288	1,277.2	410.6	197.4
MEAN	27.4	52.8	17.6	18.1	48.2	63.3	27.7	87.3	110	41.2	13.2	6.58
MAX	295	300	70	75	330	422	90	647	759	514	206	51
MIN	4.2	5.8	6.4	5.3	4.0	14	9.0	13	10	7.2	2.5	2.8

CAL YR 1971 TOTAL 14,082.30 MEAN 38.6 MAX 1,620 MIN .80
WTR YR 1972 TOTAL 15,608.20 MEAN 42.6 MAX 759 MIN 2.5

NOTE.--No gage-height record July 27 to Aug. 24.

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-10	1215	4.47	741	5-31	1630	4.42	726
11-29	1900	4.87	861	6-19	0600	5.66	1,150
2-03	2330	4.68	804	6-22	1930	5.67	1,160
2-13	1515	4.28	684	7-13	1215	5.42	1,060
3-03	0915	4.47	741	8-26	1945	5.15	952
5-15	0245	4.93	879				

01395000 Rahway River at Rahway, N. J.

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, on left bank 100 ft upstream from St. Georges Avenue bridge in Rahway and 0.9 mile upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 sq mi.

PERIOD OF RECORD.--July 1908 to April 1915 (gage heights and discharge measurements only), October 1921 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.77 ft above mean sea level. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft downstream from Church Street and 1,500 ft downstream from present site at datum 2.77 ft lower.

AVERAGE DISCHARGE.--51 years (1921-72), 44.1 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs July 13 (gage height, 3.99 ft); no flow for parts of several days in August and September.
Period of record: Maximum discharge, 4,010 cfs Aug. 28, 1971 (gage height, 7.08 ft), from rating curve extended above 2,000 cfs; no flow for part of or all of some days in 1964-66, and 1970-72.

REMARKS.--Records excellent except those for period of no gage-height record and those below 3.0 cfs, which are fair. Water for municipal supply diverted from river by Rahway and Orange. The flow past this station is affected by diversions by pumpage from wells by Orange, South Orange, Short Hills Water Co., and Springfield station of Elizabethtown Water Co.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1552: 1922-23(M), 1924, 1930-31(M), 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	32	115	18	4.5	120	18	18	353	232	18	7.3
2	22	217	40	76	5.5	190	22	35	80	61	13	15
3	28	210	26	91	82	440	16	168	57	59	18	17
4	6.9	87	13	42	495	290	36	270	53	49	14	5.1
5	7.9	39	18	91	78	130	35	61	164	40	7.6	2.9
6	8.0	28	36	49	29	76	12	36	39	30	9.9	5.7
7	8.1	57	125	22	24	45	19	30	45	23	15	4.1
8	5.4	40	67	20	21	39	19	130	29	43	10	4.4
9	6.4	22	39	30	17	46	16	224	22	32	9.6	5.6
10	273	19	30	108	14	33	13	270	29	20	7.9	3.8
11	321	18	26	45	13	23	16	65	18	18	1.1	1.9
12	40	16	7.8	36	20	22	16	46	19	18	7.1	4.5
13	20	15	16	42	335	70	103	35	16	551	7.5	5.8
14	15	12	15	42	80	50	72	36	17	403	4.6	14
15	16	18	22	23	50	108	33	530	16	43	6.5	6.8
16	13	18	23	16	37	85	48	158	100	30	5.7	4.4
17	10	3.0	17	14	25	197	144	54	200	50	6.2	3.4
18	6.0	11	8.6	16	25	376	37	42	120	34	5.6	3.1
19	5.0	15	14	17	60	98	24	35	786	39	6.0	42
20	9.2	19	13	16	50	49	80	540	430	34	4.9	9.2
21	6.6	1.7	16	16	25	42	96	614	108	47	4.4	6.3
22	2.3	3.0	13	14	27	67	57	85	466	51	5.5	16
23	3.0	2.6	12	13	18	96	139	54	857	17	4.8	.68
24	136	6.6	10	18	25	35	89	43	239	15	28	.16
25	266	340	13	18	30	35	43	35	315	18	19	.18
26	57	130	12	12	40	26	29	29	232	18	50	1.2
27	16	48	10	9.2	50	28	26	25	61	15	199	3.5
28	18	141	12	13	65	26	25	23	48	14	21	3.8
29	15	174	13	13	85	26	22	20	56	13	13	19
30	15	560	54	12	------	29	18	46	217	12	9.2	51
31	13	------	69	8.6	------	25	------	115	------	18	7.4	------
TOTAL	1,378.8	2,302.9	905.4	960.8	1,830.0	2,922	1,323	3,872	5,192	2,047	539.5	267.82
MEAN	44.5	76.8	29.2	31.0	63.1	94.3	44.1	125	173	66.0	17.4	8.93
MAX	321	560	125	108	495	440	144	614	857	551	199	51
MIN	2.3	1.7	7.8	8.6	4.5	22	12	18	16	12	1.1	.16

CAL YR 1971 TOTAL 26,153.62 MEAN 71.7 MAX 3,450 MIN .23
WTR YR 1972 TOTAL 23,541.22 MEAN 64.3 MAX 857 MIN .16

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	2330	3.52	812	6-19	1845	3.92	1,090
2-04	0030	3.41	740	6-22	2015	3.94	1,100
5-15	1515	3.27	658	7-13	1145	3.99	1,140
5-21	0100	3.92	1,090				

NOTE.--No gage-height record Feb. 8 to Mar. 14.

01396000 Robinsons Branch Rahway River at Rahway, N. J.

LOCATION.--Lat 40°36'20", long 74°17'57", Union County, on right bank of Milton Lake, 2,000 ft upstream from Madison Avenue in Rahway, 3,200 ft downstream from Middlesex Reservoir Dam, and 1.6 miles upstream from mouth.

DRAINAGE AREA.--21.6 sq mi.

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder above Milton Lake Dam. Datum of gage is 19.99 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--33 years, 22.6 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,080 cfs July 13 (gage height, 4.78 ft), from rating curve extended above 750 cfs on basis of laboratory rating; minimum daily, 0.34 cfs Sept. 23, 24.
Period of record: Maximum discharge, 2,590 cfs Aug. 15, 1969 (gage height, 6.02 ft), from rating curve extended above 750 cfs on basis of laboratory rating; no flow many times.

REMARKS.--Records good except those below 10 cfs and for periods of no gage-height record, which are fair. Records given herein include flow over main dam, flow through bypass channel, and leakage through dam. Water diverted for municipal supply by Middlesex Water Co., from Middlesex Reservoir (capacity, 300,000,000 gal) 3,200 ft above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	18	87	12	8.8	88	17	19	58	135	6.2	1.4
2	12	48	16	89	9.2	50	21	30	58	28	5.2	7.2
3	10	42	12	63	85	119	16	70	58	70	6.2	5.2
4	7.2	30	11	38	259	100	35	162	48	92	7.2	1.4
5	6.9	14	9.7	90	142	55	21	70	63	40	3.0	.40
6	7.4	12	12	33	13	35	17	40	21	33	2.3	.75
7	7.2	26	95	18	12	25	21	23	31	25	3.0	1.1
8	6.7	17	54	15	11	34	17	27	14	32	4.5	1.1
9	6.7	12	18	34	9.8	28	16	163	13	64	4.5	1.8
10	121	13	13	108	9.8	24	18	133	19	21	4.5	.58
11	150	13	12	37	9.7	22	21	33	8.5	10	1.8	.40
12	15	11	10	25	9.4	25	18	24	7.2	9.6	2.3	.58
13	10	13	11	25	162	51	60	19	10	378	3.0	1.8
14	8.8	12	11	30	142	38	142	22	12	175	3.0	3.0
15	8.8	14	18	17	35	47	45	252	14	35	2.3	1.1
16	8.3	16	14	11	23	94	40	58	77	30	1.4	1.1
17	7.2	16	11	9.2	17	208	102	28	107	14	1.1	.58
18	6.9	16	10	9.7	16	163	40	21	89	.40	1.8	.75
19	7.4	20	7.2	9.7	124	50	21	17	203	.40	1.8	5.2
20	6.7	28	10	10	123	31	60	300	53	1.4	1.1	1.1
21	6.9	19	12	11	33	30	120	153	66	13	1.1	.47
22	7.2	19	13	11	21	63	35	33	407	8.5	1.1	1.1
23	7.2	21	12	11	16	73	94	22	303	7.2	1.8	.34
24	66	26	12	17	15	35	48	21	115	7.2	22	.34
25	128	261	12	12	17	26	62	19	168	12	38	.47
26	19	119	13	11	78	22	30	17	92	17	7.2	1.1
27	11	22	14	9.2	52	21	24	14	31	6.2	13	1.8
28	9.5	69	14	9.7	74	19	20	12	21	5.2	3.7	1.8
29	9.9	291	12	10	96	17	18	12	21	5.2	.58	2.3
30	10	288	49	10	------	19	17	38	115	4.5	1.8	17
31	11	------	27	9.7	------	17	------	70	------	5.2	1.4	------
TOTAL	707.1	1,526	631.9	805.2	1,622.7	1,629	1,216	1,922	2,302.7	1,285.00	157.88	63.26
MEAN	22.8	50.9	20.4	26.0	56.0	52.5	40.5	62.0	76.8	41.5	5.09	2.11
MAX	150	291	95	108	259	208	142	300	407	378	38	17
MIN	6.7	11	7.2	9.2	8.8	17	16	12	7.2	.40	.58	.34

CAL YR 1971 TOTAL 12,622.70 MEAN 34.6 MAX 880 MIN .40
WTR YR 1972 TOTAL 13,868.74 MEAN 37.9 MAX 407 MIN .34

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	2115	4.66	778	6-22	1815	4.77	1,070
2-05	0800	4.61	721	7-13	1045	4.78	1,080
5-15	0215	4.40	585				

NOTE.--No gage-height record Apr. 7 to May 8.

01396500 South Branch Raritan River near High Bridge, N. J.

LOCATION.--Lat 40°40'40", long 74°52'45", Hunterdon County, on left bank 1.0 mile northeast of High Bridge and 4.4 miles upstream from Spruce Run.

DRAINAGE AREA.--65.3 sq mi.

PERIOD OF RECORD.--October 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Sept. 28, 1930. Datum of gage is 282.10 ft above mean sea level (New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

AVERAGE DISCHARGE.--54 years, 115 cfs (23.92 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs June 23 (gage height, 9.29 ft); minimum, 41 cfs Sept. 18 (gage height, 5.89 ft).
Period of record: Maximum discharge, 5,160 cfs Mar. 15, 1940 (gage height, 11.78 ft), from rating curve extended above 1,600 cfs; minimum, 6.6 cfs Oct. 11, 1930; minimum daily, 13 cfs Aug. 11, 1966.

REMARKS.--Records excellent. Slight diurnal fluctuation caused by small powerplant above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 601: 1924. WSP 781: Drainage area. WSP 1552: 1919(M), 1920(M), 1921, 1923, 1924(M), 1927-28(M), 1934(M), 1941(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	278	245	121	92	320	143	125	948	310	82	46
2	107	560	206	211	96	472	145	136	320	248	77	84
3	119	421	183	234	105	472	143	228	266	228	75	79
4	101	269	178	161	225	257	147	337	222	219	75	55
5	96	225	165	198	105	228	147	228	219	190	69	50
6	91	209	175	152	103	206	134	183	193	190	67	49
7	91	278	316	134	103	188	125	163	175	175	91	47
8	84	222	245	127	91	200	125	161	163	222	107	46
9	80	193	200	127	94	170	117	310	156	161	73	46
10	394	180	188	239	109	154	113	291	149	149	67	45
11	323	170	180	203	109	143	111	214	136	140	64	43
12	173	161	163	203	84	178	109	185	129	132	64	45
13	134	154	159	173	413	228	145	168	125	540	63	46
14	121	145	149	175	488	180	168	165	123	248	61	51
15	115	143	161	147	209	173	134	275	115	183	60	49
16	105	145	163	113	175	193	149	200	173	161	58	45
17	101	136	149	117	149	476	228	173	372	154	57	42
18	96	132	143	121	140	387	152	168	394	138	60	45
19	92	127	129	123	143	245	132	149	996	121	57	294
20	89	129	134	121	132	219	225	297	398	140	54	73
21	89	125	143	121	117	206	251	237	441	121	54	58
22	87	119	127	121	127	275	178	180	956	109	51	57
23	87	111	113	127	111	303	234	156	1,480	101	51	51
24	231	107	121	138	117	222	185	145	781	100	51	49
25	275	198	129	147	117	200	161	136	700	96	52	49
26	170	178	119	123	127	185	147	127	510	92	54	47
27	138	170	117	107	121	173	140	123	406	91	58	47
28	123	266	113	107	123	161	134	119	340	87	58	47
29	115	303	111	103	173	156	129	111	313	84	54	46
30	109	560	140	103	------	154	125	103	344	80	50	51
31	107	------	180	96	------	149	------	492	------	82	47	------
TOTAL	4,144	6,414	5,044	4,493	4,298	7,273	4,576	6,085	12,043	5,092	1,961	1,782
MEAN	134	214	163	145	148	235	153	196	401	164	63.3	59.4
MAX	394	560	316	239	488	476	251	492	1,480	540	107	294
MIN	80	107	111	96	84	143	109	103	115	80	47	42
CFSM	2.05	3.28	2.50	2.22	2.27	3.60	2.34	3.00	6.14	2.51	.97	.91
IN.	2.36	3.65	2.87	2.56	2.45	4.14	2.61	3.47	6.86	2.90	1.12	1.02

CAL YR 1971 TOTAL 59,351 MEAN 163 MAX 1,630 MIN 38 CFSM 2.50 IN 33.81
WTR YR 1972 TOTAL 63,205 MEAN 173 MAX 1,480 MIN 42 CFSM 2.65 IN 36.01

PEAK DISCHARGE (BASE 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-14	0200	8.61	1,150	6-19	0545	8.98	1,480
6-01	0315	9.10	1,600	6-23	0230	9.29	1,790

01396800 Spruce Run at Clinton, N. J.

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, on right bank 1,800 ft downstream from dam at Spruce Run Reservoir 0.2 mile north of Clinton, 0.3 mile upstream from mouth, and 2.2 miles southwest of High Bridge.

DRAINAGE AREA.--41.3 sq mi.

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 15, 1964. Datum of gage is 193.30 ft above mean sea level. May to Nov. 24, 1959, nonrecording gage; Nov. 25, 1959, to July 23, 1961, water-stage recorder at site 1,800 ft upstream and at datum 1.22 ft lower; July 24, 1961, to Mar. 14, 1964, water-stage recorder at site 1,500 ft upstream at datum 1.22 ft lower.

AVERAGE DISCHARGE.--13 years, 52.0 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 2,910 cfs June 22 (gage height, 3.95 ft); minimum, 1.7 cfs (regulated) Nov. 25 (gage height, 1.17 ft); minimum daily, 8.7 cfs Nov. 22.
Period of record: Maximum discharge, 6,410 cfs Apr. 2, 1970 (gage height, 5.17 ft); no flow Aug. 22 to Sept. 17, 1963, Sept. 19, 1963 to Mar. 14, 1964, Mar. 19, 1964, result of filling Spruce Run Reservoir.

REMARKS.--Records good. Flow regulated by Spruce Run Reservoir (see p. 75). Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	132	11	12	44	66	44	53	626	261	32	73
2	213	132	11	14	36	112	48	73	213	162	25	57
3	213	132	11	20	36	171	57	115	158	135	28	37
4	213	128	11	12	36	191	48	171	144	135	34	37
5	219	77	11	85	36	191	70	115	140	105	15	70
6	219	17	11	112	36	125	64	73	109	100	14	70
7	219	17	11	149	44	80	64	77	112	90	22	66
8	213	14	11	180	53	82	75	125	64	122	42	66
9	230	11	11	171	53	66	77	242	66	90	33	66
10	115	9.4	11	132	53	51	57	242	92	77	39	66
11	15	9.4	11	167	53	51	41	158	42	68	28	87
12	149	9.4	11	140	53	51	42	109	25	62	44	97
13	281	9.4	11	97	55	90	28	95	39	255	44	97
14	308	9.4	11	95	62	112	28	97	46	208	39	97
15	323	9.4	11	95	82	112	17	158	51	112	23	97
16	308	9.4	11	95	112	112	44	140	92	82	23	97
17	330	9.4	11	73	140	119	144	105	315	70	44	97
18	330	9.4	12	48	153	144	80	105	435	59	66	97
19	330	9.4	11	59	158	119	73	85	659	55	57	48
20	268	9.4	36	73	153	176	85	135	281	64	59	75
21	149	9.4	73	73	153	140	112	140	274	87	42	102
22	128	8.7	82	73	153	125	87	97	1,090	64	51	102
23	128	10	66	73	112	140	105	75	1,140	53	66	102
24	132	11	53	73	119	122	102	66	520	44	77	102
25	128	9.4	53	87	119	112	87	55	460	32	80	90
26	128	11	53	73	80	119	64	46	323	50	82	82
27	128	11	29	62	80	77	59	46	242	31	82	95
28	128	11	17	53	68	44	53	46	191	31	66	97
29	128	13	14	53	53	44	51	44	176	22	62	95
30	128	12	12	53	------	44	50	42	213	21	57	95
31	128	------	15	51	------	44	------	470	------	24	57	------
TOTAL	6,148	869.9	713	2,553	2,385	3,232	1,956	3,600	8,338	2,771	1,433	2,459
MEAN	198	29.0	23.0	82.4	82.2	104	65.2	116	278	89.4	46.2	82.0
MAX	330	132	82	180	158	191	144	470	1,140	261	82	102
MIN	15	8.7	11	12	36	44	17	42	25	21	14	37

CAL YR 1971 TOTAL 32,662.7 MEAN 89.5 MAX 605 MIN 7.0
WTR YR 1972 TOTAL 36,457.9 MEAN 99.6 MAX 1,140 MIN 8.7

01397000 South Branch Raritan River at Stanton, N. J.

LOCATION.--Lat 40°34'21", long 74°52'10", Hunterdon County, on right bank at downstream side of highway bridge at Stanton railroad station, 0.4 mile upstream from Prescott Brook.

DRAINAGE AREA.--147 sq mi.

PERIOD OF RECORD.--July 1903 to December 1906, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 125.01 ft above mean sea level. Prior to Aug. 17, 1925, non-recording gage on downstream side of highway bridge at same site and datum.

AVERAGE DISCHARGE.--56 years, 232 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 7,260 cfs June 22 (gage height, 10.25 ft); minimum, 100 cfs (regulated) Feb. 5, Aug. 16, 17 (gage height, 2.43 ft); minimum daily, 102 cfs Aug. 16.
Period of record: Maximum discharge, 18,000 cfs Aug. 19, 1955 (gage height, 15.22 ft), from rating curve extended above 6,400 cfs on basis of computation of flow over Clinton Dam, 6.5 miles upstream, at gage height 10.72 ft, contracted-opening measurement 1.7 miles downstream and slope-area measurement 0.4 mile downstream at gage height 15.22 ft, adjusted to present site; minimum, 9 cfs Nov. 7, 1931; minimum daily, 12 cfs Oct. 18, 1963.

REMARKS.- Records excellent. Flow regulated by Spruce Run Reservoir since September 1963 (see p. 75). Occasional regulation at low flow by ponds above station. Slight diurnal fluctuation caused by small power-plants above station. Water diverted by Hamden Pumping Station into Round Valley Reservoir since February 1966 (see p. 76). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 561: Drainage area. WSP 1552: 1904, 1922-24(M), 1928-29(M), 1933-35(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	476	467	179	196	543	245	219	2,230	963	159	164
2	402	979	354	290	164	794	245	271	784	636	146	236
3	428	818	311	402	179	945	248	554	636	555	141	179
4	403	575	296	248	392	655	245	802	520	557	150	112
5	379	434	272	361	221	589	271	534	503	435	123	142
6	375	319	273	351	229	471	243	363	416	422	114	175
7	370	399	478	349	211	365	235	344	409	376	118	163
8	350	351	402	382	215	375	236	457	310	516	194	162
9	359	279	311	368	220	324	236	868	292	369	137	161
10	835	260	288	486	231	275	211	948	307	322	139	158
11	669	248	278	482	226	256	188	606	249	295	116	168
12	407	232	254	453	208	331	186	445	208	270	133	191
13	540	223	244	352	676	429	209	401	212	1,270	132	194
14	536	210	230	356	904	394	254	415	217	1,020	127	199
15	556	206	242	316	440	406	190	608	217	512	107	197
16	512	204	243	289	409	406	226	488	273	385	102	191
17	526	193	221	308	419	854	500	388	874	350	114	189
18	513	184	219	264	429	826	297	373	799	313	159	189
19	506	181	198	233	429	539	253	317	2,010	283	162	396
20	456	182	221	249	363	514	293	541	953	480	148	154
21	297	176	278	248	367	488	504	551	880	389	139	175
22	260	168	274	247	354	517	319	374	3,110	294	127	170
23	260	159	239	253	323	638	416	318	4,050	247	144	164
24	511	157	228	264	286	458	364	298	2,090	222	167	161
25	656	365	237	280	302	407	307	260	1,670	198	177	152
26	404	285	225	248	285	390	270	234	1,330	216	180	137
27	355	249	201	212	267	337	247	222	1,030	179	185	142
28	331	375	175	200	285	278	236	216	841	170	165	156
29	315	513	167	208	373	269	226	205	743	156	158	149
30	304	1,020	195	191	------	260	218	193	854	147	165	159
31	296	------	262	189	------	254	------	1,300	------	148	158	------
TOTAL	13,510	10,420	8,283	9,258	9,603	14,587	8,118	14,113	29,017	12,695	4,486	5,285
MEAN	436	347	267	299	331	471	271	455	967	410	145	176
MAX	835	1,020	478	486	904	945	504	1,300	4,050	1,270	194	396
MIN	260	157	167	179	164	254	186	193	208	147	102	112

CAL YR 1971 TOTAL 127,002 MEAN 348 MAX 3,480 MIN 99
WTR YR 1972 TOTAL 139,375 MEAN 381 MAX 4,050 MIN 102

01398000 Neshanic River at Reaville, N. J.

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, on left bank 50 ft downstream from highway bridge, 0.6 mile southwest of Reaville, 1.5 miles downstream from Third Neshanic River, and 2.2 miles upstream from Back Brook.

DRAINAGE AREA.--25.7 sq mi.

PERIOD OF RECORD.--June 1930 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 26, 1935. Datum of gage is 109.46 ft above mean sea level.

AVERAGE DISCHARGE.--42 years, 34.1 cfs (18.02 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,590 cfs June 22 (gage height, 10.02 ft), from rating curve extended above 1,700 cfs on basis of slope-area measurement 0.7 mile downstream at gage height 11.90 ft, adjusted to present site; minimum, 0.4 cfs Sept. 26 (gage height, 2.14 ft).
Period of record: Maximum discharge, 15,900 cfs Aug. 28, 1971 (gage height, 13.84 ft, from high-water mark in gage house), from rating curve extended above 1,700 cfs on basis of slope-area measurement 0.7 mile downstream at gage height 11.90 ft, adjusted to present site; no flow many days in 1965, 1966, and part of July 17, 1968.

REMARKS.--Records excellent. Regulation from unknown sources during summer season.

REVISIONS (WATER YEARS).--WSP 1552: 1933, 1934(M), 1936(M), 1938, 1940(M), 1942(M), 1945-46, 1951, 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	34	94	17	12	249	21	22	107	44	7.8	1.5
2	11	41	64	16	12	187	20	25	60	34	6.5	2.7
3	11	36	52	24	28	383	18	383	52	71	6.2	3.3
4	9.7	30	45	21	138	136	22	258	48	55	5.6	1.6
5	8.9	26	35	23	37	103	20	111	52	37	4.8	1.5
6	8.2	84	34	26	31	67	17	69	34	33	4.6	1.4
7	7.4	23	75	20	31	59	16	54	27	27	4.6	1.4
8	7.1	23	71	17	24	57	14	60	21	22	4.6	1.3
9	6.5	21	51	19	22	40	13	240	18	19	3.9	1.2
10	234	19	46	30	19	35	12	154	16	16	3.7	1.1
11	111	18	40	33	17	30	12	91	12	14	3.3	1.0
12	57	17	34	28	16	78	11	63	11	12	3.3	1.1
13	40	17	32	25	383	71	23	49	11	925	3.5	1.1
14	34	16	28	23	167	70	22	57	10	129	3.3	1.5
15	28	15	30	25	96	109	19	187	9.7	66	2.7	1.2
16	24	17	30	19	75	82	37	75	13	45	2.5	1.2
17	19	16	25	16	57	243	94	55	65	38	2.5	1.1
18	17	15	24	16	51	140	40	46	65	28	2.9	1.2
19	15	14	20	15	60	78	33	37	119	25	2.7	5.9
20	13	16	23	15	48	60	34	127	61	27	2.4	1.9
21	13	14	23	16	48	51	29	66	93	27	2.2	1.4
22	12	12	18	16	40	73	31	49	1,340	19	2.0	1.3
23	12	10	15	17	30	66	43	38	453	15	1.9	1.2
24	182	11	18	19	34	48	89	32	172	12	1.9	1.1
25	136	317	18	18	32	39	51	27	289	16	3.3	1.2
26	89	109	16	17	66	34	39	22	129	16	2.9	1.0
27	60	100	16	15	60	31	33	19	82	10	4.3	1.1
28	48	103	16	15	93	28	28	17	58	9.2	2.5	1.0
29	38	481	14	15	211	26	25	15	53	8.2	2.2	1.2
30	33	255	17	15	------	25	22	14	75	7.4	1.9	3.1
31	28	------	18	12	------	23	------	185	------	7.4	1.8	------
TOTAL	1,323.8	1,850	1,042	603	1,938	2,721	888	2,647	3,555.7	1,814.2	108.3	47.8
MEAN	42.7	61.7	33.6	19.5	66.8	87.8	29.6	85.4	119	58.5	3.49	1.59
MAX	234	481	94	33	383	383	94	383	1,340	925	7.8	5.9
MIN	6.5	10	14	12	12	23	11	14	9.7	7.4	1.8	1.0
CFSM	1.66	2.40	1.31	.76	2.60	3.42	1.15	3.32	4.63	2.28	.14	.06
IN.	1.92	2.68	1.51	.87	2.81	3.94	1.29	3.83	5.15	2.63	.16	.07

CAL YR 1971 TOTAL 22,176.89 MEAN 60.8 MAX 4,740 MIN .93 CFSM 2.37 IN 32.10
WTR YR 1972 TOTAL 18,538.80 MEAN 50.7 MAX 1,340 MIN 1.0 CFSM 1.97 IN 26.83

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	2100	8.12	2,320	6-22	1915	10.02	4,590
5-03	1600	7.79	2,050	7-13	1100	9.79	4,240

01398500 North Branch Raritan River near Far Hills, N. J.

LOCATION.--Lat 40°42'30", long 74°38'11", Somerset County, on left bank 75 ft upstream from Ravine Lake Dam, 1.6 miles north of Far Hills, and 2.3 miles upstream from Peapack Brook.

DRAINAGE AREA.--26.2 sq mi.

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

GAGE.--Water-stage recorder above masonry dam. Datum of gage is 224.49 ft above mean sea level (New Jersey Geological Survey bench mark). Prior to June 18, 1925, nonrecording gage in stilling box at left end of dam at same datum.

AVERAGE DISCHARGE.--51 years, 46.0 cfs (23.84 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,390 cfs May 31 (gage height, 5.03 ft); minimum, 9.2 cfs Sept. 17, 18 (gage height, 1.90 ft).
Period of record: Maximum discharge, 6,390 cfs Aug. 28, 1971 (gage height, 7.28 ft), from rating curve extended above 2,000 cfs on basis of computation of peak flow over dam; no flow at times when Ravine Lake was filling.
Stage of 7.6 ft, from floodmark, occurred July 23, 1919 (discharge, about 7,000 cfs).

REMARKS.--Records excellent. Records given herein include diversion varying from 2.4 cfs to 3.0 cfs, by small turbine at dam, Oct. 1-17, May 15 to Sept. 30, to fountain and returned to river 1,000 ft downstream from Ravine Lake Dam. Flow regulated occasionally by operation of waste gate in dam. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	147	90	43	33	138	64	55	382	166	40	14
2	51	224	72	93	36	199	66	67	202	112	36	39
3	57	175	66	78	41	264	62	307	178	106	36	28
4	45	111	63	56	103	131	69	231	146	100	37	20
5	44	86	60	74	38	117	68	133	136	86	33	16
6	43	78	66	54	37	96	61	98	116	82	32	15
7	42	94	129	49	40	88	58	90	114	76	32	15
8	39	75	57	47	32	94	53	90	106	88	33	15
9	36	67	69	48	36	76	50	166	98	74	31	15
10	151	65	69	94	36	68	51	134	90	64	28	12
11	97	62	67	75	35	64	50	107	80	60	27	11
12	54	57	60	66	33	91	47	95	76	54	26	11
13	44	54	58	57	299	93	84	89	74	374	26	13
14	46	52	55	63	145	77	73	85	72	124	23	14
15	42	52	60	49	78	75	58	192	70	96	23	12
16	40	47	60	39	67	94	68	116	122	74	21	10
17	39	47	54	37	56	208	115	90	176	75	20	9.2
18	38	47	51	36	53	135	63	76	208	54	23	10
19	36	47	48	35	63	98	56	76	406	64	21	228
20	31	47	50	35	52	88	123	186	168	62	19	34
21	32	47	52	36	46	84	96	118	204	72	18	26
22	31	43	45	37	49	116	78	92	510	58	17	20
23	32	41	42	39	43	115	97	82	478	52	17	16
24	94	43	46	43	47	84	79	78	294	48	18	13
25	98	90	47	43	45	76	69	74	324	48	18	14
26	52	72	45	39	49	73	63	70	238	48	19	14
27	47	64	44	34	46	73	62	68	174	44	33	17
28	47	111	43	33	47	69	60	64	150	42	27	18
29	47	138	41	32	72	69	66	60	140	40	18	19
30	41	208	63	31	------	69	66	56	170	38	15	41
31	43	------	64	30	------	67	------	490	------	40	15	------
TOTAL	1,595	2,491	1,836	1,525	1,757	3,189	2,075	3,735	5,702	2,531	782	739.2
MEAN	51.5	83.0	59.2	49.2	60.6	103	69.2	120	190	81.6	25.2	24.6
MAX	151	224	129	94	299	264	123	490	510	374	40	228
MIN	31	41	41	30	32	64	47	55	70	38	15	9.2
CFSM	1.95	3.14	2.24	1.86	2.30	3.90	2.62	4.55	7.20	3.09	.95	.93
IN.	2.25	3.51	2.59	2.15	2.48	4.49	2.92	5.26	8.03	3.57	1.10	1.04

CAL YR 1971 TOTAL 24,078.0 MEAN 66.0 MAX 1,240 MIN 7.5 CFSM 2.50 IN 33.93
WTR YR 1972 TOTAL 27,957.2 MEAN 76.4 MAX 510 MIN 9.2 CFSM 2.89 IN 39.39

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-13	1700	3.86	1,040	6-22	2045	3.96	1,140
5-03	1700	3.93	1,110	7-13	1145	4.02	1,200
5-31	2230	5.03	2,390	9-19	0215	3.98	1,110

01399500 Lamington (Black) River near Pottersville, N. J.

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, on right bank 1.1 miles upstream from bridge on State Highway 512, 1.2 miles northwest of Pottersville, and 5.5 miles upstream from Cold Brook.

DRAINAGE AREA.--32.8 sq mi.

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.

GAGE.--Water-stage recorder. Concrete control since July 1, 1937. Datum of gage is 284.14 ft above mean sea level (New Jersey Geological Survey bench mark). Prior to July 1, 1922, nonrecording gage on downstream side of highway bridge at Pottersville, 1.1 miles downstream at different datum.

AVERAGE DISCHARGE.--51 years, 53.7 cfs (22.23 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,830 cfs May 31 (gage height, 4.76 ft), from rating curve extended above 380 cfs on basis of slope-area measurement at gage height, 4.71 ft; minimum, 8.4 cfs Aug. 23 (gage height, 1.45 ft).
Period of record: Maximum discharge, 2,700 cfs Aug. 28, 1971 (gage height, 5.39 ft), from rating curve extended above 380 cfs on basis of slope-area measurement at gage height 4.71 ft; minimum, 1.3 cfs Oct. 4, 1930.

REMARKS.--Records excellent. Flow regulated occasionally by pond above station.

REVISIONS (WATER YEARS).--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).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	113	129	58	46	138	65	50	296	165	36	17
2	70	173	119	90	37	179	66	53	246	140	34	23
3	66	158	107	87	42	195	63	118	232	133	34	27
4	59	138	89	75	68	153	66	137	181	121	33	31
5	55	127	80	89	48	113	66	129	143	107	31	29
6	53	112	80	79	48	94	62	118	118	99	30	25
7	51	118	109	74	48	83	61	99	102	90	31	21
8	48	102	97	61	61	93	58	88	91	102	32	20
9	47	90	93	67	55	81	54	122	82	93	30	22
10	137	85	92	87	49	73	52	117	75	84	30	24
11	115	81	88	84	46	66	50	105	67	76	33	25
12	92	76	81	87	49	70	48	98	62	70	35	27
13	94	73	75	84	73	100	62	88	60	192	33	29
14	89	69	71	83	108	110	66	82	58	149	30	31
15	80	67	72	73	89	91	64	125	56	134	27	25
16	71	65	71	62	138	80	74	94	91	133	25	23
17	63	62	67	57	120	148	92	90	154	113	24	21
18	57	61	65	50	95	136	73	84	166	97	23	19
19	53	60	62	48	88	129	69	76	245	90	22	470
20	51	59	62	47	62	114	93	109	202	75	21	310
21	49	58	58	48	58	103	94	97	238	68	19	170
22	48	55	55	50	60	115	89	94	379	60	19	50
23	47	54	57	54	54	115	100	91	445	56	18	44
24	77	52	56	57	61	103	90	80	373	53	18	38
25	83	76	55	60	51	96	81	71	382	51	17	32
26	66	69	54	54	53	88	73	63	317	47	17	28
27	68	79	54	50	54	81	66	57	267	44	20	24
28	71	102	53	46	53	75	59	52	227	41	19	22
29	68	134	52	45	69	71	55	48	194	39	18	21
30	64	163	64	42	------	69	51	45	180	37	17	23
31	59	------	66	44	------	67	------	306	------	37	16	------
TOTAL	2,114	2,731	2,333	1,992	1,883	3,229	2,062	2,986	5,729	2,796	792	1,671
MEAN	68.2	91.0	75.3	64.3	64.9	104	68.7	96.3	191	90.2	25.5	55.7
MAX	137	173	129	90	138	195	100	306	445	192	36	470
MIN	47	52	52	42	37	66	48	45	56	37	16	17
CFSM	2.08	2.77	2.30	1.96	1.98	3.17	2.09	2.94	5.82	2.75	.78	1.70
IN.	2.40	3.10	2.65	2.26	2.14	3.66	2.34	3.39	6.50	3.17	.90	1.90

CAL YR 1971 TOTAL 27,041 MEAN 74.1 MAX 523 MIN 13 CFSM 2.26 IN 30.67
WTR YR 1972 TOTAL 30,318 MEAN 82.8 MAX 470 MIN 16 CFSM 2.52 IN 34.39

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-16	Unknown	3.72	796	6-22	1915	3.77	836
5-31	1930	4.76	1,830	7-13	1230	3.41	586
6-18	1800	3.05	385	9-19	Unknown	3.90	940

01400000 North Branch Raritan River near Raritan, N. J.

LOCATION.--Lat 40°34'10", long 74°40'45", Somerset County, on right bank 400 ft upstream from U.S. Highway 202, 1.4 miles upstream from confluence with South Branch, and 2 miles west of Raritan.

DRAINAGE AREA.--190 sq mi.

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."

GAGE.--Water-stage recorder. Concrete control since Sept. 1, 1936. Datum of gage is 50.43 ft above mean sea level. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft downstream at same datum.

AVERAGE DISCHARGE.--49 years, 289 cfs (20.65 inches per year).

EXTREMES.--Current year: Maximum discharge, 8,810 cfs June 22 (gage height, 10.22 ft); minimum, 60 cfs Sept. 17, 18 (gage height, 2.64 ft).
Period of record: Maximum discharge, 24,900 cfs Aug. 28, 1971 (gage height, 15.47 ft, from high-water mark in gage house), from rating curve extended above 15,000 cfs; minimum observed, about 3 cfs Nov. 28, 1930 (gage height, 1.72 ft), result of freezeup; minimum daily, 7.5 cfs Sept. 26, 27, 1964.

REMARKS.--Records excellent. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1552: 1924-26, 1928-35.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	666	645	250	180	1,160	285	255	3,460	1,220	195	73
2	274	1,430	484	697	195	1,130	279	309	956	603	175	180
3	269	1,170	418	603	206	1,850	273	1,580	898	571	170	170
4	228	718	380	395	718	898	285	1,720	783	603	180	108
5	213	531	341	655	255	729	297	806	666	455	150	88
6	201	455	335	403	250	550	261	603	512	433	142	85
7	195	512	750	335	250	465	255	512	455	380	142	79
8	182	433	613	303	190	484	244	613	388	561	150	76
9	176	367	433	291	206	395	228	1,360	348	410	138	79
10	1,150	354	403	634	222	348	217	1,070	328	348	134	70
11	864	335	388	541	200	328	217	666	291	322	126	65
12	403	309	348	455	180	465	206	531	279	297	130	65
13	322	297	328	403	1,690	603	348	455	273	2,860	134	76
14	303	273	303	433	1,210	455	367	425	267	1,060	126	82
15	291	267	328	341	592	676	279	1,270	261	603	114	76
16	250	267	328	244	493	634	335	634	354	503	110	68
17	233	250	291	280	388	1,330	864	484	1,030	474	108	65
18	211	239	285	290	348	990	367	425	1,110	380	114	62
19	200	233	261	280	455	603	315	380	1,920	403	118	582
20	185	239	273	250	440	493	493	1,050	1,000	328	102	180
21	180	228	291	255	315	448	531	729	880	348	92	118
22	180	217	250	250	322	550	395	493	2,990	297	88	118
23	175	200	228	261	255	634	561	418	5,800	267	88	114
24	613	195	239	279	279	448	484	367	4,000	244	85	106
25	750	1,070	250	279	273	395	388	335	3,400	233	85	102
26	374	493	233	233	388	367	341	303	2,000	244	82	92
27	309	403	233	217	367	348	309	285	1,050	211	106	82
28	285	829	228	206	465	328	291	267	841	200	95	79
29	261	898	217	211	1,010	309	279	250	739	185	88	76
30	261	1,970	303	211	------	303	267	239	818	180	79	118
31	233	------	374	190	------	297	------	1,210	------	180	76	------
TOTAL	10,021	15,848	10,781	10,675	12,342	19,013	10,261	20,044	38,097	15,403	3,722	3,334
MEAN	323	528	348	344	426	613	342	647	1,270	497	120	111
MAX	1,150	1,970	750	697	1,690	1,850	864	1,720	5,800	2,860	195	582
MIN	175	195	217	190	180	297	206	239	261	180	76	62
CFSM	1.70	2.78	1.83	1.81	2.24	3.23	1.80	3.41	6.68	2.62	.63	.58
IN.	1.96	3.10	2.11	2.09	2.42	3.72	2.01	3.92	7.46	3.02	.73	.65

CAL YR 1971 TOTAL 154,903 MEAN 424 MAX 10,900 MIN 42 CFSM 2.23 IN 30.33
WTR YR 1972 TOTAL 169,541 MEAN 463 MAX 5,800 MIN 62 CFSM 2.44 IN 33.19

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-01	0430	9.82	7,920	7-13	1930	8.88	6,230
6-22	2330	10.22	8,810				

01400500 Raritan River at Manville, N. J.

LOCATION.--Lat 40°33'18", long 74°35'02", Somerset County, on left bank at downstream side of highway bridge at Manville, 1.4 miles upstream from Millstone River.

DRAINAGE AREA.--490 sq mi.

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.

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above mean sea level. Prior to Aug. 15, 1923, non-recording gage on downstream side of highway bridge at same site and datum. Since Oct. 1, 1952, water-stage recorder at station at Bound Brook, above Calco Dam, used as auxiliary gage when stage is above 5.0 ft.

AVERAGE DISCHARGE.--54 years (1903-6, 1921-72), 728 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 17,800 cfs June 23 (gage height, 17.89 ft); minimum, 172 cfs Sept. 29.
Period of record: Maximum discharge, 36,100 cfs Sept. 22, 1938 (gage height, 20.42 ft, from high-water mark in recorder shelter), from rating curve extended above 14,000 cfs on basis of slope-area measurement at gage heights 14.9 and 20.42 ft; maximum gage height, 23.8 ft Aug. 28, 1971, from floodmark (backwater from Millstone River); minimum daily discharge, 17 cfs, Sept. 19, 1964 (does not include water diverted to Johns-Manville plant).

REMARKS.--Records excellent except those below 275 cfs, which are good. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run Reservoir (see p. 75). Diversion to Round Valley Reservoir (see p. 76). Water diverted 1,500 ft upstream from station and returned to river 0.6 mile downstream from station by Johns-Manville Corporation (see p. 76). Records of water quality for the current year for Raritan River near Manville, (station 01400510) are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	732	980	1,960	590	402	2,360	639	583	7,110	2,110	372	244
2	788	2,610	1,250	1,090	432	2,470	618	692	2,030	1,370	354	366
3	828	2,290	1,040	1,560	485	4,090	604	1,780	1,750	1,220	325	485
4	724	1,680	940	1,010	1,710	2,500	618	4,210	1,340	1,440	336	257
5	684	1,310	844	1,440	653	1,760	668	1,900	1,620	1,040	303	198
6	653	1,070	788	1,240	604	1,410	597	1,340	1,120	1,000	271	244
7	632	1,150	1,410	988	625	1,120	569	1,130	1,070	884	266	257
8	611	1,120	1,400	948	520	1,120	548	1,330	860	1,080	303	253
9	590	900	1,050	884	618	972	527	2,460	764	916	314	253
10	1,960	844	956	1,600	632	836	492	3,120	716	756	281	244
11	2,830	788	908	1,390	576	764	464	1,830	653	684	266	235
12	1,280	724	812	1,270	534	948	450	1,390	562	625	262	257
13	1,180	684	764	1,090	2,160	1,450	583	1,180	534	4,640	281	281
14	1,100	639	700	1,160	4,010	1,210	796	1,070	541	4,760	266	275
15	1,070	611	732	940	1,530	1,570	569	2,640	534	1,480	248	286
16	980	618	748	632	1,280	1,530	618	1,600	590	1,150	226	275
17	924	576	660	700	1,080	2,500	1,620	1,240	1,840	1,040	218	271
18	876	541	639	716	996	2,740	964	1,100	1,430	868	257	262
19	844	527	583	700	1,230	1,590	764	956	4,820	820	303	892
20	812	541	590	676	1,190	1,280	836	1,860	2,170	692	257	471
21	646	520	676	646	940	1,240	1,220	1,840	1,830	1,000	230	281
22	555	492	632	625	972	1,200	868	1,240	5,370	692	222	275
23	541	450	562	646	740	1,610	1,160	1,010	14,800	590	226	266
24	1,330	438	562	684	748	1,180	1,230	876	7,020	534	248	262
25	2,640	2,370	597	660	780	1,020	1,000	780	5,180	485	262	253
26	1,440	1,530	562	611	1,010	940	860	684	3,690	534	266	230
27	1,130	1,130	541	520	1,040	876	756	632	2,330	450	297	214
28	980	1,820	485	492	1,130	756	684	590	1,820	408	275	226
29	876	1,820	464	506	1,840	708	639	555	1,580	378	230	210
30	828	6,160	548	499	------	684	604	520	1,750	354	244	275
31	756	------	884	464	------	668	------	1,080	------	348	248	------
TOTAL	31,820	36,933	25,287	26,977	30,467	45,102	22,565	43,218	77,424	34,348	8,457	8,798
MEAN	1,026	1,231	816	870	1,051	1,455	752	1,394	2,581	1,108	273	293
MAX	2,830	6,160	1,960	1,600	4,010	4,090	1,620	4,210	14,800	4,760	372	892
MIN	541	438	464	464	402	668	450	520	534	348	218	198

CAL YR 1971 TOTAL 395,240 MEAN 1,083 MAX 18,600 MIN 186
WTR YR 1972 TOTAL 391,396 MEAN 1,069 MAX 14,800 MIN 198

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE
6-23	0530	17.89	17,800
7-13	2330	14.10	11,200

01400730 Millstone River at Plainsboro, N. J.

LOCATION.--Lat 40°19'27", long 74°36'51", Middlesex County, on left bank 30 ft upstream from Penn Central Railroad bridge, 100 ft downstream from Cranbury Brook, 0.2 mile upstream from Big Bear Brook, and 0.9 mile southwest of Plainsboro.

DRAINAGE AREA.--65.8 sq mi.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 53.41 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 86.2 cfs (17.79 inches per year).

EXTREMES.--Current year: Maximum discharge, 760 cfs June 23 (gage height, 4.15 ft); minimum, 8.4 cfs Jan. 16 (gage height, 0.91 ft), result of freezeup.
Period of record: Maximum discharge, 3,780 cfs Aug. 28, 1971 (gage height, 8.73 ft); minimum daily, 1.9 cfs Aug. 10-13, 1966.

REMARKS.--Records fair. Occasional diversion for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	88	585	74	48	159	96	72	74	164	72	27
2	74	82	253	80	47	135	72	72	67	147	72	28
3	66	83	178	93	53	191	71	87	69	114	71	32
4	45	98	147	106	149	388	71	153	64	98	69	33
5	42	122	112	137	151	275	77	218	59	96	69	31
6	48	131	93	203	151	195	80	168	48	87	67	27
7	55	123	112	174	127	141	83	112	47	79	67	22
8	64	79	151	119	95	106	103	101	53	74	69	22
9	79	85	203	95	75	111	82	157	56	67	66	22
10	82	93	185	137	61	109	55	328	53	55	63	24
11	151	88	135	210	56	99	53	280	47	47	58	20
12	246	82	123	185	53	93	67	176	42	43	53	15
13	185	70	103	133	107	107	64	122	40	117	51	15
14	151	68	79	115	319	149	93	101	40	602	53	15
15	104	65	77	106	275	174	111	237	40	391	53	16
16	107	67	87	53	187	231	114	328	42	237	51	16
17	123	67	88	64	133	201	139	233	67	170	50	16
18	123	65	87	58	107	349	191	180	99	157	48	16
19	93	60	82	56	157	288	161	120	161	178	50	16
20	77	68	80	59	462	187	120	176	191	201	51	18
21	61	64	83	67	328	133	101	497	187	137	42	18
22	50	60	90	71	212	119	85	316	199	107	39	19
23	51	56	90	74	139	155	87	197	613	98	34	18
24	58	53	82	75	112	180	120	139	564	90	32	18
25	206	101	79	74	106	141	161	114	340	83	31	17
26	355	543	77	66	127	112	135	101	355	75	34	18
27	275	457	77	56	242	91	93	83	319	74	33	19
28	189	340	75	55	231	77	82	61	251	75	34	19
29	143	367	72	50	182	75	79	61	199	80	33	18
30	120	895	69	48	------	72	74	66	176	80	34	20
31	98	------	71	50	------	85	------	71	------	77	31	------
TOTAL	3,584	4,620	3,825	2,943	4,492	4,928	2,920	5,127	4,562	4,100	1,580	615
MEAN	116	154	123	94.9	155	159	97.3	165	152	132	51.0	20.5
MAX	355	895	585	210	462	388	191	497	613	602	72	33
MIN	42	53	69	48	47	72	53	61	40	43	31	15

CAL YR 1971 TOTAL 42,158.0 MEAN 116 MAX 3,060 MIN 5.9
WTR YR 1972 TOTAL 43,296.0 MEAN 118 MAX 895 MIN 15

01400953 Honey Branch near Pennington, N. J.

LOCATION.--Lat 40°21'27", long 74°45'58", Mercer County, on right bank 50 ft upstream from Wargo Road Bridge, 2.2 miles upstream from mouth, and 2.5 miles northeast of Pennington.

DRAINAGE AREA.--0.70 sq mi.

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 92.57 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 1.11 cfs (21.53 inches per year).

EXTREMES.--Current year: Maximum discharge, 96 cfs Feb. 3 (gage height, 2.65 ft), from rating curve extended above 80 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; no flow many days during the summer months.
Period of record: Maximum discharge, 535 cfs Aug. 28, 1971 (gage height, 4.79 ft), from rating curve extended above 80 cfs on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days during most years.

REMARKS.--Records good except those for the period Oct. 1 to June 5, which are poor.

REVISIONS (WATER YEARS).--WRD N.J. 1971: 1967(M), 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.29	3.9	.78	.20	5.5	.25	.05	.08	.79	.07	0
2	.21	.31	2.8	4.7	.24	4.2	.23	.05	.17	.49	.07	.01
3	.26	.95	1.6	3.9	1.2	15	.20	1.1	.09	.38	.07	0
4	.17	.60	1.1	3.9	8.9	5.5	.26	2.8	.14	.31	.08	0
5	.17	.15	.70	8.9	1.9	4.5	.31	.95	.18	.30	.07	0
6	.19	.12	.50	2.5	1.3	2.8	.25	.60	.16	.31	.05	0
7	.16	4.4	.40	1.9	1.5	2.6	.23	.40	.14	.25	.04	0
8	.14	.78	.82	1.8	1.2	3.0	.24	1.8	.06	.23	.03	0
9	.12	.45	.70	3.5	.84	1.9	.20	6.1	.06	.20	.01	0
10	2.6	.32	.55	7.7	.75	1.6	.19	2.7	.10	.17	0	0
11	5.3	.27	.47	3.9	.72	1.4	.19	1.0	.07	.14	0	0
12	1.3	.24	.40	2.9	.63	2.4	.13	.60	.06	.12	0	0
13	.90	.21	.35	3.0	8.0	3.5	.25	.36	.07	7.0	0	0
14	.45	.17	.30	3.1	8.1	4.2	.31	.36	.07	1.0	0	0
15	.27	.16	.35	2.1	4.4	7.1	.19	.37	.07	.42	0	0
16	.23	.20	.42	1.2	3.9	3.5	.38	1.1	.23	.29	0	0
17	.20	.18	.35	.89	2.8	8.0	2.4	.78	.45	.25	0	0
18	.17	.16	.27	.60	2.9	5.9	.69	.60	1.3	.20	0	0
19	.15	.15	.25	.63	8.9	3.1	.47	.42	1.0	.16	0	.01
20	.13	.22	.30	.47	4.7	2.4	.60	3.2	.42	.14	0	0
21	.11	.25	.40	.45	2.6	2.0	.49	1.2	.36	.16	0	0
22	.10	.19	.25	.47	2.6	3.8	.29	.78	19	.14	0	0
23	.09	.16	.19	.81	1.9	4.9	.95	.45	7.5	.09	0	0
24	.10	.25	.21	.69	1.9	1.1	2.6	.13	2.3	.08	0	0
25	3.7	3.3	.25	.47	2.3	.60	1.0	.04	8.0	.08	0	0
26	2.0	5.9	.20	.36	8.9	.47	.60	.03	2.0	.19	.01	0
27	1.2	7.0	.17	.29	5.3	.38	.40	.02	1.0	.13	0	0
28	1.7	2.0	.23	.26	9.5	.26	.20	.01	.61	.09	0	0
29	1.0	7.0	.26	.25	8.1	.19	.12	.01	1.9	.08	0	.01
30	.66	14	.89	.24	------	.25	.05	.02	3.2	.08	0	.06
31	.38	------	1.8	.23	------	.27	------	.04	------	.08	0	------
TOTAL	24.30	50.38	21.38	62.89	106.18	102.32	14.67	28.07	50.79	14.35	.50	.09
MEAN	.78	1.68	.69	2.03	3.66	3.30	.49	.91	1.69	.46	.016	.003
MAX	5.3	14	3.9	8.9	9.5	15	2.6	6.1	19	7.0	.08	.06
MIN	.09	.12	.17	.23	.20	.19	.05	.01	.06	.08	0	0
CFSM	1.11	2.40	.99	2.90	5.23	4.71	.70	1.30	2.41	.66	.02	.004
IN.	1.29	2.68	1.14	3.34	5.64	5.44	.78	1.49	2.70	.76	.03	.004

CAL YR 1971 TOTAL 744.55 MEAN 2.04 MAX 126 MIN 0 CFSM 2.91 IN 39.57
WTR YR 1972 TOTAL 475.92 MEAN 1.30 MAX 19 MIN 0 CFSM 1.86 IN 25.29

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-03	2300	2.65	96	2-28	1400	2.53	64
2-13	1300	2.60	86	3-03	0800	2.60	86
2-19	1400	2.52	62	6-22	1715	2.58	80

01401000 Stony Brook at Princeton, N. J.

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, on right bank 12 ft downstream from bridge on U.S. Highway 206, 1.6 miles southwest of Princeton, and 4.0 miles upstream from Lake Carnegie.

DRAINAGE AREA.--44.5 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 62.23 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--19 years, 57.9 cfs (17.67 inches per year).

EXTREMES.--Current year: Maximum discharge, 2,750 cfs June 22 (gage height, 8.25 ft); minimum, 0.6 cfs Sept. 17, 18 (gage height, 1.24 ft).
Period of record: Maximum discharge, 8,960 cfs Aug. 28, 1971 (gage height, 14.26 ft), from rating curve extended above 4,000 cfs on basis of velocity-area study; no flow many days in August and September 1966.

REMARKS.--Records excellent. Since July 1959 some regulation by several small reservoirs (combined capacity, 49,800,000 gal). Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	39	171	35	21	291	36	38	26	83	6.8	1.6
2	22	39	110	132	21	225	34	38	21	51	6.0	3.8
3	22	54	86	168	52	571	31	233	20	39	5.7	2.6
4	19	65	74	90	470	254	36	336	17	35	5.3	2.7
5	15	40	60	225	98	159	46	133	15	30	4.3	2.5
6	15	32	55	138	64	111	36	80	13	30	3.8	2.0
7	13	55	132	77	58	87	32	63	12	24	3.5	1.6
8	12	58	168	62	40	91	31	171	10	21	3.1	1.5
9	11	39	93	69	36	72	27	483	9.2	19	2.8	1.4
10	270	34	74	325	32	56	25	313	8.9	17	2.1	1.1
11	252	32	67	157	27	49	25	152	7.7	14	1.9	.86
12	77	28	55	113	25	65	22	98	7.0	12	1.8	.88
13	49	27	51	90	406	106	36	72	6.7	525	1.7	1.1
14	43	25	43	110	347	128	64	77	6.6	171	1.7	1.1
15	55	24	46	74	155	227	44	556	6.6	61	1.7	.91
16	37	27	49	45	125	132	65	156	37	39	1.7	.81
17	30	27	42	42	92	289	295	201	46	31	1.6	.73
18	26	24	38	40	77	257	101	163	99	26	1.7	.69
19	23	23	31	39	229	116	67	90	100	20	1.6	3.0
20	21	29	35	39	202	83	65	339	49	15	1.4	3.6
21	19	29	40	39	105	70	69	192	36	14	1.3	1.6
22	19	25	33	39	92	125	59	107	997	12	1.2	1.8
23	17	19	26	41	67	207	98	74	566	11	1.2	1.5
24	329	19	27	41	62	113	261	56	220	9.9	1.1	1.2
25	356	726	31	38	57	71	125	45	439	11	4.2	1.2
26	138	275	27	28	205	60	79	40	194	11	7.0	1.2
27	93	193	27	23	174	52	61	31	102	9.8	8.5	1.1
28	67	320	25	25	204	46	49	27	65	8.3	8.7	1.2
29	54	510	24	26	322	42	43	24	71	7.1	4.8	1.2
30	46	658	31	26	------	40	39	22	180	6.8	3.0	3.0
31	41	------	67	21	------	39	------	24	------	6.7	2.0	------
TOTAL	2,210	3,495	1,838	2,417	3,865	4,234	2,001	4,434	3,387.7	1,370.6	103.2	49.48
MEAN	71.3	117	59.3	78.0	133	137	66.7	143	113	44.2	3.33	1.65
MAX	356	726	171	325	470	571	295	556	997	525	8.7	3.8
MIN	11	19	24	21	21	39	22	22	6.6	6.7	1.1	.69
CFSM	1.60	2.63	1.33	1.75	2.99	3.08	1.50	3.21	2.54	.99	.07	.04
IN.	1.85	2.92	1.54	2.02	3.23	3.54	1.67	3.71	2.83	1.15	.09	.04

CAL YR 1971 TOTAL 35,092.00 MEAN 96.1 MAX 3,410 MIN .60 CFSM 2.16 IN 29.34
WTR YR 1972 TOTAL 29,404.98 MEAN 80.3 MAX 997 MIN .69 CFSM 1.80 IN 24.58

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0115	8.17	2,700	6-22	2145	8.25	2,750

01402000 Millstone River at Blackwells Mills, N. J.

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, on left bank 30 ft downstream from highway bridge at Blackwells Mills and 0.3 mile downstream from Six Mile Run.

DRAINAGE AREA.--258 sq mi.

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" 1903-4.

GAGE.--Water-stage recorder. Concrete control since Nov. 18, 1933. Datum of gage is 26.97 ft above mean sea level. June 27, 1903, to Dec. 31, 1904, nonrecording gage at bridge 2.0 miles downstream at Millstone at different datum. Aug. 4, 1921, to Aug. 16, 1928, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--51 years (1921-72), 361 cfs (19.00 inches per year).

EXTREMES.--Current year: Maximum discharge, 4,790 cfs June 23 (gage height, 10.40 ft); minimum, 23 cfs Aug. 31, Sept. 1 (gage height, 1.29 ft).
Period of record: Maximum discharge, 22,200 cfs Aug. 28, 1971 (gage height, 18.68 ft, from high-water mark), from rating curve extended above 9,000 cfs; minimum, about 5 cfs Sept. 16, 1923.

REMARKS.--Records excellent. Inflow to and losses from Delaware and Raritan Canal above station. Flow slightly regulated by Lake Carnegie (capacity, 310,000,000 gal) and by several smaller reservoirs (capacity, 49,800,000 gal). Records of water quality for the current year for Millstone River near Manville, station 01402900, are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1552: 1924-25(M), 1926.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	265	2,340	251	161	1,350	290	251	331	518	95	26
2	179	270	980	416	165	1,060	251	260	215	389	86	34
3	200	290	583	690	215	1,730	237	452	237	342	84	40
4	182	265	494	405	1,720	2,250	255	1,440	207	347	79	42
5	179	260	400	683	1,220	1,340	295	812	246	270	72	38
6	172	280	422	690	703	796	265	557	179	260	74	40
7	175	316	577	452	464	597	237	400	161	224	77	35
8	168	311	829	337	310	506	246	550	154	200	74	35
9	164	265	610	290	270	458	237	1,160	147	200	70	37
10	178	280	557	1,080	245	394	207	2,050	134	179	66	35
11	1,380	242	446	766	219	358	200	1,290	124	158	59	37
12	663	219	384	637	203	452	189	703	111	158	57	37
13	388	203	347	506	834	663	233	476	105	1,110	57	37
14	332	189	295	488	2,050	742	352	394	105	1,860	57	37
15	350	189	290	410	1,310	1,310	331	1,880	111	970	51	40
16	280	193	305	310	796	910	342	1,490	168	488	46	46
17	219	186	290	251	563	1,280	1,010	965	321	337	48	50
18	250	179	265	237	470	1,760	663	930	650	305	50	44
19	219	175	242	237	905	1,130	488	524	920	290	51	48
20	203	196	246	237	1,480	677	400	1,200	524	275	51	48
21	175	175	260	242	1,080	512	400	1,600	410	237	53	53
22	165	158	242	246	754	570	337	1,120	1,400	186	46	59
23	158	147	224	251	488	851	452	617	4,420	161	44	53
24	577	144	224	251	434	610	873	446	3,260	140	46	50
25	1,600	1,540	210	246	400	482	723	358	2,160	130	44	50
26	1,030	2,320	210	203	760	400	518	300	1,880	151	95	50
27	742	1,750	200	182	995	352	384	260	985	124	86	50
28	518	1,600	196	182	990	316	331	224	643	114	53	55
29	366	1,360	193	182	1,290	295	290	200	500	103	57	50
30	332	3,390	219	182	------	280	265	193	623	100	50	61
31	265	------	305	168	------	265	------	207	------	95	27	------
TOTAL	11,930	17,357	13,385	11,708	21,495	24,696	11,301	23,309	21,431	10,421	1,905	1,317
MEAN	385	579	432	378	741	797	377	752	714	336	61.5	43.9
MAX	1,600	3,390	2,340	1,080	2,050	2,250	1,010	2,050	4,420	1,860	95	61
MIN	121	144	193	168	161	265	189	193	105	95	27	26
CFSM	1.49	2.24	1.67	1.47	2.87	3.09	1.46	2.91	2.77	1.30	.24	.17
IN.	1.72	2.50	1.93	1.69	3.10	3.56	1.63	3.36	3.09	1.50	.27	.19

CAL YR 1971 TOTAL 186,265 MEAN 510 MAX 17,400 MIN 28 CFSM 1.98 IN 26.86
WTR YR 1972 TOTAL 170,255 MEAN 465 MAX 4,420 MIN 26 CFSM 1.80 IN 24.55

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	1415	8.80	3,580	6-23	1400	10.40	4,790

01402590 Royce Brook tributary at Frankfort, N. J.

LOCATION.--Lat 40°30'21", long 74°40'24", Somerset County, on left bank 20 ft upstream from bridge on Beckman Lane, 0.6 mile east of Frankfort, and 1.6 miles upstream from mouth.

DRAINAGE AREA.--0.29 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and steel control. Datum of gage is 100.05 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 52 cfs June 22 (gage height, 2.08 ft); no flow many days during August and September.
Period of record: Maximum discharge, 164 cfs Aug. 28, 1971 (gage height, 3.25 ft), from rating curve extended above 30 cfs; no flow at times during summer and autumn months during most years.

REMARKS.--Records good.

COOPERATION.--Gage-height record furnished by the Department of Agricultural Engineering, Rutgers, the State University.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.32	.57	.16	.04	.95	.10	.08	.04	.14	.01	
2	.42	.71	.30	.35	.15	.76	.14	.12	.10	.07	.01	
3	.26	.63	.21	1.8	.60	3.1	.12	1.7	.08	.73	0	
4	.13	.44	.17	.80	3.2	.90	.25	1.4	.17	.40	0	
5	.10	.26	.13	.64	.80	.70	.17	.50	.14	.19	0	
6	.09	.21	.09	1.5	.35	.44	.10	.25	.07	.14	0	
7	.07	.74	.11	.40	.20	.37	.08	.17	.08	.08	0	
8	.06	.34	.67	.25	.18	.44	.07	.33	.04	.06	0	
9	.06	.24	.53	.85	.15	.25	.06	3.2	.03	.05	0	
10	4.4	.22	.47	1.3	.11	.22	.05	1.2	.03	.04	0	
11	1.5	.19	.37	.76	.09	.19	.04	.50	.02	.03	0	
12	.40	.16	.29	.53	.25	1.2	.03	.22	.02	.03	0	
13	.26	.15	.22	.57	4.6	.90	.07	.14	.02	4.6	0	
14	.22	.13	.22	.76	2.5	1.3	.09	1.2	.02	.57	0	
15	.18	.16	.40	.44	1.4	1.5	.13	3.1	.01	.17	0	
16	.15	.15	.37	.33	.80	.73	.10	.67	.25	.07	0	
17	.13	.13	.22	.33	.57	2.0	.08	.40	.57	.06	0	
18	.12	.12	.17	.25	.53	1.0	.07	.25	1.4	.04	0	
19	.10	.13	.17	.17	1.9	.47	.05	.17	1.2	.04	0	
20	.08	.19	.33	.14	1.2	.33	.50	3.0	.50	.03	0	
21	.08	.15	.19	.17	1.2	.25	.33	.73	.95	.03	0	
22	.08	.11	.14	.25	.57	.73	.60	.33	9.8	.03	0	
23	.08	.09	.12	.37	.40	.64	.70	.17	4.9	.02	0	
24	2.9	.13	.19	.29	.33	.37	1.3	.10	.90	.02	0	
25	1.4	4.1	.14	.14	.37	.25	.50	.06	3.0	.03	0	
26	.93	.70	.14	.12	1.5	.17	.29	.05	.80	.02	0	
27	.46	1.1	.12	.11	1.1	.14	.17	.04	.29	.02	0	
28	.33	1.2	.11	.09	1.6	.10	.12	.04	.14	.01	0	
29	.25	6.5	.07	.08	1.4	.10	.10	.03	.19	.01	0	
30	.21	1.7	.15	.07	------	.10	.07	.03	.37	.01	0	
31	.19	------	.42	.06	------	.10	------	.04	------	.02	0	------
TOTAL	15.70	21.40	7.80	14.08	28.09	20.70	6.48	20.22	26.13	7.76	.02	0
MEAN	.51	.71	.25	.45	.97	.67	.22	.65	.87	.25	.0006	0
MAX	4.4	6.5	.67	1.8	4.6	3.1	1.3	3.2	9.8	4.6	.01	0
MIN	.06	.09	.07	.06	.04	.10	.03	.03	.01	.01	0	0
CFSM	1.76	2.45	.86	1.55	3.34	2.31	.76	2.24	3.00	.86	.002	0
IN.	2.01	2.75	1.00	1.81	3.60	2.66	.83	2.59	3.35	1.00	.002	0

CAL YR 1971 TOTAL 229.11 MEAN .63 MAX 24 MIN 0 CFSM 2.17 IN 29.39
WTR YR 1972 TOTAL 168.38 MEAN .46 MAX 9.8 MIN 0 CFSM 1.59 IN 21.60

PEAK DISCHARGE (BASE, 45 CFS)

DATE	TIME	G.H.	DISCHARGE
6-22	1610	2.08	52

01402600 Royce Brook tributary near Belle Meade, N. J.

LOCATION.--Lat 40°29'56", long 74°39'05", Somerset County, on right bank 25 ft upstream from bridge on State Highway 514, 1,200 ft upstream from mouth, and 2.0 miles north of Belle Mead.

DRAINAGE AREA.--1.20 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 67.66 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 2.32 cfs (26.72 inches per year).

EXTREMES.--Current year: Maximum discharge, 188 cfs June 22 (gage height, 4.11 ft); no flow many days during summer months.
Period of record: Maximum discharge, 1,450 cfs Aug. 28, 1971 (gage height, 7.01 ft from high-water mark), from rating curve extended above 140 cfs on basis of slope-area measurement of peak flow; no flow on some days in most years.

REMARKS.--Records good.

COOPERATION.--Gage-height record furnished by the Department of Agricultural Engineering, Rutgers, the State University.

REVISIONS (WATER YEARS).--WRD N.J. 1969: 1967, 1968.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	.96	2.3	.72	.10	4.4	.30	.39	.22	.96	.07	0
2	9.0	2.5	1.4	9.0	.15	3.3	.30	.49	1.2	.30	.07	0
3	7.4	3.1	1.1	3.1	9.8	25	.22	9.8	.72	6.2	.07	0
4	4.3	1.6	.96	2.9	12	4.0	.60	7.6	1.4	2.1	.04	0
5	3.0	.72	.72	7.1	1.4	3.1	.49	2.5	1.1	1.1	0	0
6	1.0	.49	1.1	2.5	.84	1.6	.30	1.6	.49	.84	0	0
7	.20	3.1	5.0	1.4	.72	1.4	.22	1.1	.49	.60	0	0
8	.15	1.1	3.1	1.1	.72	1.6	.15	1.2	.22	.49	0	0
9	.15	.60	1.9	3.3	.49	.96	.15	18	.10	.30	0	0
10	1.9	.49	1.6	6.9	.39	.72	.10	6.0	.10	.22	0	0
11	3.2	.30	1.2	3.3	.30	.72	.10	2.1	.07	.15	0	0
12	1.5	1.8	1.1	2.1	.22	6.2	.10	1.2	.07	.10	0	0
13	1.0	3.5	.96	2.1	25	4.2	.96	.84	.07	34	0	0
14	.84	.07	.84	2.7	8.5	9.0	.72	5.5	.07	3.1	0	0
15	.49	.10	1.2	2.1	4.2	8.7	.60	16	.04	1.2	0	0
16	.39	.10	1.2	.72	3.1	3.1	3.8	2.7	1.8	.84	0	0
17	.30	0	.84	.39	1.9	14	5.0	1.4	2.9	.60	0	0
18	.39	.07	.72	.30	1.8	5.7	1.4	1.1	11	.39	0	0
19	.30	.22	.49	.39	12	2.1	.96	.84	8.7	.39	0	0
20	.30	.39	.84	.39	6.2	1.6	1.4	16	2.7	.30	0	0
21	.30	.30	.84	.39	1.8	1.6	1.1	3.3	5.7	.30	0	0
22	.22	.22	.49	.49	1.4	3.1	1.6	1.6	53	.15	0	0
23	.30	.15	.30	.60	.84	2.5	2.5	.96	25	.10	0	0
24	12	.30	.49	.84	.84	1.6	6.0	.72	4.4	.07	0	0
25	6.4	22	.49	.72	1.2	1.6	1.9	.39	18	.15	0	0
26	4.0	3.1	.39	.39	7.4	1.4	1.2	.30	4.0	.22	0	0
27	1.9	5.3	.39	.22	4.6	1.4	.84	.22	1.8	.22	0	0
28	1.1	4.8	.39	.30	10	1.4	.60	.15	1.6	.15	0	0
29	.72	31	.30	.22	7.9	.84	.49	.10	1.4	.10	0	0
30	.49	9.3	1.6	.22	------	.39	.39	.10	1.6	.07	0	.01
31	.39	------	1.2	.22	------	.39	------	.60	------	.07	0	------
TOTAL	68.43	97.68	35.45	57.12	125.81	117.62	34.49	104.80	149.96	55.78	.25	.01
MEAN	2.21	3.26	1.14	1.84	4.34	3.79	1.15	3.38	5.00	1.80	.008	.0003
MAX	12	31	5.0	9.0	25	25	6.0	18	53	34	.07	.01
MIN	.15	0	.30	.22	.10	.39	.10	.10	.04	.07	0	0
CFSM	1.84	2.72	.95	1.53	3.62	3.16	.96	2.82	4.17	1.50	.007	.0003
IN.	2.12	3.03	1.10	1.77	3.90	3.65	1.07	3.25	4.65	1.73	.007	0

CAL YR 1971 TOTAL 1,357.80 MEAN 3.72 MAX 160 MIN 0 CFSM 3.10 IN 42.09
WTR YR 1972 TOTAL 847.40 MEAN 2.32 MAX 53 MIN 0 CFSM 1.93 IN 26.27

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-29	1850	3.77	145	7-13	1050	3.44	106
6-22	1555	4.11	188				

01403060 Raritan River below Calco Dam, at Bound Brook, N. J.

LOCATION.--Lat 40°33'05", long 74°32'54", Somerset County, on right bank 1,000 ft downstream from Calco Dam and Cuckold Brook, 1.2 miles downstream from Millstone River, and 1.2 miles southwest of Bound Brook.

DRAINAGE AREA.--785 sq mi (includes 11 sq mi which drain 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, sta 01403000.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Sept. 12, 1903 to Mar. 31, 1909, nonrecording gages at highway bridge, 1.2 miles downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,120 ft upstream at datum 18.06 ft higher.

AVERAGE DISCHARGE.--33 years (1903-8, 1944-72), 1,194 cfs (adjusted for diversion by Elizabethtown Water Co. since 1944 and to Round Valley Reservoir since 1966).

EXTREMES.--Current year: Maximum discharge, 26,900 cfs June 23 (elevation, 30.11 ft); minimum, 134 cfs Sept. 6, 30 (elevation, 16.48 ft).
Period of record: Maximum discharge, 46,100 cfs Aug. 28, 1971 (elevation, 37.47 ft, from floodmark); minimum daily, 37 cfs Sept. 6, 1964.

REMARKS.--Records excellent. Water diverted 1.0 mile above station by Elizabethtown Water Co. for municipal supply (see p. 76). Flow regulated by Spruce Run Reservoir (see p. 75). Diversion to Round Valley Reservoir (see p. 76). Slight diurnal fluctuation at low flow.

REVISIONS (WATER YEARS).--WSP 1552: 1903-7, 1946(M), 1949, 1952(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	724	1,090	5,760	808	490	4,440	941	787	9,140	3,120	365	161
2	815	3,170	2,940	1,490	550	4,320	885	899	2,700	1,910	330	246
3	899	2,850	1,820	2,570	622	7,080	843	2,390	2,270	1,710	296	418
4	745	2,060	1,530	1,470	3,790	5,790	864	6,860	1,700	2,070	305	201
5	703	1,590	1,310	2,330	1,870	3,650	962	3,180	2,180	1,360	268	148
6	661	1,300	1,200	2,150	1,370	2,560	857	2,070	1,370	1,280	236	168
7	647	1,440	2,000	1,520	1,130	1,910	794	1,590	1,280	1,090	232	177
8	610	1,440	1,950	1,310	766	1,800	780	1,960	983	1,250	253	172
9	586	1,090	1,650	1,160	745	1,540	752	4,310	857	1,090	260	174
10	3,100	1,020	1,380	2,920	731	1,270	675	6,010	787	878	222	172
11	4,930	941	1,250	2,420	675	1,140	628	3,480	710	773	210	161
12	2,030	857	1,120	2,080	604	1,470	592	2,260	580	689	207	181
13	1,560	815	1,030	1,720	3,540	2,480	787	1,730	544	6,150	222	195
14	1,370	752	930	1,800	7,540	2,150	1,180	1,530	538	8,620	204	195
15	1,370	703	960	1,430	3,330	3,290	892	5,360	538	2,750	188	198
16	1,180	703	990	934	2,360	2,870	955	3,390	654	1,750	164	193
17	1,040	668	920	892	1,850	4,600	2,910	2,300	2,460	1,400	164	190
18	998	628	850	913	1,610	5,510	1,770	2,160	2,090	1,130	190	184
19	941	604	760	906	2,380	3,180	1,280	1,540	7,200	1,090	232	745
20	871	634	794	878	2,880	2,250	1,240	3,440	3,390	906	193	406
21	710	604	878	878	2,020	1,970	1,780	3,930	2,610	1,210	172	222
22	592	550	815	857	1,870	1,910	1,240	2,570	7,880	829	159	213
23	580	478	724	885	1,300	2,810	1,750	1,730	23,600	668	151	204
24	1,870	466	724	920	1,230	1,990	2,270	1,330	13,000	580	164	201
25	4,690	4,090	759	885	1,230	1,640	1,880	1,090	8,900	526	177	186
26	2,560	4,280	703	773	1,890	1,440	1,450	927	6,760	598	216	168
27	1,900	3,140	668	647	2,200	1,280	1,170	829	3,950	484	280	163
28	1,510	3,820	610	622	2,240	1,100	1,010	752	2,850	424	219	168
29	1,210	3,200	580	592	3,510	1,010	920	668	2,310	375	177	166
30	1,080	11,300	668	616	------	969	843	622	2,670	350	177	216
31	948	------	1,170	550	------	941	------	1,130	------	350	166	------
TOTAL	43,430	56,283	39,443	39,926	56,323	80,360	34,900	72,824	116,501	47,410	6,799	6,592
MEAN	1,401	1,876	1,272	1,288	1,942	2,592	1,163	2,349	3,883	1,529	219	220
MAX	4,930	11,300	5,760	2,920	7,540	7,080	2,910	6,860	23,600	8,620	365	745
MIN	580	466	580	550	490	941	592	622	538	350	151	148

CAL YR 1971 TOTAL 606,921 MEAN 1,663 MAX 34,100 MIN 113
WTR YR 1972 TOTAL 600,791 MEAN 1,642 MAX 23,600 MIN 148

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0845	25.83	14,200	6-23	0915	30.11	26,900
6-01	1245	25.08	12,000	7-14	0130	26.32	15,700

01403500 Green Brook at Plainfield, N. J.

LOCATION.--Lat 40°36'53", long 74°25'55", Union County, on left bank 20 ft downstream from Sycamore Avenue Bridge in Plainfield and 1.0 mile upstream from Stony Brook.

DRAINAGE AREA.--9.75 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 70.37 ft above mean sea level.

AVERAGE DISCHARGE.--34 years, 12.0 cfs.

EXTREMES.--Current year: Maximum discharge, 734 cfs June 22 (gage height, 3.43 ft); minimum, 0.7 cfs Aug. 20 but may have been lower during period Aug. 25 to Sept. 30 (gage height, 0.68 ft).
Period of record: Maximum discharge, 2,890 cfs July 23, 1938 (gage height, 5.82 ft), from rating curve extended above 750 cfs on basis of contracted-opening measurement of peak flow (an unknown additional amount probably bypassed gage). No flow for part or all of day at times in most years.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Water diverted from Baltusrol well field by Commonwealth Water Co., and from wells in vicinity of Mountainside and Scotch Plains by Plainfield-Union Water Co., for municipal supply and from private and industrial wells in Plainfield and vicinity. Diurnal fluctuation at low flow caused by pumping from wells near brook in Plainfield. During extreme high stages there probably is some overflow above gage from Green Brook basin to adjacent Stony Brook and Cedar Brook basins.

REVISIONS (WATER YEARS).--WSP 921: 1938-40. WRD N.J. 1969: 1966-68, 1968(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	24	23	5.2	5.1	61	6.6	9.2	31	53	3.5	1.8
2	8.0	34	13	60	4.7	61	7.3	11	25	17	4.2	1.7
3	3.7	24	10	23	48	149	6.2	63	15	25	4.6	4.0
4	3.2	15	9.8	25	60	46	12	43	40	12	1.4	2.0
5	3.0	10	9.2	44	16	33	7.2	20	25	11	.99	1.4
6	2.8	9.0	30	15	21	20	6.1	14	15	9.6	.84	1.4
7	2.6	20	56	8.8	11	18	5.8	18	10	7.5	1.5	1.4
8	2.6	10	27	8.0	8.0	18	5.2	29	7.4	6.6	2.0	1.4
9	3.0	8.5	14	22	11	12	4.5	97	6.6	5.7	1.8	1.5
10	97	8.0	11	40	8.5	10	4.6	51	6.8	5.2	1.8	1.4
11	36	7.2	9.6	15	8.5	9.0	4.6	25	4.6	4.8	1.7	1.3
12	10	6.4	8.2	15	8.5	20	4.4	19	4.5	4.4	1.6	1.3
13	7.6	6.0	7.6	18	9.0	15	28	15	4.3	123	1.5	1.5
14	8.0	5.1	7.2	15	78	16	11	25	4.3	23	1.5	1.8
15	6.4	5.7	8.8	10	20	22	9.7	109	4.2	9.5	1.5	2.7
16	5.1	6.0	8.0	8.0	16	18	23	27	33	9.6	1.4	1.6
17	4.7	5.0	7.0	6.0	12	99	23	19	27	14	1.5	1.4
18	4.2	5.3	5.6	5.7	12	65	12	16	36	5.8	1.6	1.4
19	4.2	4.5	5.2	5.6	27	27	9.7	14	131	5.4	1.3	1.6
20	3.7	4.1	6.9	5.2	23	19	28	144	33	29	.97	7.8
21	3.5	3.9	5.0	5.0	16	17	16	46	44	9.5	1.1	1.8
22	3.5	3.7	4.5	4.6	12	31	24	24	254	5.3	.97	1.4
23	3.5	5.0	4.8	6.0	10	23	27	18	124	4.3	.93	1.4
24	68	22	5.4	8.6	13	16	28	15	50	3.8	21	1.2
25	34	180	4.8	7.0	12	13	16	13	90	6.2	20	1.1
26	15	25	4.3	5.8	25	11	12	10	40	3.5	7.0	1.2
27	10	52	4.2	5.7	17	10	11	8.9	25	2.9	4.5	1.3
28	8.0	48	4.2	5.9	22	9.4	9.3	7.7	19	2.8	3.0	1.3
29	7.2	265	10	5.7	45	8.4	8.4	6.6	21	2.5	2.5	1.2
30	6.0	160	42	5.4	------	8.6	7.6	11	53	2.4	2.2	1.6
31	5.7	------	8.0	4.5	------	7.2	------	59	------	3.0	2.0	------
TOTAL	383.7	982.4	374.3	418.7	579.3	892.6	378.2	987.4	1,183.7	427.3	102.40	53.9
MEAN	12.4	32.7	12.1	13.5	20.0	28.8	12.6	31.9	39.5	13.8	3.30	1.80
MAX	97	265	56	60	78	149	28	144	254	123	21	7.8
MIN	2.6	3.7	4.2	4.5	4.7	7.2	4.4	6.6	4.2	2.4	.84	1.1

CAL YR 1971 TOTAL 6,438.39 MEAN 17.6 MAX 539 MIN .34
WTR YR 1972 TOTAL 6,763.90 MEAN 18.5 MAX 265 MIN .84

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-31	1545	2.84	468	7-13	1145	2.76	434
6-22	1930	3.43	734				

NOTE.--No gage-height record Nov. 13 to Jan. 25 and Aug. 25 to Sept. 30.

01405000 Lawrence Brook at Farrington Dam, N. J.

LOCATION.--Lat 40°27'00", long 74°27'05", Middlesex County, on left bank 300 ft upstream from Farrington Dam, 0.7 mile southwest of Milltown, and 5.4 miles upstream from mouth.

DRAINAGE AREA.--34.4 sq mi.

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

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 25.73 ft above mean sea level.

AVERAGE DISCHARGE.--45 years, 37.5 cfs (14.80 inches per year), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,580 cfs June 24 (gage height, 25.84 ft), from rating curve extended above 1,100 cfs on basis of weir formula; minimum daily, 0.11 cfs Aug. 23-25.
Period of record: Maximum discharge, 2,920 cfs Aug. 28, 1971 (gage height, 26.34 ft), from rating curve extended above 1,100 cfs on basis of weir formula; no flow at times when gates in dam were closed and there was no flow over spillway.

REMARKS.--Records good. Records given herein include flow over dam and through blowoff gate. Blowoff gate was open Oct. 1 to Jan. 24, Aug. 28 to Sept. 30. Flow regulated by Farrington Reservoir (capacity, 655,250,000 gal).

COOPERATION.--Water-stage recorder inspected and records of openings of blowoff gates furnished by employees of city of New Brunswick.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1432: 1959(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	20	111	30	21	105	32	26	40	70	15	13
2	12	19	67	43	21	77	32	28	36	58	15	12
3	12	22	51	59	52	252	32	77	48	40	15	12
4	12	33	43	51	252	174	36	167	32	35	14	12
5	12	30	39	67	84	98	40	84	28	49	13	12
6	12	26	36	63	44	64	36	48	26	39	13	12
7	12	30	63	43	40	48	28	40	26	32	12	12
8	12	31	85	33	32	48	32	71	24	30	12	12
9	12	28	59	36	26	44	28	222	20	27	12	12
10	23	24	47	137	26	40	28	222	18	25	12	12
11	89	22	43	76	26	36	28	98	15	24	13	12
12	47	20	36	52	24	52	26	57	13	24	14	12
13	31	19	33	44	132	84	36	44	12	90	15	12
14	28	18	30	40	188	84	48	40	13	190	16	12
15	26	18	31	38	91	139	44	262	14	100	16	12
16	23	17	30	30	57	91	48	111	15	40	15	12
17	21	17	29	23	48	139	139	64	19	32	14	12
18	20	16	29	21	40	203	71	52	50	26	13	12
19	17	16	26	21	139	98	48	44	105	24	12	12
20	16	16	28	21	167	57	44	174	60	22	12	12
21	15	17	31	22	77	48	48	160	46	20	12	12
22	14	16	29	22	52	52	44	77	60	19	12	12
23	13	16	26	24	48	84	57	52	200	18	11	12
24	23	15	24	22	44	52	125	44	280	16	11	12
25	71	274	24	26	40	44	91	36	220	15	11	12
26	47	172	23	24	98	40	52	32	150	17	13	12
27	31	80	22	21	105	36	44	32	100	19	15	12
28	28	132	21	24	98	36	36	28	65	21	16	12
29	24	176	21	24	118	32	32	26	50	19	15	12
30	22	436	22	24	------	32	28	24	45	17	13	12
31	20	------	33	21	------	32	------	28	------	16	13	------
TOTAL	757	1,776	1,192	1,182	2,190	2,421	1,413	2,470	1,830	1,174	415	361
MEAN	24.4	59.2	38.5	38.1	75.5	78.1	47.1	79.7	61.0	37.9	13.4	12.0
MAX	89	436	111	137	252	252	139	262	280	190	16	13
MIN	12	15	21	21	21	32	26	24	12	15	11	12
(†)	+1.0	+1.4	-.9	-.1	+.7	-.6	-.1	+.2	+.3	-.6	-4.5	-10.6
MEAN‡	25.4	6.06	37.6	38.0	76.2	77.5	47.0	79.9	61.3	37.3	8.9	1.4
CFSM‡	.74	1.76	1.09	1.10	2.22	2.25	1.37	2.32	1.78	1.08	.26	.04
IN.‡	.85	1.96	1.26	1.28	2.39	2.60	1.53	2.68	1.99	1.25	.30	.05

CAL YR 1971 TOTAL 16,392.20 MEAN 44.9 MAX 1,720 MIN .20 MEAN‡ 44.8 CFSM‡ 1.30 IN.‡ 17.66
WTR YR 1972 TOTAL 17,181.00 MEAN 46.9 MAX 436 MIN 11 MEAN‡ 45.9 CFSM‡ 1.33 IN.‡ 18.14

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	1400	25.24	466	About 6-24	Unknown	25.84	1,580
11-30	0200	25.44	775				

† Change in contents, in cubic feet per second, in Farrington Reservoir.
‡ Adjusted for change in contents.

01405400 Manalapan Brook at Spotswood, N. J.

LOCATION.--Lat 40°23'22", long 74°23'27", Middlesex County, on right bank of Devoe Lake Dam in Spotswood, 0.1 mile upstream from Cedar Brook, and 0.6 mile upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 sq mi.

PERIOD OF RECORD.--January 1957 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is at mean sea level (levels by Duhernal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

AVERAGE DISCHARGE.--15 years, 62.3 cfs (20.69 inches per year).

EXTREMES.--Current year: Maximum discharge, 542 cfs Dec. 1 (elevation, 18.81 ft, waste gates open); minimum daily, 19 cfs Sept. 18.
Period of record: Maximum discharge, 1,650 cfs May 30, 1968 (elevation, 19.90 ft, waste gates open); no flow for part or all of day in some years when waste gates were closed and water was below spillway.

REMARKS.--Records good except those for the periods when waste gates were open, which are fair. Records given herein include flow over dam, and through waste gates. Waste gates open Nov. 29 to Dec. 5, Feb. 4-7, June 22-29. Some regulation by Lake Manalapan, Helmetta Pond, and Devoe Lake. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1722: 1957-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	47	466	66	44	122	60	55	47	121	34	23
2	36	47	213	66	56	103	59	57	49	92	34	25
3	36	56	80	79	71	148	58	69	49	69	31	27
4	36	72	63	86	170	215	63	151	47	90	29	25
5	33	74	75	116	230	192	69	192	47	62	29	23
6	45	58	71	142	348	122	65	110	44	64	29	23
7	42	55	90	102	146	96	61	75	41	59	27	21
8	37	63	130	73	72	84	58	86	49	53	27	23
9	32	62	135	69	62	83	58	137	44	54	25	23
10	85	53	104	118	47	75	57	223	36	58	25	23
11	147	48	84	133	62	67	55	214	31	49	23	23
12	137	47	75	79	43	75	55	116	31	45	23	23
13	89	44	69	40	72	99	59	82	31	153	23	25
14	50	42	66	75	185	103	74	70	31	249	23	27
15	47	41	64	41	213	148	79	148	34	165	23	23
16	103	41	65	40	115	157	77	220	34	71	23	25
17	70	41	64	45	92	133	125	136	39	68	21	21
18	46	41	60	47	81	186	138	93	106	58	23	19
19	39	40	59	51	133	176	93	77	139	50	25	23
20	36	39	61	57	270	111	76	144	94	46	23	23
21	34	40	69	66	307	84	74	280	73	45	21	23
22	34	37	67	75	121	86	71	252	173	41	21	25
23	36	36	60	70	82	116	78	110	278	39	21	23
24	58	35	57	61	81	111	106	76	289	37	21	21
25	139	156	58	60	76	84	108	64	134	35	23	23
26	197	319	58	58	110	73	87	55	121	40	29	21
27	137	352	56	51	165	67	69	52	81	49	34	21
28	85	198	55	30	152	63	61	49	45	41	27	23
29	65	216	54	29	132	61	59	44	32	36	27	23
30	55	339	57	43	------	59	56	44	106	34	27	29
31	52	------	68	49	------	59	------	44	------	34	25	------
TOTAL	2,055	2,739	2,753	2,117	3,738	3,358	2,208	3,525	2,355	2,107	796	700
MEAN	66.3	91.3	88.8	68.3	129	108	73.6	114	78.5	68.0	25.7	23.3
MAX	197	352	466	142	348	215	138	280	289	249	34	29
MIN	32	35	54	29	43	59	55	44	31	34	21	19
CFSM	1.63	2.24	2.18	1.68	3.17	2.65	1.81	2.80	1.93	1.67	.63	.57
IN.	1.88	2.50	2.52	1.93	3.42	3.07	2.02	3.22	2.15	1.93	.73	.64

CAL YR 1971 TOTAL 26,182 MEAN 71.7 MAX 1,030 MIN 11 CFSM 1.76 IN 23.93
WTR YR 1972 TOTAL 28,451 MEAN 77.7 MAX 466 MIN 19 CFSM 1.91 IN 26.00

01405500 South River at Old Bridge, N. J.

LOCATION.--Lat 40°24'22", long 74°22'08", Middlesex County, on right abutment of Duhernal Dam, 0.6 mile south of Old Bridge, 2.3 miles upstream from Deep Run, and 9.1 miles upstream from mouth.

DRAINAGE AREA.--94.6 sq mi.

PERIOD OF RECORD.--August 1939 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is at mean sea level.

AVERAGE DISCHARGE.--33 years, 133 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs Nov. 30 (elevation, 10.90 ft); minimum, 21 cfs Sept. 18 (elevation, 9.59 ft); minimum daily, 23 cfs Sept. 18.
Period of record: Maximum discharge, 4,250 cfs Sept. 15, 1944 (elevation, 11.71 ft, waste gates open); maximum gage height, 11.73 ft Aug. 28, 1971; no flow Sept. 15, 1967 when waste gates were closed and water was below spillway.

REMARKS.--Records excellent. The flow past this station is affected by pumpage from well fields for industrial use by Duhernal Water System and Peter J. Schweitzer Co. Some regulation by Duhernal Lake (capacity, 138,000,000 gal), Lake Manalapan, Devoe Lake, and several small ponds in headwater tributaries.

COOPERATION.--Water-stage recorder inspected by Duhernal Water System.

REVISIONS (WATER YEARS).--WSP 1902: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	110	910	114	78	283	122	103	100	345	61	33
2	81	106	383	110	87	210	122	106	110	230	61	31
3	84	126	180	156	122	370	118	132	114	150	59	38
4	81	189	150	144	618	652	126	473	100	230	54	38
5	76	164	132	255	777	442	150	426	94	150	52	31
6	87	126	126	308	308	283	126	220	84	156	50	26
7	97	122	180	199	150	189	118	150	81	132	46	25
8	78	164	308	156	138	180	118	199	97	118	42	26
9	68	138	243	150	122	189	118	395	78	358	41	26
10	180	122	172	345	103	156	114	703	66	370	38	26
11	504	114	144	345	114	144	106	488	59	138	34	26
12	333	106	132	295	94	156	106	243	50	106	33	25
13	164	103	122	164	172	255	114	172	50	442	31	28
14	122	100	114	172	584	230	180	144	54	815	33	31
15	118	97	114	122	442	426	156	442	59	383	31	30
16	156	94	114	100	255	370	156	567	56	164	30	28
17	138	94	114	87	189	333	345	283	87	172	29	25
18	103	94	106	94	172	488	308	199	270	132	30	23
19	87	90	103	100	395	383	180	164	383	110	34	25
20	78	90	110	118	952	230	156	411	210	94	33	30
21	73	87	126	126	601	180	164	815	156	87	30	28
22	73	84	118	144	283	172	150	519	504	84	28	29
23	76	78	103	144	189	295	180	255	1,210	76	26	29
24	126	73	97	126	172	230	255	172	853	68	26	29
25	457	488	100	110	172	172	243	144	473	61	28	28
26	504	1,240	100	103	308	150	180	126	504	81	41	28
27	295	618	100	94	457	138	144	114	333	94	73	25
28	180	473	94	73	345	132	126	106	210	73	61	28
29	150	488	90	66	320	126	118	97	156	64	52	30
30	132	1,190	94	78	------	126	110	90	283	59	44	39
31	122	------	126	90	------	122	------	87	------	56	39	------
TOTAL	4,907	7,168	5,105	4,688	8,719	7,812	4,709	8,545	6,884	5,598	1,270	864
MEAN	158	239	165	151	301	252	157	276	229	181	41.0	28.8
MAX	504	1,240	910	345	952	652	345	815	1,210	815	73	39
MIN	68	73	90	66	78	122	106	87	50	56	26	23

CAL YR 1971 TOTAL 60,071.7 MEAN 165 MAX 3,740 MIN 9.9
WTR YR 1972 TOTAL 66,269.0 MEAN 181 MAX 1,240 MIN 23

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-26	0400	10.85	1,480	5-10	1400	10.53	777
11-30	1500	10.90	1,600	5-21	1200	10.60	910
2-05	0700	10.67	1,060	6-23	1200	10.80	1,350
2-20	1600	10.73	1,190	7-14	0600	10.57	853

01406680 Raritan River at Old Raritan Arsenal, Metuchen, N. J.

LOCATION.--Lat 40°29'46", long 74°19'35", Middlesex County, on pier at the old Raritan Arsenal, 1.6 miles upstream from Garden State Parkway Bridge, and 3.6 miles upstream from mouth of Raritan River.

DRAINAGE AREA.--1,100 sq mi.

PERIOD OF RECORD.--January 1966 to current year. Prior to October 1970 published as Raritan River at Perth Amboy (see station 01406700).

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.81	5.44	4.31	5.05	7.50	6.06	5.83	5.33	-	a4.65	4.49	5.21
high tide	Date	3	4	20	1	19	14	16	14	-	9	7	20
Minimum	Elevation	-2.45	-3.18	-3.90	-5.00	-4.97	-3.33	-2.83	-3.04	-	a-2.64	-3.06	-2.76
low tide	Date	3	30	1	25	4	6	14	12	-	10	10	25
Mean high tide		3.91	3.62	3.20	3.02	3.04	3.35	3.46	3.67	-	a3.87	3.50	3.66
Mean water level		1.37	1.08	.58	.40	.63	.82	.94	1.20	-	a1.06	.92	1.14
Mean low tide		-1.31	-1.62	-2.12	-2.29	1.92	-1.81	-1.73	-1.41	-	a-1.66	-1.79	-1.51

Maximum elevation known, about 9.5 ft above mean sea level Nov. 7, 1953, estimated on basis of records at Sandy Hook since 1932 by USC & GS. Minimum elevation known, about 6.0 ft below mean sea level Jan. 31, 1966, estimated on basis of records at Sandy Hook since 1932 by USC & GS.

a Figures compiled for only part of the month.

NOTE.--No gage-height record June 1-27 and July 10-18.

Reservoirs in Raritan River basin

01396790 SPRUCE RUN RESERVOIR.--Lat 40°38'30", long 74°55'19", Hunterdon County, at dam on Spruce Run, 0.5 mile north of Clinton, and 0.6 mile upstream from mouth. Drainage area, 41.3 sq mi. Period of record, November 1963 to current year. Nonrecording gage read daily. Datum of gage is at mean sea level. Extremes for current year: Maximum contents observed, 11,200,000,000 gal June 23 (elevation, 273.64 ft); minimum observed, 7,800,000,000 gal Oct. 31 (elevation, 264.65 ft). Extremes for period of record: Maximum contents observed, 11,400,000,000 gal Aug. 3, 1966 (elevation, 273.92 ft).

Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway 273.00 ft. Usable capacity, 11,000,000,000 gal. Dead storage 300,000 gal. Outflow mostly regulated by gates. Water is released to maintain minimum flow on the South Branch Raritan River. Records given herein represent usable capacity. Elevation record and capacity table furnished by New Jersey Department of Environmental Protection. Reservoir is used for recreation.

01397050 ROUND VALLEY RESERVOIR.--Lat 40°36'39", long 74°50'42", Hunterdon County, at main dam on Prescott Brook, 1.8 miles south of Lebanon, 3.2 miles upstream from mouth, and 4.5 miles west of Whitehouse. Drainage area, 5.7 sq mi. Period of record, March 1966 to current year. Nonrecording gage read daily. Datum of gage is at mean sea level. Extremes for current year: Maximum contents observed, 53,700,000,000 gal July 21 (elevation, 383.43 ft); minimum observed, 51,300,000,000 gal Oct. 2 (elevation, 380.21 ft).

Reservoir is formed by earthfill dam at main dam on Prescott Brook, and two dams on South Branch Rockaway River at Lebanon. Dam completed in March 1966. Capacity at spillway level (elevation, 385.00 ft); 55,000,000,000 gal. Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see p. 76). Outflow is controlled by operation of gate in pipe in dam. Elevation record furnished by New Jersey Department of Environmental Protection.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
	01396790 Spruce Run Reservoir†			01397050 Round Valley Reservoir†		
Sept.30	270.55	9,900	-	380.24	51,300	-
Oct. 31	264.56	7,800	-105	380.40	51,500	+10.1
Nov. 30	269.82	9,600	+92.8	380.44	51,500	0
Dec. 31	272.40	10,700	+54.9	380.41	51,500	0
CAL YR 1971	-	-	+2.9	-	-	+11.9
Jan. 31	272.05	10,500	-10.1	380.49	51,600	+5.0
Feb. 29	272.33	10,600	+5.3	380.53	51,600	0
Mar. 31	272.74	10,800	+10.1	380.98	51,900	+15.0
Apr. 30	273.02	11,000	+10.4	381.15	52,000	+5.1
May 31	273.54	11,200	+10.1	382.13	52,600	+30.0
June 30	273.27	11,100	-5.1	383.06	53,500	+46.4
July 31	273.01	11,000	-5.0	383.28	53,600	+5.0
Aug. 31	271.52	10,300	-35.0	382.38	52,900	-35.0
Sept.30	268.04	9,000	-67.0	381,44	52,100	-41.3
WTR YR 1972	-	-	-3.9	-	-	-3.4

† Elevation at 0800 hours on first day of following month.

Diversions in Raritan River basin

01396920 Water is diverted 4.0 miles upstream from the gaging station on South Branch Raritan River at Stanton (see sta 01397000), at the Hamden Pumping Station, for storage in Round Valley Reservoir. Records furnished by New Jersey Department of Environmental Protection.

01400490 Johns-Manville Products Corporation diverts water 1,500 ft upstream from the gaging station on Raritan River at Manville (see sta 01400500) for cooling purposes and returns the water to the river 0.6 mile below the station. Records furnished by the Johns-Manville Products Corporation.

01400509 Elizabethtown Water Company diverts water from the Raritan and Millstone Rivers just upstream from the mouth of the Millstone River. Records given herein represent the total diversion from both rivers. Records furnished by the Elizabethtown Water Company.

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Hamden Pumping Station	Johns-Manville Products Corporation	Elizabethtown Water Company
October	0	6.7	94.6
November	0	6.2	98.5
December	0	6.2	102
CAL YR 1971	8.3	6.2	101
January	0	6.7	96.8
February	0	6.8	98.0
March	0	9.0	100
April	0	10.5	98.6
May	0	8.8	101
June	0	9.1	98.2
July	0	7.8	96.7
August	0	8.8	121
September	0	9.2	114
WTR YR 1972	0	8.0	102

01407500 Swimming River near Red Bank, N. J.

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, on left bank 50 ft upstream from dam at Swimming River Reservoir, 3.3 miles southwest of Red Bank, and 4.8 miles upstream from mouth.

DRAINAGE AREA.--48.5 sq mi.

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

GAGE.--Water-stage recorder above dam. Datum of gage is 30.00 ft above mean sea level. Prior to Jan. 19, 1962, at site 800 ft upstream at datum 17.67 ft lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft upstream at datum 13.87 ft lower.

AVERAGE DISCHARGE.--50 years, 77.4 cfs (21.67 inches per year), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 1,570 cfs Nov. 30 (gage height, 6.15 ft); minimum daily, 2.0 cfs Aug. 24 and Sept. 18.
Period of record: Maximum discharge, 8,910 cfs Oct. 27, 1943 (gage height, 8.96 ft, site and datum then in use), from rating curve extended above 600 cfs on basis of weir formula; no flow on some days in many years.
A flood in July 1919 reached a stage of 7.84 ft (site and datum then in use), from floodmark (discharge, about 11,800 cfs).

REMARKS.--Records good. Records given herein represent flow over spillway and through blowoff gates (which varies from 0 to 17 cfs during the year). Diversion above station for municipal supply. Flow occasionally regulated by Swimming River Reservoir.

COOPERATION.--Water-stage recorder inspected and record of diversion furnished by Monmouth Consolidate Water Co.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 891: 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	62	165	62	50	112	93	69	91	179	39	12
2	86	62	104	80	62	103	96	73	77	109	30	12
3	90	86	92	86	143	262	89	121	93	91	26	15
4	71	86	92	104	460	236	94	214	73	97	30	14
5	65	56	80	176	98	162	95	108	87	88	24	11
6	68	56	86	110	80	109	82	84	77	94	21	10
7	63	74	132	80	80	98	81	73	81	77	18	9.1
8	50	68	176	68	62	106	85	117	69	108	18	8.1
9	49	56	104	80	62	98	79	332	47	236	16	7.4
10	270	50	92	165	62	92	74	310	43	93	13	6.3
11	219	45	86	104	62	89	75	140	38	74	11	4.8
12	88	45	80	86	56	111	74	99	36	65	9.8	4.2
13	70	45	80	80	187	122	94	88	37	305	9.3	4.6
14	70	45	74	80	187	163	109	93	44	199	8.8	5.3
15	77	45	80	74	98	326	91	356	47	89	7.8	4.8
16	69	45	74	56	86	167	98	160	35	68	7.1	4.0
17	59	45	68	50	80	248	232	121	241	66	6.5	3.1
18	52	45	74	56	80	287	112	118	257	59	7.3	2.0
19	48	45	68	62	558	151	87	107	257	49	7.2	2.9
20	48	45	80	68	347	115	89	652	118	43	5.8	2.7
21	50	41	86	68	118	107	94	329	99	50	4.5	3.1
22	50	32	68	68	112	144	87	163	389	50	3.6	4.2
23	50	32	62	68	95	178	107	119	510	39	2.8	4.1
24	241	36	68	62	108	124	138	100	218	29	2.0	4.0
25	422	690	56	56	101	105	109	88	198	32	2.3	4.2
26	165	250	62	41	234	99	86	82	186	61	6.8	4.5
27	98	132	62	50	183	93	78	80	166	44	34	4.6
28	80	265	62	62	135	92	74	74	112	35	34	7.6
29	74	310	62	62	126	91	71	67	107	26	24	9.2
30	68	709	74	62	------	95	68	69	213	25	18	11
31	62	------	86	56	------	95	------	69	------	28	15	------
TOTAL	3,035	3,603	2,635	2,382	4,112	4,380	2,841	4,675	4,046	2,608	462.6	199.8
MEAN	97.9	120	85.0	76.8	142	141	94.7	151	135	84.1	14.9	6.66
MAX	422	709	176	176	558	326	232	652	510	305	39	15
MIN	48	32	56	41	50	89	68	67	35	25	2.0	2.0
(†)	25.1	27.0	22.0	24.2	25.0	24.0	25.3	26.0	29.0	27.9	33.5	30.6
MEAN‡	123	147	107	101	167	165	120	177	164	112	48.4	37.3
CFSM‡	2.54	3.03	2.21	2.08	3.44	3.40	2.47	3.65	3.38	2.31	1.00	.77
IN.‡	2.92	3.38	2.55	2.40	3.72	3.92	2.75	4.22	3.77	2.66	1.15	.86

CAL YR 1971 TOTAL 28,064.96 MEAN 76.9 MAX 1,330 MIN 0 MEAN‡ 104 CFSM‡ 2.14 IN.‡ 28.99
WTR YR 1972 TOTAL 34,979.40 MEAN 95.6 MAX 709 MIN 2.0 MEAN‡ 122 CFSM‡ 2.52 IN.‡ 34.30

† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.
‡ Adjusted for diversion and change in contents.

01407705 Shark River near Neptune City, N. J.

LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, on left bank 100 ft upstream from bridge on Remsen Mill Road, 0.3 mile downstream from Robins Swamp Brook, and 1.7 miles west of Neptune City.

DRAINAGE AREA.--9.96 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7.05 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 13.0 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 327 cfs probably occurred Oct. 14 (gage height, 5.77 ft, from peak-stage indicator); minimum, 0.11 cfs Sept. 23 (gage height, 1.02 ft).
Period of record: Maximum discharge, 580 cfs Dec. 26, 1969 (gage height, 7.94 ft); minimum, 0.11 cfs Sept. 23, 1972.

REMARKS.--Records good. Diversion above station by Monmouth Consolidated Water Co., for municipal supply and by farmers for irrigation.

COOPERATION.--Water-stage recorder inspected by Monmouth Consolidated Water Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.9	31	9.2	6.5	19	12	6.2	13	30	15	5.3
2	9.0	4.4	24	10	5.7	17	12	9.5	7.1	27	15	5.3
3	8.2	15	18	14	25	41	14	25	11	18	7.0	3.1
4	6.8	14	13	21	73	31	16	15	8.4	14	3.7	2.5
5	5.4	6.0	12	35	30	29	13	14	8.0	12	4.0	6.0
6	5.2	4.5	10	24	10	19	16	12	8.0	16	12	6.0
7	8.0	11	25	21	9.2	16	20	9.3	13	15	14	6.0
8	5.0	8.0	41	21	7.8	21	19	55	6.2	10	15	4.1
9	4.3	5.2	25	22	6.6	16	14	55	7.2	12	14	4.2
10	45	4.4	20	27	6.1	15	14	23	6.4	11	14	5.3
11	22	3.7	14	15	8.0	13	10	15	6.0	9.0	13	4.1
12	11	3.2	12	10	8.0	21	9.9	11	5.7	5.6	13	4.1
13	7.2	3.0	11	11	25	17	17	12	5.6	8.0	13	4.7
14	145	3.1	10	15	26	114	22	55	5.4	22	13	4.9
15	100	2.9	9.0	15	17	47	17	27	5.4	20	13	4.1
16	50	3.2	8.2	12	15	50	24	20	5.4	19	13	4.1
17	16	4.6	7.6	9.2	12	86	81	17	27	20	13	4.0
18	10	2.6	6.8	8.6	15	31	30	16	20	18	14	2.9
19	7.0	3.2	7.6	9.8	151	25	16	17	17	18	14	3.5
20	5.0	2.8	6.8	10	44	25	11	148	13	17	14	2.6
21	3.8	3.0	5.3	10	24	16	13	58	10	17	14	2.6
22	3.6	2.7	6.5	9.8	20	27	19	32	8.4	17	13	3.9
23	7.4	4.2	7.0	9.8	16	23	24	24	29	16	11	4.1
24	63	6.3	10	9.8	16	19	30	18	20	15	12	3.7
25	83	78	10	9.2	18	19	21	16	17	19	12	4.1
26	40	37	10	8.6	49	14	15	11	14	19	9.2	4.1
27	21	24	9.9	7.8	29	14	14	6.4	13	17	9.8	3.9
28	11	60	10	8.2	25	14	12	5.7	11	16	4.1	2.8
29	5.7	49	9.5	8.2	22	13	11	3.6	9.4	15	3.3	3.4
30	3.3	99	15	7.8	------	12	7.1	6.4	11	15	3.7	3.2
31	3.6	------	13	7.1	------	12	------	4.6	------	15	2.2	------
TOTAL	720.0	471.9	418.2	416.1	719.9	836	554.0	747.7	339.6	502.6	341.0	122.6
MEAN	23.2	15.7	13.5	13.4	24.8	27.0	18.5	24.1	11.3	16.2	11.0	4.09
MAX	145	99	41	35	151	114	81	148	29	30	15	6.0
MIN	3.3	2.6	5.3	7.1	5.7	12	7.1	3.6	5.4	5.6	2.2	2.5

CAL YR 1971 TOTAL 4,848.6 MEAN 13.3 MAX 340 MIN 2.2
WTR YR 1972 TOTAL 6,189.6 MEAN 16.9 MAX 151 MIN 2.2

NOTE.--No gage-height record June 10 to July 18.

01407760 Jumping Brook near Neptune City, N. J.

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, on left bank 50 ft downstream from dam on Jumping Brook Reservoir, 0.85 mile upstream from mouth, and 1.4 miles west of Neptune City.

DRAINAGE AREA.--6.43 sq mi.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 13.76 ft above mean sea level.

AVERAGE DISCHARGE.--6 years, 9.72 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 503 cfs Oct. 14, from peak-stage indicator (gage height, 3.87 ft) extended above 150 cfs; minimum daily, 1.3 cfs Aug. 10.
Period of record: Maximum discharge, 1,830 cfs Sept. 12, 1971 (gage height, 6.34 ft) extended above 150 cfs; no flow June 7, 1971.

REMARKS.--Records fair. Diversion above station by Monmouth Consolidated Water Co., and by farmers for irrigation.

COOPERATION.--Water-stage recorder inspected by Monmouth Consolidated Water Co.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.5	15	6.1	3.6	9.0	7.0	17	27	57	4.3	2.1
2	7.0	3.3	8.2	7.8	4.9	8.6	7.4	17	20	28	2.9	2.7
3	6.1	9.0	5.5	10	27	27	6.4	24	23	20	2.9	5.2
4	4.9	6.7	4.9	14	47	20	10	31	17	17	3.3	3.6
5	3.8	4.0	4.6	24	11	17	8.6	23	15	20	3.5	2.7
6	6.4	3.5	4.0	15	6.7	11	6.7	18	14	18	3.5	2.6
7	6.1	9.0	13	9.8	6.7	8.6	7.0	17	18	16	2.4	2.2
8	3.5	6.7	23	7.0	4.6	12	7.0	17	16	18	2.2	2.2
9	3.3	4.3	9.8	7.8	4.3	8.6	6.4	71	14	20	1.4	5.5
10	47	3.1	7.4	18	4.6	7.0	4.6	49	14	15	1.3	3.5
11	20	2.6	5.2	13	3.8	6.4	4.9	29	13	13	1.8	3.1
12	9.4	2.2	4.6	9.4	4.0	11	2.0	22	13	12	2.9	2.4
13	6.4	2.6	4.3	8.2	18	10	24	19	12	39	3.3	2.4
14	89	2.1	3.8	9.8	13	36	27	24	12	22	2.9	3.1
15	42	1.8	4.0	7.4	8.6	68	24	54	12	17	2.6	2.1
16	11	2.0	4.0	6.7	6.7	21	36	29	12	14	2.6	2.2
17	10	2.0	4.3	5.5	6.1	51	71	24	51	14	2.7	2.7
18	8.2	2.2	5.5	6.1	7.4	42	29	21	38	8.2	2.6	2.4
19	6.4	2.2	4.6	6.7	93	17	23	21	35	4.9	3.1	3.3
20	5.5	2.2	6.7	7.0	27	11	24	156	23	5.5	3.5	2.4
21	4.0	2.1	6.7	7.8	14	14	21	53	20	5.5	2.4	3.1
22	3.3	1.4	5.2	7.0	9.0	18	24	30	47	4.3	2.2	3.8
23	3.6	1.5	4.6	6.4	7.4	18	28	24	51	3.8	2.6	2.9
24	37	2.7	4.6	6.4	8.6	14	36	21	35	3.5	2.6	2.4
25	40	54	4.6	6.7	8.6	12	27	20	26	12	2.7	3.1
26	22	21	4.6	5.8	34	9.8	21	18	28	7.8	9.0	2.7
27	12	12	4.3	5.2	18	9.8	19	17	28	4.3	8.6	4.3
28	7.4	24	4.0	6.1	13	6.4	18	16	20	3.3	5.2	5.2
29	5.8	33	3.8	6.1	11	6.4	17	16	20	3.1	3.5	5.5
30	4.6	65	7.4	5.5	------	6.1	17	13	38	3.3	2.9	5.2
31	3.8	------	9.4	4.6	------	6.4	------	14	------	4.3	2.7	------
TOTAL	443.3	291.7	201.6	266.9	431.6	523.1	564.0	925	712	433.8	100.1	96.6
MEAN	14.3	9.72	6.50	8.61	14.9	16.9	18.8	29.8	23.7	14.0	3.23	3.22
MAX	89	65	23	24	93	68	71	156	51	57	9.0	5.5
MIN	3.3	1.4	3.8	4.6	3.6	6.1	2.0	13	12	3.1	1.3	2.1

CAL YR 1971 TOTAL 3,535.0 MEAN 9.68 MAX 381 MIN 1.3
WTR YR 1972 TOTAL 4,989.7 MEAN 13.6 MAX 156 MIN 1.3

01408000 Manasquan River at Squankum, N. J.

LOCATION.--Lat 40°09'47", long 74°09'21", Monmouth County, on right bank 20 ft downstream from bridge on State Highway 547 (Squankum Park Road) in Squankum and 0.4 mile downstream from Marshbog Brook.

DRAINAGE AREA.--43.4 sq mi.

PERIOD OF RECORD.--July 1931 to current year. Monthly discharge only for July 1931, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 18.82 ft above mean sea level. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft upstream at same datum.

AVERAGE DISCHARGE.--41 years, 72.6 cfs (22.72 inches per year).

EXTREMES.--Current year: Maximum discharge, 876 cfs Nov. 30 (gage height, 7.16 ft); minimum, 30 cfs Aug. 24 (gage height, 2.56 ft).
Period of record: Maximum discharge, 2,940 cfs Sept. 21, 1938 (gage height, 12.45 ft, from floodmark, site then in use), from rating curve extended above 900 cfs on basis of contracted-opening measurement of peak flow; minimum, 12.9 cfs Sept. 10, 1932.

REMARKS.--Records excellent except those below 40 cfs and for period of no gage-height record, which are good. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	85	221	77	62	124	85	72	96	175	50	38
2	67	85	145	77	65	113	83	72	79	111	48	38
3	67	117	124	100	113	217	79	98	94	94	46	40
4	60	129	113	107	425	223	85	217	72	87	60	38
5	59	92	102	208	148	155	98	113	65	85	46	37
6	67	81	100	145	104	124	85	88	63	92	42	36
7	59	96	160	100	100	113	82	79	98	79	42	36
8	54	88	257	88	87	124	79	111	72	79	46	36
9	53	79	143	87	79	113	75	239	63	98	42	35
10	193	77	122	198	75	100	70	271	59	74	41	34
11	188	75	111	126	74	94	70	145	53	67	40	34
12	90	72	100	107	72	107	69	115	53	63	40	33
13	70	75	98	96	195	126	85	96	54	210	40	34
14	198	69	92	98	231	173	117	92	57	158	40	35
15	428	69	92	87	129	332	92	317	57	90	40	34
16	143	69	92	74	111	163	96	153	53	74	38	34
17	104	65	87	67	96	257	284	122	200	69	37	34
18	90	63	85	72	96	310	122	111	170	63	40	34
19	83	63	79	79	383	158	100	100	175	60	37	45
20	75	63	92	79	387	129	94	417	111	57	35	90
21	74	62	98	85	148	119	94	316	100	59	34	60
22	70	59	85	79	135	135	87	165	217	54	34	52
23	69	57	77	77	111	168	104	131	386	50	33	45
24	281	57	77	74	111	124	131	109	170	48	33	41
25	514	350	77	74	113	109	115	94	170	54	34	40
26	265	307	74	67	261	100	94	87	158	102	52	40
27	155	163	74	65	198	96	87	83	183	57	90	41
28	122	340	74	65	145	92	77	77	111	52	65	42
29	104	223	72	65	138	90	74	74	124	48	50	40
30	94	590	75	65	------	88	70	72	233	48	44	41
31	87	------	100	63	------	88	------	70	------	48	41	------
TOTAL	4,043	3,820	3,298	2,851	4,392	4,464	2,883	4,306	3,596	2,505	1,360	1,217
MEAN	130	127	106	92.0	151	144	96.1	139	120	80.8	43.9	40.6
MAX	514	590	257	208	425	332	284	417	386	210	90	90
MIN	53	57	72	63	62	88	69	70	53	48	33	33
CFSM	3.00	2.93	2.44	2.12	3.48	3.32	2.21	3.20	2.77	1.86	1.01	.94
IN.	3.47	3.27	2.83	2.44	3.76	3.83	2.47	3.69	3.08	2.15	1.17	1.04

CAL YR 1971 TOTAL 34,510 MEAN 94.5 MAX 1,210 MIN 24 CFSM 2.18 IN 29.58
WTR YR 1972 TOTAL 38,735 MEAN 106 MAX 590 MIN 33 CFSM 2.44 IN 33.20

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-15	0730	6.64	740	2-20	0615	6.24	640
10-25	0245	6.66	745	5-20	2015	6.34	665
11-30	1515	7.16	876	6-23	0515	6.12	614
2-04	1230	6.66	745				

NOTE.--No gage-height record Aug. 27 to Sept. 30.

01408500 Toms River near Toms River, N. J.

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, on left bank 1.9 miles downstream from Union Branch and 2.6 miles northwest of Toms River.

DRAINAGE AREA.--124 sq mi.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October, November 1928, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 8.10 ft above mean sea level.

AVERAGE DISCHARGE.--44 years, 212 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 835 cfs Oct. 27 (gage height, 8.27 ft); minimum, 96 cfs Sept. 18 (gage height, 3.21 ft).
Period of record: Maximum discharge, 2,000 cfs Sept. 23, 1938 (gage height, 12.50 ft, from floodmark), from rating curve extended above 1,500 cfs; minimum, 46 cfs many days in August and September 1966 (gage height, 2.70 ft).

REMARKS.--Records excellent. Diversion since July 18, 1966 by Toms River Chemical Co., 800 ft upstream from station. The effluent from this plant is discharged through a pipeline directly into the Atlantic Ocean. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1702: 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	352	715	267	221	441	267	260	215	380	146	129
2	230	317	717	271	224	405	266	244	217	396	144	126
3	260	342	591	273	245	387	259	248	259	377	141	132
4	280	363	483	286	312	395	250	284	262	335	141	130
5	270	371	420	342	364	422	260	328	262	292	143	121
6	250	389	382	373	454	433	263	403	259	277	143	115
7	240	381	378	395	471	405	263	410	249	266	138	110
8	230	350	434	395	405	375	269	359	238	256	138	107
9	230	328	510	366	346	356	266	346	222	265	136	109
10	270	318	562	350	297	342	256	366	213	268	140	113
11	310	300	526	352	267	328	242	438	198	268	132	107
12	360	283	471	377	253	311	242	497	183	251	125	103
13	350	271	417	380	267	298	245	454	178	260	126	109
14	330	263	387	364	307	325	262	385	182	284	124	111
15	300	253	370	347	350	395	279	353	185	319	121	107
16	270	244	340	325	402	451	312	349	183	373	118	105
17	260	263	319	284	402	487	399	396	205	322	115	104
18	250	257	310	273	371	514	464	405	239	255	117	100
19	240	260	297	265	402	500	514	380	310	222	134	104
20	230	257	291	266	471	476	482	422	367	204	151	108
21	225	232	291	265	530	436	423	465	424	194	137	114
22	210	223	301	262	524	401	373	523	490	189	125	117
23	202	217	301	263	479	381	364	489	542	182	118	114
24	245	216	293	259	431	370	353	399	551	170	114	112
25	324	300	285	263	392	368	339	359	587	162	111	110
26	507	382	275	257	386	357	304	350	521	174	119	109
27	811	627	267	239	412	329	315	296	458	171	155	108
28	725	751	262	232	455	303	307	245	417	159	172	116
29	569	677	262	230	472	281	289	256	375	151	168	117
30	479	689	257	227	------	272	274	253	370	148	156	126
31	410	------	265	224	------	269	------	239	------	145	141	------
TOTAL	10,077	10,476	11,979	9,272	10,912	11,813	9,401	11,201	9,361	7,715	4,189	3,393
MEAN	325	349	386	299	376	381	313	361	312	249	135	113
MAX	811	751	717	395	530	514	514	523	587	396	172	132
MIN	202	216	257	224	221	269	242	239	178	145	111	100

CAL YR 1971 TOTAL 97,930 MEAN 268 MAX 1,370 MIN 76
WTR YR 1972 TOTAL 109,789 MEAN 300 MAX 811 MIN 100

01409095 Oyster Creek near Brookville, N. J.

LOCATION.--Lat 39°47'54", long 74°15'02", Ocean County, on left bank 100 ft upstream from bridge on State Highway 532, 1.5 miles downstream from reservoir at Wells Mill, and 3.2 miles northeast of Brookville.

DRAINAGE AREA.--7.43 sq mi.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft above mean sea level.

AVERAGE DISCHARGE.--7 years, 26.9 cfs (49.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 81 cfs Feb. 19 (gage height, 4.81 ft); minimum, 17 cfs July 29,30 (gage height, 3.68 ft).
Period of record: Maximum discharge, 232 cfs Dec. 26, 1969 (gage height, 6.18 ft); minimum, 12 cfs Aug. 6, 7, 1965 (gage height, 3.46 ft).

REMARKS.--Records excellent. Flow probably contains considerable ground-water inflow from other surface drainage basins. Some minor regulation possible from small reservoir and cranberry bogs upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	26	37	26	24	32	31	27	33	38	28	23
2	24	25	32	28	25	31	30	27	30	34	25	23
3	24	36	30	28	34	35	30	30	33	32	24	24
4	23	39	28	31	53	38	32	36	30	34	24	25
5	23	33	28	41	40	36	31	34	28	35	21	24
6	23	28	27	40	33	33	31	30	28	41	21	20
7	23	28	36	34	31	31	30	27	28	38	23	20
8	23	27	49	31	29	31	31	26	26	34	24	20
9	23	26	41	31	27	31	31	42	26	33	23	20
10	39	25	35	37	26	30	31	54	27	32	22	20
11	40	24	32	37	25	29	31	39	26	30	21	20
12	34	23	30	36	25	30	30	33	26	29	22	20
13	28	28	29	33	32	30	31	30	26	36	23	22
14	26	29	28	33	36	36	33	30	33	44	23	21
15	25	27	28	31	33	53	34	39	34	38	22	21
16	24	24	28	29	31	42	37	36	32	36	21	20
17	23	23	28	27	29	45	53	32	32	33	22	20
18	23	22	28	26	29	54	43	31	35	30	23	20
19	23	21	27	27	54	41	34	31	35	28	23	23
20	23	21	31	27	60	35	32	59	33	28	20	24
21	22	23	32	28	38	34	32	55	32	28	20	26
22	22	22	30	28	34	35	32	39	39	27	20	29
23	22	20	28	28	32	37	35	35	55	25	20	23
24	35	20	28	28	32	35	34	33	46	23	20	22
25	41	44	27	26	33	33	33	32	38	27	20	21
26	41	50	26	24	41	33	31	31	35	57	27	23
27	38	38	26	24	44	31	29	30	33	41	55	20
28	33	45	26	26	37	30	28	30	32	33	47	22
29	29	41	25	25	34	30	27	28	32	23	36	23
30	24	43	27	25	------	31	26	25	38	22	27	24
31	26	------	28	25	------	31	------	26	------	27	24	------
TOTAL	850	881	935	920	1,001	1,083	973	1,057	981	1,016	771	663
MEAN	27.4	29.4	30.2	29.7	34.5	34.9	32.4	34.1	32.7	32.8	24.9	22.1
MAX	41	50	49	41	60	54	53	59	55	57	55	29
MIN	22	20	25	24	24	29	26	25	26	22	20	20
CFSM	3.69	3.96	4.06	4.00	4.64	4.70	4.36	4.59	4.40	4.41	3.35	2.97
IN.	4.26	4.41	4.68	4.61	5.01	5.42	4.87	5.29	4.91	5.09	3.86	3.32

CAL YR 1971 TOTAL 10,084 MEAN 27.6 MAX 83 MIN 19 CFSM 3.71 IN 50.49
WTR YR 1972 TOTAL 11,131 MEAN 30.4 MAX 60 MIN 20 CFSM 4.09 IN 55.73

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G.H.	DISCHARGE
2-19	2230	4.81	81

01409400 Mullica River near Batsto, N. J.

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, on right bank 2.4 miles upstream from Sleeper Branch and 2.5 miles north of Batsto.

DRAINAGE AREA.--46.1 sq mi.

PERIOD OF RECORD.--September 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 14 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 107 cfs (31.52 inches per year).

EXTREMES.--Current year: Maximum discharge, 430 cfs Feb. 21 (gage height, 3.68 ft); minimum, 22 cfs July 10 (gage height, 0.52 ft).
Period of record: Maximum discharge, 1,190 cfs Aug. 27, 1958 (gage height, 5.37 ft); minimum, 7.0 cfs Sept. 6-8, 1966 (gage height, 0.28 ft).

REMARKS.--Records excellent. Flow regulated occasionally by ponds and cranberry bogs 4 to 6 miles upstream from station.

REVISIONS (WATER YEARS).--WRD N.J. 1969: 1958(M), 1960(M), 1967-68(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	196	306	114	115	237	124	122	114	186	72	41
2	79	164	275	114	108	210	125	124	110	160	68	47
3	78	154	252	119	109	214	122	137	108	151	66	57
4	77	257	232	123	150	242	119	253	105	153	64	50
5	77	257	217	154	154	240	122	352	102	152	62	48
6	79	240	184	181	167	216	122	273	99	154	59	44
7	76	228	162	194	192	185	122	207	92	66	59	41
8	69	219	212	182	180	163	128	182	87	27	63	39
9	67	206	273	176	169	158	129	240	84	38	58	37
10	99	182	307	202	154	152	126	334	80	59	54	36
11	130	140	316	202	143	147	124	257	77	103	45	35
12	140	147	225	178	115	144	124	284	76	96	45	37
13	133	170	186	157	131	143	126	273	65	97	49	37
14	130	156	222	184	170	146	132	196	78	255	51	39
15	109	134	197	203	181	159	138	257	82	311	48	46
16	87	96	169	183	199	158	156	252	79	240	45	45
17	92	103	158	168	203	165	201	224	77	214	43	39
18	93	110	137	159	191	192	261	216	83	176	45	36
19	94	121	130	150	213	205	309	187	92	95	44	45
20	92	117	134	124	248	199	280	171	92	114	42	53
21	114	112	141	122	306	194	246	201	103	87	41	48
22	113	106	140	122	344	193	212	187	133	121	40	47
23	92	102	136	121	248	194	195	175	174	118	38	43
24	113	100	134	123	210	182	201	158	204	115	38	40
25	162	157	132	124	217	172	206	131	173	103	38	40
26	214	242	129	127	237	165	203	123	245	91	36	38
27	298	277	124	132	226	149	194	121	235	86	41	37
28	393	395	122	129	222	127	179	119	221	82	50	38
29	291	354	119	126	316	122	154	118	190	79	49	38
30	222	334	117	123	------	122	123	115	199	77	46	41
31	206	------	117	121	------	123	------	112	------	75	42	------
TOTAL	4,100	5,576	5,705	4,637	5,618	5,418	5,003	6,101	3,659	3,881	1,541	1,262
MEAN	132	186	184	150	194	175	167	197	122	125	49.7	42.1
MAX	393	395	316	203	344	242	309	352	245	311	72	57
MIN	67	96	117	114	108	122	119	112	65	27	36	35
CFSM	2.86	4.03	3.99	3.25	4.21	3.80	3.62	4.27	2.65	2.71	1.08	.91
IN.	3.31	4.50	4.60	3.74	4.53	4.37	4.04	4.92	2.95	3.13	1.24	1.02

CAL YR 1971 TOTAL 47,094 MEAN 129 MAX 395 MIN 24 CFSM 2.80 IN 38.00
WTR YR 1972 TOTAL 52,501 MEAN 143 MAX 395 MIN 27 CFSM 3.10 IN 42.37

01409500 Batsto River at Batsto, N. J.

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, on right bank 30 ft downstream from highway bridge at Batsto and 1.0 mile upstream from mouth.

DRAINAGE AREA.--70.5 sq mi.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for April to September 1939, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1939; prior to Mar. 24, 1939, wooden control at site 50 ft downstream. Datum of gage is 1.4 ft above mean sea level.

AVERAGE DISCHARGE.--45 years, 126 cfs (24.27 inches per year).

EXTREMES.--Current year: Maximum daily discharge, 392 cfs May 5; minimum daily, 57 cfs Aug. 25, 26.
Period of record: Maximum daily discharge, 1,310 cfs Aug. 24, 1933; maximum gage height, 8.7 ft Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 cfs Oct. 4, 1959.

REMARKS.--Records excellent. Flow occasionally regulated by sluice gates prior to December 1954 and by an automatic Bascule gate since July 1959 at Batsto Lake 300 ft upstream (capacity, about 60,000,000 gal).

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1432: 1930, 1933, 1936, 1938.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	177	325	116	108	229	120	127	114	177	87	71
2	88	151	294	118	108	200	118	120	112	205	83	76
3	92	175	241	114	140	193	114	131	110	189	81	85
4	104	202	200	120	151	198	114	186	112	164	79	78
5	90	262	179	144	186	226	116	392	108	162	79	72
6	87	265	162	175	191	198	120	370	104	155	76	69
7	83	219	162	193	179	179	123	279	100	144	72	66
8	76	184	214	173	164	168	125	222	96	133	78	64
9	78	175	366	159	146	155	125	248	92	125	74	63
10	94	157	380	159	133	148	125	294	90	114	71	61
11	112	146	313	184	125	140	123	349	85	106	69	58
12	131	137	253	191	118	137	120	286	83	100	69	60
13	133	127	210	184	146	137	125	262	83	116	68	68
14	127	125	179	177	157	162	129	248	94	193	68	68
15	120	118	166	170	198	159	142	258	98	255	68	66
16	110	118	155	157	195	170	157	258	92	222	64	64
17	98	118	148	142	179	195	212	253	88	182	63	61
18	104	114	140	129	179	193	363	217	92	153	63	58
19	96	110	140	127	301	207	368	191	102	133	61	66
20	90	110	146	127	248	198	284	207	104	120	61	94
21	83	108	148	127	296	177	222	195	110	114	58	100
22	79	102	144	129	255	170	200	212	137	114	58	78
23	79	98	140	129	214	166	189	202	159	106	58	74
24	140	104	131	127	200	164	191	170	198	98	58	69
25	164	191	127	125	186	159	195	164	205	92	57	66
26	291	210	125	123	207	146	189	157	198	92	57	66
27	332	356	123	116	255	135	170	127	198	90	63	64
28	370	361	120	116	296	131	151	116	179	90	74	66
29	306	373	116	112	262	127	137	114	162	92	83	69
30	236	344	114	112	------	125	131	112	164	88	81	69
31	198	------	114	110	------	123	------	110	------	85	74	------
TOTAL	4,276	5,437	5,775	4,385	5,523	5,215	4,998	6,577	3,669	4,209	2,155	2,089
MEAN	138	181	186	141	190	168	167	212	122	136	69.5	69.6
MAX	370	373	380	193	301	229	368	392	205	255	87	100
MIN	76	98	114	110	108	123	114	110	83	85	57	58

CAL YR 1971 TOTAL 50,749 MEAN 139 MAX 780 MIN 40
WTR YR 1972 TOTAL 54,308 MEAN 148 MAX 392 MIN 57

01409510 Batsto River at Pleasant Mills, N. J.

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, on right bank, 0.5 mile upstream from mouth, 1.0 mile southeast of Pleasant Mills.

DRAINAGE AREA.--73.6 sq mi.

PERIOD OF RECORD.--July 1958 to current year. Annual maximum only July 1958 to September 1965, published in WRD N.J. 1965; October 1965 to September 1966, published in WRD N.J. 1966.

GAGE.--Water-stage recorder. Datum of gage is 8.6 ft above mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	-	4.23	3.34	3.42	4.81	3.78	3.51	3.91	-	-	3.15	3.91
high tide	Date	-	25	8	2	19	15	17	25	-	-	5	20
Minimum	Elevation	-	.42	.52	.43	.45	.60	.43	.52	-	-	.03	-.10
low tide	Date	-	22	29,30	31	1	27	3	28	-	-	24	12
Mean high tide		-	2.80	2.50	2.37	2.55	2.56	2.66	2.87	-	-	2.61	2.73
Mean water level		-	2.04	1.72	1.52	1.82	1.77	1.81	2.12	-	-	1.51	1.73
Mean low tide		-	1.16	1.03	.79	1.19	1.00	.90	1.26	-	-	.31	.48

Maximum elevation for period of record, 7.2 ft Mar. 7, 1962; minimum elevation for water years 1967-72, 0.40 ft below mean sea level Oct. 18, 1970.

NOTE.-- No gage-height record Oct. 1-21, June 6 to July 21.

01410000 Oswego River at Harrisville, N. J.

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, on right bank 50 ft downstream from highway bridge at Harrisville and 0.5 mile upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--64.0 sq mi.

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.

GAGE.--Water-stage recorder. Concrete control since June 23, 1939. Datum of gage is 4.62 ft above mean sea level.

AVERAGE DISCHARGE.--42 years, 86.4 cfs (18.33 inches per year).

EXTREMES.--Current year: Maximum discharge, 281 cfs May 21 (gage height, 4.00 ft); minimum, 44 cfs Oct. 22,23 (gage height, 2.95 ft).
Period of record: Maximum discharge, 1,390 cfs Aug. 20, 1939 (gage height, 9.54 ft, from floodmark in recorder shelter), from rating curve extended above 640 cfs; practically no flow for several hours on Oct. 26, 1932 and June 10, 1970, while pond above station was filling.

REMARKS.--Records fair. Flow regulated occasionally by Harrisville Pond 200 ft above station (capacity, about 30,000,000 gal) and by ponds and cranberry bogs 5 to 10 miles upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	95	208	77	68	166	108	111	95	158	55	95
2	62	98	172	77	70	138	120	108	93	141	50	81
3	66	177	144	77	88	141	125	120	95	122	43	77
4	60	203	122	80	136	149	110	139	86	111	44	68
5	57	170	108	97	119	144	100	155	81	108	47	61
6	56	130	98	120	113	127	96	176	77	127	49	57
7	53	119	126	130	95	116	94	160	75	130	47	54
8	49	116	163	120	95	116	94	142	70	119	50	50
9	47	113	210	110	88	106	93	132	66	113	70	49
10	81	103	240	110	81	100	93	158	64	100	46	46
11	93	95	200	133	77	93	94	250	55	95	40	42
12	79	90	165	130	75	93	97	270	59	88	40	43
13	70	93	140	119	98	93	101	243	54	119	42	44
14	62	83	122	124	130	111	111	212	68	208	47	44
15	59	77	110	122	122	146	125	190	68	205	42	46
16	58	77	102	100	115	151	145	172	59	154	40	43
17	60	75	98	86	108	161	175	182	61	130	40	42
18	54	72	93	81	106	183	240	175	75	113	42	39
19	50	72	94	86	168	183	300	219	83	103	42	46
20	56	70	95	86	236	170	280	268	88	93	40	59
21	51	68	98	88	247	151	240	255	93	83	40	55
22	46	66	95	86	214	138	192	180	138	77	39	57
23	45	61	90	83	175	136	170	158	210	70	30	50
24	95	63	88	81	161	124	150	144	214	63	32	46
25	132	168	85	79	151	113	149	124	186	57	33	44
26	186	183	83	77	179	106	148	108	161	59	35	37
27	214	188	81	72	194	100	147	86	138	55	81	39
28	205	205	80	75	181	95	136	77	100	55	146	43
29	156	208	79	75	177	83	127	79	100	54	205	50
30	127	232	78	72	------	81	119	77	138	54	168	54
31	106	------	77	70	------	88	------	75	------	55	119	------
TOTAL	2,589	3,570	3,744	2,923	3,867	3,902	4,279	4,945	2,950	3,219	1,844	1,561
MEAN	83.5	119	121	94.3	133	126	143	160	98.3	104	59.5	52.0
MAX	214	232	240	133	247	183	300	270	214	208	205	95
MIN	45	61	77	70	68	81	93	75	54	54	30	37
CFSM	1.30	1.86	1.89	1.47	2.08	1.97	2.23	2.50	1.54	1.63	.93	.81
IN.	1.50	2.08	2.18	1.70	2.25	2.27	2.49	2.87	1.71	1.87	1.07	.91

CAL YR 1971 TOTAL 33,405 MEAN 91.5 MAX 575 MIN 30 CFSM 1.43 IN 19.42
WTR YR 1972 TOTAL 39,393 MEAN 108 MAX 300 MIN 30 CFSM 1.69 IN 22.90

NOTE.--No gage-height record Apr. 1 to May 21.

01410500 Absecon Creek at Absecon, N. J.

LOCATION.--Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1.0 mile west of Absecon, and 3.4 miles upstream from mouth.

DRAINAGE AREA.--16.6 sq mi.

PERIOD OF RECORD.--December 1923 to April 1929 and June 1933 to December 1938 (monthly discharge only, published in WSP 1302; figures of daily discharge published in previous water-supply papers included diversions above station), May 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is at mean sea level. Prior to May 1946, water-stage recorder and wooden control at same site at datum 0.16 ft lower.

AVERAGE DISCHARGE.--35 years (1924-28, 1933-38, 1946-72), 27.4 cfs (adjusted for diversion).

EXTREMES.--Current year: Maximum daily discharge, 90 cfs June 23; minimum daily, 8.4 cfs Aug. 11, 27. Period of record: Maximum daily discharge, 295 cfs Sept. 6, 1935; no flow for several days in many years.

REMARKS.--Records good. Records given herein represent flow at gage only. Diversion from Doughty Pond for municipal supply of Atlantic City. Flow regulated by Doughty Pond (capacity, 245,000,000 gal), and by Kuehnle Reservoir (capacity, 250,000,000 gal), 1.5 miles above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	25	31	19	22	35	30	34	34	46	17	10
2	18	24	24	25	25	34	30	34	31	32	15	18
3	19	41	24	25	34	43	30	36	29	26	15	26
4	21	44	25	29	53	36	30	48	26	24	15	19
5	24	32	24	47	34	39	29	41	25	29	15	16
6	22	29	24	36	28	31	28	34	23	38	14	16
7	19	28	47	30	30	29	31	32	24	30	13	15
8	16	23	62	28	25	35	35	32	18	25	15	15
9	15	21	44	26	25	30	28	68	18	23	11	16
10	35	24	35	38	25	28	29	69	24	21	13	11
11	39	23	32	36	22	29	30	52	16	20	8.4	11
12	26	22	29	31	22	29	28	41	17	19	9.8	15
13	21	22	29	30	31	30	34	36	21	26	9.1	16
14	20	21	25	34	35	41	38	38	26	52	11	16
15	21	21	26	34	26	47	43	52	26	36	13	15
16	21	21	29	24	25	38	58	41	26	26	13	15
17	18	21	26	20	24	52	81	34	26	23	13	13
18	18	21	28	23	25	43	58	32	38	20	14	15
19	16	21	20	23	80	44	44	32	38	19	13	29
20	15	22	29	25	69	36	41	48	29	19	11	38
21	16	21	31	25	35	34	40	46	25	19	11	30
22	16	23	28	24	34	38	39	39	66	18	9.8	26
23	17	15	26	25	28	35	44	32	90	16	9.8	15
24	83	17	25	25	35	34	44	29	58	15	9.8	19
25	83	71	25	28	35	29	47	28	44	14	9.1	19
26	47	52	24	21	50	29	40	25	34	26	9.1	18
27	36	41	24	21	43	29	36	26	25	21	8.4	19
28	30	50	26	24	38	31	35	24	24	20	15	19
29	28	39	23	24	38	26	34	23	29	18	15	21
30	25	41	23	24	------	31	34	24	47	17	12	23
31	25	------	26	23	------	32	------	26	------	18	11	------
TOTAL	827	876	894	847	996	1,077	1,148	1,156	957	756	378.3	554
MEAN	26.7	29.2	28.8	27.3	34.3	34.7	38.3	37.3	31.9	24.4	12.2	18.5
MAX	83	71	62	47	80	52	81	69	90	52	17	38
MIN	15	15	20	19	22	26	28	23	16	14	8.4	10
(†)	.75	.55	.48	1.13	1.93	2.49	2.47	3.94	6.39	6.58	5.77	1.67

CAL YR 1971 TOTAL 9,079.6 MEAN 24.9 MAX 83 MIN 7.2 † 1.25
WTR YR 1972 TOTAL 10,466.3 MEAN 28.6 MAX 90 MIN 8.4 † 2.85

† Diversion, in cubic feet per second, above station from Doughty Pond for municipal supply of Atlantic City.

01410787 Great Egg Harbor River tributary at Sicklerville, N. J.

LOCATION.--Lat 39°43'31", long 74°57'39", Camden County, on left bank on upstream wingwall of bridge on Blackwood-New Brooklyn Road, 0.75 mile northeast of Sicklerville, and 0.77 mile upstream from mouth.

DRAINAGE AREA.--1.64 sq mi.

PERIOD OF RECORD.--Established Jan. 14, 1972.

GAGE.--Water-stage recorder. Datum of gage is 121 ft (from topographic map).

EXTREMES.--Period Jan. 1 to Sept. 30: Maximum discharge, 26 cfs Apr. 16 (gage height, 2.88 ft); minimum, 0.21 cfs Aug. 31, Sept. 18, 29; minimum daily, 0.35 cfs Aug. 17.

REMARKS.--Records good. Flow regulated at times by pumping station directly above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				1.6	1.3	2.6	1.8	2.0	1.1	1.8	.72	.69
2				1.7	1.4	2.4	1.8	1.9	.94	1.3	.66	.61
3				1.7	2.9	4.4	1.7	3.3	.88	1.2	.69	.59
4				2.5	9.1	4.0	2.2	4.2	.75	1.1	.75	.53
5				7.2	2.9	2.9	2.6	2.4	.66	1.3	.69	.51
6				5.0	2.0	2.4	2.0	1.8	.69	1.6	.66	.81
7				2.4	2.3	2.1	2.3	1.7	.64	1.2	.66	.43
8				2.0	1.8	2.3	2.4	1.7	.53	1.0	.64	.43
9				1.8	1.6	2.0	2.2	6.9	.48	.97	.61	.43
10				6.0	1.5	2.0	1.9	7.4	.48	.91	.56	.43
11				5.0	1.5	1.7	2.0	3.6	.48	.81	.51	.69
12				3.5	1.4	1.8	1.8	2.4	.46	.72	.48	.41
13				2.5	5.2	1.8	2.9	1.8	.46	8.9	.48	.46
14				2.2	5.6	2.7	2.9	2.6	.66	6.2	.97	.46
15				2.1	2.9	3.9	4.8	6.5	.56	2.2	1.7	.43
16				1.7	2.4	2.5	8.0	3.2	.46	1.5	1.4	.39
17				1.6	2.0	4.8	17	2.0	1.2	1.7	.35	.37
18				1.6	2.0	5.2	5.8	1.7	1.8	1.3	.43	.69
19				1.7	12	2.6	3.4	1.6	1.8	1.0	.48	.69
20				1.8	7.6	2.0	2.7	3.4	.94	1.0	.43	.53
21				1.9	3.4	1.9	2.4	2.5	.78	1.0	1.0	.56
22				1.8	3.2	2.4	3.4	1.8	11	.91	1.4	.53
23				1.7	2.5	3.0	4.8	1.5	12	.75	.35	.46
24				1.7	2.5	2.3	4.6	1.3	5.2	.69	.94	.46
25				1.7	3.2	2.0	3.2	1.1	8.3	.69	.37	1.1
26				1.6	10	1.9	2.2	1.0	4.4	.75	.43	.84
27				1.5	6.4	1.8	2.0	.94	2.4	.69	.69	.37
28				1.5	3.7	1.8	1.8	.88	1.7	.69	1.0	.39
29				1.4	3.0	1.8	1.7	.88	1.6	.66	.53	.43
30				1.4	------	1.8	1.7	.88	2.0	.64	.46	.48
31		------		1.4	------	1.8	------	.91	------	.66	.46	------
TOTAL				73.2	107.3	78.6	100.0	75.79	65.35	45.84	21.50	16.20
MEAN				2.36	3.70	2.54	3.33	2.44	2.18	1.48	.69	.54
MAX				7.2	12	5.2	17	7.4	12	8.9	1.7	1.1
MIN				1.4	1.3	1.7	1.7	.88	.46	.64	.35	.37
CFSM				1.44	2.26	1.55	2.03	1.49	1.33	.90	.42	.33
IN.				1.66	2.43	1.78	2.27	1.72	1.48	1.04	.49	.37

PEAK DISCHARGE (BASE, 15 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-19	1345	2.51	17	6-22	1500	2.73	23
4-16	2100	2.88	26				

NOTE.--Discharge for the period Jan. 1-13; estimated.

01410820 Great Egg Harbor River near Blue Anchor, N. J.

LOCATION.--Lat 39°40'09", long 74°54'49", Camden County, on right bank at bridge on Broad Lane Road, 2.1 miles downstream from confluence of Fourmile Branch and 1.9 miles southwest of Blue Anchor.

DRAINAGE AREA.--37.3 sq mi.

PERIOD OF RECORD.--Established June 21, 1972.

GAGE.--Water-stage recorder. Altitude of gage is 92 ft (from topographic map).

EXTREMES.--Period June 21 to Sept. 30: Maximum discharge, 243 cfs June 24 (gage height, 5.47 ft); minimum, 19 cfs Sept. 1, 2 (gage height, 2.87 ft).

REMARKS.--Records excellent.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										76	41	34
2										71	40	35
3										64	38	43
4										61	38	40
5										57	37	37
6										62	36	35
7										60	34	33
8										55	35	31
9										51	34	30
10										48	32	27
11										45	31	26
12										43	30	26
13										98	30	27
14										166	30	28
15										144	30	29
16										115	30	30
17										99	29	30
18										81	29	28
19										66	28	33
20										57	27	40
21									63	54	26	40
22									80	53	26	38
23									188	55	26	35
24									235	50	26	33
25									230	45	25	32
26									192	44	24	31
27									146	44	30	30
28									111	45	42	30
29									88	43	48	31
30					------				80	42	53	33
31		------			------		------		------	42	47	------
TOTAL										2,036	1,032	975
MEAN										65.7	33.3	32.5
MAX										166	53	43
MIN										42	24	26
CFSM										1.76	.89	.87
IN.										2.03	1.03	.97

PEAK DISCHARGE (BASE, 225 CFS)

DATE	TIME	G.H.	DISCHARGE
6-24	0030	5.47	243

01411000 Great Egg Harbor River at Folsom, N. J.

LOCATION.--Lat 39°35'42", long 74°51'06", Atlantic County, on left bank 25 ft upstream from bridge on State Highway 54, 1.0 mile south of Folsom, and 2.0 miles upstream from Pennypot Stream.

DRAINAGE AREA.--56.3 sq mi.

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as Great Egg River at Folsom.

GAGE.--Water-stage recorder. Concrete control since Nov. 26, 1934. Datum of gage is 53.32 ft above mean sea level. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft downstream at datum 0.25 ft higher.

AVERAGE DISCHARGE.--47 years, 85.0 cfs (20.50 inches per year).

EXTREMES.--Current year: Maximum discharge, 330 cfs July 14 (gage height, 5.42 ft); minimum, 40 cfs Sept. 11, 12 (gage height, 3.63 ft).
Period of record: Maximum discharge, 1,440 cfs Sept. 3, 1940 (gage height, 9.09 ft); minimum, 15 cfs Sept. 6, 1957, Aug. 28-30, 1966; minimum gage height, 3.42 ft Aug. 28-30, 1966.

REMARKS.--Records excellent except those for March, April and May, which are good. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1432: 1928(M), 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	143	235	93	87	187	99	107	88	141	68	62
2	74	124	220	93	85	168	98	104	89	131	67	50
3	87	135	202	96	89	157	96	113	87	120	64	63
4	90	166	179	103	110	154	96	148	86	111	63	60
5	85	214	158	117	140	156	101	156	82	105	61	56
6	81	226	139	137	157	153	105	155	79	105	59	52
7	78	209	135	155	157	145	105	141	76	105	58	49
8	73	186	160	151	144	136	105	127	72	102	61	47
9	70	164	202	140	131	127	107	127	68	94	58	44
10	81	147	226	141	111	120	108	157	65	87	55	43
11	103	133	217	154	101	115	106	192	63	80	53	40
12	116	122	192	163	95	112	102	194	61	75	51	40
13	123	114	167	157	99	109	102	177	61	99	51	42
14	118	108	147	151	119	109	106	158	67	247	52	44
15	106	103	133	143	143	113	119	156	79	288	50	44
16	93	99	123	131	152	126	139	165	75	225	50	44
17	82	97	116	123	147	143	185	171	69	190	48	44
18	76	94	112	107	136	165	239	158	79	164	48	43
19	72	91	107	102	149	176	253	143	97	140	48	44
20	68	88	107	100	190	167	230	133	107	115	46	56
21	65	88	110	101	218	152	192	129	112	101	44	56
22	64	85	115	103	206	139	162	131	115	95	42	56
23	63	84	115	103	206	132	147	126	149	91	42	52
24	83	83	111	103	181	130	147	118	248	89	42	49
25	132	100	106	102	161	127	152	108	284	81	41	48
26	182	139	102	100	168	122	149	100	282	78	41	46
27	255	221	99	96	200	115	140	93	258	74	43	45
28	304	274	97	94	213	109	123	89	209	73	53	45
29	283	268	95	92	206	104	119	87	176	72	61	45
30	227	251	93	90	------	101	114	84	154	70	69	46
31	176	------	93	88	------	100	------	82	------	69	71	------
TOTAL	3,575	4,356	4,413	3,629	4,301	4,169	4,046	4,129	3,537	3,617	1,660	1,455
MEAN	115	145	142	117	148	134	135	133	118	117	53.5	48.5
MAX	304	274	235	163	218	187	253	194	284	288	71	63
MIN	63	83	93	88	85	100	96	82	61	69	41	40
CFSM	2.04	2.58	2.52	2.08	2.63	2.38	2.40	2.36	2.10	2.08	.95	.86
IN.	2.36	2.88	2.92	2.40	2.84	2.75	2.67	2.73	2.34	2.39	1.10	.96

CAL YR 1971 TOTAL 38,106 MEAN 104 MAX 392 MIN 30 CFSM 1.85 IN 25.18
WTR YR 1972 TOTAL 42,887 MEAN 117 MAX 304 MIN 40 CFSM 2.08 IN 28.34

01411300 Tuckahoe River at Head of River, N. J.

LOCATION.--Lat 39°18'25", long 74°49'15", Cape May County, on right bank at highway bridge on State Route 49. 0.2 mile upstream from McNeals Branch, 0.4 mile southeast of Head of River, and 3.7 miles west of Tuckahoe.

DRAINAGE AREA.--30.8 sq mi.

PERIOD OF RECORD.--December 1969 to current year.

GAGE.--Water-stage recorder and wooden control. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum discharge,228 cfs Dec. 8 (elevation, 5.28 ft); minimum, 14 cfs Aug. 25-28, 31 (elevation, 3.96 ft).
Period of record: Maximum discharge, 315 cfs Aug. 28, 1971 (elevation, 5.83 ft); minimum, 10 cfs Sept. 24, 26, 27, 1970, July 29, 1971; minimum elevation, 3.86 ft Sept. 24, 26, 27, 1970.

REMARKS.--Records excellent. Occasional regulation by ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	55	87	47	46	91	58	60	72	76	24	15
2	40	54	75	50	48	82	56	57	73	65	23	34
3	41	63	65	54	61	86	54	60	63	56	22	51
4	41	86	60	58	98	106	55	88	55	50	21	42
5	37	86	57	89	82	102	59	103	51	50	21	28
6	37	72	56	102	86	92	57	98	47	61	20	22
7	35	63	97	86	75	84	57	82	46	57	19	20
8	32	60	213	74	62	78	65	72	42	50	19	18
9	28	57	172	68	59	75	65	99	40	46	18	18
10	53	52	123	85	52	71	62	144	39	42	18	17
11	79	50	103	94	50	67	58	132	37	39	18	17
12	73	49	88	90	48	65	55	111	34	37	17	17
13	56	50	79	82	69	64	63	90	32	57	17	19
14	46	47	72	82	97	64	71	81	39	143	18	18
15	42	45	68	78	88	71	72	114	40	124	18	17
16	39	45	66	59	80	69	88	120	37	87	17	17
17	37	43	62	61	70	76	149	109	36	65	17	16
18	37	42	59	56	68	102	155	92	53	51	18	16
19	42	41	56	56	134	101	118	80	72	45	18	22
20	39	42	63	57	184	89	96	85	62	41	17	23
21	34	41	76	60	117	78	84	89	51	40	16	21
22	30	40	73	59	138	75	80	85	75	38	16	19
23	28	39	64	57	97	78	92	77	139	34	16	18
24	85	40	61	56	95	75	94	69	154	29	15	17
25	156	98	58	54	108	70	101	64	133	27	15	16
26	132	124	55	50	123	66	92	57	105	27	15	16
27	107	107	54	48	141	62	81	54	82	25	15	16
28	86	106	52	50	122	59	73	52	68	25	16	18
29	70	96	51	49	105	57	67	50	61	23	16	18
30	61	93	50	48	------	56	62	48	74	24	16	21
31	55	------	51	47	------	59	------	50	------	25	15	------
TOTAL	1,709	1,886	2,366	2,006	2,603	2,370	2,339	2,572	1,912	1,559	551	627
MEAN	55.1	62.9	76.3	64.7	89.8	76.5	78.0	83.0	63.7	50.3	17.8	20.9
MAX	156	124	213	102	184	106	155	144	154	143	24	51
MIN	28	39	50	47	46	56	54	48	32	23	15	15
CFSM	1.79	2.04	2.48	2.10	2.92	2.48	2.53	2.69	2.07	1.63	.58	.68
IN.	2.06	2.28	2.86	2.42	3.14	2.86	2.83	3.11	2.31	1.88	.67	.76

CAL YR 1971 TOTAL 17,641 MEAN 48.3 MAX 295 MIN 11 CFSM 1.57 IN 21.31
WTR YR 1972 TOTAL 22,500 MEAN 61.5 MAX 213 MIN 15 CFSM 2.00 IN 27.18

01411500 Maurice River at Norma, N. J.

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, on right bank just upstream from Almond Road Bridge at Norma, 0.8 mile downstream from Blackwater Branch.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft above mean sea level.

AVERAGE DISCHARGE.--40 years, 166 cfs (19.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 659 cfs June 23 (gage height, 4.00 ft); minimum, 68 cfs Aug. 24, Sept. 18 (gage height, 2.55 ft).
Period of record: Maximum discharge, 7,360 cfs Sept. 2, 1940 (gage height, 8.72 ft), from rating curve extended above 3,000 cfs; minimum daily, 23 cfs Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

REMARKS.--Records excellent. Occasional regulation by ponds above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1382: 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	267	373	201	189	344	222	239	187	270	157	87
2	161	236	363	201	190	325	218	227	183	262	154	137
3	164	235	345	211	201	319	214	231	174	216	149	154
4	153	357	320	215	248	324	216	271	169	224	141	118
5	158	359	295	247	231	317	224	270	163	224	137	122
6	156	362	271	264	270	312	222	256	156	233	133	118
7	156	312	286	268	272	305	224	248	153	226	132	108
8	155	345	341	268	263	294	230	243	120	217	137	102
9	149	302	354	281	247	284	230	263	135	202	130	101
10	208	278	369	295	232	272	226	295	145	190	126	118
11	221	257	371	298	218	258	222	302	135	164	122	100
12	213	244	346	295	207	250	218	306	128	162	119	87
13	222	233	320	290	226	246	220	294	124	228	118	85
14	219	224	300	293	260	246	232	279	136	377	117	88
15	205	219	284	285	271	261	246	306	147	359	120	95
16	184	213	271	264	273	262	287	313	149	353	119	91
17	162	207	258	243	275	273	335	318	149	322	118	91
18	161	201	247	233	274	295	362	306	178	295	118	73
19	156	196	240	230	309	293	385	286	208	257	109	87
20	149	193	243	226	345	289	383	268	233	237	101	101
21	143	180	251	227	338	284	355	254	255	287	104	101
22	138	166	247	223	337	283	325	243	320	274	105	102
23	136	172	241	219	342	283	315	235	575	238	105	96
24	194	173	236	222	332	283	305	228	530	215	101	93
25	232	237	231	216	312	273	301	219	605	187	84	91
26	287	303	214	213	331	262	296	209	543	170	97	90
27	311	317	214	207	347	251	285	200	413	178	115	87
28	296	365	209	206	349	241	272	190	382	186	120	95
29	297	382	209	202	352	233	256	182	324	177	108	94
30	301	390	208	199	------	226	246	176	305	168	122	105
31	244	------	208	196	------	225	------	174	------	163	110	------
TOTAL	6,125	7,925	8,665	7,438	8,041	8,613	8,072	7,831	7,424	7,261	3,728	3,017
MEAN	198	264	280	240	277	278	269	253	247	234	120	101
MAX	311	390	373	298	352	344	385	318	605	377	157	154
MIN	136	166	208	196	189	225	214	174	120	162	84	73
CFSM	1.75	2.34	2.48	2.12	2.45	2.46	2.38	2.24	2.19	2.07	1.06	.89
IN.	2.02	2.61	2.85	2.45	2.65	2.84	2.66	2.58	2.44	2.39	1.23	.99

CAL YR 1971 TOTAL 72,437 MEAN 198 MAX 1,310 MIN 32 CFSM 1.75 IN 23.85
WTR YR 1972 TOTAL 84,140 MEAN 230 MAX 605 MIN 73 CFSM 2.04 IN 27.70

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0200	3.52	394	6-23	1100	4.00	659
4-19	1300	3.51	389	7-14	0300	3.50	384

01434000 DELAWARE RIVER AT PORT JERVIS, N.Y.

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., on right bank 250 ft downstream from bridge on U.S. Highways 6 and 209 at Port Jervis, 1.2 miles upstream from Neversink River, and 6.5 miles downstream from Mongaup River.

DRAINAGE AREA.--3,076 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above mean sea level. Prior to June 20, 1914, nonrecording gage at highway bridge 250 ft upstream at same datum operated by U.S. Weather Bureau. June 20, 1914 to Aug. 13, 1928, nonrecording gages at highway bridge 250 ft upstream at present datum.

EXTREMES.--Current year: Maximum discharge: 46,100 cfs June. 24 (gage height, 10.46 ft), minimum, 70J cfs Oct. 4 (gage height, 1.68 ft), minimum daily, 1,150 cfs Aug. 18.

Period of record: Maximum discharge, 233,000 cfs Aug. 19, 1955 (gage height, 23.91 ft, from floodmarks in gage house), from rating curve extended above 89,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 175 cfs Sept. 23, 1908 (gage height, 0.6 ft).

Maximum discharge previously known, 205,000 cfs Oct. 10, 1903 (gage height, 23.1 ft, reported by U.S. Weather Bureau), from rating curve extended above 70,000 cfs by velocity-area studies; maximum stage known, 25.5 ft Mar. 8, 1904 (ice jam).

REMARKS.--Records good except for those for winter periods, which are fair. 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 sq mi of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 sq mi of drainage area controlled by Cannonsville Reservoir (see Reservoirs 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. Water quality records for current year are Published in Part 2 of the New York report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1013: 1905-36. WRD New York 1971: 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,110	1,980	5,800	6,950	3,300	3,160	7,410	7,300	23,300	22,700	2,170	1,860
2	1,990	2,400	4,850	5,800	3,100	5,520	8,550	7,060	18,000	17,400	2,310	1,840
3	1,720	2,500	4,020	6,270	2,800	23,600	9,330	6,990	13,900	13,700	2,330	1,960
4	1,300	2,460	3,370	6,270	3,000	16,600	8,760	11,400	11,700	11,500	2,520	1,960
5	2,150	2,310	3,030	5,620	3,300	11,000	7,850	23,900	11,100	10,300	2,680	1,880
6	2,110	2,010	2,860	4,850	3,000	9,110	7,220	18,300	9,780	10,200	1,960	2,010
7	2,330	2,050	7,450	4,510	2,700	7,610	7,260	13,900	8,720	8,140	1,770	1,990
8	2,350	2,230	22,900	3,900	2,800	6,870	6,640	11,800	7,450	6,830	2,610	1,990
9	2,070	2,090	18,900	3,210	3,000	6,190	5,800	11,200	6,760	6,640	2,840	2,010
10	2,270	2,030	14,600	3,260	3,000	5,730	5,760	13,600	8,810	6,300	2,630	1,700
11	3,560	1,670	18,000	4,630	2,600	4,410	6,010	13,700	6,800	6,160	2,290	2,090
12	3,670	1,740	21,400	5,520	2,300	3,760	6,270	11,700	5,830	5,550	2,170	2,110
13	3,180	1,790	15,700	5,480	2,000	5,210	7,570	9,690	5,380	5,830	1,680	2,380
14	2,770	1,860	12,200	7,610	2,500	6,640	16,400	8,470	4,920	4,170	1,770	2,960
15	2,660	2,090	10,500	7,500	3,500	5,730	15,300	8,220	4,110	3,560	2,550	2,570
16	2,150	2,400	10,500	5,500	6,270	5,250	14,200	8,380	3,760	3,030	1,920	2,090
17	1,980	2,130	11,000	4,700	5,210	12,100	25,600	8,720	3,450	3,960	1,470	2,070
18	2,150	1,860	10,100	4,500	4,260	22,700	27,500	8,380	3,560	3,930	1,150	2,290
19	1,980	2,050	8,140	4,600	3,300	16,000	23,800	8,220	5,280	3,790	1,680	2,330
20	2,090	1,960	6,910	4,800	2,600	12,100	23,900	6,190	6,380	3,670	1,670	2,010
21	1,960	1,920	6,190	4,000	2,600	11,100	32,200	6,530	6,300	3,510	1,700	1,900
22	1,750	2,130	5,550	3,200	2,800	13,400	24,800	6,530	10,900	2,630	1,940	2,130
23	1,420	2,630	4,600	2,900	3,000	26,700	22,600	5,940	31,500	2,030	1,860	2,110
24	1,500	2,190	4,080	3,300	3,100	21,200	20,400	5,250	42,600	1,960	2,420	2,030
25	1,310	2,130	4,290	4,200	3,160	15,700	17,300	4,730	31,600	2,400	2,770	2,130
26	1,650	1,980	4,480	5,200	2,840	12,500	15,100	4,380	25,000	2,250	2,960	2,110
27	1,840	2,400	4,480	4,000	2,460	10,700	13,000	3,400	18,800	1,990	2,420	2,720
28	1,900	2,380	4,760	3,000	2,500	9,470	11,100	2,720	15,200	1,770	2,270	2,440
29	2,150	2,290	5,800	2,800	2,910	7,930	9,110	2,460	13,400	1,770	2,190	2,070
30	1,980	4,110	5,800	2,700	------	7,930	7,810	2,460	15,200	1,840	1,960	2,030
31	1,920	------	8,380	2,900	------	7,730	------	9,200	------	2,030	1,810	------
TOTAL	65,970	65,770	270,640	143,680	89,910	333,650	414,550	270,720	379,490	181,540	66,470	63,770
MEAN	2,128	2,192	8,730	4,635	3,100	10,760	13,820	8,733	12,650	5,856	2,144	2,126
MAX	3,670	4,110	22,900	7,610	6,270	26,700	32,200	23,900	42,600	22,700	2,960	2,960
MIN	1,300	1,670	2,860	2,700	2,000	3,160	5,760	2,460	3,450	1,770	1,150	1,700

CAL YR 1971 TOTAL 1,685,880 MEAN 4,619 MAX 22,900 MIN 1,040
WTR YR 1972 TOTAL 2,346,160 MEAN 6,410 MAX 42,600 MIN 1,150

01437500 NEVERSINK RIVER AT GODEFFROY, N.Y.

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, on right bank just upstream from highway bridge on Graham Road, 0.5 mile downstream from Basher Kill, 0.8 mile southeast of Godeffroy, 1.7 miles south of Cuddebackville, and 8.5 miles upstream from mouth.

DRAINAGE AREA.--302 sq mi.

PERIOD OF RECORD.--August to October 1903, August 1909 to April 1914 (gage heights and discharge measurements, also twice-daily figures of discharge for January 1911 to December 1912, which do not represent mean daily discharges because of diurnal fluctuation) and July 1937 to current year. August to October 1903, published as Navesink River at Godeffroy, N. Y.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft above mean sea level (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

EXTREMES.--Current year: Maximum discharge, 8,620 cfs June 23 (gage height, 9.03 ft); minimum daily, 62 cfs Sept. 9.
Period of record: Maximum discharge, 33,000 cfs Aug. 19, 1955 (gage height, 12.49 ft), from rating curve extended above 11,000 cfs on basis of slope-area measurement of peak flow; practically no flow several times in July 1911.

REMARKS.--Records fair. Prior to 1949, diurnal fluctuations at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June, 1953, entire flow from 91.8 sq mi 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.

COOPERATION.--Nine discharge measurements supplied by the Board of Water Supply, City of New York.

REVISIONS (WATER YEARS).--WSP 821: Drainage area. WSP 1502: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	238	766	480	220	327	671	900	3,410	2,950	195	75
2	187	295	605	470	200	757	739	722	2,130	2,070	179	73
3	179	407	470	540	200	1,820	705	722	1,560	1,600	179	73
4	172	321	400	500	260	1,000	629	1,220	1,310	1,410	175	71
5	168	285	350	460	240	800	558	1,400	1,450	1,060	165	69
6	161	265	350	420	220	720	535	1,010	1,150	870	147	65
7	161	300	700	390	200	540	621	990	1,000	722	147	65
8	154	338	1,560	370	190	480	558	920	860	621	172	63
9	154	300	1,200	350	180	430	513	679	775	550	158	62
10	327	280	1,130	420	180	400	477	621	1,380	490	137	65
11	739	275	1,530	550	170	390	471	558	1,050	471	125	65
12	477	265	1,510	662	170	380	490	498	820	425	119	65
13	383	256	1,190	573	250	540	775	407	696	389	113	71
14	338	247	1,010	880	705	620	1,160	365	605	407	108	85
15	310	247	930	600	605	550	890	389	535	395	125	79
16	280	260	1,020	500	605	520	830	464	490	757	119	71
17	265	247	1,040	460	490	1,320	1,660	451	477	890	105	69
18	247	233	860	440	432	2,090	1,220	464	445	565	103	79
19	229	229	688	410	360	1,540	1,000	438	722	451	100	100
20	220	229	637	400	330	1,200	1,200	490	739	395	95	83
21	207	224	597	390	310	1,050	1,500	671	748	383	88	73
22	199	242	550	377	300	1,760	1,260	565	2,690	338	81	69
23	191	210	471	365	290	2,610	2,350	484	7,440	300	79	67
24	224	190	471	432	280	1,630	2,240	432	5,370	275	79	65
25	365	180	498	480	270	1,240	1,930	389	3,610	247	93	65
26	327	200	471	420	270	1,040	1,600	354	2,910	233	85	65
27	300	240	471	360	270	900	1,360	321	2,370	215	85	67
28	280	290	471	320	280	784	1,180	295	1,810	199	98	71
29	260	360	464	280	280	730	920	270	1,230	183	95	69
30	242	820	490	250	------	766	811	256	1,880	175	81	73
31	233	------	662	230	------	688	------	1,710	------	175	79	------
TOTAL	8,178	8,473	23,562	13,779	8,757	29,622	30,853	19,455	51,662	20,211	3,709	2,132
MEAN	264	282	760	444	302	956	1,028	628	1,722	652	120	71.1
MAX	739	820	1,560	880	705	2,610	2,350	1,710	7,440	2,950	195	100
MIN	154	180	350	230	170	327	471	256	445	175	79	62

CAL YR 1971 TOTAL 148,332 MEAN 406 MAX 1,650 MIN 42
WTR YR 1972 TOTAL 220,393 MEAN 602 MAX 7,440 MIN 62

01438500 Delaware River at Montague, N. J.

LOCATION.--Lat 41°18'30", long 74°47'50", Sussex County, on right bank 0.4 mile upstream from toll bridge at Montague, 0.8 mile downstream from Saw Kill, and at mile 246.3 upstream from Atlantic Ocean.

DRAINAGE AREA.--3,480 sq mi.

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.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above mean sea level. Prior to Feb. 9, 1940, non-recording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

AVERAGE DISCHARGE.--33 years, 5,747 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 53,000 cfs June 24 (gage height, 16.28 ft); minimum, 974 cfs Oct. 4 (gage height, 4.47 ft).
Period of record: Maximum discharge, 250,000 cfs Aug. 19, 1955 (gage height, 35.15 ft), from rating curve extended above 90,000 cfs on basis of flood-routing study; minimum, 382 cfs Aug. 24, 1954 (gage height, 3.83 ft); minimum daily, 412 cfs Aug. 23, 1954.
Maximum stage known during period 1903-72, 35.5 ft Oct. 10, 1903 (present datum), from floodmark. Gage height of 28.45 ft (present datum) was observed Mar. 18, 1936 (discharge, 164,500 cfs, from present rating curve extended above 90,000 cfs).

REMARKS.--Records excellent except those for January through May, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see p. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133). Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,470	2,220	7,110	8,310	3,900	3,670	8,580	8,400	28,100	26,600	2,670	2,140
2	2,290	2,670	6,030	6,900	3,500	6,090	9,550	8,200	22,000	21,100	2,630	2,090
3	2,130	3,060	4,920	7,250	3,440	23,400	10,600	8,000	16,700	16,300	2,750	2,180
4	1,400	2,860	4,100	7,370	3,900	20,000	10,000	10,000	14,100	14,000	2,880	2,230
5	2,440	2,820	3,730	6,730	4,000	12,900	9,120	24,300	13,600	12,100	3,190	2,120
6	2,370	2,450	3,380	5,810	3,300	10,500	8,350	21,000	11,900	12,100	2,390	2,250
7	2,490	2,380	7,730	5,230	3,100	8,900	8,380	16,400	10,500	9,670	2,050	2,250
8	2,550	2,590	24,000	4,710	3,300	8,130	7,890	14,200	9,060	8,380	2,880	2,210
9	2,400	2,500	21,400	3,800	3,600	7,220	7,010	13,100	8,130	7,910	3,310	2,270
10	2,560	2,480	16,300	3,850	3,500	6,440	6,870	14,600	10,800	7,350	3,040	1,890
11	4,570	2,060	19,300	5,480	3,300	5,390	7,040	15,300	8,720	7,230	2,730	2,340
12	4,500	2,040	23,600	6,460	2,900	4,680	7,280	13,500	7,260	6,510	2,600	2,360
13	3,890	2,120	17,800	6,490	2,500	5,930	8,200	11,900	6,780	6,840	1,910	2,500
14	3,320	2,170	13,800	8,430	5,000	7,670	17,000	9,400	6,130	5,080	2,030	3,160
15	3,110	2,280	11,900	9,160	7,200	6,750	16,700	8,600	5,220	4,660	2,900	2,980
16	2,620	2,740	11,800	6,380	7,000	6,300	15,600	9,000	4,770	3,910	2,340	2,410
17	2,360	2,540	12,300	5,200	6,000	12,400	25,700	9,400	4,460	5,600	1,790	2,270
18	2,400	2,180	11,400	5,300	4,900	26,300	31,000	9,400	4,530	5,050	1,450	2,560
19	2,320	2,400	9,260	5,700	4,300	19,000	28,000	9,200	6,690	4,820	1,890	2,600
20	2,280	2,160	8,220	5,800	3,400	14,100	25,400	7,400	8,070	4,530	1,860	2,340
21	2,300	2,340	7,480	5,400	3,100	12,900	33,900	7,800	7,720	4,380	1,960	2,070
22	2,000	2,260	6,720	4,600	3,700	15,000	28,000	7,600	13,700	3,720	2,190	2,340
23	1,830	2,910	5,710	3,800	3,500	29,400	26,000	7,200	37,700	2,750	2,100	2,340
24	1,660	2,670	5,110	4,600	3,500	24,600	24,200	6,400	49,600	2,370	2,580	2,270
25	1,730	2,490	5,190	6,200	3,500	18,600	21,200	5,740	36,600	2,940	2,920	2,270
26	2,050	2,210	5,430	6,170	3,400	15,100	18,600	5,330	29,600	2,800	3,330	2,340
27	2,270	2,800	5,350	5,350	2,800	12,500	16,000	4,310	22,700	2,600	2,670	2,880
28	2,170	2,760	5,600	4,450	2,880	11,100	13,000	3,500	18,200	2,230	2,630	2,770
29	2,400	2,840	6,620	3,920	3,390	9,320	11,000	3,100	15,500	2,190	2,480	2,300
30	2,420	5,350	6,720	3,410	------	9,160	9,200	2,990	17,200	2,180	2,270	2,270
31	2,110	------	9,340	3,560	------	9,120	------	9,510	------	2,280	2,030	------
TOTAL	77,410	77,350	307,350	175,820	111,810	382,570	469,370	304,780	456,040	220,180	76,450	71,000
MEAN	2,497	2,578	9,915	5,672	3,856	12,340	15,650	9,832	15,200	7,103	2,466	2,367
MAX	4,570	5,350	24,000	9,160	7,200	29,400	33,900	24,300	49,600	26,600	3,330	3,160
MIN	1,400	2,040	3,380	3,410	2,500	3,670	6,870	2,990	4,460	2,180	1,450	1,890

CAL YR 1971 TOTAL 1,935,470 MEAN 5,303 MAX 24,000 MIN 1,310
WTR YR 1972 TOTAL 2,730,130 MEAN 7,459 MAX 49,600 MIN 1,400

01440000 Flat Brook near Flatbrookville, N. J.

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, on right bank 1 mile upstream from Flatbrookville, 1.5 miles upstream from mouth.

DRAINAGE AREA.--65.1 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft above mean sea level. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 106 cfs (22.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,420 cfs June 23 (gage height, 5.14 ft); minimum, 12 cfs Sept. 23 (gage height, 1.84 ft).
Period of record: Maximum discharge, 9,560 cfs Aug. 19, 1955 (gage height, 12.58 ft, from high-water mark in gage house), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; minimum, 3.6 cfs Sept. 25, 26, 1964, Sept. 11, 1966.

REMARKS.--Records excellent. Flow occasionally regulated by ponds above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: Drainage area. WSP 1432: 1924-25(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	89	380	137	82	175	151	140	819	318	43	18
2	44	137	246	151	80	410	142	154	500	230	40	17
3	42	169	189	230	82	830	137	160	304	185	40	18
4	41	137	169	175	182	535	132	335	234	181	41	17
5	39	114	148	166	129	358	129	295	313	168	36	16
6	38	100	151	140	109	262	127	214	242	171	34	16
7	36	112	367	135	102	222	129	182	200	140	34	16
8	34	124	485	124	95	214	122	169	160	132	41	15
9	33	102	371	117	117	182	112	182	137	126	38	14
10	132	100	313	179	107	154	105	226	207	110	33	13
11	317	97	282	175	95	140	102	196	163	95	30	13
12	157	93	238	172	93	175	97	160	127	86	29	13
13	119	87	210	154	135	278	119	142	114	112	27	14
14	95	76	182	182	420	230	179	135	107	137	27	16
15	82	76	182	157	242	186	140	172	102	98	35	16
16	72	95	189	107	210	179	145	295	102	82	33	15
17	67	85	179	109	166	480	430	270	122	115	28	14
18	60	76	151	117	148	802	282	445	107	93	27	17
19	57	72	132	119	137	485	210	278	380	78	26	38
20	56	74	127	112	137	344	299	340	286	78	23	26
21	57	71	124	107	122	282	480	385	222	95	22	21
22	54	67	122	105	132	362	322	278	550	84	22	20
23	51	62	105	105	117	580	405	222	1,220	68	21	17
24	74	59	109	124	114	376	317	189	1,000	58	20	16
25	172	71	114	137	112	290	262	160	593	53	21	16
26	114	85	107	124	109	250	222	140	505	50	21	16
27	93	82	112	97	102	218	193	127	390	48	22	16
28	80	107	105	95	100	193	175	117	293	45	24	14
29	74	160	97	91	117	175	163	107	240	43	22	14
30	71	640	109	87	------	172	148	100	279	40	20	16
31	67	------	200	82	------	166	------	331	------	40	19	------
TOTAL	2,476	3,419	5,995	4,112	3,893	9,705	5,976	6,646	10,018	3,359	899	508
MEAN	79.9	114	193	133	134	313	199	214	334	108	29.0	16.9
MAX	317	640	485	230	420	830	480	445	1,220	318	43	38
MIN	33	59	97	82	80	140	97	100	102	40	19	13
CFSM	1.23	1.75	2.96	2.04	2.06	4.81	3.06	3.29	5.13	1.66	.45	.26
IN.	1.41	1.95	3.43	2.35	2.22	5.55	3.41	3.80	5.72	1.92	.51	.29

CAL YR 1971 TOTAL 48,311 MEAN 132 MAX 705 MIN 13 CFSM 2.03 IN 27.61
WTR YR 1972 TOTAL 57,006 MEAN 156 MAX 1,220 MIN 13 CFSM 2.40 IN 32.57

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	1115	4.01	786	3-23	0400	3.78	670
3-03	1730	4.27	928	6-01	1630	4.27	928
3-18	0745	4.35	972	6-23	1100	5.14	1,420

01440200 Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa.

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, N. J., on left bank 40 ft streamward from River Road, 1.0 mile downstream from Tocks Island, 3.7 miles northeast of Delaware Water Gap, Pa., 4.0 miles upstream from bridge on Interstate Highway 80, and at mile 216.1 upstream from Atlantic Ocean.

DRAINAGE AREA.--3,850 sq mi, approximately.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 5,421 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 64,200 cfs June 24 (gage height, 17.31 ft); minimum, 1,310 cfs July 30, Aug. 14; minimum daily, 1,690 cfs Aug. 19.
Period of record: Maximum discharge, 64,200 cfs June 24, 1972 (gage height, 17.31 ft); maximum gage height, 18.85 ft Feb. 4, 1970 (due to ice jam); minimum daily discharge, 580 cfs July 7, 8, 1965.

REMARKS.--Records good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see p. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133). Records of water quality for the current year are published in Part 2 of this report (see stations 01440090 and 01442750).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,800	2,520	7,920	9,520	4,600	3,930	8,920	9,280	34,800	28,300	3,020	2,390
2	2,800	2,900	7,520	7,240	4,230	5,440	9,400	9,040	30,400	24,500	2,930	2,360
3	2,700	3,540	5,720	7,520	3,810	22,000	10,600	8,760	20,300	18,600	3,170	2,150
4	2,300	3,450	5,060	7,880	4,200	28,300	10,400	10,500	16,000	16,000	3,410	2,150
5	2,700	3,300	4,320	7,240	5,760	15,800	9,520	25,400	15,800	13,500	3,500	2,010
6	2,700	2,950	3,600	6,320	4,500	11,000	8,560	25,200	13,800	13,600	2,930	1,850
7	2,800	2,720	6,160	5,840	3,930	9,000	8,400	17,400	12,200	11,300	2,420	2,120
8	2,800	2,920	22,800	5,360	3,840	8,100	8,360	14,200	10,600	9,940	2,900	2,100
9	2,750	2,980	28,400	4,110	3,630	7,200	7,000	13,100	9,440	8,980	3,650	2,100
10	3,200	2,820	19,200	4,080	3,870	6,600	6,480	14,200	11,500	8,380	3,470	1,930
11	5,500	2,680	20,000	5,400	3,780	5,800	6,840	15,600	10,400	8,460	3,140	1,870
12	5,700	2,350	28,600	6,680	3,420	5,000	6,880	13,900	8,360	8,060	2,690	2,240
13	4,900	2,400	22,000	7,240	2,980	6,400	7,680	12,200	8,040	7,700	2,150	2,330
14	4,300	2,380	15,600	8,000	4,850	8,560	15,500	10,400	7,120	6,400	2,020	3,230
15	3,420	2,420	13,500	10,700	8,160	8,200	17,700	9,560	6,240	5,800	2,930	3,170
16	3,150	2,880	12,900	7,920	7,600	7,360	15,900	10,000	5,760	4,900	3,050	2,540
17	2,720	2,920	13,300	5,240	6,200	10,600	25,400	10,400	5,320	6,200	2,540	2,210
18	2,620	2,600	12,700	6,160	5,300	31,800	33,600	11,200	5,480	6,200	1,900	2,420
19	2,650	2,480	10,600	6,360	5,020	24,700	30,500	10,600	7,560	5,800	1,690	2,750
20	2,380	2,520	8,960	6,760	4,050	16,200	28,400	9,560	10,100	6,500	1,870	2,600
21	2,620	2,580	8,000	6,360	3,750	14,400	36,800	9,680	9,680	5,400	1,990	1,980
22	2,320	2,320	7,120	5,720	4,600	15,000	33,400	9,440	15,200	3,500	2,480	2,090
23	2,220	2,880	6,160	4,170	4,470	31,600	29,800	8,880	41,600	3,500	2,420	2,330
24	1,930	3,020	5,200	4,540	3,780	30,800	28,000	7,800	60,000	3,000	2,570	2,330
25	2,350	2,780	4,850	6,560	4,350	21,400	23,600	6,840	46,800	3,410	3,350	2,300
26	2,380	2,520	5,280	6,960	4,020	16,400	19,300	6,360	36,900	3,620	3,590	2,570
27	2,650	2,800	5,130	5,840	3,630	13,600	16,400	5,160	27,600	3,320	3,290	2,930
28	2,380	3,080	5,360	4,820	3,480	12,200	14,200	4,290	21,500	2,840	2,870	2,990
29	2,520	3,280	6,080	4,100	3,570	10,500	12,400	3,660	18,100	2,720	2,660	2,420
30	2,680	5,960	6,680	4,000	------	9,400	10,200	3,540	18,000	2,450	2,660	2,210
31	2,280	------	8,520	4,000	------	10,000	------	6,520	------	2,570	2,180	------
TOTAL	91,220	86,950	337,240	192,640	129,380	427,290	500,140	332,670	544,600	255,450	85,440	70,670
MEAN	2,943	2,898	10,880	6,214	4,461	13,780	16,670	10,730	18,150	8,240	2,756	2,356
MAX	5,700	5,960	28,600	10,700	8,160	31,800	36,800	25,400	60,000	28,300	3,650	3,230
MIN	1,930	2,320	3,600	4,000	2,980	3,930	6,480	3,540	5,320	2,450	1,690	1,850

CAL YR 1971 TOTAL 2,235,010 MEAN 6,123 MAX 28,600 MIN 1,580
WTR YR 1972 TOTAL 3,053,690 MEAN 8,343 MAX 60,000 MIN 1,690

01443500 Paulins Kill at Blairstown, N. J.

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, on right bank 1,200 ft upstream from bridge on State Highway 94 in Blairstown, 1,400 ft upstream from Blairs Creek, and 10 miles upstream from mouth.

DRAINAGE AREA.--126 sq mi.

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

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft downstream). Datum of gage is 335.86 ft above mean sea level. Prior to May 24, 1922, nonrecording gage and May 24, 1922, to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft downstream at different datum. Aug. 1, 1931, to July 28, 1939, water-stage recorder at site 100 ft downstream at present datum.

AVERAGE DISCHARGE.--51 years, 187 cfs (20.15 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,980 cfs June 1 (gage height, 5.63 ft); minimum, 27 cfs Sept. 10, 12 (gage height, 1.54 ft).
Period of record: Maximum discharge, 8,750 cfs Aug. 19, 1955 (gage height, 11.12 ft, from high-water mark in gage house); minimum, about 2.8 cfs Nov. 1, 1922; minimum daily, 5 cfs Aug. 13, 14, 1930.

REMARKS.--Records good except those above 800 cfs, which are fair. Diurnal fluctuation caused by powerplant above station and flow regulated slightly by Swartswood Lake.

REVISIONS (WATER YEARS).--WSP 971: 1942. WSP 1382: 1952-53(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	220	623	225	166	323	262	245	1,800	698	91	39
2	124	356	544	245	166	616	256	262	1,390	528	91	39
3	124	438	424	349	170	1,060	240	274	1,090	426	91	45
4	117	375	375	310	240	854	235	410	884	364	88	41
5	110	317	330	310	220	600	230	417	648	331	77	37
6	104	280	317	274	196	468	220	336	608	331	71	36
7	98	298	568	256	183	396	220	304	505	289	91	34
8	88	292	632	240	161	362	210	298	382	256	114	34
9	91	256	513	230	161	336	196	349	330	240	98	34
10	250	240	450	343	153	298	187	431	356	220	85	31
11	624	225	424	343	142	268	179	382	292	205	71	31
12	403	210	375	343	139	298	174	330	256	191	66	31
13	304	205	343	323	225	468	205	286	235	230	66	36
14	256	196	310	369	672	403	274	268	225	289	60	43
15	230	187	310	330	410	356	245	330	215	250	80	39
16	205	200	304	250	317	356	256	438	205	210	77	33
17	183	187	286	235	262	905	403	382	240	225	68	41
18	166	179	262	235	235	1,280	336	375	256	210	66	60
19	153	174	235	235	225	980	292	349	656	187	63	80
20	146	170	225	230	191	696	375	417	632	174	56	68
21	142	166	225	225	210	552	664	536	483	200	52	56
22	135	161	215	220	205	568	498	417	935	187	47	56
23	135	153	191	220	179	728	576	343	1,350	161	47	54
24	179	146	191	245	191	544	498	298	1,220	146	50	54
25	266	170	210	268	183	453	424	262	1,220	127	50	56
26	240	166	200	250	183	396	369	235	1,130	117	47	54
27	200	179	200	210	174	356	336	210	920	107	50	56
28	183	225	196	200	170	323	317	196	796	101	58	56
29	170	310	187	187	196	304	292	183	625	94	50	54
30	157	992	200	183	------	292	256	170	603	91	43	63
31	153	------	274	174	------	286	------	720	------	88	39	------
TOTAL	5,880	7,673	10,349	8,057	6,325	16,145	9,225	10,453	20,687	7,273	2,103	1,391
MEAN	190	256	334	260	218	521	308	337	690	235	67.8	46.4
MAX	624	992	823	369	672	1,280	664	720	1,800	698	114	80
MIN	88	146	187	174	139	268	174	170	205	88	39	31
CFSM	1.51	2.03	2.65	2.06	1.73	4.13	2.44	2.67	5.48	1.87	.54	.37
IN.	1.74	2.27	3.06	2.38	1.87	4.77	2.72	3.09	6.11	2.15	.62	.41

CAL YR 1971 TOTAL 66,868 MEAN 243 MAX 1,420 MIN 23 CFSM 1.93 IN 26.24
WTR YR 1972 TOTAL 105,561 MEAN 288 MAX 1,800 MIN 31 CFSM 2.29 IN 31.17

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	1030	3.67	1,090	6-01	1515	5.63	1,980
3-03	1615	3.72	1,110	6-23	1400	5.43	1,860
3-18	0900	5.63	1,460				

01443900 Yards Creek near Blairstown, N. J.

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, on left bank 100 ft upstream of bridge on Hainesburg-Mount Vernon Road, 2.2 miles northeast of Hainesburg, 2.4 miles upstream from mouth, and 4.2 miles west of Blairstown.

DRAINAGE AREA.--7.16 sq mi.

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

GAGE.--Water-stage recorder with concrete control. Altitude of gage is 618 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 9.52 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 137 cfs Feb. 23 (gage height, 3.13 ft); minimum daily, 0.51 cfs Sept. 5.
Period of record: Maximum discharge, 140 cfs Jan. 14, 1968 (gage height, 3.14 ft) from rating curve extended above 30 cfs on basis of theoretical weir formula; maximum gage height, 3.66 ft Feb. 6, 1971, backwater from ice; no flow Sept. 12, 1971.

REMARKS.--Records good. Complete regulation by the Central Jersey Power and Light Co., at Yards Creek Reservoir above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.7	18	34	9.6	14	27	13	41	54	.66	.94
2	13	9.6	17	34	8.7	17	26	14	38	49	.66	.94
3	12	7.3	16	32	10	22	24	15	38	49	.73	.66
4	10	6.1	11	34	12	20	26	17	35	46	.73	.53
5	7.9	5.5	4.0	35	12	17	23	15	35	44	.55	.51
6	7.9	5.2	6.7	31	10	15	13	14	35	45	.55	.73
7	7.6	5.5	22	14	9.2	15	14	13	35	39	3.0	.66
8	7.0	5.2	19	14	17	15	14	13	34	22	3.2	.94
9	5.2	14	17	15	17	17	11	17	34	19	2.5	1.0
10	7.9	14	17	14	21	16	12	17	36	19	1.1	.87
11	3.5	14	17	14	30	16	13	15	31	19	.87	.66
12	2.6	14	14	14	35	16	13	15	30	12	.73	.87
13	2.2	15	14	15	14	14	15	14	31	11	.94	1.3
14	2.2	13	14	17	12	15	14	13	32	2.6	.79	1.5
15	4.2	13	15	14	11	15	15	14	34	2.5	.87	1.2
16	4.2	13	14	17	10	17	16	14	14	2.2	.66	1.1
17	4.0	13	15	19	10	28	15	17	13	2.0	.73	1.1
18	3.5	13	14	26	10	22	14	19	17	1.9	.87	2.5
19	3.5	13	12	13	25	17	14	17	24	1.8	1.0	1.9
20	3.7	14	13	9.6	46	17	18	20	18	1.5	.94	.87
21	3.7	12	13	9.6	54	21	17	16	22	1.3	.66	.87
22	3.5	12	13	9.6	52	32	17	14	30	1.2	1.2	1.3
23	3.5	13	13	8.7	31	31	16	14	50	1.1	1.7	1.4
24	6.1	14	13	9.2	12	30	14	14	44	.87	.94	1.3
25	4.2	14	12	11	9.6	28	15	14	41	.87	.94	1.1
26	4.2	11	12	9.6	8.7	25	14	14	44	.87	.94	1.2
27	4.2	14	14	10	7.9	25	14	14	55	.79	1.2	1.1
28	4.4	14	19	10	8.7	26	14	13	54	.60	.94	.73
29	4.2	21	19	9.2	11	27	14	12	54	.57	.79	.79
30	4.2	22	25	8.7	------	28	12	12	57	.73	1.4	1.2
31	4.4	------	36	8.7	------	29	------	31	------	.73	1.3	------
TOTAL	170.7	363.1	478.7	519.9	524.4	647	484	474	1,056	452.13	34.09	31.77
MEAN	5.51	12.1	15.4	16.8	18.1	20.9	16.1	15.3	35.2	14.6	1.10	1.06
MAX	13	22	36	35	54	32	27	31	57	54	3.2	2.5
MIN	2.2	5.2	4.0	8.7	7.9	14	11	12	13	.57	.55	.51

CAL YR 1971 TOTAL 3,758.20 MEAN 10.3 MAX 50 MIN .67
WTR YR 1972 TOTAL 5,235.79 MEAN 14.3 MAX 57 MIN .51

01445500 Pequest River at Pequest, N. J.

LOCATION.--Lat 40°49'43", long 74°58'45", Warren County, on right bank at Pequest, 100 ft upstream from Lehigh and Hudson River Railway Bridge, and 300 ft downstream from Furnace Brook.

DRAINAGE AREA.--108 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft above mean sea level. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

AVERAGE DISCHARGE.--51 years, 147 cfs (18.48 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,500 cfs, probably occurred June 1, determined by hydrographic comparison (gage height, unknown); minimum, 41 cfs Sept. 10, 11, 18, 29 (gage height, 1.29 ft).
Period of record: Maximum discharge, 1,810 cfs Mar. 14, 1936 (gage height, 4.97 ft), from rating curve extended above 1,200 cfs; minimum, 12 cfs Aug. 17-22, Dec. 10, 1965.

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1902: 1940(M), 1945(M), 1945, 1955(M), 1957(M), 1957, 1959(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	288	425	175	134	325	226	183	1,350	505	92	49
2	109	614	383	232	134	550	219	242	1,000	440	91	52
3	105	490	347	280	136	628	210	256	700	383	90	55
4	97	379	292	235	213	475	210	361	570	343	88	50
5	95	312	263	245	144	445	207	370	540	316	85	46
6	91	277	259	201	146	370	198	300	520	300	82	46
7	87	284	406	192	144	320	192	270	430	280	85	46
8	82	270	401	178	109	312	183	250	350	270	103	45
9	80	249	352	175	113	277	172	260	290	249	93	43
10	280	229	320	277	127	252	167	300	270	229	85	41
11	460	213	292	270	116	229	161	330	290	213	80	41
12	300	210	266	277	109	256	156	290	240	201	76	42
13	235	201	252	249	270	312	180	260	210	235	73	43
14	192	183	235	252	435	288	204	230	200	273	71	49
15	172	180	235	226	312	273	192	220	192	242	69	45
16	156	178	232	161	252	292	195	290	186	219	68	41
17	144	170	219	167	216	560	263	350	256	284	66	40
18	134	164	210	172	195	601	219	310	308	235	66	40
19	127	159	192	170	172	490	195	280	619	219	66	87
20	120	159	186	175	151	415	245	300	560	195	60	58
21	118	154	186	175	149	370	308	370	475	192	58	51
22	113	146	178	175	180	401	284	400	686	134	57	49
23	113	139	161	183	151	445	308	370	1,160	111	55	45
24	167	131	161	201	161	388	280	280	1,050	107	54	42
25	226	167	172	223	159	334	256	240	974	101	54	45
26	186	195	170	201	164	304	235	210	862	101	52	45
27	161	210	164	175	159	280	219	190	731	103	57	43
28	146	270	161	161	161	263	204	170	619	99	55	43
29	134	320	154	154	207	249	195	160	540	93	52	42
30	127	619	172	149	------	239	186	150	495	93	51	46
31	122	------	207	144	------	232	------	600	------	92	50	------
TOTAL	4,784	7,560	7,653	6,250	5,119	11,175	6,469	8,792	16,673	6,857	2,184	1,410
MEAN	154	252	247	202	177	360	216	284	556	221	70.5	47.0
MAX	460	619	425	280	435	628	308	600	1,350	505	103	87
MIN	80	131	154	144	109	229	156	150	186	92	50	40
CFSM	1.43	2.33	2.29	1.87	1.64	3.33	2.00	2.63	5.15	2.05	.65	.44
IN.	1.65	2.60	2.64	2.15	1.76	3.85	2.23	3.03	5.74	2.36	.75	.49

CAL YR 1971 TOTAL 73,099 MEAN 200 MAX 808 MIN 31 CFSM 1.85 IN 25.18
WTR YR 1972 TOTAL 84,926 MEAN 232 MAX 1,350 MIN 40 CFSM 2.15 IN 29.25

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-10	2230	2.99	600	3-03	1200	3.18	686
11-02	0100	3.12	659	6-01	Unknown	Unknown	About 1,500
11-30	0430	3.33	754	6-23	1745	4.27	1,200
2-13	2145	3.03	618				

NOTE.--No gage-height record May 5 to June 16.

01446500 Delaware River at Belvidere, N. J.

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, on left bank at Belvidere, 800 ft downstream from Pequest River, and at mile 197.7 upstream from Atlantic Ocean.

DRAINAGE AREA.--4,535 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft above mean sea level. Prior to Jan. 1, 1929, non-recording gage at site 200 ft upstream at same datum.

AVERAGE DISCHARGE.--50 years, 7,744 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 74,100 cfs June 24 (gage height, 15.34 ft); minimum, 1,990 cfs Sept. 11 (gage height, 3.24 ft).
Period of record: Maximum discharge, 273,000 cfs Aug. 19, 1955 (gage height, 30.21 ft, from high-water mark in gage house), from rating curve extended above 110,000 cfs on basis of flood-routing study; minimum, 609 cfs Sept. 28, 29, 1943 (gage height, 2.11 ft).
Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark (discharge, 220,000 cfs, from rating curve extended above 170,000 cfs).

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see p. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133).

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,850	4,490	12,000	12,000	4,940	6,510	11,500	11,400	37,400	30,600	3,500	2,520
2	3,680	6,020	11,500	9,760	5,480	9,140	11,900	11,300	36,700	29,600	3,580	2,570
3	3,380	6,710	9,200	10,400	5,300	23,000	13,300	11,000	26,100	22,500	3,700	2,560
4	3,140	6,340	8,300	10,500	6,440	35,000	13,300	13,000	20,900	19,400	3,750	2,630
5	3,460	5,800	7,000	10,000	5,910	21,300	12,300	26,300	19,800	16,400	3,880	2,610
6	3,420	5,260	6,500	9,000	4,920	16,500	11,000	27,700	18,000	16,000	3,850	2,520
7	3,360	5,030	9,700	7,700	4,940	14,300	10,700	20,800	15,800	14,100	3,280	2,650
8	3,310	5,100	24,700	7,100	4,310	12,700	10,700	17,500	13,700	12,300	3,340	2,630
9	3,350	5,030	31,200	6,060	4,240	11,500	9,430	16,500	11,900	10,900	4,130	2,610
10	4,240	4,690	23,900	6,630	4,780	10,100	8,710	17,600	13,000	10,400	4,080	2,590
11	7,100	4,530	23,200	7,570	4,630	8,980	8,940	19,200	13,300	10,200	3,800	2,270
12	7,320	4,020	30,200	8,890	4,340	7,780	8,910	17,200	10,500	9,320	3,400	2,690
13	6,520	3,970	26,100	9,610	4,940	9,200	9,600	15,100	9,810	9,120	3,220	2,770
14	5,640	3,900	20,000	10,400	8,380	11,100	16,100	12,900	8,820	9,280	2,670	3,300
15	5,030	3,900	17,300	13,500	10,100	11,200	20,900	12,200	7,780	7,630	2,950	3,630
16	4,680	4,250	16,200	9,660	11,300	10,100	19,100	13,000	7,050	6,340	3,480	3,180
17	4,000	4,440	16,400	6,240	10,000	14,200	26,300	13,000	6,920	7,250	2,930	2,730
18	3,680	4,060	16,000	7,390	8,460	34,900	35,900	14,800	6,850	8,120	2,460	2,770
19	3,700	3,770	13,700	8,340	7,190	30,900	32,300	13,600	10,200	7,320	2,110	4,200
20	3,470	3,920	11,500	8,690	5,740	22,100	29,700	12,600	13,400	7,000	2,520	3,340
21	3,500	3,800	10,500	8,410	4,720	19,000	39,200	12,900	13,100	6,860	2,440	2,810
22	3,360	3,680	9,490	7,730	5,670	19,500	37,200	12,200	19,500	6,270	2,540	2,650
23	3,100	3,780	8,530	6,250	5,610	34,300	31,900	11,200	48,200	4,860	2,670	2,810
24	3,170	4,600	7,450	6,420	5,230	36,000	30,400	9,980	71,300	4,150	2,650	2,790
25	4,220	4,600	6,950	8,350	6,070	26,600	26,800	8,920	57,000	3,980	3,360	2,730
26	3,980	4,400	7,260	9,030	5,900	21,300	22,900	8,170	45,300	4,250	3,630	2,690
27	3,990	4,300	7,180	7,630	4,960	17,800	20,100	6,990	35,100	3,950	3,750	2,850
28	3,910	5,200	7,280	6,590	4,880	15,900	17,500	6,030	27,400	3,580	3,340	3,420
29	3,840	5,300	7,800	5,970	5,340	14,100	15,300	5,240	22,600	3,300	3,180	3,100
30	3,950	10,700	8,620	5,360	------	12,500	12,700	4,800	21,000	3,200	3,050	2,810
31	3,700	------	10,200	4,810	------	12,900	------	7,950	------	3,260	2,710	------
TOTAL	127,050	145,590	425,860	255,990	174,720	550,410	574,590	411,080	668,430	311,440	99,950	85,430
MEAN	4,098	4,853	13,740	8,258	6,025	17,760	19,150	13,260	22,280	10,050	3,224	2,848
MAX	7,320	10,700	31,200	13,500	11,300	36,000	39,200	27,700	71,300	30,600	4,130	4,200
MIN	3,100	3,680	6,500	4,810	4,240	6,510	8,710	4,800	6,850	3,200	2,110	2,270

CAL YR 1971 TOTAL 2,780,680 MEAN 7,618 MAX 31,200 MIN 1,750
WTR YR 1972 TOTAL 3,830,540 MEAN 10,470 MAX 71,300 MIN 2,110

01446700 Delaware River at Easton, Pa.

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, on right bank 200 ft upstream from city of Easton pumping station, 1.2 miles upstream from Bushkill Creek in Easton.

DRAINAGE AREA.--4,636 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 157.84 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 8,046 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 72,100 cfs June 24 (gage height, 21.29 ft); minimum, 1,850 cfs Sept. 11 (gage height, 4.00 ft).
Period of record: Maximum discharge, 76,500 cfs Apr. 3, 1970 (gage height, 22.08 ft, from floodmark); minimum, 1,640 cfs Aug. 16, 1971 (gage height, 3.87 ft).

REMARKS.--Records fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 127) and by Cannonsville, Pepacton, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs about 100 miles upstream (see New York Annual Report) and smaller reservoirs. Diversion from Cannonsville, Pepacton, and Neversink Reservoirs (see p. 133).
Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,860	4,950	14,000	12,000	5,180	6,940	12,100	12,000	37,000	29,600	3,480	2,410
2	4,030	6,920	12,500	10,100	5,910	9,330	12,100	11,900	40,000	29,200	3,750	2,500
3	3,810	7,780	10,000	10,600	5,660	20,600	13,300	11,500	32,000	22,600	3,770	2,440
4	3,580	7,260	8,500	10,700	6,890	31,500	13,500	12,700	25,000	19,500	3,860	2,500
5	2,700	6,530	7,720	10,400	6,260	22,300	12,600	23,200	20,000	16,600	3,950	2,550
6	3,670	5,930	7,070	9,500	5,540	17,200	11,500	26,900	18,000	16,100	4,170	2,390
7	3,580	5,660	9,770	8,220	5,350	14,900	10,900	21,300	16,000	14,400	3,460	2,530
8	3,670	5,660	21,100	7,690	4,700	13,200	11,100	17,900	14,000	12,400	3,330	2,530
9	3,710	5,570	31,400	6,790	4,580	12,100	9,970	16,700	12,700	11,000	4,170	2,480
10	4,720	5,230	23,900	7,210	5,130	10,800	9,250	17,500	12,800	10,600	4,340	2,510
11	7,780	5,090	22,400	7,720	5,040	9,670	9,360	19,200	13,800	10,200	4,010	2,140
12	8,160	4,520	28,400	9,100	4,810	8,520	9,330	17,500	11,200	9,510	3,670	2,100
13	7,320	4,430	26,000	9,880	5,330	9,670	9,860	15,500	10,300	9,190	3,430	2,400
14	6,360	4,360	20,500	10,400	8,610	11,400	14,700	13,400	9,410	9,570	2,700	2,600
15	5,640	4,340	17,500	13,200	10,100	11,800	20,700	12,700	8,590	7,640	2,840	2,800
16	5,250	4,610	16,000	10,700	11,400	10,800	19,000	13,200	7,890	6,530	3,730	3,200
17	4,540	4,880	16,000	7,210	10,400	14,700	22,900	13,300	7,900	7,320	3,100	2,900
18	4,170	4,540	16,100	7,260	8,900	33,000	27,800	14,900	7,670	8,080	2,530	2,600
19	4,120	4,170	14,000	8,610	7,910	31,400	27,900	13,700	10,700	7,210	2,090	3,000
20	3,920	4,360	12,000	8,900	7,750	23,000	28,100	13,500	14,200	7,000	2,410	3,700
21	3,880	4,120	10,900	8,780	7,750	19,600	28,900	13,300	13,800	6,710	2,260	2,800
22	3,810	4,250	9,910	8,160	7,750	19,600	27,400	13,000	21,500	6,430	2,390	2,650
23	3,480	4,120	9,010	7,020	7,780	27,500	27,800	12,000	29,400	5,230	2,650	2,840
24	3,620	4,500	7,970	6,790	6,890	24,500	27,800	11,000	54,000	4,360	2,510	2,840
25	4,650	7,000	7,590	8,330	6,480	23,800	26,100	10,000	55,000	3,970	3,060	2,780
26	4,470	7,300	7,640	9,330	6,360	21,400	22,700	9,000	44,100	4,340	3,480	2,780
27	4,450	5,800	7,690	8,440	5,490	18,100	20,300	8,300	34,800	4,100	3,790	2,860
28	4,410	5,400	7,610	7,000	5,180	16,200	17,800	7,600	27,700	3,790	3,290	3,460
29	4,210	6,100	7,940	6,480	5,610	14,500	15,700	6,800	23,100	3,370	3,120	3,270
30	4,360	15,000	8,750	5,930	------	12,900	13,200	6,200	21,600	3,290	2,940	2,960
31	4,210	------	9,940	5,280	------	13,100	------	7,000	------	3,220	2,660	------
TOTAL	140,140	170,380	429,810	267,730	194,740	534,030	533,670	422,700	654,160	313,060	100,940	81,420
MEAN	4,521	5,679	13,860	8,636	6,715	17,230	17,790	13,640	21,810	10,100	3,256	2,714
MAX	8,160	15,000	31,400	13,200	11,400	33,000	28,900	26,900	55,000	29,600	4,340	3,700
MIN	2,700	4,120	7,070	5,280	4,580	6,940	9,250	6,200	7,670	3,220	2,090	2,100
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1971 TOTAL 2,903,960 MEAN 7,956 MAX 31,400 MIN 1,870 CFSM - IN. -
WTR YR 1972 TOTAL 3,842,780 MEAN 10,500 MAX 55,000 MIN 2,090 CFSM - IN. -

01453000 Lehigh River at Bethlehem, Pa.

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, on left bank 120 ft upstream from New Street Bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek.

DRAINAGE AREA.--1,279 sq mi, includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 sq mi.

PERIOD OF RECORD.--Sept. 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to Oct. 1913.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft above mean sea level. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft downstream at same datum. Oct. 1, 1928 to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower.

AVERAGE DISCHARGE.--65 years (1902-4, 1909-72), 2,251 cfs (23.90 inches per year), adjusted for diversion 1902-4, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES.--Current year: Maximum discharge, 57,900 cfs June 23 (gage height, 20.02 ft, from floodmark), from rating curve extended above 8,900 cfs on basis of slope-area measurement of peak flow; minimum, 688 cfs Sept. 10, 12 (gage height, 1.61 ft).

Period of record: Maximum discharge, 92,000 cfs May 23, 1942 (gage height, about 25.9 ft, from floodmark, present site and datum), from rating curve extended above 48,000 cfs; minimum, 125 cfs June 28, 1965 (gage height, 0.94 ft).

Flood of Feb. 28, 1902, reached a stage of 24.9 ft from floodmark, present site and datum (discharge, about 88,000 cfs).

REMARKS.--Records fair. Flow regulated by Wild Creek Reservoir, since January 1941, Penn Forest Reservoir since October 1958, Francis E. Walter Reservoir since February 1961, and Beltzville Lake since February 1971 (see p.128). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,750	2,600	6,900	2,580	1,900	3,570	3,370	2,570	10,200	7,240	1,200	846
2	1,620	5,520	5,230	2,780	2,000	5,580	3,290	2,600	8,380	6,380	1,310	815
3	1,570	6,140	4,310	3,370	2,240	9,500	3,160	2,780	7,130	5,660	1,220	800
4	1,490	4,990	3,790	3,210	3,520	8,880	2,910	4,440	6,060	5,350	1,320	795
5	1,360	3,720	3,450	3,230	2,930	7,550	2,850	6,380	4,710	5,090	1,190	790
6	1,230	3,190	3,370	3,000	2,200	5,740	2,660	5,480	4,050	5,060	1,030	781
7	1,210	3,180	5,310	2,890	2,000	4,860	2,580	4,480	3,640	4,930	1,100	763
8	1,200	2,960	7,750	2,950	1,800	4,500	2,620	4,200	3,360	4,400	1,230	736
9	1,150	2,650	7,800	2,880	1,900	4,080	2,540	4,120	2,890	4,280	1,120	732
10	2,660	2,580	6,850	3,630	2,010	3,790	2,440	4,800	2,820	3,790	1,040	700
11	3,110	2,430	7,400	3,550	1,960	3,360	2,150	4,660	2,740	3,010	1,060	692
12	2,760	2,300	7,400	3,810	1,860	3,370	2,040	3,940	2,610	2,520	1,010	692
13	2,230	2,180	6,730	4,020	2,570	3,610	2,270	3,550	2,420	2,490	963	714
14	2,020	2,120	6,660	4,680	6,660	3,610	2,830	3,150	2,160	2,490	900	732
15	1,840	2,170	4,820	4,950	5,290	3,690	2,910	3,280	2,060	2,240	876	772
16	1,740	2,230	4,570	3,950	4,480	3,790	3,140	3,640	2,160	2,130	852	781
17	1,660	2,060	4,340	3,570	4,340	8,000	4,200	3,550	2,650	2,040	810	786
18	1,580	1,950	4,100	3,400	3,790	10,000	4,710	3,290	2,580	2,030	825	921
19	1,520	1,860	3,760	3,370	3,540	8,000	5,030	3,110	3,970	2,040	840	928
20	1,420	1,840	3,400	3,190	3,320	7,000	4,860	3,260	5,030	2,200	1,100	914
21	1,370	1,760	3,320	3,040	2,980	5,600	5,120	3,300	4,100	2,000	900	977
22	1,370	1,710	3,220	2,840	3,120	5,900	5,080	3,420	8,030	1,800	840	1,010
23	1,350	1,670	3,000	2,780	2,380	9,380	4,880	3,230	40,000	1,700	800	991
24	1,600	1,660	2,800	2,950	2,380	8,350	4,140	2,960	25,000	1,600	830	894
25	1,740	2,540	2,780	3,160	2,340	6,730	4,050	2,570	15,000	1,600	960	876
26	1,780	2,890	2,710	3,250	2,320	5,270	3,760	2,450	11,000	1,500	882	876
27	2,360	2,550	2,660	2,850	2,320	4,970	3,360	2,380	9,500	1,400	963	795
28	2,030	2,600	2,520	2,740	2,280	4,480	3,020	2,220	8,280	1,300	1,140	768
29	1,790	3,430	2,460	2,300	2,390	3,920	2,890	2,120	7,790	1,250	1,070	768
30	1,570	8,930	2,460	2,100	------	3,670	2,760	2,000	7,840	1,200	921	768
31	1,500	------	2,690	2,000	------	3,610	------	4,590	------	1,200	888	------
TOTAL	53,580	88,410	138,560	99,020	82,920	174,360	101,620	108,520	218,160	91,920	31,090	24,413
MEAN	1,728	2,947	4,470	3,194	2,856	5,625	3,387	3,501	7,272	2,965	1,003	814
MAX	3,110	8,930	7,800	4,950	6,660	10,000	5,120	6,380	40,000	7,240	1,320	1,010
MIN	1,150	1,660	2,460	2,000	1,800	3,360	2,040	2,000	2,060	1,200	800	692
CFSM	1.35	2.30	3.49	2.50	2.23	4.40	2.65	2.74	5.69	2.32	.78	.64
IN.	1.56	2.57	4.03	2.88	2.41	5.07	2.96	3.16	6.35	2.67	.90	.71

CAL YR 1971 TOTAL 1,039,932 MEAN 2,849 MAX 15,100 MIN 568 CFSM 2.23 IN 30.25
WTR YR 1972 TOTAL 1,212,473 MEAN 3,313 MAX 40,000 MIN 692 CFSM 2.59 IN 35.27

NOTE.--No gage-height record June 23-27.

01455500 Musconetcong River at outlet of Lake Hopatcong, N. J.

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, on left bank at highway bridge 300 ft downstream from Lake Hopatcong Dam in Landing.

DRAINAGE AREA.--25.6 sq mi.

PERIOD OF RECORD.--July 1928 to current year.

GAGE.--Water-stage recorder and concrete control. Prior to Aug. 24, 1967, concrete control at site 40 ft downstream. Datum of gage is 904.99 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--44 years, 42.0 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, about 355 cfs, probably occurred June 24 (gage height, unknown); minimum daily, 1.1 cfs Oct. 28.
Period of record: Maximum discharge, 795 cfs Aug. 20, 1955 (gage height, 3.85 ft), from rating curve extended above 300 cfs; maximum gage height, 3.96 ft Aug. 5, 1969; no flow many days in some years.

REMARKS.--Records excellent except those from Feb. 11 to Sept. 30, which are fair. Flow regulated by Lake Hopatcong (see p. 129).

COOPERATION.--Water-stage recorder inspected by employees of Morris Canal and Banking Company.

REVISIONS (WATER YEARS).--WSP 781: 1928(M), Drainage area. WSP 1051: 1944-45.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	68	166	55	41	31	38	57	180	156	14	12
2	57	68	166	55	41	31	38	59	151	94	12	12
3	57	69	166	55	34	31	38	59	151	96	12	12
4	57	30	164	29	31	31	39	66	151	81	12	12
5	57	18	164	15	31	31	40	80	198	81	12	12
6	57	50	162	15	31	31	40	80	156	82	12	12
7	56	94	164	71	31	31	40	80	180	70	12	12
8	54	115	162	101	31	31	42	76	158	66	14	12
9	48	142	162	75	31	31	36	102	137	70	13	7.4
10	48	185	80	42	31	31	36	108	131	57	13	7.4
11	48	185	9.5	42	31	31	36	101	107	48	12	12
12	48	184	9.2	42	31	31	36	96	87	45	12	12
13	48	184	9.2	42	31	31	36	88	77	61	12	12
14	47	182	25	42	31	31	43	76	71	96	12	23
15	21	180	43	42	31	31	42	82	46	86	12	37
16	55	180	54	42	31	31	43	82	40	90	12	36
17	55	178	53	42	31	31	49	86	55	103	12	36
18	53	177	53	42	31	32	49	102	68	92	12	36
19	52	175	53	42	31	32	47	108	134	80	12	36
20	51	175	53	42	31	32	49	114	151	68	12	36
21	77	174	53	42	31	31	76	156	148	57	12	35
22	110	174	53	42	31	31	78	141	198	49	12	36
23	109	172	52	42	31	31	76	127	330	43	12	35
24	109	170	52	42	31	31	76	127	355	33	12	35
25	109	167	52	42	31	33	86	120	330	33	12	35
26	54	167	52	42	31	33	86	96	305	30	12	34
27	4.5	166	65	42	31	35	76	86	290	23	12	34
28	1.1	166	55	42	31	35	64	76	260	20	12	34
29	25	164	55	42	31	36	70	62	205	19	12	34
30	72	166	55	42	------	35	70	57	168	16	12	34
31	69	------	55	42	------	37	------	49	------	15	12	------
TOTAL	1,765.6	4,325	2,516.9	1,395	922	991	1,575	2,799	5,018	1,960	378	732.8
MEAN	57.0	144	81.2	45.0	31.8	32.0	52.5	90.3	167	63.2	12.2	24.4
MAX	110	185	166	101	41	37	86	156	355	156	14	37
MIN	1.1	18	9.2	15	31	31	36	49	40	15	12	7.4

CAL YR 1971 TOTAL 17,960.63 MEAN 49.2 MAX 277 MIN .36
WTR YR 1972 TOTAL 24,378.30 MEAN 66.6 MAX 355 MIN 1.1

NOTE.--No gage-height record Feb. 11 to Mar. 7, Mar. 10 to May 4, May 5 to June 9, June 18 to Aug. 2, Aug. 4 to Sept. 29.

01456000 Musconetcong River near Hackettstown, N. J.

LOCATION.--Lat 40°53'10", long 74°48'00", Warren County, on right bank 75 ft upstream from Saxton Falls Dam, 0.5 mile upstream from Delaware, Lackawanna and Western Railroad bridge, and 3.0 miles northeast of Hackettstown.

DRAINAGE AREA.--70.0 sq mi.

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

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 630.93 ft above mean sea level (New Jersey Geological Survey bench mark). Prior to Aug. 21, 1923, nonrecording gage and Aug. 21, 1923, to July 19, 1938, water-stage recorder at site 2,000 ft downstream at datum 26.97 ft lower.

AVERAGE DISCHARGE.--51 years, 118 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,250 cfs June 23 (gage height, 3.07 ft); minimum, 21 cfs Sept. 18, minimum daily, 21 cfs Aug. 31, Sept. 1.
Period of record: Maximum discharge, 2,170 cfs Aug. 19, 1955 (gage height, 3.97 ft), from rating curve extended above 600 cfs; no flow part of Sept. 6, 1951, Feb. 4, 5, 1957, when water was below spillway, waste gate was closed, and no flow through swimming pool.

REMARKS.--Records good above 25 cfs and fair below. Records given herein represent flow over dam and through swimming pool. Flow regulated by Lake Hopatcong (see p. 129) and other smaller lakes.

COOPERATION.--Water-stage recorder operated by employees of Morris Canal and Banking Co.

REVISIONS (WATER YEARS).--WSP 1051: 1944-45.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	245	475	150	113	165	158	108	661	489	54	21
2	123	372	419	173	105	254	158	152	573	447	50	34
3	127	391	372	223	109	367	162	175	538	303	47	53
4	123	359	345	251	153	334	158	254	482	262	47	32
5	123	315	327	285	117	294	158	254	545	229	44	30
6	155	285	321	137	101	250	149	210	489	218	42	30
7	150	279	391	115	101	218	149	190	426	193	47	27
8	132	273	385	103	93	213	144	185	353	198	72	27
9	122	257	346	119	93	190	131	248	315	178	42	53
10	202	297	321	192	89	164	126	312	285	155	32	72
11	290	315	218	187	85	150	122	270	245	132	30	72
12	234	346	144	202	81	161	114	242	208	123	27	73
13	207	359	131	187	170	204	136	221	183	188	27	69
14	177	346	122	172	334	189	167	206	168	297	30	38
15	158	339	126	166	236	180	162	250	155	223	27	28
16	140	334	154	135	190	177	172	256	127	198	27	26
17	118	322	162	125	163	285	202	244	183	273	27	24
18	102	310	158	125	145	366	187	378	218	235	27	22
19	98	291	144	125	154	321	170	352	552	208	27	45
20	94	262	145	130	145	275	205	364	517	178	27	38
21	94	111	150	130	130	233	276	453	440	150	25	35
22	59	83	145	130	129	255	259	390	580	137	25	51
23	123	193	132	125	125	313	294	338	1,060	119	25	57
24	183	245	132	135	131	265	382	296	1,210	99	25	57
25	309	303	137	143	123	227	318	261	1,100	87	27	57
26	291	291	127	148	123	201	362	217	956	76	27	54
27	229	385	127	130	115	196	180	187	771	69	27	54
28	95	327	132	125	114	182	96	168	652	63	27	57
29	83	339	127	125	122	167	73	150	587	60	25	54
30	137	545	145	117	------	172	76	137	524	57	23	60
31	155	------	173	113	------	167	------	235	------	54	21	------
TOTAL	4,756	9,119	6,733	4,723	3,889	7,135	5,446	7,703	15,103	5,698	1,030	1,350
MEAN	153	304	217	152	134	230	182	248	503	184	33.2	45.0
MAX	309	545	475	285	334	367	382	453	1,210	489	72	73
MIN	59	83	122	103	81	150	73	108	127	54	21	21

CAL YR 1971 TOTAL 57,870 MEAN 159 MAX 923 MIN 19
WTR YR 1972 TOTAL 72,685 MEAN 199 MAX 1,210 MIN 21

01457000 Musconetcong River near Bloomsbury, N. J.

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, on right bank just downstream from highway bridge, 1.5 miles upstream from Bloomsbury, and 9.5 miles upstream from mouth.

DRAINAGE AREA.--143 sq mi.

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft above mean sea level. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft upstream at different datum. July 26 to Sept. 21, 1921, nonrecording gage at bridge at present datum.

AVERAGE DISCHARGE.--54 years (1903-6, 1921-72), 223 cfs, unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,450 cfs June 22 (gage height, 5.66 ft); minimum, 76 cfs Sept. 17 (gage height, 1.35 ft).
Period of record: Maximum discharge, 6,960 cfs Oct. 10, 1903 (gage height, 8.00 ft, site and datum then in use, from graph based on gage readings), from rating curve extended above 1,800 cfs on basis of slope-area measurement at gage height 6.95 ft; minimum, 8.1 cfs Aug. 2, 1955; minimum daily, 27 cfs Sept. 8, 1966.

REMARKS.--Records excellent. Flow regulated by Lake Hopatcong (see p. 129). Diurnal fluctuation caused by small powerplants above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 521: Drainage area. WSP 1051: 1944-45. WSP 1382: 1904-6, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	450	697	269	214	394	298	234	1,060	828	169	89
2	241	660	607	346	211	499	294	280	819	715	163	119
3	231	680	549	382	217	598	290	334	733	630	157	135
4	224	640	513	358	318	549	290	422	675	522	154	121
5	220	580	482	438	241	490	290	410	661	470	149	100
6	231	520	482	326	217	434	273	374	661	442	143	100
7	241	510	607	252	214	394	266	342	594	406	157	97
8	227	500	576	238	202	378	262	334	522	398	169	92
9	217	460	517	234	202	346	248	458	474	378	169	94
10	553	540	490	354	193	314	238	513	442	350	146	124
11	499	580	434	346	187	294	234	454	406	318	138	138
12	390	620	334	358	181	318	224	406	370	302	135	140
13	342	640	302	338	490	370	248	378	334	454	132	140
14	330	620	287	322	558	342	280	362	314	470	129	135
15	300	610	287	302	414	338	266	418	302	402	127	100
16	260	610	298	262	342	334	280	446	326	350	121	89
17	230	580	306	273	302	540	342	398	442	450	121	83
18	200	560	302	252	276	630	298	458	774	394	121	81
19	190	520	287	252	283	535	273	495	1,030	354	124	248
20	185	420	287	252	269	474	318	526	823	346	124	124
21	180	250	290	252	255	430	398	594	796	326	124	102
22	130	160	276	248	252	462	382	531	1,340	280	119	100
23	250	350	262	252	238	522	426	478	1,990	255	119	113
24	390	450	262	259	245	458	398	434	1,920	238	116	116
25	630	530	266	273	241	410	414	394	1,830	220	119	119
26	560	540	259	266	248	378	446	358	1,570	208	119	116
27	450	520	252	245	238	358	390	322	1,260	196	124	116
28	170	580	252	238	234	338	248	298	1,010	187	113	116
29	200	620	248	234	276	322	227	276	890	178	108	116
30	250	864	269	227	------	314	217	262	910	172	100	121
31	300	------	310	220	------	310	------	661	------	169	94	------
TOTAL	9,048	16,164	11,590	8,868	7,758	12,873	9,058	12,650	25,278	11,408	4,103	3,484
MEAN	292	539	374	286	268	415	302	408	843	368	132	116
MAX	630	864	697	438	558	630	446	661	1,990	828	169	248
MIN	130	160	248	220	181	294	217	234	302	169	94	81

CAL YR 1971 TOTAL 115,755 MEAN 317 MAX 1,420 MIN 81
WTR YR 1972 TOTAL 132,282 MEAN 361 MAX 1,990 MIN 81

NOTE.--No gage-height record Oct. 14 to Nov. 30.

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-31	1815	4.42	1,480	6-18	1915	4.73	1,670
6-22	1915	5.66	2,450	6-30	2115	4.01	1,240

01460500 Delaware and Raritan Canal at Kingston, N. J.

LOCATION.--Lat 40°22'24", long 74°37'08", Middlesex County, on right bank at canal lock at Kingston, 250 ft upstream from bridge on State Highway 27 (distance of 160 ft formerly used was measured from old bridge).

PERIOD OF RECORD.--March 1947 to current year.

GAGE.--Two water-stage recorders and concrete control. Datum of gage is 40.00 ft above mean sea level.

REMARKS.--Records excellent. The canal diverts water from Delaware River at Raven Rock (see p. 133) and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	70	107	105	99	113	99	100	100	96	96	96
2	52	69	106	105	99	108	99	100	100	96	96	96
3	53	69	106	105	100	116	99	100	100	96	96	96
4	59	70	106	103	113	119	99	108	100	96	96	96
5	65	74	106	98	111	111	99	105	97	94	96	96
6	94	79	106	105	106	108	99	102	97	94	96	96
7	112	79	108	105	105	105	100	102	97	94	96	96
8	112	79	108	103	100	103	99	103	97	94	96	97
9	112	79	106	102	99	103	100	110	97	96	96	97
10	94	96	105	99	99	103	100	114	97	96	96	97
11	94	103	103	99	97	103	99	108	97	96	96	97
12	80	102	102	99	97	103	99	105	97	96	96	96
13	73	102	100	105	105	105	99	103	97	103	94	96
14	73	102	100	106	113	106	97	102	99	106	94	94
15	66	102	100	99	111	108	99	110	99	100	94	93
16	66	103	102	103	111	105	100	113	99	97	94	91
17	73	98	100	100	111	110	102	108	100	97	96	90
18	73	93	100	98	109	117	99	105	114	96	97	90
19	73	102	100	100	110	113	94	102	106	96	97	93
20	73	103	100	100	115	108	96	110	100	96	97	93
21	73	103	102	100	111	105	94	113	99	96	94	93
22	80	103	102	100	108	103	97	108	136	94	94	93
23	98	102	100	100	106	106	100	102	123	94	94	93
24	107	102	100	100	103	105	106	102	110	96	96	93
25	107	129	100	100	102	103	106	100	113	96	96	93
26	98	127	98	100	108	102	103	100	108	97	96	93
27	80	121	100	98	111	102	100	100	100	96	96	93
28	80	118	105	98	111	102	99	100	99	96	94	91
29	73	129	108	98	110	100	99	99	99	97	96	91
30	73	109	98	100	------	100	99	99	99	97	94	93
31	73	------	103	98	------	99	------	99	------	96	96	------
TOTAL	2,491	2,917	3,187	3,131	3,080	3,294	2,980	3,232	3,076	2,990	2,961	2,822
MEAN	80.4	97.2	103	101	106	106	99.3	104	103	96.5	95.5	94.1
MAX	112	129	108	106	115	119	106	114	136	106	97	97
MIN	52	69	98	98	97	99	94	99	97	94	94	90

CAL YR 1971 TOTAL 37,554.5 MEAN 103 MAX 150 MIN 3.5
WTR YR 1972 TOTAL 36,161.0 MEAN 98.8 MAX 136 MIN 52

01463500 Delaware River at Trenton, N. J.
(International Hydrologic Decade River Station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mile upstream from Assunpink Creek, and at mile 134.5 upstream from Atlantic Ocean.

DRAINAGE AREA.--6,780 sq mi.

PERIOD OF RECORD.--October 1912 to current year. Prior to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.

AVERAGE DISCHARGE.--60 years, 11,434 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 103,000 cfs June 23 (elevation, 17.86 ft); minimum, 3,200 cfs Sept. 12 (elevation, 8.13 ft). Flow in Delaware and Raritan Canal not included.
Period of record: Maximum discharge, 329,000 cfs Aug. 20, 1955 (gage height, 20.83 ft, datum then in use, from high-water mark in gage house), from rating curve extended above 230,000 cfs; minimum, 1,180 cfs Oct. 31, 1963 (gage height, -0.51 ft, datum then in use). Flow in Trenton power race and Delaware and Raritan Canal not included.
Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above mean sea level (discharge estimated, 295,000 cfs). Maximum elevation known, 30.6 ft above mean sea level Mar. 8, 1904, from floodmark (ice jam).

REMARKS.--Records excellent. Diurnal fluctuation 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, and Wild Creek Reservoirs (see p. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see p. 133). Water diverted just above station by borough of Morrisville, Pa., and city of Trenton for municipal supply (see p. 134). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,220	6,540	23,600	14,900	7,690	13,600	16,800	15,500	42,700	36,200	5,260	3,990
2	6,440	12,900	20,500	15,200	8,230	17,300	15,700	14,900	54,700	42,000	5,600	3,940
3	6,510	17,800	17,300	16,600	8,480	26,700	16,300	17,100	42,000	34,400	5,550	3,990
4	6,040	15,900	14,600	15,500	11,500	49,400	17,000	18,100	33,000	29,300	5,620	3,810
5	5,540	13,100	13,100	16,200	11,100	36,300	16,400	26,000	28,100	25,700	5,810	3,820
6	4,990	11,400	12,000	15,300	9,730	27,200	15,200	37,200	25,800	24,000	5,760	3,750
7	5,500	10,500	13,900	12,900	8,470	21,800	14,100	29,600	22,500	23,000	5,460	3,600
8	5,380	10,500	23,300	11,900	8,430	19,200	14,100	25,000	19,700	19,800	5,280	3,710
9	5,410	9,780	41,700	11,200	7,440	17,600	13,500	25,000	17,100	18,300	5,390	3,700
10	10,300	8,850	36,100	12,300	7,400	15,800	12,200	25,800	15,500	16,800	5,870	3,640
11	16,000	8,870	31,200	13,000	7,530	14,100	11,700	26,300	17,900	15,000	5,680	3,580
12	13,100	8,410	35,700	13,900	7,310	12,900	11,500	24,800	15,700	13,800	5,430	3,320
13	11,500	7,830	37,300	14,900	9,650	13,500	12,000	21,400	13,600	18,100	5,030	3,760
14	10,300	7,590	30,400	15,800	18,600	14,700	14,800	18,800	12,800	15,500	4,710	3,880
15	9,120	7,370	25,300	18,000	17,400	16,700	24,100	18,500	11,700	12,500	4,170	4,360
16	8,320	7,530	22,200	18,000	17,400	16,700	23,900	18,000	10,700	11,200	4,380	4,760
17	7,700	7,810	21,500	12,500	16,600	22,400	27,300	18,600	12,100	10,100	4,770	4,270
18	6,800	7,690	21,300	10,700	14,500	40,600	41,700	19,400	11,100	11,300	4,300	3,870
19	6,410	7,200	19,700	12,300	13,500	46,200	40,600	18,800	16,400	11,500	3,940	4,410
20	6,320	7,000	17,200	12,700	11,600	34,400	35,700	18,500	21,500	10,400	3,560	5,580
21	5,900	6,950	15,400	12,500	9,920	27,800	39,400	18,300	20,900	10,500	4,170	4,720
22	5,880	6,680	14,400	12,000	9,150	25,800	46,300	17,700	36,700	9,810	3,720	4,250
23	5,700	6,250	13,100	11,300	9,730	36,600	38,900	16,600	87,600	8,830	3,760	4,010
24	6,850	6,660	11,900	10,100	8,940	48,900	38,100	15,200	97,000	7,250	3,850	4,120
25	9,450	10,700	11,200	10,900	9,010	39,000	34,000	13,600	84,900	6,670	3,900	4,050
26	8,510	11,500	10,800	12,900	9,870	30,500	29,600	12,200	65,300	6,640	4,780	4,010
27	7,780	9,290	11,000	12,400	9,680	25,600	26,000	11,500	53,600	6,530	5,900	4,030
28	8,030	9,970	10,700	10,800	8,780	22,600	22,600	10,200	43,000	6,070	5,280	4,020
29	7,180	11,100	10,700	9,840	9,830	20,100	19,900	9,150	36,500	5,600	4,960	4,460
30	6,920	24,400	11,300	9,080	------	17,800	17,400	8,340	33,700	5,330	4,640	4,240
31	6,720	------	12,900	8,370	------	17,100	------	9,570	------	5,160	4,330	------
TOTAL	236,820	298,070	611,300	403,990	307,470	788,900	706,800	579,660	1,003.8M	477,290	150,860	121,650
MEAN	7,639	9,936	19,720	13,030	10,600	25,450	23,560	18,700	33,460	15,400	4,866	4,055
MAX	16,000	24,400	41,700	18,000	18,600	49,400	46,300	37,200	97,000	42,000	5,900	5,580
MIN	4,990	6,250	10,700	8,370	7,310	12,900	11,500	8,340	10,700	5,160	3,560	3,320

CAL YR 1971 TOTAL 4,452,100 MEAN 12,200 MAX 41,700 MIN 3,250
WTR YR 1972 TOTAL 5,686,610 MEAN 15,540 MAX 97,000 MIN 3,320

PEAK DISCHARGE (BASE, 50,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-04	1100	14.73	58,000	6-02	0015	14.77	58,500
3-18	2300	14.18	51,100	6-23	1515	17.86	103,000
3-24	0715	14.18	51,100				

01464000 Assunpink Creek at Trenton, N. J.

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, on left bank at Chambers Street Bridge in Trenton, 1.5 miles upstream from mouth.

DRAINAGE AREA.--89.4 sq mi.

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

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--49 years, 121 cfs (unadjusted).

EXTREMES.--Current year: Maximum discharge, 1,660 cfs Nov. 30 (gage height, 7.86 ft); minimum, 25 cfs Sept. 11 (gage height, 2.47 ft).
Period of record: Maximum discharge, 3,920 cfs Aug. 28, 1971 (gage height, 13.46 ft, from high-water mark in gage house); minimum, 1.0 cfs Aug. 21, Oct. 22, 1931 (gage height, 0.25 ft); minimum daily, 4.0 cfs July 21, Aug. 8, Sept. 2, 1929.

REMARKS.--Records excellent. 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 miles above station (records given herein). In addition there is an average inflow of about 2.0 cfs from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during growing season. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	138	710	99	79	242	130	115	138	220	64	43
2	121	140	374	180	83	210	125	113	118	166	61	56
3	102	200	235	215	196	601	123	227	115	140	60	44
4	85	186	196	194	558	552	156	359	93	129	59	40
5	82	146	171	315	359	344	147	232	92	128	52	42
6	116	127	161	270	212	247	130	162	87	124	48	43
7	94	167	243	188	168	204	127	134	101	110	51	42
8	79	138	300	153	135	203	123	189	87	102	52	41
9	71	129	245	176	123	181	113	431	82	96	50	39
10	338	114	196	343	112	162	110	448	79	95	49	33
11	338	105	171	270	107	151	108	287	67	87	47	37
12	265	100	150	192	100	173	105	202	68	82	45	39
13	163	94	144	167	355	193	160	156	69	540	43	44
14	136	88	134	167	480	270	181	156	73	496	49	44
15	188	99	134	140	327	350	163	630	72	347	52	40
16	155	99	134	109	230	269	188	388	89	199	52	38
17	129	92	125	97	186	400	416	342	120	173	50	33
18	112	91	118	95	171	541	253	231	183	146	50	48
19	105	89	105	100	422	348	177	176	188	118	51	77
20	89	91	125	103	519	233	163	415	151	105	41	52
21	86	82	127	109	332	195	156	418	143	95	43	51
22	83	80	118	105	243	254	155	283	583	86	43	52
23	80	77	107	107	190	292	173	195	686	75	45	46
24	356	85	103	109	178	224	273	162	499	74	44	40
25	398	758	102	107	195	181	206	141	558	104	43	43
26	320	717	99	94	369	161	163	125	437	90	84	44
27	213	558	99	86	361	153	140	113	316	73	93	43
28	167	419	97	86	297	148	127	103	231	69	53	45
29	142	606	91	85	280	180	120	98	244	64	51	45
30	133	1,160	119	85	------	176	107	99	285	58	46	72
31	138	------	119	83	------	141	------	134	------	62	45	------
TOTAL	4,989	6,975	5,352	4,629	7,367	7,979	4,818	7,264	6,054	4,453	1,616	1,356
MEAN	161	233	173	149	254	257	161	234	202	144	52.1	45.2
MAX	398	1,160	710	343	558	601	416	630	686	540	93	77
MIN	71	77	91	83	79	141	105	98	67	58	41	33
(†)	14.3	13.8	15.0	14.0	14.8	13.7	10.8	13.0	14.5	13.0	10.6	9.97

CAL YR 1971 TOTAL 64,421 MEAN 176 MAX 3,340 MIN 20 † 13.8
WTR YR 1972 TOTAL 62,852 MEAN 172 MAX 1,160 MIN 33 † 13.1

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-30	0045	7.86	1,660	5-15	0345	5.77	865
2-04	0100	5.70	840	6-22	2100	6.69	1,220
3-03	1030	5.74	854	7-13	0930	5.95	928

† Inflow from outside basin, 2.4 miles upstream of station, through Ewing-Lawrence Sewerage Authority treatment plant, in cubic feet per second.

01464040 Delaware River at Marine Terminal, Trenton, N. J.

LOCATION.--Lat 40°11'21", long 74°45'22", Mercer County, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 miles downstream from toll bridge on U.S. Highway 1, 2.0 miles downstream from Assunpink Creek, and at mile 131.80 upstream from Atlantic Ocean.

DRAINAGE AREA.--6,870 sq mi.

PERIOD OF RECORD.--May 1964 to current year. March 1921 to June 1946 (at municipal pier, 1.5 miles upstream), August 1951 to June 1954, September 1957 to April 1964, in files of Philadelphia District Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 12.90 ft below mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	7.04	7.4	6.87	7.19	7.3	7.18	7.22	8.03	9.05	7.37	6.80	7.10
high tide	Date	5	29	19	2	13	18	18	15	25	1,2	7	3
Minimum	Elevation	-3.04	-3.80	-4.10	-4.62	-5.99	-3.92	-3.30	-2.87	-3.94	-3.37	-3.84	-3.43
low tide	Date	8	8	25	26	21	9	11	29	10	26	10	23
Mean high tide		5.90	5.6	5.5	5.18	4.9	5.60	5.88	6.06	6.53	6.13	5.67	5.59
Mean water level		2.03	1.95	1.8	1.36	1.2	2.07	2.21	2.26	2.91	2.06	1.59	1.35
Mean low tide		-2.25	-1.7	-2.33	-2.79	-2.3	-1.83	-1.89	-1.96	-1.18	-2.43	-2.90	-2.70

Maximum elevation known, 17.9 ft above mean sea level Aug. 20, 1955, from high-water mark; minimum elevation, 8.6 ft below mean sea level Dec. 31, 1962, at site 1.4 miles downstream.

REMARKS.--Records of water quality for the current year are published in Part 2 of this report.
NOTE.--No gage-height record Nov. 22 to Dec. 3, Feb. 5-15, Aug. 25 to Sept. 6; record estimated on the basis of records at Burlington.

01464500 Crosswicks Creek at Extonville, N. J.

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, on right bank upstream from highway bridge at Extonville, 0.5 mile upstream from Pleasant Run, and 0.7 mile downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--83.6 sq mi.

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.94 ft above mean sea level.

AVERAGE DISCHARGE.--31 years, (1940-51, 1952-72) 129 cfs (20.95 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,430 cfs Nov. 30 (gage height, 8.96 ft); minimum, 41 cfs Aug. 23, 26, Sept. 11, 12, 18 (gage height, 2.47 ft).
Period of record: Maximum discharge, 5,180 cfs Aug. 28, 1971 (gage height, 13.93 ft); minimum, 13.1 cfs Feb. 14, 1942 (result of freezeup); minimum daily, 16 cfs Aug. 30 to Sept. 3, Sept. 12, 1966.

REMARKS.--Records excellent. Flow regulated occasionally by lakes above station. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	132	774	128	102	231	121	122	113	343	62	51
2	88	127	439	139	106	197	118	121	111	204	61	49
3	101	159	319	209	149	276	115	178	142	151	63	61
4	93	329	234	192	672	466	119	721	121	131	62	54
5	85	219	188	401	588	340	135	485	106	122	73	47
6	101	143	171	441	278	245	139	255	98	131	67	47
7	116	157	257	272	211	192	128	181	96	121	61	47
8	88	207	595	193	162	183	134	148	92	111	56	45
9	78	145	551	168	158	184	126	274	84	149	50	44
10	201	127	377	399	127	156	118	538	78	113	47	44
11	497	116	298	405	117	144	118	399	73	102	46	42
12	325	106	229	280	111	149	113	247	68	93	45	42
13	168	103	186	224	228	185	124	175	67	330	46	48
14	132	98	171	221	505	188	189	147	75	551	47	49
15	349	95	152	190	385	384	165	405	79	260	45	46
16	243	98	150	137	262	344	210	468	74	151	45	44
17	134	95	142	125	200	318	519	250	167	125	50	42
18	119	93	135	122	169	471	527	258	201	112	47	42
19	108	90	125	126	420	364	303	212	313	102	74	78
20	108	90	143	131	881	220	208	361	366	90	59	123
21	101	90	178	140	505	178	195	629	397	85	50	70
22	93	83	154	140	320	185	161	396	342	80	45	70
23	90	78	134	140	229	317	209	244	840	73	42	57
24	189	78	130	133	192	246	264	175	681	68	43	50
25	745	643	131	129	197	210	275	143	461	63	43	50
26	644	1,160	126	124	388	213	184	130	529	79	45	50
27	448	599	124	111	549	199	147	124	340	87	147	49
28	333	670	122	109	380	192	134	116	207	75	110	52
29	230	675	117	114	291	186	126	106	177	66	75	50
30	177	1,310	119	114	------	182	122	103	392	62	62	55
31	145	------	151	109	------	159	------	101	------	61	55	------
TOTAL	6,427	8,115	7,122	5,866	8,882	7,504	5,546	8,212	6,890	4,291	1,823	1,598
MEAN	207	271	230	189	306	242	185	265	230	138	58.8	53.3
MAX	745	1,310	774	441	881	471	527	721	840	551	147	123
MIN	78	78	117	109	102	144	113	101	67	61	42	42
CFSM	2.48	3.24	2.75	2.26	3.66	2.89	2.21	3.17	2.75	1.65	.70	.64
IN.	2.86	3.61	3.17	2.61	3.95	3.34	2.47	3.65	3.07	1.91	.81	.71

CAL YR 1971 TOTAL 67,837 MEAN 186 MAX 3,930 MIN 31 CFSM 2.22 IN 30.19
WTR YR 1972 TOTAL 72,276 MEAN 197 MAX 1,310 MIN 42 CFSM 2.36 IN 32.16

PEAK DISCHARGE (BASE, 750 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-25	1800	7.36	945	2-20	0900	7.52	979
11-26	0400	8.92	1,410	5-04	1500	7.18	907
11-30	1400	8.96	1,430	6-23	1800	7.64	1,010
2-04	2200	6.97	865				

01464598 Delaware River at Burlington, N. J.

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mile downstream from Burlington-Bristol Bridge, 1.4 miles downstream from Assiscunk Creek, and at mile 117.40 upstream from Atlantic Ocean.

DRAINAGE AREA.--7,160 sq mi.

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 12.90 ft below mean sea level. Prior to May 20, 1971, water-stage recorder at site 0.8 mile upstream at same datum. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.45	6.80	6.18	6.57	6.68	6.62	6.60	7.43	8.18	6.74	6.23	6.50
high tide	Date	4	29	19	2	13	18	16	15	23	1	7	3
Minimum	Elevation	-2.58	-4.24	-4.01	-4.65	-4.70	-3.96	-3.13	-2.62	-3.7	-3.09	-3.56	-3.13
low tide	Date	13	23	2	26	6	9	11	5	10	12	10	19
Mean high tide		5.37	5.04	4.84	4.51	4.39	5.08	5.27	5.51	5.9	5.51	5.12	5.08
Mean water level		1.90	1.47	1.31	1.02	.88	1.64	1.74	1.97	2.6	1.73	1.39	1.51
Mean low tide		-1.85	-1.32	-2.41	-2.72	-2.83	-2.04	-2.25	-1.84	-1.1	-2.35	-2.66	-2.37

Maximum elevation known, 10.8 ft above mean sea level Aug. 20, 1955, from high-water mark at site 1.4 miles upstream; minimum elevation, 9.1 ft below mean sea level Dec. 31, 1962, at present site.

REMARKS.--Records of water quality for the current year at the Burlington-Bristol Bridge are published in Part 2 of this report.

NOTE.--No gage-height record June 3-20.

01465850 South Branch Rancocas Creek at Vincentown, N. J.

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, on left bank 150 ft downstream from highway bridge on Lumberton-Vincentown road, 0.8 mile west of Vincentown, 2.9 miles southeast of Lumberton, and 3.1 miles upstream from Southwest Branch.

DRAINAGE AREA.--53.3 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is 13.17 ft above mean sea level. Prior to Oct. 30, 1961, at site 150 ft upstream at same datum.

AVERAGE DISCHARGE.--11 years, 88.0 cfs (22.42 inches per year).

EXTREMES.--Current year: Maximum discharge, 615 cfs Apr. 17 (gage height, 6.25 ft); minimum, 17 cfs June 12 (gage height, 0.28 ft), from unknown regulation.
Period of record: Maximum discharge, 1,050 cfs Aug. 28, 1971 (gage height, 7.40 ft); minimum, 2.8 cfs July 17, 18, Aug. 9, 1966.

REMARKS.--Records excellent except those for the periods Jan. 30 to Feb. 8 and Mar. 30 to Apr. 11, which are fair. Occasional regulation by lakes and ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	129	345	87	86	200	83	102	74	218	46	130
2	53	121	247	89	85	179	84	99	64	167	43	90
3	57	161	209	100	88	204	86	129	72	143	40	64
4	69	248	185	118	185	260	88	282	80	178	39	59
5	54	198	157	217	370	210	94	344	66	178	36	54
6	52	164	137	227	250	182	96	248	60	173	34	51
7	55	171	175	177	160	159	98	214	59	160	34	48
8	51	173	386	153	155	147	95	177	58	130	35	47
9	47	148	306	144	129	138	98	214	58	100	32	42
10	84	137	255	240	106	123	94	358	49	67	32	39
11	174	115	231	221	95	116	92	272	45	62	31	37
12	143	102	206	204	87	113	94	236	38	56	28	28
13	114	91	183	182	148	115	102	200	66	168	27	30
14	109	81	162	183	261	135	123	162	48	267	29	26
15	104	76	145	176	226	204	137	239	49	214	28	26
16	89	73	136	144	181	183	183	229	45	161	27	27
17	74	71	125	133	151	209	516	191	44	122	26	29
18	67	68	115	110	148	300	405	183	55	89	27	28
19	64	65	106	102	316	223	292	181	86	55	26	31
20	60	54	110	99	413	184	247	213	130	56	25	38
21	56	51	124	99	291	151	229	236	106	52	24	40
22	55	58	103	101	236	145	211	205	168	48	22	41
23	53	53	88	100	217	197	227	171	351	45	23	39
24	174	51	89	98	191	170	222	145	278	41	23	36
25	396	295	92	98	185	144	212	129	288	40	24	34
26	264	379	90	102	296	129	179	109	310	74	26	32
27	213	276	87	87	308	116	149	87	230	76	68	31
28	199	288	86	81	244	101	146	71	159	72	113	35
29	183	295	83	81	221	90	115	95	141	64	168	40
30	159	492	81	85	------	88	100	106	244	54	175	42
31	142	------	89	87	------	85	------	71	------	47	158	------
TOTAL	3,465	4,684	4,933	4,125	5,829	5,000	4,897	5,698	3,521	3,377	1,469	1,294
MEAN	112	156	159	133	201	161	163	184	117	109	47.4	43.1
MAX	396	492	386	240	413	300	516	358	351	267	175	130
MIN	47	51	81	81	85	85	83	71	38	40	22	26
CFSM	2.09	2.92	2.97	2.49	3.76	3.01	3.05	3.44	2.19	2.04	.89	.81
IN.	2.41	3.26	3.43	2.87	4.05	3.48	3.41	3.96	2.45	2.35	1.02	.90

CAL YR 1971 TOTAL 38,720.4 MEAN 106 MAX 798 MIN 7.4 CFSM 1.98 IN 26.92
WTR YR 1972 TOTAL 48,292.0 MEAN 132 MAX 516 MIN 22 CFSM 2.47 IN 33.58

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-25	0500	5.47	434	4-17	1300	6.25	615
11-30	0700	5.97	534	5-10	1400	5.09	375
12-08	0900	5.41	422	6-23	0900	5.05	369
2-19	2200	5.81	502				

01466500 McDonalds Branch in Lebanon State Forest, N. J.
(Hydrologic benchmark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, on right bank in Lebanon State Forest, 25 ft upstream from Butterworth Road Bridge, 3.4 miles upstream from confluence with Cooper Branch, and 7.0 miles southeast of Browns Mills.

DRAINAGE AREA.--2.31 sq mi.

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as McDonald Branch in Lebanon State Forest.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--19 years, 2.24 cfs (13.17 inches per year).

EXTREMES.--Current year: Maximum discharge, 9.0 cfs Feb. 19 (gage height, 1.72 ft); minimum, 1.5 cfs Sept. 26, 27 (gage height, 1.15 ft).
Period of record: Maximum discharge, 35 cfs Aug. 25, 1958 (gage height, 2.33 ft); minimum daily, 0.8 cfs July 6, 19, 1967.

REMARKS.--Records excellent. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is at site 785 ft downstream. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.6	4.1	2.8	2.5	4.1	3.2	3.1	3.3	5.9	2.2	2.1
2	2.1	2.6	3.4	3.0	2.5	4.0	3.2	3.1	3.2	4.6	2.2	2.0
3	2.1	3.1	3.0	3.1	2.9	4.5	3.1	3.7	3.3	3.9	2.1	2.0
4	2.0	3.1	2.9	3.2	4.8	4.7	3.3	4.4	3.1	4.0	1.9	2.0
5	1.9	3.2	2.8	4.2	4.2	4.5	3.3	3.8	3.0	3.8	1.8	1.9
6	1.9	2.9	2.8	4.5	3.3	4.1	3.2	3.4	3.0	3.7	1.9	1.8
7	1.9	2.8	4.3	3.8	3.2	3.8	3.1	3.2	2.9	3.4	1.9	1.7
8	1.8	2.7	7.2	3.3	3.0	3.8	3.2	3.1	2.9	3.6	1.9	1.7
9	1.7	2.5	5.5	3.2	2.7	3.7	3.2	4.2	2.8	4.1	2.1	1.7
10	2.6	2.5	4.5	4.1	2.6	3.5	3.1	5.1	2.8	3.5	2.3	1.7
11	2.6	2.4	4.1	4.2	2.5	3.4	3.1	4.2	2.7	3.2	2.0	1.7
12	2.3	2.3	3.7	4.0	2.5	3.4	3.0	3.6	2.7	3.1	2.0	1.7
13	2.2	2.3	3.5	3.5	3.5	3.5	3.2	3.4	2.7	3.4	2.0	1.7
14	2.1	2.2	3.3	3.4	4.4	3.8	3.3	3.4	2.8	3.4	2.0	1.6
15	2.0	2.2	3.3	3.3	3.8	4.7	3.5	5.1	2.8	3.1	2.1	1.5
16	1.9	2.2	3.3	3.0	3.5	4.4	4.1	4.5	2.7	2.8	2.0	1.5
17	1.7	2.1	3.2	2.8	3.1	4.8	7.7	3.9	3.0	2.7	2.0	1.5
18	1.6	2.1	3.2	2.7	3.1	5.3	5.4	3.7	3.2	2.5	2.0	1.5
19	1.6	2.1	3.1	2.8	6.5	4.7	4.2	3.5	3.3	2.4	2.1	1.6
20	1.6	2.1	3.3	2.9	7.1	4.0	3.8	5.2	3.0	2.4	2.0	1.7
21	1.7	2.1	3.4	2.9	4.5	3.7	3.7	5.1	2.9	2.4	2.0	1.7
22	1.7	2.1	3.3	2.9	4.1	4.0	3.7	3.9	3.9	2.3	1.9	1.7
23	1.7	2.0	3.1	2.9	3.8	4.1	4.0	3.1	5.1	2.2	1.9	1.6
24	2.7	2.0	3.1	2.9	3.7	4.0	4.1	2.9	4.4	2.1	1.8	1.6
25	2.9	4.5	3.1	2.9	3.8	3.7	3.8	3.2	4.1	2.3	1.9	1.6
26	4.6	5.3	3.0	2.7	5.3	3.5	3.5	3.2	3.6	3.0	2.0	1.5
27	5.1	4.3	3.0	2.6	5.8	3.4	3.3	3.2	3.3	2.5	3.0	1.5
28	4.0	4.8	3.0	2.5	4.8	3.4	3.2	3.1	3.0	2.4	3.5	1.5
29	3.2	4.7	2.9	2.5	4.4	3.3	3.1	3.1	3.1	2.3	2.9	1.5
30	2.9	4.7	3.0	2.5	------	3.3	3.1	3.1	3.7	2.2	2.5	1.5
31	2.7	------	3.0	2.5	------	3.2	------	3.1	------	2.3	2.2	------
TOTAL	72.7	86.5	108.4	97.6	111.9	122.3	108.7	114.6	96.3	95.5	66.1	50.3
MEAN	2.35	2.88	3.50	3.15	3.86	3.95	3.62	3.70	3.21	3.08	2.13	1.68
MAX	5.1	5.3	7.2	4.5	7.1	5.3	7.7	5.2	5.1	5.9	3.5	2.1
MIN	1.6	2.0	2.8	2.5	2.5	3.2	3.0	2.9	2.7	2.1	1.8	1.5
CFSM	1.02	1.25	1.52	1.36	1.67	1.71	1.57	1.60	1.39	1.33	.92	.73
IN.	1.17	1.39	1.75	1.57	1.80	1.97	1.75	1.85	1.55	1.54	1.06	.81

CAL YR 1971 TOTAL 843.0 MEAN 2.31 MAX 7.2 MIN 1.0 CFSM 1.00 IN 13.58
WTR YR 1972 TOTAL 1,130.9 MEAN 3.09 MAX 7.7 MIN 1.5 CFSM 1.34 IN 18.21

PEAK DISCHARGE (BASE, 7.0 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-08	0945	1.70	8.5	4-17	1300	1.69	8.3
2-19	2230	1.72	9.0	7-01	1100	1.64	7.3

01467000 North Branch Rancocas Creek at Pemberton, N. J.

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, on right bank at downstream side of highway bridge at Pemberton, 12 miles upstream from confluence with South Branch.

DRAINAGE AREA.--111 sq mi.

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

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft above mean sea level. Prior to June 9, 1923, nonrecording gage and June 9, 1923, to Aug. 9, 1951, water-stage recorder at site 600 ft downstream at datum 6.54 ft lower.

AVERAGE DISCHARGE.--51 years, 168 cfs (20.55 inches per year).

EXTREMES.--Current year: Maximum discharge, 664 cfs Nov. 30 (gage height, 2.58 ft); minimum, 46 cfs Sept. 18 (gage height, 1.50 ft).
Period of record: Maximum discharge, 1,730 cfs Aug. 31, 1939 (gage height, 10.77 ft, from high-water mark in recorder shelter, site and datum then in use); minimum daily, 9.0 cfs Sept. 29, 1932.

REMARKS.--Records excellent except those above 400 cfs, which are good. Flow regulated occasionally by operation of gate in dam and by ponds above station.

REVISIONS (WATER YEARS).--WSP 1302: 1922-23. WSP 1382: 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	329	586	180	145	302	180	205	155	285	110	95
2	313	291	400	185	145	280	190	205	140	258	105	85
3	324	302	329	200	185	313	175	269	130	241	100	90
4	313	329	291	215	324	358	185	495	140	247	100	80
5	263	252	263	307	352	296	205	481	175	269	95	60
6	225	215	220	340	285	291	200	364	165	263	90	73
7	180	195	225	241	263	274	195	274	135	258	90	73
8	175	210	436	247	241	269	185	263	135	225	90	70
9	140	252	502	247	236	241	180	340	130	210	85	70
10	200	260	400	307	225	205	175	448	120	205	80	70
11	241	247	370	376	220	215	170	454	115	195	80	66
12	291	220	335	296	215	210	185	442	115	185	77	70
13	291	195	296	285	205	215	220	388	125	274	80	73
14	263	190	263	307	241	252	225	394	155	324	73	73
15	230	185	252	269	296	313	236	430	160	263	73	70
16	200	180	230	241	280	263	252	436	140	230	73	70
17	150	185	185	215	252	296	460	346	145	205	70	66
18	135	190	200	200	236	340	502	352	190	190	73	53
19	205	180	195	195	364	340	394	346	252	170	73	85
20	165	165	205	195	509	307	364	388	241	150	73	90
21	135	145	225	195	467	274	370	442	329	145	70	85
22	85	140	215	190	302	263	352	454	400	130	66	90
23	80	130	190	190	307	280	370	388	481	115	66	85
24	205	130	195	185	296	280	358	285	495	105	66	80
25	340	307	195	175	291	258	324	258	442	105	66	80
26	394	454	190	170	376	236	269	230	424	130	90	77
27	448	454	185	160	442	215	241	165	313	125	175	77
28	516	495	180	160	340	200	215	165	263	125	185	80
29	467	502	180	155	324	190	220	205	252	120	165	80
30	418	632	180	155	------	165	210	241	318	110	135	85
31	358	------	185	150	------	175	------	200	------	110	110	------
TOTAL	8,063	7,981	8,303	6,933	8,364	8,116	7,807	10,353	6,780	5,967	2,884	2,301
MEAN	260	266	268	224	288	262	260	334	226	192	93.0	76.7
MAX	516	632	586	376	509	358	502	495	495	324	185	95
MIN	80	130	180	150	145	165	170	165	115	105	66	53
CFSM	2.34	2.40	2.41	2.02	2.59	2.36	2.34	3.01	2.04	1.73	.84	.69
IN.	2.70	2.67	2.78	2.32	2.80	2.72	2.62	3.47	2.27	2.00	.97	.77

CAL YR 1971 TOTAL 75,486 MEAN 207 MAX 1,480 MIN 47 CFSM 1.86 IN 25.30
WTR YR 1972 TOTAL 83,852 MEAN 229 MAX 632 MIN 53 CFSM 2.06 IN 28.10

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE
11-30	0815	2.58	664

01467060 Delaware River at Palmyra, N. J.

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, Pa., on right bank opposite Palmyra, 0.5 mile upstream from Tacony-Palmyra Bridge, 3.5 miles downstream from Rancocas Creek, and at mile 107.45 upstream from Atlantic Ocean.

DRAINAGE AREA.--7,850 sq mi.

PERIOD OF RECORD.--December 1962 to current year. Volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below mean sea level. Water-stage recorder at same datum at Torresdale Intake, 2.5 miles upstream used as auxiliary gage. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.02	6.34	5.69	6.13	6.35	6.18	6.20	6.95	7.68	6.28	5.84	6.13
high tide	Date	4	29	19	2	13	18	16	15	23	1	6	3
Minimum	Elevation	-3.18	-4.40	-3.68	-4.14	-4.17	-3.70	-2.65	-2.45	-3.53	-3.00	-2.98	-2.65
low tide	Date	22	8	2	26	5	9	11	5	10	11	10	19
Mean high tide		4.58	3.95	4.41	4.09	3.98	4.63	4.87	5.08	5.41	5.1	4.73	4.69
Mean water level		1.52	.85	1.26	1.03	.92	1.56	1.71	1.91	2.20	-1.9	1.50	1.58
Mean low tide		-1.89	-2.58	-2.14	-2.31	-2.37	-1.76	-1.71	-1.58	-1.28	1.7	-2.15	-1.92

Maximum high tide known since 1899, 8.9 ft above mean sea level Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army; minimum low tide, 8.6 ft below mean sea level Dec. 31, 1962.

NOTE.--No gage-height record July 17 to Aug. 1.

01467081 South Branch Pennsauken Creek at Cherry Hill, N. J.

LOCATION.--Lat 39°56'30", long 74°00'05", Camden County, on left bank on downstream wingwall of bridge on Mill Road, 1.1 miles south of Maple Shade.

DRAINAGE AREA.--9.16 sq mi.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8.12 ft above mean sea level.

AVERAGE DISCHARGE.--5 years, 17.0 cfs (25.19 inches per year).

EXTREMES.--Current year: Maximum discharge, 427 cfs Feb. 3 (gage height, 8.37 ft); minimum, 4.2 cfs Aug. 22 (gage height, 1.90 ft).
Period of record: Maximum discharge, 781 cfs Aug. 28, 1971 (gage height, 11.34 ft); minimum, 2.6 cfs Oct. 6, 9, 10, 11, 1970 (gage height, 1.71 ft).

REMARKS.--Records fair. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	19	11	10	13	10	13	9.9	13	7.2	6.2
2	14	20	14	32	12	12	10	17	14	10	6.8	7.7
3	15	90	13	20	54	84	8.6	32	13	10	6.4	6.4
4	21	35	12	26	73	29	16	15	7.4	16	6.2	6.2
5	14	22	12	66	14	18	9.6	14	7.4	15	6.0	6.4
6	14	17	12	19	10	14	8.3	14	7.5	12	5.9	6.4
7	15	17	78	13	14	13	12	13	7.2	16	6.0	6.2
8	14	22	80	12	9.4	16	12	30	6.7	14	6.0	6.4
9	12	15	19	29	8.6	12	8.6	60	6.6	9.4	6.2	7.4
10	15	15	15	54	7.7	12	8.3	25	6.4	8.6	5.6	6.0
11	38	14	14	19	7.7	11	10	9.0	6.2	8.3	5.8	6.4
12	25	13	12	16	7.4	13	24	12	6.4	8.3	5.8	7.2
13	15	11	12	14	63	13	29	26	9.6	75	5.8	6.8
14	14	11	11	15	33	31	24	70	8.1	22	5.8	6.4
15	14	13	10	12	19	32	50	22	7.0	12	5.6	6.4
16	12	12	10	9.1	14	16	90	16	6.4	16	5.6	6.4
17	11	11	9.6	8.6	12	84	160	12	7.7	21	5.6	6.2
18	11	11	9.4	9.1	14	54	35	10	24	10	5.9	7.9
19	10	11	9.3	10	175	18	14	18	14	8.6	5.9	24
20	9.5	12	21	11	40	14	14	15	8.1	8.2	5.6	8.8
21	8.8	11	16	12	19	12	20	13	7.4	7.7	5.6	6.8
22	8.1	10	13	11	20	24	25	12	110	7.4	5.6	7.0
23	8.3	10	11	11	14	21	39	12	60	6.8	5.6	6.4
24	181	15	11	11	16	14	18	11	18	6.6	5.6	6.2
25	99	272	10	12	23	11	14	10	81	64	5.6	6.6
26	24	38	10	10	73	10	12	9.8	29	62	28	6.4
27	20	37	10	10	24	10	11	9.6	17	11	60	22
28	17	40	10	12	18	10	10	9.4	12	8.6	30	16
29	16	110	10	12	15	10	10	9.2	19	7.5	8.6	7.5
30	14	115	14	12	------	10	11	8.6	24	7.2	7.4	17
31	13	------	12	11	------	10	------	8.1	------	7.2	6.6	------
TOTAL	715.7	1,042	519.3	529.8	819.8	651	723.4	555.7	561.0	509.4	288.3	253.7
MEAN	23.1	34.7	16.8	17.1	28.3	21.0	24.1	17.9	18.7	16.4	9.30	8.46
MAX	181	272	80	66	175	84	160	70	110	75	60	24
MIN	8.1	10	9.3	8.6	7.4	10	8.3	8.1	6.2	6.6	5.6	6.0
CFSM	2.52	3.79	1.83	1.87	3.09	2.29	2.63	1.95	2.04	1.79	1.02	.92
IN.	2.91	4.23	2.11	2.15	3.33	2.64	2.94	2.26	2.28	2.07	1.17	1.03

CAL YR 1971 TOTAL 7,267.2 MEAN 19.9 MAX 494 MIN 3.5 CFSM 2.17 IN 29.51
WTR YR 1972 TOTAL 7,169.1 MEAN 19.6 MAX 272 MIN 5.6 CFSM 2.14 IN 29.11

PEAK DISCHARGE (BASE, 300, revised CFS).

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-24	1630	6.95	306	2-03	2230	8.37	427
11-25	0615	8.06	401	2-19	1045	7.07	308
11-29	1930	7.79	375	7-25	2115	7.21	324

NOTE.--No gage-height record Apr. 13 to May 29.

01467150 Cooper River at Haddonfield, N. J.

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, on right bank of Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mile upstream from North Branch Cooper River, and 7.7 miles upstream from mouth.

DRAINAGE AREA.--17.4 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft above mean sea level.

AVERAGE DISCHARGE.--9 years, 30.8 cfs (24.04 inches per year).

EXTREMES.--Current year: Maximum discharge, 600 cfs Nov. 25 (gage height, 2.95 ft); minimum, 1.8 cfs Jan. 12 (gage height, 1.15 ft) result of regulation.
Period of record: Maximum discharge, 3,300 cfs Aug. 28, 1971 (gage height, 5.46 ft); minimum, 0.9 cfs June 26, 1964 (gage height, 1.18 ft).

REMARKS.--Records excellent. Occasional regulation at low flow from Kirkwood Lake and other small lakes and wastewater treatment plants. Records of water quality for the current year are published in Part 2 of this report.
REVISIONS (WATER YEARS).--WRD N.J. 1969: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	31	48	36	22	33	27	29	29	38	18	15
2	64	38	50	63	25	31	27	31	36	33	17	24
3	50	123	31	53	77	123	24	60	50	45	17	19
4	40	79	31	69	137	69	43	50	36	60	17	17
5	35	36	29	112	36	41	31	36	29	50	16	15
6	32	31	31	63	27	31	27	31	27	45	15	16
7	33	45	91	43	33	31	33	29	27	69	15	16
8	32	33	165	43	25	33	38	29	25	53	15	16
9	31	29	63	58	22	29	29	112	25	38	14	17
10	30	29	43	106	20	27	25	94	24	31	14	14
11	50	27	41	18	20	25	27	36	22	31	14	14
12	76	25	36	5.7	20	31	25	24	22	29	13	16
13	30	24	18	31	109	31	50	27	29	141	14	18
14	27	22	36	36	77	50	38	50	33	58	19	18
15	25	25	43	29	38	55	82	123	31	33	16	18
16	24	25	43	24	29	36	88	45	27	27	14	17
17	26	24	43	22	27	106	271	36	41	38	14	16
18	23	24	43	24	29	109	55	31	77	27	14	17
19	22	25	38	27	244	41	38	29	66	25	15	48
20	21	25	58	29	103	33	38	50	33	27	15	25
21	20	24	48	29	43	31	38	38	24	31	15	19
22	22	22	38	27	41	50	53	36	267	29	14	18
23	22	20	36	27	33	53	53	36	165	20	16	17
24	204	33	38	29	38	36	69	31	55	19	16	17
25	116	395	38	29	45	31	45	29	177	24	14	17
26	48	82	36	24	119	29	41	29	74	33	13	18
27	38	69	38	22	60	29	36	27	58	22	137	18
28	31	74	38	25	41	29	29	27	38	18	50	17
29	29	141	38	25	36	27	29	25	48	17	33	15
30	29	173	43	25	------	27	29	25	53	17	31	25
31	33	------	41	24	------	29	------	24	------	17	22	------
TOTAL	1,287	1,753	1,413	1,177.7	1,576	1,336	1,438	1,279	1,648	1,145	667	557
MEAN	41.5	58.4	45.6	38.0	54.3	43.1	47.9	41.3	54.9	36.9	21.5	18.6
MAX	204	395	165	112	244	123	271	123	267	141	137	48
MIN	20	20	18	5.7	20	25	24	24	22	17	13	14
CFSM	2.39	3.36	2.62	2.18	3.12	2.48	2.75	2.37	3.16	2.12	1.24	1.07
IN.	2.75	3.75	3.02	2.52	3.37	2.86	3.07	2.73	3.52	2.45	1.43	1.19

CAL YR 1971 TOTAL 15,910.5 MEAN 43.6 MAX 1,510 MIN 9.7 CFSM 2.51 IN 34.02
WTR YR 1972 TOTAL 15,276.7 MEAN 41.7 MAX 395 MIN 5.7 CFSM 2.40 IN 32.66

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	0830	2.95	600	6-22	1815	2.81	525

01474500 Schuylkill River at Philadelphia, Pa.

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 miles upstream from mouth.
DRAINAGE AREA.--1,893 sq mi.
PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 281, 301, 381, have been found to be unreliable and should not be used.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above mean sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.
AVERAGE DISCHARGE.--41 years, 2,816 cfs (20.20 inches per year), adjusted for diversion.
EXTREMES.--Current year: Maximum discharge, 103,000 cfs June 23 (gage height, 14.65 ft); minimum 448 cfs Sept. 18 (gage height, 5.78 ft); minimum daily, 517 cfs Sept. 18.
Period of record: Maximum discharge, 103,000 cfs June 23, 1972 (gage height, 14.65 ft); no flow over dam at times; minimum daily, 0.6 cfs Sept. 2, 1966.
Maximum stage known, 17.0 ft Oct. 4, 1896 (discharge, 135,000 cfs from rating curve extended above 46,000 cfs). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (discharge, 98,000).
REMARKS.--Records good except those below 1,000 cfs, which are fair. Some regulation by reservoirs above station. Records of daily discharge do not include diversion above station by city of Philadelphia for municipal water supply. Records of water quality for the current year are published in Part 2 of this report.
REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,830	1,550	10,700	2,130	1,630	9,010	2,950	2,360	12,500	8,130	1,500	679
2	1,830	1,710	7,240	2,550	1,670	12,900	2,750	2,360	6,790	6,380	1,460	1,110
3	1,830	8,870	5,530	5,350	2,090	16,100	2,700	3,840	5,050	5,620	1,390	822
4	1,480	7,180	4,610	3,680	6,250	13,500	2,550	5,350	4,120	5,740	1,460	733
5	1,260	5,110	4,010	4,230	4,560	9,710	2,550	6,790	3,510	5,020	1,540	652
6	1,200	4,060	3,510	4,500	3,050	7,630	2,360	5,650	3,000	4,840	1,280	625
7	1,160	3,620	4,670	3,300	2,900	6,130	2,220	4,610	2,650	4,360	1,180	625
8	1,070	3,680	7,830	2,950	2,600	5,470	2,220	4,830	2,400	3,850	1,210	571
9	1,000	2,950	6,610	2,850	2,220	4,720	2,090	6,610	2,090	4,020	1,320	598
10	9,640	2,550	6,070	4,500	2,130	4,120	1,910	10,500	1,870	4,020	1,140	679
11	7,630	2,360	5,590	4,830	2,000	3,730	1,830	7,050	1,870	3,420	1,070	679
12	3,460	2,180	5,290	4,280	1,870	3,460	1,830	5,470	1,670	3,060	977	625
13	2,310	2,040	4,890	4,170	5,230	3,510	2,310	4,780	1,630	5,860	977	679
14	1,910	1,910	4,390	4,610	13,000	3,730	3,200	4,450	1,790	6,590	977	733
15	1,750	1,830	3,950	5,290	8,280	4,500	3,300	5,290	1,670	3,690	915	679
16	1,590	1,830	3,840	4,390	6,190	4,230	3,350	5,110	1,630	3,110	853	625
17	1,480	1,790	3,460	3,510	5,050	11,000	7,760	4,500	3,050	3,690	853	571
18	1,410	1,630	3,150	3,400	4,280	10,100	6,010	4,230	3,000	3,850	822	517
19	1,330	1,550	2,850	3,250	4,450	7,180	4,670	3,730	2,900	3,630	884	625
20	1,260	1,550	2,750	3,100	4,060	5,770	4,060	3,400	6,190	3,110	822	1,070
21	1,190	1,590	2,750	2,850	3,510	4,940	3,900	3,400	4,780	2,860	760	884
22	1,160	1,510	2,500	2,650	3,570	5,000	3,680	3,100	26,200	2,570	733	679
23	1,160	1,410	2,270	2,550	3,150	7,180	4,060	2,750	93,400	2,240	679	625
24	2,270	1,330	2,130	2,650	2,850	6,430	5,000	2,450	73,500	1,980	706	625
25	3,570	7,500	2,130	2,600	2,850	5,470	4,390	2,220	26,600	2,240	760	571
26	2,550	9,360	2,130	2,550	3,460	4,830	3,510	2,040	16,000	2,240	1,350	571
27	2,360	6,130	2,000	2,180	4,340	4,280	3,050	1,870	12,100	1,980	2,240	598
28	2,040	5,050	1,950	2,000	4,120	3,900	2,800	1,790	9,460	1,770	1,070	544
29	1,790	5,470	1,870	1,950	5,410	3,510	2,600	1,710	8,200	1,650	1,180	544
30	1,670	15,800	1,870	1,910	------	3,300	2,500	1,670	9,670	1,540	946	625
31	1,550	------	2,220	1,790	------	3,150	------	2,850	------	1,500	791	------
TOTAL	67,740	115,100	124,760	102,550	116,770	198,490	98,110	126,760	349,290	114,560	33,845	20,163
MEAN	2,185	3,837	4,025	3,308	4,027	6,403	3,270	4,089	11,640	3,695	1,092	672
MAX	9,640	15,800	10,700	5,350	13,000	16,100	7,760	10,500	93,400	8,130	2,240	1,110
MIN	1,000	1,330	1,870	1,790	1,630	3,150	1,830	1,670	1,630	1,500	679	517
(≠)	265	265	260	228	241	253	249	252	257	302	307	285
MEAN≠	2,450	4,102	4,285	3,536	4,268	6,656	3,519	4,341	11,900	3,997	1,399	957
CFSM≠	1.29	2.17	2.26	1.87	2.25	3.52	1.86	2.29	6.29	2.11	.74	.51
IN.≠	1.49	2.42	2.61	2.16	2.43	4.06	2.08	2.64	7.02	2.43	.85	.57

CAL YR 1971 TOTAL 1,191,845 MEAN 3,265 MAX 34,500 MIN 340 MEAN≠ 3,535 CFSM≠ 1.87 IN.≠ 25.34
WTR YR 1972 TOTAL 1,468,138 MEAN 4,011 MAX 93,400 MIN 517 MEAN≠ 4,275 CFSM≠ 2.26 IN.≠ 30.76

PEAK DISCHARGE (BASE, 18,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1845	8.98	20,300	3- 3	1330	8.77	18,500
11-30	0415	8.83	19,000	6-23	0800	14.65	103,000

≠ Diversion, equivalent in cubic feet per second, for municipal water supply; furnished by city of Philadelphia.
≠ Adjusted for diversion.

01475000 Mantua Creek at Pitman, N. J.

LOCATION.--Lat 39°44'14", long 75°06'53", Gloucester County, on left abutment of Wadsworth Dam, 0.9 mile east of Pitman, and 2.0 miles upstream from Porch Branch.

DRAINAGE AREA.--6.05 sq mi.

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 68.51 ft above mean sea level.

AVERAGE DISCHARGE.--32 years, 11.2 cfs (25.14 inches per year).

EXTREMES.--Current year: Maximum discharge, 143 cfs June 22 (gage height, 1.81 ft); minimum, 5.0 cfs June 5, 16, 17, July 25, Aug. 4, 15 (gage height. 1.00 ft).
Period of record: Maximum discharge, about 4,200 cfs Sept. 1, 1940 (gage height, 6.64 ft), by computation of peak flow over dam and through break in earth dike; minimum, 2.5 cfs for several days in July 1966 (gage height, 0.93 ft).

REMARKS.--Records good except those for periods of no gage-height record, which are fair.

REVISIONS (WATER YEARS).--WRD N.J. 1971: Drainage area .

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	17	12	12	13	9.2	12	11	16	11	8.5
2	12	15	14	12	12	13	9.2	12	10	13	10	11
3	12	42	14	13	17	26	11	15	10	13	10	10
4	11	25	14	14	26	18	14	17	9.2	14	10	9.8
5	11	15	14	19	14	15	12	13	9.2	14	9.8	9.2
6	15	14	15	17	12	13	12	12	9.8	15	9.8	9.2
7	12	16	17	14	14	13	12	12	9.2	13	9.8	8.5
8	11	15	40	13	12	13	13	12	9.2	12	9.2	9.2
9	10	14	31	15	12	12	12	20	9.8	12	9.2	9.8
10	25	15	20	23	12	12	12	20	9.8	12	9.2	8.5
11	18	15	16	16	12	12	12	14	9.8	12	9.2	8.0
12	12	13	15	14	12	12	12	12	9.2	12	9.2	8.5
13	12	13	14	13	26	12	15	12	9.8	35	10	9.2
14	11	12	14	15	20	14	14	15	12	26	10	9.2
15	11	12	14	13	14	15	20	26	10	14	9.8	10
16	11	14	13	12	12	13	22	15	9.2	15	9.8	9.2
17	12	13	13	12	12	20	38	12	13	26	9.8	9.2
18	11	12	14	12	12	23	17	12	32	15	9.8	9.2
19	11	12	14	12	32	15	14	12	23	13	9.2	10
20	11	12	14	12	20	14	13	12	12	13	8.5	12
21	11	12	14	13	15	12	13	11	14	14	9.2	9.8
22	12	12	15	13	14	15	15	10	81	12	8.5	9.8
23	12	12	14	12	13	16	17	11	38	12	8.0	9.2
24	35	12	14	13	14	13	17	11	19	11	8.0	9.2
25	22	49	13	13	14	12	14	10	30	10	8.0	9.8
26	26	19	12	12	26	12	12	9.8	17	11	9.2	9.8
27	18	18	12	12	18	12	12	10	15	10	12	14
28	14	20	12	12	15	12	12	9.8	14	10	13	10
29	13	25	12	12	14	12	12	10	13	10	9.8	9.8
30	14	32	12	12	------	9.8	12	10	17	10	9.2	11
31	14	------	12	12	------	9.2	------	10	------	11	8.5	------
TOTAL	441	525	479	419	458	433.0	429.4	399.6	495.2	436	296.7	290.6
MEAN	14.2	17.5	15.5	13.5	15.8	14.0	14.3	12.9	16.5	14.1	9.57	9.69
MAX	35	49	40	23	32	26	38	26	81	35	13	14
MIN	10	12	12	12	12	9.2	9.2	9.8	9.2	10	8.0	8.0
CFSM	2.35	2.89	2.56	2.23	2.61	2.31	2.36	2.13	2.73	2.33	1.58	1.60
IN.	2.71	3.23	2.95	2.58	2.82	2.66	2.64	2.46	3.04	2.68	1.82	1.79

CAL YR 1971 TOTAL 4,689.4 MEAN 12.8 MAX 191 MIN 4.3 CFSM 2.12 IN 28.83
WTR YR 1972 TOTAL 5,102.5 MEAN 13.9 MAX 81 MIN 8.0 CFSM 2.30 IN 31.37

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-24	1700	1.43	57	6-22	1600	1.81	143
11-25	1000	1.51	73	7-13	1700	1.46	63
4-17	0500	1.43	57				

NOTE.--No gage-height record Dec. 4 to Jan. 11.

01477120 Raccoon Creek near Swedesboro, N. J.

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, on right bank 25 ft downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 miles west of Mullica Hill, and 2.8 miles east of Swedesboro.

DRAINAGE AREA.--29.9 sq mi.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher. Prior to July 28, 1969, at datum 7.96 ft higher.

AVERAGE DISCHARGE.--6 years, 41.6 cfs (18.89 inches per year).

EXTREMES.--Current year: Maximum discharge, 806 cfs July 13 (elevation, 12.89 ft); minimum, 18 cfs Sept. 11 (elevation, 7.11 ft).
Period of record: Maximum discharge, 3,530 cfs Aug. 10, 1967 (gage height, 9.48 ft, datum then in use); minimum daily, 2.9 cfs July 14, Aug. 27, 28, and Sept. 10, 1966.

REMARKS.--Records excellent except those from Dec. 27 to Mar. 21, which are good. Records of water quality for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	58	84	41	39	63	45	47	35	39	32	20
2	56	67	68	56	40	63	45	40	32	38	29	25
3	54	255	60	56	69	128	46	61	30	38	28	26
4	43	130	56	54	147	106	56	80	28	39	27	22
5	38	78	51	100	59	76	54	55	29	37	26	21
6	66	61	56	73	46	64	48	45	29	41	25	22
7	47	79	108	57	48	60	56	43	28	34	25	21
8	37	64	161	51	40	61	60	37	26	32	25	20
9	34	55	86	60	37	56	49	74	25	33	24	20
10	144	53	71	110	36	55	45	89	25	29	23	19
11	98	52	66	72	35	52	45	62	24	27	22	18
12	58	49	63	65	34	52	44	48	23	26	22	20
13	50	58	56	57	120	52	68	43	25	316	45	22
14	47	51	52	64	114	56	68	52	31	213	76	23
15	46	45	52	59	64	62	106	109	29	64	31	24
16	47	46	52	50	53	56	112	64	27	56	25	21
17	44	45	51	47	46	103	230	50	29	72	24	20
18	42	44	50	48	45	116	96	44	43	52	25	20
19	40	44	46	50	136	72	65	42	70	52	24	22
20	38	45	61	49	116	56	60	48	39	41	23	28
21	37	47	58	52	64	52	56	45	37	38	22	24
22	36	42	50	48	61	68	71	43	265	37	21	22
23	37	38	45	47	54	70	82	39	298	33	21	20
24	129	40	47	47	52	57	80	37	101	31	20	20
25	113	280	45	47	65	54	65	34	183	31	20	21
26	164	116	45	43	150	48	56	32	98	51	20	21
27	113	86	45	43	102	47	50	32	66	35	32	21
28	68	98	44	44	76	46	47	31	50	31	32	22
29	60	135	43	43	69	45	45	31	43	28	25	22
30	59	211	45	42	------	45	45	32	50	28	22	27
31	59	------	45	41	------	45	------	32	------	30	21	------
TOTAL	1,940	2,472	1,862	1,716	2,017	1,986	1,995	1,521	1,818	1,652	837	654
MEAN	62.6	82.4	60.1	55.4	69.6	64.1	66.5	49.1	60.6	53.3	27.0	21.8
MAX	164	280	161	110	150	128	230	109	298	316	76	28
MIN	34	38	43	41	34	45	44	31	23	26	20	18
CFSM	2.09	2.76	2.01	1.85	2.33	2.14	2.22	1.64	2.03	1.78	.90	.73
IN.	2.41	3.08	2.32	2.13	2.51	2.47	2.48	1.89	2.26	2.06	1.04	.81

CAL YR 1971 TOTAL 20,425.7 MEAN 56.0 MAX 1,260 MIN 7.3 CFSM 1.87 IN 25.41
WTR YR 1972 TOTAL 20,470.0 MEAN 55.9 MAX 316 MIN 18 CFSM 1.87 IN 25.47

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	1245	12.74	754	6-22	2330	12.32	640
11-30	0200	11.14	402	7-13	2015	12.89	806
4-17	0630	11.62	489				

01482500 Salem River at Woodstown, N. J.

LOCATION.--Lat 39°38'36", long 74°19'52", Salem County, on right end of Memorial Lake Dam at Woodstown, 0.2 mile upstream from small brook, and 0.3 mile downstream from Penn Central-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 sq mi.

PERIOD OF RECORD.--March to September 1940, December 1941 to current year. Prior to October 1952, published as Salem Creek at Woodstown.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 29.49 ft above mean sea level.

AVERAGE DISCHARGE.--30 years (1942-72), 18.4 cfs (17.11 inches per year).

EXTREMES.--Current year: Maximum discharge, 1,340 cfs June 22 (gage height, 2.81 ft); minimum daily, 5.7 cfs July 25.
Period of record: Maximum discharge, 22,000 cfs Sept. 1, 1940 (gage height, 7.98 ft, from floodmark in recorder shelter) from rating curve extended above 220 cfs on basis of slope-area measurement of peak flow at site 0.5 mile downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

REMARKS.--Records good except those for July 30 to Sept. 30, which are fair. Records given herein represent flow over dam, and flow through waste gate. Occasional regulation by Memorial Lake and several small lakes and ponds above station.

REVISIONS (WATER YEARS).--WSP 1432: 1951(M). WSP 1702: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	19	34	17	14	28	17	17	14	23	15	9.5
2	14	26	26	30	16	26	17	17	10	17	16	12
3	28	208	23	32	43	77	17	26	9.0	17	14	16
4	16	61	23	28	126	52	23	43	9.0	21	14	13
5	10	28	21	77	28	32	26	21	10	16	13	12
6	21	21	21	40	19	26	19	17	9.0	19	12	11
7	16	34	99	26	23	23	19	17	9.0	14	12	11
8	9.0	28	151	21	17	21	26	16	8.0	12	12	11
9	9.0	19	40	28	14	19	23	43	8.0	12	12	10
10	103	19	32	85	14	19	17	52	8.0	10	11	8.8
11	52	17	28	40	14	19	19	26	8.0	9.0	10	7.5
12	19	17	26	30	14	19	17	19	8.0	8.0	9.5	6.5
13	14	16	23	26	77	19	34	16	8.0	173	12	9.5
14	12	16	21	32	61	21	37	19	9.0	77	22	14
15	12	16	23	26	30	28	77	67	12	23	13	15
16	14	17	23	19	26	21	67	26	10	16	11	13
17	14	16	21	16	21	52	184	19	9.0	21	11	11
18	10	16	21	16	21	58	43	16	28	21	12	10
19	10	16	19	17	168	28	28	14	52	23	12	12
20	9.0	16	30	19	73	21	23	16	16	14	11	14
21	9.0	14	30	21	32	21	21	16	14	12	10	12
22	12	12	23	19	34	30	28	16	458	10	9.5	11
23	14	12	19	19	30	34	43	12	157	9.0	8.8	10
24	81	14	21	19	28	23	43	10	43	10	8.8	10
25	52	328	21	19	37	19	32	9.0	117	6.6	8.0	10
26	157	58	21	16	140	19	23	8.0	47	16	9.5	10
27	49	47	19	16	61	17	19	8.0	28	10	32	13
28	26	64	19	17	37	17	19	9.0	21	14	22	17
29	21	108	17	16	32	17	19	9.0	19	14	15	11
30	19	135	19	16	------	17	17	9.0	26	13	12	13
31	19	------	21	16	------	17	------	10	------	10	10	------
TOTAL	859.0	1,418	935	819	1,250	840	997	623.0	1,184.0	670.6	400.1	343.8
MEAN	27.7	47.3	30.2	26.4	43.1	27.1	33.2	20.1	39.5	21.6	12.9	11.5
MAX	157	328	151	85	168	77	184	67	458	173	32	17
MIN	8.0	12	17	16	14	17	17	8.0	8.0	6.6	8.0	6.5
CFSM	1.90	3.24	2.07	1.81	2.95	1.86	2.27	1.38	2.71	1.48	.88	.79
IN.	2.19	3.61	2.38	2.09	3.18	2.14	2.54	1.59	3.02	1.71	1.02	.88

CAL YR 1971 TOTAL 9,685.60 MEAN 26.5 MAX 619 MIN 0 CFSM 1.82 IN 24.68
WTR YR 1972 TOTAL 10,339.50 MEAN 28.3 MAX 458 MIN 6.5 CFSM 1.94 IN 26.34

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	0900	2.22	700	12-07	2400	1.88	395
11-29	2300	1.88	395	6-22	1800	2.81	1,340

NOTE.--Waste gate open July 30 to Sept. 30.

01482100 Delaware River at Delaware Memorial Bridge, Wilmington, Del.

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Del., at right tower pier of downstream bridge of dual bridges at Wilmington, Del., 2.0 miles downstream from Christina River and at mile 68.70 upstream from Atlantic Ocean.

DRAINAGE AREA.--11,030 sq mi.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below mean sea level. Water-stage recorder at same datum at Reynolds Aluminum Co., pier in Chester, Pa., 13.6 miles upstream used as auxiliary gage. Gage-height record converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.53	5.23	4.91	5.42	5.9	5.45	5.38	6.09	5.85	5.39	5.24	5.59
high tide	Date	5	29	19	2	13	17	16	15	23	9	6	3
Minimum	Elevation	-1.97	-3.25	-3.73	-3.98	-5.5	-3.50	-2.36	-2.48	-3.33	-2.46	-2.60	-2.18
low tide	Date	13	22	1	16	21	9	11	5	10	10	10	23
Mean high tide		4.35	3.86	3.56	3.32	3.2	3.65	4.7	4.26	4.42	4.31	4.14	4.14
Mean water level		1.63	1.11	.78	.62	.7	1.00	1.6	1.47	1.49	1.32	1.27	1.43
Mean low tide		-1.18	-1.65	-2.00	-2.08	-2.1	-1.70	-1.8	-1.45	-1.53	-1.79	-1.72	-1.43

Maximum high tide known, 8.4 ft above mean sea level Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum low tide, 9.1 ft below mean sea level Dec. 31, 1962.

REMARKS.--Volume records for water year 1972 are published on the following pages and are considered fair. Flow caused primarily by ocean tides; volumes of flow in alternate directions are tabulated for each cycle of ebb and flood tide. Base data are simultaneous readings of gage heights obtained by two standard U.S.G.S. digital recorders located at the ends of a fairly uniform channel reach. The method of computation is, in effect, an approximate digital computer solution of two first-order quasi-linear hyperbolic partial differential equations of two dependent and two independent variables representing unsteady open-channel flow. The power series method is applied to obtain discharges at 15-minute intervals over a specified time period. Fixed information for a given site includes values of channel widths and conveyance areas corresponding to different depths, and distance between the gage stations. The roughness coefficient is obtained by working backwards from discharges obtained by a field measurement of flow through a tidal cycle. Records of water quality for the current year are published in Part 2 of this report.

NOTE.--No gage-height record Feb. 1 to Mar. 1 and Apr. 16 to May 1; estimates made on basis of records for station at Chester, Pa.

01482100 Delaware River at Delaware Memorial Bridge, Wilmington, Del.

Volume of flow, in millions of cubic feet, water year October 1971 to September 1972

Day	October		November		December		January		February		March		April		May		June		July		August		September		Day
	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	
1...	b6,580							140										5,180		5,920		7,640			...1
	6,740	8,070			6,890	6,140	7,340	7,370									10,900	5,350	10,600	6,550	8,550	8,450	7,150	7,860	
	480	9,490			9,080	4,270	8,180	2,930									8,020	740	8,710	b500	8,170		5,240	8,770	
2...	8,020			b130		500		2,130										5,790			400		3,140		...2
	8,140	8,140	7,700	7,760	6,360	7,740	6,380	7,040									10,200	5,410			7,740	7,150	6,390	6,760	
	a	8,980	9,510	5,210	8,800	3,980	8,890	1,140									8,890	150			6,860	9,110	2,680	8,860	
3...				840		1,550		2,680				b5,260						6,680			1,900		5,410		...3
			8,000	7,560	6,980	7,770	6,530	5,660			7,180	4,760					9,940	6,460			7,630	6,860	6,800	6,950	
			9,140	3,790	9,660	2,520	7,750	870			9,160	1,160					8,120				5,500	8,230	1,930	8,620	
4...				1,200		2,600		4,150				5,060		b5,580		b5,680	120				3,800		8,380		...4
			7,260	7,530	7,240	7,950	6,250	5,960			7,010	5,570	7,200	5,710	8,540	4,940	9,300	6,710			7,120	6,550	7,650	5,740	
			9,420	2,270	8,720	1,770	6,910	340			7,700	750	7,800	200	6,570	120	7,190	6,910			3,010	9,020	290	8,530	
5...		b1,250		3,070		4,490		5,140				5,320		6,540		7,240	1,340				5,680		8,460		...5
	10,200	10,500	6,700	7,940	6,590	7,960	5,980	5,300			8,380	5,780	7,090	6,280	10,200	4,970	8,700	6,850			6,310	7,270	7,680	7,270	
	10,900	6,470	8,290	1,400	8,360	700	7,020	70			7,150		7,190		5,110		5,560	7,730			1,360	9,360		8,310	
6...		2,850		4,720		5,560		5,920					150		80		2,820				8,130				...6
	9,340	10,600	6,320	7,520	6,590	8,060	5,870	5,200			7,380	3,740	7,510	6,270	9,420	7,840	8,670	7,180			7,350	6,700	9,110	7,230	
	10,900	4,500	7,690	440	8,580	20	6,990				5,370	4,140	5,470	6,300	6,370	6,560	4,010	8,060			140	9,370	7,720	8,140	
7...		4,720		5,500		5,650	50						590		1,910		5,050				9,440			390	...7
	9,080	9,940	7,780	3,860	7,130	7,210	6,630	5,180			7,030	7,060	6,980	6,840	9,360	6,430	8,610	6,480			8,130	6,480	8,980	7,380	
	10,400	1,920	4,760		8,000		6,350	3,820			6,350	4,420	2,960	8,430	4,330	6,420	1,960	8,560				8,240	7,740	6,680	
8...		6,420		5,780	210		510				480		1,590		3,590		7,000					60		1,260	...8
	8,150	10,100	5,240	6,330	5,830	6,490	5,770	4,300			8,120	5,490	7,310	7,550	7,920	7,250	8,480	7,090			10,300	6,590	8,870	7,630	
	9,800	700	5,690		7,530	6,740	2,880	4,160			3,950	2,940	3,170	6,460	2,620	8,120	920	8,560			7,650	8,300	7,860	5,640	
9...		7,890	190		990		930				1,630		4,470		5,140		9,160					900		2,330	...9
	7,800	9,780	5,480	6,650	7,560	5,820	4,910	5,220			5,320	5,000	6,970	7,170	7,210	8,730	8,550	6,550			9,300	7,290	8,580	7,520	
	9,620		5,590	6,900	4,890	5,830	3,410	3,140			2,440	5,100	1,410	7,310	1,190	9,220	50	9,080			8,360	6,190	8,400	3,660	
10...	10		1,490		2,370		2,210				2,190		6,130		8,380		10,400					1,810		3,290	..10
	6,270	8,250	6,090	5,770	7,360	5,350	5,350	4,270			7,550	8,020	8,270	7,790	9,220	6,820	7,390	5,990			9,270	7,580	6,630	8,030	
	9,970	7,820	3,740	6,020	3,990	5,950	b1,660	3,510			1,580	4,800	650	7,520	340	8,980		8,910			8,070	4,630	8,190	2,530	
11...	1,330		2,990		3,120						4,010		7,650		10,500			330				3,460		4,400	..11
	6,610	6,140	5,290	5,210	8,480	5,570					7,750	7,820	8,210	7,950	9,310	6,720	9,580	7,220			8,320	7,820	7,730	6,980	
	7,710	9,000	2,770	5,810	2,220	5,090					560	6,160		8,830	10	7,910	7,390	8,090			8,010	3,410	8,550	1,140	
12...	3,340		4,170		4,550						6,390				10,900			1,560				4,340		4,920	..12
	5,900	6,260	8,860	5,090	7,800	6,690					7,870	7,460	8,170	8,140	8,580	6,820	10,600	6,950			8,580	7,210	7,350	7,170	
	5,220	9,130	3,500	2,830	1,130	5,500					70	5,520	8,470	8,550		8,120	8,170	5,900			8,260	1,720	7,200	600	
13...	4,420		7,320		5,840						6,650			280		540		3,170				5,610		5,970	..13
	6,280	8,690	9,970	2,740	8,690	5,760					7,320	8,510	8,930	8,700	10,400	7,160	10,400	6,560			8,210	7,580	6,550	7,650	
	3,190	8,750	1,120	3,260	480	5,480						7,340	9,370	b7,550	8,030	7,360	7,910	3,880			7,860	780	7,920	60	
14...	6,270		8,260		6,860							170				1,950		5,360				6,380		5,630	..14
	7,520	8,410	10,000	3,000	7,510	6,680					6,980	9,130			10,700	6,840	9,560	6,950			7,620	7,500	6,620	7,040	
	1,700	9,200	510	2,860	10	6,110					7,210	6,960			7,940	6,400	7,620	2,280			7,880	150	7,660		
15...	8,200		9,280		6,750							720				3,520		6,660				6,660	180		..15
	8,100	8,390	7,850	3,660	8,220	7,360					8,810	6,760			12,100	6,590	9,580	6,970			7,340	9,300	5,100	6,010	
	340	9,120		6,880		5,910					8,460	5,520			8,010	3,930	7,800	480			6,110		6,820	7,670	

16...	8,380			70		100					2,090			5,170		7,210			60		1,160			..16
	8,130	8,350	6,320	8,220	7,590	6,460				8,380	7,560		10,600	6,900	9,300	6,840			7,350	5,810	6,200	5,030		
		8,800	7,480	6,800	8,740	4,780				8,060	4,720		8,090	1,670	7,330				7,060	7,740	5,350	7,500		
17...	8,240	9,250		770		490					3,510			6,880	8,360	7,830			950		2,760			..17
	7,000	9,450	5,590	8,840	6,610	7,910				8,690	7,070		10,000	6,880	6,910	7,380			5,920	5,360	6,210	5,010		
			7,730	5,870	8,670	4,160				9,170	2,520		7,770	300					5,610	7,680	3,870	7,430		
18...		510		1,200		1,060		b2,180			4,480			7,950	410			b8,160	2,120		4,660			..18
	7,660	9,280	6,770	8,300	9,290	4,870	6,050	6,220		10,200	5,280		9,300	6,670	7,590	7,340	7,460	7,750	6,050	5,340	6,040	5,610		
	7,870	7,790	7,650	4,340	5,920	2,740	7,070	1,450		9,270	1,050		7,390		6,110	7,310	6,120		4,330	7,720	1,920	7,870		
19...		780		1,820		3,280		3,550			6,040		20		1,600		2,010		3,830		6,440			..19
	8,040	9,810	5,660	7,920	5,640	8,660	6,490	5,080		9,440	5,670		8,620	7,780	7,870	6,950	7,320	6,060	5,980	5,590	6,950	5,530		
	8,420	6,240	7,480	2,870	8,950	2,400	6,930	660		7,960	b350		4,700	8,050	4,320	7,620	4,680	7,680	2,370	8,320	610	7,880		
20...		2,000		2,540		3,020		4,580					480		3,500		3,650		5,780		6,020			..20
	7,160	9,950	6,060	7,600	7,730	7,820	6,220	5,720					7,490	8,780	7,520	6,080	6,730	6,020	5,410	5,760	5,550	9,100		
	9,040	4,840	6,180	2,540	9,380	1,220	6,740	260					4,860	7,100	2,890	7,570	3,060	8,490	1,310	8,940	30	8,800		
21...		2,630		3,600		4,860		5,220					2,550		4,780		5,200		7,620		7,590			..21
	7,210	8,930	5,900	6,760	6,880	7,960	6,710	5,570					8,670	6,820	6,550	6,520	7,200	5,870	6,450	5,820	7,540	7,900		
	9,140	3,720	7,260	710	8,980	350	6,280						3,470	7,240	1,280	8,780	1,820	8,140	330	8,530		8,250		
22...		3,630		4,060		5,090	5,960	5,840			a		4,340		6,040		7,320		8,980			60		..22
	7,020	9,960	5,260	5,970	7,550	7,150	5,830	5,750		8,130	4,390		7,540	6,870	10,900	5,750	6,330	5,860	6,800	6,100	8,690	7,340		
	8,090	2,940	5,590	100	7,260					6,370			1,710	8,030	1,820	4,620	530	8,660		8,860	8,450	7,330		
23...		4,800		5,780	6,330	6,180	320			1,830			6,050		12,300		8,700					520		..23
	6,930	9,570	3,940	8,250	7,940	7,230	6,760	5,890		10,500	9,220		6,390	6,350	11,200	1,820	7,100	5,860	9,320	6,720	7,940	8,910		
	8,480	b1,700	6,690				5,050	4,370		3,640	5,160		740	8,480	730	4,710	30	8,990	7,220	8,470	8,520	6,320		
24...			4,730	6,460	130		1,480			4,580			8,050		13,300		9,660			300		1,640		..24
			5,020	8,260	7,470	6,290	7,020	5,630		9,840	7,250		7,080	6,030	10,600	1,920	7,120	6,430	9,230	7,160	8,600	8,410		
					6,930	6,460	2,660	5,040		1,650	5,780		190	8,120	150	5,410		9,500	7,930	7,560	9,260	4,650		
25...			8,100	10,800	1,700		2,560			6,200			8,550		12,700			190		1,210		3,110		..25
			3,600	5,170	7,350	5,610	9,840	6,180		8,790	7,920		5,130	7,820	9,310	3,550	9,830	6,940	9,240	7,840	8,460	8,540		
					4,420	6,540	1,240	1,530		830	7,610			8,880		6,890	7,730	8,020	8,290	5,990	9,360	2,810		
26...			2,110		2,380		3,680			8,410				90		130		810		2,380		4,510		..26
			6,010	5,720	7,640	7,800	6,400	5,260		10,100	8,180		8,340	7,120	12,100	4,610	10,500	6,290	9,300	8,040	8,330	8,410		
			4,020	6,520	3,220	6,380	150	4,390			7,350		6,040	7,890	8,830	6,410	7,490	6,960	8,980	4,160	9,380	1,180		
27...			2,770		4,120		4,800			8,910	8,320			400		820		2,050		3,720		5,760		..27
			6,310	7,750	8,150	7,740	6,300	5,800		8,800	8,720		9,270	6,100	11,700	5,150	9,570	7,610	9,400	8,060	8,100	8,380		
			2,980	6,100	1,490	7,050		4,810					6,310	7,180	8,790	5,730	7,960	5,750	9,450	2,560	8,890	130		
28...			4,460		5,460		5,450	6,250			300			830		2,030		3,320		5,080		6,740		..28
			6,900	7,280	9,100	8,190	7,360	4,180		8,990	7,780		9,350	6,170	11,200	5,900	9,680	7,770	9,250	8,470	6,830	9,680		
			1,220	6,720	700	5,880				8,980	7,260		6,570	6,260	8,330	4,540	8,260	4,080	9,530	960	7,980			
29...			6,010		7,270			190			760			1,840		3,700		4,850		6,520	150			..29
			6,620	7,920	10,900	7,850	5,830	5,910		8,590	7,630		9,120	6,670	9,970	6,730	9,210	8,210	8,320	8,860	6,650	7,070		
			540	7,010	10	4,960	7,240	3,790		7,680	6,810		6,420	5,390	8,390	2,860	8,490	2,550	8,910	140	7,550	8,400		
30...			8,900		6,220			910			1,720			3,040		4,810		6,180		7,350	1,320			..30
			11,600	5,540	7,120	7,300	5,470	6,210		8,650	7,600		9,020	6,570	10,500	6,210	9,170	8,040	7,820	9,290	7,730	6,500		
				3,170		4,570	7,660	2,790		8,360	b5,090		6,680	3,890	8,960	1,480	8,460	890	8,350		b5,880	5,110		
31...						210		1,340						4,290				7,320	160					..31
					7,490	4,980	6,320	5,680					8,910	6,340			8,800	7,910	7,960	6,910				
					6,130	4,980	6,320	b2,260					7,040	2,520			8,430	60	7,230	9,240				

a Partial volume of flow not given.
b Incomplete volume of flow.
NOTE.--Where 2 successive downstream or upstream volumes are shown on adjacent days, the portions of the volume occurring in each day should be combined to obtain total downstream or upstream volume for that ebb or flood tide. Non-synchronous or no gage-height record at one of the two gages on days where volumes are not listed.

01483000 Alloway Creek at Alloway, N. J.

LOCATION.--Lat 39°33'55", long 74°21'35", Salem County, on right bank at Alloway Lake Dam at Alloway and 0.8 mile upstream from Deep Run.

DRAINAGE AREA.--21.9 sq mi.

PERIOD OF RECORD.--October 1952 to September 1972 (discontinued). Record was not discontinued September 1971 as published in WRD-NJ-1971.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 13.96 ft above mean sea level.

AVERAGE DISCHARGE.--20 years, 23.7 cfs (14.70 inches per year).

EXTRRMES.--Current year: Maximum discharge, 798 cfs (includes flow through waste gate) June 22 (gage height, 2.95 ft), from rating curve extended above 400 cfs; no flow for part or all of some days when waste gate was closed and water was below spillway.
Period of record: Maximum discharge, 1,860 cfs Sept. 12, 1960 (gage height, 4.24 ft), from rating curve extended above 400 cfs; no flow on July 18, 19, 21-27, 1966 (unregulated), also no flow on some days in most years when the waste gate was closed and water was below spillway.

REMARKS.--Records good except those for periods when waste gate was open and those below 10 cfs, which are fair. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1702: 1953-59.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	25	38	26	19	43	24	31	25	56	18	7.5
2	0	28	36	31	21	39	23	31	22	41	15	13
3	0	205	37	43	38	74	22	37	18	28	14	19
4	0	139	35	37	168	89	27	65	18	31	14	15
5	2.3	57	32	93	58	51	34	45	20	28	13	12
6	15	39	31	80	35	39	28	36	19	31	14	12
7	24	46	91	46	36	34	28	31	18	26	14	10
8	17	52	212	37	28	33	36	29	15	23	14	9.2
9	14	37	84	40	23	31	33	58	14	22	13	9.2
10	92	32	56	115	21	28	28	98	13	19	12	9.2
11	112	29	43	75	20	27	26	58	12	18	10	8.3
12	46	27	38	53	20	28	26	41	12	15	10	9.2
13	29	28	35	43	79	28	40	34	13	115	12	12
14	23	27	32	45	121	29	62	37	19	152	14	13
15	21	24	31	40	56	36	86	125	20	52	13	13
16	20	25	31	30	41	32	125	76	15	34	10	12
17	19	24	30	25	34	55	255	50	16	54	9.2	10
18	18	23	27	25	33	81	101	39	28	36	12	10
19	16	22	26	28	160	47	56	37	47	29	13	12
20	14	22	36	29	60	34	45	37	28	25	10	12
21	14	21	47	31	49	31	39	43	19	20	9.2	10
22	14	19	36	30	52	35	43	41	138	22	8.3	12
23	14	17	29	28	46	47	68	33	226	18	8.3	10
24	61	19	29	27	41	36	70	31	26	16	8.3	10
25	99	276	29	25	48	29	58	26	107	15	8.3	10
26	111	61	28	23	166	27	43	23	47	19	7.5	12
27	91	62	28	20	122	25	37	23	50	18	9.2	12
28	46	105	27	22	65	24	34	25	43	16	15	10
29	34	93	26	22	51	23	33	25	39	14	14	10
30	29	138	27	22	------	23	31	25	47	14	12	13
31	26	------	29	22	------	25	------	25	------	16	9.2	------
TOTAL	1,021.3	1,722	1,316	1,213	1,711	1,183	1,561	1,315	1,134	1,023	363.5	336.6
MEAN	32.9	57.4	42.5	39.1	59.0	38.2	52.0	42.4	37.8	33.0	11.7	11.2
MAX	112	276	212	115	168	89	255	125	226	152	18	19
MIN	0	17	26	20	19	23	22	23	12	14	7.5	7.5
CFSM	1.50	2.62	1.94	1.79	2.69	1.74	2.37	1.94	1.73	1.51	.53	.51
IN.	1.73	2.93	2.24	2.06	2.91	2.01	2.65	2.23	1.93	1.74	.62	.57

CAL YR 1971 TOTAL 11,306.30 MEAN 31.0 MAX 511 MIN 0 CFSM 1.42 IN 19.21
WTR YR 1972 TOTAL 13,899.40 MEAN 38.0 MAX 276 MIN 0 CFSM 1.74 IN 23.61

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-25	1200	2.35	453	4-17	1100	2.23	335
11-03	1500	2.09	268	6-22	2100	2.95	798

NOTE.--Waste gate open Oct. 1, Nov. 25, 29-31, Feb. 19, June 21-23, 25.

Reservoirs in Delaware River basin

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, N.Y., near release chamber at Downsville Dam on East Branch Delaware River, 1.6 miles east of Downsville, N.Y. Drainage area, 371 sq mi. Period of record, September 1954 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Board of Water Supply, City of New York). Extremes for current year: Maximum contents observed, 152,959 mil gal Apr.21 (elevation, 1,281.70 ft); minimum observed,87,749 mil gal Nov. 29 (elevation, 1,241.18 ft). Extremes for period of record: Maximum contents observed, 154,027 mil gal Apr. 5, 1960 (elevation, 1,282.27 ft); minimum observed (after first filling), 9,575 mil gal Dec. 26, 1964 (elevation, 1,151.92 ft).

Reservoir is formed by an earthfill, rock-faced 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 149,700 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, for water supply of 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 furnished by Board of Water Supply and Department of Water Resources, City of New York.

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, N.Y., in emergency gate tower at Cannonsville dam on West Branch Delaware River, 1.8 miles southeast of Stilesville, N.Y. Drainage area, 454 sq mi. Period of record, October 1963 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Board of Water Supply, City of New York). Extremes for current year: Maximum contents observed, 104,042 mil gal Apr. 21 (elevation, 1,153.37 ft); minimum observed, 22,707 mil gal Nov. 1 (elevation, 1,083.98 ft). Extremes for period of record: Maximum contents observed, 104,042 mil gal Apr. 21, 1972 (elevation, 1,153.37 ft); minimum observed (after first filling),11,901 mil gal Nov. 7, 1968 (elevation, 1,066.24 ft).

Reservoir is formed by an earthfill, rock-faced 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 page 135); is released in Delaware River for downstream low flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to January 29, 1964. Records furnished by Board of Water Supply, City of New York.
REVISIONS:--The figure of change for contents (equivalent in cfs) for July, 1966 has been revised to -1,420 cfs, superseding figure published in WRD New York, 1967.

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Pa., at dam on West Branch Lackawaxen River, 0.3 mile north of Prompton, Pa., 0.4 mile upstream from highway bridge, and 0.5 mile upstream from Van Auken Creek. Drainage area, 59.6 sq mi. Period of record, December 1960 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 5,780 acre-ft June 23 (elevation, 1,132.46 ft); minimum, 3,360 acre-ft Sept. 12 (elevation, 1,124.80 ft). Extremes for period of record: Maximum contents, 6,120 acre-ft Mar. 10, 1964 (elevation, 1,133.40 ft); minimum (after first filling), 2,920 acre-ft Sept. 27, 1964 (elevation, 1,123.20 ft).

Reservoir formed by an earth and rockfill dam with ungated bed rock 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 elevation, 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. Records furnished by Corps of Engineers.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Pa., at dam on Dyberry Creek, 0.45 mile upstream from unnamed tributary, 2.4 miles north of Honesdale, Pa., and 2.9 miles upstream from mouth. Drainage area, 64.5 sq mi. Period of record, October 1959 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 1,140 acre-ft June 24 (elevation, 994.85 ft); minimum, no storage many times. Extremes for period of record: Maximum contents, 4,000 acre-ft Apr. 1, 1962 (elevation, 1,009.0 ft); minimum, no storage many times.

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation 1,053.00 ft. Storage began in October 1959. Capacity at elevation 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. Records furnished by Corps of Engineers.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Pa., at dam on Wallenpaupack Creek at Wilsonville, Pa., 1.2 miles south of Hawley and 1.5 miles upstream from mouth. Drainage area, 228 sq mi. Period of record, January 1926 to current year. Gage, vertical staff. Datum of gage is at mean sea level (levels by Pennsylvania Power and Light Co.). Extremes for current year: Maximum contents, 150,600 acre-ft June 24 (elevation, 1,188.76 ft); minimum, 65,960 acre-ft Nov. 7, 8 (elevation, 1,173.30 ft). Extremes for period of record: Maximum contents, 178,200 acre-ft Aug. 19-21, 1955 (elevation, 1,193.45 ft); minimum after first filling), 12,280 acre-ft Mar. 28, 1958 (elevation, 1,162.60 ft).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway in two sections, at elevation 1,176.00 ft. Spillway equipped with roller gate, 14 ft high, on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation, 1,190.00 ft (top of gates) is 209,300 acre-ft of which 157,800 acre-ft is controlled storage above elevation, 1,160.0 ft (minimum pool). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, N.Y., at dam on Mongaup River, 1.8 miles northwest of Fowlersville, N.Y. Drainage area, 118 sq mi. Period of record, January 1930 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Orange and Rockland Utilities, Inc.). Extremes for current year: Maximum contents, 1,400 mil cu ft June 23 (elevation, 1,070.3 ft); minimum, 755 mil cu ft Mar. 1 (elevation, 1,052.1 ft). Extremes for period of record: Maximum contents, 1,457.4 mil cu ft Mar. 18, 1936, and Oct. 15, 1955 (elevation, 1,071.7 ft); minimum (after first filling) -141.4 mil cu ft Dec. 2, 1938 (elevation, 987.5 ft).

Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil cu ft 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 cu ft. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Records furnished by Orange and Rockland Utilities, Inc.
REVISIONS (WATER YEARS).--WSP 1552: 1951-54.

Reservoirs in Delaware River basin--Continued

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, at dam on Black Lake Creek, 2.5 miles southeast of village of Black Lake, N.Y. Drainage area, 23.2 sq mi. Period of record, January 1926 to current year. Nonrecording gage. Datum of gage is at mean sea level (levels by Orange and Rockland Utilities, Inc.). Extremes for current year: Maximum contents observed,1,145 mil cuft June 26 (elevation, 1,221.3 ft); minimum observed, 168 mil cu ft Nov.30 (elevation, 1,182.3 ft). Extremes for period of record: Maximum contents observed, 1,171.2 mil cu ft July 20, 1945 (elevation, 1,222.0 ft); minimum observed (after first filling), -26.8 mil cu ft Nov. 15, 1928 (elevation, 1,144.5 ft).

Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil cu ft 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 cu ft. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records furnished by Orange and Rockland Utilities, Inc.

REVISIONS (WATER YEARS).--WSP 1552: 1951-54. WSP 1702: 1959(M).

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, N.Y., at dam on Black Lake Creek, 2.5 miles northwest of Fowlersville, N.Y. Drainage area, 6.46 sq mi (excluding area above Toronto Reservoir). Period of record, January 1939 to current year. Nonrecording gage. Datum of gage is at mean sea level (levels by Orange and Rockland Utilities, Inc.). Extremes for current year: Maximum contents observed, 140.3 mil cu ftJune 26 (elevation, 1,072.5 ft); minimum observed, 23.9 mil cu ft Mar. 1 (elevation, 1,052.8 ft). Extremes for period of record: Maximum contents observed, 145.44 mil cu ft July 30, 31, 1945 (elevation, 1,073.1 ft); minimum observed (after first filling, about -6,54 mil cu ft Mar. 16, 1963 (elevation, 1,058.0 ft).

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil cu ft 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 cu ft. 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 furnished by Orange and Rockland Utilities, Inc.

REVISIONS (WATER YEARS).--WSP 1552: 1951-54.

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, at a gatehouse at Neversink Dam on Neversink River, 2 miles southwest of Neversink, N.Y. Drainage area, 91.8 sq mi. Period of record, June 1953 to current year. Nonrecording gage read daily at 0900. Datum of gage is at mean sea level (levels by Board of Water Supply, City of New York). Extremes for current year: Maximum contents observed, 37,948 mil galJune 23 (elevation, 1,441.61 ft); minimum observed, 16,485 mil gal Oct. 17 (elevation, 1,388.32 ft). Extremes for period of record: Maximum contents observed, 37, 978 mil gal Apr. 25, 1961 (elevation, 1, 441.67 ft); minimum observed (after first filling), 1,985 mil gal Nov. 25, 1964 (elevation, 1,316.98 ft).

Reservoir is formed by an earthfill, rock-faced 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; 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 furnished by Board of Water Supply, and Department of Water Resources, City of New York.

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Pa., at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 miles northwest of White Haven. Drainage area, 289 sq mi. Period of record, February 1961 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 42,600 acre-ft June 26 (elevation, 1,398.20 ft); minimum, 1,660 acre-ft Apr. 10 (elevation, 1,296.80 ft). Extremes for period of record: Maximum contents, 36,920 acre-ft May 30, 1966 (elevation, 1,391.70 ft); minimum (after establishment of conservation pool), 1,510 acre-ft Apr. 23, 1962 (elevation, 1,295.10 ft).

Reservoir is formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation, 1,450 ft. Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at 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. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Pa., at dam on Wild Creek near Hatchery, Pa., 0.7 mile upstream from Hatchery, 2.6 miles upstream from Wild Creek Dam, 4.4 miles upstream from mouth, and 10 miles northeast of Palmerton. Drainage area, 16.5 sq mi. Period of record, October 1958 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by city of Bethlehem). Extremes for current year: Maximum contents, 20,410 acre-ft June 24(elevation, 1,000.74 ft); minimum, 17,100 acre-ft Sept.30 (elevation, 993.49 ft). Extremes for period of record: Maximum contents, 20,460 acre-ft Apr. 2, 1970 (elevation, 1,000.83 ft); minimum, 176 acre-ft Oct. 6, 1965 (elevation, 902.40 ft).

Reservoir is formed by an earthfill dam, with ungated concrete spillway at elevation, 1,000.00 ft. Storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Pa., at dam on Wild Creek near Hatchery, Pa., 1.6 miles upstream from mouth, 2.4 miles south of Hatchery, and 7.5 miles northeast of Palmerton. Drainage area, 22.2 sq mi. Period of record, January 1941 to current year. Gage, nonrecording. Datum of gage is at mean sea level (levels by city of Bethlehem). Extremes for current year: Maximum contents, 12,280 acre-ft June 24(elevation, 820.94 ft); minimum,10,870 acre-ft Oct. 1 (elevation, 815.60 ft). Extremes for period of record: Maximum contents, 12,880 acre-ft May 23, 1942 (elevation, 822.93 ft); minimum (after first filling), 2,680 acre-ft Nov. 15, 1966 (elevation, 774.10 ft).

Reservoir is formed by earthfill dam, with concrete ungated spillway at elevation, 820.00 ft. Storage began Jan. 27, 1941; water in reservoir first reached minimum 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. Figures given herein represent usable contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem.

Reservoirs in Delaware River basin--Continued

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Pa., at dam on Pohopoco Creek, 0.45 mile upstream from gaging station on Pohopoco Creek, 0.55 mile upstream from Sawmill Run, and 2.3 miles northeast of Parryville, Pa. Drainage area, 96.3 sq mi. Period of record, February to September 1971. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 48,300 acre-ft June 27 (elevation, 635.00 ft); minimum, 30,050 acre-ft Oct. 15 (elevation, 614.60 ft). Extremes for period of record: Maximum contents, 48,300 acre-ft June 27, 1972 (elevation, 635.00 ft); minimum, 136 acre-ft Feb. 8, 1971 (elevation, 516.20 ft).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation, 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum (conservation) pool elevation, 628.00 ft (capacity, 41, 250 acre-ft). Dead storage is 1,390 acre-ft. Reservoir 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. Records furnished by Corps of Engineers.

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. Drainage area, 25.6 sq mi. Period of record, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. Gage, water-stage recorder. 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 mean sea level (New Jersey Geological Survey datum). Extremes for current year: Maximum contents, 8,532,000,000 gal June 24 (gage height, 10.27 ft); minimum, 5,451,000,000 gal Feb. 5-9 (gage height. 6.51 ft), lake drawn down for dock repairs along shore. Extremes for period of record: Maximum contents 8,532,000,000 gal June 24, 1972 (gage height, 10.27 ft); minimum, 1,525,000,000 gal Dec. 29, 1960 (gage height, 0.65 ft).

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). One 24-inch pipe with gate valve to recreation fountain 250 ft downstream from dam. Dead storage, about 8,117,000,000 gal. Figures given herein represent usable capacity. Lake used for recreation.

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Pa., at dam on Still Creek, 1 mile upstream from mouth, and 2.3 miles north of Hometown. Drainage area, 8.5 sq mi. Period of record, January 1933 to current year. Staff gage. Datum of gage is at mean sea level (levels by Panther Valley Water Co.). Extremes for current year: Maximum contents, 8,460 acre-ft June 24(elevation, 1,182.58 ft); minimum, 7,560 acre-ft Sept. 30 (elevation, 1,179.50 ft). 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 and 1951 water years; minimum, 390 acre-ft Feb. 26, 1933 (elevation, 1,132.00 ft).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft. Storage began in 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 is done by valves on pipe through dam. Records furnished by Panther Valley Water Co.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Pa., at dam on Perkiomen Creek at Green Lane, Pa., 0.4 mile west of Green Lane and 2.1 miles upstream from Unami Creek. Drainage area, 70.9 sq mi. Period of record, December 1956 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Philadelphia Suburban Water Co.). Extremes for current year: Maximum contents, 17,030 acre-ft June 23 (elevation, 290.05 ft): minimum, 10,320 acre-ft Oct. 2 (elevation, 281.91 ft). Extremes for period of record: Maximum contents, 17,030 acre-ft June 23, 1972 (elevation, 290.05 ft); minimum (after first filling), 1,270 acre-ft Aug. 25, 1957 (elevation, 251.60 ft).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft. Storage began Dec. 21, 1956. Capacity at spillway level (elevation, 286.00 ft), 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)
	01416900 Pepacton Reservoir			01424997 Cannonsville Reservoir		
Sept.30	1,255.44	108,315	-	1,094.32	30,967	-
Oct. 31	1,247.14	96,017	-614	1,083.98	22,707	-412
Nov. 30	1,241.46	88,128	-407	1,088.26	25,945	+167
Dec. 31	1,255.37	108,207	+1,000	1,129.04	69,033	+2,150
CAL YR 1971	-	-	+43.0	-	-	+55.3
Jan. 31	1,258.52	113,108	+245	1,144.05	89,640	+1,030
Feb. 29	1,259.33	114,389	+68.4	1,144.12	89,741	+5.41
Mar. 31	1,277.68	145,555	+1,560	1,151.32	100,742	+549
Apr. 30	1,280.64	150,984	+280	1,151,30	100,710	-53.2
May 31	1,280.11	150,002	-49.0	1,150.89	100,050	-33.0
June 30	1,281.01	151,671	+86.0	1,151.98	101,805	+90.5
July 31	1,276.67	143,729	-396	1,148.10	95,728	-303
Aug. 31	1,269.97	131,953	-588	1,139.95	83,717	-599
Sept.30	1,262.49	119,460	-644	1,117.59	54,971	-1,480
WTR YR 1972	-	-	+47.1	-	-	+101

	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01428900 Prompton Reservoir			01429400 General Edgar Jadwin Reservoir		
Sept.30	1,125.60	3,590	-	975.41	0	-
Oct. 31	1,125.51	3,560	-.5	974.92	0	0
Nov. 30	1,126.40	3,810	+4.2	977.35	0	0
Dec. 31	1,127.00	3,980	+2.8	978.43	9	+.1
CAL YR 1971	-	-	+.5	-	-	0
Jan. 31	1,125.88	3,670	-5.0	976.12	0	-.1
Feb. 29	1,125.71	3,620	-.9	976.12	0	0
Mar. 31	1,126.88	3,950	+5.4	978.90	18	+.3
Apr. 30	1,126.31	3,790	-2.7	977.03	0	-.3
May 31	1,127.02	3,990	+3.3	981.32	93	+1.5
June 30	1,127.60	4,170	+3.0	991.27	727	+10.7
July 31	1,125.08	3,440	-11.9	975.33	0	-11.8
Aug. 31	1,124.97	3,410	-.5	974.98	0	0
Sept.30	1,125.12	3,450	+.7	975.43	0	0
WTR YR 1972	-	-	-.2	-	-	0

	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (millions of cubic feet)	Change in contents (equivalent in cfs)
	01431700 Lake Wallenpaupack			01433000 Swinging Bridge Reservoir		
Sept.30	1,178.00	90,800	-	1,064.7	1,180	-
Oct. 31	1,173.80	68,560	-362	1,060.5	1,028	-56.8
Nov. 30	1,175.40	76,920	+141	1,065.2	1,199	+66.0
Dec. 31	1,183.70	121,920	+732	1,063.9	1,150	-18.3
CAL YR 1971	-	-	+22.8	-	-	+1.6
Jan. 31	1,183.20	119,120	-45.5	1,058.4	956	-72.4
Feb. 29	1,181.90	111,950	-125	1,052.5	767	-75.3
Mar. 31	1,184.80	128,080	+262	1,064.9	1,188	+157
Apr. 30	1,186.70	138,790	+180	1,067.1	1,272	+32.4
May 31	1,188.50	149,100	+168	1,068.7	1,335	+23.5
June 30	1,187.00	140,500	-145	1,069.9	1,383	+18.5
July 31	1,183.70	121,920	-302	1,064.7	1,180	-75.8
Aug. 31	1,179.80	100,520	-348	1,062.2	1,088	-34.4
Sept.30	1,179.10	96,740	-63.5	1,067.7	1,295	+79.9
WTR YR 1972	-	-	+8.2	-	-	+3.6

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Elevation (feet)‡	Contents (millions of cubic feet)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (millions of cubic feet)	Change in contents (equivalent in cfs)
	01433100 Toronto Reservoir			01433200 Cliff Lake Reservoir		
Sept.30	1,193.3	364	-	1,064.7	81.7	-
Oct. 31	1,186.6	238	-47.0	1,064.1	77.9	-1.4
Nov. 30	1,182.3	168	-27.0	1,065.2	85.0	+2.7
Dec. 31	1,194.9	398	+85.9	1,064.6	81.1	-1.5
CAL YR 1971	-	-	+.6	-	-	+.4
Jan. 31	1,200.8	536	+51.5	1,058.8	47.9	-12.4
Feb. 29	1,203.4	603	+26.7	1,052.8	23.9	-9.6
Mar. 31	1,211.8	832	+85.5	1,065.2	85.0	+22.8
Apr. 30	1,218.9	1,060	+88.0	1,067.8	103	+6.9
May 31	1,220.0	1,098	+14.2	1,069.3	114	+4.1
June 30	1,221.0	1,134	+13.9	1,072.4	140	+10.0
July 31	1,216.4	975	-59.4	1,071.2	129	-4.1
Aug. 31	1,202.6	582	-147	1,068.9	111	-6.7
Sept.30	1,191.5	327	-98.4	1,067.8	103	-3.1
WTR YR 1972	-	-	-1.2	-	-	+.7

	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01435900 Neversink Reservoir			01447780 Francis E. Walter Reservoir		
Sept.30	1,390.51	17,173	-	1,300.70	2,070	-
Oct. 31	1,391.71	17,556	+19.2	1,301.80	2,180	+1.8
Nov. 30	1,391.05	17,344	-11.0	1,302.58	2,260	+1.3
Dec. 31	1,400.66	20,575	+161	1,305.10	2,520	+4.2
CAL YR 1971	-	-	+9.5	-	-	+.6
Jan. 31	1,404.03	21,785	+60.3	1,301.16	2,120	-6.5
Feb. 29	1,405.51	22,329	+29.1	1,301.69	2,170	+.9
Mar. 31	1,420.42	28,218	+294	1,301.32	2,130	-.7
Apr. 30	1,440.29	37,290	+468	1,300.31	2,030	-1.7
May 31	1,439.54	36,920	-18.4	1,314.40	3,670	+26.7
June 30	1,440.70	37,494	+29.5	1,388.20	34,120	+512
July 31	1,435.56	34,991	-125	1,303.40	2,340	-517
Aug. 31	1,423.02	29,321	-283	1,300.71	2,070	-4.4
Sept.30	1,398.52	19,827	-490	1,300.40	2,040	-.5
WTR YR 1972	-	-	+11.2	-	-	0

	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01449400 Penn Forest Reservoir			01449700 Wild Creek Reservoir		
Sept.30	997.12	18,680	-	815.60	10,870	-
Oct. 31	994.67	17,930	-12.2	818.31	11,610	+12.0
Nov. 30	996.31	18,320	+6.6	819.32	11,860	+4.2
Dec. 31	1,000.14	20,060	+28.3	820.10	12,030	+2.8
CAL YR 1971	-	-	0	-	-	+1.8
Jan. 31	1,000.10	20,040	-.3	820.17	12,050	+.3
Feb. 29	1,000.13	20.050	+.2	820.11	12,030	-.3
Mar. 31	1,000.19	20.090	+.7	820.17	12,050	+.3
Apr. 30	1,000.27	20,140	+.8	820.25	12,080	+.5
May 31	1,000.31	20,160	+.3	820.28	12,080	0
June 30	1,000.07	20.020	-2.4	820.61	12,180	+1.7
July 31	1,000.08	20,020	0	818.06	11,550	-10.2
Aug. 31	997.17	18,700	-21.5	817.80	11,470	-1.3
Sept.30	993.49	17,100	-26.9	817.54	11,400	-1.2
WTR YR 1972	-	-	-2.2	-	-	+.7

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Date	Gage Height (feet)‡	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01455400 Lake Hopatcong			01469200 Still Creek Reservoir		
Sept.30	8.88	7,359	-	1, 181.58	8,160	-
Oct. 31	8.63	7,153	-10.2	1, 181.33	8,090	-1.1
Nov. 30	†7.02	5,850	-67.1	1, 182.21	8,350	+4.4
Dec. 31	6.53	5,466	-19.2	1, 182.04	8,300	-.8
CAL YR 1971	-	-	+9.3	-	-	0
Jan. 31	6.57	5,498	+1.5	1, 182.06	8,300	0
Feb. 29	7.23	6,017	+27.7	1, 182.08	8,310	+.2
Mar. 31	9.08	7,526	+75.3	1, 182.00	8,310	0
Apr. 30	†9.22	7,644	+6.0	1, 182.12	8,320	+.2
May 31	9.60	7,964	+15.9	1, 182.06	8,300	-.3
June 30	9.62	7,981	+.9	1, 182.12	8,320	+.3
July 31	9.04	7,493	-24.3	1, 181.75	8,210	-1.8
Aug. 31	†8.70	7,210	-14.1	1, 180.92	7,970	-3.9
Sept.30	8.30	6,881	-17.0	1, 179.50	7,560	-6.9
WTR YR 1972	-	-	-2.0	-	-	-.8

	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)‡	Contents (acre-feet)	Change in contents (equivalent (in cfs)
	01472200 Green Lane Reservoir			01449790 Beltzville Lake		
Sept.30	285.64	13,110	-	612.40	28,480	-
Oct. 31	286.00	13,430	+5.2	616.40	31,400	+47.5
Nov. 30	286.27	13,670	+4.0	623.80	37,380	+101
Dec. 31	286.04	13,470	-3.3	628.20	41,440	+66.0
CAL YR 1971	-	-	+.2	-	-	+57.2
Jan. 31	285.99	13,420	-.8	628.70	41,920	+7.8
Feb. 29	286.30	13,700	+4.9	627.50	40,780	-19.8
Mar. 31	286.00	13,430	-4.4	627.00	40,300	-7.8
Apr. 30	285.96	13,400	-.5	627.90	41,160	+14.4
May 31	286.15	13,560	+2.6	627.90	41,160	0
June 30	286.30	13,700	+2.4	633.40	46,600	+91.4
July 31	285.90	13,340	-5.9	628.00	41,250	-87.0
Aug. 31	285.47	12,960	-6.2	627.70	40,960	-4.7
Sept.30	284.41	12,070	-15.0	627.00	40,300	-11.1
WTR YR 1972	-	-	-1.4	-	-	+16.3

† Elevation at 0900 hours on first day of following month.
‡ Elevation or gage height at 2400 hours.
a Observed.

DIVERSIONS AND WITHDRAWALS

Withdrawals from the Delaware River basin

01415200 Diversion from Pepacton Reservoir, N.Y., (see p. 129) 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 furnished by Board of Water Supply and Department of Water Resources, City of New York. REVISIONS.--The figure of diversion for April 1970 has been revised to 92.7 cfs.

01423900 Diversion from Cannonsville Reservoir, N.Y., (see p. 129) 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 furnished by Board of Water Supply, City of New York.

01435800 Diversion from Neversink Reservoir, N.Y., (see p. 130) 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 furnished by Board of Water Supply and Department of Water Resources, City of New York.

01436520 Village of Woodbridge, N.Y., diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Records furnished by Delaware River Basin Commission.

01437360 Diversion from Bear Swamp Reservoir, tributary to Neversink River by the Otisville, New York State Training School for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01448830 Diversion from Hazle Creek Watershed by Hazleton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records furnished by Delaware River Basin Commission.

01460500 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, N.J., for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick, N.J. Records of discharge are collected on the Delaware and Raritan Canal at Kingston. (see station 01460500).

01467480 Diversion from Mud Run, tributary to Schuylkill River by Mahonoy Township Authority for municipal use outside of basin. Records furnished by Delaware River Basin Commission.

Withdrawals by City of New York

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Pepacton Reservoir	Cannonsville Reservoir	Neversink Reservoir
October	696	319	109
November	697	0	177
December	634	0	259
CAL YR 1971	532	273	210
January	560	0	152
February	312	387	114
March	220	544	115
April	231	41.0	107
May	626	28.2	319
June	378	101	206
July	558	198	282
August	696	112	404
September	696	0	533
WTR YR 1972	527	144	232

Miscellaneous withdrawals from basin

	East Pond Reservoir	Bear Swamp Reservoir	Bear Creek	Hazle Creek	Delaware & Raritan Canal	Mud Run
October	.3	.3	0	3.1	80.4	.08
November	.5	.3	0	3.1	97.2	.09
December	.5	.3	0	3.1	103	.09
CAL YR 1971	.50	.32	1.90	3.10	100	.06
January	.5	.3	0	3.1	101	.09
February	.5	.3	0	3.1	106	.08
March	.5	.3	0	3.1	106	.09
April	.5	.3	2.3	3.1	99.3	.12
May	.5	.3	7.7	3.1	104	.09
June	.6	.3	0	3.1	103	.09
July	.6	.3	0	3.1	96.5	.09
August	.6	.3	0	3.1	95.5	0
September	.6	.3	0	3.1	94.1	0
WTR YR 1972	.52	.30	.83	3.10	98.8	.08

Diversions and Withdrawals--Continued

Diversions within the Delaware River basin

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant for municipal supply, by the Borough of Morrisville, Pa. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Borough of Morrisville, Pa.

01463500 Diversion from the Delaware River just above the Trenton gaging station for municipal supply by the city of Trenton, N.J. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the city of Trenton.

01467030 Diversion from the Delaware River at the Torresdale Intake for municipal supply, by the city of Philadelphia, Pa. 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 furnished by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes for municipal supply, by the city of Philadelphia, Pa. 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 furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Withdrawal Borough of Morrisville	Withdrawal City of Trenton	Withdrawal City of Philadelphia		
			Schuylkill River		Delaware River
			Belmont	Queen Lane	Torresdale
October	3.1	61.9	104	162	319
November	3.2	62.1	88.2	179	292
December	3.3	61.2	99.0	161	300
CAL YR 1971	3.0	64.3	110	160	330
January	3.2	61.1	75.8	153	326
February	3.5	60.8	77.4	162	331
March	3.6	60.0	97.5	156	306
April	3.7	59.5	97.5	150	306
May	4.0	60.8	100	152	312
June	4.2	61.6	99.0	156	336
July	4.5	65.3	119	182	365
August	4.4	70.0	114	193	357
September	4.0	64.7	107	178	332
WTR YR 1972	3.7	62.4	98.2	165	324

Diversions imported into basin

01367630 Water diverted from Morris Lake, tributary to the Wallkill River, by the Newton Water and Sewer Authority for municipal use. After use, the water is released into the Paulins Kill (Delaware River basin). Records furnished by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek at the McCray Plant of the Octoraro Water Co., for municipal use. After use, the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

01578450 Water diverted from Octoraro Lake by Chester Water Authority for municipal use. After use, the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

Month	Morris Lake	Octoraro Creek	
		Octoraro Water Co.	Chester Water Authority
October	1,48	2.23	43.2
November	1.28	2.18	44.4
December	1.28	2.06	44.9
CAL YR 1971	1.35	2.54	43.5
January	1.30	2.10	44.7
February	1.34	2.24	42.8
March	1.36	2.16	42.7
April	1.41	2.23	41.3
May	1.41	2.00	42.2
June	1.48	2.01	43.6
July	1.45	2.21	43.2
August	1.56	2.13	45.0
September	1.56	2.06	46.2
WTR YR 1972	1.41	2.13	43.7

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Hudson River basin				
01367750	Beaver Run near Hamburg, N. J.	Lat 41°10'52", long 74°35'27", Sussex County, on State Route 23, 1.0 mile upstream from mouth and 2.2 miles north of Hamburg.	5.59	1966-72	4-12-72 9- 6-72	6.76 1.83
01367850	West Branch Papakating Creek at McCoys Corner, N. J.	Lat 41°11'49", long 74°37'55", Sussex County, 0.8 mile upstream from mouth, 1.7 miles southwest of intersection of State Routes 23 and 284 at Sussex.	11.0	1967-72	4-12-72 9- 6-72	12.6 1.20
01367890	Clove Brook above Clove Acres Lake, at Sussex, N. J.	Lat 41°13'13", long 74°36'54", Sussex County, on road to Libertyville, 0.1 mile northwest of fork from State Route 23 at Sussex.	19.2	1967-72	4-12-72 9- 6-72	17.4 2.38
		Hackensack River basin				
*01377475	Musquapsink Brook near Westwood, N. J.	Lat 40°59'41", long 74°03'42", Bergen County, at culvert on Pascack Road in Washington Borough, 1.5 miles west of Westwood and 5.3 miles upstream from mouth.	2.16	1964-72	4-12-72 9- 5-72	3.40 1.59
*01378350	Tenakill Brook at Cresskill, N. J.	Lat 40°56'30", long 74°57'52", Bergen County, at bridge on Madison Avenue in Cresskill, 0.15 mile west of Erie Lackawanna Railroad station and 3.3 miles upstream from Oradell Reservoir.	3.01	1964-72	4-28-72 9- 6-72	3.94 3.32
*01378385	Tenakill Brook at Closter, N. J.	Lat 40°58'29", long 73°58'06", Bergen County, at bridge on High Street in Closter, 0.7 mile upstream from mouth.	8.56	1964-72	4-12-72 9- 6-72	12.5 6.21
01378520	Hirshfeld Brook at New Milford, N. J.	Lat 40°56'49", long 74°01'00", Bergen County, at bridge on The Boulevard in New Milford, 0.45 mile upstream from mouth and 0.7 mile west of Dumont.	a5	1965-72	4-28-72 9- 5-72	4.56 1.57
01378530	French Brook at New Bridge, N. J.	Lat 40°55'00", long 74°01'25", Bergen County, at bridge on New Bridge Road in New Bridge, 0.45 mile upstream from mouth and 1.6 miles north of Teaneck.	a1	1965-72	4-28-72 9- 5-72	.65 .22

See footnotes at end of table, p.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Hackensack River basin--Continued				
01378560	Coles Brook at Hackensack, N. J.	Lat 40°54'40", long 74°02'26", Bergen County, at bridge on Main Street in Hackensack, 0.8 mile upstream from mouth and 1.9 miles northwest of Teaneck.	a7	1965-72	4-28-72 9- 5-72	5.88 2.16
*01378590	Metzler Brook at Englewood, N. J.	Lat 40°54'29", long 73°59'13", Bergen County, at bridge on Lantana Avenue in Englewood, 1.6 miles upstream from mouth.	1.54	1964-72	4-28-72 9- 5-72	2.00 .46
*01378615	Wolf Creek at Ridgefield, N. J.	Lat 40°49'45", long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield, 0.9 mile upstream from mouth.	1.18	1964-72	4-28-72 9- 6-72	1.69 .64
		Passaic River basin				
01379300	Passaic River at Stirling, N. J.	Lat 40°39'57", long 74°28'57", Morris County, at bridge on Plainfield Road, 0.8 mile southeast of center of Stirling.	84.1	1968-70, 1972	4-12-72	67.0
01379700	Rockaway River at Berkshire Valley, N. J.	Lat 40°55'51", long 74°35'42", Morris County, at bridge on Berkshire Valley Road in Berkshire Valley, 2.7 miles upstream from Stephens Brook, and 3.8 miles northwest of Dover.	24.4	1960-69, 1971-72	4-12-72 9- 6-72	41.3 10.3
01380050	Hibernia Brook at outlet of Lake Telemark, N. J.	Lat 40°57'32", long 74°30'06", Morris County, at bridge at outlet of Lake Telemark, 1.0 mile north of Hibernia and 3.2 miles upstream from mouth.	2.35	1966-72	4-12-72 9- 6-72	3.68 .14
01381200	Rockaway River at Pine Brook, N. J.	Lat 40°51'29", long 74°20'53", Morris County, at bridge on U.S. Route 46, 0.9 mile west of Pine Brook and 1.1 miles upstream from Whippany River.	136	1963-70, 1972	9- 6-72	25.2
01381400	Whippany River near Morristown, N. J.	Lat 40°48'44", long 74°30'44", Morris County, at bridge on Sussex Avenue, 1.9 miles northwest of Morristown and 2.7 miles upstream from Lake Pocahontas Dam.	14.0	1964-72	4-12-72 8- 2-72 9- 6-72	21.5 13.7 6.20
01381470	Whippany River tributary No. 2 at Greystone Park State Hospital, N. J.	Lat 40°50'13", long 74°30'08", Morris County, 0.5 mile above Graniss Avenue at Greystone Park State Hospital, 0.8 mile upstream from mouth.	1.39	1967-72	4-12-72 9- 1-72	2.78 .90
01381490	Whippany River tributary at Morris Plains, N. J.	Lat 40°18'50", long 74°29'38", Morris County, at bridge on Lake Road, 0.1 mile upstream from mouth and 0.8 mile south of Morris Plains.	7.77	1966-72	4-12-72 9- 6-72	13.7 5.07
01381700	Troy Brook at Troy Hills, N. J.	Lat 40°51'15", long 74°23'27", Morris County, at bridge on Beverwyck Road in Troy Hills, and 1.0 mile upstream from West Brook.	10.1	1961-66, 1972	9- 1-72	6.52
*01381900	Passaic River at Pine Brook, N. J.	Lat 40°51'45", long 74°19'18", Morris County, at bridge on U.S. Route 46, 0.5 mile east of Pine Brook and 1.3 miles downstream from Rockaway River.	349	1963-69	-	-
01382450	Macopin River at Macopin Reservoir, N. J.	Lat 41°01'33", long 74°24'31", Passaic County, at bridge on northbound lane of State Route 23, 4.0 miles northwest of its intersection with State Route 511 at west edge of Butler.	a5.25	1970-72	4-12-72 9- 7-72	4.99 .40

See footnotes at end of table, p.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Passaic River basin--Continued				
01387520	Stag Brook near Mahwah, N. J.	Lat 41°05'45", long 74°10'25", Bergen County, at bridge 300 ft upstream from mouth, 1.5 miles west of Mahwah.	1.29	1963-70, 1972	9- 7-72	0
*01387880	Pond Brook at Oakland, N. J.	Lat 41°01'45", long 74°14'13", Bergen County, at bridge on U. S. Route 202, at Oakland, 0.3 mile upstream from mouth.	7.20	1963-72	4-12-72	13.7
01389790	Molly Ann Brook at Paterson, N. J.	Lat 40°54'52", long 74°11'26", Passaic County, at bridge on Totowa Avenue, 0.1 mile upstream from mouth and 1.8 miles west of Paterson.	7.73	1963-72	4-11-72 9- 7-72	.09 .06
01389905	Fleischer Brook at East Paterson, N. J.	Lat 40°53'26", long 74°07'15", Bergen County, at culvert on Martha Street in East Paterson, 1.3 miles upstream from mouth.	1.78	1964-72	4-28-72 9- 7-72	1.88 1.00
*01390450	Saddle River at Upper Saddle River, N. J.	Lat 41°03'32", long 74°05'44", Bergen County, at culvert on Lake Street in Upper Saddle River, 1.3 miles downstream from Pine Brook.	10.9	1964-72	4-12-72 9- 5-72	13.5 6.01
*01391110	Saddle River at Paramus, N. J.	Lat 40°56'47", long 74°05'56", Bergen County, at bridge on Dunkerhook Road in Paramus, 0.75 mile downstream from Hohokus Brook.	45.0	1964-69, 1971-72	3-29-72 9- 7-72	107 33.6
*01391485	Sprout Brook at Rochelle Park N. J.	Lat 40°54'45", long 74°04'47", Bergen County, at bridge on Passaic Street in Rochelle Park, 0.9 mile upstream from mouth.	5.56	1964-72	3-29-72 9- 7-72	10.3 5.00
01392200	Third River at Nutley, N. J.	Lat 40°49'29", long 74°08'55", Essex County, at bridge on Passaic Avenue, at Kingsland Park at Nutley.	11.4	1963-72	4-11-72	26.2
		Raritan River basin				
01396120	South Branch Raritan River at Bartley, N. J.	Lat 40°49'51", long 74°43'30", Morris County, at inlet to diversion to mill pond, 0.7 mile northwest of Bartley, and 3.2 miles southeast of Budd Lake.	12.5	1964-69, 1971-72	4-11-72 9- 7-72	20.0 5.39
01396180	Drakes Brook at Bartley, N. J.	Lat 40°48'43", long 74°43'45", Morris County, at bridge on Bartley Road, 0.25 mile upstream from mouth, and 0.9 mile southwest of Bartley.	16.6	1964-69, 1971-72	4-11-72 9- 7-72	24.7 11.1
01399200	Lamington River near Ironia, N. J.	Lat 40°50'07", long 74°38'40", Morris County, at bridge on Ironia Road, 1.0 mile downstream from Succasunna Brook, 1.3 miles northwest of Ironia, and 4.4 miles northwest of Chester.	10.9	1964-72	4-12-72 9- 6-72	16.2 7.94
01399820	Chambers Brook near North Branch, N. J.	Lat 40°37'26", long 74°39'48", Somerset County, at bridge on Love Road, 0.6 mile upstream from mouth and 1.7 miles northeast of North Branch.	4.71	1964-72	4-12-72 9- 6-72	1.93 .09
01400540	Millstone River near Manalapan, N. J.	Lat 40°15'44", long 74°25'13", Monmouth County, at bridge on State Highway 33, 1.3 miles west of Manalapan, and 8.4 miles upstream from Rocky Brook.	7.37	1960-62, 1964, 1971-72	11-18-71	9.62
01400560	Millstone River at Applegarth, N. J.	Lat 40°16'28", long 74°28'22", Middlesex County, at bridge on Prospect Plains-Applegarth Road, 0.3 mile south of Applegarth, and 5.2 miles upstream from Rocky Brook.	15.0	1960-62, 1964, 1971-72	11-18-71	16.3

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Raritan River basin--Continued				
01400580	Millstone River at Hightstown, N. J.	Lat 40°17'25", long 74°31'21", Mercer County, at bridge on U.S. Highway 130, 1.3 miles upstream from Rocky Brook, and 1.4 miles north of Hightstown.	19.7	1960-62, 1964, 1967, 1969, 1971-72	11-18-71	19.5
01400593	Rocky Brook at Hightstown, N. J.	Lat 40°15'40", long 74°30'52", Mercer County, at bridge on first road downstream from New Jersey Turnpike, 0.8 mile southeast of Hightstown and 2.7 miles upstream from mouth.	9.58	1965-72	11-18-71 4-11-72 9- 6-72	9.41 11.2 5.26
01400596	Peddie Brook at Hightstown, N. J.	Lat 40°15'36", long 74°31'08", Mercer County, at bridge on Etra Road, 0.2 mile upstream from mouth and 0.7 mile southeast of Hightstown.	3.07	1965-72	11-18-71 4-11-72 9- 6-72	3.57 4.60 1.74
01400600	Millstone River at Locust Corner, N. J.	Lat 40°17'28", long 74°32'58", Mercer County, at bridge on State Highway 535, 0.7 mile downstream from Rocky Brook, and 0.8 mile northeast of Locust Corner.	37.4	1959-62, 1964, 1971-72	11-18-71	43.2
01400640	Millstone River near Grovers Mills, N. J.	Lat 40°18'48", long 74°35'22", Mercer County, at bridge on Cranbury Neck Road, 1.0 mile east of Grovers Mills, and 1.8 miles upstream from Cranbury Brook.	42.6	1959-62, 1964-65, 1971-72	11-18-71	47.5
01400700	Cranbury Brook at Cranbury Station, N. J.	Lat 40°18'28", long 74°29'13", Middlesex County, at highway bridge on east side of tracks of Penn Central Railroad, 0.5 mile northeast of Cranbury Station, and 1.6 miles upstream from dam at Brainerd Lake in Cranbury.	9.56	1959-62, 1964, 1971-72	11-18-71	6.11
01400810	Big Bear Brook at Princeton Junction, N. J.	Lat 40°19'21", long 74°37'00", Mercer County, at Penn Central Railroad bridge, 0.2 mile upstream from mouth, and 0.7 mile northeast of Princeton Junction.	12.4	1962-67, 1971-72	11-18-71	7.58
*01400850	Woodsville Brook at Woodsville, N. J.	Lat 40°22'37", long 74°49'33", Mercer County, at bridge on secondary road, 0.3 mile southeast of Woodsville and 0.8 mile upstream from mouth.	1.78	1957, 1965-72	11-19-71 4-11-72 9- 6-72	.88 1.07 0
*01400900	Stony Brook at Glenmoore, N. J.	Lat 40°21'55", long 74°47'14", Mercer County, at bridge on Spur State Highway 518, at Glenmoore, 200 ft east of tracks of Reading Railroad, and 2.0 miles southwest of Hopewell.	17.0	1960-62, 1964, 1971-72	11-19-71	7.84
*01400930	Baldwin Creek at Pennington, N. J.	Lat 40°20'18", long 74°47'50", Mercer County, at bridge on State Route 31, 0.8 mile north of Pennington, 0.9 mile above Baldwin Lake dam, and 1.2 miles upstream from mouth.	1.99	1957-58, 1963, 1965-69, 1972	4-11-72 9- 6-72	1.01 .007
*01400947	Stony Brook at Pennington, N. J.	Lat 40°19'50", long 74°46'05", Mercer County, 25 ft upstream from dam on Stony Brook at Oldmill Road, 1.3 miles east of Pennington and 1.4 miles downstream from Baldwin Creek.	26.5	1965-69, 1971-72	11-19-71 4-11-72 9- 6-72	11.7 14.7 1.00
*01401520	Beden Brook near Hopewell, N. J.	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 1.1 miles southeast of Hopewell and 2.6 miles southwest of Blawenburg.	6.07	1965-72	11-18-71 4-11-72 9- 6-72	3.62 4.12 .37
01401590	Rock Brook at Blawenburg, N. J.	Lat 40°24'40", long 74°42'10", Somerset County, at bridge on Great Road, 0.3 mile north of Blawenburg, and 1.7 miles upstream from mouth.	7.96	1962-67, 1971-72	11-18-71	5.04

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Raritan River basin--Continued				
*01401600	Beden Brook near Rocky Hill, N. J.	Lat 40°24'52", long 74°39'02", Somerset County, at bridge on U.S. Highway 206, 0.7 mile upstream from Pike Run, and 1.2 miles northwest of Rocky Hill.	27.6	1959-63, 1965, 1971-72	11-18-71	16.4
01401700	Pike Run near Rocky Hill, N. J.	Lat 40°25'12", long 74°38'28", Somerset County, at bridge on State Highway 533, 600 ft upstream from mouth, and 1.4 miles north of Rocky Hill.	22.2	1959-63, 1971-72	11-18-71	10.7
01401800	Ten Mile Run near Blackwells Mills, N. J.	Lat 40°27'23", long 74°35'09", Somerset County, at bridge on Canal Road, 0.4 mile upstream from mouth, and 1.5 miles southwest of Blackwells Mills.	4.36	1960-64, 1971-72	11-18-71	1.65
01401900	Six Mile Run at Blackwells Mills, N. J.	Lat 40°28'21", long 74°34'17", Somerset County, at bridge on Canal Road, 300 ft upstream from mouth, and 0.2 mile south of Blackwells Mills.	16.1	1960-67, 1971-72	11-18-71	7.41
		Navesink River basin				
01407200	Hop Brook at Holmdel, N. J.	Lat 40°20'41", long 74°10'29", Monmouth County, at bridge on State Route 520, 0.5 mile east of South Street in Holmdel and 1.7 miles downstream from Big Brook.	5.72	1969-72	4-12-72 9- 7-72	9.00 4.64
01407250	Willow Brook at Holmdel, N. J.	Lat 40°20'17", long 74°11'14", Monmouth County, at bridge on South Street in Holmdel, 1.9 miles upstream from Hop Brook.	6.88	1969-72	4-12-72 9- 7-72	12.4 5.22
01407300	Big Brook at Vanderburg, N. J.	Lat 40°19'32", long 74°11'19", Monmouth County, at bridge on State Route 34 at intersection with Conover Road, 0.8 mile north of Vanderburg and 1.8 miles upstream from Hop Brook.	8.41	1969-72	4-12-72 9- 7-72	14.5 6.08
01407400	Yellow Brook at Colts Neck, N. J.	Lat 40°17'47", long 74°10'16", Monmouth County, at bridge on Creamery Road, 0.3 mile upstream from Mine Brook, and 0.7 mile north of Colts Neck.	9.71	1969-72	4-12-72 9- 7-72	15.6 8.11
01407450	Mine Brook at Colts Neck, N. J.	Lat 40°17'29", long 74°10'11", Monmouth County, at bridge on Creamery Road, 0.4 mile northeast of Colts Neck and 0.5 mile upstream from Yellow Brook.	5.48	1969-72	4-12-72 9- 7-72	7.72 3.38
01407520	Pine Brook at Tinton Falls, N. J.	Lat 40°18'15", long 74°06'05", Monmouth County, at bridge on Tinton Avenue in Tinton Falls, 0.9 mile downstream from Hockhockson Brook.	12.1	1969-72	4-12-72 9- 6-72	14.8 9.04
		Manasquan River basin				
*01407830	Manasquan River near Georgia, N. J.	Lat 40°12'36", long 74°16'41", Monmouth County, at culvert on Jacksons Mill Road, 0.9 mile southwest of State Route 524, and 1.3 miles southwest of Adelphia.	10.6	1966, 1969-72	4-6-72	13.8
01407860	Debois Creek at Adelphia, N. J.	Lat 40°13'02", long 74°15'50", Monmouth County, at bridge on State Route 9, 0.4 mile west of Adelphia and 0.9 mile upstream from mouth.	7.21	1966, 1969-72	4- 6-72	17.1
01407890	Manasquan River tributary No. 7 at West Farms, N. J.	Lat 40°12'08", long 74°12'09", Monmouth County, at bridge on State Route 524, 0.3 mile upstream from mouth and 0.8 mile north of West Farms.	3.57	1966, 1969-72	4- 6-72	8.65

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Manasquan River basin--Continued				
01407970	Manasquan River tributary near Farmingdale, N. J.	Lat 40°10'47", long 74°11'22", Monmouth County, at bridge on Manassa Road, 1.0 mile upstream from mouth, and 1.6 miles southwest of Farmingdale.	3.38	1964-69, 1971-72	4- 6-72 9- 6-72	4.06 1.31
*01408015	Mingamahone Brook at Farmingdale, N. J.	Lat 40°11'38", long 74°09'42", Monmouth County, at bridge on Belmar Road in Farmingdale, 0.2 mile northeast of State Route 547.	6.22	1969-72	4- 6-72	12.2
01408020	Mingamahone Brook at Squankum, N. J.	Lat 40°09'56", long 74°09'01", Monmouth County, at bridge on State Route 524 at Squankum, 0.5 mile upstream from mouth.	10.7	1966, 1969-72	4- 6-72	17.6
*01408030	Manasquan River at Allenwood, N. J.	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road, 0.9 mile west of Allenwood and 1.5 miles downstream from Mill Run.	63.9	1956-57, 1966, 1969-72	4- 6-72	103
		Forked River basin				
01409080	South Branch Forked River near Forked River, N. J.	Lat 39°48'56", long 74°13'50", Ocean County, at culvert on southbound lane of Garden State Parkway at mile marker 71.9.	1.28	1968-72	6- 8-72 9- 7-72	4.28 3.23
		Westecunk Creek basin				
01409280	Westecunk Creek at Stafford Forge, N. J.	Lat 39°40'01", long 74°19'13", Ocean County, at culvert under southbound lane of Garden State Parkway, 0.2 mile south of Stafford Forge and at mile marker 60.3.	16.0	1969-72	6- 8-72 9- 7-72	34.7 23.9
		Mullica River basin				
01410150	East Branch Bass River near New Gretna, N. J.	Lat 39°37'23", long 74°26'30", Burlington County, at bridge on Stage Road, 2.2 miles north of New Gretna and 5.3 miles upstream from mouth.	8.11	1969-72	6- 8-72 9- 7-72	21.1 11.2
01410200	West Branch Bass River near New Gretna, N. J.	Lat 39°37'26", long 74°26'47", Burlington County, at bridge on Stage Road, 0.6 mile upstream from mouth and 2.2 miles north of New Gretna.	6.54	1969-72	6- 8-72 9- 7-72	13.1 6.68
		Great Egg Harbor River basin				
*01410775	Great Egg Harbor River at Berlin, N. J.	Lat 39°47'39", long 74°56'14", Camden County, at bridge and pumping station on Berlin-Albion Road in Berlin, 8.2 miles upstream from Fourmile Branch.	1.88	1964-72	4-11-72 9- 8-72	1.04 .75
01410784	Great Egg Harbor River near Sicklerville, N. J.	Lat 39°44'02", long 74°57'05", Camden County, at bridge on Sicklerville-New Freedom Road (Spur 536), 1.5 miles northeast of Sicklerville.		1971-72	4-27-72	32.4
01410803	Fourmile Branch at Winslow Crossing, N. J.	Lat 39°42'07", long 74°58'11", Camden County, 1.0 mile south of Sicklerville and 2.0 miles upstream from mouth.	6.24	1972	4-27-72	13.3
01411020	Penny Pot Stream near Folsom, N. J.	Lat 39°37'15", long 74°50'48", Atlantic County, at bridge on Fourteenth Street, 2.5 miles southwest of center of Hammonton.	5.35	1968-72	6- 9-72 9- 8-72	4.74 1.78
		Fishing Creek basin				
01411400	Fishing Creek at Rio Grande, N. J.	Lat 39°01'39", long 74°53'48", Cape May County, at bridge on State Route 47 at Wildwood Pumping Station, 1.4 miles northwest of Rio Grande.	a3	1965-72	4-12-72 9- 7-72	3.29 .51

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Green Creek basin				
01411404	Green Creek at Green Creek, N. J.	Lat 39°03'11", long 74°54'07", Cape May County, at culvert on State Route 47 in Green Creek, 1.3 miles upstream from mouth and 3.0 miles northwest of Rio Grande.	a3	1965-72	4-12-72 9- 7-72	1.97 .16
		Dias Creek basin				
01411408	Dias Creek near Cape May Court House, N. J.	Lat 39°04'24", long 74°52'10", Cape May County, at culvert pipe on Stagecoach Road, 2.4 miles southwest of Cape May Court House and 3.0 miles upstream from mouth.	1.27	1965-72	4-12-72 9- 7-72	1.79 .61
		Bidwell Ditch basin				
01411410	Bidwell Ditch tributary near Cape May Court House, N. J.	Lat 39°06'34", long 74°50'16", Cape May County, at culvert pipe on Goshen Road, 2.0 miles northwest of Cape May Court House and 3.6 miles upstream from mouth.	.41	1967-72	4-12-72 9- 7-72	.54 .10
01411412	Bidwell Ditch tributary No. 2 near Cape May Court House, N. J.	Lat 39°06'25", long 74°50'12", Cape May County, at culvert pipe on Goshen Road, 1.8 miles northwest of Cape May Court House and 3.6 miles upstream from mouth.	a0.2	1967-72	4-12-72 9- 7-72	.06 .01
		Goshen Creek basin				
01411418	Goshen Creek at Goshen, N. J.	Lat 39°07'39", long 74°50'45", Cape May County, at culvert pipe on Goshen Road, 1.0 mile southeast of Goshen and 3.3 miles upstream from mouth.	0.34	1967-72	4-12-72 9- 7-72	.59 .02
		Dennis Creek basin				
01411430	Sluice Creek at Clermont, N. J.	Lat 39°09'26", long 74°46'18", Cape May County, at culvert pipe on State Route 83, 0.6 mile northwest of Clermont and 5.6 miles upstream from mouth.	0.66	1967-72	4-12-72 9- 7-72	.30 .007
		Maurice River basin				
01411800	Maurice River near Millville, N. J.	Lat 39°26'52", long 75°04'22", Cumberland County, at bridge on Sherman Avenue, 3.5 miles north of mouth of Union Lake at Millville and 4.0 miles southwest of Vineland.	a193	1966-72	9-11-72	184
		Stow Creek basin				
01413050	Stow Creek at Jericho, N. J.	Lat 39°28'14", long 75°21'10", Cumberland County, at bridge on Tattletown-Jericho Road, 0.6 mile above Long Branch Run and 3.0 miles northwest of Shiloh.	a8	1966-72	4-12-72 9-11-72	16.5 8.62
		Delaware River basin				
01439830	Big Flat Brook at Tuttles Corner, N. J.	Lat 41°12'00", long 74°48'56", Sussex County, at bridge on State Route 521, 0.7 mile west of U.S. Route 206 at Tuttles Corner and 2.0 miles upstream from Little Flat Brook.	29.4	1964, 1970-72	4-12-72 9- 8-72	33.4 4.76

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Delaware River basin--Continued				
*01445000	Pequest River at Huntsville, N. J.	Lat 40°58'49", long 74°46'38", Sussex County, on right bank 20 ft upstream from highway bridge in Huntsville, 0.4 mile downstream from East Branch.	31.4	1940-62‡, 1963-72	(b)	c5.8
*01445490	Furnace Brook at Oxford, N. J.	Lat 40°48'15", long 74°59'42", Warren County, at bridge on State Route 31 in Oxford, 2.4 miles upstream from mouth and 3.2 miles north of Washington.	a4	1965-69, 1971-72	4-11-72 9- 7-72	6.68 2.82
01445900	Honey Run near Hope, N. J.	Lat 40°53'33", long 74°58'42", Warren County, at bridge on State Route 519, 700 ft upstream from mouth and 1.5 miles south of Hope.	a10	1966-72	4-11-72 9- 7-72	11.7 .49
*01446000	Beaver Brook near Belvidere, N. J.	Lat 40°50'40", long 75°02'48", Warren County, on right bank, 2,000 ft upstream from mouth and 2 miles east of Belvidere.	36.2	1922-61‡, 1963-72	(d)	c4.6
01455350	Weldon Brook near Woodport, N. J.	Lat 40°58'54", long 74°35'18", Morris County, at culverts on medium-duty road, 400 ft upstream from mouth at Lake Shawnee, 1.2 miles east of Woodport, and 6.9 miles north of Dover.	3.44	1965-69, 1971-72	4-11-72 9- 6-72	4.89 .12
01455360	Beaver Brook near Woodport, N. J.	Lat 40°58'34", long 74°35'16", Morris County, at bridge on light-duty road, 220 ft upstream from mouth at Lake Shawnee and 1.2 miles east of Woodport.	2.79	1966-72	4-11-72 9- 6-72	3.14 .11
01456100	Hatchery Brook at Hacketts-town, N. J.	Lat 40°51'21", long 74°50'07", Warren County, at bridge on U.S. Route 46 at Hackettstown, 1.2 miles upstream from the N.J. State Fish Hatchery.	3.19	1966- 72	4-11-72 9- 7-72	2.65 .59
01463690	Little Shabakunk Creek at Bakersville, N. J.	Lat 40°16'06", long 74°42'54", Mercer County, at bridge on U.S. Route 1, 0.5 mile upstream from mouth and 0.6 mile southwest of Bakersville.	3.98	1963-72	4-11-72 9- 8-72	3.29 .27
01463790	West Branch Shabakunk Creek near Ewingville, N. J.	Lat 40°14'55", long 74°45'24", Mercer County, at bridge on Spruce Street, 0.5 mile upstream from mouth and 1.7 miles southeast of Ewingville.	4.56	1963-72	4-11-72 9- 8-72	2.88 1.22
01463980	Pond Run at Trenton, N. J.	Lat 40°13'43", long 74°43'40", Mercer County, at bridge on Greenwood Avenue, 1.1 miles upstream from mouth, and 1.6 miles east of Trenton Post Office.	8.94	1963-69, 1971-72	6- 8-72 9- 8-72	1.80 .21
01464300	Crosswicks Creek near Cookstown, N. J.	Lat 40°02'44", long 74°32'23", Burlington County, at bridge on Bunting Bridge Road, 0.7 mile upstream from North Run and 1.2 miles east of Cookstown.	a21	1966, 1969-70, 1972	6- 9-72 9- 7-72	23.6 15.4
01464380	North Run at Cookstown, N. J.	Lat 40°02'58", long 74°33'47", Burlington County, at bridge on Spur State Route 528, at downstream end of Cookstown Pond at Cookstown.	7.04	1966, 1971-72	4-12-72 9- 7-72	9.13 4.14
01464460	Lahaway Creek near Horners-town, N. J.	Lat 40°06'24", long 74°32'12", Monmouth County, at bridge on Allentown-New Egypt Road, 1.0 mile west of Hornerstown.	a21	1966, 1969-72	4-12-72 9- 7-72	33.6 14.4

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Delaware River basin--Continued				
01464480	Miry Run at Holmes Mills, N. J.	Lat 40°08'02", long 74°32'35", Monmouth County, at bridge on Allentown-New Egypt Road, at Holmes Mills and 1.0 mile west of Cream Ridge.	a3	1966, 1969-72	4-12-72 9- 7-72	4.31 1.64
*01464515	Doctors Creek at Allentown, N. J.	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, 0.8 mile downstream from dam at Conines Millpond.	17.2	1966, 1968-72	4-12-72 9- 7-72	23.7 6.77
01464530	Blacks Creek at Mansfield Square, N. J.	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mile east of Mansfield Square and 3.4 miles upstream from mouth.	a20	1966-72	4-11-72 9- 7-72	21.4 7.89
01464590	Assiscunk Creek near Burlington, N. J.	Lat 40°04'19", long 74°47'57", Burlington County, at bridge on Old York Road, 3.3 miles east of Burlington and 4.3 miles upstream from mouth.	a37	1966-72	4-13-72 9- 8-72	22.2 5.28
*01467010	Parkers Creek near Mount Laurel, N. J.	Lat 39°57'05", long 74°53'46", Burlington County, at bridge on light-duty road, 1.2 miles north of Mount Laurel and 3.0 miles southeast of Moorestown.	a4	1964-72	4-11-72 9- 8-72	2.42 .48
01467057	Pompeston Creek at Cinnaminson, N. J.	Lat 40°00'11", long 74°59'00", Burlington County, at bridge on U.S. Route 130, 0.7 mile northeast of Cinnaminson and 1.7 miles upstream from mouth.	a8	1964-72	4-12-72 9- 8-72	1.24 .20
*01467130	Cooper River at Kirkwood, N. J.	Lat 39°50'11", long 75°00'06", Camden County, 5 ft upstream from dam at Kirkwood Lake in Kirkwood, 1.0 mile north of Laurel Springs.	5.14	1964-72	11-19-71 9- 7-72	7.07 4.05
01467140	Cooper River at Lawnside, N. J.	Lat 39°52'14", long 75°00'59", Camden County, at bridge in Lawnside, 300 ft downstream from Lawnside sewage-treatment plant.	12.8	1964-72	11-19-71 9- 7-72	19.4 12.2
*01467160	North Branch Cooper River near Marlton, N. J.	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 miles west of Marlton.	5.33	1964-69, 1971-72	4-12-72 9- 7-72	7.31 4.54
*01467180	North Branch Cooper River at Ellisburg, N. J.	Lat 39°54'27", long 75°00'42", Camden County, at bridge on Ellisburg-Vernon Road, 0.4 mile south of Ellisburg and 0.9 mile upstream from confluence with Cooper River.	10.4	1964-69, 1971-72	4- 5-72 9- 8-72	16.5 9.37
*01467305	Newton Creek at Collingswood, N. J.	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue, 0.3 mile east of Collingswood Boro line.	1.32	1964-72	9- 8-72	1.05
01467312	Newton Creek at West Collingswood, N. J.	Lat 39°54'05", long 75°05'42", Camden County, at bridge on State Route 168 in West Collingswood, 2.9 miles northwest of Haddonfield.	4.50	1964-65, 1967-72	9- 8-72	30.0
01467315	South Branch Newton Creek at Glover Avenue at Haddon Heights, N. J.	Lat 39°52'47", long 75°04'08", Camden County, at bridge on Glover Avenue in Haddon Heights.	a0.5	1968-72	4-12-72 9- 8-72	.36 .22

See footnotes at end of table, p. 144.

Discharge measurements made at low-flow partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Measurements Discharge (cfs)
		Delaware River basin--Continued				
*01467330	South Branch Big Timber Creek at Blackwood, N. J.	Lat 39°48'17", long 75°04'33", Camden County, at bridge on Lower Landing Road in Blackwood, 3.0 miles upstream from mouth.	a19	1964-72	9- 7-72	30.5
01467350	North Branch Big Timber Creek at Laurel Springs, N. J.	Lat 39°48'55", long 75°00'04", Camden County, at bridge on Park Avenue at Laurel Springs, 5.6 miles upstream from mouth.	6.54	1959-72	9- 7-72	12.1
01475020	Mantua Creek at Sewell, N. J.	Lat 39°46'22", long 75°08'10", Gloucester County, at bridge on Wenonah-Pitman Road, 0.5 mile downstream from Bees Branch and 0.6 mile east of Sewell.	14.4	1966-72	6- 9-72 9-11-72	16.2 12.8
01477118	South Branch Raccoon Creek near Mullica Hill, N. J.	Lat 39°44'09", long 75°15'23", Gloucester County, at bridge on Hill Street, 0.2 mile upstream from mouth and 1.7 miles west of Mullica Hill.	a8.3	1966-72	9- 8-72	4.10
01482510	Nichomus Run near Woodstown, N. J.	Lat 39°38'22", long 75°20'59", Salem County, at bridge on State Route 45, 1.4 miles southwest of Woodstown and 1.7 miles upstream from mouth.	a3.9	1966-72	4-12-72 9- 8-72	3.49 .50
01482520	Salem River at Sharptown, N. J.	Lat 39°39'09", long 75°22'05", Salem County, at bridge on Kings Highway (Salem-Sharptown Road), 0.2 mile south of Sharptown and 1.0 mile upstream from Major Run.	a27	1966-72	9- 8-72	12.6
01482530	Major Run at Sharptown, N. J.	Lat 39°38'56", long 75°22'29", Salem County, at bridge on Kings Highway (Salem-Sharptown Road), 0.7 mile southwest of Sharptown and 2.2 miles upstream from mouth.	a3.0	1966-72	4-12-72 9- 8-72	3.03 .87

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.
a Estimated.
b Occurred during period Aug. 8, 1972, to Sept. 28, 1972.
c Minimum for year; computed from minimum gage reading and rating.
d Occurred during period Aug. 4, 1972, to Sept. 28, 1972.

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 floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Hackensack River basin					
*01377475	Musquapsink Brook near Westwood, N. J.	Lat 40°59'41", long 74°03'42", Bergen County, at culvert on Pascack Road in Washington Borough, 1.5 miles west of Westwood, and 5.3 miles upstream from mouth. Datum of gage is 72.66 ft above mean sea level.	2.16	1965-72	6-19-72	3.84	-
01377490	Musquapsink Brook at Westwood, N. J.	Lat 40°59'11", long 74°02'03", Bergen County, at footbridge at Bogert Pond, 8 ft upstream from dam near intersection of Mill Street and First Avenue in Westwood.	6.53	1966-72	6-19-72	1.41	241
*01378350	Tenakill Brook at Cresskill, N. J.	Lat 40°56'30, long 74°57'52", Bergen County, at bridge on Madison Avenue in Cresskill, 0.15 mile west of Erie Lackawanna Railroad Station, and 3.3 miles upstream from Oradell Reservoir. Datum of gage is 32.38 ft above mean sea level.	3.01	1965-72	6-19-72	4.01	165
*01378385	Tenakill Brook at Closter, N. J.	Lat 40°58'29", long 74°58'06", Bergen County, at bridge on High Streeet in Closter, 0.7 mile upstream from mouth.	8.56	1965-72	6-19-72	-	470
*01378590	Metzler Brook at Englewood, N. J.	Lat 40°54'32", long 73°59'40", Bergen County, at bridge on Lantana Avenue in Englewood, and 1.6 miles upstream from mouth.	1.54	1965-72	6-19-72	b2.53	242
*01378615	Wolf Creek at Ridgefield, N. J.	Lat 40°49'45", long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield and 0.9 mile upstream from mouth.	1.18	1965-72	6-22-72	b4.92	270
		Passaic River basin					
*01381900	Passaic River at Pine Brook, N. J.	Lat 40°51'45", long 74°19'18", Morris County, at bridge on U. S. Route 46, 0.5 mile east of Pine Brook, and 1.3 miles downstream from Rockaway River.	349	1966-72	6-26-72	b10.50	3,500
01389900	Fleischer Brook at Market Street, at East Paterson, N. J.	Lat 40°53'57", long 74°19'19", Bergen County, at culvert on Market Street in East Paterson, and 2.0 miles upstream from mouth. Datum of gage is 35.31 ft above mean sea level.	1.37	1967-72	6-19-72	b3.00	-
*01390450	Saddle River at Upper Saddle River, N. J.	Lat 41°03'32", long 74°05'44", Bergen County, at culvert on Lake Street in Upper Saddle River, and 1.3 miles downstream from Pine Brook.	10.9	1965-72	5-15-72	b2.76	610

See footnotes at end of table, p. 149.

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Passaic River Basin--Continued					
01390810	Hohokus Brook at Allendale, N. J.	Lat 41°01'37", long 74°08'44", Bergen County, at bridge on Brookside Avenue in Allendale, and 0.2 mile downstream from Valentine Brook.	a9	1969-72	6-19-72	5.19	340
*01391110	Saddle River at Paramus, N. J.	Lat 40°56'47", long 74°05'56", Bergen County, at bridge on Dunkerhook Road in Paramus, and 0.75 mile downstream from Hohokus Brook.	45.0	1965-72	6-19-72	b2.86	2,100
01392000	Weasel Brook at Clifton, N. J.	Lat 40°52'12", long 74°08'47", Passaic County, at right end of masonry dam at Jewett Street in Clifton. Datum of gage is 68.52 ft above mean sea level.	4.45	1937-62‡, 1963-72	6-19-72	4.09	677
*01392500	Second River at Belleville, N. J.	Lat 40°47'17", long 74°10'19", Essex County, on Mill Street in Branch Brook Park at Belleville, 300 ft downstream from Franklin Avenue, and 1,100 ft downstream from Hendricks Pond dam. Datum of gage is 62.6 ft above mean sea level.	11.6	1937-64‡, 1965-72	5-15-72	6.78	3,000
		Raritan River basin					
01397500	Walnut Brook near Flemington, N. J.	Lat 40°30'55", long 74°52'52", Hunterdon County, on right bank, 1.2 miles northwest of Flemington, and 2.3 miles upstream from mouth. Datum of gage is 267.33 ft above mean sea level.	2.24	1936-61‡, 1963-72	7-14-72	3.79	920
*01400850	Woodsville Brook at Woodsville, N. J.	Lat 40°22'37", long 74°49'33", Mercer County, at bridge on secondary road, 0.3 mile southeast of Woodsville, and 0.8 mile upstream from mouth.	1.78	1957-58, 1964-72	6-23-72	2.36	135
01400900	Stony Brook at Glenmoore, N. J.	Lat 40°21'55", long 74°47'14", Mercer County, at highway bridge on Spur State Route 518, 200 ft east of tracks of Reading Railroad, at Glenmoore, and 2.0 miles southwest of Hopewell.	17.0	1957-72	6-22-72	7.04	2,200
*01400930	Baldwin Creek at Pennington, N. J.	Lat 40°20'18", long 74°47'50", Mercer County, at bridge on State Route 31, 0.8 mile north of Pennington, and 0.9 mile upstream from Baldwin Lake dam.	1.99	1957, 1960-72	11-29-71	5.48	260
*01400947	Stony Brook at Pennington, N. J.	Lat 40°19'50", long 74°46'05", Mercer County, 25 ft upstream from dam on Stony Brook at Old-mill Road, 1.3 miles east of Pennington, and 1.4 miles downstream from Baldwin Creek. Datum of gage is 139.26 ft above mean sea level.	26.5	1965-72	11-29-71	3.04	†
01400950	Hart Brook near Pennington, N. J.	Lat 40°19'17", long 74°45'38", Mercer County, at culvert on Federal City Road, 1.0 mile upstream from mouth, and 1.7 miles southeast of Pennington.	a0.8	1968-72	11-29-71	3.72	93

See footnotes at end of table, p. 149.

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Raritan River basin--Continued					
01400960	Honey Branch near Mount Rose, N. J.	Lat40°21'17", long 74°45'29", Mercer County, at bridge on Mount Rose Road, 0.6 mile northeast of Centerville, 1.4 miles southwest of Mount Rose, and 2.5 miles northeast of Pennington.	a1.5	1968-72	6-22-72	2.91	†
01400970	Honey Branch near Rosedale, N. J.	Lat 40°20'26", long 74°44'39", Mercer County, at bridge on Elm Ridge Road, 0.2 mile upstream from mouth, 1.2 miles west of Rosedale, and 2.0 miles south of Mount Rose.	3.83	1967-72	6-22-72	7.10	520
01401200	Duck Pond Run at Clarksville, N. J.	Lat 40°18'24", long 74°40'06", Mercer County, at bridge on U. S. Route 1, 0.5 mile upstream from Delaware and Raritan Canal, and 0.9 mile northeast of Clarksville. Datum of gage is 54.14 ft above mean sea level.	5.21	1965-72	6-22-72	3.38	128
*01401520	Beden Brook near Hopewell, N. J.	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 0.8 mile upstream from Province Line Road (revised), 1.1 miles southeast of Hopewell, and 2.6 miles southwest of Blawenburg. Datum of gage is 116.43 ft above mean sea level.	6.07	1967-72	6-22-72	4.66	520
01401595	Rock Brook near Blawenburg, N. J.	Lat 40°25'47", long 74°41'05", Somerset County, at bridge on Burnt Hill Road, 0.7 mile upstream from mouth, 1.0 mile northeast of Blawenburg, and 2.8 miles northwest of Rocky Hill. Datum of gage is 63.45 ft above mean sea level.	9.03	1967-72	11-29-71	b4.43	630
01401600	Beden Brook near Rocky Hill, N. J.	Lat 40°24'52", long 74°39'02", Somerset County, at bridge on U. S. Route 206, 0.7 mile upstream from Pike Run, 1.2 miles northwest of Rocky Hill, and 4.6 miles north of Princeton. Datum of gage is 38.09 ft above mean sea level.	27.6	1967-72	11-29-71	8.88	2,030
01401870	Six Mile Run near Middlebush, N. J.	Lat 40°28'12", long 74°32'42", Somerset County, at bridge on South Middlebush Road, 1.6 miles upstream from mouth, and 2.1 miles south of Middlebush.	10.7	1966-72	6-22-72	7.96	940
		Manasquan River basin					
*01407830	Manasquan River near Georgia, N. J.	Lat 40°12'36", long 74°16'41", Monmouth County, at culvert on Jacksons Mill Road near Georgia, and 0.5 mile upstream from Debois Creek.	10.6	1969-72	c8-28-71 11-30-71	11.61 11.17	375 360
*01408015	Mingamahone Brook at Farmingdale, N. J.	Lat 40°11'38", long 74°09'42", Monmouth County, at bridge on Belmar Road in Farmingdale, and 3.0 miles upstream from mouth.	6.22	1969-72	c9-12 or 13, 1971 10-25-71	5.02 5.19	167 180
*01408030	Manasquan River at Allenwood, N. J.	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road at Allenwood, and 1.5 miles downstream from Mill Run.	63.9	1969-72	10-25-71	8.32	1,650

See footnotes at end of table, p. 149.

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Cohansey River basin					
01412500	West Branch Cohansey River at Seeley, N. J.	Lat 39°29'06", long 75°15'33", Cumberland County, on right bank 15 ft upstream from county bridge, Highway 31, at Seeley, 450 ft upstream from mouth and 4.1 miles northwest of Bridgeton. Datum of gage is 42.23 ft above mean sea level.	2.55	1952-67‡, 1968-72	6-22-72	3.75	163
		Delaware River basin					
*01445000	Pequest River at Huntsville, N. J.	Lat 40°58'49", long 74°46'38", Sussex County, on right bank, 20 ft upstream from highway bridge in Huntsville, and 0.4 mile downstream from East Branch. Datum of gage is 553.81 ft above mean sea level.	31.4	1940-62‡, 1963-72	6-1-72	3.60	230
*01445490	Furnace Brook at Oxford, N. J.	Lat 40°48'15", long 74°59'42", Warren County, at bridge on State Route 31 in Oxford, 2.4 miles upstream from mouth, and 3.2 miles north of Washington.	a4	1966-72	-	b2.53	†
*01446000	Beaver Brook near Belvidere, N. J.	Lat 40°50'40", long 75°02'48", Warren County, on right bank, 2,000 ft upstream from mouth, and 2 miles east of Belvidere. Datum of gage is 303.36 ft above mean sea level.	36.2	1922-61‡, 1963-72	6-23-72	4.10	650
01455200	Pohatcong Creek at New Village, N. J.	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mile southeast of New Village, and 4.3 miles upstream from Merrill Creek. Datum of gage is 310.82 ft above mean sea level.	33.4	1960-69‡, 1972	6-23-72	4.38	744
01457500	Delaware River at Riegelsville, N. J.	Lat 40°35'36", long 75°11'17", Warren County, at 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 mean sea level, U. S. Coast & Geodetic Survey datum of 1929.	6,328	1906-71‡ 1972	6-23-72	20.19	100,000
01464400	Crosswicks Creek at New Egypt, N. J.	Lat 40°04'03", long 74°31'57", Ocean County, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft downstream from Oakford Lake dam. Datum of gage is 43. 46 ft above mean sea level.	a38	1968-72	11-30-71	b19.77	470
01464505	Crosswicks Creek at Groveville, N. J.	Lat 40°10'26", long 74°40'48", Mercer County, at U. S. Highway 130 bridge, 0.3 mile upstream from Doctors Creek, 0.5 mile northwest of Groveville and 0.6 mile southwest of Yardville. Datum of gage is 2.15 ft below mean sea level.	a94.5	1968-72	11-30-71	12.12	†
01464520	Doctors Creek at Groveville, N. J.	Lat 40°10'21", long 74°39'33", Mercer County, at bridge on Groveville-Allentown road at Groveville, 0.7 mile southeast of Yardville, and 1.5 miles upstream of mouth. Datum of gage is 14.23 ft above mean sea level.	a24.7	1968-72	11-30-71	7.57	700

See footnotes at end of table, p.149.

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Delaware River basin--Continued					
01466000	Middle Branch Mount Misery Brook in Lebanon State Forest, N. J.	Lat 39°55'00", long 74°30'30", Burlington County, in Lebanon State Forest, 20 ft upstream from bridge on North Branch Road, and 5.1 miles southeast of Browns Mills. Datum of gage is 99.71 ft above mean sea level.	2.73	1952-65‡, 1967-72	7- 1-72	1.86	10.0
*01467130	Cooper River at Kirkwood, N. J.	Lat 39°50'11", long 75°00'06", Camden County, 5 ft upstream from dam at Kirkwood Lake in Kirkwood, and 1.0 mile north of Laurel Springs. Datum of gage is 57.82 ft above mean sea level.	5.14	1964-72	11-25-71	1.38	107
*01467160	North Branch Cooper River near Marlton, N. J.	Lat 39°53'20", long 74°58'08", Burlington County, at bridge on blacktop road to Springdale, 2.5 miles west of Marlton. Datum of gage is 36.36 ft above mean sea level.	5.33	1964-72	10-24-71	b3.83	220
*01467180	North Branch Cooper River at Ellisburg, N. J.	Lat 39°54'27", long 75°00'42", Camden County, at bridge on Ellisburg-Vernon Road, 0.4 mile south of Ellisburg, and 0.9 mile upstream from confluence with Cooper River. Datum of gage is 9.80 ft above mean sea level.	10.4	1964-72	11-25-71	b4.92	530
01467190	Cooper River at Camden, N. J.	Lat 39°55'35", long 75°05'03", Camden County, at bridge on U. S. Routes 130 and 30 in Camden, 3.4 miles upstream from mouth, 3.5 miles northwest of Haddonfield, 3.7 miles downstream from mouth of North Branch Cooper River, and 0.6 mile above tidal-barrier dam. Datum of gage is mean sea level.	a36	1967-72	11-25-71	5.66	†
*01467305	Newton Creek at Collingswood, N. J.	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue in Collingswood, 0.3 mile east of Cuthbert Avenue. Datum of gage is 18.74 ft above mean sea level.	1.32	1964-72	11-25-71	3.06	1.40
01467317	South Branch Newton Creek at Haddon Heights, N. J.	Lat 39°52'45", long 75°04'26", Camden County, at bridge in Haddon Heights Park in Haddon Heights, and 2.6 miles south of Collingswood. Datum of gage is 23.34 ft above mean sea level.	0.63	1964-72	6-22-72	2.48	16
*01467330	South Branch Big Timber Creek at Blackwood, N. J.	Lat 39°48'17", long 75°04'33", Camden County, at bridge on Lower Landing Road in Blackwood, and 3.0 miles upstream from mouth. Datum of gage is 8.41 ft above mean sea level.	a19	1964-72	6-22-72	b4.00	320

* Also a low-flow partial-record station.
† Discharge not determined.
‡ Operated as a continuous-record gaging station.
a Estimated.
b Downstream side of bridge.
c Revised.

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1972

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Passaic River basin				
Harmony Brook	Whippany River	Lat 40°47'39", long 74°34'08", Morris County, at bridge on Mountain Road in Brookside, 0.5 mile upstream from mouth, and 2.1 miles northeast of Mendham.	-	-	8- 2-72	*1.86
Whippany River	Rockaway River	Lat 40°47'48", long 74°31'49", Morris County, at bridge on Whitehead Road, 0.6 mile south of Washington Valley, and 4.0 miles northeast of Mendham.	-	-	8- 2-72 8-11-72	*7.29 *6.02
Whippany River	Rockaway River	Lat 40°48'14", long 74°31'18", Morris County, at bridge on Washington Valley Road, 0.5 mile southeast of Washington Valley, and 4.6 miles northeast of Mendham.	-	-	8-11-72	*8.86
		Raritan River basin				
Raritan River	Raritan Bay	Lat 40°33'03", long 74°40'56", Somerset County, at dam 0.45 mile downstream from North Branch Raritan River, and 2.9 miles southwest of Raritan.	469	-	9-12-72	*276
Rocky Brook	Millstone River	Lat 40°16'37", long 74°32'06", Mercer County, at bridge on U.S. Route 130 at Hightstown, and 0.4 mile northeast of intersection of U.S. Route 130 and County Route 571.	-	1971	11-18-71	*16.6
Cranbury Brook	Millstone River	Lat 40°19'34", long 74°36'11", Middlesex County, at downstream end of Plainsboro Pond on Maple Avenue in Plainsboro, N.J.	-	1971	11-18-71	*34.1
Shallow Brook	Devils Brook	Lat 40°20'48", long 74°33'27", Middlesex County, at bridge at Scotts Corner in South Brunswick Township, 0.6 mile north of Dey Road.	-	1971	11-18-71	*3.50
Devils Brook	Millstone River	Lat 40°20'09", long 74°36'09", Middlesex County, at Plainsboro on light duty road, 0.2 mile north of Princeton-Cranbury Road.	-	1971	11-18-71	*11.2
Stony Brook	Millstone River	Lat 40°20'21", long 74°46'42", Mercer County, 250 ft upstream from Baldwin Creek in Hopewell Township, and 1.1 miles northeast of intersection of East Delaware Avenue and Main Street in Pennington.	-	1971	11-19-71	*9.91
Lewis Brook	Stony Brook	Lat 40°20'02", long 74°46'58", Mercer County, 200 ft upstream from mouth, and 0.3 mile northwest of intersection of King George Road and Mount Rose Road in Pennington.	-	1971	11-19-71	*.34
Lewis Brook tributary	Lewis Brook	Lat 40°20'00", long 74°46'57", Mercer County, 100 ft upstream from mouth, and 0.3 mile northwest of intersection of King George Road and Mount Rose Road in Pennington.	-	1971	11-19-71	*.03

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1972--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Measurements Discharge (cfs)
		Raritan River basin--Continued				
Stony Brook tributary No. 4	Stony Brook	Lat 40°19'52", long 74°46'42", Mercer County, 100 ft upstream from mouth near Mount Rose Road at Pennington, and 0.2 mile downstream from Federal City Road.	-	1971	11-19-71	*.09
Stony Brook tributary No. 5	Stony Brook	Lat 40°19'43", long 74°46'12", Mercer County, at bridge on Federal City Road east of Pennington, and 0.1 mile upstream from mouth.	-	1971	11-19-71	*.64
Stony Brook	Millstone River	Lat 40°20'35", long 74°43'33", Mercer County, at bridge on Carter Road in Rosedale, 1.2 miles downstream from Honey Branch.	-	1971	11-19-71	*15.6
Harrys Brook	Millstone River	Lat 40°21'58", long 74°37'41", Mercer County, at bridge on Route 27, 1.1 miles east of Princeton and 0.9 mile southwest of Kingston.	-	1971	11-18-71	*1.12
Heathcote Brook	Millstone River	Lat 40°22'10", long 74°36'59", Middlesex County, at Penn Central Railroad bridge on Kingston-Plainsboro Road in South Brunswick Township, 0.3 mile south of Kingston.	-	1971	11-18-71 9-27-72	*5.26 *1.72
		Manasquan River basin				
Manasquan River	Atlantic Ocean	Lat 40°12'27", long 74°19'45", Monmouth County, at bridge on Burke Road, 0.9 mile southeast of Elton and 1.3 miles east of Smithburg.	1.32	-	4- 6-72 8-29-72	1.61 .46
Debois Creek	Manasquan River	Lat 40°13'54", long 74°15'35", Monmouth County, at Three Brooks Road, 0.7 mile east of U.S. Route 9, and 1.7 miles southeast of Freehold.	2.63	-	4- 6-72 8-29-72	8.91 6.74
Manasquan River	Atlantic Ocean	Lat 40°12'12", long 74°15'45", Monmouth County, about 1,500 ft upstream from U.S. Route 9, at Wyckoff Mills, and 3.5 miles south of Freehold.	21.9	-	4- 6-72 8-29-72	36.6 16.9
Marsh Bog Brook	Manasquan River	Lat 40°10'01", long 74°09'33", Monmouth County, at bridge on Yellow Brook Road at Squankum, and 0.2 mile upstream from mouth.	4.91	-	4- 6-72 8-28-72	5.93 5.61
		Delaware River basin				
Musconetcong River	Delaware River	Lat 40°54'14", long 74°42'46", Sussex County, at bridge in Stanhope, 0.9 mile downstream from U.S. Route 206.	-	-	3-27-72 8-24-72 9-12-72	*46.3 *11.8 60.4
Wills Brook	Musconetcong River	Lat 40°54'50", long 74°43'32", Morris County, 500 feet upstream from mouth, and 1.4 miles northwest of U.S. Route 206 bridge at Lake Musconetcong.	-	-	3-27-72	*8.86
Musconetcong River	Delaware River	Lat 40°55'12", long 74°43'52", Sussex County, 15 ft upstream from small tributary, 0.5 mile downstream from Wills Brook, and 1.9 miles northwest of U.S. Route 206 bridge at Lake Musconetcong.	-	-	3-27-72 8-24-72	*72.7 *7.07

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1972--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Delaware River basin--Continued				
Musconetcong River	Delaware River	Lat 40°55'13", long 74°43'56", Sussex County, 100 ft downstream from Lubbers Run, and 2.0 miles northwest of U.S. Route 206 bridge at Lake Musconetcong.	-	-	9-12-72	32.4
Musconetcong River	Delaware River	Lat 40°54'49", long 74°45'20", Sussex County, 1,500 ft downstream from dam at Waterloo Lakes and 2.5 miles west of Stanhope.	-	-	8-24-72 9-12-72	*19.2 60.5
Musconetcong River	Delaware River	Lat 40°51'20", long 74°48'38", Warren County, 0.9 mile upstream from U.S. Route 46, and 1.0 mile east of Hackettstown.	-	-	3-27-72 8-24-72 9-12-72	*164 *25.9 69.5
Cooper River	Delaware River	Lat 39°49'43", long 74°58'55", Camden County, on Norcross Road, at downstream end of Linden Lake at Lindenwold.	-	1971	11-19-71	*1.27
Cooper River	Delaware River	Lat 39°49'48", long 74°59'01", Camden County, at Lindenwold Borough on Linden Avenue, 0.1 mile downstream from Linden Lake.	-	1971	11-19-71	*3.68
Millard Creek	Cooper River	Lat 39°50'07", long 74°58'46", Camden County, at first bridge upstream from mouth (0.5 mile) at Gibbsboro.	-	1971	11-19-71	*2.64
Nicholson Branch	Millard Creek	Lat 39°50'08", long 74°58'57", Camden County, at bridge on Gibbsboro-Voorhees Road in Gibbsboro, 0.2 mile upstream from mouth.	-	1971	11-19-71	*.52
Cooper River	Delaware River	Lat 39°50'51", long 75°00'44", Camden County, at bridge on Somerdale Road in Somerdale, 0.4 mile northeast of White Horse Pike.	-	1971	11-19-71	*9.80
Cooper River	Delaware River	Lat 39°51'34", long 75°00'59", Camden County, at bridge on Evesham Road in Voorhees Township, 0.7 mile east of White Horse Pike.	-	1971	11-19-71	*12.4
Cooper River tributary	Cooper River	Lat 39°52'14", long 75°00'22", Camden County, at bridge at Woodcrest in Cherry Hill Township, 0.8 mile north of the intersection of Evesham Road and Burnt Mill Road.	-	1971	11-19-71	*3.64
Cooper River	Delaware River	Lat 39°53'14", long 75°01'39", Camden County, in Mountwell Park, in Haddonfield Borough at old railroad bridge abutment.	-	1971	11-19-71	*25.3
Tindale Run	Cooper River	Lat 39°53'20", long 75°01'06", Camden County, at bridge on Haddonfield-Berlin Road in Cherry Hill Township, 0.5 mile upstream from mouth.	-	1971	11-19-71	*1.16
Mantua Creek	Delaware River	Lat 39°42'52", long 75°05'32", Gloucester County, at bridge at downstream end of Lake Oberst, and 1.5 miles northeast of Glassboro.	-	1965	6- 9-72 9- 8-72	*1.26 *.91
Mantua Creek	Delaware River	Lat 39°43'31", long 75°06'06", Gloucester County, at bridge on Greentree Road, 1.1 miles upstream from Kressy Lake dam, and 1.3 miles east of Pitman.	-	1965	6- 9-72 9- 8-72	*4.41 *2.76

The following table contains annual maximum stages 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 mean sea level, datum of 1929, unless otherwise noted. Only the maximum stage is given. Information on some other high stages 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 has been determined.

Annual maximum stages at tidal crest-stage partial-record stations

Station No.	Station name	Location	Period of record	Annual maximum	
				Date	Elevation above mean sea level (feet)
01408160	Metedeconk River near Laurelton, N. J.	Lat 40°03'20", long 74°06'37", Ocean County, on pier at Laurelton Yacht Basin at Princeton Avenue. 1.4 miles southeast of Laurelton, and 2.4 miles upstream from mouth.	1969-72	2-19-72	3.96
01408200	Barnegat Bay at Bay Shore, N. J.	Lat 39°56'56", long 74°06'52", Ocean County, at west end of State Route 37 bridge over Barnegat Bay at Bay Shore, 2.2 miles west of Seaside Heights, and 4.5 miles east of Toms River.	1965-72	2-19-72	3.75
01409125	Barnegat Bay at Barnegat Light, N. J.	Lat 39°45'37", long 74°06'39", Ocean County, at north side of pier of U.S. Coast Guard Boat Basin on 7th Street (extended) in Barnegat Light, Boro, 0.35 mile southwest of Barnegat Lighthouse and 9.1 miles northeast of Ship Bottom.	1965-72	2-19-72	5.75
01409145	Manahawkin Bay near Manahawkin, N. J.	Lat 39°40'13", long 74°12'54", Ocean County, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 miles northwest of Ship Bottom, and 3.1 miles southeast of Manahawkin.	1965-72	2-19-72	4.47
01409290	Tuckerton Cove near Tuckerton, N. J.	Lat 39°34'35", long 74°19'50", Ocean County, on bulkhead piling of Tuckerton Cove at the Tuckerton Beach Club, at the southern end of State Route 539, 0.4 mile east of mouth of Tuckerton Creek, and 1.9 miles south of Tuckerton.	1965-72	2-19-72	5.31
01409510	Batsto River at Pleasant Mills, N. J.	Lat 39°37'55", long 74°38'40", Ocean County, on right bank, 0.5 mile upstream from mouth, and 1.0 mile southeast of Pleasant Mills.	1958-72	2-19-72	4.81
01410100	Mullica River near Port Republic, N. J.	Lat 39°33'12", long 74°27'46", Atlantic County, on right bank on bulkhead piling at south end of U.S. Route 9 and Garden State Parkway bridge over Mullica River, 2.8 miles northeast of Port Republic, and 2.8 miles south of New Gretna.	1965-72	2-19-72	5.14
01410500	Absecon Creek at Absecon, N. J.	Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft downstream from Doughty Pond Dam of Atlantic City Water Department, 1 mile west of Absecon, and 3.4 miles upstream from mouth.	1923-29‡, 1933-38‡, 1946-72‡	2-19-72	5.42
01411315	Great Egg Harbor Bay at Beesleys Point, N. J.	Lat 39°17'18", long 74°37'50", Cape May County, at Atlantic City Electric Company's B. L. England Generating Station intake, 0.1 mile west of south end of Route 9 bridge over Great Egg Harbor Bay, 0.7 mile north of Beesleys Point, and 3.0 miles west of Ocean City.	1963-72	2-19-72	6.0

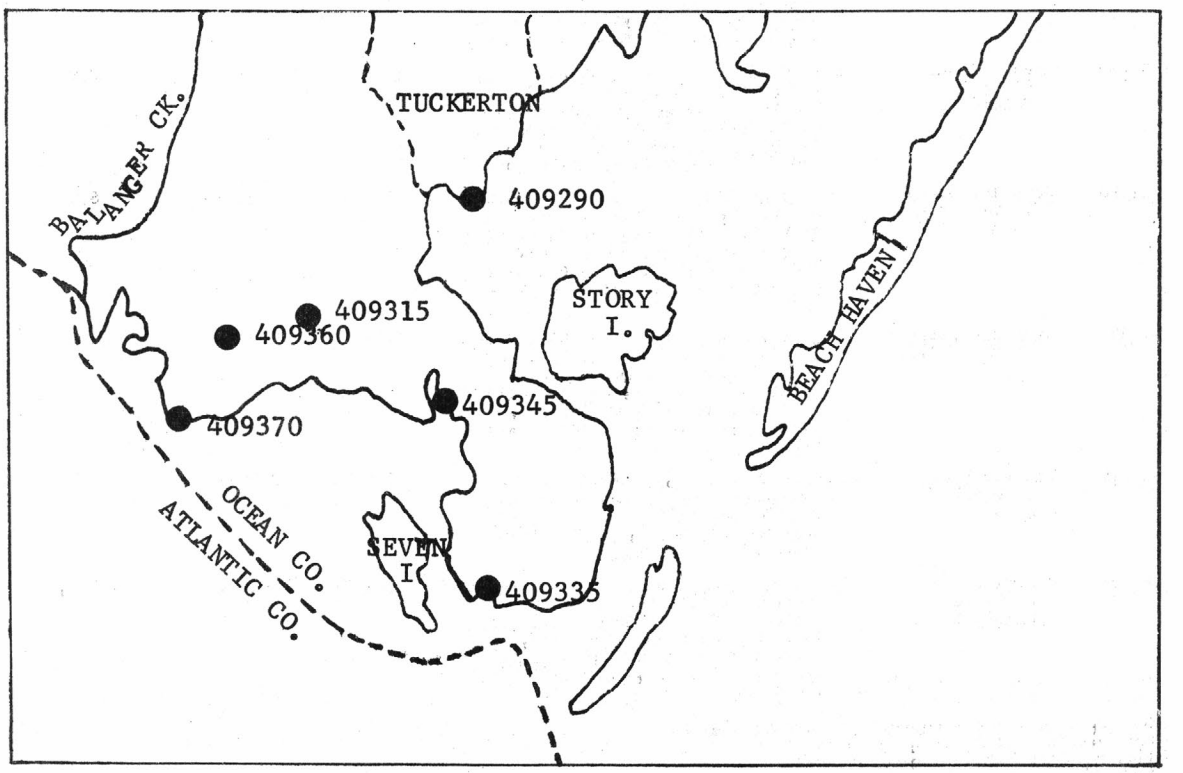
See footnotes at end of table, p. 154.

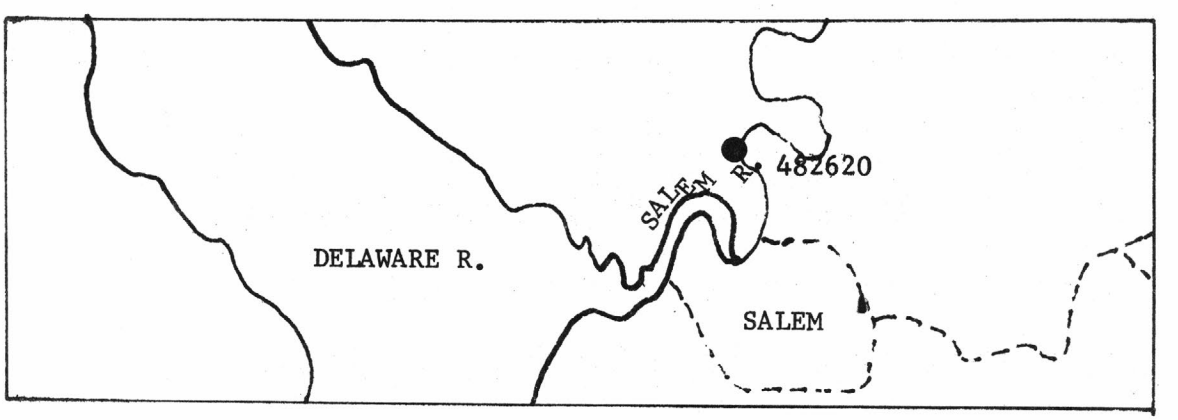
Annual maximum stages at tidal crest-stage partial-record stations--Continued

Station No.	Station name	Location	Period of record	Annual maximum	
				Date	Elevation above mean sea level (feet)
01411320	Great Egg Harbor Bay at Ocean City, N. J.	Lat 39°17'10", long 74°34'29", Cape May County, on bulkhead piling at west end of 5th Street, Ocean City, and 2.5 miles southeast of Sommers Point.	1965-72	2-19-72	6.04
01411360	Great Channel at Stone Harbor, N. J.	Lat 39°03'26", long 74°45'53", Cape May County, on bulkhead piling at east end of bridge at west end of town of Stone Harbor, 3.7 miles southeast of Cape May Court House, and 3.9 miles southwest of Avalon.	1965-72	2-19-72	5.40
01411380	Grassy Sound at West Wildwood, N. J.	Lat 39°00'19", long 74°49'04", Cape May County, on bulkhead piling near northeast end of Glenwood Avenue at northern tip of West Wildwood, 1.2 miles northwest of Wildwood, and 2.9 miles east of Rio Grande.	1965-72	2-19-72	10.96
01411390	Cape May Harbor at Cape May, N. J.	Lat 38°56'54", long 74°53'26", Cape May County, on bulkhead near most easterly pier, (Pier 3) on grounds of U.S. Coast Guard Receiving Center in Cape May, and 0.7 mile southeast of east end of Cape May Canal.	1965-72	2-19-72	c6.05
01411395	Cape May Canal at North Cape May, N. J.	Lat 38°58'02", long 74°57'25", Cape May County, on Cape May Canal on slip of Cape May, New Jersey to Lewes, Delaware, ferry, 0.5 mile from west end of Cape May Canal, and 0.8 mile south of North Cape May.	1965-72	2-19-72	b5.3
01412150	Maurice River at Bivalve, N. J.	Lat 39°13'42", long 75°02'12", Cumberland County, on right bank on bulkhead piling on the south side of Bivalve, and 1.3 miles south of Port Norris.	1965-72	2-19-72	6.34
01482705	Delaware River at Oakwood Beach, N. J.	Lat 39°33'18", long 75°31'11", Salem County, on left bank on bulkhead piling at Oakwood Beach, 1.3 miles south of mouth of Salem River, 2.4 miles east of Reedy Point, Delaware, and 3.0 miles southwest of Salem, New Jersey.	1965-72	2-19-72	a 7.71

‡ Operated as a continuous-record gaging station.
a Gage datum; not to mean sea level datum.
b Furnished by National Ocean Survey.
c From flood-tide mark.

The following tide summary data were collected during the 1971-72 Water Year as a part of a pilot program for the New Jersey Wetlands in the Tuckerton and Salem Areas. Additional data will appear in the 1973 report.





01409290 Tuckerton Cove near Tuckerton, N. J.

LOCATION.--Lat 39°34'35", long 74°19'50", Ocean County, on bulkhead piling of Tuckerton Cove at the Tuckerton Beach Club, at the southern end of State Route 539, 0.4 mile east of mouth of Tuckerton Creek, and 1.9 miles south of Tuckerton.

PERIOD OF RECORD.--Established June 29, 1971. Operated as a tidal crest-stage gage 1965-71.

GAGE.--Water-stage recorder. Gage height converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations for period are as follows:

TIDE ELEVATIONS, IN FEET, FOR THE PERIOD OCTOBER 1971 TO NOVEMBER 1971

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	3.99	4.29										
high tide	Date	24	25										
Minimum	Elevation	.04	.11										
low tide	Date	12	7,8										
Mean high tide		2.78	2.48										
Mean water level		1.74	1.44										
Mean low tide		.67	.42										

01409315 Head of Big Thorofare near Tuckerton, N. J.

LOCATION.--Lat 39°33'30", long 74°21'45", Ocean County, at the end of Playhouse Road, Mystic Island Development on old radio tower anchor, 2,000 ft east of Radio Road.

PERIOD OF RECORD.--Established June 25, 1971.

GAGE.--Water-stage recorder. Record expressed in gage height above an established datum. The distance above or below mean sea level of the datum not yet determined.

Summaries of gage heights for period are as follows:

GAGE HEIGHT, IN FEET, FOR THE PERIOD MARCH 1972 TO JUNE 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Gage height						5.45	5.31	5.43	4.89			
high tide	Date						14	16	14	22			
Minimum	Gage height						.73	.75	.54	.74			
low tide	Date						6-13	11	6	3-4			
Mean high tide							3.74	3.91	4.02	3.98			
Mean water level							2.35	2.46	2.61	2.56			
Mean low tide							1.00	1.00	1.17	1.12			

01409335 Shooting Thorofare at Old Coast Guard Station, near Tuckerton, N. J.

LOCATION.- Lat 39°30'30", long 74°19'30", Ocean County, northwest end of boat dock behind the abandoned Little Egg Coast Guard Station at foot of Great Bay Boulevard, 6.4 miles south of Tuckerton.

PERIOD OF RECORD.--Established June 19, 1971.

GAGE.--Water-stage recorder. Gage height converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations for period are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.31	4.93	3.57	4.00	5.87	4.40	4.40	4.32	3.77	3.67	3.66	4.74
high tide	Date	24	25	28	1	19	16	16	9	10	25	5	20
Minimum	Elevation	-.92	-1.32	-2.06	-2.07	-2.00	-1.96	-1.77	-1.73	-1.43	-1.30	-1.50	-1.35
low tide	Date	12	9	25	26	5	6	12	12	12	5	12	27
Mean high tide		3.11	2.89	2.37	2.17	2.50	2.41	2.65	2.76	2.74	2.73	2.73	3.03
Mean water level		1.47	1.14	.64	.46	.63	.73	.87	1.09	1.07	.97	.99	1.34
Mean low tide		-.16	-.61	-1.04	-1.23	-1.23	-.93	-.89	-.54	-.60	-.77	-.75	-.38

NOTE.--No gage-height record Nov. 1 to Dec. 3, Dec. 12-14, 19-22, Jan. 27 to Feb. 15, Mar. 27 to Apr. 5 and June 12-30. Record estimated on the basis of Great Bay Marina, Cape Horn Marina and Tuckerton Cove.

01409345 Great Bay at Cape Horn Marina, near Tuckerton, N. J.

LOCATION.--Lat 39°32'35", long 74°19'42", Ocean County, on boat dock at Cape Horn Marina, 600 ft west of Great Bay Boulevard and 4.0 miles south of Tuckerton.

PERIOD OF RECORD.--Established June 4, 1971.

GAGE.--Water-stage recorder. Gage height converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations for period are as follows:

TIDE ELEVATIONS, IN FEET, FOR THE PERIOD OCTOBER 1971 TO FEBRUARY 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.37	4.68	3.53	3.97	5.60							
high tide	Date	3	25	28	2	19							
Minimum	Elevation	-.96	-1.36	-2.03	-2.43	-2.52							
low tide	Date	12	7	25	25	5							
Mean high tide		3.09	2.86	2.35	2.14	2.14							
Mean water level		1.49	1.21	.69	.53	.61							
Mean low tide		-.14	-.45	-.88	-1.00	-.88							

01409360 Big Creek at Radio Road, near Tuckerton, N. J.

LOCATION.--Lat 39°33'14", long 74°22'30", Ocean County, on northern abutment of highway bridge at Radio Road in Mystic Islands, 3.8 miles southwest of Tuckerton.

PERIOD OF RECORD.--Established June 29, 1971.

GAGE.--Water-stage recorder. Record expressed in gage height above an established datum. The distance above or below mean sea level of the datum not yet determined.

Summaries of gage heights for period are as follows:

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Gage height	5.29	5.50	4.42	4.27	6.70	5.21	5.08	5.17	4.49	4.34	4.51	5.48
high tide	Date	24	25	28	23,30	19	14	16	9	22	25	5	20
Minimum	Gage height	.14	.20	.23	.21	.22	.26	.32	.22	.14	.24	.20	-.08
low tide	Date	11,12	9	17,23-26	7,8,19	4-6	6,7	10-12,29	7	7	14	12	12
Mean high tide		4.07	3.80	3.40	3.18	3.40	3.42	3.57	3.82	3.70	3.66	3.66	3.66
Mean water level		2.57	2.30	1.87	1.70	1.98	1.97	2.10	2.30	2.19	2.12	2.13	2.19
Mean low tide		1.05	.82	.47	.37	.64	.56	.60	.77	.70	.59	.60	.66

NOTE.--No gage-height record available Oct. 27 to Dec. 3, and Aug. 1 to Sept. 1. Record for those periods estimated on the basis of record at Tuckerton Cove and the Old Coast Guard Station.

01409370 Great Bay at Great Bay Marina, near Tuckerton, N. J.

LOCATION.--Lat 39°32'23", long 74°23'13", Ocean County, in southwest corner of Marina, at end of Radio Road, 4.6 miles southwest of Tuckerton.

PERIOD OF RECORD.--Established June 18, 1971.

GAGE.--Water-stage recorder. Record expressed in gage height above an established datum. The distance above or below mean sea level of the datum not yet determined.

Summaries of gage heights for period are as follows:

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Gage height	6.58	7.0	6.2	6.24	7.8	6.6	6.50	6.49	5.78	5.77	5.99	6.81
high tide	Date	4	25	21	2	19	16	16	14	11	9	29	20
Minimum	Gage height	1.26	.9	-.6	-.62	-.99	-.5	.71	.78	.81	.91	.99	.98
low tide	Date	12	20	23	26	4	6	11	12	10	12	12	12
Mean high tide		5.24	5.00	4.60	4.38	4.65	4.72	4.87	5.00	4.94	4.90	4.91	5.19
Mean water level		3.65	3.40	2.90	2.71	3.00	3.05	3.18	3.38	3.29	3.20	3.23	3.56
Mean low tide		2.11	1.80	1.20	1.05	1.35	1.40	1.53	1.78	1.69	1.59	1.60	1.93

NOTE.--No gage-height record Nov. 1 to Dec. 3, Dec. 13-28, Feb. 18 to Apr. 5, estimated on the basis of record at Cape Horn Marina and Big Creek.

01482620 Salem River at Winslow Farms, near Pennsville, N. J.

LOCATION.--Lat 39°37'44", long 75°28'48", Salem County, near left bank, 300 ft upstream of Winslow Farms Boat Dock, 3.0 miles southeast of Pennsville.

PERIOD OF RECORD.--Established June 30, 1971.

GAGE.--Water-stage recorder. Gage height converted to elevation above or below (-) mean sea level for publication.

Summaries of tide elevations for period are as follows:

TIDE ELEVATIONS, IN FEET, FOR THE MONTH OF DECEMBER 1971

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum high tide	Elevation			7.62									
	Date			21									
Minimum low tide	Elevation			2.10									
	Date			25									
Mean high tide				6.69									
Mean water level				5.33									
Mean low tide				3.58									

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Geological Survey
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