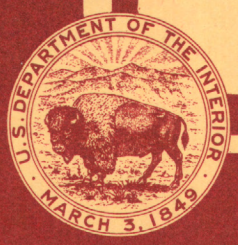
1973

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 1973

1972

OCTOBER

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1973

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1973

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
Corps of Engineers, U.S. Army
Delaware River Basin Commission

Water resources records, 1973 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

1974

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ILLUSTRATIONS

INDEX OF GAGING STATIONS SHOWN ON MAP ON OPPOSITE PAGE

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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	3934.5	ELIZABETH RIVER AT URSINO LAKE, ELIZABETH
37	3938	EAST BRANCH RAHWAY RIVER AT WEST ORANGE
38	3940	*WEST BRANCH RAHWAY RIVER AT MILLBURN
39	3945	RAHWAY RIVER NEAR SPRINGFIELD
40	3950	RAHWAY RIVER AT RAHWAY
41	3955	*ROBINSONS BRANCH RAHWAY RIVER AT GOODMANS
42	3960	ROBINSONS BRANCH RAHWAY RIVER AT RAHWAY
43	3965	SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE
44	3968	SPRUCE RUN AT CLINTON
45	3970	SOUTH BRANCH RARITAN RIVER AT STANTON
46	3975	*WALNUT BROOK NEAR FLEMINGTON
47	3980	NESHANIC RIVER AT REAVILLE
48	3985	NORTH BRANCH RARITAN RIVER NEAR FAR HILLS
49	3995	LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE
50	3995.1	UPPER COLD BROOK NEAR POTTERSVILLE
51	4000	NORTH BRANCH RARITAN RIVER NEAR RARITAN
52	4005	RARITAN RIVER AT MANVILLE
53	4007.3	MILLSTONE RIVER AT PLAINSBORO
54	4009.32	*BALDWIN CREEK AT BALDWIN LAKE NEAR PENNINGTON
55	4009.53	HONEY BRANCH NEAR PENNINGTON
56	4010	STONY BROOK AT PRINCETON
57	4013	‡LAKE CARNEGIE AT PRINCETON
58	4013.01	MILLSTONE RIVER AT LAKE CARNEGIE
59	4015	*MILLSTONE RIVER NEAR KINGSTON
60	4020	MILLSTONE RIVER AT BLACKWELLS MILLS
61	4025.9	ROYCE BROOK TRIBUTARY AT FRANKFORT
62	4026	ROYCE BROOK TRIBUTARY NEAR BELLE MEAD
63	4030.6	RARITAN RIVER BELOW CALCO DAM AT BOUND BROOK
64	4035	GREEN BROOK AT PLAINFIELD
65	4039	GREEN BROOK AT MIDDLESEX
66	4040	*GREEN BROOK AT BOUND BROOK
67	4045	*LAWRENCE BROOK AT PATRICKS CORNER
68	4050	LAWRENCE BROOK AT FARRINGTON DAM
69	4053	*MATCHAPONIX BROOK AT SPOTSWOOD
70	4054	MANALAPAN BROOK AT SPOTSWOOD
71	4055	SOUTH RIVER AT OLD BRIDGE
72	4060	*DEEP RUN NEAR BROWNTOWN
73	4065	*TENNENT BROOK NEAR BROWNTOWN
74	4066.8	††RARITAN RIVER AT METUCHEN
75	4070	*MATAWAN CREEK AT MATAWAN
76	4075	SWIMMING RIVER NEAR RED BANK
77	4077.05	SHARK RIVER NEAR NEPTUNE CITY
78	4077.6	JUMPING BROOK NEAR NEPTUNE CITY
79	4080	MANASQUAN RIVER AT SQUANKUM
80	4081.2	NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD
81	4081.4	SOUTH BRANCH METEDECONK RIVER AT LAKEWOOD
82	4085	TOMS RIVER NEAR TOMS RIVER
83	4090	*CEDAR CREEK AT LANOKA HARBOR
84	4090.95	OYSTER CREEK NEAR BROOKVILLE
85	4094	MULLICA RIVER NEAR BATSTO
86	4095	BATSTO RIVER AT BATSTO
87	4100	OSWEGO RIVER AT HARRISVILLE
88	4105	ABSECON CREEK AT ABSECON
89	4107.87	GREAT EGG HARBOR RIVER TRIBUTARY AT SICKLERVILLE
90	4108.1	FOURMILE BRANCH AT NEW BROOKLYN
91	4108.20	GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR
92	4110	GREAT EGG HARBOR RIVER AT FOLSOM
93	4113	TUCKAHOE RIVER AT HEAD OF RIVER
94	4115	MAURICE RIVER AT NORMA
95	4120	*MANANTICO CREEK NEAR MILLVILLE
96	4125	*WEST BRANCH COHANSEY RIVER AT SEELEY
97	4130	*LOPER RUN NEAR BRIDGETON
98	4340	DELAWARE RIVER AT PORT JERVIS, N.Y.
99	4385	DELAWARE RIVER AT MONTAGUE
100	4390	*‡DELAWARE RIVER AT DINGMANS FERRY, PA.
101	4400	FLAT BROOK NEAR FLATBROOKVILLE
102	4402	DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA.
103	4430	*‡DELAWARE RIVER AT PORTLAND, PA.
104	4435	PAULINS KILL AT BLAIRSTOWN
105	4439	YARDS CREEK NEAR BLAIRSTOWN
106	4445	*‡DELAWARE RIVER AT DELAWARE
107	4450	*PEQUEST RIVER AT HUNTSVILLE
108	4455	PEQUEST RIVER AT PEQUEST
109	4460	*BEAVER BROOK NEAR BELVIDERE
110	4465	DELAWARE RIVER AT BELVIDERE
111	4467	‡DELAWARE RIVER AT EASTON, PA.
112	4552	*POHATCONG CREEK AT NEW VILLAGE
113	4553.55	*BEAVER BROOK NEAR WELDON
114	4554	‡LAKE HOPATCONG AT LANDING
115	4555	MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG
116	4560	MUSCONETCONG RIVER NEAR HACKETTSTOWN
117	4570	MUSCONETCONG RIVER NEAR BLOOMSBURY
118	4575	*DELAWARE RIVER AT RIEGELSVILLE
119	4580	‡DELAWARE RIVER AT MILFORD
120	4585	‡DELAWARE RIVER AT FRENCHTOWN
121	4590	*‡DELAWARE RIVER AT POINT PLEASANT, PA.
122	4605	DELAWARE & RARITAN CANAL AT KINGSTON
123	4610	*‡DELAWARE RIVER AT LUMBERVILLE, PA.
124	4615	‡DELAWARE RIVER AT STOCKTON
125	4620	‡DELAWARE RIVER AT LAMBERTVILLE
126	4625	‡DELAWARE RIVER AT WASHINGTON CROSSING
127	4630	*‡DELAWARE RIVER AT YARDLEY, PA.
128	4635	DELAWARE RIVER AT TRENTON
129	4636.2	ASSUNPINK CREEK NEAR CLARKSVILLE
130	4640	ASSUNPINK CREEK AT TRENTON
131	4640.4	††DELAWARE RIVER AT MARINE TERMINAL, TRENTON
132	4645	CROSSWICKS CREEK AT EXTONVILLE
133	4645.6	*††DELAWARE RIVER AT FLORENCE
134	4645.98	††DELAWARE RIVER AT BURLINGTON
135	4658.5	SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN
136	4660	*MIDDLE BRANCH MOUNT MISERY BROOK IN LEBANON STATE FOREST
137	4665	MCDONALDS BRANCH IN LEBANON STATE FOREST
138	4670	NORTH BRANCH RANCOCAS CREEK AT PEMBERTON
139	4670.6	††DELAWARE RIVER AT PALMYRA
140	4670.81	SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL
141	4671.5	COOPER RIVER AT HADDONFIELD
142	4750	MANTUA CREEK AT PITMAN
143	4766	*STILL RUN NEAR MICKLETON
144	4771.2	RACCOON CREEK NEAR SWEDESBORO
145	4775	*OLDMANS CREEK NEAR WOODSTOWN
146	4821	††DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, WILMINGTON, DEL.
147	4825	SALEM RIVER AT WOODSTOWN
148	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.

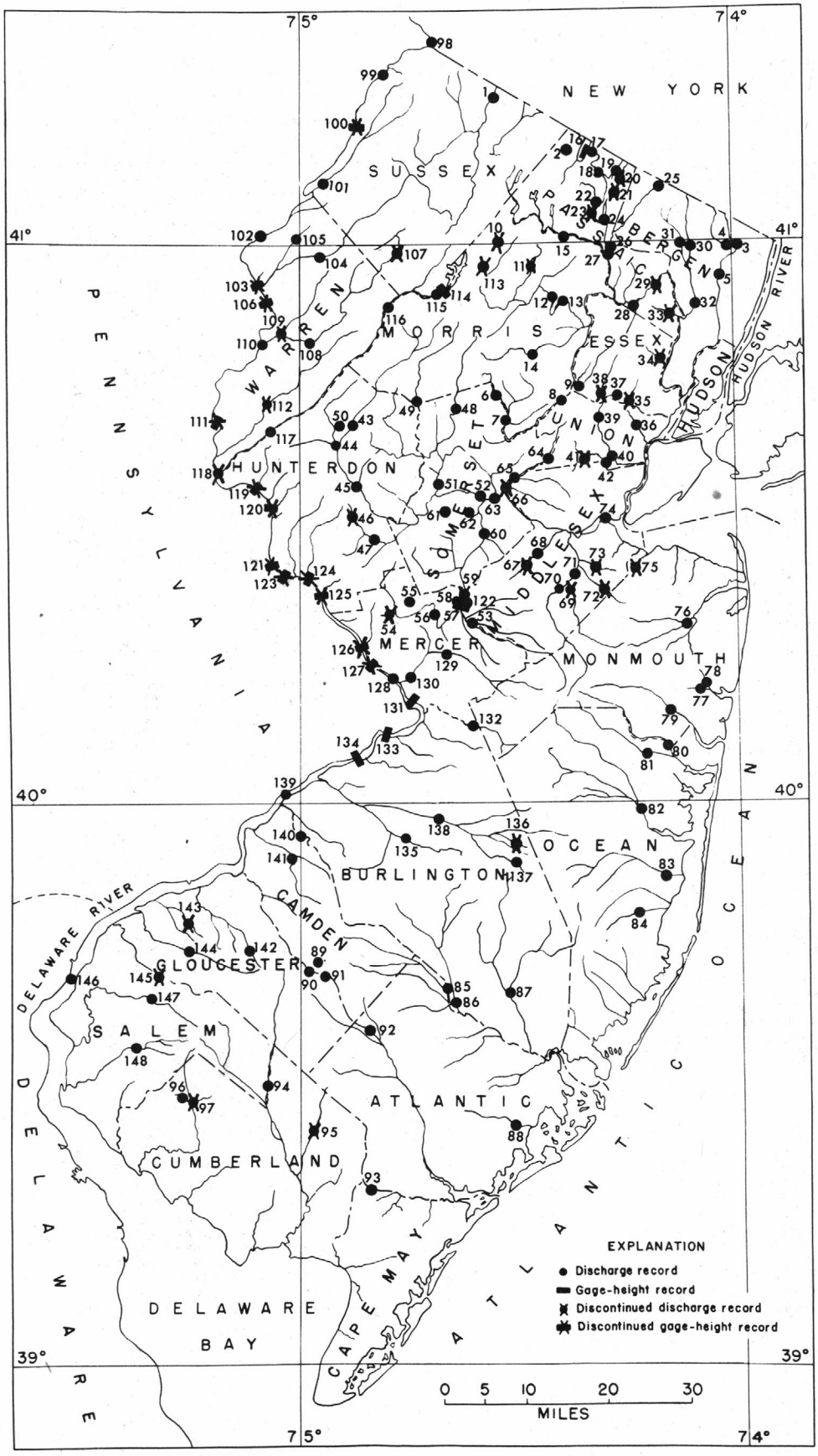

Figure 1.--LOCATION OF GAGING STATIONS

INDEX OF PARTIAL-RECORD STATIONS SHOWN ON MAP ON OPPOSITE PAGE, 1973

Map No.	Station No.	Station Name
1	3774.90	(M)MUSQUAPSINK BROOK AT WESTWOOD
2	3783.50	(M)TENAKILL BROOK AT CRESSKILL
3	3783.85	(M)TENAKILL BROOK AT CLOSTER
4	3784.10	(L)DWARS KILL AT NORWOOD
5	3784.30	(L)TENAKILL BROOK TRIBUTARY AT NORWOOD
6	3785.90	(M)METZLER BROOK AT ENGLEWOOD
7	3786.15	(M)WOLF CREEK AT RIDGEFIELD
8	3792.00	(L)DEAD RIVER NEAR MILLINGTON
9	3793.00	(L)PASSAIC RIVER AT STIRLING
10	3795.70	(L)PASSAIC RIVER AT HANOVER
11	3812.00	(L)ROCKAWAY RIVER AT PINE BROOK
12	3814.70	(L)WHIPPANY RIVER TRIBUTARY NO.2 AT GREYSTONE PARK STATE HOSPITAL
13	3816.00	(L)WHIPPANY RIVER NEAR WHIPPANY
14	3817.00	(L)TROY BROOK AT TROY HILLS
15	3818.00	(L)WHIPPANY RIVER NEAR PINE BROOK
16	3819.00	(C)PASSAIC RIVER AT PINE BROOK
17	3824.50	(L)MACOPIN RIVER AT MACOPIN RESERVOIR
18	3828.70	(L)BELCHER CREEK AT STOWAWAY ROAD AT WEST MILFORD
19	3828.80	(L)BELCHER CREEK TRIBUTARY AT WEST MILFORD
20	3828.90	(L)BELCHER CREEK AT WEST MILFORD
21	3829.10	(L)MORSETOWN BROOK AT WEST MILFORD
22	3829.60	(L)GREEN BROOK NEAR WEST MILFORD
23	3829.90	(L)COOLEY BROOK NEAR WEST MILFORD
24	3879.80	(L)HAYCOCK BROOK AT POMPTON LAKES
25	3899.00	(M)FLEISCHER BROOK AT MARKET STREET, AT EAST PATERSON
26	3904.50	(M)SADDLE RIVER AT UPPER SADDLE RIVER
27	3908.10	(M)HOHOKUS BROOK AT ALLENDALE
28	3911.10	(L)SADDLE RIVER AT PARAMUS
29	3914.85	(L)SPROUT BROOK AT ROCHELLE PARK
30	3920.00	(M)WEASEL BROOK AT CLIFTON
31	3922.00	(L)THIRD RIVER AT NUTLEY
32	3925.00	(M)SECOND RIVER AT BELLEVILLE
33	3960.70	(L)SOUTH BRANCH RARITAN RIVER TRIBUTARY NO.6 AT BUDD LAKE
34	3960.80	(L)SOUTH BRANCH RARITAN RIVER TRIBUTARY NO.7 AT BUDD LAKE
35	3960.90	(L)SOUTH BRANCH RARITAN RIVER AT CUTLET OF BUDD LAKE
36	3961.20	(L)SOUTH BRANCH RARITAN RIVER AT BARTLEY
37	3961.80	(L)DRAKES BROOK AT BARTLEY
38	3962.20	(L)STONY BROOK AT NAUGHRIGHT
39	3962.80	(L)SOUTH BRANCH RARITAN RIVER AT MIDDLE VALLEY
40	3965.90	(L)SPRUCE RUN NEAR HIGH BRIDGE
41	3966.60	(L)MULHOCKAWAY CREEK AT VAN SYCKEL
42	3966.70	(L)MULHOCHAWAY CREEK TRIBUTARY AT VAN SYCKEL
43	3975.00	(M)WALNUT BROOK NEAR FLEMINGTON
44	3988.50	(L)PEAPACK BROOK AT FAR HILLS
45	3989.50	(L)MINE BROOK AT FAR HILLS
46	3992.00	(L)LAMINGTON RIVER NEAR IRONIA
47	3997.00	(L)ROCKAWAY CREEK AT WHITEHOUSE
48	4008.50	(C)WOODSVILLE BROOK AT WOODSVILLE
49	4009.00	(M)STONY BROOK AT GLENMOORE
50	4009.30	(M)BALDWIN CREEK AT PENNINGTON
51	4009.47	(M)STONY BROOK AT PENNINGTON
52	4009.50	(M)HART BROOK NEAR PENNINGTON
53	4009.60	(M)HONEY BRANCH NEAR MOUNT ROSE
54	4009.70	(M)HONEY BRANCH NEAR ROSEDALE
55	4012.00	(M)DUCK POND RUN AT CLARKSVILLE
56	4015.20	(M)BEDEN BROOK NEAR HOPEWELL
57	4015.95	(M)ROCK BROOK NEAR BLAWENBURG
58	4016.00	(M)BEDEN BROOK NEAR ROCKY HILL
59	4018.70	(M)SIX MILE RUN NEAR MIDDLEBUSH
60	4043.00	(L)LAWRENCE BROOK AT OUTLET OF DAVIDSONS MILL POND
61	4044.00	(L)OAKEYS BROOK NEAR PATRICKS CORNER
62	4044.70	(L)IRELAND BROOK AT PATRICKS CORNER
63	4047.00	(L)BEAVERDAM BROOK NEAR PATRICKS CORNER
64	4054.40	(L)MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD
65	4054.70	(L)IRESICK BROOK AT EAST SPOTSWOOD
66	4072.00	(L)HOP BROOK AT HOLMDEL
67	4072.50	(L)WILLOW BROOK AT HOLMDEL
68	4073.00	(L)BIG BROOK AT VANDERBURG
69	4074.00	(L)YELLOW BROOK AT COLTS NECK
70	4074.50	(L)MINE BROOK AT COLTS NECK
71	4075.20	(L)PINE BROOK AT TINTON FALLS
72	4078.30	(C)MANASQUAN RIVER NEAR GEORGIA
73	4078.60	(L)DEBOIS CREEK AT ADELPHIA
74	4078.90	(L)MANASQUAN RIVER TRIBUTARY NO.7 AT WEST FARMS
75	4079.00	(L)MANASQUAN RIVER AT WEST FARMS
76	4080.15	(C)MINGAMAHONE BROOK AT FARMINGDALE
77	4080.20	(L)MINGAMAHONE BROOK AT SQUANKUM
78	4080.30	(M)MANASQUAN RIVER AT ALLENWOOD
79	4081.60	(T)METEDECONK RIVER NEAR LAURELTON
80	4082.00	(T)BARNEGAT BAY AT BAY SHORE
81	4088.00	(L)WEBBS MILL BRANCH NEAR WHITING
82	4088.10	(L)WEBBS MILL BRANCH TRIBUTARY NEAR WHITING
83	4090.80	(L)SOUTH BRANCH FORKED RIVER NEAR FORKED RIVER
84	4091.25	(T)BARNEGAT BAY AT BARNEGAT LIGHT
85	4091.45	(T)MANAHAWKIN BAY NEAR MANAHAWKIN
86	4092.80	(L)WESTECUNK CREEK AT STAFFORD FORGE
87	4092.90	(T)TUCKERTON COVE NEAR TUCKERTON
88	4095.10	(T)BATSTO RIVER AT PLEASANT MILLS
89	4101.00	(T)MULLICA RIVER NEAR PORT REPUBLIC
90	4101.50	(L)EAST BRANCH BASS RIVER NEAR NEW GRETNA
91	4102.00	(L)WEST BRANCH BASS RIVER NEAR NEW GRETNA
92	4105.00	(T)ABSECON CREEK AT ABSECON
93	4107.75	(L)GREAT EGG HARBOR RIVER AT BERLIN
94	4107.84	(L)GREAT EGG HARBOR RIVER NEAR SICKLERVILLE
95	4108.03	(L)FOURMILE BRANCH AT WINSLOW CROSSING
96	4113.15	(T)GREAT EGG HARBOR BAY AT BEESLEYS POINT
97	4113.20	(T)GREAT EGG HARBOR BAY AT OCEAN CITY
98	4113.60	(T)GREAT CHANNEL AT STONE HARBOR
99	4113.80	(T)GRASSY SOUND AT WEST WILDWOOD
100	4113.90	(T)CAPE MAY HARBOR AT CAPE MAY
101	4113.95	(T)CAPE MAY CANAL AT NORTH CAPE MAY
102	4114.08	(L)DIAS CREEK NEAR CAPE MAY COURT HOUSE
103	4114.10	(L)BIDWELL DITCH TRIBUTARY NEAR CAPE MAY COURT HOUSE
104	4118.50	(L)MILL CREEK NEAR MILLVILLE
105	4118.80	(L)MAURICE RIVER AT HARP STREET AT MILLVILLE
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	4434.50	(L)PAULINS KILL NEAR NEWTON
111	4434.60	(L)PAULINS KILL AT PAULINS KILL
112	4450.00	(C)PEQUEST RIVER AT HUNTSVILLE
113	4454.90	(M)FURNACE BROOK AT OXFORD
114	4460.00	(C)BEAVER BROOK NEAR BELVIDERE
115	4552.00	(M)POHATCONG CREEK AT NEW VILLAGE
116	4553.70	(L)WELDON BROOK AT HURDTOWN
117	4555.50	(L)MUSCONETCONG RIVER AT STANHOPE
118	4575.00	(M)DELAWARE RIVER AT RIEGELSVILLE
119	4643.00	(L)CROSSWICKS CREEK NEAR COOKSTOWN
120	4643.80	(L)NORTH RUN AT COOKSTOWN
121	4644.00	(M)CROSSWICKS CREEK AT NEW EGYPT
122	4644.60	(L)LAHAWAY CREEK NEAR HORNERSTOWN
123	4644.80	(L)MIRY RUN AT HOLMES MILLS
124	4645.05	(M)CROSSWICKS CREEK AT GROVEVILLE
125	4645.20	(M)DOCTORS CREEK AT GROVEVILLE
126	4658.80	(L)SOUTHWEST BRANCH RANCOCAS CREEK AT MEDFORD
127	4660.00	(M)MIDDLE BRANCH MOUNT MISERY BROOK IN LEBANON STATE FOREST
128	4671.30	(M)COOPER RIVER AT KIRKWOOD
129	4671.60	(M)NORTH BRANCH COOPER RIVER NEAR MARLTON
130	4671.80	(M)NORTH BRANCH COOPER RIVER AT ELLISBURG
131	4671.90	(M)COOPER RIVER AT CAMDEN
132	4673.05	(M)NEWTON CREEK AT COLLINGSWOOD
133	4673.15	(L)SOUTH BRANCH NEWTON CREEK AT GLOVER AVENUE AT HADDON HEIGHTS
134	4673.17	(M)SOUTH BRANCH NEWTON CREEK AT HADDON HEIGHTS
135	4673.30	(M)SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD
136	4827.05	(T)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.

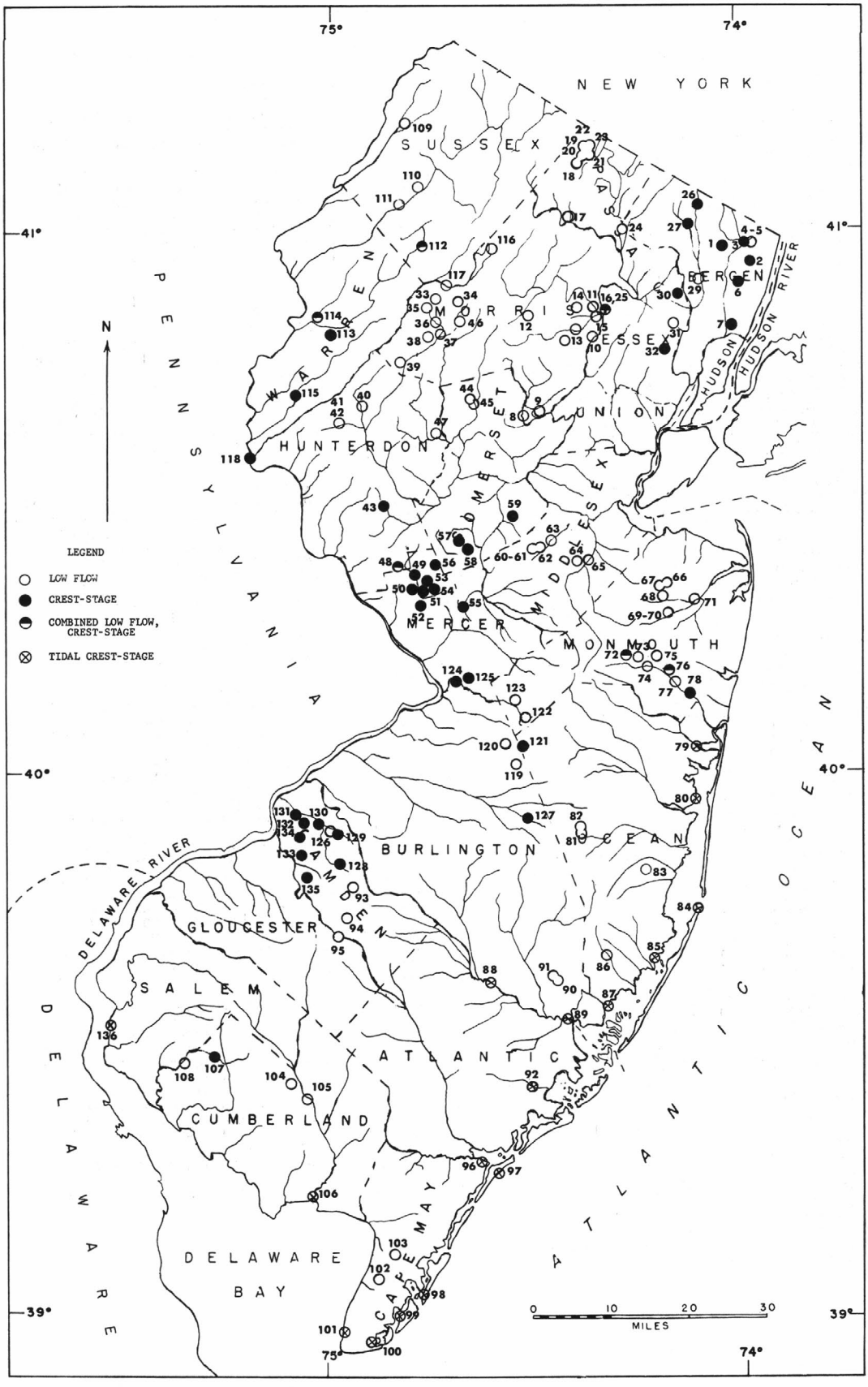

Figure 2.--LOCATION OF PARTIAL-RECORD STATIONS

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Page

WATER RESOURCES DATA FOR NEW JERSEY, 1973

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1973 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, from 1929 through 1965, 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 are included in this report. See map p. 164.

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, E. R. Segesser, acting 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.

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 29 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; also see Factors for Converting English Units to International System (SI) Units on page 20:

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. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

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 1973 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. Records for October 1965 to September 1970 will be published soon in Water-Supply Paper 2102. 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 four tables at the end of the gaging-station 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, the third is a table of discharge measurements at miscellaneous sites, and the fourth is a table of annual maximum tide levels at tidal crest-stage stations on bays and estuaries. Data from a special group of tide gages operated in the Wetlands evaluation program are summarized on pages 164 to 166, in a format similar to the summaries for regular tide-gage records included in downstream order along with other stream-gaging stations in the Raritan, Mullica and Delaware estuaries.

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 40 sites during the water years October 1960 to current year by the following agencies: records at 7 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 5 sites by the National Weather Service (formerly Weather Bureau - ESSA); at 2 sites by the National Ocean Survey - NOAA; at 3 sites by the Corps of Engineers, and 5 sites by Delaware River Joint Toll Bridge Commission.

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 given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

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HYDROLOGIC CONDITIONS

Runoff for the 1973 Water Year set new highs over a major portion of New Jersey, averaging about 160 percent of normal over the entire State. New maximums of record for one year were established in the Passaic, Elizabeth and Rahway River basins and in the Central and Southeastern Coastal plains. The two-year period October 1, 1971 through September 30, 1973, likewise was the wettest (greatest total runoff) of any two consecutive years since gaging of streams began in New Jersey. The runoff in the Rahway River basin averaged 228 percent of normal for the 1973 water year. Intense flooding caused by the storm of August 2 which dumped about 7 inches (178 mm) of rain in a narrow band across Somerset, Union and Northern Middlesex counties established new maximum stage and discharge records at 6 continuous-recorder and 6 crest-stage stations. Several miscellaneous indirect-measurements were made in the area of the highest runoff concentrations. One indirect measurement on the Stony Brook near North Plainfield indicated a flow of 11,400 cfs (323 cu m/s) for a drainage area of 5.70 sq mi (14.76 sq km). This unit discharge of 2,000 cfs (21.8 cu m/sq km/s) was the greatest unit discharge for a drainage area, larger than 1.25 sq mi (3.238 sq km) ever recorded in New Jersey.

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, South Branch Raritan River at High Bridge, averaged 200 cfs (5.664 cu m) 171 percent of normal. The average flow for Great Egg Harbor River at Folsom was 133 cfs (3.767 cu m/s) 155 percent of normal. The observed yearly mean discharge on the Delaware River at Trenton was 17,540 cfs (497 cu m/s) 152 percent of normal. The natural flow at Trenton (adjusted for diversion and storage upstream) was about 155 percent of normal for the water year. The minimum flow during the year at most stations was slightly higher than in a normal-runoff year.

The combined storage in the 13 major water-supply reservoirs in New Jersey was about 80 percent of normal on September 30, 1973, which was the same as at the beginning of the water year on October 1, 1972 and above the seasons normal condition. Pumped storage in the Round Valley Reservoir was 53.7 billion gallons (98 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.

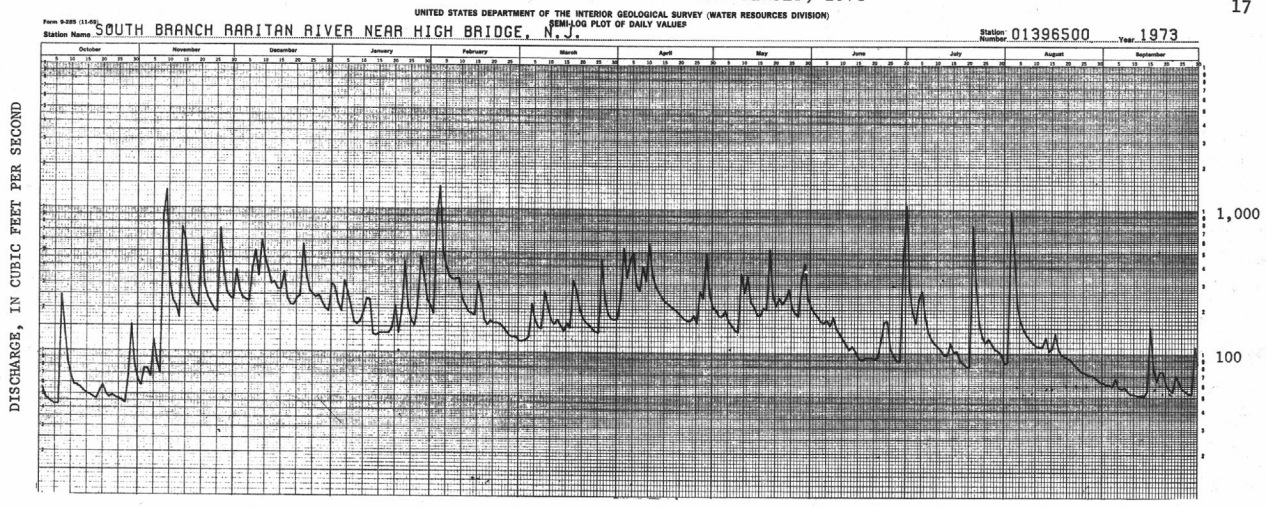
HYDROLOGIC CONDITIONS

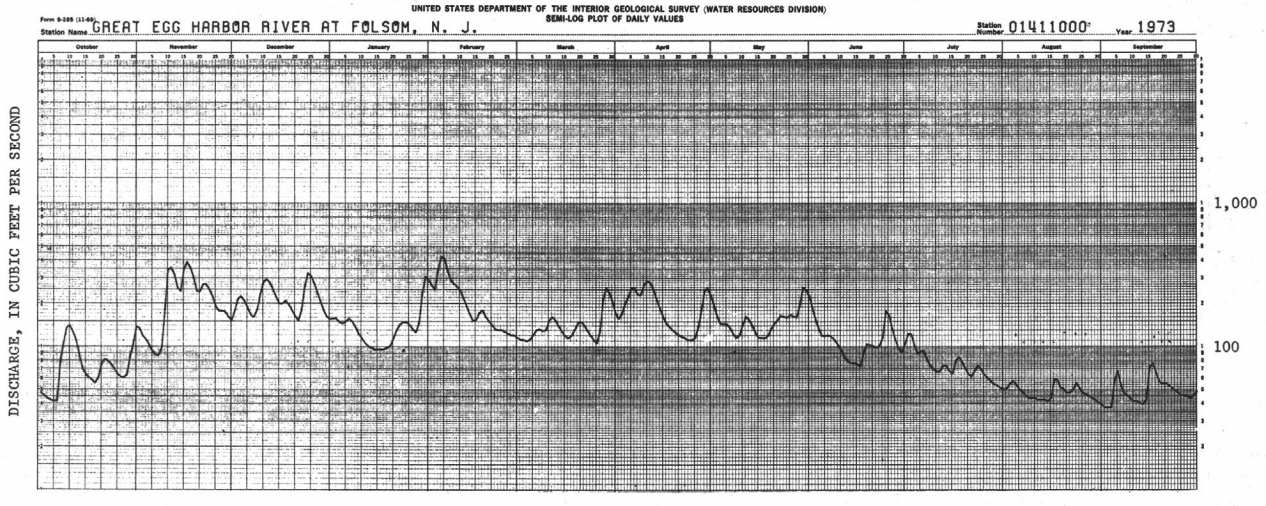
Runoff for the 1973 Water Year set new highs over a major portion of New Jersey, averaging about 160 percent of normal over the entire State. New maximums of record for one year were established in the Passaic, Elizabeth and Rahway River basins and in the Central and Southeastern Coastal plains. The two-year period October 1, 1971 through September 30, 1973, likewise was the wettest (greatest total runoff) of any two consecutive years since gaging of streams began in New Jersey. The runoff in the Rahway River basin averaged 228 percent of normal for the 1973 water year. Intense flooding caused by the storm of August 2 which dumped about 7 inches (178 mm) of rain in a narrow band across Somerset, Union and Northern Middlesex counties established new maximum stage and discharge records at 6 continuous-recorder and 6 crest-stage stations. Several miscellaneous indirect-measurements were made in the area of the highest runoff concentrations. One indirect measurement on the Stony Brook near North Plainfield indicated a flow of 11,400 cfs (29,526 cu m) for a drainage area of 5.70 sq mi (14.76 sq km). This unit discharge of 2,000 cfs (21.8 cu m/sq mi) was the greatest unit discharge for a drainage area, larger than 1.25 sq mi (3.238 sq km) ever recorded in New Jersey.

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, South Branch Raritan River at High Bridge, averaged 200 cfs (5.664 cu m) 171 percent of normal. The average flow for Great Egg Harbor River at Folsom was 133 cfs (3.767 cu m) 155 percent of normal. The observed yearly mean discharge on the Delaware River at Trenton was 17,540 cfs (496.7 cu m) 152 percent of normal. The natural flow at Trenton (adjusted for diversion and storage upstream) was about 155 percent of normal for the water year. The minimum flow during the year at most stations was slightly higher than in a normal-runoff year.

The combined storage in the 13 major water-supply reservoirs in New Jersey was about 80 percent of normal on September 30, 1973, which was the same as at the beginning of the water year on October 1, 1972 and above the seasons normal condition. Pumped storage in the Round Valley Reservoir was 53.7 billion gallons (98 percent of total useable capacity) at the end of the year. Low-flow augmentation and quality-control releass were made from Round Valley to small outlet streams during the year.





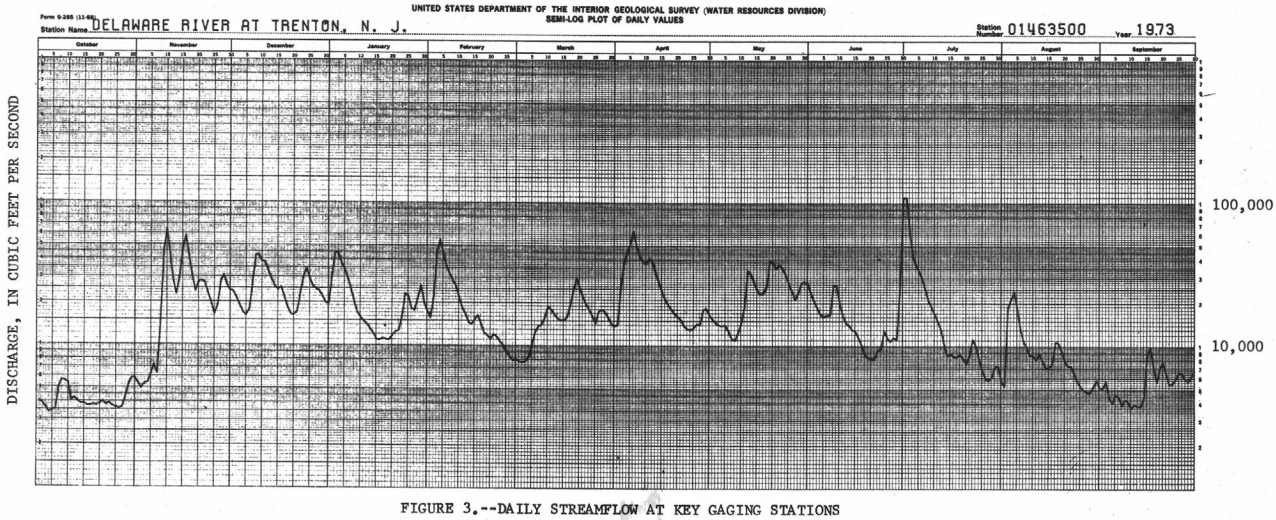
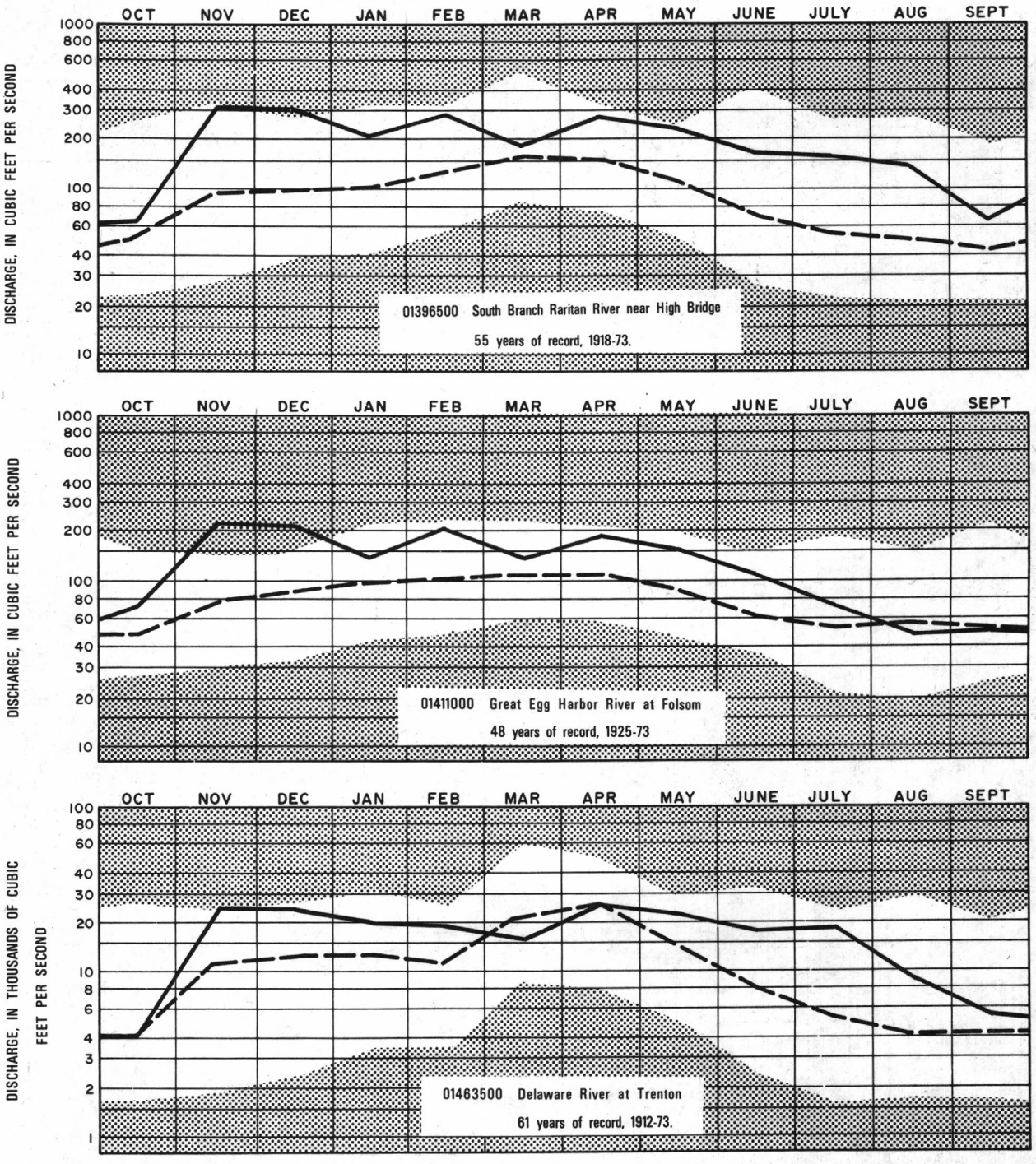


FIGURE 3.--DAILY STREAMFLOW AT KEY GAGING STATIONS

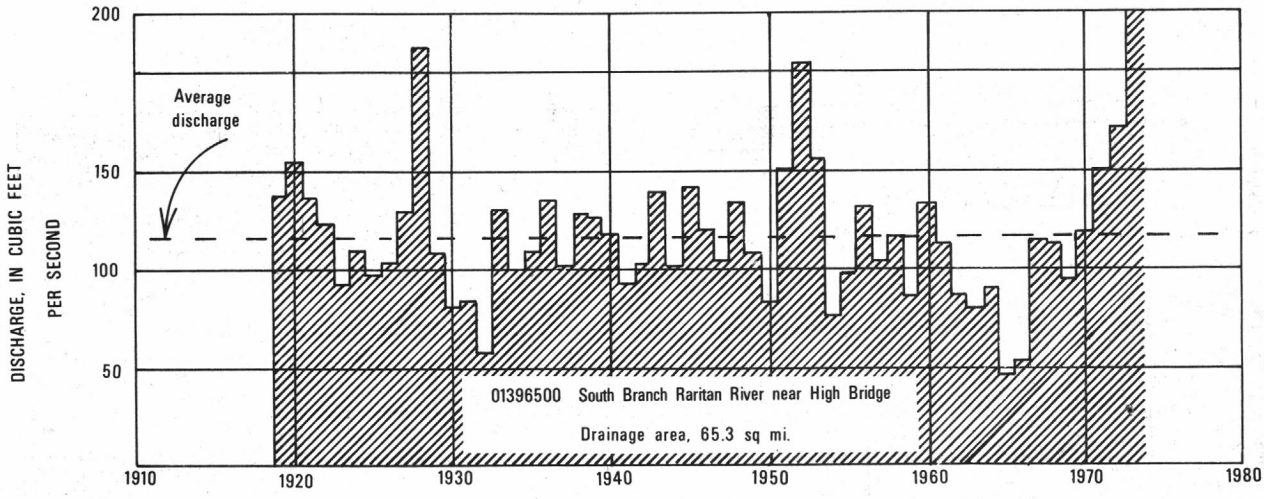


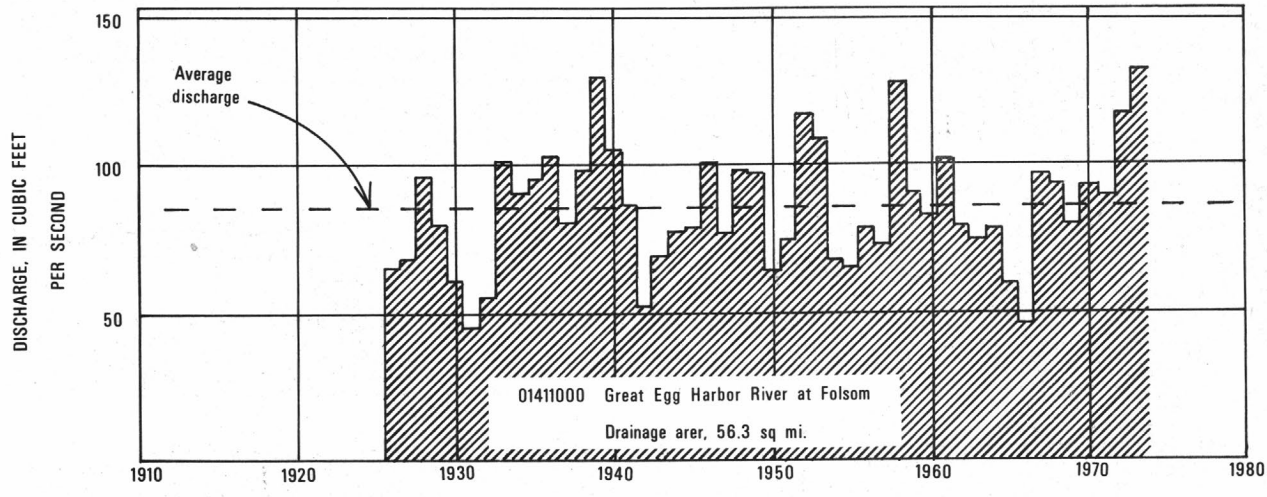
Unshaded area.--Indicates range between highest and lowest mean recorded for the month prior to 1973 water year.

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 1973 water year.

FIGURE 4.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS





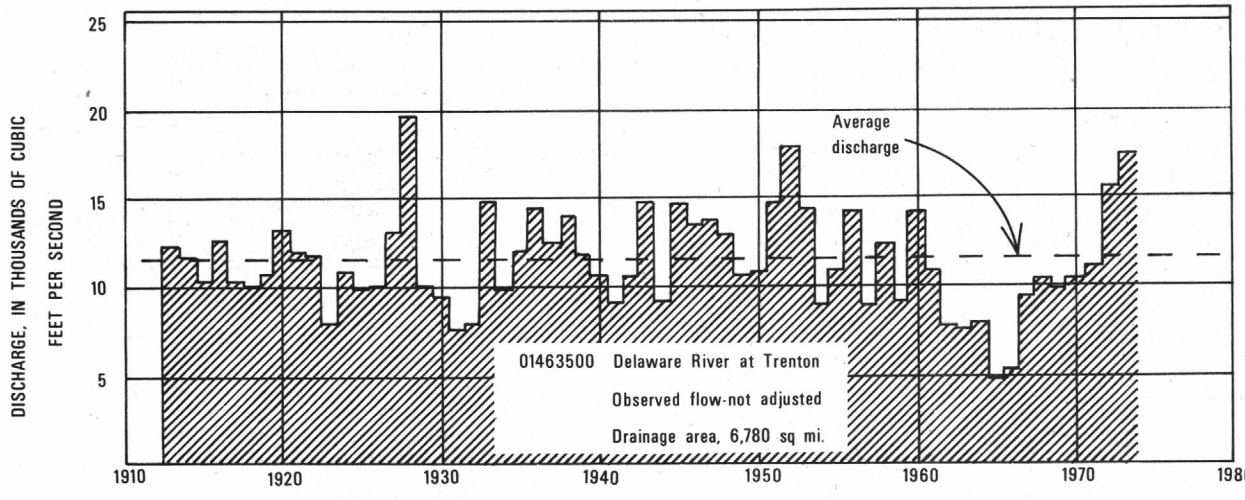


FIGURE 5.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS

FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM (SI) UNITS

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
	Length	
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
yards (yd)	.9144	meters (m)
rods	5.0292	meters (m)
miles (mi)	1.609	kilometers (km)
	Area	
acres	4047	square meters (m^2)
	.4047	*hectares (ha)
	.4047	square hectometer (hm^2)
	.004047	square kilometers (km^2)
square miles (mi^2)	2.590	square kilometers (km^2)
	Volume	
gallons (gal)	3.785	**liters (l)
	3.785	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons (10^6 gal)	3785	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	28.32	cubic decimeters (dm^3)
	.02832	cubic meters (m^3)
cfs-day (ft^3/s-day)	2447	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1233	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	28.32	liters per second (l/s)
	28.32	cubic decimeters per second (dm^3/s)
	.02832	cubic meters per second (m^3/s)
gallons per minute (gpm)	.06309	liters per second (l/s)
	.06309	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day (mgd)	43.81	cubic decimeters per second (dm^3/s)
	.04381	cubic meters per second (m^3/s)
	Mass	
ton (short)	.9072	tonne (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

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 mi (0.8 km) downstream from 5th branch Mohawk River.

DRAINAGE AREA.--8,090 mi^2 (20,953 km^2), 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 (0.094 m) 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 (3.228 m) higher.

AVERAGE DISCHARGE.--27 years, 13,060 ft^3/s (369.9 m^3/s).

EXTREMES.--Current year: Maximum discharge, 88,100 ft^3/s (2,490 m^3/s) Apr. 5 (gage height, 21.94 ft (6.687 m)); minimum daily, 1,930 ft^3/s (54.7 m^3/s) Sept. 16; minimum gage height, 13.97 ft (4.258 m) Aug. 27.
Period of record: Maximum discharge, 181,000 ft^3/s (5,130 m^3/s) Dec. 31, 1948 (gage height, 27.05 ft (8.245 m), from high-water mark in gage well); maximum daily, 141,000 ft^3/s (3,990 m^3/s) Dec. 31, 1948, Jan. 1, 1949; minimum daily, 882 ft^3/s (25.0 m^3/s) Sept. 2, 1968; minimum gage height 13.92 ft (4.243 m) Sept. 2, 1946.
Flood of Mar. 19, 1936, reached a stage of 29.48 ft (8.986 m) at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 ft^3/s (6,090 m^3/s)). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft (0.06 m) higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft (1.01 m) higher than flood in 1936, from information by Corps of Engineers.

REMARKS.--Records fair except those for Aug. 27 to Sept. 30, which are poor. Records include flow over spillway, estimates of flow through lock, and flow through powerplant 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 the New York report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,890	11,000	25,200	51,000	16,600	11,700	19,300	18,300	22,700	48,800	6,340	2,900
2	5,880	9,870	22,500	65,000	16,800	12,400	46,800	14,800	20,400	27,000	7,560	2,700
3	6,030	19,600	21,900	48,400	40,400	13,600	70,600	12,700	18,000	21,100	7,360	2,670
4	7,520	18,600	20,600	38,800	50,700	17,400	60,100	15,600	16,400	18,600	7,690	2,420
5	7,150	16,900	19,900	32,500	39,400	24,900	82,100	15,900	16,200	15,700	5,430	3,840
6	7,040	15,600	23,400	28,400	33,400	28,500	62,900	15,500	14,600	16,000	6,070	2,960
7	8,300	14,500	64,900	20,300	27,200	25,300	51,500	13,300	15,000	14,000	6,670	5,050
8	13,800	17,700	46,200	16,900	25,200	32,900	42,300	11,600	13,300	10,600	6,080	4,560
9	9,220	58,600	39,600	15,100	23,400	46,100	34,100	11,400	14,800	7,750	5,700	4,010
10	8,070	61,600	39,800	15,500	19,700	39,700	32,100	15,600	12,400	10,500	4,860	4,420
11	7,820	35,600	38,200	15,800	19,700	31,800	36,000	20,700	10,500	8,940	5,530	5,230
12	7,660	31,700	32,300	15,900	19,100	28,400	32,600	26,700	10,000	8,250	5,910	5,370
13	6,570	24,400	30,100	15,400	16,800	35,100	28,900	25,700	12,700	6,740	5,790	2,000
14	6,920	24,800	32,600	14,500	16,800	36,100	24,600	21,000	13,400	6,280	5,890	1,950
15	6,780	32,500	29,700	14,400	17,400	31,100	22,600	20,700	12,800	6,040	6,010	2,330
16	5,190	25,800	25,100	15,000	16,200	30,300	20,600	20,800	11,000	6,240	7,090	1,930
17	7,480	22,600	20,100	15,200	15,200	35,300	18,700	22,100	9,050	6,730	6,680	7,450
18	6,800	19,600	17,700	15,000	14,000	65,100	19,500	39,300	7,330	6,820	4,890	5,640
19	6,520	17,400	19,700	17,100	14,400	60,800	20,200	61,600	9,060	6,480	4,320	6,000
20	7,100	23,300	19,900	30,900	14,800	45,000	20,700	50,000	9,480	7,210	5,160	7,130
21	5,900	29,600	18,900	34,000	15,400	35,400	21,000	58,100	8,920	5,800	5,900	6,620
22	5,140	21,500	19,900	24,000	16,200	29,400	19,200	62,500	8,470	5,200	5,030	6,330
23	4,440	17,800	25,500	29,700	17,300	25,600	17,700	47,800	8,660	3,580	4,540	6,150
24	7,190	16,800	27,000	42,400	16,400	21,700	19,400	38,000	9,270	5,000	4,730	5,440
25	7,320	15,500	24,600	36,900	13,700	19,900	18,500	32,800	7,910	5,580	4,650	6,590
26	7,600	26,900	24,200	30,300	12,800	22,400	17,500	29,200	9,610	9,480	4,270	6,550
27	6,750	53,500	25,000	27,700	12,500	25,200	15,800	25,400	9,810	5,790	3,700	6,490
28	6,340	38,200	23,800	24,900	11,500	22,900	15,900	25,300	7,920	5,130	6,250	6,570
29	6,000	35,400	21,100	23,600	------	20,900	18,600	27,400	10,800	5,160	5,180	6,310
30	9,910	27,700	19,000	18,400	------	19,000	18,900	28,700	41,100	5,640	5,240	6,110
31	11,700	------	18,900	19,600	------	18,000	------	27,200	------	5,960	2,790	------
TOTAL	226,030	784,570	837,300	812,600	573,000	911,800	928,700	855,700	391,590	322,100	173,310	143,720
MEAN	7,291	26,150	27,010	26,210	20,460	29,410	30,960	27,600	13,050	10,390	5,591	4,791
MAX	13,800	61,600	64,900	65,000	50,700	65,100	82,100	62,500	41,100	48,800	7,690	7,450
MIN	4,440	9,870	17,700	14,400	11,500	11,700	15,800	11,400	7,330	3,580	2,790	1,930

CAL YR 1972 TOTAL 7,692,400 MEAN 21,020 MAX 94,500 MIN 4,110
WTR YR 1973 TOTAL 6,960,420 MEAN 19,070 MAX 82,100 MIN 1,930

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 mi (1.0 km) upstream from small tributary, 2.0 mi (3.2 km) south of the New York-New Jersey State line, and 3.0 mi (4.8 km) south of Unionville.

DRAINAGE AREA.--140 mi^2 (363 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m) (from topographic map). Prior to Nov. 16, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 212 ft^3/s (6.004 m^3/s) (20.56 in/yr (522.2 mm/yr)).

EXTREMES.--Current year: maximum discharge 1,440 ft^3/s (40.8 m^3/s) Feb. 4 (gage height, 8.86 ft (2.701 m)); minimum, 35 ft^3/s (0.99 m^3/s) Oct. 5, 6, Sept. 13, 14 (gage height, 3.13 ft (0.954 m)).
Period of record: Maximum discharge, 6,880 ft^3/s (195 m^3/s) Aug. 19, 1955 (gage height, 13.35 ft (4.069 m)); minimum daily, 4.2 ft^3/s (0.12 m^3/s) Aug. 8-10, 1966.

REMARKS.--Records fair, except those above 600 ft^3/s (17 m^3/s), which are poor. Water diverted from Morris Lake, upstream from station, by the Newton Water and Sewer Authority for municipal use. After use, the water is released into the Paulinskill (Delaware River basin); records furnished by the Delaware River Basin Commission (see Sta. 01367630).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	68	362	661	170	130	318	432	461	1,200	81	47
2	51	80	384	725	400	150	681	353	450	969	241	49
3	42	143	377	632	906	180	903	329	388	806	355	45
4	39	137	388	500	1,360	226	974	419	342	546	313	55
5	36	146	373	450	1,310	278	995	384	397	434	212	54
6	35	145	417	400	1,070	260	1,020	315	353	520	142	56
7	124	116	641	330	872	249	903	269	452	408	113	76
8	239	236	740	290	716	293	764	238	469	258	97	54
9	170	792	764	250	500	359	698	280	342	204	104	44
10	99	1,110	813	190	350	318	663	364	278	178	91	41
11	72	1,070	806	170	300	276	703	656	230	161	81	39
12	62	860	705	170	290	278	667	846	200	149	94	38
13	64	612	575	160	260	269	542	848	190	136	113	37
14	66	535	509	150	250	243	445	685	214	142	83	39
15	59	791	447	150	260	249	386	478	165	127	81	145
16	56	930	400	150	220	254	351	456	145	136	238	125
17	51	864	360	150	180	337	315	432	145	120	182	75
18	48	685	340	170	170	511	304	637	134	104	124	64
19	47	480	320	210	180	472	285	766	143	94	100	91
20	56	573	300	302	190	373	274	742	133	88	96	72
21	53	698	384	240	190	309	247	672	124	241	125	55
22	51	667	502	200	190	280	230	623	154	425	94	49
23	51	511	711	399	180	260	218	516	161	359	78	76
24	51	399	786	408	180	234	243	498	152	216	69	97
25	49	346	725	307	170	218	230	463	143	143	63	72
26	47	399	606	254	160	329	260	403	127	124	59	60
27	44	544	527	254	140	423	304	348	109	120	54	54
28	44	518	469	260	130	335	533	357	100	111	52	49
29	77	445	350	230	------	269	676	542	414	99	49	45
30	97	377	320	200	------	245	597	564	921	96	45	42
31	81	------	434	190	------	254	------	489	------	86	44	------
TOTAL	2,117	15,277	15,835	9,152	11,294	8,861	15,729	15,404	8,036	8,800	3,673	1,845
MEAN	68.3	509	511	295	403	286	524	497	268	284	118	61.5
MAX	239	1,110	813	725	1,360	511	1,020	848	921	1,200	355	145
MIN	35	68	300	150	130	130	218	238	100	86	44	37
CFSM	1.71	12.7	12.8	7.38	10.1	7.15	13.1	12.4	6.70	7.10	2.95	1.54
IN.	1.97	14.21	14.73	8.51	10.50	8.24	14.63	14.33	7.47	8.18	3.42	1.72

CAL YR 1972 TOTAL 116,675 MEAN 319 MAX 1,600 MIN 31 CFSM 7.98 IN 108.51
WTR YR 1973 TOTAL 116,023 MEAN 318 MAX 1,360 MIN 35 CFSM 7.95 IN 107.90

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-04	1800	8.86	1,440	7-01	1945	8.39	1,260

HACKENSACK RIVER BASIN

01376800 HACKENSACK RIVER AT WEST NYACK, N.Y.

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, on right bank 20 ft (6 m) downstream from Penn Central Transportation Company railroad bridge at West Nyack, 1,000 ft (305 m) upstream from State Highway 59, and 1.0 mi (1.6 km) downstream from DeForest Lake.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

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

GAGE.--Water-stage recorder and stop-log control. Datum of gage is 53.50 ft (16.307 m) above mean sea level (levels by Hackensack Water Co.).

EXTREMES.--Current year: Maximum discharge 1,550 ft^3/s (43.9 m^3/s) Feb. 3 (gage height, 9.38 ft (2.859 m), from floodmarks), from rating curve extended as explained below; minimum 11 ft^3/s (0.31 m^3/s) Sept. 15 (gage height, 2.57 ft (0.783 m)).
Period of record: Maximum discharge, 1,550 ft^3/s (43.9 m^3/s) Feb. 3, 1973 (gage height, 9.38 ft (2.859 m), from floodmarks), from rating curve extended above 840 ft^3/s (23.8 m^3/s); minimum daily, 2.6 ft^3/s (0.074 m^3/s) June 12, 1965, Sept. 25, 26, 30, 1966; minimum gage height, 1.70 ft (0.518 m) Oct. 22, 1960.

REMARKS.--Records fair. Flow regulated by DeForest Lake (see Hackensack River basin, Reservoirs in). Diversion from gaging station pool for municipal supply for village of Nyack (see Hackensack River basin, Reservoirs in). Discharge given for this station represents the flow of Hackensack River downstream from this diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	123	127	76	32	66	44	49	351	24	23
2	20	25	120	119	306	31	230	30	49	87	38	23
3	20	22	74	91	1,320	32	205	30	38	22	21	23
4	20	21	60	109	726	60	229	38	33	29	20	22
5	20	25	63	121	282	67	373	38	40	41	24	23
6	20	22	153	107	192	59	171	37	43	38	23	23
7	74	21	378	87	118	56	80	31	55	29	22	22
8	25	108	156	89	68	88	108	27	59	25	22	22
9	23	51	211	51	86	104	105	83	52	20	22	22
10	20	21	195	45	75	82	258	125	54	21	22	22
11	20	23	166	41	77	70	263	130	35	22	22	21
12	20	20	128	39	61	65	149	106	25	21	32	20
13	20	20	113	37	49	58	110	84	25	17	26	18
14	20	77	48	36	57	50	84	58	24	22	23	20
15	19	101	58	35	85	46	70	40	19	25	23	19
16	19	89	131	35	96	43	48	44	20	25	22	20
17	19	79	137	35	86	82	30	41	29	23	23	19
18	19	67	97	35	65	108	36	55	19	23	25	20
19	21	56	82	37	56	87	37	50	18	23	24	19
20	20	153	61	53	48	65	41	58	17	23	25	19
21	20	195	63	50	44	53	39	139	18	28	25	19
22	20	144	160	51	47	63	36	106	22	22	25	19
23	20	53	185	109	46	53	37	82	22	21	24	21
24	19	31	145	96	44	26	44	86	21	23	23	19
25	20	29	119	75	40	25	41	67	20	23	23	19
26	20	121	102	62	39	117	87	48	20	25	24	19
27	20	201	101	67	39	145	131	38	21	24	23	19
28	31	119	88	137	32	63	222	61	21	23	23	19
29	28	65	74	164	------	39	149	341	44	24	23	19
30	19	60	65	131	------	39	83	189	409	23	23	19
31	21	------	82	101	------	40	------	72	------	23	23	------
TOTAL	698	2,039	3,738	2,372	4,260	1,948	3,562	2,378	1,321	1,146	742	612
MEAN	22.5	68.0	121	76.5	152	62.8	119	76.7	44.0	37.0	23.9	20.4
MAX	74	201	378	164	1,320	145	373	341	409	351	38	23
MIN	19	20	48	35	32	25	30	27	17	17	20	18

CAL YR 1972 TOTAL 28,503 MEAN 77.9 MAX 555 MIN 17
WTR YR 1973 TOTAL 24,816 MEAN 68.0 MAX 1,320 MIN 17

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 mi (2.4 km) upstream from Pascack Brook, 4.6 mi (7.4 km) upstream from Oradell Dam, and 27.2 mi (43.8 km) upstream from mouth.

DRAINAGE AREA.--58.0 mi^2 (150.2 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 22.51 ft (6.861 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 90.1 ft^3/s (2.552 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 840 ft^3/s (23.8 m^3/s) Feb. 5, gage height, 4.10 ft (1.250 m); minimum, 15 ft^3/s (0.42 m^3/s) Feb. 1, June 15, gage height, 1.54 ft (0.469 m).
Period of record: Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) May 29, 1968, gage height, 6.23 ft (1.899 m); 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. 27). Diversions at Lake De Forest and West Nyack, N.Y., for municipal water supply (see p. 28). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	103	146	152	23	56	134	101	98	439	23	174
2	102	97	151	212	231	58	340	76	105	281	236	159
3	101	65	169	217	162	63	280	81	67	65	143	150
4	100	63	167	210	96	131	327	97	69	63	54	123
5	99	66	144	233	662	115	488	72	73	102	31	96
6	98	63	145	158	301	101	331	64	86	65	32	94
7	160	62	237	130	216	98	157	55	144	46	31	94
8	77	185	281	178	139	212	222	53	86	40	27	91
9	69	139	306	132	149	180	182	215	83	31	25	91
10	68	51	286	77	118	136	324	206	93	31	21	91
11	66	49	278	49	108	113	361	273	65	30	32	129
12	68	52	166	63	106	108	236	198	46	29	33	165
13	68	45	44	74	87	101	173	149	63	19	61	162
14	66	149	58	57	86	78	139	108	54	20	36	165
15	65	157	69	54	179	85	112	86	30	49	31	183
16	64	134	125	62	149	77	101	91	26	47	30	162
17	64	152	112	67	122	169	81	71	42	31	24	141
18	64	178	95	70	102	182	73	131	28	30	24	63
19	67	176	160	57	95	133	78	87	33	22	29	38
20	63	241	198	122	86	103	79	121	33	24	29	37
21	62	239	217	76	86	92	68	223	31	294	75	37
22	62	234	306	96	93	90	72	183	43	101	132	37
23	62	234	301	205	84	83	72	173	56	38	109	43
24	66	230	292	150	70	52	97	185	37	34	109	37
25	106	180	285	113	68	49	78	126	33	33	109	49
26	105	201	280	46	72	245	149	88	36	28	109	79
27	104	176	278	36	66	198	195	73	33	36	108	118
28	116	181	269	60	60	132	265	166	42	34	107	115
29	132	223	260	77	------	82	228	270	114	29	106	112
30	107	179	240	33	------	77	151	339	526	28	133	112
31	104	------	188	25	------	84	------	177	------	21	180	------
TOTAL	2,659	4,304	6,253	3,291	3,816	3,483	5,593	4,338	2,275	2,140	2,229	3,147
MEAN	85.8	143	202	106	136	112	186	140	75.8	69.0	71.9	105
MAX	160	241	306	233	662	245	488	339	526	439	236	183
MIN	62	45	44	25	23	49	68	53	26	19	21	37

CAL YR 1972 TOTAL 56,153 MEAN 153 MAX 1,030 MIN 27
WTR YR 1973 TOTAL 43,528 MEAN 119 MAX 662 MIN 19

01377500 Pascack Brook at Westwood, N. J.

LOCATION.--Lat 40°59'33", long 74°01'19", Bergen County, on right bank 75 ft (23 m) upstream from Harrington Avenue in Westwood, 500 ft (150 m) downstream from Musquapsink Brook, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--29.6 mi^2 (76.7 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 28.62 ft (8.723 m) above mean sea level.

AVERAGE DISCHARGE.--39 years, 53.7 ft^3/s (1.521 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) Feb. 3, gage height, 6.75 ft (2.057 m); minimum, 22 ft^3/s (0.62 m^3/s) Oct. 4-6, gage height, 1.62 ft (0.494 m).
Period of record: Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) Sept. 12, 1971, gage height, 7.57 ft (2.307 m); minimum, 5.6 ft^3/s (0.16 m^3/s) June 29, 1965.

REMARKS.--Records excellent. Flow regulated by Woodcliff Lake 3.0 mi (4.8 km) above station (see p. 27). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	27	170	130	58	43	109	55	50	119	37	61
2	74	47	92	85	595	43	259	54	60	61	148	61
3	74	33	66	64	1,100	44	117	63	44	50	107	69
4	50	29	58	119	198	96	178	69	43	68	51	63
5	22	32	68	100	137	69	220	52	45	94	38	48
6	22	29	203	69	115	55	96	47	54	54	34	32
7	190	28	250	54	111	54	78	42	105	44	33	39
8	48	332	130	48	113	130	158	42	64	40	32	37
9	29	598	235	47	113	94	115	132	48	39	32	33
10	25	109	144	45	85	63	265	96	48	38	31	32
11	25	71	107	45	74	55	137	122	43	44	30	31
12	28	78	83	44	64	57	88	79	39	44	30	30
13	28	61	85	42	64	51	78	60	69	45	29	32
14	26	355	76	42	63	48	71	50	58	45	30	51
15	25	272	87	43	141	48	66	48	39	61	30	69
16	25	102	150	43	96	47	63	60	36	48	30	52
17	24	74	85	43	71	117	61	48	36	44	30	43
18	24	61	63	43	60	107	61	83	34	42	30	37
19	29	51	60	44	58	61	61	57	34	40	28	38
20	25	235	83	76	58	50	58	61	34	39	29	34
21	24	109	90	51	58	47	52	111	33	165	31	31
22	24	71	250	66	58	47	52	69	40	92	27	30
23	24	60	155	150	57	42	58	63	37	55	26	47
24	24	54	98	76	51	36	68	85	34	51	26	39
25	24	51	81	58	48	37	55	58	32	47	26	33
26	23	190	76	51	47	217	119	48	32	57	25	32
27	23	128	87	94	45	92	117	44	33	47	26	31
28	61	71	71	190	44	57	165	98	39	42	25	30
29	60	57	60	203	------	51	79	170	146	39	25	33
30	31	61	57	100	------	50	61	74	538	37	24	30
31	27	------	87	72	------	51	------	55	------	36	34	------
TOTAL	1,216	3,476	3,407	2,337	3,782	2,059	3,165	2,195	1,947	1,727	1,134	1,228
MEAN	39.2	116	110	75.4	135	66.4	106	70.8	64.9	55.7	36.6	40.9
MAX	190	598	250	203	1,100	217	265	170	538	165	148	69
MIN	22	27	57	42	44	36	52	42	32	36	24	30

CAL YR 1972 TOTAL 31,387 MEAN 85.8 MAX 914 MIN 22
WTR YR 1973 TOTAL 27,673 MEAN 75.8 MAX 1,100 MIN 22

PEAK DISCHARGE (BASE, 400 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0200	5.42	1,280	2-03	0300	6.75	1,940	4-10	1315	3.27	435
11-14	2030	4.08	724	4-04	2330	3.25	427	6-30	1130	4.17	762
12-06	2330	3.51	531								

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 mi (6.4 km) downstream from Pascack Brook, and 21.8 mi (35.1 km) upstream from mouth.

DRAINAGE AREA.--113 mi^2 (293 km^2).

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 (1.905 m) 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 (0.015 m) lower.

AVERAGE DISCHARGE.--52 years, 109 ft^3/s (3.087 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,360 ft^3/s (95.2 m^3/s) Feb. 3, gage height, 5.77 ft (1.759 m); minimum, 3.8 ft^3/s (0.11 m^3/s) Sept. 20, gage height, 1.07 ft (0.326 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Oct. 18, 19, Nov. 10.
Period of record: Maximum discharge, 4,040 ft^3/s (114 m^3/s) May 30, 1968, gage height, 6.60 ft (2.012 m); no flow on many days during most years.

REMARKS.--Records excellent. Records given herein represent flow over waste weirs only. Flow regulated by Lake De Forest, Lake Tappan, Woodcliff Lake 9.0 mi (14.5 km) upstream from station, and Oradell Reservoir 0.6 mi (1.0 km) upstream from station (see p. 27). Water diverted at gage, Lake De Forest, and West Nyack, N.Y., for municipal supply (see p. 28). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	14	398	284	17	16	292	80	57	417	19	23
2	15	16	192	258	1,270	16	857	46	109	234	22	25
3	15	16	173	263	2,390	15	371	74	28	36	80	25
4	16	15	169	404	398	202	1,010	146	21	19	171	22
5	15	15	159	328	886	114	486	55	23	159	33	22
6	14	15	368	178	323	77	426	37	20	23	17	20
7	124	17	701	44	301	61	178	20	113	19	18	21
8	88	306	782	102	232	459	573	20	36	20	17	24
9	15	722	1,320	77	217	203	223	444	24	20	17	21
10	13	11	701	46	128	130	922	165	21	18	20	21
11	14	41	380	15	91	105	445	346	19	18	19	21
12	14	58	16	16	63	77	313	178	18	19	18	19
13	14	32	15	14	70	75	169	103	19	18	19	21
14	14	998	17	15	58	51	145	67	17	20	17	22
15	14	469	17	15	374	31	101	55	17	20	15	19
16	14	192	15	15	192	59	85	67	18	18	18	20
17	13	192	17	15	98	293	47	35	19	16	19	19
18	11	173	16	15	102	251	42	114	17	17	18	21
19	11	183	73	16	73	140	52	55	18	18	18	21
20	14	782	269	124	63	98	112	122	17	17	17	18
21	16	301	295	55	63	60	125	297	17	25	16	20
22	16	269	1,010	70	44	77	169	155	18	20	17	23
23	15	253	554	423	70	42	21	193	18	19	18	23
24	15	222	430	124	46	24	17	214	20	18	18	20
25	16	178	386	84	18	22	18	102	17	20	19	20
26	15	638	362	38	36	733	435	53	18	22	17	19
27	16	258	374	119	36	168	452	43	16	19	18	20
28	17	178	323	356	24	120	402	303	18	18	15	20
29	16	247	212	514	------	56	274	374	23	18	17	21
30	16	217	154	91	------	41	152	346	584	20	19	23
31	15	------	295	44	------	40	------	142	------	18	20	------
TOTAL	635	7,028	10,193	4,162	7,683	3,856	8,914	4,451	1,380	1,363	786	634
MEAN	20.5	234	329	134	274	124	297	144	46.0	44.0	25.4	21.1
MAX	124	998	1,320	514	2,390	733	1,010	444	584	417	171	25
MIN	11	11	15	14	17	15	17	20	16	16	15	18

CAL YR 1972 TOTAL 71,491 MEAN 195 MAX 2,880 MIN 10
WTR YR 1973 TOTAL 51,085 MEAN 140 MAX 2,390 MIN 11

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 mi (1.37 km) north of West Nyack, N.Y. Drainage area, 26.6 mi² (168.9 km²). 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 or 24 m), 4,068,000,000 gal (15.40 hm³). Crest of dam topped by two 50-foot (15.24 m) Bascule gates 5 ft (1.5 m) high. Flow regulated by 12-inch (0.3 m) Howell-Bunger valve at elevation 59.25 ft (18.06 m) and 24-inch (0.6 m) Howell-Bunger valve at elevation 61.25 ft (18.67 m). 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 mi (0.80 km) north of Old Tappan. Drainage area, about 49 mi² (127 km²). 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 or 17 m), 3,378,000,000 gal (12.79 hm³). 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 mi (1.21 km) north of Hillsdale. Drainage area, 19.4 mi² (50.2 km²). 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 (0.03 m) 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 or 28.75 m), 835,000,000 gal (3.160 hm³). Flow is regulated by flashboards and one 36-inch (0.9 m) 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 mi² (293 km²). 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 or 6.91 m), 2,850,000,000 gal (10.79 hm³). Flow regulated by seven sluice gates (7 by 9 ft or 2.1 by 2.7 m). Water is released for diversion by Hackensack Water Co., 1 mi (1.6 km) downstream from dam for municipal supply. Elevation record and capacity table furnished by Hackensack Water Co.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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 LakeTappan†		
Sept. 30	82.59	4,881	-	46.58	1,138	-
Oct. 31	82.59	4,881	0	43.95	613	-26.2
Nov. 30	85.28	5,737	+44.1	46.10	1,024	+21.2
Dec. 31	85.46	5,800	+3.1	45.45	898	-6.3
CAL YR 1972	-	-	+0.3	-	-	-11.0
Jan 31	85.37	5,769	-1.5	47.80	1,432	+26.6
Feb. 28	85.18	5,702	-3.7	55.02	3,492	+114
Mar. 31	85.27	5,733	+1.5	55.06	3,505	+0.6
Apr. 30	85.18	5,702	-1.6	55.08	3,511	+0.3
May 31	85.12	5,680	-1.1	55.08	3,511	0
June 30	85.45	5,797	+6.0	55.12	3,524	+0.7
July 31	84.75	5,560	-11.8	55.06	3,505	-0.9
Aug. 31	83.82	5,267	-14.6	52.96	2,837	-33.3
Sept. 30	82.35	4,806	-23.8	47.19	1,286	-80.0
WTR YR 1973	-	-	-0.3	-	-	+0.6
	01377450 Woodcliff Lake†			01378480 Oradell Reservoir†		
Sept. 30	91.63	694	-	17.44	1,833	-
Oct. 31	93.03	766	+3.6	19.34	2,171	+16.9
Nov. 30	95.83	918	+7.8	23.04	2,937	+39.5
Dec. 31	95.73	910	-0.4	23.02	2,933	-0.2
CAL YR 1972	-	-	+0.1	-	-	+1.3
Jan. 31	95.43	894	-0.8	22.32	2,928	-0.2
Feb. 28	95.33	889	-0.3	22.97	2,921	-0.4
Mar. 31	95.43	894	+0.2	23.03	2,935	+0.7
Apr. 30	95.43	894	0	23.20	2,974	+2.0
May 31	95.33	889	-0.2	23.20	2,974	0
June 30	95.63	905	+0.8	23.33	3,004	+1.5
July 31	94.43	840	-3.2	21.04	2,511	-24.6
Aug. 31	93.13	772	-3.4	18.11	1,949	-28.0
Sept. 30	89.33	575	-10.2	18.10	1,947	-0.1
WTR YR 1973	-	-	-0.5	-	-	+0.5

† 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 (30.5 m) downstream from gaging station on Hackensack River at West Nyack, N.Y., from 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 mi (3.2 km) upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft (15.2 m) 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 1972 TO SEPTEMBER 1973

Month	Spring Valley Water Co.	West Nyack, N.Y.	Hackensack Water Co.
October	6.68	2.41	142
November	5.41	2.26	140
December	3.31	2.23	137
CAL YR 1972	5.25	2.62	145
January	3.77	2.28	193
February	4.44	2.26	189
March	4.00	2.26	187
April	5.47	2.46	199
May	4.38	2.46	194
June	6.59	2.83	218
July	7.64	2.86	207
August	10.8	2.94	229
September	9.30	2.78	207
WTR YR 1973	5.99	2.50	187

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 1972 TO SEPTEMBER 1973

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 1972	0	0	0	0
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	1.27	0
July	0	0	6.76	0
August	0	0	.97	0
September	0	0	5.92	0
WTR YR 1973	0	0	1.25	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 mi (2.9 km) northeast of Bernardsville, and 3.0 mi (4.8 km) upstream from Great Brook.

DRAINAGE AREA.--8.83 mi^2 (22.87 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 238.07 ft (72.564 m) above mean sea level. Prior to May 4, 1972, at datum 10.00 ft (3.048 m) higher.

AVERAGE DISCHARGE.--6 years, 18.2 ft^3/s (0.515 m^3/s), 27.99 in/yr (711 mm/yr).

EXTREMES.--Current year: Maximum discharge, 918 ft^3/s (26.0 m^3/s) Feb. 2 (gage height, 14.13 ft or 4.307 m) from rating curve extended above 600 ft^3/s (17 m^3/s) on the basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.3 ft^3/s (0.037 m^3/s) June 27, gage height, 9.49 ft (2.893 m).
Period of record: Maximum discharge, 3,850 ft^3/s (109 m^3/s) Aug. 28, 1971 (gage height, 18.56 ft or 5.657 m, present datum) from rating curve extended above 600 ft^3/s (17 m^3/s) on the basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) Dec. 7, 1970, gage height, 11.10 ft (3.383 m), present datum.

REMARKS.--Records excellent. The stage-discharge relationship may be affected at high stages by backwater from Osborne Pond, approximately 0.8 mi (1.3 km) downstream.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	8.1	48	33	25	18	60	27	17	20	9.0	5.6
2	6.6	14	27	25	279	18	79	25	17	15	237	5.9
3	5.5	13	24	23	102	18	37	27	15	14	33	6.7
4	4.9	11	23	46	57	34	92	28	15	20	21	6.1
5	4.9	16	23	30	49	23	53	23	16	18	15	5.9
6	6.0	11	64	23	44	21	40	22	14	12	13	5.9
7	45	9.7	40	21	45	21	36	20	15	11	12	5.4
8	22	285	42	21	47	33	77	21	13	11	12	4.8
9	8.2	137	64	20	41	23	43	54	13	10	12	4.8
10	7.2	34	50	20	32	19	77	29	12	10	11	4.8
11	6.4	27	38	19	29	18	42	39	12	9.7	11	4.8
12	5.9	25	33	19	27	21	38	24	12	8.7	11	4.6
13	5.8	21	36	18	26	18	35	23	12	11	11	4.6
14	5.8	104	30	18	25	17	33	20	11	10	10	13
15	5.8	45	37	18	52	20	31	21	11	17	10	25
16	5.1	29	47	18	30	17	30	21	10	11	9.7	8.1
17	5.0	26	27	18	23	52	29	20	10	9.4	9.4	6.7
18	5.0	23	26	18	23	28	28	30	10	8.7	9.0	8.1
19	6.6	23	33	21	22	22	26	19	10	8.4	9.4	7.1
20	7.3	73	35	32	22	19	24	18	10	8.4	8.7	6.4
21	6.8	28	31	18	22	18	23	21	11	64	7.1	6.1
22	6.5	25	71	37	22	18	23	17	18	18	7.4	5.9
23	6.0	23	40	39	21	17	25	27	12	11	7.4	7.4
24	5.6	22	33	23	20	16	25	24	10	10	7.7	6.1
25	5.2	21	32	20	19	16	22	18	10	9.4	7.1	6.1
26	7.4	71	30	19	19	77	46	17	10	14	6.7	6.1
27	15	30	31	48	18	25	59	17	5.3	12	6.4	5.9
28	38	25	27	53	18	22	72	50	10	10	6.1	5.9
29	27	23	25	68	------	21	34	38	84	9.7	5.9	21
30	11	25	25	33	------	22	28	21	148	8.7	5.9	8.4
31	8.4	------	35	27	------	22	------	18	------	8.1	5.6	------
TOTAL	314.7	1,227.8	1,127	846	1,159	734	1,267	779	573.3	418.2	547.5	223.2
MEAN	10.2	40.9	36.4	27.3	41.4	23.7	42.2	25.1	19.1	13.5	17.7	7.44
MAX	45	285	71	68	279	77	92	54	148	64	237	25
MIN	4.9	8.1	23	18	18	16	22	17	5.3	8.1	5.6	4.6
CFSM	1.16	4.63	4.12	3.09	4.69	2.68	4.78	2.84	2.16	1.53	2.00	.84
IN.	1.33	5.17	4.75	3.56	4.88	3.09	5.34	3.28	2.42	1.76	2.31	.94

CAL YR 1972 TOTAL 9,958.4 MEAN 27.2 MAX 285 MIN 4.9 CFSM 3.08 IN 41.95
WTR YR 1973 TOTAL 9,216.7 MEAN 25.3 MAX 285 MIN 4.6 CFSM 2.87 IN 38.83

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2030	13.68	717	2-02	1730	14.13	918	6-30	0400	12.97	457
11-14	1330	12.20	277	4-04	1845	12.16	260	8-02	1345	13.59	681

01379000 Passaic River near Millington, N. J.

LOCATION.--Lat 40°40'48", long 74°31'45", Somerset County, on right bank 200 ft (61.0 m) downstream from Davis Bridge, 0.7 mi (1.1 km) northwest of Millington, and 1.8 mi (2.9 km) downstream from Black Brook.

DRAINAGE AREA.--55.4 mi^2 (143 km^2).

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 (65.7 m) above mean sea level (New Jersey Geological Survey bench mark). Nov. 25, 1903, to July 15, 1906, nonrecording gage at bridge 0.8 mi (1.3 km) downstream at different datum. Nov. 10, 1921, to Sept. 1, 1923, nonrecording gage at site 200 ft (61.0 m) downstream at present datum. Oct. 31, 1923, to July 3, 1925, nonrecording gage and concrete control at present site and datum.

AVERAGE DISCHARGE.--53 years (1904-5, 1921-73), 86.8 ft^3/s (2.46 m^3/s), 21.26 in/yr (540.0 mm/yr) adjusted for diversion since 1970.

EXTREMES.--Current year: Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) Nov. 9, gage height, 8.14 ft (2.481 m); minimum, 6.5 ft^3/s (0.18 m^3/s) Sept. 13, gage height, 4.16 ft (1.268 m).
Period of record: Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) Jan. 9, 1905 (gage height, 7.8 ft or 2.38 m, from graph based on gage readings, site and datum then in use) from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of velocity-area study; maximum gage height, 9.73 ft (2.966 m) Aug. 29, 1971; minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Sept. 12, 13, 1966, gage height, 3.76 ft (1.146 m).

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.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	94	201	165	278	58	181	191	135	347	27	11
2	16	80	225	171	371	55	422	145	97	288	461	11
3	16	79	201	143	1,000	63	458	123	74	238	976	11
4	14	67	175	165	981	133	431	131	61	181	909	15
5	13	74	149	210	774	173	563	119	56	135	734	13
6	14	79	187	183	521	167	485	101	48	105	509	12
7	96	66	341	153	350	153	371	81	44	74	329	11
8	205	276	332	103	268	161	323	72	39	55	205	9.2
9	150	1,010	407	66	243	185	359	127	35	42	123	8.0
10	113	1,050	410	53	203	167	344	189	30	34	70	7.4
11	85	900	374	46	171	143	338	177	26	29	52	7.4
12	63	646	298	43	135	133	268	163	23	26	43	6.8
13	50	431	245	38	103	133	213	131	23	23	40	6.5
14	40	374	210	37	91	119	173	103	27	34	34	11
15	31	521	189	40	169	119	147	85	21	52	35	68
16	25	464	250	46	208	119	127	89	20	68	50	61
17	23	374	223	53	177	175	113	79	21	50	35	39
18	20	280	208	61	161	268	105	89	21	39	33	39
19	23	213	163	66	161	243	97	85	23	30	34	50
20	27	278	155	125	143	195	89	68	23	23	42	28
21	22	317	169	151	91	149	77	72	23	89	30	21
22	21	270	275	103	89	121	72	70	44	153	25	18
23	21	220	359	208	83	103	70	70	46	123	23	22
24	21	177	326	210	68	87	85	115	37	95	21	21
25	22	141	275	171	63	77	79	109	32	61	20	18
26	20	181	228	143	68	240	137	95	27	56	18	18
27	17	248	195	151	63	311	201	79	23	61	17	16
28	37	213	173	323	60	260	362	143	22	50	16	15
29	130	183	147	473	------	195	341	243	53	42	15	37
30	139	155	129	476	------	147	263	223	278	34	14	58
31	115	------	133	401	------	139	------	179	------	28	12	------
TOTAL	1,611	9,461	7,352	4,777	7,093	4,791	7,294	3,746	1,432	2,665	4,952	669.3
MEAN	52.0	315	237	154	253	155	243	121	47.7	86.0	160	22.3
MAX	205	1,050	410	476	1,000	311	563	243	278	347	976	68
MIN	13	66	129	37	60	55	70	68	20	23	12	6.5
(†)	2.7	3.0	3.2	3.0	2.9	2.9	2.8	2.9	3.1	2.7	2.8	2.7
MEAN‡	54.7	318	240	157	256	158	246	124	50.8	88.7	163	25.0
CFSM‡	.99	5.74	4.33	2.83	4.62	2.85	4.44	2.24	.92	1.60	2.94	.45
IN.‡	1.14	6.41	5.00	3.27	4.82	3.28	4.95	2.58	1.02	1.85	3.38	.50

CAL YR 1972 TOTAL 54,004.5 MEAN 148 MAX 1,050 MIN 7.1 MEAN‡ 151 CFSM‡ 2.73 IN.‡ 36.94
WTR YR 1973 TOTAL 55,843.3 MEAN 153 MAX 1,050 MIN 6.5 MEAN‡ 156 CFSM‡ 2.82 IN.‡ 38.20

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-9	1700	8.14	1,090	4-05	0730	6.94	589
1-29	2030	6.77	536	8-03	0400	7.94	1,000
2-03	1815	7.99	1,030				

† 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.

01379500 Passaic River near Chatham, N. J.

LOCATION.--Lat 40°43'31", long 74°23'23", Morris County, on left bank 150 ft (46 m) downstream from Stanley Avenue Bridge in Chatham, and 3.0 mi (4.8 km) upstream from Canoe Brook.

DRAINAGE AREA.--100 mi^2 (259 km^2).

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 (58.982 m) above mean sea level. Prior to Dec. 31, 1911, nonrecording gage at bridge 150 ft (46 m) upstream at different datum.

AVERAGE DISCHARGE.--44 years (1903-11, 1937-73), 165 ft^3/s (4.673 m^3/s), 22.41 in/yr (569 mm/yr), adjusted for diversion since 1970.

EXTREMES.--Current year: Maximum discharge, 3,380 ft^3/s (95.7 m^3/s) Aug. 2, 1973 (gage height, 9.36 ft or 2.853 m, from floodmark); minimum, 17 ft^3/s (0.48 m^3/s) Sept. 10, 13, 14, gage height, 3.18 ft (0.969 m).
Period of record: Maximum discharge observed, 3,380 ft^3/s (95.7 m^3/s) Aug. 2, 1973 (gage height, 9.36 ft or 2.853 m, from floodmark); minimum, 2.0 ft^3/s (0.057 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	154	437	283	645	84	371	397	232	598	53	24
2	34	160	425	260	985	83	695	257	162	517	1,430	22
3	26	154	357	219	1,280	87	794	242	121	437	1,460	26
4	24	122	286	336	1,350	216	869	278	100	395	1,440	24
5	23	152	243	386	1,260	277	943	205	96	230	1,290	25
6	25	154	377	319	1,120	259	920	162	85	161	1,100	24
7	399	126	570	207	944	245	784	133	78	117	910	22
8	418	713	629	230	760	317	743	115	74	89	695	21
9	292	1,360	719	188	594	336	687	307	63	71	486	19
10	187	1,400	748	146	434	279	662	470	55	58	223	18
11	136	1,340	706	168	289	231	613	378	48	53	101	18
12	104	1,220	609	105	222	219	525	276	44	49	74	18
13	82	1,050	510	80	191	223	417	216	46	48	66	17
14	67	1,080	411	65	150	193	297	169	45	52	59	49
15	53	1,040	371	67	348	191	223	142	43	106	78	180
16	44	972	506	71	364	188	187	146	39	103	187	109
17	40	829	464	77	271	340	163	131	37	83	100	70
18	37	662	380	84	226	471	149	142	38	67	64	63
19	49	506	279	97	180	430	139	136	39	54	56	70
20	50	641	247	182	132	344	125	111	41	45	62	57
21	45	604	267	173	132	250	111	119	49	199	61	40
22	38	535	539	173	131	192	101	141	71	218	49	34
23	37	437	618	350	124	158	106	147	82	177	44	39
24	37	328	598	349	113	135	125	237	63	131	40	42
25	35	236	521	278	98	118	115	193	53	99	37	36
26	35	365	438	218	98	463	265	157	48	97	34	32
27	33	428	361	311	94	537	376	142	45	110	32	30
28	115	380	289	615	86	477	565	336	51	82	32	28
29	325	305	232	926	------	376	604	528	297	65	30	101
30	270	255	192	893	------	260	520	463	686	55	28	86
31	195	------	210	795	------	221	------	345	------	49	26	------
TOTAL	3,300	17,708	13,539	8,651	12,621	8,200	13,194	7,221	2,931	4,615	10,347	1,344
MEAN	106	590	437	279	451	265	440	233	97.7	149	334	44.8
MAX	418	1,400	748	926	1,350	537	943	528	686	598	1,460	180
MIN	23	122	192	65	86	83	101	111	37	45	26	17
(†)	2.7	3.0	3.2	3.0	2.9	2.9	2.8	2.9	3.1	2.7	2.8	2.7
MEAN‡	109	593	440	282	454	268	443	236	101	152	337	47.5
CFSM‡	1.09	5.93	4.40	2.82	4.54	2.68	4.43	2.36	1.01	1.52	3.37	.48
IN.‡	1.26	6.62	5.07	3.25	4.72	3.08	4.94	2.72	1.12	1.75	3.88	.53

CAL YR 1972 TOTAL 101,097 MEAN 276 MAX 1,410 MIN 16 MEAN‡ 279 CFSM‡ 2.79 IN.‡ 37.96
WTR YR 1973 TOTAL 103,671 MEAN 284 MAX 1,460 MIN 17 MEAN‡ 287 CFSM‡ 2.87 IN.‡ 38.94

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2115	7.22	1,910	8-02	Unk	9.3	About 3,300
2-02	1700	6.82	1,670				

† 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 mi (2.9 km) upstream from dam on Boonton Reservoir.

DRAINAGE AREA.--116 mi^2 (300 km^2).

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

GAGE.--Water-stage recorder crest-stage gage, and concrete control. Datum of gage is 364.47 ft (111.090 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--36 years, 213 ft^3/s (6.032 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,370 ft^3/s (95.4 m^3/s) Feb. 3, from rating curve extended above 2,400 ft^3/s (68 m^3/s) gage height, 6.50 ft (1.981 m); minimum, 32 ft^3/s (0.91 m^3/s) Sept. 13, 14, gage height, 1.88 ft (0.573 m).
Period of record: Maximum discharge, 3,510 ft^3/s (99.4 m^3/s) revised, June 2, 1952 (gage height, 6.62 ft or 2.018 m) from rating curve extended above 2,400 ft^3/s (68 m^3/s); minimum discharge, 1.5 ft^3/s (0.042 m^3/s) Mar. 1, 1938, gage height, 1.26 ft (0.384 m).
REVISIONS.--The maximum discharge for the water year 1952 has been revised to 3,510 ft^3/s (99.4 m^3/s), June 2, 1952, gage height, 6.62 ft (2.018 m), superceding figure published in WSP 1232, 1301, 1702, 1902 and 2102.

REMARKS.--Records excellent. Flow regulated by Splitrock Reservoir 14.5 mi (23.3 km) above station (see p. 49). Town of Boonton diverts water for municipal supply from Taylortown Reservoir on Stony Brook, capacity, 75,000,000 gal (283,900 m^3) and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 1.0 ft^3/s (0.028 m^3/s). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	113	802	698	492	162	426	448	335	1,180	80	47
2	60	143	716	577	1,000	162	845	384	321	710	440	47
3	55	152	563	505	2,680	170	847	363	282	455	665	53
4	52	127	507	617	1,570	356	792	391	258	508	328	51
5	51	155	503	678	1,230	328	1,080	328	288	508	190	51
6	49	131	625	558	1,000	282	815	288	276	405	132	47
7	496	120	1,060	294	868	270	650	264	530	288	110	42
8	419	628	845	269	763	377	740	252	433	215	102	40
9	180	2,240	1,100	257	740	384	763	478	321	174	91	35
10	119	1,510	961	300	560	307	939	515	246	150	91	34
11	98	986	882	297	470	270	946	590	195	135	98	35
12	88	722	716	286	405	270	725	470	141	118	91	37
13	84	537	649	243	384	252	605	440	132	114	112	32
14	76	856	586	242	342	235	515	420	118	116	86	45
15	71	1,410	521	246	500	240	463	390	108	118	89	170
16	68	1,020	640	253	508	235	426	377	104	120	150	114
17	74	812	458	256	342	455	384	321	104	110	106	82
18	82	655	358	255	335	613	363	433	104	102	91	104
19	94	554	431	270	307	440	342	370	112	96	86	93
20	105	950	420	470	282	370	321	328	102	96	86	77
21	102	865	470	350	264	314	282	342	102	755	80	68
22	94	671	783	370	258	288	258	321	114	493	75	61
23	89	553	862	990	246	264	252	314	116	258	68	86
24	85	481	693	681	220	235	276	412	132	178	64	77
25	81	430	602	512	200	220	240	335	112	129	66	73
26	75	891	544	433	195	613	391	288	104	114	61	68
27	72	1,070	526	468	182	523	463	252	96	110	58	62
28	141	795	487	989	166	384	967	391	96	104	56	60
29	356	665	429	882	------	321	718	868	370	98	53	96
30	208	571	421	679	------	300	523	590	1,440	91	51	82
31	136	------	573	595	------	300	------	426	------	82	50	------
TOTAL	3,834	20,813	19,733	14,520	16,509	9,940	17,357	12,389	7,192	8,130	3,906	1,969
MEAN	124	694	637	468	590	321	579	400	240	262	126	65.6
MAX	496	2,240	1,100	990	2,680	613	1,080	868	1,440	1,180	665	170
MIN	49	113	358	242	166	162	240	252	96	82	50	32

CAL YR 1972 TOTAL 144,121 MEAN 394 MAX 2,240 MIN 39
WTR YR 1973 TOTAL 136,292 MEAN 373 MAX 2,680 MIN 32

PEAK DISCHARGE (BASE, 950 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0845	6.21	3,030	1-23	0600	3.97	1,130	4-10	1700	4.23	1,290
11-26	2000	4.28	1,320	1-28	0515	3.91	1,100	4-28	0730	3.92	1,100
12-07	0345	4.08	1,200	2-03	0700	6.50	3,370	5-29	1000	3.73	980
12-22	1915	3.80	1,030	4-05	0230	4.06	1,190	6-30	1215	4.87	1,630

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 (610 m) downstream from Boonton Reservoir Dam at Boonton.

DRAINAGE AREA.--119 mi^2 (308 km^2).

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 (59.643 m) above mean sea level (New Jersey Geological Survey bench mark). Mar. 15, 1903, to Feb. 2, 1904, nonrecording gage at site 1.9 mi (3.1 km) downstream at different datum. Jan. 1, 1906, to Mar. 3, 1918, nonrecording gage on Boonton Dam 2,000 ft (610 m) upstream at datum 305.25 ft (93.040 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--67 years (1906-73), 134 ft^3/s (3.795 m^3/s) adjusted for sewage effluent since October 1930.

EXTREMES.--Current year: Maximum discharge, 2,680 ft^3/s (75.9 m^3/s) Feb. 3, gage height, 7.22 ft (2.201 m); minimum, 4.6 ft^3/s (0.13 m^3/s), Sept. 1, gage height, 1.39 ft (0.424 m).
Period of record: Maximum daily discharge, 7,560 ft^3/s (214 m^3/s), 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 (183 m) below station (records given herein). Flow regulated by Boonton Reservoir (see p. 49) 2,000 ft (610 m) above station, and by Splitrock Reservoir (see p. 49) 16.5 mi (26.5 km) above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see p. 52).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	8.3	579	452	327	75	264	359	265	1,220	10	16
2	8.0	8.8	587	393	594	70	675	299	223	631	106	14
3	8.4	8.6	466	311	2,390	72	731	269	198	389	445	12
4	8.1	8.3	390	359	1,830	183	617	285	176	393	285	15
5	6.8	8.4	371	446	1,260	239	888	242	184	381	145	11
6	6.7	8.2	452	373	926	197	710	202	188	326	68	11
7	13	8.1	834	218	740	176	542	176	341	223	30	11
8	7.6	24	752	176	638	224	555	160	356	149	14	9.1
9	7.3	59	898	173	597	283	618	281	251	102	12	9.1
10	7.5	1,280	879	165	488	231	688	408	173	67	11	9.2
11	7.3	982	775	149	391	188	835	434	131	44	10	9.5
12	7.3	677	614	132	316	181	612	425	86	24	10	10
13	7.3	498	530	110	287	166	496	358	42	19	11	9.9
14	7.3	625	477	100	244	149	422	285	11	23	11	13
15	7.2	1,320	431	98	339	147	367	242	12	11	11	11
16	7.5	969	500	101	414	146	325	258	12	14	11	9.9
17	7.6	698	396	102	344	255	284	237	9.7	12	11	9.8
18	7.7	540	247	99	332	483	258	289	10	11	11	10
19	7.8	449	287	108	287	378	238	288	10	12	10	9.8
20	7.9	685	274	210	183	285	224	247	12	12	11	9.6
21	7.8	760	336	191	171	230	195	244	12	278	11	9.7
22	8.0	560	543	176	168	194	175	230	11	423	11	9.9
23	8.3	453	724	585	160	172	158	214	9.9	223	11	9.6
24	8.2	369	576	531	143	152	171	297	9.8	117	11	9.8
25	8.1	317	485	345	121	138	151	259	11	60	10	10
26	8.1	547	430	259	108	364	228	210	11	32	10	10
27	8.3	949	402	245	95	464	312	178	10	24	11	11
28	10	682	366	617	83	322	652	250	9.9	12	11	11
29	8.6	534	307	693	------	238	622	515	33	10	12	11
30	8.4	455	269	514	------	204	443	503	970	10	12	9.8
31	8.5	------	319	424	------	197	------	356	------	9.9	13	------
TOTAL	248.8	14,490.7	15,496	8,855	13,976	6,803	13,456	9,000	3,778.3	5,261.9	1,356	321.7
MEAN	8.03	483	500	286	499	219	449	290	126	170	43.7	10.7
MAX	13	1,320	898	693	2,390	483	888	515	970	1,220	445	16
MIN	6.7	8.1	247	98	83	70	151	160	9.7	9.9	10	9.1
(†)	9.6	13.9	15.2	13.3	14.7	12.4	14.5	13.0	11.9	11.0	10.3	9.4

CAL YR 1972 TOTAL 89,632.5 MEAN 245 MAX 2,110 MIN 6.7 † 12.1
WTR YR 1973 TOTAL 93,043.4 MEAN 255 MAX 2,390 MIN 6.7 † 12.4

† 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 mi (1.3 km) downstream from Morristown, and 9.0 mi (14.5 km) upstream from mouth.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

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 (79.251 m) above mean sea level (New Jersey Geological Survey bench mark). Prior to July 16, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--52 years, 49.8 ft^3/s (1.410 m^3/s) 23.00 in/yr (584 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,360 ft^3/s (38.5 m^3/s) Feb. 3, gage height, 6.01 ft (1.832 m); minimum, 8.9 ft^3/s (0.25 m^3/s) Oct. 2, gage height, 1.77 ft (0.539 m).
Period of record: Maximum discharge, 2,280 ft^3/s (64.6 m^3/s) Aug. 28, 1971, gage height, 7.60 ft (2.316 m); minimum, 2.8 ft^3/s (0.079 m^3/s) Aug. 27, 1932, gage height, 0.73 ft (0.223 m).

REMARKS.--Records excellent. Flow occasionally regulated by operation of gates in Pocahontas Dam, 2.5 mi (4.0 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	28	175	122	84	52	168	84	55	101	35	22
2	16	37	113	92	566	52	328	84	55	51	193	26
3	16	36	92	81	770	58	168	92	48	47	358	32
4	16	29	84	135	280	129	229	97	50	95	188	26
5	15	41	86	122	211	79	295	83	55	67	62	26
6	16	37	160	87	173	68	148	75	48	45	55	24
7	178	32	235	71	163	70	126	73	52	36	51	23
8	113	58	135	75	160	107	214	67	48	33	47	21
9	33	193	217	64	158	84	178	163	50	32	45	20
10	24	205	190	62	113	65	259	115	38	30	50	20
11	22	165	185	59	97	62	175	135	37	29	51	21
12	23	140	135	58	89	65	131	79	38	28	44	19
13	22	119	133	55	86	61	119	76	41	30	45	18
14	21	135	126	55	84	57	109	67	37	33	37	75
15	19	220	117	55	175	64	101	67	30	38	41	135
16	17	153	168	55	117	59	92	75	30	32	50	33
17	19	97	140	57	78	160	94	64	30	27	37	25
18	16	91	101	58	75	135	79	89	36	26	35	37
19	29	87	92	78	70	79	79	62	35	24	35	29
20	25	274	97	109	71	67	78	57	34	30	36	23
21	21	140	115	59	71	62	71	62	48	220	36	22
22	20	97	244	99	71	61	70	58	61	155	32	21
23	19	86	175	229	67	58	76	83	41	54	30	36
24	18	81	119	84	61	55	79	91	35	41	28	23
25	14	78	111	67	58	57	67	59	33	37	27	22
26	14	250	105	62	58	265	143	52	32	61	27	22
27	21	173	105	126	57	113	158	52	30	45	27	21
28	79	101	94	250	54	75	268	148	30	35	27	19
29	133	92	84	223	------	71	122	165	158	32	25	119
30	47	95	81	135	------	75	89	75	343	30	24	58
31	29	------	113	95	------	78	------	62	------	29	25	------
TOTAL	1,080	3,370	4,127	2,979	4,117	2,543	4,313	2,611	1,658	1,573	1,803	1,018
MEAN	34.8	112	133	96.1	147	82.0	144	84.2	55.3	50.7	58.2	33.9
MAX	178	274	244	250	770	265	328	165	343	220	358	135
MIN	14	28	81	55	54	52	67	52	30	24	.24	18
CFSM	1.18	3.81	4.52	3.27	5.00	2.79	4.90	2.86	1.88	1.72	1.98	1.15
IN.	1.37	4.26	5.22	3.77	5.21	3.22	5.46	3.30	2.10	1.99	2.28	1.29

CAL YR 1972 TOTAL 33,030 MEAN 90.2 MAX 748 MIN 14 CFSM 3.07 IN 41.79
WTR YR 1973 TOTAL 31,192 MEAN 85.5 MAX 770 MIN 14 CFSM 2.91 IN 39.47

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-03	0015	6.01	1,360	4-04	1615	3.80	460
4-01	2030	3.94	509				

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 mi (0.6 km) downstream from Macopin River, and 3.0 mi (4.8 km) northwest of Butler.

DRAINAGE AREA.--63.7 mi^2 (164.9 km^2).

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 (173.736 m) above mean sea level (New Jersey Geological Survey bench mark). Prior to May 22, 1970, at datum 13.55 ft (4.130 m) higher.

AVERAGE DISCHARGE.--75 years, 52.4 ft^3/s (1.484 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,750 ft^3/s (49.6 m^3/s) Feb. 3 (gage height, 15.30 ft or 4.663 m) from rating curve extended above 320 ft^3/s (9.06 m^3/s) on basis of computation of peak flow through culvert and flow over dam; no flow over dam all or part of Oct. 15, Sept. 7-9, 11-13.
Period of record: Maximum discharge, about 6,100 ft^3/s (173 m^3/s) Oct. 10, 1903, gage height, 17.4 ft (5.30 m), present datum; no flow over dam during several months of most years.

REMARKS.--Records fair. Records given herein represent flow over intake dam only. Flow regulated by Canistear, Oak Ridge, Clinton, Charlotteburg Reservoirs, and Echo Lake (see p. 49). Water diverted above intake dam for municipal supply of city of Newark (see p. 52).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	4.7	296	268	110	10	163	72	63	536	3.2	2.6
2	1.9	12	197	223	725	10	557	60	73	458	13	2.9
3	1.4	9.0	156	137	1,190	13	563	62	55	233	14	2.8
4	1.4	6.2	147	178	795	29	543	73	35	249	7.8	2.2
5	1.4	9.1	151	198	523	20	612	59	25	205	5.7	1.4
6	1.9	6.7	317	144	357	20	454	37	24	134	4.5	.90
7	22	6.2	521	75	285	21	327	22	80	71	4.1	.40
8	8.0	153	502	81	261	36	355	17	49	40	3.2	.40
9	3.2	186	543	41	213	29	328	52	22	20	3.2	.40
10	2.5	105	472	37	119	26	512	113	14	14	2.5	.40
11	2.2	88	370	33	99	26	425	217	10	12	3.0	.40
12	2.4	63	277	29	43	26	271	199	7.5	9.5	2.2	0
13	2.6	41	232	24	27	24	201	132	12	7.8	2.0	.40
14	2.3	259	197	21	31	24	145	112	13	5.6	2.2	2.2
15	2.0	363	174	19	77	26	109	67	7.3	6.4	4.3	5.3
16	2.3	206	195	16	80	36	85	112	6.2	5.9	4.6	2.7
17	1.6	123	125	16	49	159	70	88	5.8	4.9	3.0	2.2
18	2.2	76	71	15	29	293	63	126	5.6	4.0	2.2	2.1
19	2.2	54	59	18	24	217	52	130	5.0	3.7	2.2	2.2
20	2.3	257	73	28	24	132	40	89	4.5	5.0	2.2	1.9
21	2.6	315	103	18	24	93	27	105	4.5	35	2.2	1.6
22	2.2	232	340	46	21	79	22	101	6.2	20	2.2	2.0
23	2.2	166	383	104	20	57	18	82	5.9	12	2.2	2.6
24	2.2	121	285	185	17	37	19	103	4.5	19	2.2	2.2
25	2.0	96	225	109	16	30	17	81	4.5	7.6	2.2	2.2
26	2.2	545	199	73	15	163	27	63	4.1	6.2	2.0	2.2
27	2.2	531	192	100	13	167	41	48	3.2	5.7	2.2	2.4
28	14	354	153	366	12	77	223	84	3.8	4.5	1.7	1.4
29	16	248	112	311	------	54	183	199	51	3.3	1.5	1.5
30	4.5	217	87	174	------	45	120	102	225	3.2	1.4	1.4
31	3.2	------	150	140	------	51	------	72	------	3.2	1.3	------
TOTAL	121.5	4,852.9	7,304	3,227	5,199	2,030	6,572	2,879	829.6	2,144.5	110.2	53.30
MEAN	3.92	162	236	104	186	65.5	219	92.9	27.7	69.2	3.55	1.78
MAX	22	545	543	366	1,190	293	612	217	225	536	14	5.3
MIN	1.4	4.7	59	15	12	10	17	17	3.2	3.2	1.3	0

CAL YR 1972 TOTAL 45,227.99 MEAN 124 MAX 1,240 MIN .99
WTR YR 1973 TOTAL 35,323.00 MEAN 96.8 MAX 1,190 MIN 0

01383500 Wanaque River at Awosting, N. J.

LOCATION.--Lat 41°09'31", long 74°20'00", Passaic County, on right bank 700 ft (210 m) downstream from dam at outlet of Greenwood Lake at Awosting.

DRAINAGE AREA.--27.1 mi^2 (70.2 km^2).

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 (183.282 m) 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 (30 m) upstream at same datum.

AVERAGE DISCHARGE.--54 years, 52.0 ft^3/s (1.473 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,190 ft^3/s (33.7 m^3/s) June 30, gage height, 4.79 ft (1.460 m); minimum, 2.5 ft^3/s (0.071 m^3/s) Jan. 7, gage height, 1.49 ft (0.454 m); minimum daily, 2.8 ft^3/s (0.079 m^3/s) Oct. 22-27.
Period of record: Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) Oct. 16, 1955 (gage height, 5.85 ft or 1.783 m) from rating curve extended above 300 ft^3/s (8.5 m^3/s) on basis of laboratory rating; no flow at times when gates at Greenwood Lake were closed and no water passed over spillway.

REMARKS.--Records excellent except those above 300 ft^3/s (8.5 m^3/s), which are fair. Flow completely regulated by Greenwood Lake (see p.50).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	6.9	156	120	129	29	92	67	71	876	9.6	4.9
2	5.1	9.9	151	125	194	28	236	64	74	482	29	4.8
3	5.1	31	136	110	598	29	280	61	63	285	37	4.8
4	5.1	41	125	117	545	41	276	62	58	216	35	4.8
5	5.1	43	121	121	389	45	324	56	57	178	29	4.9
6	4.9	42	146	112	280	46	269	50	52	137	22	5.0
7	5.8	40	228	39	218	48	217	44	64	103	18	5.1
8	4.5	159	224	74	177	66	195	38	64	83	14	5.1
9	4.4	537	250	81	153	80	169	47	57	66	11	5.1
10	4.3	439	239	72	124	79	200	54	53	54	9.7	5.1
11	4.3	307	211	61	103	77	211	96	43	45	8.7	5.1
12	4.1	238	173	53	86	79	178	106	37	35	17	5.1
13	4.1	183	150	47	72	74	151	100	38	24	30	5.1
14	4.1	230	130	42	63	68	123	89	42	21	23	5.3
15	4.2	333	119	39	76	65	104	82	34	28	20	5.2
16	3.6	273	119	36	77	62	89	94	26	28	18	5.1
17	3.2	219	87	35	70	92	81	86	25	23	15	5.1
18	3.8	173	50	34	59	147	75	108	16	18	12	5.2
19	3.9	141	84	36	51	145	68	101	16	15	10	5.2
20	3.1	191	81	54	46	122	60	98	14	13	9.0	5.4
21	2.9	190	84	49	44	105	52	106	14	33	8.5	5.4
22	2.8	162	132	60	44	96	48	105	23	43	7.7	5.4
23	2.8	136	170	141	41	82	46	96	24	38	6.3	5.3
24	2.8	115	162	147	38	67	46	96	21	32	5.7	5.4
25	2.8	99	147	130	35	59	40	90	19	25	5.5	5.4
26	2.8	219	132	114	34	96	48	81	16	21	5.6	5.4
27	2.8	296	123	114	33	107	49	72	14	18	5.8	5.4
28	3.0	258	111	176	31	86	79	75	12	16	6.2	5.4
29	3.6	212	95	219	------	78	81	83	57	16	5.9	5.4
30	7.4	171	83	189	------	74	73	78	902	13	5.9	5.4
31	6.1	------	92	156	------	72	------	78	------	10	5.8	------
TOTAL	127.6	5,494.8	4,311	2,903	3,810	2,344	3,960	2,463	2,006	2,995	445.9	155.3
MEAN	4.12	183	139	93.6	136	75.6	132	79.5	66.9	96.6	14.4	5.18
MAX	7.4	537	250	219	598	147	324	108	902	876	37	5.4
MIN	2.8	6.9	50	34	31	28	40	38	12	10	5.5	4.8

CAL YR 1972 TOTAL 30,987.50 MEAN 84.7 MAX 615 MIN .50
WTR YR 1973 TOTAL 31,015.60 MEAN 85.0 MAX 902 MIN 2.8

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0945	4.01	587	1-29	1215	3.26	239
11-20	1715	3.16	212	2-03	1730	4.11	657
11-27	0430	3.46	312	4-05	0645	3.54	336
12-09	0845	3.32	256	6-30	1800	4.79	1,190

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 mi (0.5 km) downstream from highway bridge at Monks.

DRAINAGE AREA.--40.4 mi^2 (104.6 km^2).

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 (92.406 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--39 years, 80.2 ft^3/s (2.271 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,410 ft^3/s (39.9 m^3/s) June 30, gage height, 2.69 ft (0.820 m); minimum, 2.6 ft^3/s (0.074 m^3/s), regulated, Oct. 3-7, gage height, 0.06 ft (0.018 m); minimum daily, 2.6 ft^3/s (0.074 m^3/s) Oct. 3-6.
Period of record: Maximum discharge, 3,640 ft^3/s (103 m^3/s) Aug. 19, 1955 (gage height, 4.15 ft or 1.265 m, from high-water mark in gage house) from rating curve extended above 1,000 ft^3/s (28 m^3/s); 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 excellent. Records given herein include flow over spillway, through ports in dam, and down fish ladder in dam. Flow regulated by Greenwood Lake (see p. 50).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	12	285	229	184	40	170	97	94	798	12	6.4
2	2.8	18	243	200	534	39	463	94	103	515	24	6.4
3	2.6	37	208	163	966	40	406	91	83	354	37	6.4
4	2.6	52	196	188	651	78	424	91	78	275	37	6.4
5	2.6	60	188	188	508	73	463	80	78	234	34	6.9
6	2.6	54	280	166	382	70	365	73	70	180	25	7.4
7	13	50	388	78	305	73	295	63	106	136	21	6.9
8	14	489	354	115	252	112	280	54	94	109	18	6.4
9	8.4	805	418	130	216	124	238	85	75	88	16	6.4
10	6.9	541	370	121	170	115	370	85	70	70	13	5.9
11	6.9	400	310	106	142	112	321	192	56	60	12	5.9
12	6.9	321	252	88	118	115	261	163	46	48	15	5.9
13	6.9	243	225	80	100	106	216	145	63	36	39	5.9
14	6.4	534	196	73	88	97	180	127	63	30	28	6.4
15	5.9	630	177	60	124	94	152	118	44	34	24	13
16	5.4	456	188	52	115	88	130	149	36	36	22	10
17	5.4	332	159	50	100	184	118	124	34	31	19	8.9
18	5.4	243	88	50	91	234	109	184	25	25	16	7.4
19	6.4	196	136	69	70	208	100	149	25	22	14	6.9
20	6.4	343	145	91	65	173	88	142	23	19	13	6.4
21	5.4	275	152	73	63	149	78	163	22	58	11	6.4
22	5.4	225	310	118	65	136	70	152	36	60	10	6.4
23	5.4	184	315	290	60	118	65	139	36	48	9.5	8.4
24	5.4	152	280	220	54	97	68	142	31	39	8.4	7.4
25	4.9	130	247	188	48	88	58	127	28	33	7.9	6.9
26	5.4	450	220	166	48	173	75	112	25	28	7.9	6.9
27	5.4	430	212	184	46	159	88	100	22	25	7.4	6.9
28	18	348	184	305	42	127	156	118	20	23	7.4	6.4
29	33	275	159	300	------	115	127	127	243	21	7.4	6.4
30	18	229	139	256	------	109	109	109	1,250	19	6.9	6.4
31	13	------	173	212	------	106	------	106	------	16	6.9	------
TOTAL	239.6	8,514	7,197	4,609	5,607	3,552	6,043	3,701	2,979	3,470	529.7	210.7
MEAN	7.73	284	232	149	200	115	201	119	99.3	112	17.1	7.02
MAX	33	805	418	305	966	234	463	192	1,250	798	39	13
MIN	2.6	12	88	50	42	39	58	54	20	16	6.9	5.9

CAL YR 1972 TOTAL 47,972.2 MEAN 131 MAX 832 MIN 2.2
WTR YR 1973 TOTAL 46,652.0 MEAN 128 MAX 1,250 MIN 2.6

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1915	2.61	1,320	1-22	2330	1.52	454	5-04	1930	1.74	588
11-14	1745	2.10	850	2-02	2100	2.62	1,330	5-10	0915	1.66	558
11-26	1045	1.95	738	5-02	0115	1.60	510	6-30	0445	2.69	1,410
12-06	2115	1.54	468								

01384500 Ringwood Creek near Wanaque, N. J.

LOCATION.--Lat 41°07'36", long 74°15'52", Passaic County, on right bank 500 ft (150 m) upstream from Wanaque Reservoir, 0.7 mi (1.1 km) downstream from Ringwood Mill Pond Dam, and 6.5 mi (10.5 km) north of Wanaque.

DRAINAGE AREA.--19.1 mi^2 (49.5 km^2).

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 (92.254 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--39 years, 32.8 ft^3/s (0.929 m^3/s) 23.32 in/yr (592 mm/yr).

EXTREMES.--Current year: Maximum discharge, 632 ft^3/s (17.9 m^3/s) Nov. 8, gage height 2.76 ft (0.841 m); no flow for part of Aug. 9 just after waste gate was closed and water was below spillway and port intakes.
Period of record: Maximum discharge, 1,150 ft^3/s (32.6 m^3/s) Mar. 30, 1951, gage height, 3.74 ft (1.140 m), from floodmark; 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. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	6.0	115	91	58	18	72	45	36	237	7.4	2.5
2	2.5	7.8	87	75	184	18	210	44	35	141	20	2.3
3	2.2	11	75	64	578	19	134	48	31	105	19	2.3
4	1.8	9.5	70	75	306	39	182	48	29	85	13	2.2
5	1.8	11	68	77	197	34	231	40	31	75	11	2.2
6	1.8	11	117	62	148	29	157	35	29	62	9.5	3.4
7	26	8.6	164	49	121	29	125	31	54	51	7.2	2.7
8	15	164	136	41	103	44	121	29	45	44	6.0	2.0
9	7.0	265	174	37	87	44	103	46	31	36	5.6	1.8
10	4.7	107	148	35	65	39	146	46	27	31	5.0	1.6
11	4.2	82	119	33	56	37	121	95	23	31	4.7	1.5
12	3.7	75	97	28	49	39	97	73	21	29	11	1.5
13	3.9	61	89	26	42	36	84	64	27	23	22	3.7
14	3.7	174	78	24	39	33	72	55	26	22	10	2.3
15	3.2	213	70	24	54	30	64	52	19	26	9.5	6.0
16	3.0	136	78	24	49	29	56	67	17	20	9.0	4.4
17	2.8	105	58	23	37	73	52	54	16	17	8.2	2.8
18	2.8	85	49	23	36	84	48	82	15	15	7.4	5.0
19	3.0	73	46	25	30	59	46	62	15	13	7.8	4.7
20	3.2	148	51	41	29	48	42	59	13	13	7.0	3.0
21	3.0	107	55	26	28	49	37	72	13	26	5.0	2.5
22	2.8	85	123	46	28	46	34	64	16	22	5.3	2.2
23	3.0	72	113	111	26	42	33	56	16	16	5.0	3.2
24	4.7	64	91	67	23	36	33	59	15	13	4.2	3.7
25	3.0	56	82	55	22	33	30	54	13	12	3.9	2.8
26	2.8	139	75	52	21	77	35	48	13	12	3.4	2.3
27	2.7	130	72	65	20	54	46	44	13	12	3.7	2.3
28	9.5	99	64	111	19	42	77	51	12	11	3.9	2.2
29	17	85	55	91	------	40	58	55	82	9.5	3.2	1.8
30	11	75	51	77	------	39	49	44	528	8.6	2.8	1.5
31	7.0	------	65	67	------	39	------	40	------	7.8	2.7	------
TOTAL	165.6	2,664.9	2,735	1,645	2,455	1,278	2,595	1,662	1,261	1,225.9	243.4	82.4
MEAN	5.34	88.8	88.2	53.1	87.7	41.2	86.5	53.6	42.0	39.5	7.85	2.75
MAX	26	265	174	111	578	84	231	95	528	237	22	6.0
MIN	1.8	6.0	46	23	19	18	30	29	12	7.8	2.7	1.5
CFSM	.28	4.65	4.62	2.78	4.59	2.16	4.53	2.81	2.20	2.07	.41	.14
IN.	.32	5.19	5.33	3.20	4.78	2.49	5.05	3.24	2.46	2.39	.47	.16

CAL YR 1972 TOTAL 19,855.6 MEAN 54.3 MAX 440 MIN 1.6 CFSM 2.84 IN 38.67
WTR YR 1973 TOTAL 18,013.2 MEAN 49.4 MAX 578 MIN 1.5 CFSM 2.59 IN 35.08

PEAK DISCHARGE (BASE, 230 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1815	2.76	632	2-03	0430	2.66	587	6-30	1030	2.65	582
11-14	1730	2.12	372	4-04	1945	1.93	309				

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 mi (0.5 km) downstream from Burnt Meadow Brook, and 2.5 mi (4.0 km) northwest of Wanaque.

DRAINAGE AREA.--11.8 mi^2 (30.6 km^2).

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 (99.606 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--39 years, 23.7 ft^3/s (0.671 m^3/s), 27.27 in/yr (693 mm/yr).

EXTREMES.--Current year: Maximum discharge, 544 ft^3/s (15.4 m^3/s) June 29, gage height, 3.27 ft (0.997 m); no flow for part of July 30 when waste gate was closed and water was below intakes to ports.
Period of record: Maximum discharge, 1,900 ft^3/s (53.8 m^3/s) Mar. 30, 1951 (gage height, 6.6 ft or 2.01 m, from floodmark), from rating curve extended above 630 ft^3/s (17.8 m^3/s); no flow part of day in most years just after waste gate was closed and water was below intakes to ports.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.5	84	69	38	12	83	29	22	115	3.8	1.7
2	1.5	4.5	59	47	210	12	230	25	25	53	22	1.9
3	1.4	5.8	50	35	370	13	119	27	18	36	15	1.5
4	1.3	5.2	49	53	144	35	124	29	17	47	9.0	1.3
5	1.2	5.6	48	50	92	25	142	23	15	37	6.0	2.2
6	1.2	5.4	97	35	72	23	81	19	20	26	4.2	2.2
7	21	4.9	138	26	60	23	60	17	43	18	3.8	1.5
8	11	96	92	23	52	43	72	16	20	15	3.4	1.5
9	6.5	166	122	21	48	39	62	44	15	12	3.1	1.5
10	3.1	99	86	19	35	31	152	39	12	11	2.8	1.5
11	2.7	68	66	17	30	28	96	80	9.5	9.5	3.1	1.5
12	2.5	65	50	16	27	28	65	49	8.5	8.5	2.8	1.5
13	2.5	57	48	15	24	25	50	35	23	8.0	2.5	1.3
14	2.3	77	41	14	22	22	39	28	20	7.5	2.2	2.8
15	2.2	115	37	13	39	23	32	26	11	9.5	2.5	6.5
16	2.0	100	48	13	34	22	28	33	9.0	8.5	3.1	2.5
17	1.9	68	30	14	30	84	26	24	8.0	7.0	2.8	1.7
18	1.9	48	26	14	20	83	25	39	8.0	6.0	2.5	2.5
19	2.0	42	24	16	19	49	23	27	8.0	5.0	2.5	1.9
20	2.1	130	32	34	18	38	21	24	7.0	6.0	2.5	1.5
21	2.0	77	37	21	18	32	19	35	7.0	20	2.2	1.5
22	1.9	55	140	59	18	29	18	29	12	17	2.2	1.7
23	2.0	42	108	142	17	25	17	26	11	12	2.2	4.2
24	2.9	36	68	60	17	22	20	32	8.5	9.5	2.2	2.5
25	2.1	33	55	41	16	21	19	25	7.5	9.0	1.9	1.9
26	1.9	172	47	34	15	81	28	22	6.5	7.8	1.9	1.9
27	1.8	103	45	62	15	50	45	20	6.0	6.4	1.7	1.7
28	2.4	65	37	111	13	34	101	37	6.0	6.2	1.7	1.7
29	11	50	31	68	------	30	50	59	94	5.8	1.7	1.7
30	6.0	60	28	56	------	28	35	32	416	4.8	1.5	1.7
31	4.0	------	45	41	------	30	------	24	------	4.0	1.3	------
TOTAL	110.0	1,858.9	1,868	1,239	1,513	1,040	1,882	974	893.5	548.0	120.1	61.0
MEAN	3.55	62.0	60.3	40.0	54.0	33.5	62.7	31.4	29.8	17.7	3.87	2.03
MAX	21	172	140	142	370	84	230	80	416	115	22	6.5
MIN	1.2	3.5	24	13	13	12	17	16	6.0	4.0	1.3	1.3

CAL YR 1972 TOTAL 13,574.0 MEAN 37.1 MAX 293 MIN 1.2
WTR YR 1973 TOTAL 12,107.5 MEAN 33.2 MAX 416 MIN 1.2

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE
2-03	0330	3.23	536
6-29	2245	3.27	544

01387000 Wanaque River at Wanaque, N. J.

LOCATION.--Lat 41°02'33", long 74°17'36", Passaic County, on left bank 750 ft (229 m) downstream from Raymond Dam in Wanaque, and 50 ft (15 m) upstream from bridge on State Highway 511.

DRAINAGE AREA.--90.4 mi^2 (234.1 km^2), considered as 94 mi^2 (243 km^2) 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 (64.008 m) 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 (15 m) downstream at different datum. Sept. 15, 1912, to Apr. 1, 1922, nonrecording gage at site 200 ft (61 m) downstream from present concrete control at different datum. Apr. 1, 1922, to Mar. 14, 1931, water-stage recorder at site 400 ft (122 m) downstream from present concrete control at present datum.

AVERAGE DISCHARGE.--56 years (1912-14, 1919-73), 78.9 ft^3/s (2.234 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,410 ft^3/s (96.6 m^3/s) Feb. 3, gage height, 7.33 ft (2.234 m); minimum, 8.9 ft^3/s (0.25 m^3/s) Mar. 5, gage height, 1.16 ft (0.354 m).
Period of record: Maximum discharge, 8,470 ft^3/s (240 m^3/s) Mar. 31, 1951 (gage height, 9.12 ft or 2.780 m) from rating curve extended above 4,300 ft^3/s (122 m^3/s); minimum daily, 0.5 ft^3/s (0.014 m^3/s) Dec. 11, 12, 14-23, 1949, Sept. 11, 12, 1965.

REMARKS.--Records excellent. Flow regulated by Greenwood Lake (see p. 50) 11 mi (17.7 km) above station, and since 1928 by Wanaque Reservoir (see p. 50). 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. 52). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	17	20	264	228	94	186	99	85	1,540	21	19
2	18	18	19	279	766	94	918	87	90	1,020	22	18
3	18	17	19	192	2,940	94	914	86	56	630	21	18
4	18	17	20	237	1,720	94	830	95	42	489	21	18
5	18	18	19	270	1,200	50	1,070	86	29	384	21	17
6	18	17	22	255	846	20	790	67	33	249	21	18
7	20	17	23	189	614	21	558	43	72	141	21	18
8	18	23	25	115	444	21	530	40	78	95	21	18
9	18	17	31	104	405	21	444	41	47	57	21	17
10	18	18	221	99	246	21	658	50	37	36	21	17
11	18	18	510	99	240	21	698	141	22	37	21	17
12	19	18	430	97	158	21	468	189	21	41	21	17
13	18	18	381	97	111	22	360	172	23	28	20	17
14	18	21	294	95	104	22	249	134	29	28	19	18
15	18	19	264	95	109	22	210	113	23	27	19	17
16	18	19	297	94	150	22	169	131	21	26	19	17
17	18	19	276	94	169	24	138	121	22	24	18	17
18	18	19	117	92	107	26	127	172	20	23	17	17
19	18	20	111	92	101	37	109	155	19	22	17	17
20	18	19	115	92	102	32	87	145	20	24	18	17
21	18	19	127	92	101	30	68	172	19	25	18	17
22	18	19	363	92	101	54	54	166	19	24	18	17
23	18	19	606	94	97	64	50	127	20	23	17	17
24	18	19	518	94	97	33	54	138	20	22	17	17
25	18	19	426	95	95	32	50	123	19	22	17	17
26	18	20	328	95	95	80	61	104	19	22	17	18
27	18	19	364	99	95	158	51	90	20	22	17	17
28	19	19	258	123	94	101	94	121	20	22	17	17
29	18	20	169	409	------	95	150	222	55	22	17	17
30	17	20	131	384	------	87	121	150	790	21	17	17
31	17	------	158	307	------	87	------	111	------	21	18	------
TOTAL	560	562	6,602	4,835	11,535	1,600	10,266	3,691	1,790	5,167	590	520
MEAN	18.1	18.7	213	156	412	51.6	342	119	59.7	167	19.0	17.3
MAX	20	23	606	409	2,940	158	1,070	222	790	1,540	22	19
MIN	17	17	19	92	94	20	50	40	19	21	17	17

CAL YR 1972 TOTAL 45,379 MEAN 124 MAX 1,690 MIN 16
WTR YR 1973 TOTAL 47,718 MEAN 131 MAX 2,940 MIN 17

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 mi (4.0 km) northeast of Suffern, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--12.3 mi^2 (31.9 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft (98.015 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 23.7 ft^3/s (0.671 m^3/s) (26.16 in/yr (664.5 mm/yr)).

EXTREMES.--Current year: Maximum discharge, 1,220 ft^3/s (34.6 m^3/s) Feb. 2 (gage height, 7.04 ft (2.146 m)); minimum, 1.0 ft^3/s (0.028 m^3/s) Sept. 30; minimum gage height, 1.14 ft (0.347 m) Sept. 13, 14.
Period of record: Maximum discharge 1,650 ft^3/s (46.7 m^3/s) May 29, 1968 (gage height, 7.78 ft (2.371 m)), from rating extended above 850 ft^3/s (24.1 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 0.05 ft^3/s (0.001 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.4	83	71	34	14	52	35	34	179	4.5	1.7
2	1.3	4.0	64	55	353	14	172	32	32	89	14	1.7
3	1.3	5.0	49	43	552	16	110	32	28	56	13	1.7
4	1.2	3.8	44	56	212	32	114	37	27	60	9.8	1.6
5	1.2	6.3	46	59	117	29	143	32	31	50	6.8	2.7
6	1.3	7.5	76	44	87	25	91	28	27	41	5.3	5.0
7	31	7.0	114	33	73	22	69	25	37	31	4.6	2.4
8	6.5	248	85	29	65	43	81	23	35	25	4.1	2.1
9	4.0	333	130	28	59	44	69	45	27	20	3.7	1.8
10	2.7	114	101	24	44	36	133	49	26	17	3.7	1.6
11	1.9	66	79	22	38	32	98	65	20	15	6.8	1.5
12	1.7	58	62	20	33	32	73	54	16	13	16	1.4
13	1.7	43	57	18	31	29	59	45	14	12	13	1.4
14	1.6	149	47	17	29	26	50	38	14	11	7.3	1.7
15	1.5	160	51	17	41	25	44	34	12	18	5.5	6.8
16	1.4	87	56	18	37	24	40	41	11	16	5.0	2.7
17	1.4	63	40	18	30	49	37	32	10	13	4.5	2.2
18	1.3	49	33	18	26	58	35	44	9.5	10	4.0	4.1
19	1.4	42	31	20	25	41	32	35	9.5	9.0	3.7	3.5
20	1.5	107	39	38	24	35	31	37	8.5	8.5	3.5	2.1
21	1.6	74	43	23	24	31	28	60	7.8	27	3.3	1.7
22	1.6	54	96	33	24	28	26	44	8.0	19	3.0	1.6
23	1.6	44	96	100	22	25	25	39	8.3	12	2.9	1.9
24	1.6	38	72	58	19	23	26	42	7.5	8.8	2.7	1.9
25	1.6	34	58	41	17	22	23	35	7.0	7.8	2.5	1.4
26	1.5	105	51	35	20	58	32	31	6.3	7.5	2.4	1.3
27	1.5	84	51	41	16	45	40	29	5.8	7.3	2.6	1.2
28	2.9	58	43	81	14	35	79	40	5.8	6.5	2.2	1.1
29	15	47	37	65	------	31	50	102	66	5.8	2.0	1.1
30	4.0	43	33	47	------	29	40	50	237	5.2	1.7	1.1
31	2.7	------	46	40	------	29	------	41	------	4.8	1.8	------
TOTAL	102.9	2,136.0	1,913	1,212	2,066	982	1,902	1,276	788.0	805.2	165.9	64.0
MEAN	3.32	71.2	61.7	39.1	73.8	31.7	63.4	41.2	26.3	26.0	5.35	2.13
MAX	31	333	130	100	552	58	172	102	237	179	16	6.8
MIN	1.2	2.4	31	17	14	14	23	23	5.8	4.8	1.7	1.1

CAL YR 1972 TOTAL 14,311.5 MEAN 39.1 MAX 333 MIN 1.1
WTR YR 1973 TOTAL 13,413.0 MEAN 36.7 MAX 552 MIN 1.1

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1945	6.02	777	4-04	2130	4.03	242
11-14	1700	4.47	329	4-10	1130	4.06	248
2-02	2015	7.04	1,220	5-29	0315	3.99	235
4-02	0300	3.94	226	6-30	0930	4.36	307

01387500 Ramapo River near Mahwah, N. J.

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, on left bank 350 ft (107 m) downstream from State Highway 17, 0.6 mi (1.0 km) downstream from Mahwah River, and 1.0 mi (1.6 km) west of Mahwah.

DRAINAGE AREA.--118 mi^2 (306 km^2).

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 (77.145 m) above mean sea level. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft (76 m) downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

AVERAGE DISCHARGE.--55 years (1902-6, 1922-73), 226 ft^3/s (6.400 m^3/s), 26.02 in/yr (661 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,340 ft^3/s (123 m^3/s) Feb. 3, gage height, 9.77 ft (2.978 m); minimum, 20 ft^3/s (0.57 m^3/s) Sept. 14, gage height, 2.23 ft (0.680 m).
Period of record: Maximum discharge, about 12,400 ft^3/s (351 m^3/s) Oct. 9, 1903 (gage height, 11.0 ft or 3.34 m, from graph based on gage readings, site and datum then in use) from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); minimum, 7 ft^3/s (0.20 m^3/s) Dec. 16, 1930, Sept. 12, 1932; minimum daily, 8 ft^3/s (0.23 m^3/s) Aug. 25, 1929, Sept. 5, 12, 1932.

REMARKS.--Records excellent. Diurnal fluctuation occasionally at low flow caused by power plants 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	108	672	557	387	123	412	303	270	1,180	45	24
2	30	135	602	530	1,500	123	1,390	272	262	600	139	21
3	27	148	512	419	3,750	135	1,290	281	216	402	135	20
4	23	141	492	464	2,110	264	991	312	206	512	88	22
5	22	154	497	502	1,160	262	1,320	264	224	525	64	165
6	24	144	675	414	813	226	905	230	230	434	52	88
7	238	137	1,190	305	660	214	650	202	289	305	44	40
8	210	1,020	952	292	574	342	644	186	266	232	40	31
9	91	2,450	1,120	236	533	394	626	340	198	188	39	26
10	53	1,150	948	206	427	319	905	347	188	157	40	24
11	47	611	750	190	357	279	860	653	150	139	45	23
12	50	520	620	175	305	277	623	629	126	118	58	22
13	45	439	577	159	279	256	560	474	156	97	95	21
14	36	875	522	148	262	234	440	384	128	88	52	31
15	34	1,460	489	146	357	228	380	337	100	130	42	55
16	34	944	535	148	349	218	330	419	88	106	39	37
17	56	669	434	154	277	374	300	367	82	87	36	28
18	82	549	362	154	246	535	294	464	78	73	34	40
19	87	472	340	171	224	427	270	427	76	64	32	32
20	85	823	372	294	210	342	260	384	72	88	31	28
21	82	778	412	214	210	296	230	522	67	309	31	25
22	81	591	681	279	208	270	212	477	73	262	29	23
23	80	494	802	838	198	248	206	407	75	154	29	33
24	80	432	644	579	171	218	224	407	67	100	28	32
25	78	394	560	414	150	200	196	349	60	80	26	29
26	77	743	499	367	144	464	266	300	55	73	24	27
27	77	944	439	409	137	459	332	270	52	72	24	26
28	141	660	414	771	128	337	552	394	53	63	24	24
29	204	557	352	757	------	289	462	549	482	55	23	23
30	142	502	309	563	------	270	357	349	1,870	50	22	22
31	113	------	387	469	------	264	------	300	------	46	26	------
TOTAL	2,458	19,044	18,160	11,324	16,126	8,887	16,487	11,599	6,259	6,789	1,436	1,042
MEAN	79.3	635	586	365	576	287	550	374	209	219	46.3	34.7
MAX	238	2,450	1,190	838	3,750	535	1,390	653	1,870	1,180	139	165
MIN	22	108	309	146	128	123	196	186	52	46	22	20

CAL YR 1972 TOTAL 133,539 MEAN 365 MAX 2,580 MIN 17
WTR YR 1973 TOTAL 119,611 MEAN 328 MAX 3,750 MIN 20

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2245	8.81	2,890	4-02	1945	7.51	1,630
2-03	0330	9.77	4,340	6-30	0545	8.10	2,180

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 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--160 mi^2 (414 km^2).

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

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 201.08 ft (61.289 m) above mean sea level.

AVERAGE DISCHARGE.--52 years, 296 ft^3/s (8.383 m^3/s), 25.13 in/yr (638 mm/yr), adjusted for diversion since Dec. 1, 1953.

EXTREMES.--Current year: Maximum discharge, 5,580 ft^3/s (158 m^3/s) Feb. 3, gage height, 2.75 ft (0.838 m); minimum, 32 ft^3/s (0.91 m^3/s) Oct. 6, gage height, 0.10 ft (0.030 m).
Period of record: Maximum discharge, 12,300 ft^3/s (348 m^3/s) Mar. 12, 1936 (gage height, 3.56 ft or 1.085 m) from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of theoretical weir formula; maximum gage height, 4.40 ft (1.341 m) Oct. 16, 1955; practically no flow for several days in October, November 1922, August, September 1923, July 1927, and 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. 52). Slight regulation by Pompton Lakes, capacity 300,000,000 gal (1.136 hm^3).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	96	840	696	527	171	492	430	395	1,810	96	39
2	44	103	788	704	1,250	163	1,580	383	395	965	305	35
3	44	89	665	577	5,020	171	1,730	383	326	611	224	32
4	39	82	609	614	3,170	305	1,340	441	295	640	145	39
5	35	96	624	677	1,660	348	1,730	383	305	741	117	59
6	35	110	779	577	1,140	305	1,290	326	430	597	103	198
7	295	110	1,390	426	914	274	914	274	518	430	89	82
8	295	865	1,260	368	787	418	880	254	418	326	82	59
9	163	2,870	1,450	337	711	505	880	418	295	285	75	54
10	96	1,580	1,290	295	583	430	1,100	505	264	243	75	44
11	75	756	1,040	269	479	371	1,210	772	233	215	96	44
12	75	570	836	248	395	359	880	849	198	189	75	39
13	75	430	756	227	371	336	711	654	254	171	138	35
14	64	914	690	211	336	305	597	531	243	163	96	49
15	54	1,730	636	202	430	295	518	453	171	198	75	124
16	54	1,210	699	203	453	285	453	505	154	207	75	69
17	54	787	592	210	371	441	418	492	145	163	69	54
18	82	597	474	211	305	668	395	544	138	138	64	69
19	103	479	451	219	285	570	371	557	131	124	64	69
20	103	897	472	379	254	441	348	479	124	117	59	54
21	96	897	534	310	254	371	315	640	124	531	54	49
22	96	654	862	293	254	336	295	626	124	418	54	44
23	96	668	1,090	1,000	243	305	285	531	124	264	49	59
24	96	583	897	832	233	285	305	544	110	180	49	54
25	89	531	750	586	215	254	285	466	103	145	44	54
26	89	849	675	489	198	597	359	406	96	138	44	54
27	89	1,180	592	516	189	611	441	359	96	131	44	49
28	138	897	523	984	180	466	803	466	89	117	39	44
29	295	741	472	1,090	------	383	668	982	948	103	39	39
30	154	640	422	814	------	359	518	570	2,670	89	35	35
31	103	------	485	657	------	348	------	453	------	82	35	------
TOTAL	3,175	22,011	23,643	15,221	21,207	11,476	22,111	15,676	9,916	10,531	2,608	1,728
MEAN	102	734	763	491	757	370	737	506	331	340	84.1	57.6
MAX	295	2,870	1,450	1,090	5,020	668	1,730	982	2,670	1,810	305	198
MIN	35	82	422	202	180	163	285	254	89	82	35	32
(†)	2.8	106	0	0	0	0	0	0	0	0	0	0
MEAN‡	105	840	763	491	757	370	737	506	331	340	84.1	57.6
CFSM‡	.66	5.25	4.77	3.07	4.73	2.31	4.61	3.16	2.07	2.13	.53	.36
IN‡	.76	5.86	5.50	3.54	4.93	2.67	5.14	3.64	2.31	2.45	.61	.40

CAL YR 1972 TOTAL 175,453 MEAN 479 MAX 3,080 MIN 32 MEAN‡ 488 CFSM‡ 3.05 IN.‡ 41.57
WTR YR 1973 TOTAL 159,303 MEAN 436 MAX 5,020 MIN 32 MEAN‡ 445 CFSM‡ 2.78 IN.‡ 37.81

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	1015	1.95	3,160	4-02	2400	1.45	1,920
11-15	0645	1.38	1,790	6-29	2130	1.99	3,250
2-03	0700	2.75	5,580				

Diversion, in cubic feet per second, at Boonton 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 (240 m) below confluence of Pequannock and Ramapo Rivers, 100 ft (30 m) upstream from Jackson Avenue Bridge, and 0.7 mi (1.1 km) east of Pompton Plains.

DRAINAGE AREA.--355 mi^2 (919 km^2).

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 (48.768 m) above mean sea level. March 1903 to December 1904, nonrecording gage on main spillway of dam 2,000 ft (610 m) upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft (610 m) upstream at datum 14.46 ft (4.408 m) higher.

AVERAGE DISCHARGE.--34 years (1903-4, 1940-73), 471 ft^3/s (13.34 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 11,500 ft^3/s (326 m^3/s) Feb. 3, gage height 20.37 ft (6.209 m); minimum, 64 ft^3/s (1.82 m^3/s), regulated, Aug. 31.
Period of record: Maximum discharge observed 28,340 ft^3/s (803 m^3/s) Oct. 10, 1903 (gage height, 28.8 ft or 8.78 m, present datum) 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. 52). Water also diverted at station (just above weir) by Passaic Valley Water Commission to Point View Reservoir for low-flow augmentation (see p. 52). 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. 49,50). Some diurnal flucuations at low flow caused 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 (Station 01389000).

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

REVISIONS (WATER YEARS).--WSP 1202: 1945(M). WRD-NJ 1969: longitude. WRD-NJ 1972: peak discharge, base.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	135	1,560	1,510	1,100	353	901	730	652	4,800	152	78
2	94	176	1,330	1,480	2,610	350	3,440	634	652	2,990	400	75
3	90	153	1,070	1,130	10,400	353	3,800	628	515	1,820	364	70
4	87	133	964	1,270	7,660	545	3,080	706	440	1,770	252	77
5	81	167	985	1,400	4,350	535	4,060	616	436	1,730	198	114
6	77	164	1,470	1,220	2,840	432	3,080	510	778	1,300	165	254
7	495	164	2,450	856	2,190	416	2,240	452	1,120	814	149	131
8	380	1,480	2,180	628	1,880	586	2,170	452	748	560	137	102
9	250	4,180	2,600	545	1,730	694	2,090	586	495	432	130	92
10	161	2,210	2,390	485	1,240	586	2,630	808	424	357	127	82
11	133	1,180	2,260	452	1,040	505	2,790	1,290	357	319	156	79
12	139	901	1,890	432	790	490	2,010	1,780	307	293	128	75
13	130	652	1,730	404	622	460	1,620	1,500	372	264	170	70
14	115	1,720	1,490	384	570	416	1,270	1,200	412	248	146	104
15	104	2,870	1,340	376	790	428	1,060	940	288	264	130	248
16	97	1,960	1,540	372	862	424	894	1,050	264	270	143	122
17	102	1,290	1,260	376	742	760	766	796	250	235	122	96
18	130	936	826	372	550	1,200	706	922	227	205	115	123
19	162	736	742	384	510	1,020	628	971	226	180	113	110
20	147	1,660	796	575	476	760	565	796	211	173	104	90
21	143	1,590	922	464	472	616	490	1,010	208	724	99	80
22	139	1,130	1,870	515	468	565	452	1,040	227	448	93	74
23	139	1,030	2,380	1,510	456	520	428	832	220	336	91	103
24	136	850	2,040	1,350	436	448	440	915	201	266	88	91
25	139	754	1,730	943	408	404	416	778	183	226	85	96
26	137	1,760	1,480	760	388	1,050	515	652	173	206	84	93
27	135	2,140	1,360	856	380	1,220	646	555	165	196	82	86
28	266	1,590	1,180	1,830	360	826	1,360	742	164	186	79	83
29	404	1,220	943	2,190	------	670	1,250	1,910	1,230	171	79	84
30	233	1,030	772	1,740	------	598	936	1,120	5,230	159	72	78
31	152	------	957	1,410	------	598	------	808	------	149	70	------
TOTAL	5,105	35,961	46,507	28,219	46,320	18,828	46,733	27,729	17,175	22,091	4,323	3,060
MEAN	165	1,199	1,500	910	1,654	607	1,558	894	573	713	139	102
MAX	495	4,180	2,600	2,190	10,400	1,220	4,060	1,910	5,230	4,800	400	254
MIN	77	133	742	372	360	350	416	452	164	149	70	70

CAL YR 1972 TOTAL 332,214 MEAN 908 MAX 6,900 MIN 65
WTR YR 1973 TOTAL 302,051 MEAN 828 MAX 10,400 MIN 70

PEAK DISCHARGE (BASE, 3,200 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0045	14.99	4,590	4-05	0600	14.57	4,210
11-15	0200	13.39	3,210	4-10	1815	13.38	3,200
2-03	1245	20.37	11,500	6-30	0015	16.38	6,020

01389500 Passaic River at Little Falls, N. J.

LOCATION.--Lat 40°53'05", long 74°13'35", Passaic County, on left bank 0.6 mi (1.0 km) downstream from Beattie's Dam in Little Falls and 1.0 mi (1.6 km) upstream from Peckman River.

DRAINAGE AREA.--762 mi^2 (1,974 km^2).

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 (36.576 m) 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 mi (6.0 km) downstream at mean sea level datum (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--76 years, 1,157 ft^3/s (32.77 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 10,300 ft^3/s (300 m^3/s) Feb. 5, gage height, 9.45 ft (2.880 m); minimum, 53 ft^3/s (1.50 m^3/s), Sept. 1, gage height, 0.37 ft (0.113 m); minimum daily, 130 ft^3/s (3.68 m^3/s) Sept. 12, 13.
Period of record: Maximum daily discharge, 28,000 ft^3/s (793 m^3/s) 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 Beattie's Dam. Flow regulated by reservoirs in Rockaway, Pequannock, Wanaque, and Pompton River basins (see p. 49). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, and Wanaque Rivers (see p. 52). In addition, the Commonwealth Water Co., diverts small amounts from Canoe Brook near Summit, average for 1973 was 2.8 ft^3/s (0.079 m^3/s), and from Passaic River, average for 1973 was 13.9 ft^3/s (0.39 m^3/s); 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	538	3,250	2,580	3,490	692	2,260	3,040	2,300	6,750	309	266
2	243	566	3,040	2,610	4,520	661	4,560	2,510	1,800	6,760	1,590	217
3	203	533	2,790	2,340	7,890	643	5,310	2,020	1,500	5,760	2,230	169
4	187	462	2,600	2,440	10,100	747	5,770	1,980	1,300	4,890	2,360	185
5	177	471	2,500	2,610	10,600	994	6,440	1,730	1,180	4,330	2,880	243
6	174	504	2,870	2,480	10,100	1,150	6,510	1,500	1,210	3,770	2,960	354
7	1,230	488	3,810	2,180	8,880	1,140	5,880	1,390	2,510	3,040	2,770	254
8	1,280	1,640	3,920	1,700	7,280	1,380	5,500	1,170	1,900	2,340	2,490	192
9	1,080	5,170	4,640	1,390	6,230	1,600	5,140	1,690	1,490	1,620	2,190	168
10	928	5,200	4,900	1,090	5,290	1,510	5,220	2,690	1,130	959	1,850	149
11	674	4,820	5,010	920	4,330	1,390	5,500	3,640	855	665	1,600	144
12	473	4,840	4,700	832	3,590	1,290	4,940	4,120	655	544	1,180	141
13	383	4,420	4,330	759	2,950	1,310	4,340	3,800	638	464	730	130
14	317	4,590	3,890	702	2,360	1,270	3,750	3,270	743	431	456	189
15	287	5,990	3,520	676	2,030	1,160	3,260	2,680	479	532	402	779
16	244	5,890	3,610	664	2,000	1,120	2,860	2,540	410	602	535	643
17	244	5,240	3,180	680	1,980	1,770	2,670	2,270	408	491	494	441
18	229	4,420	2,700	699	1,830	2,540	2,400	2,150	393	407	393	355
19	299	3,720	2,390	724	1,610	2,520	1,970	2,300	393	353	333	347
20	311	4,050	2,270	1,070	1,380	2,340	1,630	2,030	371	341	299	284
21	293	4,080	2,260	1,110	1,200	2,120	1,370	2,190	365	1,650	283	242
22	262	3,710	3,170	1,050	1,100	1,900	1,170	2,270	584	1,740	275	218
23	291	3,400	3,780	2,230	1,040	1,610	1,070	2,030	558	1,550	255	287
24	254	3,060	3,860	2,460	979	1,250	1,140	2,270	468	1,400	232	274
25	237	2,680	3,770	2,260	910	1,000	1,070	2,180	395	1,180	220	239
26	243	2,930	3,520	2,040	841	2,280	1,490	1,920	347	924	205	231
27	256	3,570	3,310	2,060	787	2,640	2,110	1,580	324	730	194	216
28	327	3,340	2,960	3,130	737	2,560	3,320	1,870	343	577	195	197
29	891	3,060	2,570	3,790	------	2,420	3,350	3,890	1,630	446	190	238
30	860	2,800	2,190	3,840	------	2,210	3,230	3,430	6,090	387	184	436
31	680	------	2,140	3,790	------	2,060	------	3,000	------	328	180	------
TOTAL	13,861	96,182	103,450	56,906	106,034	49,277	105,230	75,150	32,769	55,961	30,464	8,228
MEAN	447	3,206	3,337	1,836	3,787	1,590	3,508	2,424	1,092	1,805	983	274
MAX	1,280	5,990	5,010	3,840	10,600	2,640	6,510	4,120	6,090	6,760	2,960	779
MIN	174	462	2,140	664	737	643	1,070	1,170	324	328	180	130

CAL YR 1972 TOTAL 700,361 MEAN 1,914 MAX 10,100 MIN 147
WTR YR 1973 TOTAL 733,512 MEAN 2,010 MAX 10,600 MIN 130

PEAK DISCHARGE (BASE, 4,400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-15	1145	6.92	6,090	4-06	0030	7.25	6,620
12-10	1700	6.28	5,070	7-01	2300	7.42	6,890
2-05	1100	9.45	10,600				

01390500 Saddle River at Ridgewood, N. J.

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, on left bank 15 ft (4.6 m) upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi (4.5 km) upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi^2 (55.9 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 71.74 ft (21.866 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--19 years, 35.2 ft^3/s (0.997 m^3/s), 22.13 in/yr (562 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) Feb. 2, gage height, 8.18 ft (2.493 m); minimum, 3.2 ft^3/s (0.091 m^3/s) Aug. 30, 31, gage height, 1.57 ft (0.479 m).
Period of record: Maximum discharge, 2,920 ft^3/s (82.7 m^3/s) Aug. 28, 1971, gage height, 11.24 ft (3.426 m); minimum daily, 0.2 ft^3/s (0.006 m^3/s) Sept. 17, 18, 1966.
Flood on July 23, 1945, reached a discharge of 6,400 ft^3/s (181 m^3/s), at site 1.6 mi (2.6 km) upstream, drainage area, 19.1 mi^2 (49.5 km^2), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	134	102	45	34	105	43	34	58	16	14
2	7.8	31	555	61	406	34	199	40	36	33	168	6.6
3	7.6	23	332	51	343	35	84	46	30	30	52	5.7
4	7.3	18	45	99	122	89	193	47	30	47	27	6.0
5	8.7	29	55	71	101	49	144	35	30	55	21	22
6	7.6	23	182	52	89	41	73	34	76	31	20	25
7	186	18	130	45	85	40	58	35	73	27	18	9.5
8	40	431	110	73	85	104	142	33	32	24	17	6.3
9	18	208	162	66	82	62	89	123	29	23	16	5.7
10	12	57	104	63	61	43	272	67	31	22	14	8.8
11	11	49	78	57	55	40	107	107	26	21	25	7.7
12	17	53	66	54	48	41	80	52	24	21	16	4.7
13	16	37	72	53	53	37	70	40	62	19	17	4.0
14	14	263	63	52	52	35	58	37	31	20	12	9.9
15	14	122	66	54	102	36	58	39	24	27	12	42
16	14	63	110	42	67	35	62	44	23	22	13	13
17	13	50	63	30	50	130	54	35	22	19	11	8.4
18	14	45	51	30	45	76	51	64	22	18	11	10
19	16	39	51	35	44	43	51	37	22	16	9.5	12
20	13	180	73	60	46	37	45	45	21	16	9.2	7.3
21	12	66	72	39	44	35	41	72	24	168	8.8	6.6
22	12	49	196	65	44	35	41	40	26	39	9.2	6.0
23	12	41	98	99	41	32	51	49	24	25	8.8	14
24	12	41	73	51	38	32	51	54	21	22	8.0	11
25	11	38	65	41	38	32	39	35	20	20	6.6	8.0
26	11	170	65	38	38	170	99	32	18	23	6.3	7.0
27	25	73	72	81	36	56	116	32	20	21	9.5	6.3
28	51	49	58	122	34	40	137	84	21	19	7.0	6.0
29	69	44	50	130	------	37	59	124	247	18	6.0	8.0
30	23	47	50	71	------	35	48	42	297	16	4.7	5.7
31	17	------	84	52	------	36	------	35	------	16	3.7	------
TOTAL	705.0	2,372	3,385	1,939	2,294	1,581	2,677	1,602	1,396	936	583.3	307.2
MEAN	22.7	79.1	109	62.5	81.9	51.0	89.2	51.7	46.5	30.2	18.8	10.2
MAX	186	431	555	130	406	170	272	124	297	168	168	42
MIN	7.3	15	45	30	34	32	39	32	18	16	3.7	4.0
CFSM	1.05	3.66	5.05	2.89	3.79	2.36	4.13	2.39	2.15	1.40	.87	.47
IN.	1.21	4.09	5.83	3.34	3.95	2.72	4.61	2.76	2.40	1.61	1.00	.53

CAL YR 1972 TOTAL 22,142.8 MEAN 60.5 MAX 555 MIN 7.0 CFSM 2.80 IN 38.13
WTR YR 1973 TOTAL 19,777.5 MEAN 54.2 MAX 555 MIN 3.7 CFSM 2.51 IN 34.06

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	1145	4.84	412	12-06	2045	4.92	430	4-10	1115	4.63	602
11-08	2200	7.19	1,340	2-02	2100	8.18	2,060	6-29	2015	4.85	690
11-14	1815	5.52	632	4-04	2030	4.26	471	8-02	1645	4.16	438

01391000 Hohokus Brook at Hohokus, N. J.

LOCATION.--Lat 40°59'52", long 74°06'48", Bergen County, on left bank 500 ft (150 m) upstream from Maple Avenue Bridge in Hohokus, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--16.4 mi^2 (42.5 km^2).

PERIOD OF RECORD.--April 1954 to September, 1973 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 120.09 ft (36.603 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--19 years, 31.1 ft^3/s (0.881 m^3/s), 25.75 in/yr (654 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,790 ft^3/s (50.7 m^3/s) Feb. 2, gage height, 4.21 ft (1.283 m); minimum, 9.0 ft^3/s (0.25 m^3/s) Aug. 29, Sept. 8, 14, gage height, 1.27 ft (0.387 m).
Period of record: Maximum discharge, 2,350 ft^3/s (66.6 m^3/s) Aug. 19, 1955 (gage height, 4.71 ft or 1.436 m, in well, 4.50 ft or 1.372 m, from outside gage), from rating curve extended above 750 ft^3/s (21.2 m^3/s); minimum, 1.9 ft^3/s (0.054 m^3/s) Aug. 2, 1966.

REMARKS.--Records excellent. Some regulation at low and medium flows caused by unknown sources.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	122	88	45	37	107	39	37	96	20	14
2	16	38	62	56	640	39	187	39	39	54	149	14
3	14	30	49	47	443	36	80	45	29	40	60	17
4	14	20	42	88	132	76	164	47	30	76	32	21
5	14	34	53	69	93	60	125	37	28	78	25	27
6	50	25	172	51	76	51	69	34	104	45	22	32
7	270	21	125	40	71	51	60	32	109	34	20	17
8	60	440	109	37	74	93	112	32	42	32	20	13
9	30	241	145	36	74	60	78	101	33	29	19	15
10	23	62	96	34	56	47	200	58	32	27	19	21
11	21	53	74	33	51	43	85	90	26	26	33	14
12	21	58	58	32	45	45	64	53	26	24	21	14
13	22	42	62	30	43	40	56	43	90	24	18	13
14	19	256	54	30	43	39	53	33	51	24	16	26
15	18	135	62	30	90	39	49	34	28	42	19	53
16	18	67	99	30	64	37	49	43	26	29	20	21
17	17	54	56	32	47	119	47	34	25	24	17	16
18	16	42	45	32	42	76	43	54	25	23	18	21
19	22	37	43	39	40	51	45	34	24	20	17	19
20	17	172	67	67	42	40	42	40	24	21	16	15
21	14	67	67	39	42	36	39	56	26	175	16	14
22	14	51	183	69	43	36	37	42	33	56	16	14
23	15	40	101	107	42	33	40	53	28	30	16	25
24	13	39	71	54	37	33	42	49	25	26	15	19
25	12	36	62	43	36	32	34	39	23	23	15	16
26	12	160	58	39	36	153	83	34	22	24	14	16
27	12	76	64	96	36	62	104	34	22	24	15	14
28	62	49	53	135	36	49	125	83	24	22	14	13
29	61	42	45	119	------	43	58	85	276	21	14	14
30	27	49	45	71	------	37	45	42	473	19	13	14
31	21	------	76	54	------	39	------	34	------	18	14	------
TOTAL	965	2,454	2,420	1,727	2,519	1,632	2,322	1,473	1,780	1,206	743	562
MEAN	31.1	81.8	78.1	55.7	90.0	52.6	77.4	47.5	59.3	38.9	24.0	18.7
MAX	270	440	183	135	640	153	200	101	473	175	149	53
MIN	12	18	42	30	36	32	34	32	22	18	13	13
CFSM	1.90	4.99	4.76	3.40	5.49	3.21	4.72	2.90	3.62	2.37	1.46	1.14
IN.	2.19	5.57	5.49	3.92	5.71	3.70	5.27	3.34	4.04	2.74	1.69	1.27

CAL YR 1972 TOTAL 20,339 MEAN 55.6 MAX 440 MIN 11 CFSM 3.39 IN 46.13
WTR YR 1973 TOTAL 19,803 MEAN 54.3 MAX 640 MIN 12 CFSM 3.31 IN 44.92

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1630	3.55	1,240	6-30	0400	3.03	824
2-02	1645	4.21	1,790	8-02	1400	2.90	720
6-13	1400	2.62	496				

01391500 Saddle River at Lodi, N. J.

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, on left bank 560 ft (171 m) upstream from Outwater Lane bridge in Lodi and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--54.6 mi^2 (141.4 km^2).

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 (7.620 m) above mean sea level. Prior to Nov. 2, 1938, at site 560 ft (171 m) downstream at datum 2.54 ft (0.774 m) lower.

AVERAGE DISCHARGE.--50 years, 97.3 ft^3/s (2.756 m^3/s), 24.21 in/yr (615 mm/yr), adjusted for diversion since 1966.

EXTREMES.--Current year: Maximum discharge, 3,210 ft^3/s (90.9 m^3/s) Feb. 3, gage height, 9.17 ft (2.795 m); minimum, 30 ft^3/s (0.85 m^3/s) Oct. 4, 5, 27, gage height, 1.84 ft (0.561 m).
Period of record: Maximum discharge, 3,770 ft^3/s (107 m^3/s) Sept. 12, 1971, gage height, 10.98 ft (3.346 m), from high-water mark in gage house; minimum, 1.0 ft^3/s (0.028 m^3/s) May 25, 1938, gage height, 1.03 ft (0.314 m), site and datum then in use; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Aug. 4, 1930, Aug. 23, 1934.

REMARKS.--Records excellent except those for the period of no gage-height record, which are fair. Occasional regulation at low flow by mills above station. Diversion above station by Hackensack Water Co., 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 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: CORRECTIONS 1967. WRD-NJ 1970: CORRECTIONS 1968-69.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	51	338	247	129	99	244	119	106	251	53	60
2	39	139	181	163	1,070	101	525	114	119	136	465	84
3	36	82	139	136	1,780	101	233	134	86	111	237	90
4	36	58	126	258	386	212	342	139	86	181	104	95
5	36	84	144	202	286	149	395	106	90	205	74	80
6	38	69	346	152	237	126	193	96	116	124	66	69
7	680	55	445	124	223	124	163	96	261	92	61	45
8	190	875	258	116	219	282	310	90	109	82	55	52
9	74	1,130	450	109	226	196	230	261	104	76	55	48
10	56	193	296	106	175	141	445	172	88	71	53	45
11	53	158	226	104	158	131	258	216	76	62	73	44
12	54	172	178	99	141	134	187	146	73	56	59	43
13	55	124	184	94	141	121	166	121	244	51	56	45
14	47	675	166	92	141	116	149	106	146	51	51	56
15	46	460	205	94	286	116	141	106	78	134	51	80
16	46	193	318	94	193	111	144	129	71	71	56	98
17	43	155	181	96	144	275	136	101	68	53	49	62
18	41	131	144	96	126	240	131	158	66	50	46	54
19	55	124	139	104	129	144	134	106	66	46	46	52
20	45	490	187	181	129	121	131	106	64	49	45	50
21	39	202	193	114	126	109	116	172	73	535	41	46
22	38	149	460	144	126	106	114	124	101	163	44	43
23	39	129	289	275	121	101	134	139	76	80	43	52
24	39	121	202	146	111	96	136	155	62	58	41	66
25	36	114	175	116	104	94	109	109	61	56	38	48
26	36	418	166	106	104	460	190	96	58	121	37	45
27	37	230	190	205	101	193	150	92	55	61	37	43
28	158	146	155	359	99	136	180	226	56	54	36	42
29	240	126	136	400	------	124	163	247	395	50	36	46
30	82	136	131	205	------	116	136	129	1,050	49	35	43
31	58	------	190	152	------	119	------	106	------	46	36	------
TOTAL	2,522	7,189	6,938	4,889	7,211	4,694	6,085	4,217	4,104	3,225	2,179	1,726
MEAN	81.4	240	224	158	258	151	203	136	137	104	70.3	57.5
MAX	680	1,130	460	400	1,780	460	525	261	1,050	535	465	98
MIN	36	51	126	92	99	94	109	90	55	46	35	42
(†)	0	0	0	0	0	0	0	0	1.27	6.76	.98	5.93
MEAN‡	81.4	240	224	158	258	151	203	136	138	111	71.3	63.4
CFSM‡	1.49	4.40	4.10	2.89	4.72	2.77	3.72	2.49	2.53	2.03	1.31	1.16
IN.‡	1.72	4.90	4.73	3.33	4.91	3.20	4.14	2.87	2.82	2.34	1.50	1.30

CAL YR 1972 TOTAL 59,644 MEAN 163 MAX 1,680 MIN 36 MEAN‡ 163 CFSM‡ 2.99 IN.‡ 40.65
WTR YR 1973 TOTAL 54,979 MEAN 151 MAX 1,780 MIN 35 MEAN‡ 153 CFSM‡ 2.80 IN.‡ 37.76

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	1115	4.53	1,100	2-03	0330	9.17	3,210	7-21	0715	4.12	870
11-09	0230	7.08	2,450	3-26	0545	3.74	660	8-02	1330	4.10	860
11-14	1930	4.82	1,270	4-04	1815	3.87	732				
12606	2230	4.01	806	6-30	0500	5.28	1,570				

NOTE.--No gage-height record Aug. 27 to Sept. 30.
† Diversion, equivalent in cubic feet per second, above station by Hackensack Water Co. Records of diversion furnished by Hackensack Water Co.
‡ Adjusted for diversion.

Reservoirs in Passaic River basin

01379990 SPLITROCK RESERVOIR.--Lat 40°57'40", long 74°27'45", Morris County, at dam on Beaver Brook, 2 mi (3 km) northeast of Hibernia, N.J. Drainage area, 5.50 mi² (14.2 km²). 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 (6 m) lower. Capacity at spillway level (elevation, 835 ft or 254 m), 3,310,000,000 gal (12.53 hm³). Flow is regulated by two 30-inch (0.8 m) 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 mi² (308 km²). 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, 7,620,000,000 gal (28.84 hm³), at elevation 305.25 ft or 93.04 m (crest of spillway) of which 7,366,000,000 gal (27.88 hm³) is usable contents above elevation 259.75 ft or 79.17 m (sill of lowest outlet gate). Flow regulated by flashboards, 3 outlets in gatehouse at head of conduit and by two 48-inch (1.22 m) pipes (bottom of sluice pipes at elevation 205 ft or 62 m). 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 mi (2.9 km) northeast of Stockholm, N.J. Drainage area, 5.6 mi² (14.5 km²). Period of record, October 1923 to September 1950, October 1953 to current year in reports of Geological Survey. Monthend contents 123-50, 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, completed about 1896. Capacity at spillway level (elevation, 1,086.0 ft (331 m), 2,407,000,000 gal (9.110 hm³). 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 mi (1.4 km) southwest of Oak Ridge, N.J. Drainage area, 27.3 mi² (70.7 km²) 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 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 (3 m) during 1917-19. Capacity at spillway level (elevation, 846.0 ft or 258 m), 3,895,000,000 gal (14.74 hm³). 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, Dvision of Water Supply.

01382300 CLINTON RESERVOIR.--Lat 41°04'30", long 74°27'00", Passaic County, at dam on Clinton Brook, 2.0 mi (3 km) north of Newfoundland, N.J. Drainage area, 10.5 mi² (27.2 km²). 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 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 or 302 m), 3,518,000,000 gal (13.32 hm³). 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 mi (1.8 km) upstream from Macopin River, and 1.5 mi (2.4 km) southeast of Newfoundland, N.J. Drainage area, 56.2 mi² (145.6 km²). Period of record, May 1961 to current year. Water-stage record. 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 (225 m). Spillway equipped with Bascule gate 5 ft (1.5 m) high. Storage began May 19, 1961. Capacity (elevation 743.00 ft or 226 m, top of Bascule gate) is 2,964,000,000 gal (11.22 hm³). No dead storage. Outflow is controlled by sluice and automatic Bascule gates. Water diverted from reservoir since May 21, 196, 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 mi (2.6 km) north of Charlotteburg, N.J., and 1.9 mi (3.0 km) upstream from mouth. Drainage area, 4.35 mi² (11.27 km²). 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 or 272 m), 1,583,000,000 gal (5.992 hm³) with provision for additional storage of 180,000,000 gal (681,300 m³) at elevation 894.9 ft (272.8 m) with flashboards. Usable contents, 1,045,000,000 gal (3.955 hm³) above elevation 880.0 ft (268 m). 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 mi^2 (7.02 km^2). 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 (185.58 m) 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 (30 m) upstream at datum 89.75 ft (27.36 m) lower. Maximum contents during water year 7,877,000,000 gal (29.814 hm^3) June 30 (gage height, 11.63 ft or 3.54 m); minimum, 6,677,000,000 gal (25.272 hm^3) Sept. 30 (gage height, 9.70 ft or 2.957 m. Maximum contents during period 1898-1903, 1907 to current year, 9,528,000,000 gal (36.068 hm^3) Oct. 9-14, 1903 (gage height, 14.25 ft or 4.34 m, present datum); minimum, 3,160,000,000 gal (11.96 hm^3) several days in November 1900 (gage height, 3.50 ft or 1.07 m, 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 (0.08 m) lower. Usable capacity, 6,860,000,000 gal (25.96 hm^3) between gage heights -4.00 ft or -1.22 m (sill of gate) and 10.00 ft 0.08 m, (crest of spillway). Dead storage, 7,140,000,000 gal (27.02 hm^3). Outflow mostly regulated by two gates (3.5 by 5.0 ft or 1.1 m by 1.5 m). 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 mi^2 (234.1 km^2). 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 or 91.5 m) 28,010,000,000 gal (106.0 hm^3). Capacity available by gravity at spillway level, 26,230,000,000 gal (99.28 hm^3). 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.). Elevation record and capacity table furnished by North Jersey District Water Supply Commission.

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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	834.90	3,282	-	298.34	5,852	-
Oct. 31	835.30	3,364	+4.1	297.70	5,728	-6.2
Nov. 30	836.00	3,504	+7.2	306.07	7,833	+109
Dec. 31	835.80	3,464	-2.0	306.04	7,825	0.4
CAL YR 1972	-	-	+0.2	-	-	+0.3
Jan. 31	835.90	3,484	+1.0	306.17	7,859	1.7
Feb. 28	835.70	3,444	-2.2	305.79	7,760	5.5
Mar. 31	835.80	3,464	+1.0	305.82	7,768	0.4
Apr. 30	835.90	3,484	+1.0	305.97	7,807	2.0
May 31	835.90	3,484	0	305.92	7,794	0.6
June 30	836.30	3,563	+4.1	306.07	7,833	2.0
July 31	835.70	3,444	-5.9	305.13	7,589	12.2
Aug. 31	834.90	3,282	-8.1	302.77	6,980	30.3
Sept. 30	834.70	3,247	-1.8	297.91	5,778	62.0
WTR YR 1973	-	-	-0.2	-	-	-0.3
	01382100 Canistear Reservoir†			01382200 Oak Ridge Reservoir†		
Sept. 30	1,086.00	2,407	-	836.40	2,605	-
Oct. 31	1,086.10	2,417	+.5	832.10	2,084	-26.0
Nov. 30	1,086.30	2,437	+1.0	846.30	3,938	+95.6
Dec. 31	1,086.10	2,417	-1.0	846.20	3,924	-.8
CAL YR 1972	-	-	0	-	-	+.1
Jan. 31	1,086.30	2,437	+1.0	846.30	3,938	+.8
Feb. 28	1,086.10	2,417	-1.1	846.10	3,909	+1.5
Mar. 31	1,086.10	2,417	0	846.10	3,909	0
Apr. 30	1,086.20	2,427	+.5	846.30	3,938	+1.5
May 31	1,086.20	2,427	0	846.30	3,938	0
June 30	1,086.50	2,457	+1.5	846.40	3,953	+.8
July 31	1,086.00	2,407	-2.5	846.10	3,909	-2.2
Aug. 31	1,085.90	2,396	-.5	842.50	3,407	-25.1
Sept. 30	1,086.00	2,407	+.6	832.20	2,095	-67.7
WTR YR 1973	-	-	0	-	-	-2.2

* Elevation at 0900.
† Elevation at 0800 on first day of following month.

Reservoirs in Passaic River basin--Continued

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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	988.20	3,032	-	736.00	2,205	-
Oct. 31	987.40	2,920	-5.6	735.80	2,186	-.9
Nov. 30	992.40	3,569	+33.4	743.30	3,102	+48.0
Dec. 31	992.40	3,569	0	743.20	2,989	-5.6
CAL YR 1972	-	-	+.1	-	-	+.1
Jan. 31	992.20	3,544	-1.2	743.25	2,996	+.3
Feb. 28	992.10	3,531	-.8	741.50	2,789	-11.4
Mar. 31	942.20	3,544	+.6	743.05	2,970	+9.0
Apr. 30	992.30	3,556	+.6	743.20	2,989	+.9
May 31	992.30	3,556	0	743.15	2,983	-.3
June 30	992.80	3,620	+3.2	737.90	2,397	-30.2
July 31	992.10	3,531	-4.5	739.30	2,546	+7.4
Aug. 31	991.70	3,480	-2.5	733.30	1,952	-29.7
Sept. 30	987.00	2,862	-31.9	733.80	1,998	+2.3
WTR YR 1973	-	-	-.8	-	-	-.9
	01382400 Echo Lake†			01383000 Greenwood Lake**		
Sept. 30	892.60	1,546	-	a9.80	6,738	-
Oct. 31	893.00	1,583	+1.9	a10.00	6,860	6.0
Nov. 30	893.30	1,611	+1.4	10.40	7,108	12.8
Dec. 31	893.10	1,592	-.9	10.45	7,139	1.5
CAL YR 1972	-	-	+.3	-	-	+.5
Jan. 31	893.30	1,611	+.9	10.55	7,201	3.1
Feb. 28	893.10	1,592	-1.1	10.40	7,108	5.1
Mar. 31	893.10	1,592	0	10.33	7,065	2.2
Apr. 30	893.20	1,601	+.5	10.33	7,065	0
May 31	893.20	1,601	0	10.33	7,065	0
June 30	893.80	1,658	+2.9	11.41	7,738	34.7
July 31	893.00	1,583	-3.7	9.98	6,848	44.4
Aug. 31	892.80	1,564	-.9	9.85	6,768	4.0
Sept. 30	892.70	1,555	-.5	9.70	6,677	4.6
WTR YR 1973	-	-	+.3	-	-	.3
	01386990 Wanaque Reservoir					
Sept. 30	289.72	20,642	-			
Oct. 31	284.37	17,395	-162			
Nov. 30	298.84	26,902	+490			
Dec. 31	302.49	29,702	+140			
CAL YR 1972	-	-	+5.1			
Jan. 31	302.44	29,662	-2.0			
Feb. 28	300.91	28,478	-65.4			
Mar. 31	302.40	29,630	+57.5			
Apr. 30	302.32	29,566	-3.3			
May 31	302.36	29,598	+1.6			
June 30	303.05	30,130	+27.4			
July 31	300.15	27,895	-112			
Aug. 31	295.85	24,765	-156			
Sept. 30	291.37	21,712	-157			
WTR YR 1973	-	-	+4.5			

** 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 1972 TO SEPTEMBER 1973

Month	Jersey City	Newark	North Jersey District Water Supply Commission		Passaic Valley Water Commission
			From Wanaque Reservoir	From Ramapo River to Wanaque Reservoir	
October	108	69.5	186	2.8	71.3
November	106	79.2	169	109	69.6
December	108	106	150	0	70.2
CAL YR 1972	108	94.9	184	9.2	75.9
January	108	112	157	0	70.4
February	109	112	154	0	70.6
March	110	113	151	0	70.8
April	111	107	147	0	69.6
May	106	107	153	0	70.0
June	117	117	172	0	86.8
July	114	107	154	0	88.6
August	115	111	171	0	97.4
September	118	120	162	0	92.8
WTR YR 1973	111	106	161	9.2	77.4

NOTE.--Records for diversion from Post Brook to Wanaque Reservoir not available for this water year. Estimated diversion of 4.4 ft (.0125 m) 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 1972 TO SEPTEMBER 1973

Month	Stored	*Released
October	0	0
November	0	0
December	0	0
CAL YR 1972	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 1973	0	0

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

01393450 Elizabeth River at Ursino Lake, Elizabeth, N. J.

LOCATION.--Lat 40°40'30", long 74°13'20", Union County, on left bank at Ursino Lake Dam 75 ft (22.9 m) upstream of bridge on Trotters Lane and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--16.9 mi^2 (43.8 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1922, nonrecording gage at site 2,800 ft (853 m) downstream at datum 4.14 ft (1.262 m) higher and Oct. 1, 1922, to May 18, 1923, at same site at datum 5.23 ft (1.594 m) higher. May 19, 1923 to Dec. 27, 1972, at site 2,800 ft (853 m) downstream at datum 5.23 ft (1.594 m) higher and published as "Elizabeth River at Elizabeth" (sta 01393500).

EXTREMES.--Current year: Maximum discharge, 3,800 ft^3/s (108 m^3/s) Aug. 2, elevation 25.77 ft (7.855 m); minimum, 5.2 ft^3/s (0.15 m^3/s) July 29, gage height, 13.25 ft (4.039 m).
Period of record: Maximum discharge, 4,110 ft^3/s (116 m^3/s) Aug. 28, 1971 (gage height, 18.7 ft or 5.7 m, from floodmark), from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	9.8	88	18	18	12	132	15	20	37	27	16
2	8.8	49	19	14	476	12	120	14	15	21	723	12
3	9.0	13	14	13	139	17	33	52	13	29	141	12
4	9.0	12	15	118	37	57	154	20	18	26	46	26
5	9.1	45	19	24	24	14	62	13	21	71	20	18
6	15	11	146	15	20	13	26	11	14	18	17	15
7	613	9.7	42	12	37	13	18	12	23	12	18	14
8	43	1,020	73	13	44	89	139	18	13	12	17	13
9	18	311	104	13	24	27	27	108	12	13	18	11
10	12	51	51	13	16	16	92	23	11	13	21	13
11	10	63	26	13	13	13	23	24	12	31	18	14
12	16	24	20	12	13	28	18	15	14	12	14	14
13	10	16	20	11	13	14	17	12	17	16	16	14
14	8.2	395	16	10	16	16	14	13	13	10	17	38
15	6.6	73	98	12	139	29	13	25	10	122	168	58
16	7.6	26	87	12	23	17	14	21	10	17	51	17
17	8.7	18	23	12	14	90	15	13	11	13	24	13
18	8.8	15	16	12	12	23	15	23	14	12	16	41
19	55	27	16	41	12	14	14	12	11	12	13	15
20	12	208	21	23	13	13	12	14	12	54	15	13
21	8.8	26	26	12	13	13	11	19	16	214	17	12
22	7.2	18	205	51	13	12	10	14	54	23	20	11
23	7.9	14	160	24	14	12	42	83	16	15	17	24
24	8.8	12	60	15	12	11	19	24	10	13	17	13
25	8.6	11	28	12	11	11	14	16	12	12	15	12
26	8.9	129	18	12	12	120	171	12	12	47	13	12
27	8.9	22	16	197	13	24	144	20	14	14	15	12
28	157	16	16	112	13	16	41	173	35	10	14	12
29	28	15	13	210	------	15	17	86	485	9.9	14	112
30	13	60	14	33	------	17	15	40	238	12	15	21
31	11	------	42	20	------	13	------	23	------	11	15	------
TOTAL	1,157.3	2,719.5	1,512	1,109	1,204	791	1,442	968	1,176	931.9	1,572	628
MEAN	37.3	90.7	48.8	35.8	43.0	25.5	48.1	31.2	39.2	30.1	50.7	20.9
MAX	613	1,020	205	210	476	120	171	173	485	214	723	112
MIN	6.6	9.7	13	10	11	11	10	11	10	9.9	13	11

CAL YR 1972 TOTAL 14,585.0 MEAN 39.8 MAX 1,020 MIN 6.2
WTR YR 1973 TOTAL 15,210.7 MEAN 41.7 MAX 1,020 MIN 6.6

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	ELEV	DISCHARGE
10-07	0745	a9.37	1,840
11-08	2100	a12.96	2,620

a Site and datum then in use.

01393800 East Fork East Branch Rahway River at West Orange, N. J.

LOCATION.--Lat 40°46'10", long 74°14'37", Essex County, on left bank 75 ft (22.9 m) downstream from Central Avenue, on property of Monroe Sweda Corp. and on boundary between Orange and West Orange.

DRAINAGE AREA.--0.83 mi^2 (2.15 km^2).

PERIOD OF RECORD.--Established May 19, 1972.

GAGE.--Water-stage recorder. Altitude of gage is 172 ft (52.4 m) from topographic map.

EXTREMES.--Current year: Carrying capacity of this stream is about 85 ft^3/s (2.407 m^3/s) which was reached or exceeded on June 29 and Aug. 2 (maximum gage height 8.80 ft or 2.682 m, occurred on Aug. 2); minimum 0.03 ft^3/s (0.001 m^3/s) Oct. 4, 5, gage height, 2.39 ft (0.728 m). Flow exceeding 85 ft^3/s (2.407 m^3/s) either goes into storage or bypasses the gage.

REMARKS.--Record fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	.10	1.9	1.0	1.5	.42	7.4	.84	1.1	3.1	.63	.20
2	.20	1.0	1.0	.90	32	.42	3.3	.78	1.0	1.2	25	.33
3	.05	.10	.98	.90	20	.78	1.9	1.5	.90	1.1	4.0	.36
4	.05	.23	1.0	4.2	5.0	1.2	9.6	1.4	1.2	3.3	4.4	.29
5	.05	.90	.98	1.2	2.5	.49	2.9	1.4	.84	2.1	2.0	.32
6	.87	.10	5.6	1.2	1.6	.49	2.0	1.0	.84	1.0	.90	.27
7	14	.10	1.4	1.0	2.5	.70	1.5	1.0	.90	.70	.60	.25
8	.35	25	5.3	.80	2.7	3.7	5.2	1.3	.62	.56	.50	.25
9	.13	6.5	2.8	.75	2.0	1.0	1.6	2.5	.57	.56	.45	.28
10	.13	1.4	3.0	.70	1.4	.90	4.9	.70	.57	.56	.40	.30
11	.13	1.9	1.6	6.5	1.0	.90	1.6	.57	.57	1.4	.38	.25
12	.49	.98	1.5	.63	.90	.98	1.3	.42	.57	.70	.36	.22
13	.13	.78	1.3	.56	.90	.84	1.2	.29	.62	1.2	.35	.22
14	.10	15	1.1	.54	1.0	.84	1.0	.29	.57	.56	.40	9.0
15	.13	3.1	5.7	.52	12	1.0	.90	.70	.49	5.8	11	1.7
16	.13	1.4	2.3	.50	1.7	.90	.78	.49	.70	1.8	5.6	.25
17	.13	1.1	1.4	.50	1.0	4.6	.78	.90	.42	.68	.60	.60
18	.13	.90	1.2	.50	.90	1.4	.70	.35	.90	5.5	.35	1.2
19	1.1	1.4	1.1	1.8	.82	1.2	.62	.18	.49	5.4	.40	.25
20	.07	7.1	1.6	.57	.82	1.1	.57	.35	.62	38	.28	.21
21	.07	1.2	1.8	.50	.82	.98	.57	.23	1.2	7.9	.35	.18
22	.05	1.6	7.7	2.0	.82	.90	.49	.13	1.4	1.4	.33	.22
23	.05	1.9	2.5	.94	.82	.84	1.0	1.5	.35	1.3	.25	.56
24	.05	1.7	1.9	.80	.70	.78	.42	.35	.35	1.3	.25	.25
25	.05	1.5	1.6	.70	.64	.70	.42	.29	.35	1.2	.25	.24
26	.05	5.0	1.7	.94	.58	8.4	4.1	.29	.42	4.1	.25	.24
27	.05	1.2	1.3	9.0	.49	1.2	4.6	.42	.57	1.6	.25	.25
28	5.0	1.2	1.1	3.2	.49	1.1	1.4	6.2	.70	.98	.25	.30
29	.35	1.1	.98	8.2	------	1.0	.98	1.9	50	.90	.25	12
30	.10	3.6	.98	2.3	------	1.1	.90	1.9	30	.90	.27	1.8
31	.10	------	1.7	1.7	------	.90	------	1.4	------	.90	.25	------
TOTAL	28.29	89.09	66.02	55.55	97.60	41.76	64.63	31.57	99.83	97.70	61.55	32.79
MEAN	.91	2.97	2.13	1.79	3.49	1.35	2.15	1.02	3.33	3.15	1.99	1.09
MAX	14	25	7.7	9.0	32	8.4	9.6	6.2	50	38	25	12
MIN	.05	.10	.98	.50	.49	.42	.42	.13	.35	.56	.25	.18

CAL YR 1972 TOTAL — MEAN — MAX — MIN —
WTR YR 1973 TOTAL 766.38 MEAN 2.10 MAX 50 MIN .05

NOTE.--No gage-height record July 17 to Sept. 30.

01394500 Rahway River near Springfield, N. J.

LOCATION.--Lat 40°41'11", long 74°18'44", Union County, on left bank 50 ft (15 m) downstream from bridge on U.S. Highway 22, 100 ft (30 m) downstream from Pope Brook, and 1.5 mi (2.4 km) south of Springfield.

DRAINAGE AREA.--25.5 mi^2 (66.0 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 66.17 ft (20.169 m) above mean sea level.

AVERAGE DISCHARGE.--35 years, 26.6 ft^3/s (0.753 m^3/s).

EXTREMES.--Current year: Maximum discharge, 5,430 ft^3/s (154 m^3/s) Aug. 2 (gage height 9.76 ft or 2.975 m, from floodmark) rating extended above 1,600 ft^3/s (34.2 m) on basis of slope-area measurement of peak flow; minimum, 2.6 ft^3/s (0.074 m^3/s) Oct. 3-5, gage height 1.22 ft (0.372 m).
Period of record: Maximum discharge 5.430 ft^3/s (154 m^3/s) Aug. 2 (gage height 9.76 ft or 2.975 m, from floodmark) rating extended above 1,600 ft^3/s (35.2 m) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 11, 1966.
REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers and state reports indicated.

Publication	Water year	Date	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (feet)	Gage height (m)
WSP 851, 1302	1938	July 23, 1938	2,050	58.1	7.41	2.259
WRD-NJ 1968	1968	May 29, 1968	3,370	95.4	8.50	2.591
WRD-NJ 1971	1971	Aug. 28, 1971	3,430	97.1	8.54	2.603

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	6.1	111	32	24	9.1	209	20	16	65	18	6.5
2	3.1	27	28	20	816	8.9	303	17	13	24	1,560	9.9
3	2.8	7.2	19	16	555	9.8	65	47	10	30	314	10
4	2.8	8.0	15	118	73	52	430	30	12	76	53	8.9
5	2.8	26	17	37	44	19	206	17	16	42	28	9.4
6	4.2	7.2	170	24	33	14	49	13	10	16	21	8.4
7	463	6.6	78	16	44	14	36	14	17	11	17	7.9
8	29	789	111	13	51	107	200	16	9.8	9.3	15	7.9
9	8.8	852	150	12	44	35	59	109	9.3	9.6	13	8.4
10	7.8	46	73	11	24	21	120	33	9.1	9.3	12	8.9
11	6.1	30	42	11	19	17	43	28	9.1	14	12	7.5
12	8.7	26	27	9.8	16	29	31	17	10	10	10	7.2
13	7.8	12	28	9.3	16	18	25	14	12	10	12	6.8
14	6.1	541	21	9.3	17	17	21	12	9.1	9.6	10	104
15	4.3	138	100	9.3	188	27	17	17	8.7	160	123	108
16	4.9	31	128	9.6	37	17	16	25	8.7	21	80	7.5
17	6.1	19	32	9.6	21	145	17	13	8.9	12	14	7.5
18	7.2	13	22	9.8	17	55	16	20	10	9.3	9.9	32
19	26	20	20	34	16	27	15	11	9.1	9.1	8.9	8.4
20	7.8	273	33	32	16	20	12	11	9.1	13	9.9	7.2
21	4.9	33	29	11	16	17	9.8	20	12	379	10	6.5
22	4.9	20	330	43	16	17	10	11	37	34	9.9	6.1
23	4.9	15	73	52	15	13	27	61	11	15	9.9	17
24	4.9	12	43	19	12	12	19	29	8.5	11	7.9	8.4
25	4.9	10	31	14	11	12	13	13	8.5	9.8	7.5	7.5
26	4.9	138	28	12	10	335	143	10	8.0	46	6.8	7.9
27	4.9	31	35	230	9.6	40	150	15	8.5	28	7.5	7.5
28	111	19	22	268	9.3	23	116	188	29	13	7.9	7.5
29	20	14	17	449	------	20	33	100	759	9.8	7.9	125
30	7.2	47	16	59	------	20	23	25	879	9.1	8.4	7.2
31	7.2	------	38	34	------	18	------	19	------	8.9	7.5	------
TOTAL	797.8	3,217.1	1,887	1,633.7	2,169.9	1,188.8	2,433.8	975	1,977.4	1,123.8	2,431.9	582.9
MEAN	25.7	107	60.9	52.7	77.5	38.3	81.1	31.5	65.9	36.3	78.4	19.4
MAX	463	852	330	449	816	335	430	188	879	379	1,560	125
MIN	2.8	6.1	15	9.3	9.3	8.9	9.8	10	8.0	8.9	6.8	6.1

CAL YR 1972 TOTAL 18,531.9 MEAN 50.6 MAX 852 MIN 2.5
WTR YR 1973 TOTAL 20,419.1 MEAN 55.9 MAX 1,560 MIN 2.8

PEAK DISCHARGE (BASE, 1,000 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0930	5.41	1,050	2-02	1845	7.22	1,840	6-29	2100	7.06	1,760
11-08	2300	8.14	2,870	4-04	1745	5.80	1,210	8-02	Unk	9.76	5,430
11-14	1400	5.31	1,010								

01395000 Rahway River at Rahway, N. J.

LOCATION.--Lat 40°37'05", long 74°17'00", Union County, on left bank 100 ft (30 m) upstream from St. Georges Avenue bridge in Rahway and 0.9 mi (1.4 km) upstream from Robinsons Branch.

DRAINAGE AREA.--40.9 mi^2 (105.9 km^2).

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 (2.673 m) above mean sea level. Prior to Aug. 25, 1934, nonrecording gage at site 40 ft (12 m) downstream from Church Street and 1,500 ft (460 m) downstream from present site at datum 2.77 ft (0.844 m) lower.

AVERAGE DISCHARGE.--52 years (1921-73), 45.2 ft^3/s (1.280 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 5,420 ft^3/s (153 m^3/s) Aug. 2 (gage height, 7.88 ft or 2.402 m) from rating curve extended above 2,000 ft^3/s (57 m^3/s); no flow for part of several days in summer months. Period of record: Maximum discharge, 5.420 ft^3/s (153 m^3/s) Aug. 2, 1973 (gage height, 7.88 ft or 2.402 m) from rating curve extended above 2,000 ft^3/s (57 m^3/s); no flow for part of all of some days in many years.

REMARKS.--Records excellent except those below 3.0 ft^3/s (0.08 m^3/s), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	7.0	232	55	45	16	203	28	20	540	14	11
2	3.5	51	65	34	933	16	565	26	22	51	2,370	10
3	.30	16	34	26	1,900	18	168	42	14	24	2,510	10
4	.30	8.3	26	174	282	95	331	71	14	128	250	27
5	2.7	55	33	103	87	39	686	26	24	105	53	12
6	14	15	168	43	63	26	93	25	14	31	36	13
7	642	11	258	27	77	24	67	21	18	19	32	13
8	254	905	99	21	77	207	266	20	15	14	28	2.2
9	15	2,600	327	21	97	103	177	158	11	12	26	9.8
10	4.9	439	128	20	47	37	177	105	9.0	14	23	7.8
11	8.3	65	91	20	31	30	97	43	19	16	23	9.0
12	9.0	63	51	16	25	47	51	27	8.3	24	4.7	8.4
13	12	27	51	8.3	28	40	39	24	19	25	19	7.2
14	7.6	550	36	15	26	26	25	21	16	11	28	85
15	5.9	620	105	14	278	49	28	21	7.6	164	61	298
16	3.1	87	270	16	97	30	26	45	3.1	83	262	26
17	3.9	40	65	16	39	149	39	21	8.3	11	33	12
18	4.4	31	37	16	27	155	25	20	9.8	14	31	32
19	47	28	30	22	25	51	21	11	9.8	9.8	8.4	27
20	18	385	49	83	25	34	16	16	9.8	9.8	28	12
21	5.9	121	53	25	26	27	7.0	31	9.0	394	20	11
22	3.5	40	416	30	25	26	16	21	55	147	20	10
23	1.5	30	232	110	24	20	36	79	36	24	14	24
24	3.5	21	85	37	21	9.8	47	83	7.6	9.8	3.2	14
25	2.7	20	53	24	18	27	22	25	4.9	14	12	11
26	.50	193	43	20	16	416	258	18	5.9	53	12	11
27	3.1	101	65	193	17	136	180	22	9.0	34	10	12
28	91	36	40	540	16	43	306	236	31	20	12	12
29	152	27	30	664	------	31	69	228	766	14	11	197
30	13	40	26	214	------	31	37	36	2,110	9.0	11	45
31	8.3	------	65	65	------	30	------	26	------	9.8	9.0	------
TOTAL	1,373.90	6,632.3	3,263	2,672.3	4,372	1,988.8	4,078.0	1,576	3,306.1	2,034.2	5,974.3	979.4
MEAN	44.3	221	105	86.2	156	64.2	136	50.8	110	65.6	193	32.6
MAX	642	2,600	416	664	1,900	416	686	236	2,110	540	2,510	298
MIN	.30	7.0	26	8.3	16	9.8	7.0	11	3.1	9.0	3.2	2.2

CAL YR 1972 TOTAL 30,223.32 MEAN 82.6 MAX 2,600 MIN .16
WTR YR 1973 TOTAL 38,250.30 MEAN 105 MAX 2,600 MIN .30

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0945	3.82	1,020	2-03	0515	5.69	2,500
11-08	2245	6.45	3,360	4-05	0415	3.88	1,070
11-14	2330	3.89	1,070	6-30	0730	5.90	2,710
1-27	2145	3.36	716	8-02	2400	7.88	5,420

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 (610 m) upstream from Madison Avenue in Rahway, 3,200 ft (980 m) downstream from Middlesex Reservoir Dam, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--21.6 mi^2 (55.9 km^2).

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

GAGE.--Water-stage recorder above Milton Lake Dam. Datum of gage is 19.99 ft (6.093 m) above mean ea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--34 years, 23.5 ft^3/s (0.666 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,380 ft^3/s (67.4 m^3/s) Aug. 2 (gage height, 5.65 ft or 1.722 m) from rating curve extended above 750 ft^3/s (21 m^3/s) on basis of computation of flow over dam; minimum daily, 0.02 ft^3/s (0.001 m^3/s) June 15-18, 25-27.
Period of record: Maximum discharge, 2,380 ft^3/s (67.4 m^3/s) Aug. 2, 1973 (gage height, 5.65 ft or 1.722 m) from rating curve extended above 750 ft^3/s (21 m^3/s) on basis of flow over dam; maximum gage height, 6.02 ft (1.835 m) Aug. 15, 1969; no flow many times.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s), 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 (1.134 hm^3) 3,200 ft (980 m) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	53	127	29	20	.80	197	28	26	209	7.0	2.6
2	3.1	56	43	31	704	7.8	375	28	26	31	560	3.6
3	3.1	48	31	34	565	16	123	29	26	12	395	3.6
4	3.1	48	31	73	185	82	244	29	26	31	145	4.1
5	3.1	53	31	58	51	38	251	29	24	73	28	3.6
6	24	51	95	29	34	26	53	29	24	20	10	3.6
7	290	51	165	18	46	26	36	29	22	8.6	.35	3.6
8	82	280	76	11	58	203	191	29	22	7.0	.20	2.6
9	31	669	197	11	58	95	95	46	22	7.0	4.1	1.4
10	31	238	89	11	28	36	95	58	20	8.6	5.1	.80
11	16	56	58	10	26	29	46	34	20	11	5.1	1.4
12	.35	36	36	10	26	31	28	29	7.8	10	4.6	2.6
13	11	31	34	9.4	26	31	28	28	1.4	24	4.1	1.1
14	34	264	31	9.4	26	34	26	26	.35	20	3.1	63
15	29	241	76	9.4	85	36	31	26	.02	31	31	95
16	22	58	140	9.4	51	36	31	26	.02	14	51	8.6
17	.80	31	41	10	28	107	31	26	.02	7.0	6.2	4.1
18	18	31	31	10	26	63	31	26	.02	5.6	5.1	11
19	38	34	31	24	24	31	31	24	.10	5.6	4.6	5.6
20	20	209	31	43	24	28	34	24	.35	6.2	4.1	3.6
21	.50	63	34	16	24	29	29	24	2.6	82	3.6	3.6
22	.05	31	238	31	24	29	28	24	3.6	26	4.6	3.1
23	9.4	31	135	58	14	29	29	28	.50	6.2	4.1	6.2
24	31	31	58	29	.80	29	26	26	.10	5.1	3.6	4.1
25	26	31	38	22	.50	29	16	26	.02	5.1	3.6	3.6
26	.80	79	34	18	.80	165	61	26	.02	10	3.6	3.6
27	7.0	51	38	170	.80	69	150	26	.02	7.8	3.6	3.6
28	41	34	31	300	.80	31	175	79	1.4	6.2	4.1	4.1
29	41	34	31	441	------	29	41	63	470	5.1	3.6	69
30	51	41	29	131	------	29	28	26	605	4.6	3.6	7.8
31	53	------	31	34	------	31	------	26	------	4.6	4.1	------
TOTAL	927.30	2,964	2,091	1,699.6	2,156.70	1,455.60	2,560	977	1,351.34	704.3	1,315.75	334.20
MEAN	29.9	98.8	67.5	54.8	77.0	47.0	85.3	31.5	45.0	22.7	42.4	11.1
MAX	290	669	238	441	704	203	375	79	605	209	560	95
MIN	.05	31	29	9.4	.50	.80	16	24	.02	4.6	.20	.80

CAL YR 1972 TOTAL 16,986.04 MEAN 46.4 MAX 669 MIN .05
WTR YR 1973 TOTAL 18,536.79 MEAN 50.8 MAX 704 MIN .02

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0900	4.53	741	1-27	2100	4.42	597	6-29	1515	5.31	1,770
11-08	2115	5.52	2,200	2-02	1700	5.46	19,300	8-02	1130	5.65	2,380
11-14	1315	4.62	795	4-04	1700	4.60	805				

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

LOCATION.--Lat 40°40'40", long 74°52'46", Hunterdon County, on left bank 1.0 mi (1.6 km) northeast of High Bridge and 4.4 mi (7.1 km) upstream from Spruce Run.

DRAINAGE AREA.--65.3 mi^2 (169.1 km^2).

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 (85.984 m) above mean sea level (New Jersey Geological Survey bench mark). Prior to Sept. 30, 1921, reference point at same site and datum.

AVERAGE DISCHARGE.--55 years, 117 ft^3/s (3.313 m^3/s), 24.34 in/yr (618 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,920 ft^3/s (82.7 m^3/s) Feb. 3, gage height, 10.17 ft (3.010 m); minimum, 42 ft^3/s (1.19 m^3/s) Oct. 4-6, gage height, 5.90 ft (1.798 m).
Period of record: Maximum discharge, 5,160 ft^3/s (146 m^3/s) Mar. 15, 1940 (gage height, 11.78 ft or 3.591 m) from rating curve extended above 1,600 ft^3/s (45 m^3/s); minimum, 6.6 ft^3/s (0.19 m^3/s) Oct. 11, 1930; minimum daily, 13 ft^3/s (0.37 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	57	365	281	183	119	237	198	190	274	86	61
2	47	75	266	217	865	121	525	178	180	193	964	61
3	45	75	234	190	1,420	127	330	178	165	159	509	59
4	43	66	228	310	496	214	429	193	161	236	212	67
5	42	119	222	260	394	168	492	165	168	269	167	58
6	42	84	372	206	337	149	297	154	154	179	146	57
7	242	69	500	161	320	145	266	143	175	139	133	58
8	143	858	333	154	320	263	394	138	147	125	124	54
9	84	1,320	595	163	327	209	313	351	136	116	118	52
10	66	310	437	190	237	168	570	260	125	111	112	52
11	58	225	369	234	214	156	351	337	115	105	111	51
12	57	206	294	231	190	168	291	225	105	97	111	51
13	55	170	303	132	185	154	263	209	111	97	129	50
14	52	724	269	129	180	140	242	183	103	117	103	55
15	50	590	269	134	310	159	225	180	92	101	108	151
16	49	294	354	134	245	147	217	203	89	103	136	79
17	47	242	234	134	168	316	206	198	92	89	107	64
18	46	217	211	134	154	269	200	520	92	85	98	75
19	52	203	209	147	165	200	190	248	92	81	95	75
20	57	610	234	209	159	173	180	211	91	80	93	61
21	50	287	242	134	159	161	170	239	92	765	90	57
22	47	237	550	190	156	154	165	217	121	300	84	54
23	49	214	333	421	149	145	165	234	163	159	80	70
24	47	195	266	206	138	138	180	275	165	129	76	64
25	46	185	251	165	129	136	159	206	107	118	74	57
26	45	718	237	152	127	437	266	188	96	126	72	55
27	43	361	245	211	127	234	237	178	89	116	70	53
28	67	260	219	456	119	185	484	323	87	106	70	52
29	152	237	198	344	------	170	257	413	456	104	67	111
30	86	228	190	231	------	168	206	239	1,060	98	64	85
31	63	------	297	211	------	170	------	209	------	85	63	------
TOTAL	2,021	9,436	9,326	6,471	7,973	5,663	8,507	7,193	5,019	4,862	4,472	1,949
MEAN	65.2	315	301	209	285	183	284	232	167	157	144	65.0
MAX	242	1,320	595	456	1,420	437	570	520	1,060	765	964	151
MIN	42	57	190	129	119	119	159	138	87	80	63	50
CFSM	1.00	4.82	4.61	3.20	4.36	2.80	4.35	3.55	2.56	2.40	2.21	1.00
IN.	1.15	5.38	5.31	3.69	4.54	3.23	4.85	4.10	2.86	2.77	2.55	1.11

CAL YR 1972 TOTAL 68,386 MEAN 187 MAX 1,480 MIN 42 CFSM 2.86 IN 38.96
WTR YR 1973 TOTAL 72,892 MEAN 200 MAX 1,420 MIN 42 CFSM 3.06 IN 41.52

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2130	9.77	2,360	11-26	1815	8.71	1,230	6-30	1430	8.88	1,380
11-14	2130	8.02	1,520	2-03	0015	10.17	2,920	7-21	1015	8.53	1,080
								8-02	2045	9.03	1,530

01396800 Spruce Run at Clinton, N. J.

LOCATION.--Lat 40°38'21", long 74°54'58", Hunterdon County, on right bank 1,800 ft (550 m) downstream from dam at Spruce Run Reservoir 0.2 mi (0.3 km) north of Clinton, 0.3 mi (0.5 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of High Bridge.

DRAINAGE AREA.--41.3 mi^2 (107.0 km^2).

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 (58.918 m) 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 (550 m) upstream and at datum 1.22 ft (0.372 m) lower; July 24, 1961, to Mar. 14, 1964, water-stage recorder at site 1,500 ft (460 m) upstream at datum 1.22 ft (0.372 m) lower.

AVERAGE DISCHARGE.--14 years, 54.9 ft^3/s (1.555 m^3/s).

EXTREMES.--Current year: Maximum discharge, 1,370 ft^3/s (38.8 m^3/s) June 29, gage height, 3.19 ft (0.972 m); minimum daily, 7.4 ft^3/s (0.21 m^3/s)Nov. 23, 25.
Period of record: Maximum discharge, 6,410 ft^3/s (182 m^3/s) Apr. 2, 1970, gage height, 5.17 ft (1.576 m); 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.--Record excellent. Flow regulated by Spruce Run Reservoir (see p.). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	14	173	164	101	48	134	82	97	253	25	35
2	87	13	119	122	489	48	329	78	84	170	417	32
3	80	8.7	101	82	601	48	214	87	75	137	261	32
4	92	10	87	168	261	48	219	106	88	154	109	32
5	101	10	87	159	193	48	332	84	81	152	66	32
6	101	11	193	155	164	48	175	70	72	116	48	32
7	55	12	274	85	193	48	130	38	69	84	39	32
8	15	17	183	33	208	48	214	24	61	70	36	33
9	15	12	337	41	214	48	194	164	67	61	32	32
10	15	12	248	57	151	48	305	170	43	55	35	41
11	17	12	214	61	151	48	231	174	41	59	33	59
12	16	12	155	59	151	57	128	115	37	66	46	68
13	15	11	155	53	151	51	138	93	47	27	39	70
14	17	14	126	53	151	48	99	71	56	39	29	73
15	25	11	142	55	151	48	103	78	31	43	42	48
16	33	8.7	315	57	151	48	101	97	25	49	77	15
17	33	8.7	164	55	151	95	101	97	27	40	49	42
18	42	8.7	29	57	155	146	96	218	22	35	36	51
19	49	8.7	57	68	151	112	91	113	21	33	32	51
20	46	10	103	119	95	73	82	95	23	31	29	51
21	41	8.0	119	77	48	48	77	133	28	86	26	51
22	41	8.0	294	90	48	57	77	118	60	88	26	51
23	42	7.4	219	173	46	70	83	103	128	58	24	51
24	29	8.7	159	109	48	51	88	125	511	47	23	51
25	16	7.4	138	77	48	48	68	101	163	38	23	51
26	17	68	130	66	48	178	129	85	100	31	24	51
27	16	103	134	115	48	159	132	81	76	28	21	51
28	17	92	119	230	48	106	226	211	68	26	25	51
29	16	82	80	344	------	90	148	281	746	26	35	53
30	14	82	82	155	------	87	91	150	669	21	44	51
31	13	------	146	112	------	90	------	124	------	22	42	------
TOTAL	1,211	691.0	4,882	3,251	4,415	2,190	4,535	3,566	3,616	2,145	1,793	1,373
MEAN	39.1	23.0	157	105	158	70.6	151	115	121	69.2	57.8	45.8
MAX	101	103	337	344	601	178	332	281	746	253	417	73
MIN	13	7.4	29	33	46	48	68	24	21	21	21	15

CAL YR 1972 TOTAL 35,511.0 MEAN 97.0 MAX 1,140 MIN 7.4
WTR YR 1973 TOTAL 33,668.0 MEAN 92.2 MAX 746 MIN 7.4

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 mi (0.6 km) upstream from Prescott Brook.

DRAINAGE AREA.--147 mi^2 (381 km^2).

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 (38.103 m) above mean sea level. Prior to Aug. 17, 1925, nonrecording gage on downstream side of highway bridge at same site and datum.

AVERAGE DISCHARGE.--57 years, (1904-6, 1920-73) 235 ft^3/s (6.655 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 4,250 ft^3/s (120 m^3/s) Feb. 3, gage height, 8.24 ft (2.511 m); minimum, 75 ft^3/s (2.12 m^3/s), regulated, Oct. 25, 26, gage height, 2.28 ft (0.695 m); minimum daily, 77 ft^3/s (2.18 m^3/s) Oct. 25.
Period of record: Maximum discharge, 18,000 ft^3/s (510 m^3/s) Aug. 19, 1955 (gage height 15.22 ft or 4.639 m) from rating curve extended above 6,400 ft^3/s (180 m^3/s) on basis of computation of flow over Clinton Dam, 6.5 mi (10.5 km) upstream, at gage height, 10.72 ft (3.269 m), contracted opening measurement 1.7 mi 2.7 km) downstream, and slope-area measurement 0.4 mi (0.6 km) downstream at gage height, 15.22 ft (4.639 m), adjusted to present site; minimum, 9 ft^3/s (0.25 m^3/s) Nov. 7, 1931; minimum daily, 12 ft^3/s (0.34 m^3/s) Oct. 18, 1963.

REMARKS.--Records excellent. Flow regulated by Spruce Run Reservoir since September 1963 (see p. 81). Occasional regulation at low flow by ponds above station. Slight diurnal fluctuation caused by small powerplants above station. Water diverted by Hamden Pumping Station, 4.0 mi (6.4 km) upstream, into Round Valley Reservoir since February 1966 (see p. 82). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	93	720	580	404	218	483	376	384	828	140	165
2	156	107	520	434	1,760	218	1,200	356	352	510	1,780	148
3	140	118	438	352	2,720	224	768	348	320	412	1,080	145
4	145	99	408	600	1,070	332	864	392	320	520	429	151
5	159	159	396	570	798	293	1,190	336	324	555	308	145
6	162	138	621	465	676	256	698	304	285	400	260	148
7	348	110	1,100	360	660	253	555	256	308	300	247	145
8	250	1,010	643	328	687	388	792	224	270	267	237	143
9	130	1,960	1,330	340	715	356	750	595	253	247	227	138
10	103	515	912	356	497	285	1,230	590	218	230	218	143
11	95	344	834	348	465	267	876	616	201	224	224	159
12	91	300	605	336	443	285	600	438	187	227	233	170
13	89	247	600	304	434	274	565	380	210	173	240	170
14	85	1,050	525	285	408	247	479	324	207	210	204	237
15	89	1,090	545	247	580	267	452	316	170	210	274	384
16	99	479	906	243	510	260	416	372	153	210	324	148
17	99	380	555	243	412	483	404	340	162	181	237	130
18	99	324	380	243	420	580	388	882	153	167	210	159
19	125	293	360	270	416	408	368	456	153	156	198	167
20	125	930	425	412	336	328	344	380	151	151	193	143
21	112	479	479	267	270	278	320	452	153	846	167	140
22	110	368	1,140	368	267	274	316	434	247	545	143	133
23	110	320	840	756	260	282	324	388	227	278	138	148
24	101	293	595	412	247	250	348	510	816	221	128	148
25	77	270	525	316	233	243	296	388	348	198	125	135
26	91	900	488	289	233	840	501	344	243	207	123	133
27	112	709	506	492	227	530	474	332	207	187	120	130
28	156	461	443	930	218	388	960	720	195	173	123	128
29	247	416	368	1,170	------	344	580	981	1,470	162	133	204
30	130	400	356	590	------	336	412	540	2,540	156	162	187
31	103	------	525	474	------	340	------	447	------	143	170	------
TOTAL	4,105	14,362	19,088	13,380	16,366	10,327	17,953	13,817	11,227	9,294	8,795	4,824
MEAN	132	479	616	432	585	333	598	446	374	300	284	161
MAX	348	1,960	1,330	1,170	2,720	840	1,230	981	2,540	846	1,780	384
MIN	77	93	356	243	218	218	296	224	151	143	120	128

CAL YR 1972 TOTAL 144,717 MEAN 395 MAX 4,050 MIN 77
WTR YR 1973 TOTAL 143,538 MEAN 393 MAX 2,720 MIN 77

01398000 Neshanic River at Reaville, N. J.

LOCATION.--Lat 40°28'18", long 74°49'42", Hunterdon County, on left bank 50 ft (15 m) downstream from highway bridge, 0.6 mi (1.0 km) southwest of Reaville, 1.5 mi (2.4 km) downstream from Third Neshanic River, and 2.2 mi (3.5 km) upstream from Back Brook.

DRAINAGE AREA.--25.7 mi^2 (66.6 km^2).

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 (33.363 m) above mean sea level.

AVERAGE DISCHARGE.--43 years, 34.8 ft^3/s (0.986 m^3/s), 18.37 in/yr (467 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,620 ft^3/s (131 m^3/s) June 30 (gage height, 10.04 ft or 3.060 m) from rating curve extended above 1,700 ft^3/s (48 m^3/s) on basis of slope-area measurement 0.7 mi (1.1 km) downstream at gage height 11.90 ft (3.627 m); minimum, 0.86 ft^3/s (0.024 m^3/s) Sept. 3, gage height, 2.20 ft (0.671 m).
Period of record: Maximum discharge, 15,900 ft^3/s (450 m^3/s) Aug. 28, 1971 (gage height, 13.84 ft or 4.218 m, from high-water mark in gage house) from rating curve extended above 1,700 ft^3/s (48 m^3/s) on basis of slope-area measurement 0.7 mi (1.1 km) downstream (adjusted to present site) at gage height 11.90 ft (3.627 m); no flow many days 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.5	185	49	47	13	172	56	38	96	7.0	1.8
2	1.4	8.4	75	36	855	13	303	47	31	56	765	1.9
3	1.3	6.7	58	31	327	15	121	45	25	85	98	1.8
4	1.3	5.3	47	113	127	71	320	46	23	85	43	2.1
5	1.0	18	44	66	87	49	161	34	27	82	27	1.8
6	1.4	11	285	49	67	46	91	29	19	43	19	1.6
7	45	8.7	161	34	93	50	67	24	18	31	15	1.6
8	9.0	645	163	28	115	94	255	23	15	25	12	1.5
9	4.0	369	285	25	96	66	121	67	13	20	9.7	1.4
10	2.7	82	156	21	56	52	231	43	10	19	8.4	1.4
11	2.4	59	100	18	41	48	100	33	9.3	17	10	1.4
12	2.4	46	71	16	35	49	71	27	9.7	14	12	1.3
13	2.4	35	69	14	31	38	57	23	14	12	7.7	1.1
14	2.1	705	54	14	28	33	47	20	8.7	10	6.4	12
15	1.8	185	121	15	102	48	39	20	7.0	16	8.4	28
16	1.6	84	180	15	52	38	35	21	7.0	12	8.7	4.7
17	1.8	61	63	14	35	131	32	23	7.0	8.7	6.7	3.1
18	1.6	47	50	14	27	78	29	44	6.7	7.7	5.8	5.3
19	3.3	44	45	20	25	56	27	21	6.7	9.3	5.5	4.0
20	4.0	418	52	36	24	45	23	22	6.4	11	5.0	2.7
21	2.4	94	52	17	23	37	20	35	8.7	12	4.7	2.4
22	2.1	63	397	69	23	33	19	26	15	8.4	4.2	2.1
23	2.1	48	138	109	20	28	21	40	9.3	6.7	4.2	3.1
24	2.1	39	94	57	17	25	26	43	7.0	5.5	3.8	2.4
25	1.9	34	73	44	15	23	19	48	6.4	4.7	3.3	2.1
26	1.8	208	63	37	15	228	100	37	5.8	6.1	2.9	1.9
27	1.8	82	59	197	14	75	222	46	5.5	6.4	2.7	1.8
28	14	57	47	197	14	52	327	327	5.5	4.7	2.6	1.8
29	17	46	37	549	------	44	117	117	1,480	4.2	2.2	4.7
30	7.4	59	35	109	------	44	73	67	830	3.8	2.1	2.6
31	5.3	------	49	64	------	38	------	50	------	3.3	1.9	------
TOTAL	151.1	3,572.6	3,308	2,077	2,411	1,660	3,246	1,504	2,674.7	725.5	1,114.9	105.4
MEAN	4.87	119	107	67.0	86.1	53.5	108	48.5	89.2	23.4	36.0	3.51
MAX	45	705	397	549	855	228	327	327	1,480	96	765	28
MIN	1.0	4.5	35	14	14	13	19	20	5.5	3.3	1.9	1.1
CFSM	.19	4.63	4.16	2.61	3.35	2.08	4.20	1.89	3.47	.91	1.40	.14
IN.	.22	5.17	4.79	3.01	3.49	2.40	4.70	2.18	3.87	1.05	1.61	.15

CAL YR 1972 TOTAL 21,354.7 MEAN 58.3 MAX 1,340 MIN 1.0 CFSM 2.27 IN 30.91
WTR YR 1973 TOTAL 22,550.2 MEAN 61.8 MAX 1,480 MIN 1.0 CFSM 2.40 IN 32.64

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1815	7.36	1,750	6-30	0015	10.04	4,620
11-14	1315	7.83	2,080	8-02	1030	8.01	2,230
2-02	1715	8.34	2,520				

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 (23 m) upstream from Ravine Lake Dam, 1.6 mi (2.6 km) north of Far Hills, and 2.3 mi (3.7 km) upstream from Peapack Brook.

DRAINAGE AREA.--26.2 mi^2 (67.9 km^2).

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 (68.425 m) 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.--52 years, 46.6 ft^3/s (1.320 m^3/s), 24.16 in/yr (614 mm/yr).

EXTREMES.--Current year: Maximum discharge 1,940 ft^3/s (54.9 m^3/s) Feb. 2, gage height, 4.68 ft (1.426 m); minimum daily, 7.8 ft^3/s (0.221 m^3/s) Oct. 18.
Period of record: Maximum discharge, 6,390 ft^3/s (181 m^3/s) Aug. 28, 1971 (gage height 7.28 ft or 2.219 m) from rating curve extended above 2,000 ft^3/s (57 m^3/s) on basis of computation of peak flow over dam; no flow at times when Ravine Lake was filling.
Stage of 7.6 ft (2.32 m), from floodmark, occurred July 23, 1919, discharge, about 7,000 ft^3/s (200 m^3/s).

REMARKS.--Records good. Records given herein include diversion varying from 2.4 ft^3/s (0.068 m^3/s) to 3.0 ft^3/s (0.085 m^3/s) by small turbine at dam, Oct. 1-15, May 1 to Sept. 30, to fountain and returned to river 1,000 ft (300 m) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	17	160	114	82	47	118	85	60	122	33	20
2	17	25	97	81	710	48	210	82	54	109	436	19
3	12	25	84	71	384	50	125	84	52	57	165	19
4	11	20	78	129	231	101	219	86	52	71	80	19
5	11	28	82	86	196	67	178	76	53	72	54	20
6	12	25	210	66	168	60	132	71	55	52	45	20
7	119	19	149	52	160	60	120	67	48	45	41	19
8	35	482	154	49	159	123	205	68	45	41	38	16
9	23	437	230	49	148	72	143	185	45	39	37	15
10	15	133	190	49	109	69	226	106	40	37	36	15
11	14	107	149	47	95	60	134	143	38	36	35	15
12	14	95	125	45	78	66	116	94	36	34	36	15
13	14	75	131	43	79	66	102	92	36	39	39	14
14	13	316	111	43	76	60	94	80	34	44	33	25
15	11	174	117	45	143	66	86	79	31	36	35	88
16	8.9	116	146	45	95	60	82	86	30	34	42	30
17	8.4	98	90	45	64	209	79	76	32	31	33	22
18	7.8	84	84	47	56	103	82	127	32	28	30	25
19	12	81	84	52	55	79	63	80	32	32	29	27
20	14	241	98	86	63	69	66	72	31	31	28	20
21	12	107	93	52	63	64	63	54	30	302	27	18
22	12	92	220	120	62	61	63	34	49	75	26	17
23	12	81	124	166	59	58	63	46	39	46	24	21
24	11	76	105	75	55	57	66	60	36	39	24	21
25	11	73	100	69	52	57	54	37	32	36	23	19
26	10	254	93	66	52	217	107	30	32	48	22	17
27	10	111	98	138	50	90	134	26	30	42	22	17
28	32	94	84	181	48	76	230	97	28	36	22	17
29	54	87	76	186	------	70	109	133	190	33	21	68
30	27	89	73	107	------	72	89	80	495	31	20	44
31	20	------	122	98	------	72	------	65	------	30	20	------
TOTAL	610.1	3,662	3,757	2,502	3,592	2,429	3,558	2,501	1,797	1,708	1,556	722
MEAN	19.7	122	121	80.7	128	78.4	119	80.7	59.9	55.1	50.2	24.1
MAX	119	482	230	186	710	217	230	185	495	302	436	88
MIN	7.8	17	73	43	48	47	54	26	28	28	20	14
CFSM	.75	4.66	4.62	3.08	4.89	2.99	4.54	3.08	2.29	2.10	1.92	.92
IN.	.87	5.20	5.33	3.55	5.10	3.45	5.05	3.55	2.55	2.43	2.21	1.03

CAL YR 1972 TOTAL 30,064.3 MEAN 82.1 MAX 510 MIN 7.8 CFSM 3.13 IN 42.69
WTR YR 1973 TOTAL 28,394.1 MEAN 77.8 MAX 710 MIN 7.8 CFSM 2.97 IN 40.32

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0030	4.18	1,360	6-30	0430	4.61	1,850
11-14	1445	3.61	819	7-21	0215	3.53	754
2-02	1900	4.68	1,940	8-02	1515	4.44	1,650

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

LOCATION.--Lat 40°43'39", long 74°43'50", Morris County, on right bank 1.1 mi (1.8 km) upstream from bridge on State Highway 512, 1.2 mi (1.9 km) northwest of Pottersville, and 5.5 mi (8.8 km) upstream from Cold Brook.

DRAINAGE AREA.--32.8 mi^2 (84.9 km^2).

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 (86.606 m) 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 mi (1.8 km) downstream at different datum.

AVERAGE DISCHARGE.--52 years, 54.5 ft^3/s (1.543 m^3/s), 22.55 in/yr (528 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,080 ft^3/s (30.6 m^3/s), gage height, 4.07 ft (1.241 m); minimum, 17 ft^3/s (0.48 m^3/s) Sept. 12-14, gage height, 1.60 ft (0.488 m).
Period of record: Maximum discharge, 2,700 ft^3/s (76.5 m^3/s) Aug. 28, 1971 (gage height, 5.39 ft or 1.643 m) from rating curve extended above 380 ft^3/s (10.8 m^3/s) on basis of slope-area measurement at gage height 4.71 ft (1.436 m); minimum, 1.3 ft^3/s (0.037 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	39	159	123	107	63	107	112	103	184	49	23
2	19	49	130	113	365	65	154	96	88	177	236	22
3	19	43	124	108	422	66	138	90	77	150	150	22
4	19	37	116	137	342	99	189	85	72	141	129	22
5	18	47	112	121	276	99	192	78	70	142	120	21
6	18	39	153	107	218	84	163	75	68	102	99	21
7	81	35	158	89	190	78	143	69	67	87	79	20
8	56	249	174	78	179	79	164	67	63	78	65	19
9	50	296	217	70	167	84	143	129	64	66	56	19
10	64	230	205	64	137	103	210	114	59	59	51	19
11	61	205	188	61	117	74	176	143	52	52	50	19
12	52	161	165	60	104	73	159	123	47	45	51	18
13	42	124	155	61	95	74	139	115	45	47	50	17
14	34	246	137	60	91	74	122	99	41	47	42	33
15	30	218	138	58	134	74	110	91	39	47	45	51
16	26	180	155	58	121	74	101	88	38	44	49	33
17	24	160	115	62	95	117	96	95	37	41	44	35
18	22	131	107	66	88	113	93	130	38	39	42	48
19	26	116	101	74	86	113	90	102	38	35	41	44
20	25	202	107	90	84	104	85	103	38	42	40	36
21	23	142	110	75	83	89	81	102	43	172	38	31
22	23	132	193	119	82	79	77	90	54	125	37	28
23	24	117	167	158	80	71	77	96	50	138	35	30
24	23	102	155	144	78	66	77	98	54	126	33	26
25	23	92	140	125	76	63	74	90	50	99	32	24
26	22	232	128	104	73	155	108	87	48	88	30	23
27	21	169	121	124	69	112	118	82	44	71	29	23
28	46	161	109	153	64	109	167	140	40	58	27	23
29	53	144	100	185	------	98	147	138	147	50	25	44
30	37	132	95	140	------	88	134	128	339	45	24	32
31	36	------	127	120	------	81	------	122	------	41	23	------
TOTAL	1,038	4,230	4,361	3,107	4,023	2,721	3,834	3,177	2,013	2,638	1,821	826
MEAN	33.5	141	141	100	144	87.8	128	102	67.1	85.1	58.7	27.5
MAX	81	296	217	185	422	155	210	143	339	184	236	51
MIN	18	35	95	58	64	63	74	67	37	35	23	17
CFSM	1.02	4.30	4.30	3.05	4.39	2.68	3.90	3.11	2.05	2.59	1.79	.84
IN.	1.18	4.80	4.95	3.52	4.56	3.09	4.35	3.60	2.28	2.99	2.07	.94

CAL YR 1972 TOTAL 32,769 MEAN 89.5 MAX 470 MIN 16 CFSM 2.73 IN 37.16
WTR YR 1973 TOTAL 33,789 MEAN 92.6 MAX 422 MIN 17 CFSM 2.82 IN 38.32

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1345	3.32	532	2-02	1445	3.83	884
11-14	1230	3.25	490	6-30	0200	4.07	1,080
11-26	0745	3.20	460	8-02	1315	3.58	696

01399510 Upper Cold Brook near Pottersville, N. J.

LOCATION.--Lat 40°43'16", long 74°45'09", Hunterdon County, on right bank along a private dirt road, 400 ft (122 m) downstream from the Pottersville Reservoir, 1.5 mi (2.4 km) west of Pottersville.

DRAINAGE AREA.--2.18 mi^2 (5.65 km^2).

PERIOD OF RECORD.--October 1972 to September 1973.

EXTREMES.--Current year: Maximum discharge, 150 ft^3/s (4.25 m^3/s) June 30, gage height, 2.54 ft (0.774 m); minimum daily, 0.66 ft^3/s (0.20 m^3/s) Sept. 12.

REMARKS.--Record fair. Flow regulated by Pottersville Reservoir 400 ft (183 m) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.2	11	7.1	5.5	3.3	13	4.2	4.9	7.1	3.8	.90
2	.80	2.6	6.9	5.7	36	3.6	14	3.9	4.4	5.3	24	.88
3	.80	1.5	6.1	5.6	20	4.0	8.3	4.4	3.9	4.8	6.5	.86
4	.78	1.7	5.5	12	14	7.7	18	3.8	4.3	7.6	4.2	.85
5	.76	3.0	5.9	7.0	12	4.7	11	3.3	3.9	14	3.1	.83
6	.74	1.7	15	5.8	11	4.3	8.8	3.1	3.6	4.9	2.7	.80
7	3.3	1.5	8.3	4.6	11	4.4	7.9	2.9	3.6	3.9	2.5	.78
8	2.1	43	14	4.4	11	8.0	13	3.3	3.2	3.5	2.3	.76
9	2.3	16	13	4.3	9.1	4.9	8.4	12	3.1	3.0	2.2	.74
10	2.6	6.9	13	4.2	8.1	4.2	17	5.5	3.0	2.6	2.2	.74
11	2.4	5.7	9.0	4.0	7.3	4.3	9.7	6.9	2.7	2.2	2.1	.72
12	2.0	4.6	8.1	3.8	5.8	4.7	8.6	4.8	2.6	2.1	2.0	.66
13	1.7	3.9	8.3	3.6	5.1	3.8	7.7	4.2	3.0	2.2	1.8	1.1
14	1.4	26	8.1	3.6	5.2	3.8	7.0	3.5	2.6	2.2	1.7	2.0
15	1.2	11	10	3.9	12	4.4	6.6	3.9	2.5	2.1	1.9	1.3
16	1.1	6.9	10	3.9	6.0	4.2	6.3	3.8	2.6	2.0	1.8	1.4
17	1.0	6.3	5.7	4.0	4.3	5.8	6.1	5.4	2.6	1.8	1.7	1.8
18	.90	5.5	5.5	3.9	4.2	5.7	5.8	6.0	3.0	1.7	1.6	1.9
19	1.1	6.5	5.9	5.8	4.3	5.6	5.5	3.8	2.7	1.8	1.6	1.5
20	1.0	17	7.3	5.6	4.6	5.3	4.9	3.9	2.7	2.3	1.5	1.3
21	.95	6.9	6.9	3.6	4.7	4.5	4.7	5.0	5.5	7.6	1.5	1.2
22	.96	6.1	18	12	4.6	4.0	4.5	3.4	5.1	5.0	1.4	1.1
23	.94	5.1	8.8	8.0	4.1	3.6	5.0	5.9	3.3	3.0	1.3	1.0
24	.93	4.9	7.3	5.4	3.7	3.3	4.7	4.6	3.2	2.3	1.3	1.0
25	.92	4.6	6.9	4.6	3.5	3.2	4.1	3.9	2.7	1.9	1.2	.92
26	.90	22	6.9	4.3	3.7	8.8	7.9	3.3	2.6	4.1	1.1	.90
27	.88	8.1	6.7	11	3.5	6.1	10	3.7	2.5	2.4	1.1	.90
28	2.2	6.9	5.7	8.8	3.3	5.1	10	16	2.5	2.0	1.0	1.7
29	1.8	5.9	5.1	14	------	4.8	5.8	10	26	1.9	.96	1.4
30	1.5	8.1	5.1	7.0	------	5.2	4.7	6.5	21	1.8	.92	1.2
31	1.2	------	11	6.2	------	4.8	------	5.7	------	1.7	.88	------
TOTAL	41.98	251.1	265.0	187.7	227.6	150.1	249.0	160.6	139.3	110.8	83.86	33.14
MEAN	1.35	8.37	8.55	6.05	8.13	4.84	8.30	5.18	4.64	3.57	2.71	1.10
MAX	3.3	43	18	14	36	8.8	18	16	26	14	24	2.0
MIN	.74	1.2	5.1	3.6	3.3	3.2	4.1	2.9	2.5	1.7	.88	.66

CAL YR 1972 TOTAL - MEAN - MAX - MIN -
WTR YR 1973 TOTAL 1,900.18 MEAN 5.21 MAX 43 MIN .66

NOTE.--No gage-height record Oct. 1-30 and Aug. 10 to Sept. 30.

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 (120 m) upstream from U.S. Highway 202, 1.4 mi (2.2 km) upstream from confluence with South Branch, and 2.7 mi (4.3 km) west of Raritan.

DRAINAGE AREA.--190 mi^2 (492 km^2).

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 (15.371 m) above mean sea level. Prior to Oct. 17, 1936, nonrecording gage at site 30 ft (9.1 m) downstream at same datum.

AVERAGE DISCHARGE.--50 years, 294 ft^3/s (8.326 m^3/s), 20.99 in/yr (533 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,310 ft^3/s (264 m^3/s) Aug. 2, gage height, 10.44 ft (3.182 m); minimum, 64 ft^3/s (1.81 m^3/s) Sept. 12, 13.
Period of record: Maximum discharge, 24,900 ft^3/s (705 m^3/s) Aug. 28, 1971 (gage height 15.47 ft or 4.715 m, from high-water mark in gage house) from rating curve extended above 15,000 ft^3/s (420 m^3/s); minimum observed, about 3 ft^3/s (0.08 m^3/s) Nov. 28, 1930, gage height, 1.72 ft (0.524 m), result of freezeup; minimum daily, 7.5 ft^3/s (0.21 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	108	1,200	612	495	235	936	468	386	741	141	93
2	108	169	603	459	3,050	240	1,970	426	349	531	4,370	90
3	79	163	495	402	3,370	252	888	394	307	442	2,800	90
4	73	123	442	984	1,390	558	1,710	418	294	495	1,920	84
5	70	213	434	630	1,070	418	1,450	349	294	549	1,420	84
6	73	163	1,120	477	852	386	807	321	264	356	876	81
7	558	126	1,960	370	840	386	670	294	314	282	342	81
8	258	2,530	796	380	840	650	1,350	282	276	252	246	76
9	130	3,900	1,870	350	876	504	864	888	240	229	218	70
10	119	852	1,160	350	576	394	1,570	640	224	207	202	70
11	119	640	912	330	513	363	888	612	196	196	240	70
12	115	540	690	315	459	394	710	459	147	185	224	67
13	112	418	690	290	434	356	621	426	163	174	229	73
14	97	2,630	585	290	378	314	549	363	169	213	180	104
15	87	1,520	763	305	818	349	495	342	152	258	258	567
16	76	741	1,180	305	558	321	450	370	141	213	342	152
17	76	603	558	290	520	1,040	426	314	152	163	196	112
18	70	486	486	290	440	690	418	621	147	147	180	130
19	87	410	450	282	385	486	370	378	152	136	169	147
20	97	2,030	504	495	328	418	356	349	147	126	163	108
21	81	710	504	288	328	363	335	468	158	876	147	97
22	79	549	1,980	450	321	335	321	402	307	486	147	90
23	76	459	924	1,170	300	307	321	450	224	300	130	108
24	79	402	710	531	282	282	370	567	213	270	123	100
25	76	370	612	426	264	276	300	394	174	229	115	87
26	70	1,540	558	370	264	1,660	700	349	163	282	112	84
27	70	774	576	864	258	621	700	335	147	240	108	81
28	163	576	477	1,580	240	468	1,750	1,200	136	191	108	81
29	426	504	418	2,380	------	418	710	1,210	1,560	158	97	252
30	158	459	394	785	------	402	549	549	4,570	141	93	158
31	119	------	576	594	------	394	------	459	------	130	87	------
TOTAL	3,909	24,708	24,627	17,644	20,449	14,280	23,554	15,097	12,166	9,198	15,983	3,487
MEAN	126	824	794	569	730	461	785	487	406	297	516	116
MAX	558	3,900	1,980	2,380	3,370	1,660	1,970	1,210	4,570	876	4,370	567
MIN	70	108	394	282	240	235	300	282	136	126	87	67
CFSM	.66	4.34	4.18	2.99	3.84	2.43	4.13	2.56	2.14	1.56	2.72	.61
IN.	.77	4.84	4.82	3.45	4.00	2.80	4.61	2.96	2.38	1.80	3.13	.68

CAL YR 1972 TOTAL 186,135 MEAN 509 MAX 5,800 MIN 62 CFSM 2.68 IN 36.44
WTR YR 1973 TOTAL 185,102 MEAN 507 MAX 4,570 MIN 67 CFSM 2.67 IN 36.24

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0030	9.73	7,730	6-30	0945	9.87	8,030
11-14	1930	8.23	5,380	8-02	1645	10.44	9,310
2-02	2330	9.60	7.450				

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 mi (2.2 km) upstream from Millstone River.

DRAINAGE AREA.--490 mi² (1,269 km²).

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 (6.282 m) above mean sea level. Prior to Aug. 15, 1923, nonrecording 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 (1.52 m).

AVERAGE DISCHARGE.--55 years (1903-6, 1921-73), 736 ft³/s (20.84 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 17,000 ft³/s (481 m³/s) Aug. 2, gage height, 17.47 ft (5.325 m); minimum, 162 ft³/s (4.59 m³/s) Oct. 16, gage height, 3.83 ft (1.167 m).
Period of record: Maximum discharge, 36,100 ft³/s (1,020 m³/s) Sept. 22, 1938, from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of slope-area measurement of gage heights 14.9 and 20.42 ft (4.54 and 6.224 m), gage height, 20.42 ft (6.224 m) from high-water mark in recorder shelter; maximum gage height, 23.8 ft (7.25 m) Aug. 28, 1971, from floodmark (backwater from Millstone River); minimum daily, 17 ft³/s (0.48 m³/s) Sept. 19, 1964 (does not include water diverted to Johns-Manville plant).

REMARKS.--Records good except those above 5,000 ft³/s (140 m³/s), which are fair. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run Reservoir (see p. 81). Diversion to Round Valley Reservoir (see p. 82). Water diverted 1,500 ft (457 m) upstream from station and returned to river 0.6 mi (1.0 km) downstream from station by Johns-Manville Corporation (see p. 82). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	245	2,400	1,440	1,140	512	1,520	1,130	1,010	3,770	319	313
2	258	291	1,470	1,110	4,530	505	5,230	1,020	890	1,430	8,110	281
3	219	342	1,130	945	12,600	526	2,790	976	786	1,130	8,030	277
4	198	272	992	1,730	4,690	1,040	2,700	1,050	731	1,260	1,480	267
5	206	395	937	1,610	2,200	992	4,600	906	755	1,310	1,020	258
6	223	414	1,700	1,210	1,750	860	1,950	794	663	1,060	794	254
7	1,110	308	5,040	913	1,700	868	1,490	708	670	762	670	254
8	843	2,140	1,800	708	1,790	1,280	2,660	633	678	648	597	245
9	353	12,500	4,610	685	2,040	1,270	2,310	1,420	554	597	547	240
10	258	3,320	2,680	685	1,360	968	3,120	1,720	526	519	505	227
11	232	1,430	2,260	655	1,190	875	2,240	1,310	452	485	554	240
12	223	1,190	1,600	619	1,060	906	1,610	1,150	377	478	568	254
13	206	952	1,520	568	1,020	860	1,400	976	408	414	533	258
14	198	4,170	1,340	561	929	739	1,230	843	427	446	478	365
15	186	6,380	1,440	604	1,640	794	1,110	778	371	519	465	1,190
16	174	1,880	2,890	590	1,370	778	1,020	875	330	512	921	465
17	178	1,300	1,480	590	890	1,630	960	770	342	401	561	272
18	174	1,060	1,150	568	890	1,790	937	1,460	324	353	472	330
19	219	890	1,020	590	921	1,210	868	1,090	330	324	446	359
20	249	4,250	1,090	1,030	875	1,000	819	883	319	302	420	286
21	227	1,880	1,200	708	731	860	755	1,020	330	1,210	389	254
22	219	1,170	4,210	678	708	778	739	1,050	678	1,370	342	245
23	215	968	2,780	2,200	670	731	739	937	582	678	313	281
24	210	827	1,810	1,260	619	670	868	1,340	921	540	297	281
25	194	747	1,500	984	575	633	731	1,040	678	452	286	245
26	170	2,470	1,340	860	568	2,940	1,440	937	465	498	277	232
27	182	2,040	1,340	1,320	554	1,660	1,420	883	395	472	263	223
28	342	1,220	1,160	4,200	519	1,150	4,110	2,640	365	395	254	223
29	913	1,060	1,010	6,550	------	984	1,950	2,950	2,610	342	258	427
30	427	945	929	2,760	------	929	1,350	1,550	12,200	319	277	459
31	286	------	1,160	1,430	------	921	------	1,200	------	286	281	------
TOTAL	9,373	57,056	56,988	40,361	49,529	31,659	54,666	36,039	30,167	23,282	30,727	9,505
MEAN	302	1,902	1,838	1,302	1,769	1,021	1,822	1,163	1,006	751	991	317
MAX	1,110	12,500	5,040	6,550	12,600	2,940	5,230	2,950	12,200	3,770	8,110	1,190
MIN	170	245	929	561	519	505	731	633	319	286	254	223

CAL YR 1972 TOTAL 420,773 MEAN 1,150 MAX 14,800 MIN 170
WTR YR 1973 TOTAL 429,352 MEAN 1,176 MAX 12,600 MIN 170

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0730	16.79	15,800	6-30	1345	17.00	16,200
11-15	0045	13.84	10,800	8-02	2145	17.47	17,000
2-03	0515	16.24	15,900				

01400730 Millstone River at Plainsboro, N. J.

LOCATION.--Lat 40°19'27", long 74°36'51", Mercer County, on left bank 30 ft (9 m) upstream from bridge on Penn Central Railroad, 100 ft (30 m) downstream from Cranbury Brook, 0.2 mi (0.3 km) upstream from Big Bear Brook, and 0.9 mi (1.4 km) southwest of Plainsboro.

DRAINAGE AREA.--65.8 mi^2 (170.4 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 53.41 ft (16.279 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 92.7 ft^3/s (2.625 m^3/s), 19.13 in/yr (486 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) Feb. 3, gage height, 5.54 ft (1.689 m); minimum, 18 ft^3/s (0.51 m^3/s) Oct. 5, 6, gage height, 1.22 ft (0.372 m).
Period of record: Maximum discharge, 3,780 ft^3/s (107 m^3/s) Aug. 28, 1971, gage height, 8.73 ft (2.661 m); minimum daily, 1.9 ft^3/s (0.054 m^3/s) Aug. 10-13, 1966.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	106	167	115	189	82	138	151	88	718	31	28
2	24	67	275	118	364	77	587	109	75	346	170	27
3	23	59	283	115	1,300	75	536	110	75	199	640	27
4	21	51	214	115	553	98	315	130	74	161	250	26
5	19	53	132	155	242	140	493	100	85	184	110	26
6	19	66	128	163	195	165	301	108	95	150	56	25
7	93	70	242	134	207	128	205	100	114	100	50	24
8	270	147	275	108	280	127	233	90	88	80	46	23
9	283	792	298	90	270	161	372	112	70	74	42	22
10	214	828	352	74	229	155	280	283	62	64	41	21
11	117	450	338	66	180	127	249	278	57	90	39	21
12	62	160	273	61	132	108	193	172	51	100	39	21
13	40	115	161	56	115	108	136	118	85	80	41	20
14	33	200	149	51	95	103	117	109	115	64	38	20
15	28	650	147	50	120	100	111	109	101	65	48	64
16	24	400	233	56	190	109	104	85	90	67	57	50
17	23	200	288	62	150	167	100	78	100	64	44	36
18	23	120	203	67	110	242	96	88	106	60	38	38
19	52	115	149	74	101	209	95	86	90	56	37	34
20	49	300	125	100	95	138	91	85	85	54	36	32
21	47	460	123	128	93	106	86	90	143	57	35	30
22	23	200	226	127	98	100	83	95	615	54	34	29
23	23	160	390	127	100	91	82	123	573	51	33	28
24	23	120	343	157	96	85	101	155	332	48	33	28
25	24	100	270	141	90	82	111	114	224	45	32	27
26	23	170	195	109	83	187	266	141	155	45	32	27
27	21	160	145	108	83	338	467	140	112	39	32	27
28	26	130	153	500	85	238	458	157	95	44	31	28
29	117	110	145	772	------	157	335	226	172	38	31	28
30	260	100	128	658	------	123	220	207	601	36	30	29
31	132	------	117	307	------	104	------	178	------	34	29	------
TOTAL	2,164	6,659	6,667	4,964	5,845	4,230	6,961	4,127	4,728	3,267	2,205	866
MEAN	69.8	222	215	160	209	136	232	133	158	105	71.1	28.9
MAX	283	828	390	772	1,300	338	587	283	615	718	640	64
MIN	19	51	117	50	83	75	82	78	51	34	29	20
CFSM	1.06	3.37	3.27	2.43	3.18	2.07	3.53	2.02	2.40	1.60	1.08	.44
IN.	1.22	3.76	3.77	2.81	3.30	2.39	3.94	2.33	2.67	1.85	1.25	.49

CAL YR 1972 TOTAL 46,757 MEAN 128 MAX 828 MIN 15 CFSM 1.95 IN 26.43
WTR YR 1973 TOTAL 52,683 MEAN 144 MAX 1,300 MIN 19 CFSM 2.19 IN 29.78

NOTE.--No gage-height record July 16 to Sept. 30.

01400953 Honey Branch near Pennington, N. J.

LOCATION.--Lat 40°21'27", long 74°45'58", Mercer County, on right bank 50 ft (15 m) upstream from Wargo Road bridge, 2.2 mi (3.5 km) upstream from mouth, and 2.5 mi (4.0 km) northeast of Pennington.

DRAINAGE AREA.--0.70 mi^2 (1.81 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 92.57 ft (28.215 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 1.24 ft^3/s (0.0351 m^3/s), 24.06 in/yr (611 mm/yr).

EXTREMES.--Current year: Maximum discharge, 271 ft^3/s (7.67 m^3/s) June 21 (gage height, 3.53 ft or 1.076 m) from rating curve extended above 80 ft^3/s (2.3 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days during summer months.
Period of record: Maximum discharge, 535 ft^3/s (15.2 m^3/s) Aug. 28, 1971 (gage height 4.79 ft or 1.460 m) from rating curve extended above 80 ft^3/s (2.3 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days during most years.

REMARKS.--Records fair.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.41	8.0	2.0	.12	.02	19	.79	.68	3.0	0	0
2	0	1.0	2.0	.60	41	.02	11	.61	.56	1.6	26	0
3	0	.70	.65	.13	7.3	.07	1.5	1.5	.48	1.2	3.6	0
4	0	.41	.25	3.9	1.4	3.1	18	1.3	.72	1.2	1.3	0
5	0	1.3	.15	2.2	.67	.67	3.8	.70	1.3	3.6	.60	0
6	.01	.62	13	.89	.55	.63	1.5	.49	.52	.98	.40	0
7	2.8	.44	7.3	.37	4.6	.67	1.2	.36	.35	.52	.25	0
8	1.1	40	2.0	.28	3.1	1.7	8.8	.36	.40	.35	.17	0
9	.21	15	11	.19	.96	.59	2.3	6.7	.44	.25	.09	0
10	.08	1.2	4.3	.14	.21	.26	2.9	1.8	.20	.17	.09	0
11	.06	.63	1.5	.12	.10	.24	1.2	.97	.10	.27	.17	0
12	.07	.47	1.0	.11	.06	.28	.91	.65	.07	.32	.40	0
13	.07	.28	.58	.11	.04	.15	.73	.49	.13	.12	.12	0
14	.05	25	.15	.10	.08	.10	.53	.39	.12	.07	.05	0
15	.05	4.0	.25	.10	3.1	.47	.46	.44	.04	.22	.35	.14
16	.02	.82	7.4	.09	.44	.24	.39	.65	.07	.22	.48	1.4
17	.03	.51	1.5	.09	.09	4.8	.36	.44	.20	.05	.17	.30
18	.02	.28	.60	.09	.04	.63	.36	1.2	.06	.04	.09	.07
19	.20	.36	.40	.09	.03	.17	.33	.41	.06	.01	.07	.11
20	.21	15	.78	2.5	.05	.06	.26	.33	.09	0	.05	.07
21	.18	.89	.64	1.2	.08	.03	.21	.62	43	.04	.05	.05
22	.14	.44	13	.30	.08	.03	.21	.53	23	.05	.05	.04
23	.11	.26	5.3	.16	.06	.01	.31	2.3	4.8	.03	.01	.04
24	.09	.21	2.4	4.0	.04	.01	.57	1.3	2.1	0	.01	.07
25	.07	.17	1.2	1.5	.02	.01	.28	2.1	1.3	0	.01	.09
26	.04	6.0	.90	.64	.03	6.6	6.0	1.0	.98	0	0	.07
27	.03	.63	.70	9.4	.03	.63	4.6	1.0	.68	0	0	.05
28	7.2	.32	.47	7.4	.02	.26	5.3	8.6	.60	0	0	.04
29	3.0	.16	.33	17	------	.21	1.4	2.2	32	0	0	.07
30	.83	1.3	.22	.95	------	.36	.97	1.4	21	0	0	.23
31	.49	------	.13	.24	------	.32	------	1.0	------	0	0	------
TOTAL	17.16	118.81	88.10	56.89	64.30	23.34	95.38	42.63	136.05	14.31	34.58	2.84
MEAN	.55	3.96	2.84	1.84	2.30	.75	3.18	1.38	4.54	.46	1.12	.095
MAX	7.2	40	13	17	41	6.6	19	8.6	43	3.6	26	1.4
MIN	0	.16	.13	.09	.02	.01	.21	.33	.04	0	0	0
CFSM	.79	5.66	4.06	2.63	3.29	1.07	4.54	1.97	6.49	.66	1.60	.14
IN.	.91	6.31	4.68	3.02	3.42	1.24	5.07	2.27	7.23	.76	1.84	.15

CAL YR 1972 TOTAL 603.93 MEAN 1.65 MAX 40 MIN 0 CFSM 2.36 IN 32.09
WTR YR 1973 TOTAL 694.39 MEAN 1.90 MAX 43 MIN 0 CFSM 2.71 IN 36.90

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1345	2.63	86	6-21	2130	3.53	271
11-14	1330	2.58	74	6-30	0230	2.60	78
2-02	1445	2.87	139	8-02	0930	2.60	78
4-01	2100	2.69	102				

NOTE.--No gage-height record Nov. 29 to Jan. 26.

01401000 Stony Brook at Princeton, N. J.

LOCATION.--Lat 40°19'59", long 74°40'56", Mercer County, on right bank 12 ft (3.7 m) downstream from bridge on U.S. Highway 206, 1.6 mi (2.6 km) southwest of Princeton, and 4.0 mi (6.4 km) upstream from Lake Carnegie.

DRAINAGE AREA.--44.5 mi^2 (115.3 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 62.23 ft (18.968 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--20 years, 60.5 ft^3/s (1.713 m^3/s), 18.46 in/yr (467 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,670 ft^3/s (104 m^3/s) June 22, gage height, 9.59 ft (2.923 m); minimum, 1.2 ft^3/s (0.034 m^3/s) Oct. 4-6, Sept. 12-14, gage height, 1.31 ft (0.399 m).
Period of record: Maximum discharge, 8,960 ft^3/s (254 m^3/s) Aug. 28, 1971 (gage height, 14.26 ft or 4.346 m) from rating curve extended above 4,000 ft^3/s (110 m^3/s) on basis of contracted-opening measurement of peak flow; no flow many days in August and September 1966.

REMARKS.--Records excellent below 100 ft^3/s (2.8 m^3/s) and good above. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal (188,500 m^3). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	17	379	103	72	24	462	71	47	162	4.2	1.9
2	1.4	22	130	67	1,100	27	930	56	39	83	990	2.2
3	1.4	25	88	52	848	31	248	83	31	81	240	2.5
4	1.3	19	68	196	217	191	635	134	33	81	55	2.7
5	1.2	36	60	128	139	111	375	66	50	123	31	2.3
6	1.7	33	464	77	107	87	157	51	31	66	21	2.1
7	147	22	426	44	219	89	110	41	22	40	15	1.9
8	54	1,280	214	37	215	194	486	37	21	31	13	2.5
9	19	1,040	540	37	244	144	257	323	20	25	11	1.9
10	9.3	155	374	31	97	88	251	198	15	20	9.9	1.6
11	5.9	92	220	27	66	71	142	95	12	62	9.2	1.5
12	4.6	70	126	24	52	72	96	64	9.7	42	11	1.4
13	4.0	55	117	22	45	62	77	50	11	22	9.3	1.3
14	3.8	967	90	21	41	51	63	41	10	17	8.1	13
15	3.4	375	172	21	218	79	54	39	7.8	19	9.0	53
16	2.8	140	360	21	129	71	49	46	7.8	24	19	16
17	2.7	94	108	22	56	298	45	39	11	15	12	7.9
18	2.8	72	69	22	40	190	42	74	9.6	12	9.2	7.7
19	7.0	62	67	28	37	93	37	44	8.7	10	7.7	8.7
20	9.7	664	78	92	37	68	34	33	9.0	9.0	7.0	6.2
21	7.8	168	86	41	41	56	29	41	263	9.4	7.2	4.7
22	6.0	100	606	49	41	50	29	46	846	10	6.1	3.6
23	5.2	73	274	193	37	44	30	72	206	8.9	5.0	4.1
24	4.7	59	194	87	32	39	46	150	76	7.4	4.0	5.1
25	4.5	52	128	58	27	36	33	110	50	6.1	3.7	4.3
26	4.2	292	105	48	27	515	337	94	39	5.2	3.3	3.6
27	4.7	145	101	240	26	163	204	62	32	8.3	2.9	3.3
28	74	82	77	547	24	91	468	526	29	6.5	3.1	2.8
29	177	64	58	1,070	------	69	162	201	893	5.6	2.9	6.6
30	39	72	53	186	------	69	94	95	1,210	4.5	2.7	8.1
31	23	------	78	104	------	69	------	65	------	4.1	2.2	------
TOTAL	635.4	6,347	5,910	3,695	4,234	3,242	5,982	3,047	4,049.6	1,020.0	1,534.7	184.5
MEAN	20.5	212	191	119	151	105	199	98.3	135	32.9	49.5	6.15
MAX	177	1,280	606	1,070	1,100	515	930	526	1,210	162	990	53
MIN	1.2	17	53	21	24	24	29	33	7.8	4.1	2.2	1.3
CFSM	.46	4.76	4.29	2.67	3.39	2.36	4.47	2.21	3.03	.74	1.11	.14
IN.	.53	5.31	4.94	3.09	3.54	2.71	5.00	2.55	3.39	.85	1.28	.15

CAL YR 1972 TOTAL 34,754.38 MEAN 95.0 MAX 1,280 MIN .69 CFSM 2.13 IN 29.05
WTR YR 1973 TOTAL 39,881.20 MEAN 109 MAX 1,280 MIN 1.2 CFSM 2.45 IN 33.34

PEAK DISCHARGE (BASE 1,800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2130	9.21	3,370	4-02	0030	7.93	2,560
11-14	1715	8.32	2,790	6-22	0045	9.59	3,670
1-29	0800	7.38	2,280	8-02	1815	8.33	2,800
2-03	0015	8.60	2,960				

01401301 Millstone River at Lake Carnegie, Princeton, N. J.

LOCATION.--Lat 40°22'11", long 74°37'15", Middlesex County, at right end of Lake Carnegie dam, 25 mi (4.0 km) northeast of Princeton.

DRAINAGE AREA.--159 mi^2 (412 km^2).

PERIOD OF RECORD.--October 1972 to September 1973. October and November 1924, May 1925, and January 1926 to September 1965, gage height only, published as "Lake Carnegie at Princeton" in N.J. Special Reports 9, 12, 14, 16, 20, 31 and 37.

GAGE.--Water-stage recorder above dam. Datum of gage is 50.00 ft (15.240 m) above mean sea level. Prior to Oct. 1, 1950, staff gage at left end of dam at datum 2.56 ft (0.780 m) higher.

EXTREMES.--Current year: Maximum discharge, 6,680 ft^3/s (189 m^3/s) Feb. 3, gage height, 5.19 ft (1.582 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Sept. 11, 12.
Period of record: 1926 to current year: Maximum gage height, 7.09 ft (2.161 m) Aug. 28, 1971. Discharge for flood of Aug. 28, 1971, was determined to be 13,000 ft^3/s (368 m^3/s), from rating curve extended above 4,000 ft^3/s (113 m^3/s) on basis of computation of peak flow over dam.

REMARKS.--Record fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	137	680	299	288	145	427	310	200	2,200	45	29
2	75	137	536	266	1,600	152	2,960	266	172	1,000	1,500	30
3	71	145	456	244	4,920	172	1,480	289	158	640	2,100	29
4	71	137	349	456	1,400	349	1,020	349	160	560	1,000	28
5	71	172	300	414	504	336	2,000	288	160	600	160	29
6	75	179	440	388	349	324	740	266	160	580	120	29
7	299	165	1,520	310	472	288	440	228	158	375	80	28
8	278	881	660	266	584	414	908	222	145	215	62	26
9	222	3,540	1,440	233	620	440	1,040	488	130	120	52	25
10	179	1,200	1,140	222	388	349	720	310	109	110	50	24
11	124	561	1,040	233	278	289	552	583	100	240	48	22
12	114	375	660	165	233	255	414	394	85	270	48	22
13	105	289	504	109	211	244	324	289	114	110	45	23
14	100	1,140	375	116	193	222	289	257	137	100	80	33
15	85	2,040	324	130	388	244	266	247	114	100	120	230
16	64	881	908	130	349	266	228	105	114	110	130	150
17	52	466	620	130	289	588	238	193	114	90	69	90
18	58	354	388	124	211	568	210	228	119	80	54	82
19	64	310	324	145	186	349	190	211	109	70	50	73
20	84	1,240	278	200	179	266	175	193	105	64	47	64
21	73	881	278	186	179	211	170	200	158	70	45	54
22	70	568	827	414	186	186	160	211	1,500	62	44	48
23	68	354	1,270	324	179	179	180	228	1,800	58	44	47
24	56	300	881	266	172	172	240	414	1,200	54	42	47
25	53	255	584	222	165	165	200	300	700	50	40	45
26	52	472	456	186	152	827	500	324	400	48	39	47
27	50	427	375	388	152	640	800	289	425	45	36	47
28	71	349	349	1,720	152	414	1,380	584	350	51	35	47
29	360	310	299	3,210	------	289	1,000	193	450	45	35	69
30	170	278	266	1,440	------	255	600	336	2,000	43	33	85
31	145	------	299	504	------	244	------	300	------	41	31	------
TOTAL	3,434	18,543	18,826	13,440	14,979	9,842	19,851	9,095	11,646	8,201	6,284	1,602
MEAN	111	618	607	434	535	317	662	293	388	265	203	53.4
MAX	360	3,540	1,520	3,210	4,920	827	2,960	584	2,000	2,200	2,100	230
MIN	50	137	266	109	152	145	160	105	85	41	31	22

CAL YR 1972 TOTAL - MEAN - MAX - MIN -
WTR YR 1973 TOTAL 135,743.00 MEAN 372 MAX 4,920 MIN 22

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE
2-03	0215	5.19	7,260

NOTE.--No gage-height record June 22 to Sept. 26.

01402000 Millstone River at Blackwells Mills, N. J.

LOCATION.--Lat 40°28'30", long 74°34'34", Somerset County, on left bank 30 ft (9 m) downstream from highway bridge at Blackwells Mills and 0.3 mi (0.5 km) downstream from Six Mile Run.

DRAINAGE AREA.--258 mi^2 (668 km^2).

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 (8.220 m) above mean sea level. June 27, 1903, to Dec. 31, 1904, nonrecording gage at bridge 2.0 mi (3.2 km) downstream at Millstone at different datum. Aug. 4, 1921, to Aug. 16, 1928, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--52 years (1921-73), 366 ft^3/s (10.37 m^3/s), 19.26 in/yr (489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,860 ft^3/s (251 m^3/s) Feb. 3, gage height, 13.09 ft (3.990 m); minimum, 44 ft^3/s (1.25 m^3/s) Oct. 5, gage height, 1.44 ft (0.439 m).
Period of record: Maximum discharge, 22,200 ft^3/s (629 m^3/s) Aug. 28, 1971, from rating curve extended above 9,000 ft^3/s (255 m^3/s), gage height, 18.68 ft (5.694 m), from high-water mark; minimum, about 5 ft^3/s (0.14 m^3/s) Sept. 16, 1923.

REMARKS.--Records excellent except for those above 2,000 ft^3/s (56.6 m^3/s) which are good. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Lake Carnegie, capacity, 310,000,000 gal (1,170,000 m^3) and by several smaller reservoirs, combined capacity, 49,800,000 gal 188,500 m^3). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	220	1,410	446	629	247	768	536	361	3,260	96	59
2	59	203	891	355	2,300	233	3,230	410	278	1,530	1,780	61
3	50	179	640	296	7,660	242	2,980	458	247	594	3,400	61
4	52	161	482	640	3,790	673	1,910	612	242	1,220	645	61
5	46	238	399	662	1,700	629	2,950	434	292	1,070	233	61
6	50	233	819	482	773	554	1,910	361	251	700	179	61
7	755	203	2,720	372	978	530	786	310	229	500	147	59
8	607	1,290	1,580	287	1,210	811	1,370	278	207	260	131	56
9	383	6,270	2,350	274	1,340	831	2,100	863	191	240	116	52
10	296	3,430	2,100	238	773	601	1,400	1,450	158	224	107	52
11	203	1,500	1,640	220	554	488	960	839	144	383	101	54
12	137	673	903	220	452	440	684	554	131	464	113	54
13	113	476	710	199	394	394	518	394	147	269	113	54
14	101	1,570	524	175	345	355	440	330	187	215	101	81
15	93	3,500	596	187	875	399	388	310	154	215	147	388
16	84	2,310	1,650	195	740	410	355	310	140	233	238	220
17	79	899	879	207	512	827	325	274	151	215	144	154
18	69	584	512	211	388	1,240	315	377	147	183	122	137
19	104	446	416	224	325	684	305	310	144	161	113	128
20	131	1,560	394	416	305	500	278	256	140	144	107	110
21	119	1,650	405	345	301	383	260	283	320	161	98	93
22	116	634	1,690	330	305	335	247	301	2,740	154	96	84
23	104	590	2,120	720	296	305	242	366	2,700	137	93	84
24	93	440	1,380	548	278	283	315	695	4,000	128	93	79
25	90	410	827	440	256	269	287	566	3,000	119	87	74
26	76	1,500	629	377	256	1,590	1,130	560	2,000	113	84	76
27	74	900	524	629	256	1,530	1,570	440	1,000	110	79	76
28	229	524	446	2,640	256	764	2,280	1,290	380	131	79	74
29	745	428	361	3,760	------	530	1,700	1,750	600	110	74	98
30	366	383	315	3,460	------	446	735	695	3,350	96	69	107
31	265	------	383	1,580	------	428	------	506	------	90	64	------
TOTAL	5,745	33,404	30,695	21,135	28,247	17,951	32,738	17,118	24,031	13,429	9,049	2,808
MEAN	185	1,113	990	682	1,009	579	1,091	552	801	433	292	93.6
MAX	755	6,270	2,720	3,760	7,660	1,590	3,230	1,750	4,000	3,260	3,400	388
MIN	46	161	315	175	256	233	242	256	131	90	64	52
CFSM	.72	4.31	3.84	2.64	3.91	2.24	4.23	2.14	3.10	1.68	1.13	.36
IN.	.83	4.82	4.43	3.05	4.07	2.59	4.72	2.47	3.46	1.94	1.30	.40

CAL YR 1972 TOTAL 197,427 MEAN 539 MAX 6,270 MIN 26 CFSM 2.09 IN 28.47
WTR YR 1973 TOTAL 236,350 MEAN 648 MAX 7,660 MIN 46 CFSM 2.51 IN 34.08

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0930	12.30	7,440	2-03	0730	13.09	8,860	6-30	Unk	Unk	About 3,800
11-15	0630	8.99	3,740	4-02	1830	8.73	3,590	8-03	0315	9.39	4,020
1-29	2000	9.92	4,410	6-22	2215	8.25	3,320				

01402590 Royce Brook tributary at Frankfort, N. J.

LOCATION.--Lat 40°30'21", long 74°40'24", Somerset County, on left bank 20 ft (6 m) upstream from bridge on Beckman Lane, 0.6 mi (1.0 km) east of Frankfort, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--0.29 mi^2 (0.75 km^2).

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

GAGE.--Water-stage recorder and steel control. Datum of gage is 100.05 ft (30.495 m) above mean sea level.

AVERAGE DISCHARGE.--5 years, 0.508 ft^3/s (0.0144 m^3/s), 23.79 in/yr (604 mm/yr).

EXTREMES.--Current year: Maximum discharge, 132 ft^3/s (3.74 m^3/s) Aug. 2 (gage height, 3.00 ft or 0.91 m) from rating curve extended above 30 ft^3/s (0.85 m^3/s); no flow many days during October, August and September.
Period of record: Maximum discharge, 164 ft^3/s (46.44 m^3/s) Aug. 28, 1971, from rating curve extended above 30 ft^3/s (0.85 m^3/s), gage height, 3.25 ft (0.991 m); no flow at times during summer and autumn months during most years.

REMARKS.--Records excellent.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.04	2.2	.73	.13	.06	4.2	.26	.12	.44	.05	0
2	0	.06	.63	.42	14	.07	3.3	.21	.08	.17	27	0
3	0	.05	.46	.28	2.6	.15	.87	.58	.06	.10	1.0	0
4	0	.05	.39	1.9	.78	1.3	3.7	.65	.11	.11	.26	0
5	0	.27	.42	.70	.55	.74	1.3	.33	.13	.50	.08	0
6	0	.10	4.6	.43	.44	.61	.53	.19	.06	.12	.05	0
7	.10	.07	1.4	.37	.83	.63	.39	.12	.04	.06	.04	0
8	.01	15	1.9	.28	1.1	1.5	2.8	.12	.04	.04	.03	0
9	0	3.4	2.4	.22	.84	.78	.85	2.5	.03	.03	.03	0
10	0	.68	1.4	.17	.53	.50	1.4	.90	.02	.03	.02	0
11	0	.57	.77	.14	.53	.45	.55	.48	.02	.03	.02	0
12	0	.56	.52	.12	.44	.48	.36	.25	.02	.02	.02	0
13	0	.42	.59	.10	.22	.34	.26	.16	.04	.02	.02	0
14	0	7.7	.44	.09	.13	.25	.18	.11	.02	.01	.02	.05
15	0	1.6	1.6	.08	1.2	.41	.16	.16	.01	.04	.06	.03
16	0	.57	1.6	.08	.67	.35	.12	.20	.02	.02	.04	0
17	0	.47	.41	.08	.53	2.3	.12	.14	.02	.02	.03	0
18	0	.37	.33	.08	.51	.75	.11	.39	.02	.01	.02	0
19	.01	.46	.26	.19	.37	.42	.09	.15	.02	.01	.02	0
20	.01	4.3	.47	.35	.20	.28	.07	.13	.02	.01	.02	0
21	0	.67	.62	.15	.17	.22	.06	.40	.11	.02	.01	0
22	0	.48	4.5	.53	.16	.19	.06	.30	.45	.02	.01	0
23	0	.34	1.2	1.1	.11	.13	.13	1.0	.18	.01	.01	0
24	0	.26	.76	.62	.09	.12	.17	.74	.06	0	0	0
25	0	.24	.61	.44	.07	.11	.08	.87	.04	0	0	0
26	0	2.0	.54	.35	.07	3.2	1.8	.50	.04	0	0	0
27	0	.67	.57	3.5	.07	.63	3.0	.66	.03	0	0	0
28	.33	.45	.42	2.6	.07	.35	2.2	5.2	.03	0	0	0
29	.24	.34	.29	5.7	------	.25	.65	.79	3.4	0	0	0
30	.07	.96	.28	1.3	------	.34	.42	.44	5.5	0	0	0
31	.04	------	.72	.35	------	.41	------	.20	------	0	0	------
TOTAL	.81	43.15	33.30	23.45	27.41	18.32	29.93	19.13	10.74	1.84	28.86	.08
MEAN	.026	1.44	1.07	.76	.98	.59	1.00	.62	.36	.059	.93	.003
MAX	.33	15	4.6	5.7	14	3.2	4.2	5.2	5.5	.50	27	.05
MIN	0	.04	.26	.08	.07	.06	.06	.11	.01	0	0	0
CFSM	.09	4.97	3.69	2.62	3.38	2.03	3.45	2.14	1.24	.20	3.21	.01
IN.	.10	5.54	4.27	3.01	3.52	2.35	3.84	2.45	1.38	.24	3.70	.01

CAL YR 1972 TOTAL 200.74 MEAN .55 MAX 15 MIN 0 CFSM 1.90 IN 25.75
WTR YR 1973 TOTAL 237.02 MEAN .65 MAX 27 MIN 0 CFSM 2.24 IN 30.40

PEAK DISCHARGE (BASE, 45 CFS)

DATE	TIME	G.H.	DISCHARGE
2-02	1540	2.15	56
8-02	0400	3.00	132

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 (7.6 m) upstream from bridge on State Highway 514, 1,200 ft (370 m) upstream from mouth, and 2.0 mi (3.2 km) north of Belle Mead.

DRAINAGE AREA.--1.20 mi^2 (3.11 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 67.66 ft (20.623 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 2.43 ft^3/s (0.0688 m^3/s) 27.51 in/yr (699 mm/yr).

EXTREMES.--Current year: Maximum discharge, 328 ft^3/s (9.29 m^3/s) Aug. 2, gage height, 4.79 ft (1.59 m); no flow on many days.
Period of record: Maximum discharge, 1,450 ft^3/s (41.1 m^3/s) Aug. 28, 1971 (gage height 7.01 ft or 2.137 m, from high-water mark) from rating curve extended above 140 ft^3/s (3.9 m^3/s) on basis of slope-area measurement of peak flow; no flow on some days in most years.

REMARKS.--Records poor.

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.18	12	2.4	1.0	.04	20	.22	.52	.47	1.1	0
2	0	.47	1.7	1.0	10	.04	17	.18	.35	.18	105	0
3	0	.40	1.0	.75	53	.18	3.4	.95	.22	.15	17	0
4	0	.33	.55	11	8.0	5.4	19	.85	1.9	.09	2.7	0
5	0	1.0	.55	2.4	2.3	2.4	5.7	.33	1.0	1.0	1.7	0
6	.12	.47	27	1.0	1.3	1.7	3.2	.22	.30	.15	1.2	0
7	3.9	.33	6.0	.47	2.0	1.9	2.8	.18	.18	.07	.50	0
8	.27	82	12	.33	6.0	5.4	14	.18	.12	.03	.20	0
9	.12	20	13	.28	2.4	2.2	3.6	12	.07	.01	.10	0
10	.15	2.6	6.4	.22	.85	1.1	6.4	3.0	.02	.01	.10	0
11	.18	1.7	2.6	.20	.22	.95	2.8	1.7	.02	0	.03	0
12	.15	1.5	1.9	.18	.12	1.1	1.9	1.3	.01	.09	.03	0
13	.15	1.0	1.7	.16	.10	.75	1.1	.74	.18	.12	.02	0
14	.12	43	.95	.14	.47	.55	1.0	.42	.12	.12	.02	2.8
15	.09	8.8	10	.13	4.2	.95	.95	.52	.01	.12	.22	4.5
16	.07	2.6	8.8	.14	1.0	.75	.85	.84	0	.12	.12	1.9
17	.07	1.3	.95	.15	.40	11	.75	.63	0	.12	.05	.85
18	.07	.95	.55	.30	.18	2.6	.65	1.8	0	.05	.03	.40
19	.33	1.0	.55	.33	.12	1.0	.55	.90	0	0	.03	.22
20	.12	23	.95	.47	.15	.65	.33	.50	0	0	.02	.09
21	.09	2.2	1.5	.15	.15	.47	.15	2.1	.27	.09	.02	.03
22	.07	1.3	26	1.7	.09	.40	.15	1.3	.95	.22	.02	.01
23	.07	.75	5.1	4.2	.09	.33	.45	3.9	.27	1.5	.02	.02
24	.07	.22	2.6	1.9	.04	.18	.58	2.4	.09	1.0	.01	.02
25	.09	.15	1.7	1.0	.04	.18	.18	3.2	.04	.07	.01	.01
26	.09	11	1.5	.85	.04	16	5.7	1.5	.04	.15	.01	0
27	.09	1.9	1.3	23	.03	2.2	13	2.2	.02	.05	.01	0
28	3.6	1.0	.40	15	.02	1.3	9.6	24	.02	.02	0	0
29	.95	.33	.40	31	------	.27	.95	4.5	16	0	0	1.5
30	.40	4.5	.65	2.6	------	.12	.40	2.1	21	0	0	.65
31	.22	------	2.4	1.5	------	.27	------	.90	------	0	0	------
TOTAL	11.65	215.98	152.70	104.95	94.31	62.38	137.14	75.56	43.72	6.00	130.27	13.00
MEAN	.38	7.20	4.93	3.39	3.37	2.01	4.57	2.44	1.46	.19	4.20	.43
MAX	3.9	82	27	31	53	16	20	24	21	1.5	105	4.5
MIN	0	.15	.40	.13	.02	.04	.15	.18	0	0	0	0
CFSM	.32	6.00	4.11	2.83	2.81	1.68	3.81	2.03	1.22	.16	3.50	.36
IN.	.36	6.70	4.73	3.25	2.92	1.93	4.25	2.34	1.36	.19	4.04	.40

CAL YR 1972 TOTAL 1,026.17 MEAN 2.80 MAX 82 MIN 0 CFSM 2.33 IN 31.81
WTR YR 1973 TOTAL 1,047.66 MEAN 2.87 MAX 105 MIN 0 CFSM 2.39 IN 32.48

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1825	4.11	188	2-02	UNK	4.31	224	6-30	0125	3.57	117
11-14	1120	3.37	132	4-01	2100	3.51	112	8-02	0725	4.79	328
12-06	1715	3.84	148	5-28	0830	3.56	116				

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 (305 m) downstream from Calco Dam and Cuckold Brook, 1.2 mi (1.9 km) downstream from Millstone River, and 1.2 mi (1.9 km) southwest of Bound Brook.

DRAINAGE AREA.--785 mi^2 (2033 km^2), includes 11 mi^2 (28 km^2) 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 mi (1.9 km) downstream at different datum. October 1944 to Sept. 30, 1966, water-stage recorder and concrete control at site 1,120 ft (341 m) upstream at datum 18.06 ft (5.505 m) higher.

AVERAGE DISCHARGE.--34 years (1903-8, 1944-73), 1,222 ft^3/s (34.61 m^3/s), adjusted for diversion by Elizabethtown Water Co. since 1944 and to Round Valley Reservoir since 1966.

EXTREMES.--Current year: Maximum discharge, 28,000 ft^3/s (793 m^3/s) Feb. 1, elevation, 30.47 ft (9.287 m); minimum, 161 ft^3/s (4.56 m^3/s) Sept. 10, elevation, 16.55 ft (5.044 m).
Period of record: Maximum discharge, 46,100 ft^3/s (1310 m^3/s) Aug. 28, 1971, elevation, 37.47 ft (11.421 m), from floodmark; minimum daily, 37 ft^3/s (1.05 m^3/s) Sept. 6, 1964.

REMARKS.--Records excellent. Water diverted 1.0 mi (1.6 km) above station by Elizabethtown Water Co. for municipal supply (see p. 82). Flow regulated by Spruce Run Reservoir (see p. 81). Diversion to Round Valley Reservoir (see p. 82). Slight diurnal fluctuation at low flow. Records of water quality for the current year for Raritan River at South Bound Brook (sta 01404100) are published in Part 2 of this report.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	403	4,800	2,220	1,930	735	2,660	1,770	1,420	8,130	322	250
2	211	435	3,000	1,670	9,220	715	10,100	1,470	1,170	3,080	14,800	230
3	169	469	2,220	1,330	23,100	756	7,020	1,500	1,030	1,980	16,300	230
4	139	383	1,810	2,800	9,300	1,810	5,470	1,780	950	2,520	2,870	217
5	146	604	1,630	2,760	4,820	1,810	9,190	1,370	1,030	2,430	1,440	217
6	170	619	3,420	1,950	3,100	1,500	4,710	1,170	883	1,790	1,060	210
7	1,860	474	8,190	1,410	3,180	1,460	2,750	1,010	869	1,150	847	205
8	1,530	5,760	4,140	1,080	3,540	2,250	5,000	898	833	927	721	197
9	694	22,600	8,310	1,270	4,110	2,450	5,260	2,680	688	783	642	192
10	506	7,920	5,670	1,180	2,520	1,710	5,570	3,610	611	695	573	179
11	370	3,460	4,690	1,030	1,920	1,450	4,090	2,410	501	756	623	184
12	295	2,150	3,080	913	1,580	1,410	2,710	1,820	398	957	655	192
13	246	1,610	2,730	787	1,470	1,330	2,180	1,420	478	649	592	197
14	225	7,260	2,220	752	1,340	1,150	1,860	1,160	531	604	525	350
15	194	12,300	2,440	801	2,940	1,230	1,620	1,070	438	695	501	1,710
16	166	4,850	5,480	787	2,520	1,240	1,450	1,160	393	701	1,250	675
17	163	2,630	2,880	815	1,530	2,770	1,340	1,010	421	549	695	361
18	149	1,920	1,860	794	1,340	3,730	1,290	1,980	398	472	555	387
19	226	1,560	1,650	836	1,310	2,170	1,170	1,390	393	415	513	421
20	286	7,600	1,670	1,540	1,270	1,620	1,080	1,100	377	371	466	317
21	252	4,610	1,830	1,110	1,100	1,300	990	1,320	455	1,280	415	257
22	243	2,620	6,550	1,090	1,070	1,140	960	1,340	3,160	1,740	361	247
23	220	1,880	5,770	3,600	1,020	1,070	960	1,320	3,680	776	322	290
24	210	1,520	3,780	2,070	927	973	1,140	2,220	2,410	598	290	277
25	185	1,320	2,810	1,570	854	913	970	1,670	1,190	501	277	240
26	161	4,260	2,280	1,330	818	5,420	3,020	1,530	811	531	268	220
27	164	3,700	2,160	2,170	797	3,860	3,180	1,340	636	519	244	210
28	502	2,180	1,830	8,040	756	2,190	7,200	4,930	555	449	227	210
29	1,710	1,820	1,510	12,700	------	1,660	4,290	5,400	4,550	371	217	461
30	764	1,590	1,330	6,840	------	1,490	2,370	2,520	18,900	327	230	513
31	504	------	1,700	3,220	------	1,470	------	1,830	------	286	230	------
TOTAL	12,907	110,507	103,440	70,465	89,382	54,782	101,600	57,198	50,159	37,032	49,031	9,846
MEAN	416	3,684	3,337	2,273	3,192	1,767	3,387	1,845	1,672	1,195	1,582	328
MAX	1,860	22,600	8,310	12,700	23,100	5,420	10,100	5,400	18,900	8,130	16,300	1,710
MIN	139	383	1,330	752	756	715	960	898	377	286	217	179

CAL YR 1972 TOTAL 688,489 MEAN 1,881 MAX 23,600 MIN 139
WTR YR 1973 TOTAL 746,349 MEAN 2,045 MAX 23,100 MIN 139

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	ELEV	DISCHARGE	DATE	TIME	ELEV	DISCHARGE
11-09	0900	30.13	27,200	6-30	1500	29.00	23,900
1-28	0115	26.24	15,600	8-02	2330	30.37	27,800
2-01	1645	30.47	28,000				

01403500 Green Brook at Plainfield, N. J.

LOCATION.--Lat 40°36'53", long 74°25'55", Union County, on left bank 20 ft (6 m) downstream from Sycamore Avenue Bridge in Plainfield and 1.0 mi (1.6 km) upstream from Stony Brook.

DRAINAGE AREA.--9.75 mi^2 (25.25 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 70.37 ft (21.449 m) above mean sea level.

AVERAGE DISCHARGE.--35 years, 12.3 ft^3/s (0.348 m^3/s).

EXTREMES.--Current year: Maximum discharge, 2,080 ft^3/s (58.9 m^3/s) Aug. 2, from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of contracted-opening measurement of peak flow, gage height, 5.75 ft (1.753 m); minimum, 0.41 ft^3/s (0.012 m^3/s) Oct. 4-6, 15, gage height, 0.64 ft (0.195 m).
Period of record: Maximum discharge, 2,890 ft^3/s (81.8 m^3/s) July 23, 1938, from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of contracted-opening measurement of peak flow (an unknown additional amount probably bypassed gage), gage height, 5.82 ft (1.774 m); no flow for part or all of day at times in most years.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the WRD-NJ indicated.

WRD-NJ	Water year	Date	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (feet)	Gage height (m)
1969	1968	May 29, 1968	2,100	59.5	5.79	1.765
1969	1969	July 28, 1969	1,500	42.5	4.84	1.475
1971	1971	Aug. 28, 1971	1,860	52.7	5.46	1.664

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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.3	47	17	17	6.8	90	13	8.2	16	8.8	1.5
2	.84	13	18	12	365	7.1	88	11	7.0	8.8	865	1.7
3	.75	4.5	14	9.6	106	13	32	18	6.4	24	82	1.5
4	.72	4.5	12	46	41	11	118	16	7.0	36	32	1.7
5	.57	15	12	20	29	12	59	9.4	8.2	17	19	1.5
6	7.7	6.4	88	13	23	33	30	8.2	6.0	8.4	13	1.5
7	128	3.8	38	9.2	25	16	23	8.0	5.4	6.0	11	1.9
8	27	449	52	10	25	13	74	14	5.0	4.5	8.8	1.9
9	4.1	209	64	13	25	28	33	39	4.5	3.8	7.4	1.9
10	2.3	27	38	13	16	13	43	30	4.2	4.5	6.4	1.7
11	1.7	19	25	6.6	11	9.5	25	17	3.9	6.0	5.6	.95
12	2.1	15	19	5.4	6.4	11	20	10	3.8	3.8	4.9	.95
13	1.7	11	19	4.8	6.4	10	17	8.6	5.6	12	4.9	.84
14	.95	179	15	4.2	19	8.2	15	8.0	4.6	4.9	3.8	38
15	.84	54	43	4.0	18	11	13	8.4	3.3	31	25	27
16	.84	22	50	4.1	11	9.6	13	10	4.1	8.0	13	3.5
17	.95	16	18	4.2	7.1	32	13	7.6	3.0	4.1	6.4	2.3
18	.84	13	15	6.8	7.1	18	12	9.8	2.7	3.5	6.4	11
19	11	16	14	12	8.0	12	11	6.4	2.4	2.9	6.0	4.1
20	3.2	93	18	15	10	9.0	10	8.0	3.5	6.4	4.1	3.2
21	1.5	26	17	7.1	10	7.8	9.2	12	11	47	2.9	3.2
22	1.3	19	97	17	10	7.2	8.8	8.8	15	10	5.6	2.9
23	1.1	15	35	25	9.2	6.4	15	16	6.0	5.2	4.5	8.0
24	1.1	14	23	12	8.0	5.8	9.2	19	3.5	3.8	1.7	3.2
25	.95	13	18	9.2	7.4	5.6	20	9.8	3.5	2.9	1.7	2.1
26	.95	51	17	8.0	7.4	60	50	7.6	2.6	8.8	1.5	1.5
27	.95	19	18	68	7.1	30	45	10	4.1	4.1	2.9	1.5
28	57	13	14	75	7.1	17	70	35	7.1	2.6	2.9	1.5
29	14	11	11	143	------	13	22	52	103	1.9	2.1	30
30	4.9	22	11	32	------	15	18	23	103	2.3	2.3	3.2
31	2.9	------	19	21	------	13	------	11	------	1.7	1.9	------
TOTAL	284.05	1,375.5	899	647.2	842.2	464.0	1,006.2	464.6	357.6	301.9	1,163.5	165.74
MEAN	9.16	45.9	29.0	20.9	30.1	15.0	33.5	15.0	11.9	9.74	37.5	5.52
MAX	128	449	97	143	365	60	118	52	103	47	865	38
MIN	.57	2.3	11	4.0	6.4	5.6	8.8	6.4	2.4	1.7	1.5	.84

CAL YR 1972 TOTAL 7,582.05 MEAN 20.7 MAX 449 MIN .57
WTR YR 1973 TOTAL 7,971.49 MEAN 21.8 MAX 865 MIN .57

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0745	2.74	449	2-02	1945	3.85	935	4-04	1700	2.96	538
11-08	2145	4.30	1,180	4-01	2015	2.73	445	8-02	1230	5.75	2,080
11-14	1300	2.87	501								

NOTE.--No gage-height record Apr. 24 to June 20.

01403900 Bound Brook at Middlesex, N. J.

LOCATION.--Lat 40°35'06", long 74°30'29", Somerset County, on right bank along Green Brook Road, 107 ft (33 m) upstream from the bridge and intersection with Sebrings Mill Road, 0.4 mi (0.6 km) downstream of mouth of Green Brook, 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--48.4 mi^2 (125.4 km^2).

PERIOD OF RECORD.--October 1972 to September 1973.

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

EXTREMES.--Current year: Maximum discharge, 7,000 ft^3/s (198 m^3/s) Aug. 2, elevation, 41.18 ft (12.552 m); minimum, 5.2 ft^3/s (0.15 m^3/s) Oct. 5, elevation, 29.24 ft (8.912 m).

REMARKS.--Records excellent except those for period of doubtful or no gage-height record, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	26	292	80	101	30	292	79	45	280	32	9.6
2	7.0	46	100	59	808	30	675	57	39	76	2,700	9.6
3	5.9	45	67	50	1,290	31	244	101	35	83	2,990	8.4
4	5.9	29	56	211	396	135	346	97	39	161	1,000	9.6
5	5.4	76	56	110	210	72	530	57	46	118	400	8.8
6	6.4	50	280	70	161	56	177	46	32	68	100	9.0
7	6.9	35	365	64	180	53	131	42	30	41	70	10
8	6.9	32	168	80	169	194	368	43	28	33	58	11
9	6.9	33	422	45	156	161	220	240	26	29	50	10
10	6.9	183	209	43	87	83	214	173	23	30	45	9.5
11	6.9	110	144	40	66	66	135	95	22	33	40	6.2
12	7.3	85	96	35	77	77	97	62	22	42	36	5.6
13	7.3	61	94	32	53	70	77	51	32	39	34	6.0
14	7.3	633	77	27	50	56	65	43	25	42	32	120
15	7.3	590	150	25	287	81	56	45	19	103	66	100
16	7.3	130	262	25	123	65	53	57	22	57	90	35
17	11	82	104	27	70	225	50	39	18	30	40	20
18	11	63	106	27	85	146	48	56	17	26	31	70
19	50	58	68	41	47	83	45	36	20	24	24	40
20	38	500	77	79	47	66	39	34	25	22	20	18
21	16	142	76	33	47	56	35	72	45	171	17	17
22	12	80	446	54	47	51	35	50	129	91	20	19
23	11	59	205	120	45	45	68	101	65	34	17	47
24	12	50	132	55	38	42	95	109	26	27	13	25
25	14	45	96	41	33	38	50	54	21	23	11	12
26	13	211	87	37	32	486	287	42	20	38	9.4	9.0
27	13	104	98	142	32	171	256	53	20	27	10	8.0
28	66	64	79	590	31	91	402	308	28	22	12	9.0
29	209	53	58	814	------	70	129	208	312	19	11	90
30	49	64	39	264	------	70	112	81	817	17	11	35
31	33	------	87	102	------	68	------	56	------	17	10	------
TOTAL	671.6	3,739	4,596	3,422	4,768	2,968	5,331	2,587	2,048	1,823	7,999.4	787.3
MEAN	21.7	125	148	110	170	95.7	178	83.5	68.3	58.8	258	26.2
MAX	209	633	446	814	1,290	486	675	308	817	280	2,990	120
MIN	5.4	26	39	25	31	30	35	34	17	17	9.4	5.6

CAL YR 1972 TOTAL - MEAN - MAX - MIN -
WTR YR 1973 TOTAL 40,740.30 MEAN 112 MAX 2,990 MIN 5.4

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-14	2030	34.74	1,120	1-29	1100	34.36	1,030	4-05	0015	34.08	965
12-06	2315	33.01	702	2-02	2330	37.83	2,280	6-30	0230	34.23	1,000
				4-02	0415	34.39	1,030	8-02	About 1600	41.18	7,000

NOTE.--Doubtful or no gage-height record Aug. 1 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 (90 m) upstream from Farrington Dam, 0.7 mi (1.1 km) southwest of Milltown, and 5.4 mi (8.7 km) upstream from mouth.

DRAINAGE AREA.--34.4 mi^2 (89.1 km^2).

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

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 25.73 ft (7.843 m) above mean sea level.

AVERAGE DISCHARGE.--46 years, 38.2 ft^3/s (1.082 m^3/s), 15.09 in/yr (383 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 2,710 ft^3/s (76.7 m^3/s) Feb. 2 (gage height, 26.27 ft or 8.007 m) from rating curve extended above 1,100 ft^3/s (31 m^3/s) on basis of weir formula; minimum daily, 12 ft^3/s (0.34 m^3/s) many days in October and August 29.
Period of record: Maximum discharge, 2,920 ft^3/s (82.7 m^3/s) Aug. 28, 1971 (gage height, 26.34 ft or 8.028 m) from rating curve extended above 1,100 ft^3/s (31 m^3/s) 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 except those for periods of no gage-height record, which are poor. Records given herein include flow over dam and through blowoff gate. Blowoff gate was open Oct. 1 to 30, Aug. 30 to Sept. 30. Flow regulated by Farrington Reservoir, capacity, 655,250,000 gal (2,480,000 m^3).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	31	153	46	61	37	139	57	37	138	18	17
2	12	25	77	44	895	36	494	50	31	68	18	15
3	12	27	48	60	770	41	153	59	28	83	18	15
4	12	25	40	105	180	92	212	67	30	391	18	15
5	12	50	36	77	113	74	242	50	35	273	18	15
6	12	42	132	52	86	59	98	43	26	117	18	15
7	12	100	232	41	130	57	71	39	21	64	18	15
8	12	570	111	35	141	153	195	36	20	48	18	15
9	12	420	212	32	133	118	153	105	19	42	18	15
10	12	300	139	29	78	64	118	145	16	37	18	15
11	12	100	105	28	56	52	77	74	15	55	18	15
12	12	60	64	27	48	48	57	49	14	83	18	15
13	12	48	57	26	43	44	48	42	16	47	18	15
14	12	450	48	26	42	40	48	37	19	37	18	15
15	12	300	71	27	124	44	44	36	16	47	18	15
16	12	150	160	28	104	44	40	38	15	48	17	15
17	12	60	77	28	60	105	36	33	18	39	17	15
18	12	40	44	28	46	84	36	43	16	33	17	15
19	13	60	40	35	42	48	36	35	18	27	17	15
20	29	360	44	57	43	40	36	33	21	24	17	15
21	25	220	50	43	44	36	36	42	99	55	17	15
22	15	100	104	42	48	36	32	40	823	49	17	15
23	12	45	200	67	45	32	36	54	327	29	17	15
24	12	39	68	52	42	32	44	101	137	26	17	15
25	12	52	50	42	40	28	36	75	78	23	17	15
26	12	70	45	37	40	222	181	57	54	20	16	15
27	12	100	42	140	39	111	174	48	45	18	16	15
28	15	62	40	372	39	57	242	185	39	21	14	15
29	57	46	38	570	------	44	111	124	202	19	12	15
30	50	39	44	170	------	44	73	61	457	18	19	15
31	45	------	46	86	------	44	------	46	------	18	21	------
TOTAL	525	3,991	2,617	2,452	3,532	1,966	3,298	1,904	2,692	1,997	538	452
MEAN	16.9	133	84.4	79.1	126	63.4	110	61.4	89.7	64.4	17.4	15.1
MAX	57	570	232	570	895	222	494	185	823	391	21	17
MIN	12	25	36	26	39	28	32	33	14	18	12	15
(†)	+15.2	+.3	-.5	+.2	0	+.2	0	-.2	+1.1	-.2	-1.0	-5.8
MEAN‡	32.1	133	83.9	79.3	126	63.6	110	61.2	90.8	64.2	16.4	9.3
CFSM‡	.93	3.87	2.44	2.31	3.66	1.85	3.20	1.78	2.64	1.87	.48	.27
IN.‡	1.08	4.33	2.81	2.66	3.81	2.13	3.57	2.05	2.94	2.15	.55	.30

CAL YR 1972 TOTAL 20,589 MEAN 56.3 MAX 570 MIN 11 MEAN‡ 56.3 CFSM‡ 1.64 IN.‡ 22.29
WTR YR 1973 TOTAL 25,964 MEAN 71.1 MAX 895 MIN 12 MEAN‡ 71.8 CFSM‡ 2.09 IN.‡ 28.35

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	Unk	Unk	About 800	1-29	0800	25.47	828	6-22	0300	25.70	1,270
11-14	Unk	Unk	About 650	2-02	2100	26.27	2,710	6-30	0300	25.32	581
11-20	Unk	Unk	About 500	4-02	0200	25.46	810	7-04	0500	25.31	566
12-06	2400	25.24	466								

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

NOTE.--No gage-height record Oct. 1 to Nov. 29 and July 29 to Aug. 29.

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 mi (0.2 km) upstream from Cedar Brook, and 0.6 mi (1.0 km) upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi^2 (105.4 km^2).

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 (5.401 m) higher.

AVERAGE DISCHARGE.--16 years, 64.8 ft^3/s (1.835 m^3/s), 21.62 in/yr (549 mm/yr).

EXTREMES.--Current year: Maximum discharge, 651 ft^3/s (18.4 m) Mar. 3, elevation, 18.92 ft (5.767 m); waste gate open; no flow, June 28, when gate was closed and dam filling.
Period of record: Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) May 30, 1968, elevation 19.90 ft (6.066 m) waste gates open; no flow for part or all of day in some years when 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. 8-17, Feb. 2-6, Apr. 2-4, 27-30, June 22-29, and July 2. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	53	148	86	110	66	113	108	66	535	42	25
2	25	52	192	82	162	66	299	103	64	230	52	23
3	23	52	126	75	541	70	396	103	62	125	49	25
4	23	50	95	95	502	116	194	116	62	381	44	25
5	23	58	80	118	199	139	127	112	75	297	42	39
6	23	63	93	101	118	106	177	94	78	141	39	27
7	118	59	164	74	150	95	47	77	65	101	36	25
8	176	143	143	59	204	111	98	73	63	74	34	23
9	163	332	188	61	177	129	219	122	58	64	34	23
10	79	482	224	56	137	111	224	271	52	62	34	23
11	50	262	200	54	96	90	183	212	47	76	34	23
12	42	82	140	53	80	82	137	131	41	81	42	23
13	40	80	109	51	78	80	105	104	80	65	36	21
14	37	152	96	50	74	74	99	78	82	60	31	31
15	35	265	100	53	112	80	92	77	60	69	36	82
16	34	336	178	56	141	94	87	72	61	83	64	67
17	33	142	164	58	107	150	83	41	88	68	42	42
18	31	94	93	61	77	144	82	74	60	59	36	34
19	43	85	85	66	77	120	80	73	56	56	36	39
20	57	186	85	95	74	89	79	68	58	54	34	31
21	56	282	93	97	80	75	75	80	95	58	31	27
22	46	201	173	76	83	71	75	83	312	64	34	25
23	40	111	259	102	81	67	76	90	240	61	34	25
24	38	85	229	110	73	65	90	124	180	55	31	25
25	35	75	159	84	69	64	94	116	162	52	29	23
26	34	99	120	72	68	157	200	105	114	47	29	23
27	34	133	109	92	70	247	338	97	83	52	29	23
28	47	115	101	250	68	156	310	124	64	58	29	23
29	91	86	87	405	------	102	194	147	157	49	27	29
30	115	77	78	433	------	90	119	115	446	44	27	34
31	75	------	81	230	------	87	------	90	------	42	27	------
TOTAL	1,695	4,292	4,192	3,355	3,808	3,193	4,492	3,280	3,131	3,263	1,124	908
MEAN	54.7	143	135	108	136	103	150	106	104	105	36.3	30.3
MAX	176	482	259	433	541	247	396	271	446	535	64	82
MIN	23	50	78	50	68	64	47	41	41	42	27	21
CFSM	1.34	3.51	3.32	2.65	3.34	2.53	3.69	2.60	2.56	2.58	.89	.74
IN.	1.55	3.92	3.83	3.07	3.48	2.92	4.11	3.00	2.86	2.98	1.03	.83

CAL YR 1972 TOTAL 31,083 MEAN 84.9 MAX 482 MIN 19 CFSM 2.09 IN 28.41
WTR YR 1973 TOTAL 36,733 MEAN 101 MAX 541 MIN 21 CFSM 2.48 IN 33.57

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 mi (1.0 km) south of Old Bridge, 2.3 mi (3.7 km) upstream from Deep Run, and 9.1 mi (14.6 km) upstream from mouth.

DRAINAGE AREA.--94.6 mi^2 (245.0 km^2).

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.--34 years, 136 ft^3/s (3.852 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) July 4, elevation, 11.07 ft (3.374 m); minimum, 23 ft^3/s (0.65 m^3/s) Sept. 13, 14, elevation, 9.60 ft (2.926 m).
Period of record: Maximum discharge, 4,250 ft^3/s (120 m^3/s) Sept. 15, 1944, elevation, 11.71 ft (3.569 m) waste gates open; maximum gage height, 11.73 ft (3.575 m) 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. Some regulation by Duhernal Lake, capacity, 138,000,000 gal (522,300 m^3), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	107	411	155	235	129	255	235	129	1,140	51	29
2	43	96	488	150	488	129	777	215	114	567	74	28
3	35	110	265	140	1,600	140	994	195	103	291	77	28
4	31	96	205	185	994	265	550	255	99	1,450	73	28
5	31	124	165	235	426	291	796	225	145	739	59	38
6	33	155	195	175	265	215	601	185	140	411	50	32
7	245	124	473	145	395	185	304	165	107	245	47	30
8	567	245	343	185	504	225	457	155	99	175	46	27
9	457	1,450	519	110	426	291	758	255	84	145	45	25
10	160	1,300	567	92	291	225	535	834	72	145	46	25
11	99	567	519	84	215	175	457	635	64	235	52	24
12	72	265	304	81	165	165	304	291	51	215	64	24
13	61	175	235	74	160	160	245	225	110	150	51	23
14	54	369	205	72	155	150	215	175	165	129	45	33
15	48	1,120	225	77	278	175	195	165	107	195	46	213
16	46	834	488	88	330	195	165	165	81	140	129	245
17	43	369	382	96	225	304	160	124	195	155	81	84
18	43	215	195	103	160	356	160	150	124	129	61	61
19	72	185	185	110	155	235	160	155	99	111	56	77
20	155	504	185	175	155	175	155	145	103	95	50	61
21	119	834	205	150	165	155	145	165	195	97	45	46
22	84	426	457	129	175	150	140	185	931	134	46	41
23	67	235	686	185	165	140	145	185	931	111	50	43
24	61	185	488	175	155	134	205	304	535	88	48	46
25	56	160	291	145	145	129	185	255	245	74	43	41
26	49	235	215	134	140	395	519	235	175	69	39	40
27	46	343	205	165	145	635	931	205	150	77	37	37
28	72	245	175	601	140	317	796	291	129	92	34	37
29	304	185	155	891	------	215	504	369	343	74	33	54
30	245	160	145	910	------	185	304	235	1,330	61	31	74
31	150	------	150	395	------	185	------	175	------	51	30	------
TOTAL	3,597	11,418	9,726	6,412	8,852	6,825	12,117	7,553	7,155	7,790	1,639	1,594
MEAN	116	381	314	207	316	220	404	244	239	251	52.9	53.1
MAX	567	1,450	686	910	1,600	635	994	834	1,330	1,450	129	245
MIN	31	96	145	72	140	129	140	124	51	51	30	23

CAL YR 1972 TOTAL 73,830 MEAN 202 MAX 1,450 MIN 23
WTR YR 1973 TOTAL 84,678 MEAN 232 MAX 1,600 MIN 23

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	1600	11.04	1,970	2-03	1300	11.03	1,940	5-10	1800	10.68	1,080
11-15	1300	10.81	1,380	3-27	1000	10.50	720	6-22	1600	10.70	1,120
11-21	0800	10.60	910	4-03	0200	10.73	1,190	6-30	1300	10.88	1,550
12-23	0800	10.50	720	4-09	1300	10.55	815	7-04	0800	11.07	2,060
1-30	0100	10.68	1,080	4-27	1100	10.64	994				

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 mi (2.6 km) upstream from Garden State Parkway Bridge, and 3.6 mi (5.8 km) upstream from mouth of Raritan River.

DRAINAGE AREA.--1,100 mi^2 (2,849 km^2).

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 (3.048 m) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum high tide	Elevation	-	-	-	5.19	5.42	5.29	5.04	-	-	4.86	-	5.09
	Date	-	-	-	29	12	21	27	-	-	1	-	14
Minimum low tide	Elevation	-	-	-	-4.06	-3.15	-4.31	-2.95	-	-	-2.90	-	-2.54
	Date	-	-	-	20	4	18	17	-	-	2	-	28
Mean high tide		-	-	-	3.12	3.54	3.64	3.22	-	-	3.36	-	3.72
Mean water level		-	-	-	.76	1.28	1.16	1.03	-	-	.79	-	1.14
Mean low tide		-	-	-	-1.58	- .80	-1.45	-1.28	-	-	-1.89	-	-1.61

Maximum elevation known, about 9.5 ft (2.90 m) above mean sea level Nov. 7, 1953, estimated on basis of record at Sandy Hook since 1932 by USC & GS. Minimum elevation known, about 6.0 ft (1.83 m) below mean sea level Jan. 31, 1966, estimated on basis of records at Sandy Hook since 1932 by National Ocean Survey.

NOTE.--No gage-height record Oct. 21 to Dec. 18, May 16-31, June 14-30 and Aug. 21 to Sept. 7.

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 mi (0.8 km) north of Clinton, and 0.6 mi (1.0 km) upstream from mouth. Drainage area, 41.3 mi^2 (107 km^2). 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 (42.392 hm^3) June 30 (elevation, 273.54 ft or (83.375 m); minimum observed, 8,600,000,000 gal (32.551 hm^3) Oct. 31 (elevation, 266.85 ft or 81.336 m). Extremes for period of record: Maximum contents observed, 11,400,000,000 gal (43.149 hm^3) Aug. 3, 1966 (elevation, 273.92 ft or 83.491 m).

Reservoir is formed by earthfill dam with concrete spillway; dam completed in October 1963 with crest of spillway 273.00 ft (83.210 m). Usable capacity, 11,000,000,000 gal (41.635 hm^3). Dead storage 300,000 gal (1,136 m^3). 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 mi (2.9 km) south of Lebanon, 3.2 mi (5.1 km) upstream from mouth, and 4.5 mi (7.2 km) west of Whitehouse. Drainage area, 5.7 mi^2 (14.76 km^2). 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, 55,000,000,000 gal (208.2 hm^3) Aug. 3 (elevation, 383.43 ft or 116.869 m); minimum observed, 51,300,000,000 gal (194.17 hm^3) Oct. 2 (elevation, 384.99 ft or 115.888 m).

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 or 117.348 m); 55,000,000,000 gal (208.175 hm^3). Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see p. 82). 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 1972 TO SEPTEMBER 1973

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	268.04	9,000	-	381.44	52,100	-
Oct. 31	267.08	8,600	-20.0	381.20	52,000	-5.0
Nov. 30	273.06	11,000	+124	381.84	52,400	+20.6
Dec. 31	273.14	11,000	0	382.22	52,700	+15.0
CAL YR 1972	-	-	+1.3	-	-	+5.1
Jan. 31	273.12	11,000	0	382.52	53,000	+15.0
Feb. 28	271.99	10,500	-27.6	382.78	53,200	+11.0
Mar. 31	273.04	11,000	+25.0	383.09	53,500	+15.0
Apr. 30	273.20	11,100	+5.2	383.77	54,000	+25.8
May 31	273.10	11,000	-5.0	384.21	54,300	+15.0
June 30	273.54	11,200	+10.3	384.70	54,700	+20.6
July 31	272.97	11,000	-10.0	384.69	54,700	0
Aug. 31	272.81	10,900	-5.0	384.15	54,300	-20.0
Sept. 30	271.95	10,500	-20.0	383.47	53,800	-15.8
WTR YR 1973	-	-	+6.4	-	-	+7.2

* Elevation at 0800 on first day of following month.

Diversions in Raritan River basin

01396920 Water is diverted 4.0 mi (6.4 km) 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 (457 m) 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 mi (1.0 km) 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 1972 TO SEPTEMBER 1973

Month	Hamden Pumping Station	Johns-Manville Products Corporation	Elizabethtown Water Company
October	0	9.5	105
November	0	10.0	96.7
December	0	9.1	107
CAL YR 1972	0	8.8	103
January	0	9.2	107
February	0	9.1	107
March	0	10.1	106
April	0	8.8	106
May	0	8.6	107
June	0	9.3	109
July	0	9.0	102
August	0	8.9	115
September	0	8.3	122
WTR YR 1973	0	9.2	109

01407500 Swimming River near Red Bank, N. J.

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, on left bank to 50 ft (15 m) upstream from dam at Swimming River Reservoir, 3.3 mi (5.3 km) southwest of Red Bank, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--48.5 mi^2 (125.6 km^2).

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

GAGE.--Water-stage recorder above dam. Datum of gage is 30.00 ft (9.144 m) above mean sea level. Prior to Jan. 19, 1962, at site 800 ft (240 m) upstream at datum 17.67 ft (5.386 m) lower. Jan. 19 to Mar. 30, 1962, nonrecording gage, 700 ft (210 m) upstream at datum 13.87 ft (4.228 m) lower.

AVERAGE DISCHARGE.--51 years, 78.4 ft^3/s (2.220 m^3/s), 21.95 in/yr (558 mm/yr), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 2,740 ft^3/s (77.6 m^3/s) Nov. 9, gage height, 6.58 ft (2.006 m); minimum daily, 0.30 ft^3/s (0.008 m^3/s) many days in August and September.
Period of record: Maximum discharge, 8,910 ft^3/s (252 m^3/s) Oct. 27, 1943 (gage height, 8.96 ft or 2.731 m, site and datum then in use) from rating curve extended above 600 ft^3/s (17 m^3/s) on basis of weir formula; no flow on some days in many years.

REMARKS.--Records good. Records given herein represent flow over spillway and through blowoff gates (no flow through blowoff gates 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 Consolidated Water Co.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	50	220	84	113	85	164	98	70	112	.71	.30
2	11	64	250	110	494	86	505	97	61	66	1.1	.30
3	9.6	60	150	100	565	90	217	101	59	68	4.2	.30
4	8.0	45	110	181	202	158	319	108	79	107	4.9	.30
5	7.5	80	100	155	155	110	399	89	88	93	4.2	.30
6	8.6	68	120	113	137	95	160	82	126	71	2.7	.30
7	489	56	240	90	259	102	128	78	144	45	1.5	.30
8	270	437	180	82	208	133	382	79	74	34	.67	.30
9	75	1,350	290	66	193	125	276	264	60	27	.38	.30
10	42	238	280	58	133	100	277	410	41	23	.30	.30
11	34	140	230	52	111	98	172	141	34	32	.30	.30
12	32	116	160	48	98	99	129	100	26	50	.30	.30
13	36	99	130	45	102	85	116	89	40	30	.30	.30
14	30	528	120	43	102	80	106	82	43	25	.30	.30
15	24	475	125	45	204	100	102	84	29	22	.30	.30
16	21	166	250	48	157	96	97	86	38	29	.30	.30
17	18	122	200	55	102	266	92	74	82	24	.30	.30
18	17	105	120	60	94	120	95	85	51	18	.30	.30
19	77	99	105	80	98	85	91	72	55	14	.30	.30
20	96	568	110	108	99	82	85	73	51	11	.30	.30
21	57	224	120	72	104	80	85	89	59	11	.30	.30
22	48	130	250	82	105	79	82	81	324	16	.30	.30
23	43	106	370	155	95	77	85	98	242	16	.30	.30
24	40	97	230	106	90	74	122	132	90	13	.30	.30
25	35	98	160	92	86	74	89	103	68	10	.30	.30
26	31	248	120	87	90	403	477	92	58	8.7	.30	.30
27	32	176	110	188	86	179	269	85	55	7.6	.30	.30
28	66	112	100	427	86	105	212	176	66	5.6	.30	.30
29	168	100	92	677	------	97	123	126	102	4.2	.30	.30
30	76	94	86	242	------	97	103	92	308	2.5	.30	.30
31	56	------	84	134	------	95	------	90	------	1.4	.30	------
TOTAL	1,969.7	6,251	5,212	3,885	4,368	3,555	5,559	3,456	2,623	997.0	26.96	9.00
MEAN	63.5	208	168	125	156	115	185	111	87.4	32.2	.87	.30
MAX	489	1,350	370	677	565	403	505	410	324	112	4.9	.30
MIN	7.5	45	84	43	86	74	82	72	26	1.4	.30	.30
(†)	27.5	25.0	24.0	24.0	23.0	23.0	20.0	30.0	34.6	34.2	39.9	39.3
MEAN‡	91.0	233	192	149	179	138	205	141	122	66.4	40.8	39.6
CFSM‡	1.88	4.80	3.96	3.07	3.69	2.85	4.23	2.91	2.52	1.37	.84	.82
IN.‡	2.16	5.37	4.56	3.54	3.85	3.29	4.70	3.34	2.82	1.58	.97	.91

CAL YR 1972 TOTAL 39,139.10 MEAN 107 MAX 1,350 MIN 2.0 MEAN‡ 134 CFSM‡ 2.76 IN.‡ 37.54
WTR YR 1973 TOTAL 37,911.66 MEAN 104 MAX 1,350 MIN .30 MEAN‡ 133 CFSM‡ 2.74 IN.‡ 37.09

† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.
‡ Adjusted for diversion and change in contents.
NOTE.--No gage-height record Nov. 28 to Jan. 2.

01407705 Shark River near Neptune City, N. J.

LOCATION.--Lat 40°11'56", long 74°04'14", Monmouth County, on left bank 100 ft (30 m) upstream from bridge on Remsen Mill Road, 0.3 mi (0.5 km) downstream from Robins Swamp Brook, and 1.7 mi (2.7 km) west of Neptune City.

DRAINAGE AREA.--9.96 mi^2 (25.80 km^2).

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 7.05 ft (2.149 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 14.0 ft^3/s (0.396 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 245 ft^3/s (6.94 m^3/s) Nov. 9, gage height, 4.86 ft (1.481 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Oct. 9, gage height, 1.13 ft (0.344 m).
Period of record: Maximum discharge, 580 ft^3/s (16.4 m^3/s) Dec. 26, 1969, gage height, 7.94 ft (2.420 m); minimum, 0.11 ft^3/s (0.003 m^3/s) Sept. 23, 1972.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	5.1	55	12	21	5.1	35	22	20	33	9.5	7.1
2	3.7	8.2	22	7.1	85	6.1	109	19	17	23	14	7.1
3	3.7	7.6	11	4.3	111	7.6	39	22	16	20	18	12
4	3.4	5.6	6.6	23	37	27	64	27	15	19	12	10
5	3.4	16	11	17	22	17	90	22	16	28	11	20
6	3.7	9.5	15	8.8	34	12	34	18	16	22	9.5	16
7	107	6.1	15	11	39	17	30	12	16	17	9.5	12
8	22	87	11	12	34	22	94	10	14	16	9.5	12
9	4.7	225	33	11	25	21	52	55	12	15	8.8	11
10	4.3	70	30	6.6	19	17	44	41	10	14	8.8	11
11	4.3	13	21	4.3	12	16	34	30	8.2	56	42	10
12	4.0	10	11	3.7	13	16	27	27	7.1	35	20	12
13	3.7	9.2	7.1	4.0	16	15	23	23	6.6	18	12	21
14	3.2	122	4.3	8.2	23	14	22	22	8.8	15	10	17
15	2.8	45	22	9.5	37	22	20	19	7.1	18	10	12
16	2.6	14	49	10	29	18	19	16	6.1	18	13	12
17	2.6	12	19	11	13	49	17	13	6.1	15	12	12
18	2.0	9.0	10	12	9.4	30	16	17	5.6	13	11	12
19	16	13	7.6	15	8.2	20	16	13	5.6	12	11	12
20	5.1	70	8.2	11	6.8	16	16	12	4.7	12	10	12
21	3.2	23	7.6	6.0	6.2	15	16	12	3.0	22	10	12
22	4.7	14	88	7.0	5.7	13	15	12	35	21	11	12
23	4.7	10	46	22	5.3	12	16	17	22	15	11	12
24	4.3	8.2	34	17	5.0	12	27	25	11	13	10	11
25	3.7	7.5	19	14	4.8	12	27	23	11	12	9.5	10
26	3.4	27	12	12	4.6	126	98	22	8.8	12	8.8	10
27	4.0	16	11	43	4.3	36	49	18	8.8	12	8.8	10
28	20	11	7.6	79	4.3	19	35	27	16	12	8.8	10
29	19	8.8	6.1	151	------	12	29	32	17	10	8.2	10
30	7.6	18	4.7	40	------	11	23	25	141	9.5	7.6	10
31	6.6	------	7.6	24	------	10	------	22	------	9.5	7.1	------
TOTAL	285.6	900.8	612.4	616.5	634.6	645.8	1,136	675	491.5	567.0	362.4	357.2
MEAN	9.21	30.0	19.8	19.9	22.7	20.8	37.9	21.8	16.4	18.3	11.7	11.9
MAX	107	225	88	151	111	126	109	55	141	56	42	21
MIN	2.0	5.1	4.3	3.7	4.3	5.1	15	10	3.0	9.5	7.1	7.1

CAL YR 1972 TOTAL 6,378.3 MEAN 17.4 MAX 225 MIN 2.0
WTR YR 1973 TOTAL 7,284.8 MEAN 20.0 MAX 225 MIN 2.0

01407760 Jumping Brook near Neptune City, N. J.

LOCATION.--Lat 40°12'13", long 74°03'58", Monmouth County, on left bank 50 ft (15 m) downstream from dam on Jumping Brook Reservoir, 0.85 mi (1.37 km) upstream from mouth, and 1.4 mi (2.3 km) west of Neptune City.

DRAINAGE AREA.--6.43 mi^2 (16.65 km^2).

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

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 13.76 ft (4.194 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 10.4 ft^3/s (0.295 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 499 ft^3/s (14.1 m^3/s) Nov. 14, (gage height, 3.86 ft or 1.177 m, from rating curve extended above 150 ft^3/s (4.25 m); minimum daily, 2.4 ft^3/s (0.068 m^3/s).
Period of record: Maximum discharge, 1,830 ft^3/s (51.8 m^3/s) Sept. 12, 1971, (gage height, 6.34 ft or 1.932 m) from rating curve extended above 150 ft^3/s (4.25 m^3/s); no flow June 7, 1971.

REMARKS.--Records good. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.6	46	13	10	7.8	22	15	9.7	21	3.6	3.1
2	3.6	7.4	15	8.9	80	8.1	68	14	8.1	11	11	2.5
3	2.9	6.4	9.3	7.4	63	8.5	33	14	8.1	8.5	12	2.5
4	4.6	4.9	9.3	20	20	21	59	17	7.8	7.4	4.9	7.8
5	2.9	12	6.7	14	14	13	87	15	14	12	3.9	4.6
6	3.4	6.7	12	8.9	11	10	34	13	11	11	3.6	11
7	136	6.1	14	6.4	62	11	22	12	9.3	7.1	3.1	5.2
8	17	142	13	6.4	28	12	46	11	7.8	6.1	2.7	3.9
9	7.8	136	28	5.2	24	12	39	28	6.7	5.2	3.1	3.1
10	5.2	19	25	5.2	16	9.3	29	35	6.1	4.4	3.1	2.9
11	4.4	13	18	4.4	13	9.7	23	20	5.5	34	25	2.5
12	3.9	11	10	4.6	9.7	9.7	18	15	5.5	18	7.8	2.5
13	4.4	8.9	8.9	4.4	11	8.9	16	12	6.1	9.3	4.4	2.4
14	3.4	154	8.5	3.4	10	8.1	14	11	7.1	7.8	3.4	17
15	3.2	50	25	5.2	27	13	13	10	5.8	8.9	4.9	33
16	3.1	16	43	4.6	17	11	12	10	4.6	7.8	11	6.7
17	3.4	12	14	5.2	13	35	11	9.7	4.9	5.8	4.9	4.6
18	4.6	9.3	9.7	4.6	10	18	10	11	4.6	4.9	4.4	6.7
19	18	11	9.3	6.7	11	12	10	12	4.9	3.9	4.4	5.2
20	9.3	85	11	10	11	9.7	10	12	5.2	3.6	3.9	4.6
21	4.9	22	12	5.5	11	8.5	10	10	4.9	15	3.4	3.4
22	4.4	13	60	7.1	11	8.1	9.6	9.7	20	8.9	5.2	3.1
23	3.9	9.3	36	11	9.7	8.1	11	10	24	5.2	4.4	4.9
24	4.1	7.1	26	7.1	8.9	7.1	17	17	11	4.1	3.4	3.4
25	3.4	6.7	15	5.8	8.1	7.4	16	15	7.8	3.4	3.2	4.9
26	3.6	29	12	4.6	9.3	83	105	14	7.1	3.4	3.4	3.2
27	3.2	16	12	30	8.9	27	47	12	6.7	3.9	3.1	2.9
28	20	9.7	11	49	7.8	15	33	18	9.3	3.2	3.2	2.9
29	17	6.7	7.8	88	------	14	22	21	11	3.6	2.7	8.5
30	7.1	17	7.8	24	------	13	17	14	47	2.7	3.1	4.1
31	5.8	------	11	12	------	11	------	12	------	2.9	2.7	------
TOTAL	322.9	851.8	546.3	392.6	535.4	450.0	863.6	449.4	291.6	254.0	162.9	173.1
MEAN	10.4	28.4	17.6	12.7	19.1	14.5	28.8	14.5	9.72	8.19	5.25	5.77
MAX	136	154	60	88	80	83	105	35	47	34	25	33
MIN	2.9	4.6	6.7	3.4	7.8	7.1	9.6	9.7	4.6	2.7	2.7	2.4

CAL YR 1972 TOTAL 5,774.1 MEAN 15.8 MAX 156 MIN 1.3
WTR YR 1973 TOTAL 5,293.6 MEAN 14.5 MAX 154 MIN 2.4

01408000 Manasquan River at Squankum, N. J.

LOCATION.--Lat 40°09'47", long 74°09'21", Monmouth County, on right bank 20 ft (6.1 m) downstream from bridge on State Highway 547 (Squankum Park Road) in Squankum and 0.4 mi (0.6 km) downstream from Marshbog Brook.

DRAINAGE AREA.--43.4 mi^2 (112.4 km^2).

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 (5.736 m) above mean sea level. Prior to Aug. 13, 1940, water-stage recorder at site 80 ft (24 m) upstream at same datum.

AVERAGE DISCHARGE.--42 years, 73.4 ft^3/s (2.079 m^3/s), 22.97 in/yr (583 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Nov. 9, gage height, 8.20 ft (2.499 m); minimum, 25 ft^3/s (0.71 m^3/s) Aug. 31, Sept. 1, gage height, 2.49 ft (0.759 m).
Period of record: Maximum discharge, 2,940 ft^3/s (83.3 m^3/s) Sept. 21, 1938 (gage height, 12.45 ft or 3.795 m, from floodmark, site then in use), from rating curve extended above 900 ft^3/s (25.5 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 12.9 ft^3/s (0.37 m^3/s) Sept. 10, 1932.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	60	305	124	128	82	134	100	82	178	37	28
2	31	67	150	108	259	82	496	90	74	92	41	28
3	29	66	124	98	638	86	223	92	70	77	42	28
4	28	58	112	156	200	140	230	116	74	72	40	30
5	35	92	108	130	156	110	478	90	110	86	38	33
6	120	77	110	108	140	96	174	80	84	74	35	42
7	490	64	150	90	299	96	132	75	148	61	35	41
8	259	208	114	82	200	108	311	74	80	57	34	33
9	95	947	226	80	194	106	245	202	72	54	33	30
10	66	221	204	77	138	84	230	180	66	53	34	29
11	60	140	116	77	122	78	164	122	60	110	46	30
12	54	118	130	75	110	82	130	106	58	162	51	30
13	53	106	122	72	106	78	116	94	77	72	38	28
14	49	305	112	70	104	75	106	84	86	60	37	36
15	46	582	132	74	174	92	98	84	63	60	38	122
16	44	166	224	75	142	80	92	88	61	64	41	45
17	46	134	128	78	110	116	90	80	57	57	40	38
18	44	118	106	80	98	150	86	88	54	53	38	46
19	88	108	108	86	96	106	82	77	61	51	38	44
20	88	508	114	118	100	90	78	74	61	49	36	37
21	60	217	110	86	106	82	75	80	57	60	36	35
22	54	142	355	86	106	77	75	78	126	61	41	34
23	51	122	248	132	98	74	77	88	176	51	38	38
24	51	110	215	100	92	70	114	116	86	49	36	35
25	47	104	150	86	88	69	88	106	72	46	34	35
26	49	208	136	80	90	392	250	98	67	42	33	36
27	47	162	134	132	88	190	235	84	61	41	32	34
28	69	124	120	368	84	116	215	172	70	42	32	33
29	188	110	110	604	------	102	134	132	75	42	30	94
30	77	116	104	233	------	98	112	96	256	38	29	49
31	64	------	118	148	------	88	------	98	------	38	28	------
TOTAL	2,515	5,560	4,695	3,913	4,266	3,295	5,070	3,144	2,544	2,052	1,141	1,201
MEAN	81.1	185	151	126	152	106	169	101	84.8	66.2	36.8	40.0
MAX	490	947	355	604	638	392	496	202	256	178	51	122
MIN	28	58	104	70	84	69	75	74	54	38	28	28
CFSM	1.87	4.26	3.48	2.90	3.50	2.44	3.89	2.33	1.95	1.53	.85	.92
IN.	2.16	4.77	4.02	3.35	3.66	2.82	4.35	2.69	2.18	1.76	.98	1.03

CAL YR 1972 TOTAL 40,344 MEAN 110 MAX 947 MIN 28 CFSM 2.53 IN 34.58
WTR YR 1973 TOTAL 39,396 MEAN 108 MAX 947 MIN 28 CFSM 2.49 IN 33.77

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	1000	8.20	1,260	2-03	0600	7.66	1,040
11-15	0400	7.60	1,020	3-26	1930	6.22	630
11-20	1730	6.84	790	4-02	1415	6.14	614
1-29	1700	6.91	808	4-05	0500	6.93	795

01408120 North Branch Metedeconk River near Lakewood, N. J.

LOCATION.--Lat 40°05'30", long 74°09'10", Ocean County, on upstream right bank at bridge on State Route 549, 1.0 mi (1.6 km) upstream from confluence with South Branch Metedeconk River and 2.3 mi (3.7 km) east of Lakewood.

DRAINAGE AREA.--34.9 mi^2 (90.4 km^2).

PERIOD OF RECORD.--October 1972 to September 1973.

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3.0 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 412 ft^3/s (11.7 m^3/s) Nov. 9, gage height, 7.03 ft (2.143 m); minimum, 17 ft^3/s (0.48 m^3/s) Sept. 13, gage height 2.38 ft (0.725 m).

REMARKS.--Records excellent.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	62	160	100	226	66	99	90	70	170	29	22
2	41	62	180	91	137	66	201	79	58	112	50	23
3	40	66	137	80	256	68	238	81	52	96	77	22
4	39	60	102	100	248	102	213	99	54	56	43	21
5	38	77	84	114	187	103	275	87	79	65	35	21
6	38	83	85	100	126	84	217	75	71	70	30	26
7	187	72	107	90	159	76	162	70	63	48	28	48
8	315	120	100	80	204	81	154	67	56	42	26	30
9	181	353	133	83	184	85	202	118	48	40	25	23
10	87	307	163	70	148	80	196	172	44	43	25	22
11	50	211	167	66	112	74	184	125	41	47	28	21
12	40	142	133	60	111	73	138	83	39	106	36	20
13	38	89	102	56	106	73	101	72	42	107	34	18
14	36	139	87	60	86	68	87	67	49	52	28	29
15	35	293	92	63	107	75	81	66	40	44	29	83
16	34	236	142	62	118	79	77	69	39	50	33	62
17	34	179	139	64	105	120	75	63	47	45	32	37
18	33	117	104	66	90	168	75	69	43	41	30	34
19	62	87	84	68	94	130	74	63	44	38	29	37
20	81	183	84	86	75	86	72	59	45	36	27	30
21	63	245	85	79	77	73	69	67	45	50	26	26
22	48	187	155	73	77	71	68	64	88	73	31	25
23	42	134	216	93	75	67	69	66	149	44	33	26
24	38	92	216	87	72	64	90	87	102	38	29	28
25	37	82	185	75	69	62	83	85	69	35	28	27
26	35	110	132	69	69	224	171	80	52	34	26	26
27	34	141	103	86	70	240	232	73	47	33	25	25
28	48	126	93	197	67	173	209	97	47	33	25	24
29	122	96	84	305	------	114	178	121	54	31	24	54
30	126	88	80	380	------	82	128	99	162	30	22	74
31	83	------	88	350	------	77	------	81	------	29	21	------
TOTAL	2,128	4,239	3,822	3,353	3,455	3,004	4,218	2,594	1,839	1,738	964	964
MEAN	68.6	141	123	108	123	96.9	141	83.7	61.3	56.1	31.1	32.1
MAX	315	353	216	380	256	240	275	172	162	170	77	83
MIN	33	60	80	56	67	62	68	59	39	29	21	18
CFSM	1.97	4.04	3.52	3.09	3.52	2.78	4.04	2.40	1.76	1.61	.89	.92
IN.	2.27	4.52	4.07	3.57	3.68	3.20	4.50	2.76	1.96	1.85	1.03	1.03

CAL YR 1972 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1973 TOTAL 32,318.00 MEAN 88.5 MAX 380 MIN 18 CFSM 2.54 IN 34.45

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	2345	6.77	348	11-21	1100	6.31	256	3-27	0900	6.31	256
11-09	1815	7.03	412	1-30	0015	6.91	382	4-05	0900	6.55	295
11-15	0615	6.61	308	2-03	0345	6.89	378				

NOTE.--Peak of Jan. 30 may be affected by frozen well.

01408140 South Branch Metedeconk River at Lakewood, N. J.

LOCATION.--Lat 40°05'12", long 74°12'45", Ocean County, on right bank 15 ft (4.6 m) upstream from bridge on State Route 88 (Cedar Bridge Avenue), 0.2 mi (0.3 km) downstream from Lake Carasaljo, and 0.3 mi (0.5 km) south of Lakewood.

DRAINAGE AREA.--26.0 mi^2 (67.3 km^2).

PERIOD OF RECORD.--October 1972 to September 1973.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12.2 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 412 ft^3/s (11.7 m^3/s) Nov. 8, gage height, 5.87 ft (1.789 m); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 15, 25, gage height, 1.35 ft (0.411 m).

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Occasional regulation from cranberry bogs and lakes upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	108	114	82	210	66	64	85	84	128	34	32
2	37	91	172	75	130	66	80	64	54	123	43	24
3	33	91	189	68	230	66	140	70	36	106	70	15
4	32	77	109	80	220	70	190	82	40	45	44	17
5	45	73	72	103	180	72	196	88	57	39	32	33
6	64	86	50	95	145	86	148	69	74	63	32	42
7	285	92	61	80	103	85	126	46	73	54	32	44
8	271	182	86	66	86	79	127	56	70	45	32	42
9	136	407	106	68	185	85	124	105	45	42	30	35
10	139	390	150	62	202	83	132	122	38	41	26	33
11	100	233	160	57	83	80	151	99	39	44	25	32
12	55	128	120	52	37	79	119	97	35	63	30	32
13	42	126	94	46	39	78	79	63	37	107	56	32
14	40	155	78	52	79	77	72	34	53	96	53	33
15	38	242	83	56	96	76	63	50	50	45	28	48
16	37	260	120	55	91	75	58	77	45	47	11	77
17	36	241	110	54	88	81	57	57	53	48	26	65
18	34	156	93	56	86	84	55	51	46	46	49	60
19	34	103	75	65	84	106	66	57	46	44	42	58
20	50	200	60	85	82	109	76	70	47	42	40	42
21	73	215	55	76	80	93	72	80	48	52	39	16
22	94	204	70	69	78	80	54	66	59	52	34	16
23	97	246	175	85	76	78	60	57	113	57	34	16
24	83	138	350	84	73	76	80	63	100	52	20	20
25	67	93	330	80	71	70	100	82	95	43	10	33
26	52	97	180	68	70	92	134	90	69	34	17	51
27	67	102	100	105	69	110	153	76	37	34	30	44
28	89	128	78	160	67	146	143	73	45	34	51	42
29	165	142	70	210	------	134	154	91	56	34	30	45
30	145	119	64	340	------	114	137	96	100	26	14	43
31	136	------	72	290	------	71	------	90	------	20	33	------
TOTAL	2,616	4,925	3,646	2,924	3,040	2,667	3,210	2,306	1,744	1,706	1,047	1,122
MEAN	84.4	164	118	94.3	109	86.0	107	74.4	58.1	55.0	33.8	37.4
MAX	285	407	350	340	230	146	196	122	113	128	70	77
MIN	32	73	50	46	37	66	54	34	35	20	10	15
CFSM	3.25	6.31	4.54	3.63	4.19	3.31	4.12	2.86	2.23	2.12	1.30	1.44
IN.	3.74	7.05	5.22	4.18	4.35	3.82	4.59	3.30	2.50	2.44	1.50	1.61

CAL YR 1972 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1973 TOTAL 30,953.00 MEAN 84.8 MAX 407 MIN 10 CFSM 3.26 IN 44.29

PEAK DISCHARGE (BASE, 260 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	1515	5.85	408	11-20	2215	5.45	315
11-08	2400	5.87	412	12-23	1615	5.78	390
11-16	1100	5.19	263	1-29	Unk	Unk	About 320

NOTE.--No gage-height record Dec. 24 to Feb. 6.

01408500 Toms River near Toms River, N. J.

LOCATION.--Lat 39°59'10", long 74°13'29", Ocean County, on left bank 1.9 mi (3.1 km) downstream from Union Branch and 2.6 mi (4.2 km) northwest of Toms River.

DRAINAGE AREA.--124 mi^2 (321 km^2).

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 (2.467 m) above mean sea level.

AVERAGE DISCHARGE.--45 years, 214 ft^3/s (6.060 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 817 ft^3/s (23.1 m^3/s) Jan. 30, gage height, 8.18 ft (2.493 m); minimum, 94 ft^3/s (2.66 m^3/s) Sept. 13, gage height, 3.25 ft (0.991 m).
Period of record: Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) Sept. 23, 1938 (gage height, 12.50 ft or 3.810 m, from floodmark) from rating curve extended above 1,500 ft^3/s (42 m^3/s); minimum, 46 ft^3/s (1.30 m^3/s) many days in August and September 1966, gage height, 2.70 ft (0.823 m).

REMARKS.--Records excellent except those for period of no gage-height record, which are fair. Diversion since July 18, 1966 by Toms River Chemical Co., 800 ft (240 m) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	360	424	374	631	268	368	493	345	354	123	99
2	124	320	448	364	554	265	444	423	319	391	140	99
3	115	300	497	350	599	266	520	373	291	350	225	99
4	110	280	469	364	759	308	665	373	256	268	191	103
5	106	260	409	368	731	326	721	361	253	239	168	126
6	109	250	361	378	585	346	683	360	248	239	149	152
7	267	240	373	368	560	336	621	333	248	229	133	158
8	399	300	366	318	520	325	577	305	257	208	124	148
9	544	350	427	291	640	312	565	338	280	182	118	131
10	541	580	472	279	620	320	597	391	255	165	115	118
11	429	800	545	260	520	310	613	459	214	158	117	108
12	303	750	536	253	470	300	553	471	187	176	126	103
13	227	600	496	239	420	279	499	408	174	226	128	97
14	190	560	438	238	382	268	448	335	170	279	117	103
15	168	620	401	235	388	266	406	301	162	238	117	150
16	154	700	422	234	398	266	370	287	159	210	129	170
17	147	660	422	244	405	305	343	273	178	198	139	173
18	141	620	420	251	389	356	326	273	183	184	138	154
19	159	560	389	247	366	417	317	270	188	175	137	147
20	191	540	356	268	346	419	312	276	200	170	128	137
21	207	560	352	270	338	363	305	275	201	180	119	125
22	218	540	424	289	336	308	291	266	235	200	121	120
23	205	520	499	311	325	280	284	270	339	280	128	119
24	191	490	635	304	312	266	300	293	380	240	124	115
25	166	450	647	305	300	256	300	301	431	210	121	112
26	160	430	563	293	284	350	394	321	375	167	118	110
27	160	410	496	298	279	445	476	322	280	151	112	108
28	185	410	443	401	275	560	629	349	235	144	109	106
29	230	405	402	541	------	533	655	375	227	141	106	121
30	300	380	367	771	------	451	574	387	297	132	101	144
31	350	------	363	747	------	382	------	385	------	125	98	------
TOTAL	6,928	14,245	13,862	10,453	12,732	10,452	14,156	10,647	7,567	6,609	4,019	3,755
MEAN	223	475	447	337	455	337	472	343	252	213	130	125
MAX	544	800	647	771	759	560	721	493	431	391	225	173
MIN	106	240	352	234	275	256	284	266	159	125	98	97
CFSM	1.80	3.83	3.60	2.72	3.67	2.72	3.81	2.77	2.03	1.72	1.05	1.01
IN.	2.08	4.27	4.16	3.14	3.82	3.14	4.25	3.19	2.27	1.98	1.21	1.13

CAL YR 1972 TOTAL 112,292 MEAN 307 MAX 800 MIN 100 CFSM 2.48 IN 33.69
WTR YR 1973 TOTAL 115,425 MEAN 316 MAX 800 MIN 97 CFSM 2.55 IN 34.63

NOTE.--No gage-height record Oct. 26 to Nov. 27.

01409095 Oyster Creek near Brookville, N. J.

LOCATION.--Lat 39°47'54", long 74°15'02", Ocean County, on left bank 100 ft (30 m) upstream from bridge on State Highway 532, 1.5 mi (2.4 km) downstream from reservoir at Wells Mill, and 3.2 mi (5.1 km) northeast of Brookville.

DRAINAGE AREA.--7.43 mi^2 (19.24 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft (7.541 m) above mean sea level.

AVERAGE DISCHARGE.--8 years, 28.3 ft^3/s (0.801 m^3/s), 51.72 in/yr (1,314 mm/yr).

EXTREMES.--Current year: Maximum discharge, 134 ft^3/s (3.79 m^3/s) Oct. 7, gage height, 6.45 ft (1.966 m); minimum, 19 ft^3/s (0.54 m^3/s) Oct. 4, gage height, 3.90 ft (1.189 m).
Period of record: Maximum discharge, 232 ft^3/s (6.57 m^3/s) Dec. 26, 1969, gage height, 6.18 ft (1.884 m); minimum, 12 ft^3/s (0.340 m^3/s) Aug. 6, 7, 1965, gage height, 3.46 ft (1.055 m).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	62	45	41	37	45	35	31	44	28	25
2	21	29	51	42	55	36	66	35	31	34	29	28
3	20	28	43	40	73	37	54	35	31	31	48	40
4	20	27	40	46	53	49	54	38	33	30	57	34
5	20	31	39	47	45	47	72	36	35	46	41	29
6	22	30	40	42	43	40	51	34	33	47	33	26
7	89	28	46	39	63	40	40	33	31	34	29	26
8	76	48	43	38	61	43	54	33	30	30	28	25
9	51	73	56	37	53	48	56	50	29	28	27	24
10	34	51	52	37	47	41	48	60	28	29	26	24
11	29	38	47	37	43	39	46	45	26	33	29	24
12	28	34	42	36	41	38	43	38	26	35	30	24
13	28	32	41	36	41	37	42	36	26	30	28	23
14	28	65	39	35	41	36	41	34	26	28	28	35
15	34	76	44	36	49	37	41	34	25	34	33	67
16	31	50	60	36	49	36	40	35	26	43	48	49
17	26	41	48	36	46	41	39	34	26	36	39	34
18	24	39	43	36	46	41	39	34	28	31	32	31
19	33	38	40	37	45	38	39	33	35	30	30	29
20	36	69	40	42	40	35	38	34	39	28	28	28
21	30	59	40	37	40	34	38	36	33	29	27	26
22	32	45	70	38	40	36	38	34	40	31	30	26
23	29	41	69	42	39	34	37	34	47	29	30	26
24	25	39	61	39	38	33	37	39	37	28	28	26
25	25	38	51	35	38	32	35	39	31	28	27	26
26	24	50	46	34	39	55	56	38	30	27	27	25
27	23	51	44	45	39	56	55	39	29	27	26	25
28	32	43	43	67	38	42	47	47	29	27	26	25
29	49	39	41	73	------	38	41	47	31	27	25	32
30	39	41	42	59	------	37	37	38	54	27	25	32
31	30	------	42	45	------	37	------	34	------	27	24	------
TOTAL	1,011	1,300	1,465	1,294	1,286	1,230	1,369	1,171	956	988	966	894
MEAN	32.6	43.3	47.3	41.7	45.9	39.7	45.6	37.8	31.9	31.9	31.2	29.8
MAX	89	76	70	73	73	56	72	60	54	47	57	67
MIN	20	27	39	34	38	32	35	33	25	27	24	23
CFSM	4.39	5.83	6.37	5.61	6.18	5.34	6.14	5.09	4.29	4.29	4.20	4.01
IN.	5.06	6.51	7.33	6.48	6.44	6.16	6.85	5.86	4.79	4.95	4.84	4.48

CAL YR 1972 TOTAL 12,241 MEAN 33.4 MAX 89 MIN 20 CFSM 4.50 IN 61.29
WTR YR 1973 TOTAL 13,930 MEAN 38.2 MAX 89 MIN 20 CFSM 5.14 IN 69.74

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	1445	6.45	134	12-22	1800	5.49	87
11-09	0700	5.30	79	1-29	1430	5.33	80
11-14	2215	5.91	106	2-03	0330	5.40	83
11-20	1545	5.33	80	4-05	0330	5.42	84

01409400 Mullica River near Batsto, N. J.

LOCATION.--Lat 39°40'28", long 74°39'55", Atlantic County, on right bank 2.4 mi (3.9 km) upstream from Sleeper Branch and 2.5 mi (4.0 km) north of Batsto.

DRAINAGE AREA.--46.1 mi^2 (119.4 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 14 ft (4.3 m), from topographic map.

AVERAGE DISCHARGE.--16 years, 111 ft^3/s (3.144 m^3/s) 32.70 in/yr (831 mm/yr).

EXTREMES.--Current year: Maximum discharge, 630 ft^3/s (17.8 m^3/s) Feb. 4, gage height, 4.27 ft (1.301 m); minimum, 29 ft^3/s (0.82 m^3/s) Sept. 13, gage height, 0.54 ft (0.165 m).
Period of record: Maximum discharge, 1,190 ft^3/s (33.7 m^3/s) Aug. 27, 1958, gage height, 5.37 ft (1.637 m); minimum, 7.0 ft^3/s (0.20 m^3/s) Sept. 6-8, 1966, gage height, 0.28 ft (0.085 m).

REMARKS.--Records excellent. Flow regulated occasionally by ponds and cranberry bogs 4 to 6 mi (6 to 10 km) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	111	283	235	359	140	196	221	217	167	47	32
2	46	121	318	230	409	135	231	178	187	169	49	31
3	47	154	288	220	489	134	247	192	142	125	48	37
4	50	135	272	211	582	149	267	202	134	140	47	42
5	41	110	255	210	565	150	361	189	161	114	45	37
6	39	93	234	213	417	147	342	181	166	102	42	34
7	97	86	203	200	403	148	304	170	153	94	41	34
8	128	120	218	190	395	152	292	171	143	74	40	33
9	155	320	308	180	377	153	398	187	133	69	39	32
10	164	522	361	160	336	148	357	198	123	69	39	31
11	113	572	551	150	304	148	336	195	110	69	39	31
12	115	400	336	140	279	152	304	174	102	70	39	30
13	108	334	306	137	246	165	272	172	95	66	37	30
14	97	352	324	132	196	176	237	167	90	64	37	37
15	87	600	274	130	197	157	197	159	75	66	37	57
16	79	579	292	130	201	129	174	157	70	85	39	50
17	72	565	277	130	221	140	161	145	78	82	39	42
18	70	393	246	132	237	137	155	140	94	78	39	39
19	81	322	246	138	223	136	149	132	94	74	39	38
20	87	384	234	146	202	159	142	146	94	70	37	37
21	88	471	196	153	170	172	137	171	94	67	36	36
22	92	354	227	170	142	169	134	167	125	77	39	34
23	88	310	433	178	141	150	132	160	171	71	39	34
24	88	288	504	163	153	112	137	161	149	65	38	33
25	95	266	468	171	150	104	138	171	190	61	37	32
26	95	276	417	180	151	159	167	180	166	58	35	32
27	88	279	338	182	146	244	192	186	114	55	34	31
28	93	238	290	218	142	267	302	234	118	54	34	31
29	110	202	261	292	------	259	318	264	116	51	33	33
30	106	196	241	363	------	226	290	238	129	50	32	34
31	103	------	240	390	------	192	------	233	------	49	32	------
TOTAL	2,769	9,153	9,441	5,874	7,833	5,009	7,069	5,641	3,833	2,505	1,208	1,064
MEAN	89.3	305	305	189	280	162	236	182	128	80.8	39.0	35.5
MAX	164	600	551	390	582	267	398	264	217	169	49	57
MIN	39	86	196	130	141	104	132	132	70	49	32	30
CFSM	1.94	6.62	6.62	4.10	6.07	3.51	5.12	3.95	2.78	1.75	.85	.77
IN.	2.23	7.39	7.62	4.74	6.32	4.04	5.70	4.55	3.09	2.02	.97	.86

CAL YR 1972 TOTAL 58,483 MEAN 160 MAX 600 MIN 27 CFSM 3.47 IN 47.19
WTR YR 1973 TOTAL 61,399 MEAN 168 MAX 600 MIN 30 CFSM 3.64 IN 49.55

01409500 Batsto River at Batsto, N. J.

LOCATION.--Lat 39°38'33", long 74°39'00", Burlington County, on right bank 30 ft (9 m) downstream from bridge on State Highway 542 at Batsto and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--70.5 mi^2 (182.6 km^2).

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 (15 m) downstream. Datum of gage is 1.4 ft (0.43 m) above mean sea level.

AVERAGE DISCHARGE.--46 years, 127 ft^3/s (3.597 m^3/s), 24.46 in/yr (621 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 679 ft^3/s (19.2 m^3/s) Nov. 16, minimum daily, 17 ft^3/s (0.48 m^3/s) Aug. 11.
Period of record: Maximum daily discharge, 1,310 ft^3/s (37.1 m^3/s) Aug. 24, 1933; maximum gage height, 8.7 ft (2.65 m) Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 ft^3/s (0.16 m^3/s) Oct. 4, 1959.

REMARKS.--Records fair. Flow occasionally regulated by sluice gates prior to December 1954 and by an automatic Bascule gate since July 1959 at Batsto Lake 300 ft (91 m) upstream, capacity, about 60,000,000 gal (227,000 m^3).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	131	240	216	339	135	192	234	213	131	64	51
2	67	122	295	208	310	132	218	194	181	136	66	52
3	64	115	315	200	470	132	276	173	159	139	78	54
4	64	112	280	202	578	142	331	164	142	133	95	68
5	64	120	245	200	484	151	364	169	145	123	88	59
6	68	120	218	203	382	157	396	169	149	110	75	56
7	122	121	198	189	330	159	326	150	139	99	64	56
8	159	155	227	169	390	152	333	138	128	92	62	54
9	229	257	285	152	409	148	415	153	120	86	61	53
10	192	649	386	139	366	147	393	177	112	81	28	52
11	160	589	429	133	361	149	353	206	105	83	17	51
12	133	451	418	128	256	145	303	196	100	82	47	50
13	119	330	344	121	216	136	254	192	99	80	55	49
14	112	339	285	120	189	132	218	171	99	79	55	59
15	101	537	289	120	201	130	193	162	101	79	57	93
16	89	679	265	121	210	129	174	145	101	101	59	71
17	87	545	261	121	207	144	162	138	104	112	68	64
18	88	422	233	123	190	160	153	139	102	101	64	60
19	94	316	212	128	172	177	148	132	107	90	61	59
20	105	327	208	136	167	166	136	130	110	83	62	60
21	113	383	217	153	163	157	138	137	111	81	61	60
22	110	408	296	168	160	162	135	143	133	86	63	57
23	106	343	451	160	156	151	126	142	174	80	61	56
24	102	272	555	165	150	138	127	145	191	77	62	53
25	96	229	511	163	145	123	134	174	171	74	60	56
26	97	240	419	156	143	167	158	185	149	72	58	53
27	91	223	339	154	144	271	222	197	135	70	58	53
28	100	241	275	184	141	317	291	220	126	71	57	55
29	118	219	234	282	------	252	329	259	119	68	55	56
30	138	216	211	437	------	216	290	291	120	66	54	56
31	144	------	210	405	------	187	------	248	------	66	53	------
TOTAL	3,403	9,211	9,351	5,556	7,429	5,064	7,288	5,473	3,945	2,831	1,868	1,726
MEAN	110	307	302	179	265	163	243	177	132	91.3	60.3	57.5
MAX	229	679	555	437	578	317	415	291	213	139	95	93
MIN	64	112	198	120	141	123	126	130	99	66	17	49

CAL YR 1972 TOTAL 60,785 MEAN 166 MAX 679 MIN 57
WTR YR 1973 TOTAL 63,145 MEAN 173 MAX 679 MIN 17

01409510 Batsto River at Pleasant Mills, N. J.

LOCATION.--Lat 39°37'55", long 74°38'40", Burlington County, on right bank, 0.5 mi (0.8 km) upstream from mouth, 1.0 mi (1.6 km) southeast of Pleasant Mills.

DRAINAGE AREA.--73.6 mi^2 (190.6 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1.4 ft (0.427 m) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum high tide	Elevation	3.68	4.05	4.55	4.73	4.87	3.81	3.87	3.41	3.39	3.26	3.41	-
	Date	7	8	22	29	7	23	5	26	29	2	21	-
Minimum low tide	Elevation	0.10	0.56	1.07	-2.56	0.79	0.68	0.60	0.69	-0.54	-0.03	-0.19	-
	Date	1	3	30,31	18	25	3	22	19	9	9	10,11	-
Mean high tide		2.67	3.14	2.90	1.95	3.58	2.78	2.79	2.76	2.68	2.45	2.70	-
Mean water level		1.73	2.50	2.34	1.22	3.03	2.00	2.06	1.98	1.80	1.66	1.58	-
Mean low tide		0.74	1.78	1.78	0.49	2.45	0.14	1.35	1.14	0.84	0.36	0.33	-

REMARKS.--No gage-height record July 19-21 and Sept. 14-30.

01410000 Oswego River at Harrisville, N. J.

LOCATION.--Lat 39°39'47", long 74°31'26", Burlington County, on right bank 50 ft (15 m) downstream from bridge on State Highway Spur 563 at Harrisville and 0.5 mi (0.8 km) upstream from confluence with West Branch Wading River.

DRAINAGE AREA.--64.0 mi^2 (165.8 km^2).

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 (1.408 m) above mean sea level.

AVERAGE DISCHARGE.--43 years, 87.6 ft^3/s (2.481 m^3/s), 18.59 in/yr (472 mm/yr).

EXTREMES.--Current year: Maximum discharge, 501 ft^3/s (14.2 m^3/s) Nov. 15, gage height, 4.99 ft (1.521 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Sept. 2.
Period of record: Maximum discharge, 1,390 ft^3/s (39.4 m^3/s) Aug. 20, 1939 (gage height, 9.54 ft or 2.908 m, from high-water mark in recorder shelter), from rating curve extended above 640 ft^3/s (18.1 m^3/s); 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 (61 m) above station, capacity, about 30,000,000 gal (114,000 m^3) and by ponds and cranberry bogs 5 to 10 mi (8 to 16 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	106	229	172	256	103	157	177	157	120	47	31
2	49	98	242	170	268	100	212	146	144	113	46	28
3	52	90	215	158	364	98	233	130	130	103	52	31
4	46	105	190	166	373	120	245	130	119	97	54	48
5	45	144	169	168	310	125	343	120	149	89	54	47
6	48	142	146	158	261	121	356	114	131	79	52	43
7	189	111	145	141	273	118	277	111	118	76	50	42
8	239	158	143	100	287	126	285	125	105	74	47	40
9	249	333	204	119	282	137	325	160	92	72	45	38
10	182	433	221	119	259	142	319	212	82	70	43	36
11	152	336	224	111	209	138	283	265	74	80	49	35
12	134	251	205	103	200	129	244	244	68	104	49	34
13	96	203	179	93	165	116	215	195	64	104	50	32
14	79	287	157	83	148	107	188	164	62	94	52	56
15	68	460	144	86	170	109	174	151	52	87	60	80
16	56	453	186	88	177	109	165	148	49	91	76	70
17	55	338	181	90	156	115	146	129	54	91	74	58
18	55	275	144	95	150	110	132	119	56	88	68	51
19	73	230	151	103	129	105	122	118	75	84	69	52
20	85	279	151	127	126	100	112	129	96	81	65	52
21	84	321	146	138	123	100	98	131	98	81	55	52
22	87	297	212	133	122	102	97	125	113	84	53	50
23	95	231	289	141	117	97	99	119	168	74	51	47
24	90	198	344	138	112	91	105	126	184	66	50	46
25	73	174	333	127	108	87	107	142	167	61	46	48
26	64	204	289	122	111	175	176	145	150	54	44	48
27	62	213	245	133	112	232	217	159	130	49	43	47
28	88	199	210	186	107	238	253	194	106	47	41	43
29	141	175	181	274	------	208	234	204	86	47	39	46
30	154	166	166	331	------	179	199	195	126	45	38	46
31	129	------	163	396	------	151	------	172	------	42	41	------
TOTAL	3,073	7,010	6,204	4,569	5,475	3,988	6,118	4,799	3,205	2,447	1,603	1,377
MEAN	99.1	234	200	147	196	129	204	155	107	78.9	51.7	45.9
MAX	249	460	344	396	373	238	356	265	184	120	76	80
MIN	45	90	143	83	107	87	97	111	49	42	38	28
CFSM	1.55	3.66	3.13	2.30	3.06	2.02	3.19	2.42	1.67	1.23	.81	.72
IN.	1.79	4.07	3.61	2.66	3.18	2.32	3.56	2.79	1.86	1.42	.93	.80

CAL YR 1972 TOTAL 45,777 MEAN 125 MAX 460 MIN 30 CFSM 1.95 IN 26.61
WTR YR 1973 TOTAL 49,868 MEAN 137 MAX 460 MIN 28 CFSM 2.14 IN 28.99

01410500 Absecon Creek at Absecon, N. J.

LOCATION.--Lat 39°25'45", long 74°31'16", Atlantic County, on right bank 30 ft (9.1 m) downstream from Doughty Pond Dam of Atlantic City Water Department, 1.0 mi (1.6 km) west of Absecon, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--16.6 mi^2 (43.0 km^2).

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 (0.049 m) lower.

AVERAGE DISCHARGE.--36 years (1924-28, 1933-38, 1946-73), 27.7 ft^3/s (0.784 m), adjusted for diversion.

EXTREMES.--Current year: Maximum daily discharge, 133 ft^3/s (3.77 m^3/s) Mar. 27; minimum daily, 13 ft^3/s (0.37 m^3/s) Sept. 1.
Period of record: Maximum daily discharge 295 ft^3/s (8.35 m^3/s) Sept. 6, 1935; no flow for several days in many years.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Records represent flow at gage only. Diversion from Doughty Pond for municipal supply at Atlantic City (records given herein). Flow regulated by Doughty Pond, capacity, 245,000,000 gal (927,400 m^3), and by Kuehnle Reservoir, capacity, 250,000,000 gal (946,200 m^3), 1.5 mi (2.4 km) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	71	44	43	35	56	39	32	29	19	13
2	18	22	52	41	68	35	74	39	30	23	19	14
3	17	23	41	38	105	36	54	41	31	21	20	15
4	17	21	38	50	68	52	56	44	32	23	24	24
5	18	32	36	52	54	46	69	39	35	29	18	22
6	22	25	38	46	52	41	54	36	30	35	17	19
7	105	23	31	39	69	40	44	35	26	25	17	16
8	74	58	34	34	68	40	66	35	24	21	19	18
9	40	92	69	32	58	38	61	52	22	19	17	15
10	29	48	56	31	53	36	61	48	19	19	16	15
11	24	39	44	30	47	38	53	43	19	20	15	15
12	23	32	38	29	44	39	44	36	20	30	15	14
13	23	29	39	28	44	31	44	38	30	25	14	15
14	20	102	34	27	44	34	40	35	35	22	15	21
15	22	127	41	27	53	35	40	38	25	20	15	29
16	15	68	62	27	58	35	39	36	24	35	17	20
17	21	50	47	28	35	43	40	35	32	38	18	17
18	17	40	31	30	32	43	39	39	35	25	17	16
19	30	40	34	35	48	35	38	34	43	22	16	16
20	28	92	34	44	44	30	38	39	38	21	18	17
21	22	68	35	34	40	32	36	44	32	22	16	21
22	21	50	62	38	41	39	38	36	47	23	16	16
23	21	40	87	40	39	38	39	35	56	25	19	16
24	21	39	69	38	36	30	43	36	39	22	16	18
25	19	38	53	34	35	31	40	41	32	21	17	16
26	17	62	47	32	36	59	69	35	25	20	15	15
27	18	50	44	47	36	133	62	38	25	20	15	15
28	26	40	41	59	34	50	59	43	24	21	14	16
29	46	34	39	96	------	41	47	44	24	21	15	16
30	30	40	40	64	------	39	39	39	36	21	14	15
31	24	------	41	36	------	38	------	36	------	20	14	------
TOTAL	850	1,446	1,428	1,230	1,384	1,292	1,482	1,208	922	738	517	515
MEAN	27.4	48.2	46.1	39.7	49.4	41.7	49.4	39.0	30.7	23.8	16.7	17.2
MAX	105	127	87	96	105	133	74	52	56	38	24	29
MIN	15	21	31	27	32	30	36	34	19	19	14	13
(†)	1.14	1.07	2.42	2.47	1.40	0.80	1.62	1.32	3.74	4.92	2.95	1.91

CAL YR 1972 TOTAL 11,593.3 MEAN 31.7 MAX 127 MIN 8.4 † 3.09
WTR YR 1973 TOTAL 13,012.0 MEAN 35.6 MAX 133 MIN 13 † 2.15

† Diversion in cubic feet per second.

Note.--No gage-height record Aug. 5 to Sept. 30.

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 mi (1.21 km) northeast of Sicklerville, and 0.77 mi (1.24 km) upstream from mouth.

DRAINAGE AREA.--1.64 mi^2 (4.25 km^2).

PERIOD OF RECORD.--January 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 121 ft (37 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 50 ft^3/s (1.42 m^3/s) probably occurred Feb. 3, (gage height unknown) from hydrographic comparison, rating curve extended above 25 ft^3/s (0.71 m^3/s) on basis of computation of open flow through pipe; minimum, 0.02 ft^3/s (0.001 m^3/s) Sept. 14, gage height, 1.05 ft (0.32 m).
Period of record: Maximum discharge, 50 ft^3/s (1.42 m^3/s) probably occurred Feb. 3, 1973 (gage height unknown) from hydrographic comparison, rating curve extended above 25 ft^3/s (0.71 m^3/s) on basis of computation of open flow through pipe; minimum, 0.02 ft^3/s (0.001 m^3/s) Sept. 14, 1973, gage height, 1.05 ft (0.32 m).

REMARKS.--Records good except those for period of no gage-height record, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.1	8.7	3.9	2.4	1.9	2.8	2.6	2.5	2.6	1.2	.87
2	.32	1.2	4.6	3.0	9.0	1.9	3.9	3.5	2.2	2.9	1.3	.76
3	.12	1.2	3.8	2.8	40	1.7	3.0	3.1	2.3	2.7	1.2	1.6
4	.09	1.2	3.5	4.7	8.0	4.6	2.5	2.6	2.8	1.9	1.2	1.2
5	.07	1.8	3.0	4.0	4.5	4.2	5.4	2.0	2.9	1.9	1.1	1.1
6	.29	1.5	5.2	3.4	2.7	3.9	3.3	1.2	3.2	1.9	1.9	.71
7	4.3	.87	6.0	2.5	3.1	3.9	2.4	3.3	3.7	1.8	1.5	.71
8	1.3	17	5.8	2.1	3.2	5.6	10	3.0	3.4	1.5	1.0	1.1
9	1.5	10	10	2.0	3.0	4.9	6.5	4.1	2.1	1.3	.98	1.0
10	.55	4.4	7.5	2.0	2.5	4.0	5.9	4.4	2.1	1.3	.98	1.6
11	1.1	2.9	6.4	1.4	2.2	3.9	4.1	4.1	2.6	1.8	1.0	.87
12	.71	2.3	5.0	1.4	1.9	3.7	3.1	3.4	1.7	1.3	1.0	.29
13	.46	2.6	4.6	1.4	1.8	3.5	2.5	3.4	2.1	.98	1.3	.93
14	.46	25	4.0	1.3	1.7	3.6	2.1	3.4	1.3	.60	1.0	1.0
15	.32	9.6	5.7	1.3	2.5	3.5	1.9	3.6	2.2	2.3	1.5	1.0
16	.60	4.7	6.7	1.7	3.4	3.2	1.7	3.8	2.8	2.1	.98	.98
17	.38	3.6	4.1	1.2	2.3	3.4	2.1	5.2	2.0	2.1	1.2	1.5
18	.29	3.2	3.8	1.5	1.9	2.8	1.9	4.7	2.3	1.6	.98	1.6
19	1.4	3.4	3.5	3.2	1.8	3.4	1.9	4.4	2.1	.98	1.0	.98
20	1.0	13	3.6	4.2	1.8	3.1	1.7	4.3	2.0	1.2	1.7	.93
21	.51	5.8	3.7	2.4	1.9	3.1	1.7	4.3	2.1	2.1	1.7	.98
22	.35	3.8	15	2.1	1.9	2.7	1.7	4.1	3.5	1.9	1.6	.93
23	.60	3.0	9.3	2.8	1.8	2.0	2.4	3.0	3.4	1.7	1.2	.98
24	.35	3.0	6.9	2.2	1.7	1.9	2.8	3.9	3.6	.93	1.0	1.5
25	.32	2.6	4.9	1.9	1.6	1.9	2.5	3.6	2.7	.93	.87	.80
26	.26	3.8	4.6	1.6	1.6	15	9.3	3.1	2.0	1.1	.55	.76
27	.20	3.8	4.5	2.4	1.5	7.0	5.4	5.7	1.9	1.0	1.2	.72
28	4.9	2.9	3.9	8.0	1.5	3.7	4.9	8.4	2.0	1.3	.87	.72
29	3.4	2.9	3.5	28	------	2.2	3.3	5.6	3.4	.93	.87	.78
30	1.8	4.6	3.5	12	------	1.9	3.1	3.9	3.6	1.9	.87	.80
31	.93	------	4.1	3.5	------	1.9	------	3.1	------	1.5	.87	------
TOTAL	28.98	146.77	169.4	115.9	113.2	114.0	105.8	118.8	76.5	50.05	35.62	29.70
MEAN	.93	4.89	5.46	3.74	4.04	3.68	3.53	3.83	2.55	1.61	1.15	.99
MAX	4.9	25	15	28	40	15	10	8.4	3.7	2.9	1.9	1.6
MIN	.07	.87	3.0	1.2	1.5	1.7	1.7	1.2	1.3	.60	.55	.29
CFSM	.57	2.98	3.33	2.28	2.46	2.24	2.15	2.34	1.55	.98	.70	.60
IN.	.66	3.33	3.84	2.63	2.57	2.59	2.40	2.69	1.74	1.14	.81	.67

CAL YR 1972 TOTAL 928.93 MEAN 2.54 MAX 25 MIN .07 CFSM 1.55 IN 21.07
WTR YR 1973 TOTAL 1,104.72 MEAN 3.03 MAX 40 MIN .07 CFSM 1.85 IN 25.06

PEAK DISCHARGE (BASE, 15 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1530	3.32	29	12-08	2230	2.79	19	2-03	Unk	Unk	About 50
11-14	1315	4.10	44	12-22	1000	2.94	22	3-26	0815	2.73	18
11-20	0530	2.89	21	1-29	Unk	Unk	About 36	4-08	1330	2.64	16

NOTE.--No gage-height record Jan. 23 to Feb. 28.

01410810 Fourmile Branch at New Brooklyn, N. J.

LOCATION.--Lat 39°41'47", long 74°56'25", Camden County, on left bank 70 ft (21 m) upstream from bridge on Malaga Road, 0.3 mi (0.5 km) northeast of New Brooklyn and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--7.74 mi^2 (20.05 km^2).

PERIOD OF RECORD.--October 1972 to September 1973.

GAGE.--Water-stage recorder. Altitude of gage is 102 ft (31.1 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 122 ft^3/s (3.46 m^3/s) Feb. 3, gage height, 4.41 ft (1.344 m); minimum, 4.3 ft^3/s (0.12 m^3/s) Sept. 3, gage height, 1.96 ft (0.597 m).

REMARKS.--Record excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	18	33	20	21	14	28	23	20	21	7.8	4.9
2	5.2	15	34	19	31	13	38	21	18	15	9.2	4.8
3	5.1	13	23	18	101	14	37	21	17	13	9.2	12
4	5.0	11	19	21	65	20	33	24	16	16	8.3	18
5	4.9	11	18	22	36	19	42	21	21	14	7.8	10
6	5.4	11	19	19	25	17	35	19	18	13	7.3	8.3
7	15	10	29	17	28	17	28	18	16	12	7.0	7.4
8	20	18	28	16	30	20	39	17	14	11	6.6	5.6
9	20	58	41	15	28	29	52	27	13	10	6.6	5.2
10	18	62	46	14	24	21	40	30	12	9.5	6.3	5.0
11	14	51	34	14	20	18	35	24	12	12	6.3	4.9
12	10	37	26	14	18	17	29	20	11	15	6.6	4.8
13	8.4	28	23	14	17	17	26	19	12	12	6.3	4.9
14	7.4	34	21	13	17	16	25	17	13	10	6.3	6.5
15	6.8	58	21	14	24	15	24	17	11	13	8.6	10
16	6.6	60	29	14	25	15	23	19	13	19	14	9.2
17	6.4	47	26	14	21	21	16	18	24	14	9.5	8.0
18	6.4	33	20	15	18	24	15	27	18	12	8.0	7.1
19	7.4	27	18	16	17	19	14	24	18	11	8.0	7.5
20	10	34	18	24	17	17	14	22	18	10	7.8	7.3
21	10	40	18	20	17	16	13	29	15	11	7.8	6.8
22	9.3	30	32	18	18	15	13	24	26	14	11	6.3
23	8.7	22	52	21	17	15	13	21	39	12	10	5.9
24	8.4	19	45	19	16	14	14	26	26	11	8.0	5.8
25	7.7	18	33	17	15	14	15	25	20	9.5	7.5	5.6
26	7.3	21	24	15	15	41	37	24	16	9.2	7.0	5.5
27	7.1	22	22	19	14	55	45	27	15	8.9	6.8	5.4
28	9.8	19	21	31	14	36	38	40	14	8.3	6.3	5.5
29	20	17	19	45	------	27	32	40	21	7.8	6.1	5.7
30	22	18	18	52	------	25	26	27	32	7.5	5.6	6.0
31	20	------	20	30	------	23	------	24	------	7.3	5.1	------
TOTAL	317.7	862	830	620	709	644	839	735	539	369.0	238.7	209.9
MEAN	10.2	28.7	26.8	20.0	25.3	20.8	28.0	23.7	18.0	11.9	7.70	7.00
MAX	22	62	52	52	101	55	52	40	39	21	14	18
MIN	4.9	10	18	13	14	13	13	17	11	7.3	5.1	4.8
CFSM	1.32	3.71	3.46	2.58	3.27	2.69	3.62	3.06	2.33	1.54	.99	.90
IN.	1.53	4.14	3.99	2.98	3.41	3.10	4.03	3.53	2.59	1.77	1.15	1.01

CAL YR 1972 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1973 TOTAL 6,913.30 MEAN 18.9 MAX 101 MIN 4.8 CFSM 2.44 IN 33.23

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-30	0145	3.82	60	3-27	0345	3.71	60
2-03	0915	4.41	122				

NOTE.--No gage-height record Oct. 1 to Nov. 21.

01410820 Great Egg Harbor River near Blue Anchor, N. J.

LOCATION.--Lat 39°40'09", long 74°54'49", Camden County, downstream side of bridge on Broad Lane Road, 2.1 mi (3.4 km) downstream from confluence of Fourmile Branch and 1.9 mi (3.1 km) southwest of Blue Anchor.

DRAINAGE AREA.--37.3 mi^2 (96.6 km^2).

PERIOD OF RECORD.--June 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 92 ft (28.0 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 407 ft^3/s (11.5 m^3/s) Feb. 4, gage height, 6.09 ft (1.856 m); minimum, 21 ft^3/s (0.59 m^3/s) Sept. 1, 2, gage height, 2.92 ft (0.890 m).
Period of record: Maximum discharge 407 ft^3/s (11.5 m^3/s) Feb. 4, 1973, gage height, 6.09 ft (1.856 m); minimum, 19 ft^3/s (0.54 m^3/s) Sept. 1, 2, 1972, gage height, 2.87 ft (0.875 m).

REMARKS.--Records excellent.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	96	162	91	172	66	89	92	84	78	31	21
2	32	87	184	88	184	65	126	81	73	64	35	21
3	30	71	174	83	377	66	141	77	66	53	36	30
4	29	62	148	89	383	77	144	79	62	53	34	55
5	28	65	118	96	283	84	178	76	68	52	31	38
6	30	64	104	93	196	84	160	71	69	48	29	32
7	80	61	144	90	184	80	130	65	66	45	28	30
8	117	105	156	82	172	81	170	63	61	42	27	28
9	111	328	204	76	170	105	200	79	55	40	25	26
10	98	350	230	71	148	106	208	94	50	39	25	25
11	80	305	226	68	112	95	176	90	47	41	25	25
12	59	213	192	65	106	87	135	82	45	49	24	24
13	49	150	162	63	95	79	108	73	45	44	24	23
14	45	204	128	60	82	74	92	65	47	41	24	29
15	44	340	114	59	97	71	85	63	44	42	28	52
16	42	338	144	60	112	69	80	65	44	55	41	45
17	41	265	135	61	114	81	76	63	62	50	32	39
18	40	188	117	62	112	98	73	81	57	46	29	36
19	49	141	100	66	94	99	71	84	57	42	28	37
20	62	200	91	88	77	91	69	84	58	39	28	37
21	60	213	87	93	78	81	66	98	56	40	28	34
22	57	208	152	88	79	76	64	92	71	48	35	32
23	52	174	224	93	79	70	63	87	123	46	34	30
24	48	135	243	91	76	65	71	90	98	42	30	29
25	46	105	210	85	73	63	75	88	82	38	28	28
26	45	107	166	78	71	132	105	87	67	37	27	28
27	44	112	132	79	71	188	160	91	57	35	26	27
28	55	101	108	133	69	178	182	152	52	34	25	27
29	114	94	94	224	------	135	154	162	60	33	24	29
30	126	90	88	243	------	100	114	132	84	31	23	30
31	108	------	90	224	------	88	------	101	------	31	22	------
TOTAL	1,855	4,972	4,627	2,942	3,866	2,834	3,565	2,707	1,910	1,378	886	947
MEAN	59.8	166	149	94.9	138	91.4	119	87.3	63.7	44.5	28.6	31.6
MAX	126	350	243	243	383	188	208	162	123	78	41	55
MIN	28	61	87	59	69	63	63	63	44	31	22	21
CFSM	1.60	4.45	3.99	2.54	3.70	2.45	3.19	2.34	1.71	1.19	.77	.85
IN.	1.85	4.96	4.61	2.93	3.86	2.83	3.56	2.70	1.90	1.37	.88	.94

CAL YR 1972 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1973 TOTAL 32,489.00 MEAN 89.0 MAX 383 MIN 21 CFSM 2.39 IN 32.40

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-10	0100	5.95	365	12-10	1900	5.62	280	1-29	1530	5.51	252
11-15	2000	5.90	350	12-23	2245	5.52	255	2-04	0200	6.09	407

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 (7.6 m) upstream from bridge on State Highway 54, 1.0 mi (1.6 km) south of Folsom, and 2.0 mi (3.2 km) upstream from Pennypot Stream.

DRAINAGE AREA.--56.3 mi^2 (145.8 km^2).

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 (16.252 m) above mean sea level. Prior to Mar. 6, 1941, water-stage recorder at site 100 ft (30 m) downstream at same datum. Mar. 6 to Oct. 5, 1941, nonrecording gage at site 145 ft (44 m) downstream at datum 0.25 ft (0.76 m) higher.

AVERAGE DISCHARGE.--48 years, 86.0 ft^3/s (2.435 m^3/s) 20.74 in/yr (527 mm/yr).

EXTREMES.--Current year: Maximum discharge, 424 ft^3/s (12.0 m^3/s) Feb. 4, gage height, 5.92 ft (1.804 m); minimum, 37 ft^3/s (1.05 m^3/s) Sept. 1-3, 14, gage height, 3.62 ft (1.103 m).
Period of record: Maximum discharge, 1,440 ft^3/s (40.8 m^3/s) Sept. 3, 1940, gage height, 9.09 ft (2.771 m); minimum, 15 ft^3/s (0.42 m^3/s) Sept. 6, 1957 Aug. 28-30, 1966; minimum gage height, 3.42 ft (1.042 m) Aug. 28-30, 1966.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	133	175	155	265	111	155	190	182	121	50	37
2	45	118	211	155	246	110	168	161	151	121	54	37
3	43	111	221	146	340	108	199	143	131	102	57	37
4	42	102	206	143	418	111	218	143	118	89	54	57
5	41	92	185	148	407	119	252	143	118	92	50	67
6	41	87	165	155	335	129	253	134	119	92	48	53
7	76	86	158	148	287	131	228	122	116	81	45	47
8	103	97	177	136	272	127	228	114	110	73	43	45
9	133	187	226	122	260	129	269	119	102	69	43	43
10	139	340	277	114	243	151	284	141	94	66	43	41
11	126	350	291	105	216	160	277	161	84	66	42	41
12	110	314	277	100	189	151	245	153	79	73	42	40
13	87	253	248	97	167	138	209	139	76	73	42	39
14	70	240	219	94	150	127	182	124	76	67	41	42
15	64	340	197	94	151	118	160	114	75	64	43	70
16	60	384	197	94	170	113	144	114	72	78	58	76
17	58	352	206	95	178	118	136	113	90	84	58	66
18	55	301	194	97	161	129	129	118	103	78	51	57
19	60	241	177	100	150	144	124	131	102	70	50	54
20	75	238	161	113	141	148	119	143	100	64	47	55
21	81	267	150	129	131	141	116	151	98	61	47	53
22	79	269	177	141	129	129	113	163	100	67	50	51
23	75	248	260	146	129	119	110	160	114	73	55	49
24	70	221	321	146	126	111	110	158	175	69	51	47
25	64	189	309	141	122	105	114	165	165	63	47	45
26	61	175	272	131	119	126	134	161	133	60	46	45
27	60	175	235	124	119	214	178	158	111	57	45	44
28	63	173	204	143	114	255	245	195	97	54	43	43
29	84	160	178	229	------	235	253	257	90	53	42	45
30	103	150	160	304	------	201	226	245	103	51	40	48
31	136	------	153	292	------	170	------	223	------	50	39	------
TOTAL	2,351	6,393	6,587	4,337	5,735	4,378	5,578	4,756	3,284	2,281	1,466	1,474
MEAN	75.8	213	212	140	205	141	186	153	109	73.6	47.3	49.1
MAX	139	384	321	304	418	255	284	257	182	121	58	76
MIN	41	86	150	94	114	105	110	113	72	50	39	37
CFSM	1.35	3.78	3.77	2.49	3.64	2.50	3.30	2.72	1.94	1.31	.84	.87
IN.	1.55	4.22	4.35	2.87	3.79	2.89	3.69	3.14	2.17	1.51	.97	.97

CAL YR 1972 TOTAL 45,874 MEAN 125 MAX 384 MIN 40 CFSM 2.22 IN 30.31
WTR YR 1973 TOTAL 48,620 MEAN 133 MAX 418 MIN 37 CFSM 2.36 IN 32.13

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 mi (0.3 km) upstream from McNeals Branch, 0.4 mi (0.6 km) southeast of Head of River, and 3.7 mi (6.0 km) west of Tuckahoe.

DRAINAGE AREA.--30.8 mi^2 (79.8 km^2).

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 daily discharge, 200 ft^3/s (5.66 m^3/s) Feb. 3, elevation, 4.75 ft (1.448 m); minimum daily, 9.7 ft^3/s (0.27 m^3/s) Sept. 13, elevation, 2.12 ft (0.646 m).
Period of record: Maximum discharge, 315 ft^3/s (8.92 m^3/s) Aug. 28, 1971, elevation, 5.83 ft (1.777 m); minimum daily, 9.7 ft^3/s (0.27 m^3/s) Sept. 13, 1973.

REMARKS.--Records good, except for the period April to June when fish gates are open, which are poor. Occasional regulation by ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	38	103	90	102	61	80	86	65	53	23	13
2	19	35	108	85	115	60	111	76	55	42	24	13
3	17	33	90	81	200	60	114	71	50	41	25	12
4	16	32	78	101	174	80	107	80	51	40	24	14
5	17	39	69	112	138	79	140	75	55	36	22	12
6	19	38	61	102	118	73	127	68	50	35	23	9.9
7	96	33	57	89	128	70	111	61	45	31	21	14
8	140	61	54	79	131	67	115	57	42	29	21	16
9	97	110	132	72	127	68	123	82	38	28	20	13
10	61	100	162	65	118	64	118	98	35	27	19	13
11	45	82	125	62	103	62	106	84	33	40	19	11
12	36	70	99	60	107	60	95	72	31	60	20	10
13	33	58	82	56	92	56	88	62	31	42	19	9.7
14	29	87	72	55	85	54	81	56	31	30	20	17
15	27	182	85	56	99	53	75	53	28	40	21	47
16	25	174	100	58	103	52	70	52	35	70	21	25
17	25	121	90	59	88	62	66	48	82	60	21	22
18	29	93	76	60	90	60	66	54	72	45	20	20
19	42	78	70	65	80	55	64	51	76	38	20	20
20	51	121	66	80	77	52	59	59	70	30	19	19
21	45	144	70	77	77	52	55	86	55	25	20	18
22	38	113	85	76	77	62	53	81	72	30	22	18
23	33	91	130	77	75	56	53	71	132	40	23	17
24	30	73	140	71	72	53	66	76	94	32	21	16
25	29	61	130	65	67	47	65	86	84	29	19	19
26	24	79	120	61	67	88	90	87	65	26	18	15
27	23	87	110	67	66	106	107	86	54	25	16	14
28	35	76	98	99	64	95	132	93	49	24	15	13
29	58	66	90	135	------	77	120	99	49	24	14	15
30	52	66	85	135	------	67	102	95	63	23	14	22
31	43	------	86	125	------	62	------	81	------	23	13	------
TOTAL	1,256	2,441	2,923	2,475	2,840	2,013	2,759	2,286	1,692	1,118	617	497.6
MEAN	40.5	81.4	94.3	79.8	101	64.9	92.0	73.7	56.4	36.1	19.9	16.6
MAX	140	182	162	135	200	106	140	99	132	70	25	47
MIN	16	32	54	55	64	47	53	48	28	23	13	9.7
CFSM	1.31	2.64	3.06	2.59	3.28	2.11	2.99	2.39	1.83	1.17	.65	.54
IN.	1.52	2.95	3.53	2.99	3.43	2.43	3.33	2.76	2.04	1.35	.75	.60

CAL YR 1972 TOTAL 23,159.0 MEAN 63.3 MAX 184 MIN 15 CFSM 2.06 IN 27.97
WTR YR 1973 TOTAL 22,917.6 MEAN 62.8 MAX 200 MIN 9.7 CFSM 2.04 IN 27.68

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 mi (1.3 km) downstream from Blackwater Branch.

DRAINAGE AREA.--113 mi^2 (293 km^2).

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 (14.317 m) above mean sea level.

AVERAGE DISCHARGE.--41 years, 168 ft^3/s (4.758 m^3/s) 20.19 in/yr (513 mm/yr).

EXTREMES.--Current year: Maximum discharge, 783 ft^3/s (22.2 m^3/s) Feb. 4, gage height, 4.19 ft (1.277 m); minimum, 42 ft^3/s (1.19 m^3/s) Sept. 1, gage height, 2.39 ft (0.728 m).
Period of record: Maximum discharge, 7,360 ft^3/s (208 m^3/s) Sept. 2, 1940 (gage height, 8.72 ft or 2.658 m) from rating curve extended above 3,000 ft^3/s (85 m^3/s); minimum daily, 23 ft^3/s (0.65 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	187	331	338	436	264	332	347	332	282	92	49
2	102	176	343	328	468	260	373	312	291	326	113	49
3	95	166	344	317	618	253	366	287	250	307	115	79
4	89	152	344	321	768	260	376	283	244	263	116	138
5	87	163	332	328	768	265	421	271	254	236	112	148
6	92	187	319	322	659	267	418	259	253	219	112	134
7	187	158	315	311	570	268	400	244	244	202	95	112
8	265	199	318	234	486	276	447	233	240	182	96	96
9	233	299	399	306	457	289	456	248	205	150	85	87
10	228	339	440	279	457	296	462	255	178	152	77	81
11	194	402	475	257	347	304	463	267	180	158	90	78
12	165	466	477	246	430	304	433	263	177	171	86	77
13	149	296	436	239	389	305	397	244	174	163	81	74
14	135	352	396	232	356	284	362	233	172	149	83	83
15	103	491	364	229	363	268	322	233	162	149	75	137
16	66	532	371	229	370	256	314	237	161	164	90	138
17	92	539	360	229	342	268	291	225	225	161	96	124
18	98	468	350	230	357	270	269	233	245	158	98	111
19	117	397	337	238	350	267	265	237	275	147	97	103
20	136	424	326	274	329	276	256	244	267	141	95	94
21	143	430	312	283	316	282	244	267	246	135	96	88
22	153	421	360	270	310	269	226	263	243	136	100	84
23	143	412	435	288	304	254	242	263	270	137	105	82
24	127	379	500	290	297	241	260	279	293	132	105	82
25	118	341	530	281	267	219	246	271	268	126	98	78
26	114	317	501	270	254	272	283	259	250	121	92	76
27	114	322	450	268	271	371	314	267	237	120	90	74
28	132	306	405	313	271	395	376	312	215	118	86	74
29	178	292	370	368	------	399	404	379	237	114	80	74
30	176	286	346	410	------	374	375	366	284	109	74	86
31	189	------	340	437	------	342	------	358	------	102	70	------
TOTAL	4,339	9,899	11,926	8,965	11,610	8,918	10,393	8,439	7,072	5,230	2,900	2,790
MEAN	140	330	385	289	415	288	346	272	236	169	93.5	93.0
MAX	265	539	530	437	768	399	463	379	332	326	116	148
MIN	66	152	312	229	254	219	226	225	161	102	70	49
CFSM	1.24	2.92	3.41	2.56	3.67	2.55	3.06	2.41	2.09	1.50	.83	.82
IN.	1.43	3.26	3.93	2.95	3.82	2.94	3.42	2.78	2.33	1.72	.95	.92

CAL YR 1972 TOTAL 87,589 MEAN 239 MAX 605 MIN 66 CFSM 2.12 IN 28.83
WTR YR 1973 TOTAL 92,481 MEAN 253 MAX 768 MIN 49 CFSM 2.24 IN 30.45

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-12	0300	3.82	552	12-25	1100	3.79	534	4-11	0100	3.67	469
11-16	1900	3.82	552	2-04	2300	4.19	783	4-28	2100	3.57	418
12-11	2000	3.70	485	3-28	1900	3.54	404	5-29	0200	3.54	404

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 (76 m) downstream from bridge on U.S. Highways 6 and 209 at Port Jervis, 1.2 mi (1.9 km) upstream from Neversink River, and 6.5 mi (10.5 km) downstream from Mongaup River.

DRAINAGE AREA.--3,076 mi^2 (7,967 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft (126.599 m) above mean sea level. Prior to Aug. 13, 1928, nonrecording gages at highway bridge 250 ft (76 m) upstream at present datum (October 1904 to June 20, 1914 operated by U.S. Weather Bureau).

EXTREMES.--Current year: Maximum discharge: 108,000 ft^3/s (3,060 m^3/s) June 29 (gage height, 16.48 ft (5.023 m)), minimum, 866 ft^3/s (24.5 m^3/s) Sept. 5 (gage height, 1.83 ft (0.558 m)), minimum daily, 1,160 ft^3/s (32.9 m^3/s) Sept. 2.
Period of record: Maximum discharge, 233,000 ft^3/s (6,600 m^3/s) Aug. 19, 1955 (gage height, 23.91 ft (7.288 m), from floodmarks in gage house), from rating curve extended above 89,000 ft^3/s (2,520 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 175 ft^3/s (4.96 m^3/s) Sept. 23, 1908 (gage height, 0.6 ft (0.18 m)).
Maximum discharge previously known, 205,000 ft^3/s (5,810 m^3/s) Oct. 10, 1903 (gage height, 23.1 ft (7.04 m), reported by U.S. Weather Bureau), from rating curve extended above 70,000 ft^3/s (1,980 m^3/s) by velocity-area studies; maximum stage known, 25.5 ft (7.77 m) Mar. 8, 1904 (ice jam).

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) 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. Records of water-quality records for the current year are published in Part 2 of the New York report.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1013: 1905-36. WRD N.Y. 1971: 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,860	2,330	7,850	21,900	5,590	2,480	4,890	5,420	8,010	45,300	1,470	2,680
2	1,720	2,400	6,640	24,900	5,620	2,400	12,300	5,020	6,950	27,800	6,670	1,160
3	1,900	2,330	5,520	19,000	19,300	2,420	19,400	4,510	6,190	18,500	10,500	1,810
4	1,940	3,760	5,620	16,000	18,600	3,130	18,600	5,520	6,010	14,800	6,490	2,270
5	1,980	3,160	5,670	12,000	14,800	5,280	34,100	4,020	6,870	12,300	4,360	2,070
6	2,050	3,370	6,160	10,000	12,400	6,010	26,900	3,530	6,420	10,100	3,590	2,050
7	2,230	3,210	20,200	9,000	9,960	5,210	20,100	3,850	13,400	8,510	3,400	1,940
8	2,790	4,230	15,700	7,400	8,470	5,760	17,000	3,400	15,400	7,180	3,160	1,480
9	1,650	35,700	13,100	6,600	7,000	9,320	15,400	3,620	9,580	6,160	2,800	2,030
10	2,250	24,500	14,300	6,000	6,200	8,510	15,300	5,380	7,100	4,920	2,200	1,810
11	2,270	13,600	13,400	5,000	5,600	7,370	17,600	12,400	6,380	3,900	2,000	1,980
12	1,920	9,870	11,800	4,500	5,310	6,830	14,700	14,300	6,270	2,500	1,700	2,110
13	1,990	8,180	10,200	4,000	5,120	6,910	12,800	13,200	5,940	2,310	2,500	1,990
14	1,920	14,100	9,750	3,300	4,890	6,870	10,400	12,000	5,800	2,880	2,790	2,270
15	1,960	33,000	8,430	3,100	4,760	7,260	8,720	10,600	4,480	2,460	2,790	2,480
16	2,130	19,200	7,730	3,500	4,540	8,850	7,730	11,100	3,620	3,160	7,020	1,740
17	1,860	13,200	6,200	4,050	4,790	10,100	6,990	11,300	2,860	3,590	4,920	2,050
18	1,920	9,620	5,000	3,930	3,900	16,000	6,490	20,500	2,910	3,130	3,700	2,520
19	2,310	7,410	4,700	3,730	3,700	13,200	6,010	23,500	2,700	2,930	2,610	2,590
20	2,090	9,490	4,900	4,850	3,760	11,000	5,660	19,800	2,840	2,660	3,080	1,990
21	2,170	11,400	5,200	4,950	3,340	9,450	4,850	21,600	3,370	2,480	2,840	2,130
22	1,990	8,940	7,000	4,380	3,160	8,380	4,440	21,800	4,800	1,900	2,310	2,050
23	1,980	6,910	14,000	10,300	3,030	7,100	4,540	18,500	3,730	1,700	2,050	2,290
24	2,010	5,620	11,300	10,900	2,570	5,870	4,920	15,000	2,570	1,470	1,960	3,060
25	2,070	5,210	9,870	8,380	2,290	5,180	4,290	12,600	3,480	1,560	1,980	2,840
26	2,330	6,490	10,100	7,450	2,130	5,830	4,480	10,200	4,540	1,740	1,960	2,500
27	2,270	12,700	10,300	6,270	2,610	7,260	4,690	9,060	4,440	1,940	2,330	2,930
28	2,330	10,700	9,450	5,940	2,520	6,380	5,760	8,940	3,620	3,900	3,300	2,770
29	2,460	10,000	8,300	6,000	------	5,550	5,450	10,700	46,000	1,980	3,300	2,480
30	2,680	8,680	7,260	5,600	------	5,150	5,590	11,600	78,300	1,750	2,970	1,990
31	2,270	------	7,930	5,200	------	4,510	------	9,190	------	1,580	3,300	------
TOTAL	65,300	309,310	283,580	248,130	175,960	215,570	330,100	342,160	284,580	207,090	106,050	66,060
MEAN	2,106	10,310	9,148	8,004	6,284	6,954	11,000	11,040	9,486	6,680	3,421	2,202
MAX	2,790	35,700	20,200	24,900	19,300	16,000	34,100	23,500	78,300	45,300	10,500	3,060
MIN	1,650	2,330	4,700	3,100	2,130	2,400	4,290	3,400	2,570	1,470	1,470	1,160

CAL YR 1972 TOTAL 2,601,970 MEAN 7,109 MAX 42,600 MIN 1,150
WTR YR 1973 TOTAL 2,633,890 MEAN 7,216 MAX 78,300 MIN 1,160

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 mi (0.8 km) downstream from Basher Kill, 0.8 mi (1.3 km) southeast of Godeffroy, 1.7 mi (2.7 km) south of Cuddebackville, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--302 mi^2 (782 km^2).

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 (140.104 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (Aug. to Oct. 1903 at datum 0.98 ft (0.299 m) higher).

EXTREMES.--Current year: Maximum discharge, 8,460 ft^3/s (240 m^3/s) June 30 (gage height, 8.96 ft (2.731 m)); minimum daily, 65 ft^3/s (1.84 m^3/s) Oct. 6.
Period of record: Maximum discharge, 33,000 ft^3/s (935 m^3/s) Aug. 19, 1955 (gage height, 12.49 ft (3.807 m)), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow; practically no flow several times in July 1911.

REMARKS.--Records fair. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June, 1953, entire flow from 91.8 mi^2 (238 km^2) 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.--Two 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	97	784	1,940	350	210	690	564	732	3,970	116	105
2	73	119	679	1,450	465	230	2,410	520	676	2,400	1,360	100
3	69	252	605	1,100	1,790	280	1,810	490	578	1,580	1,380	98
4	73	216	574	994	1,240	340	1,820	472	550	1,100	690	95
5	69	203	548	922	1,010	578	3,810	442	592	885	478	115
6	65	195	701	740	876	526	2,410	412	557	718	360	118
7	216	158	1,510	600	776	478	1,990	376	1,000	571	315	121
8	354	850	1,010	520	697	732	1,770	350	1,160	490	290	105
9	191	2,320	1,420	450	600	792	1,600	418	753	418	265	100
10	138	1,130	1,460	420	500	669	1,930	514	585	360	245	95
11	113	821	1,250	380	450	613	1,750	1,790	585	330	310	95
12	105	748	1,010	340	390	613	1,220	1,850	466	290	305	98
13	97	597	906	300	360	606	975	1,470	412	250	245	98
14	95	1,280	829	280	340	557	849	1,140	382	235	208	103
15	95	1,890	722	270	320	592	725	939	325	255	204	200
16	92	1,200	669	265	310	578	641	1,240	285	305	225	170
17	88	949	560	262	300	849	578	1,050	260	245	220	136
18	83	775	500	266	280	1,120	550	2,350	245	216	196	149
19	88	654	470	275	270	816	508	2,130	250	188	177	204
20	81	1,070	463	466	260	711	508	1,710	235	166	177	166
21	77	1,060	461	330	260	634	454	2,470	216	184	170	142
22	85	821	864	300	250	550	424	2,020	460	230	159	130
23	90	670	1,160	658	240	484	400	1,560	340	177	145	192
24	85	581	930	498	230	442	418	1,330	280	149	133	208
25	88	506	837	406	220	412	388	1,040	690	133	127	162
26	92	1,100	807	373	220	599	382	808	454	173	118	142
27	95	1,300	768	364	210	613	424	808	365	225	113	130
28	102	990	677	350	200	496	867	930	406	388	110	124
29	161	1,030	579	330	------	442	808	1,350	3,330	255	105	115
30	144	850	521	320	------	430	662	975	7,360	196	100	110
31	119	------	937	310	------	484	------	832	------	166	100	------
TOTAL	3,400	24,432	25,211	16,479	13,414	17,476	33,771	34,350	24,529	17,248	9,146	3,926
MEAN	110	814	813	532	479	564	1,126	1,108	818	556	295	131
MAX	354	2,320	1,510	1,940	1,790	1,120	3,810	2,470	7,360	3,970	1,380	208
MIN	65	97	461	262	200	210	382	350	216	133	100	95

CAL YR 1972 TOTAL 233,223 MEAN 637 MAX 7,440 MIN 62
WTR YR 1973 TOTAL 223,382 MEAN 612 MAX 7,360 MIN 65

01438500 Delaware River at Montague, N. J.

LOCATION.--Lat 41°18'30", long 74°47'50", Sussex County, on right bank 0.4 mi (0.6 km) upstream from toll bridge at Montague, 0.8 mi (1.3 km) downstream from Saw Kill, and at river mile 246.3 (396.3 km).

DRAINAGE AREA.--3,480 mi^2 (9,013 km^2).

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 (112.755 m) above mean sea level. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft (21.3 m) lower.

AVERAGE DISCHARGE.--34 years, 5,823 ft^3/s (164.9 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 115,000 ft^3/s (3,260 m^3/s) June 30, gage height, 23.40 ft (7.132 m); minimum, 1,190 ft^3/s (33.7 m^3/s) Sept. 2, gage height, 4.53 ft (1.381 m).
Period of record: Maximum discharge, 250,000 ft^3/s (7,080 m^3/s) Aug. 19, 1955 (gage height, 35.15 ft or 10.714 m); from rating curve extended above 90,000 ft^3/s (2,550 m^3/s) on basis of flood-routing study; minimum, 382 ft^3/s (10.8 m^3/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m); minimum daily, 412 ft^3/s (11.7 m^3/s) Aug. 23, 1954.
Maximum Stage during period 1903-73, 35.5 ft (10.82 m) Oct. 10, 1903, present datum, from floodmark.

REMARKS.--Records excellent. 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. 137)and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 143). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,130	2,640	9,360	22,900	5,770	2,940	5,880	6,570	9,530	53,500	1,750	2,340
2	1,900	2,690	8,170	28,200	6,080	3,020	15,100	6,110	8,380	32,100	6,930	1,630
3	2,080	2,500	6,790	21,800	19,900	2,860	22,600	5,520	7,460	21,100	12,800	2,300
4	2,140	4,040	6,630	17,800	21,800	3,680	21,400	6,480	7,050	16,400	7,970	2,450
5	2,170	3,710	6,890	15,700	17,300	6,050	38,500	5,070	8,080	13,600	5,320	2,030
6	2,170	3,540	7,110	13,200	14,600	6,930	31,800	4,390	7,800	11,200	4,180	2,130
7	2,600	3,740	21,700	11,300	11,800	6,170	23,800	4,570	14,000	9,280	4,130	2,130
8	3,430	4,430	18,100	8,980	9,880	6,720	19,900	4,180	18,100	7,880	3,660	1,810
9	2,160	35,100	15,200	7,800	9,420	10,600	18,000	4,400	11,600	6,980	3,800	2,050
10	2,410	29,400	16,600	7,460	7,820	9,840	17,900	6,220	8,530	5,780	3,600	1,940
11	2,590	15,800	15,400	7,040	6,960	8,600	20,700	15,100	7,460	4,940	3,780	2,010
12	2,180	11,400	13,800	6,340	5,890	7,950	17,100	17,000	7,420	3,280	2,470	2,260
13	2,190	9,230	11,900	5,350	5,780	8,030	14,700	15,500	6,920	2,790	2,240	2,130
14	2,130	13,400	11,300	4,240	5,470	7,930	12,200	13,900	6,820	3,440	3,220	2,280
15	2,120	36,300	9,910	3,980	5,650	8,220	10,200	12,400	5,460	2,950	3,140	2,910
16	2,160	22,200	9,160	4,500	5,320	9,830	9,110	12,900	4,520	3,570	7,290	2,120
17	2,100	15,000	8,190	4,400	5,340	11,300	8,250	13,100	3,580	4,140	5,480	2,010
18	2,060	11,300	7,020	4,400	4,410	17,700	7,610	23,000	3,400	3,660	4,410	2,710
19	2,580	8,690	6,040	4,200	4,410	14,900	7,090	27,400	3,480	3,420	3,100	2,910
20	2,120	10,600	6,390	5,700	4,500	12,500	6,820	22,900	3,340	3,130	3,420	2,300
21	2,550	13,200	6,510	5,770	4,000	10,700	5,830	24,800	3,860	3,200	3,310	2,260
22	2,200	10,400	9,060	4,920	3,810	9,550	5,360	25,400	5,400	2,510	2,850	2,260
23	2,230	8,400	16,100	11,400	3,590	8,270	5,280	21,400	4,750	2,130	2,350	2,430
24	2,120	6,810	13,300	11,900	3,100	6,900	5,850	17,300	3,280	1,880	2,320	3,290
25	2,170	6,250	11,500	9,260	2,940	6,140	5,140	14,700	4,120	1,850	2,320	3,190
26	2,570	7,690	11,500	8,290	2,400	6,760	5,250	11,900	5,340	2,160	2,190	2,770
27	2,610	14,400	11,800	7,140	3,080	8,390	5,580	10,600	5,180	2,140	2,420	3,220
28	2,570	12,500	11,000	7,050	2,930	7,480	7,410	10,500	4,370	4,560	3,590	3,110
29	2,680	11,600	9,610	7,010	------	6,520	6,990	12,700	38,800	2,690	3,350	2,850
30	3,050	10,200	8,500	7,140	------	6,010	6,830	13,600	96,300	2,100	3,090	2,430
31	2,610	------	8,780	6,340	------	5,480	------	10,900	------	2,010	3,070	------
TOTAL	72,780	347,160	333,320	291,510	203,950	247,970	388,180	400,510	324,330	240,370	123,550	72,260
MEAN	2,348	11,570	10,750	9,404	7,284	7,999	12,940	12,920	10,810	7,754	3,985	2,409
MAX	3,430	36,300	21,700	28,200	21,800	17,700	38,500	27,400	96,300	53,500	12,800	3,290
MIN	1,900	2,500	6,040	3,980	2,400	2,860	5,140	4,180	3,280	1,850	1,750	1,630

CAL YR 1972 TOTAL 3,021,280 MEAN 8,255 MAX 49,600 MIN 1,450
WTR YR 1973 TOTAL 3,045,890 MEAN 8,345 MAX 96,300 MIN 1,630

01440000 Flat Brook near Flatbrookville, N. J.

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, on right bank 1.0 mi (1.6 km) upstream from Flatbrookville, 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--65.1 mi^2 (168.6 km^2).

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 (105.988 m) above mean sea level. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--50 years, 107 ft^3/s (3.030 m^3/s) 22.32 in/yr (567 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,690 ft^3/s (47.9 m^3/s) Feb. 3, gage height, 5.57 ft (1.698 m); minimum, 12 ft^3/s (0.34 m^3/s) Oct. 5, 6, gage height, 1.84 ft (0.561 m).
Period of record: Maximum discharge, 9,560 ft^3/s (271 m^3/s) Aug. 19, 1955 (gage height, 12.58 ft or 3.834 m, from high-water mark in gage house) from rating curve extended above 2.000 ft^3/s (56.6 m^3/s) on basis of slope-area mesurement of peak flow; minimum, 3.6 ft^3/s (0.102 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	185	516	152	70	185	178	198	314	37	23
2	14	29	168	338	289	72	813	162	209	185	185	24
3	14	51	152	265	1,360	82	653	162	174	143	146	22
4	13	47	156	279	730	123	472	195	171	129	86	21
5	13	51	149	300	433	140	873	156	191	209	63	20
6	13	48	216	237	322	120	483	134	156	188	53	30
7	70	40	527	165	279	110	330	120	338	120	45	39
8	72	240	310	143	258	134	334	112	244	98	43	27
9	37	1,280	439	137	237	149	326	165	168	82	45	23
10	26	527	375	129	181	126	466	195	143	76	45	21
11	22	261	296	120	165	115	466	879	123	70	40	20
12	20	209	244	115	137	118	310	565	107	65	37	19
13	19	159	226	105	132	112	261	350	98	61	36	18
14	18	286	209	102	126	102	226	272	95	65	34	20
15	17	653	191	102	162	112	205	237	82	58	34	62
16	16	334	191	102	162	110	181	286	76	61	98	46
17	16	244	152	100	107	226	168	254	74	54	61	32
18	16	195	132	98	105	334	162	796	72	50	45	30
19	16	165	137	100	105	223	149	477	74	45	40	34
20	18	346	152	181	100	178	143	326	68	43	37	28
21	17	314	178	120	102	152	129	334	63	129	43	24
22	17	230	334	118	100	137	120	293	61	165	35	22
23	17	181	444	258	95	123	115	247	61	78	32	30
24	16	156	307	185	86	112	140	265	68	56	29	33
25	16	140	268	140	78	107	120	223	90	50	28	27
26	16	307	247	123	78	195	146	195	70	45	27	25
27	15	385	237	132	74	185	156	171	60	47	26	23
28	17	247	209	300	68	137	395	219	54	45	25	21
29	35	223	174	240	------	118	289	483	428	41	24	20
30	34	188	159	185	------	110	212	293	851	37	23	20
31	28	------	289	181	------	110	------	240	------	35	22	------
TOTAL	694	7,560	7,453	5,616	6,223	4,242	9,028	8,984	4,667	2,844	1,524	804
MEAN	22.4	252	240	181	222	137	301	290	156	91.7	49.2	26.8
MAX	72	1,280	527	516	1,360	334	873	879	851	314	185	62
MIN	13	24	132	98	68	70	115	112	54	35	22	18
CFSM	.34	3.87	3.69	2.78	3.41	2.10	4.62	4.45	2.40	1.41	.76	.41
IN.	.40	4.32	4.26	3.21	3.56	2.42	5.16	5.13	2.67	1.63	.87	.46

CAL YR 1972 TOTAL 60,823 MEAN 166 MAX 1,280 MIN 13 CFSM 2.55 IN 34.76
WTR YR 1973 TOTAL 59,639 MEAN 163 MAX 1,360 MIN 13 CFSM 2.50 IN 34.08

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	1130	5.30	1,520	4-02	1130	4.30	950	5-11	1445	4.94	1,300
11-15	0500	3.99	780	4-05	0645	4.47	1,040	5-18	1215	4.36	980
2-03	0915	5.57	1,680	4-10	1945	3.81	680	6-29	2345	4.73	1,190

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 (12.2 m) streamward from River Road, 1.0 mi (1.6 km) downstream from Tocks Island, 3.7 mi (6.0 km) northeast of Delaware Water Gap, Pa., 4.0 mi (6.4 km) upstream from bridge on Interstate Highway 80, and at river mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi^2 (9,970 km^2) approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft (89.501 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 5,865 ft^3/s (166.1 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 30, gage height, 23.82 ft (7.260 m); minimum daily, 1,780 ft^3/s (50.4 m^3/s) Oct. 3.
Period of record: Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 30, 1973, gage height, 23.82 ft (7.260 m); minimum daily, 580 ft^3/s (16.4 m^3/s) 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. 137) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 143). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,100	2,780	10,000	21,100	6,600	3,080	7,020	7,540	11,200	66,300	1,930	3,360
2	1,800	2,780	9,200	31,700	8,000	3,110	15,700	7,060	10,100	40,200	3,920	2,600
3	1,780	2,780	8,400	25,500	22,000	2,720	25,600	6,530	8,940	25,400	15,000	2,200
4	2,040	3,800	7,500	20,700	26,000	3,590	25,600	6,860	8,060	19,000	11,400	2,600
5	2,040	4,460	7,600	18,000	20,000	5,580	40,700	6,670	9,180	15,800	7,460	2,400
6	2,010	3,830	8,060	15,300	18,000	7,100	40,700	5,270	9,500	13,300	5,550	2,400
7	2,540	4,320	25,000	13,000	14,100	7,100	30,100	5,020	12,400	11,300	5,270	2,400
8	3,300	5,000	20,000	11,000	11,900	6,670	24,700	5,130	21,100	9,380	4,360	2,300
9	2,900	35,000	17,000	9,000	10,800	10,300	22,600	5,090	14,100	8,460	4,990	2,400
10	2,400	30,000	19,000	8,200	9,540	11,300	21,800	6,700	10,300	7,580	4,390	2,300
11	2,600	20,000	17,000	7,400	9,340	9,740	25,700	15,000	8,460	6,320	4,290	2,400
12	2,400	13,000	14,500	6,400	7,300	8,940	22,600	20,100	8,580	4,670	3,740	2,500
13	2,200	10,000	13,800	5,800	7,340	9,260	17,700	17,700	7,820	3,740	2,840	2,600
14	2,200	11,300	12,900	5,200	6,900	8,900	14,300	15,900	8,060	4,100	3,530	2,700
15	2,200	40,000	11,700	4,700	6,670	8,900	12,200	14,200	6,740	3,770	3,680	3,500
16	2,200	27,000	10,300	5,200	6,180	10,000	10,700	14,100	5,550	3,980	6,460	3,000
17	2,200	18,000	9,540	5,000	5,970	12,000	9,540	14,500	4,740	5,060	7,420	2,600
18	2,100	13,000	8,940	5,000	5,480	19,000	8,660	22,700	4,250	4,530	6,250	2,700
19	2,500	10,000	7,300	5,400	4,780	16,000	8,260	30,800	4,460	3,890	4,360	3,300
20	2,200	13,000	6,780	6,400	5,230	14,000	7,820	25,600	4,160	3,890	3,920	2,800
21	2,500	15,000	7,100	6,400	4,710	12,000	6,600	25,300	4,810	3,860	4,360	2,640
22	2,300	11,000	8,380	5,600	4,360	9,940	6,210	27,800	5,580	3,770	3,770	2,700
23	2,200	9,000	17,000	11,100	4,070	9,500	5,900	23,800	6,530	2,990	3,170	3,000
24	2,200	8,200	15,500	13,600	3,470	8,020	6,740	19,400	4,640	2,390	2,960	3,300
25	2,100	7,780	13,200	10,400	3,110	7,060	6,070	16,200	4,320	1,980	2,630	3,600
26	2,300	9,140	12,300	8,900	2,630	7,220	5,900	13,900	6,180	2,150	2,450	3,200
27	2,600	15,800	13,000	7,940	3,140	9,420	6,140	12,400	6,110	2,450	2,630	3,500
28	2,600	15,000	12,500	7,980	3,020	9,140	8,220	11,900	5,410	4,250	3,350	3,600
29	2,600	13,000	11,300	7,660	------	8,180	8,300	13,800	18,200	4,070	4,070	3,100
30	3,100	12,000	10,100	8,060	------	7,500	7,700	15,300	95,600	2,360	3,710	2,900
31	3,000	------	10,300	7,740	------	6,940	------	12,900	------	2,180	3,200	------
TOTAL	73,210	385,970	375,200	325,380	240,640	272,210	459,780	445,170	335,080	293,120	147,060	84,600
MEAN	2,362	12,870	12,100	10,500	8,594	8,781	15,330	14,360	11,170	9,455	4,744	2,820
MAX	3,300	40,000	25,000	31,700	26,000	19,000	40,700	30,800	95,600	66,300	15,000	3,600
MIN	1,780	2,780	6,780	4,700	2,630	7,720	5,900	5,020	4,160	1,980	1,930	2,200

CAL YR 1972 TOTAL 3,372,660 MEAN 9,215 MAX 60,000 MIN 1,690
WTR YR 1973 TOTAL 3,437,420 MEAN 9,418 MAX 95,600 MIN 1,780

NOTE.--No gage-height record Oct. 8 to Dec. 12, Jan. 7 to Feb. 6.

01443500 Paulins Kill at Blairstown, N. J.

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, on right bank 1,200 ft (370 m) upstream from bridge on State Highway 94 in Blairstown, 1,400 ft (430 m) upstream from Blairs Creek, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--126 mi^2 (326 km^2).

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 or 85 m, downstream). Datum of gage is 335.86 ft (102.370 m) 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 (396 m) downstream at different datum. Aug. 1, 1931, to July 28, 1939, water-stage recorder at site 100 ft (30 m) downstreamat present datum.

AVERAGE DISCHARGE.--52 years, 189 ft^3/s (5.352 m^3/s) 20.37 in/yr (517 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,880 ft^3/s (53.2 m^3/s) Feb. 3, gage height, 5.46 ft (1.664 m); minimum, 37 ft^3/s (1.05 m^3/s) Oct. 18, gage height, 1.59 ft (0.485 m).
Period of record: Maximum discharge, 8,750 ft^3/s (248 m^3/s) Aug. 19, 1955, gage height, 11.12 ft (3.389 m), from high-water mark in gage house; minimum, about 2.8 ft^3/s (0.079 m^3/s) Nov. 1, 1922; minimum daily, 5 ft^3/s (0.14 m^3/s) Aug. 13, 14, 1930.

REMARKS.--Records excellent except those above 800 ft^3/s (23 m^3/s), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	60	294	768	300	153	300	312	426	756	114	56
2	63	74	289	592	461	157	929	283	419	516	250	58
3	56	110	289	489	1,690	166	920	294	344	370	351	56
4	52	107	300	522	1,370	220	808	377	312	331	245	54
5	52	117	283	564	988	245	1,130	312	300	468	191	54
6	50	110	364	461	752	235	836	272	294	475	157	54
7	139	94	752	344	614	235	660	245	503	318	142	60
8	166	225	614	300	558	267	630	225	384	267	127	52
9	114	1,240	780	283	516	300	630	294	305	235	120	47
10	85	828	788	261	419	267	702	384	267	210	110	58
11	74	528	689	245	357	250	707	816	235	191	104	60
12	74	398	558	225	300	256	564	732	215	174	104	63
13	77	312	496	205	278	250	468	576	196	161	104	56
14	66	570	454	200	261	235	433	468	187	157	88	66
15	63	1,050	412	196	312	240	377	405	166	150	114	142
16	56	728	398	196	331	240	344	433	153	146	153	110
17	52	534	351	196	250	351	318	426	150	135	124	85
18	47	412	312	196	230	482	312	925	142	120	107	88
19	56	344	289	200	225	377	294	740	142	110	104	94
20	58	587	300	278	215	331	289	576	135	107	146	80
21	50	564	351	230	215	300	261	522	131	405	124	68
22	52	440	587	225	210	278	245	468	142	489	110	68
23	56	357	852	370	200	256	235	412	153	331	91	94
24	54	312	665	318	191	235	250	433	157	240	82	91
25	52	289	558	267	183	220	235	384	139	196	77	74
26	47	377	503	240	187	344	278	338	127	174	74	68
27	43	447	468	250	174	357	289	300	117	161	71	68
28	50	364	412	489	157	283	516	351	110	146	68	66
29	80	331	364	440	------	256	461	468	650	139	66	68
30	91	300	325	357	------	245	364	384	1,170	127	60	60
31	74	------	468	338	------	250	------	503	------	117	56	------
TOTAL	2,120	12,209	14,565	10,245	11,944	8,281	14,785	13,658	8,171	7,922	3,834	2,118
MEAN	68.4	407	470	330	427	267	493	441	272	256	124	70.6
MAX	166	1,240	852	768	1,690	482	1,130	925	1,170	756	351	142
MIN	43	60	283	196	157	153	235	225	110	107	56	47
CFSM	.54	3.23	3.73	2.62	3.39	2.12	3.91	3.50	2.16	2.03	.98	.56
IN.	.63	3.60	4.30	3.02	3.53	2.44	4.37	4.03	2.41	2.34	1.13	.63

CAL YR 1972 TOTAL 110,553 MEAN 302 MAX 1,800 MIN 31 CFSM 2.40 IN 32.64
WTR YR 1973 TOTAL 109,852 MEAN 301 MAX 1,690 MIN 43 CFSM 2.39 IN 32.43

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	1230	4.58	1,420	4-02	1930	3.93	1,110	5-18	1245	3.85	1,080
11-15	0415	4.08	1,180	4-05	0615	4.19	1,230	6-29	2400	4.38	1,320
2-03	1130	5.46	1,880	5-11	1530	3.94	1,120				

01443900 Yards Creek near Blairstown, N. J.

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, on left bank 100 ft (30 m) upstream of bridge on Hainesburg-Mount Vernon Road, 2.2 mi (3.5 km) northeast of Hainesburg, 2.4 mi (3.9 km) upstream from mouth, and 4.2 mi (6.8 km) west of Blairstown.

DRAINAGE AREA.--7.16 mi^2 (18.54 km^2).

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

GAGE.--Water-stage recorder with concrete control. Altitude of gage is 618 ft (188 m) from topographic map.

AVERAGE DISCHARGE.--7 years, 10.1 ft^3/s (0.286 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 83 ft^3/s (2.35 m^3/s) Feb. 2 and Apr. 6, gage height, 2.91 ft (0.887 m); minimum daily, 0.42 ft^3/s (0.012 m^3/s) Sept. 10, 11.
Period of record: Maximum discharge, 140 ft^3/s (3.96 m^3/s) Jan. 14, 1968 (gage height, 3.14 ft or 0.957 m) from rating curve extended above 30 ft^3/s (0.85 m^3/s) on basis of theoretical weir formula; maximum gage height, 3.66 ft (1.116 m) Feb. 6, 1971, backwater from ice; no flow Sept. 12, 1971.

REMARKS.--Records excellent. Complete regulation by the Jersey Central Power and Light Co., at Yards Creek Reservoir above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	1.1	41	16	25	6.2	13	6.7	18	2.9	10	1.4
2	.55	1.7	41	12	43	6.2	22	3.3	20	2.3	11	1.3
3	.73	2.0	39	11	55	6.4	26	3.8	18	2.3	10	1.2
4	1.1	1.8	38	14	43	7.0	32	3.6	18	3.3	11	1.1
5	.87	2.2	39	12	44	5.9	30	3.3	16	2.8	8.4	.97
6	.94	1.4	44	11	55	6.4	31	3.0	18	2.2	7.5	1.6
7	3.8	1.2	34	11	52	6.4	35	2.8	18	2.1	8.0	1.1
8	.94	17	29	13	52	8.0	26	2.9	14	2.0	9.3	.66
9	.48	9.6	30	11	44	7.2	31	5.9	5.9	1.8	8.4	.47
10	.55	4.2	26	12	28	7.0	52	6.7	5.3	1.6	8.4	.42
11	1.3	3.7	24	16	25	6.7	49	16	3.6	1.5	8.9	.42
12	1.3	3.0	24	18	23	6.4	47	18	1.4	1.1	8.9	.53
13	1.0	2.3	24	23	23	6.2	47	15	1.2	2.4	8.0	1.6
14	.94	15	24	11	22	6.4	47	14	.97	2.4	7.0	4.0
15	.94	14	24	7.5	23	7.0	43	17	.78	1.5	3.0	3.1
16	.66	14	24	8.0	21	7.0	40	22	.72	1.1	2.9	1.9
17	.79	6.4	22	8.0	28	10	43	26	.60	1.1	2.8	1.7
18	.87	5.5	23	8.0	41	8.4	43	29	.66	.97	2.9	2.8
19	1.4	5.8	22	8.9	38	7.0	44	26	.53	.91	2.9	2.2
20	1.2	12	23	9.3	34	7.0	44	25	.47	1.1	2.6	2.2
21	1.1	11	24	8.4	21	7.0	44	41	.66	7.2	2.4	2.1
22	1.0	24	38	9.8	21	7.0	41	52	.97	2.3	3.1	1.5
23	.73	24	54	9.8	22	6.7	22	62	1.5	1.4	3.0	2.9
24	.79	22	51	8.9	21	6.7	8.0	62	1.5	3.6	3.0	.91
25	1.0	23	46	8.4	20	6.4	8.4	61	.72	11	3.1	1.0
26	.87	26	38	8.9	18	8.9	10	46	.53	11	3.1	.66
27	.87	23	22	12	20	7.0	10	18	.60	12	3.0	.53
28	2.5	32	22	11	13	7.0	11	21	.72	8.9	3.0	.72
29	1.9	40	20	11	------	7.0	9.3	21	16	7.2	3.0	2.6
30	1.1	41	10	18	------	7.2	8.0	20	5.9	7.2	3.3	1.1
31	1.1	------	22	17	------	7.0	------	18	------	10	2.3	------
TOTAL	34.11	389.9	942	363.9	875	216.7	916.7	672.0	191.23	119.18	174.2	44.69
MEAN	1.10	13.0	30.4	11.7	31.3	6.99	30.6	21.7	6.37	3.84	5.62	1.49
MAX	3.8	41	54	23	55	10	52	62	20	12	11	4.0
MIN	.48	1.1	10	7.5	13	5.9	8.0	2.8	.47	.91	2.3	.42

CAL YR 1972 TOTAL 5,589.30 MEAN 15.3 MAX 57 MIN .48
WTR YR 1973 TOTAL 4,939.61 MEAN 13.5 MAX 62 MIN .42

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 (30 m) upstream from Lehigh and Hudson River Railway Bridge, and 300 ft (91 m) downstream from Furnace Brook.

DRAINAGE AREA.--108 mi^2 (280 km^2).

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 (121.548 m) above mean sea level. Prior to June 22, 1926, nonrecording gage at site 10 ft (3 m) upstream at same datum.

AVERAGE DISCHARGE.--52 years, 149 ft^3/s (4.220 m^3/s), 18.73 in/yr (476 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) Feb. 3, gage height, 4.34 ft (1.323 m); minimum, 40 ft^3/s (1.13 m^3/s) Oct. 5, 6.
Period of record: Maximum discharge, 1,810 ft^3/s (51.3 m^3/s) Mar. 14, 1936 (gage height, 4.97 ft or 1.515 m) from rating curve extended above 1,200 ft^3/s (34.0 m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) Aug. 17-22, Dec. 10, 1965.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	52	277	430	235	156	226	259	420	480	91	60
2	46	57	277	379	560	161	515	235	379	352	216	58
3	42	61	277	329	1,120	170	525	242	338	263	210	58
4	41	61	280	401	871	198	515	270	308	229	175	65
5	41	75	266	410	709	207	601	245	300	229	139	57
6	40	73	365	352	587	204	495	219	270	201	120	55
7	107	63	574	239	515	204	430	204	256	180	105	57
8	111	263	480	242	485	252	500	192	242	161	95	52
9	75	677	655	239	465	256	485	277	226	146	89	51
10	57	435	614	216	370	229	587	304	204	136	85	49
11	51	347	560	204	325	207	530	415	189	127	82	49
12	50	259	475	192	280	210	455	347	175	118	84	46
13	49	210	440	183	266	201	401	312	172	124	116	54
14	47	510	406	180	249	186	365	273	156	129	93	63
15	46	682	383	178	325	195	334	259	141	120	93	141
16	49	525	450	180	316	189	308	277	131	120	136	99
17	47	425	325	183	235	277	292	296	129	109	122	82
18	46	338	304	186	226	288	277	677	131	101	107	95
19	50	288	296	195	223	249	270	520	129	95	99	95
20	50	540	292	259	210	216	256	455	124	141	91	78
21	47	425	325	216	213	198	242	425	120	356	87	71
22	47	370	587	226	210	195	229	392	129	252	82	66
23	46	304	565	388	201	183	223	370	151	192	76	78
24	46	266	490	312	189	172	235	401	172	149	73	76
25	45	245	440	259	180	170	223	356	144	127	69	66
26	45	383	406	226	172	316	280	312	131	118	68	63
27	43	374	392	256	167	284	280	288	120	111	66	65
28	47	334	356	440	159	239	410	420	116	103	65	75
29	66	296	320	392	------	210	356	812	560	109	61	124
30	65	263	296	304	------	198	300	525	691	97	60	105
31	58	------	379	288	------	198	------	510	------	91	58	------
TOTAL	1,650	9,201	12,552	8,484	10,063	6,618	11,145	11,089	6,754	5,266	3,113	2,153
MEAN	53.2	307	405	274	359	213	372	358	225	170	100	71.8
MAX	111	682	655	440	1,120	316	601	812	691	480	216	141
MIN	40	52	266	178	159	156	223	192	116	91	58	46
CFSM	.49	2.84	3.75	2.54	3.32	1.97	3.44	3.31	2.08	1.57	.93	.66
IN.	.57	3.17	4.32	2.92	3.47	2.28	3.84	3.82	2.33	1.81	1.07	.74

CAL YR 1972 TOTAL 88,332 MEAN 241 MAX 1,350 MIN 40 CFSM 2.23 IN 30.43
WTR YR 1973 TOTAL 88,088 MEAN 241 MAX 1,120 MIN 40 CFSM 2.23 IN 30.34

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0530	3.48	821	12-22	1615	3.16	677	5-18	0630	3.43	798
11-14	2100	3.59	870	1-28	0200	2.82	520	5-29	0600	3.84	983
11-20	1130	3.09	646	2-03	0145	4.34	1,230	6-29	1645	3.50	830
11-26	1630	2.80	510	4-04	2315	3.22	704	7-20	2230	3.05	628
12-07	0115	3.29	736	4-10	1300	3.17	682				

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 (240 m) downstream from Pequest River, and at river mile 197.7 (318.1 km).

DRAINAGE AREA.--4,535 mi^2 (11,746 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft (69.016 m) above mean sea level. Prior to Jan 1, 1929, nonrecording gage at site 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--51 years, 7,817 ft^3/s (221.4 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 122,000 ft^3/s (3,460 m^3/s) June 30, gage height, 19.95 ft (6.081 m); minimum, 1,900 ft^3/s (53.8 m^3/s) Sept. 3, gage height 3.29 ft (1.003 m).
Period of record: Maximum discharge, 273,000 ft^3/s (7,730 m^3/s) Aug. 19, 1955 (gage height, 30.21 ft or 9.208 m, from high-water mark in gage house), from rating curve extended above 170,000 ft^3/s (4,810 m^3/s) on basis of flood-routing study; minimum, 609 ft^3/s (17.2 m^3/s) Sept. 28, 29, 1943, gage height, 2.11 ft (0.643 m).
Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft^3/s (6,230 m^3/s), from rating curve extended above 170,000 ft^3/s (4,810 m^3/s).

REMARKS.--Records excellent except those below 3,000 ft^3/s (85 m^3/s), which are 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. 137) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 143).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,560	3,060	14,300	24,000	7,620	4,440	8,620	9,620	13,800	78,100	2,870	3,560
2	2,350	3,230	12,900	37,200	10,200	4,460	18,200	9,020	12,400	46,500	6,240	2,680
3	2,160	3,440	10,700	31,100	26,400	4,330	29,300	8,460	11,100	29,700	17,500	2,290
4	2,310	3,730	9,940	25,500	38,300	5,100	29,800	8,660	9,800	22,500	14,500	2,950
5	2,350	5,100	10,300	22,700	27,100	6,690	44,300	8,740	11,100	19,200	9,460	3,000
6	2,380	4,420	10,600	19,700	22,400	8,940	47,200	6,720	10,500	16,400	6,940	2,480
7	3,040	5,250	21,400	15,600	19,000	9,060	34,000	6,300	11,000	13,500	6,210	2,870
8	3,760	6,180	28,900	11,600	16,300	8,820	28,000	6,390	18,000	11,100	5,430	2,720
9	3,970	35,600	23,900	9,740	14,800	12,000	25,300	6,980	18,000	9,780	5,580	2,250
10	2,560	47,300	24,000	9,460	12,700	13,700	25,100	8,980	12,600	8,780	5,130	2,580
11	2,980	25,800	22,600	9,180	10,700	11,800	29,200	19,700	10,300	7,260	5,280	2,420
12	2,810	17,600	20,500	8,380	8,740	10,900	25,600	24,700	10,400	5,850	4,850	2,540
13	2,560	13,900	17,900	7,660	8,660	10,700	21,200	21,800	9,450	4,680	3,730	2,680
14	2,560	15,300	16,400	6,510	8,100	10,400	18,300	19,300	9,750	4,820	3,950	2,720
15	2,480	40,800	15,300	6,330	9,020	10,400	15,400	17,200	8,250	4,740	4,280	4,250
16	2,460	35,900	14,100	6,660	8,780	11,500	13,500	17,000	6,450	4,570	6,240	3,970
17	2,640	23,300	12,300	6,900	7,220	14,400	12,200	17,600	5,490	5,310	8,060	2,950
18	2,380	17,800	9,820	6,780	6,540	20,600	11,100	27,100	4,850	5,190	6,480	3,260
19	2,540	13,900	9,380	6,630	6,030	21,300	10,500	35,100	4,930	4,680	5,020	3,830
20	2,740	14,800	9,380	7,500	6,750	17,400	10,100	29,500	4,570	4,710	4,360	3,680
21	2,620	19,000	9,980	8,340	6,690	15,000	8,820	29,200	4,820	5,940	4,820	2,950
22	2,660	16,600	12,700	7,260	6,210	13,400	8,100	31,600	5,340	6,210	4,280	3,000
23	2,500	13,800	21,300	11,200	5,760	11,800	7,540	26,800	6,940	4,710	3,610	3,120
24	2,500	10,800	20,800	17,600	5,280	10,100	8,340	21,000	5,880	3,850	3,300	3,520
25	2,500	9,860	17,700	13,600	4,650	8,980	7,740	17,300	5,020	3,300	3,080	4,050
26	2,580	12,600	16,400	11,500	4,360	9,660	7,780	14,800	6,450	3,190	3,000	3,730
27	2,830	19,100	16,800	10,500	4,410	11,200	8,060	13,300	6,540	3,520	2,950	3,490
28	2,890	20,100	16,000	11,500	4,490	10,900	10,500	12,900	6,030	4,310	3,470	3,730
29	3,400	17,300	14,200	11,300	------	9,620	10,900	15,100	15,800	5,100	4,230	3,950
30	3,520	15,700	12,600	10,500	------	8,820	10,000	19,000	109,000	3,470	3,730	3,440
31	3,540	------	14,100	9,660	------	8,340	------	14,300	------	3,080	3,590	------
TOTAL	85,130	491,270	487,200	402,090	317,210	334,760	544,700	524,170	374,560	354,050	172,170	94,660
MEAN	2,746	16,380	15,720	12,970	11,330	10,800	18,160	16,910	12,490	11,420	5,554	3,155
MAX	3,970	47,300	28,900	37,200	38,300	21,300	47,200	35,100	109,000	78,100	17,500	4,250
MIN	2,160	3,060	9,380	6,330	4,360	4,330	7,540	6,300	4,570	3,080	2,870	2,250

CAL YR 1972 TOTAL 4,195,640 MEAN 11,460 MAX 71,300 MIN 2,110
WTR YR 1973 TOTAL 4,181,970 MEAN 11,460 MAX 109,000 MIN 2,160

01446700 Delaware River at Easton, Pa.

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, on right bank 200 ft (61 m) upstream from city of Easton pumping station, 1.2 mi (1.9 km) upstream from Bushkill Creek in Easton.

DRAINAGE AREA.--4,636 sq mi (12,007 sq km).

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

GAGE.--Water-stage recorder. Datum of gage is 157.84 ft (48.110 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 8,637 cfs (244.6 cu m/s) unadjusted.

EXTREMES.--Current year: Maximum discharge, 96,800 cfs (2,740 cu m/s) June 30 (gage height, 25.25 ft or 7.696 m); minimum 2,280 cfs (64.6 cu m/s) Oct. 3; minimum gage height, 4.10 ft (1.250 m) Sept. 3. Period of record: Maximum discharge 96,800 cfs (2,740 cu m/s) June 30, 1973 (gage height 25.25 ft or 7.696 m); minimum, 1,640 cfs (46.4 cu m/s) Aug. 16, 1971 (gage height, 3.87 ft or 1.180 m).

REMARKS.--Records fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 137) and by Cannonsville, Pepacton, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs about 100 mi (161 km) upstream (see New York Annual Report) and smaller reservoirs. Diversion from Cannonsville, Pepacton, and Neversink Reservoirs (see New York Annual Report). Records of water quality for current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,760	3,290	14,000	23,600	8,440	4,740	8,670	10,400	15,600	70,500	3,460	3,980
2	2,590	3,390	12,800	35,500	10,500	4,760	18,400	9,770	13,900	45,500	6,140	3,290
3	2,320	3,690	10,800	31,000	27,500	4,830	29,500	9,230	12,100	30,600	17,300	2,610
4	2,460	3,710	10,000	25,700	38,000	5,250	30,000	9,200	10,900	23,900	15,600	3,270
5	2,530	5,350	10,300	23,000	27,900	6,710	44,500	9,680	11,200	20,600	10,300	3,370
6	2,570	4,720	10,500	20,000	23,200	8,920	47,500	7,820	11,900	17,500	7,870	3,020
7	3,240	4,720	19,500	16,000	19,600	9,300	34,200	7,170	12,400	14,400	6,800	3,130
8	4,080	6,080	29,000	12,400	16,800	8,920	28,200	7,260	23,600	12,100	6,090	3,090
9	4,390	24,300	24,300	10,400	15,200	11,600	25,800	7,590	18,900	10,500	6,040	2,730
10	2,840	25,000	24,200	10,000	13,100	12,000	25,500	9,260	13,400	9,440	5,720	2,860
11	3,080	23,500	23,000	9,710	11,000	11,000	30,200	16,600	10,900	7,930	5,740	2,800
12	3,140	17,600	20,700	9,100	9,360	10,000	27,000	26,500	10,300	6,660	5,570	2,850
13	2,760	13,800	18,000	8,390	9,040	9,000	22,600	23,500	9,650	5,210	4,380	3,060
14	2,760	15,000	16,300	7,450	8,580	9,500	19,400	21,000	9,350	5,040	4,180	3,200
15	2,660	25,000	15,300	6,890	9,330	11,000	16,400	18,500	8,620	4,930	4,730	4,630
16	2,680	24,200	14,100	7,210	9,360	12,000	14,400	17,500	7,200	4,700	6,120	4,420
17	2,740	23,200	12,400	7,610	7,910	13,800	13,000	18,400	6,190	5,400	8,790	3,420
18	2,660	17,900	10,300	7,420	7,370	19,500	12,000	23,300	5,400	5,300	7,090	3,560
19	2,590	13,900	9,650	7,320	6,580	21,000	11,200	35,200	5,350	4,900	5,640	4,220
20	3,100	14,400	9,650	7,990	7,150	17,300	10,600	31,200	5,090	4,800	4,860	3,600
21	2,640	18,300	10,300	8,750	7,260	15,000	9,560	28,700	5,180	6,100	5,160	3,000
22	2,980	16,700	13,000	7,940	6,660	13,200	8,790	31,900	5,720	6,500	4,730	3,000
23	2,680	13,600	21,800	10,700	6,230	12,000	8,270	28,700	7,620	4,900	4,100	3,100
24	2,700	11,000	21,000	17,700	5,830	10,400	8,790	25,000	6,930	4,100	3,640	3,500
25	2,630	9,880	18,000	13,900	5,130	9,300	8,530	21,000	5,540	3,500	3,480	4,000
26	2,680	11,900	16,500	11,700	4,860	9,740	8,420	18,100	6,850	3,400	3,440	3,800
27	3,000	18,200	16,800	10,900	4,580	11,200	8,650	15,300	7,200	3,700	3,290	3,500
28	3,140	19,900	16,000	11,700	4,930	11,200	10,700	15,300	6,740	4,500	3,620	3,700
29	3,600	16,800	14,200	11,800	------	9,940	12,000	19,000	17,700	5,300	4,540	3,900
30	3,730	15,300	12,800	10,900	------	9,130	10,800	20,000	86,100	3,700	4,160	3,400
31	3,880	------	14,200	10,100	------	8,690	------	18,600	------	3,200	3,960	------
TOTAL	91,610	424,330	489,400	412,780	331,400	330,930	563,580	560,680	377,530	358,810	186,540	102,010
MEAN	2,955	14,140	15,790	13,320	11,840	10,680	18,790	18,090	12,580	11,570	6,017	3,400
MAX	4,390	25,000	29,000	35,500	38,000	21,000	47,500	35,200	86,100	70,500	17,300	4,630
MIN	2,320	3,290	9,650	6,890	4,580	4,740	8,270	7,170	5,090	3,200	3,290	2,610
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1972 TOTAL 4,107,790 MEAN 11,220 MAX 55,000 MIN 2,090 CFSM - IN. -
WTR YR 1973 TOTAL 4,229,600 MEAN 11,590 MAX 86,100 MIN 2,320 CFSM - IN. -

01453000 Lehigh River at Bethlehem, Pa.

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, on left bank 120 ft (37 m) upstream from New Street Bridge at Bethlehem, and 1,800 ft (549 m) upstream from Monocacy Creek.

DRAINAGE AREA.--1,279 sq mi (3,313 sq km) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 sq mi (3,183 sq km).

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 (64.295 m) above mean sea level. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft (37 m) downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft (1,295 m) downstream at datum 2.49 ft (0.759 m) lower.

AVERAGE DISCHARGE.--66 years (1902-4, 1909-73), 2,274 cfs (64.40 cu m/s), 24.10 in/yr (612 mm/yr), adjusted for diversion 1902-4, 1909-42 and, for recirculated water, October 1, 1959, to September 30, 1962.

EXTREMES.--Current year: Maximum discharge, 36,700 cfs (1,040 cu m/s) June 29 (gage height, 14.64 ft or 4.462 m), from rating curve extended above 8,900 cfs (252 cu m/s) on basis of slope-area measurement at gage height 20.02 ft (6.102 m); minimum, 518 cfs (14.7 cu m/s) Oct. 26 (gage height, 1.63 ft or 0.497 m). Period of record: Maximum discharge, 92,000 cfs (2,610 cu m/s) May 23, 1942 (gage height, about 25.9 ft or 7.89 m, from floodmark, present site and datum), from rating curve extended above 48,000 cfs (1,360 cu m/s); minimum, 125 cfs (3.54 cu m/s) June 28, 1965 (gage height, 0.94 ft or 0.287 m). Flood of Feb. 28, 1902, reached a stage of 24.9 ft (7.59 m) from floodmark, present site and datum (discharge, about 88,000 cfs or 2,490 cu m/s).

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. 139). Records of water quality for 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	1,000	4,400	10,000	3,210	1,900	3,900	2,900	5,350	8,070	1,380	1,250
2	710	1,100	4,200	8,200	4,950	1,850	8,000	2,700	4,800	6,120	4,580	1,110
3	698	1,100	3,900	6,670	15,800	2,000	8,880	2,780	4,320	5,480	4,870	1,030
4	680	1,100	3,600	6,620	10,300	2,300	8,700	2,800	4,160	9,220	5,020	1,020
5	650	1,200	3,400	6,500	8,410	2,500	10,400	2,560	3,920	10,600	3,140	944
6	620	1,100	4,000	5,370	8,960	2,600	9,170	2,370	3,610	9,840	2,410	917
7	940	1,000	9,000	4,740	8,360	2,480	8,360	2,370	4,980	8,070	1,990	944
8	760	3,500	7,600	4,050	8,130	2,880	7,660	2,640	6,600	7,460	1,740	899
9	760	7,000	8,620	3,280	6,430	3,720	7,710	3,440	5,330	7,100	1,680	908
10	720	6,400	9,270	3,210	5,130	3,480	8,830	3,960	4,210	6,140	1,600	917
11	700	5,130	7,970	2,980	4,620	3,410	9,370	7,530	3,740	5,500	2,010	926
12	640	4,700	6,740	2,930	4,120	3,350	7,970	7,890	3,200	4,210	1,880	908
13	660	4,100	5,970	2,720	3,660	2,880	6,960	6,760	2,960	3,140	2,140	917
14	680	6,000	5,170	2,560	3,570	2,680	5,680	5,610	2,760	2,880	1,830	1,560
15	710	8,000	4,930	2,630	4,100	2,920	5,060	4,870	2,500	2,920	1,620	3,590
16	740	11,000	5,370	2,370	4,510	3,300	4,670	4,930	2,300	3,120	1,680	2,320
17	716	9,480	4,440	2,110	3,280	4,250	4,320	5,040	2,250	2,700	1,620	1,760
18	600	5,720	3,960	2,090	2,920	6,200	4,030	5,260	2,200	2,420	1,570	2,070
19	640	5,110	3,850	2,180	2,860	5,800	3,810	5,260	2,140	1,880	1,760	2,900
20	590	6,600	4,030	2,510	3,080	5,200	3,630	4,890	2,010	1,760	1,640	2,060
21	600	5,600	4,220	2,240	3,260	4,600	3,410	4,890	1,960	2,250	1,440	1,720
22	590	4,800	6,210	2,250	2,900	4,100	3,280	4,780	2,040	2,740	1,320	1,650
23	602	4,150	8,520	4,950	2,580	3,830	3,100	4,360	1,900	2,420	1,260	1,760
24	614	3,700	7,030	4,930	2,480	3,500	3,100	4,290	4,620	2,120	1,200	2,120
25	560	3,150	6,310	3,790	2,260	3,370	2,860	4,430	4,250	1,800	1,140	1,720
26	536	5,640	5,550	3,330	2,170	4,600	3,080	4,270	3,700	1,580	1,110	1,530
27	542	7,410	5,110	3,230	2,120	4,270	3,060	4,010	3,200	1,640	1,070	1,490
28	734	6,160	4,700	4,070	1,960	3,810	3,680	5,220	2,760	1,550	926	1,460
29	1,400	5,200	4,340	4,680	------	3,410	3,370	7,660	16,100	1,470	890	1,640
30	1,500	4,900	4,090	3,870	------	3,260	3,160	6,670	11,000	1,420	850	1,760
31	1,400	------	6,620	3,500	------	3,280	------	5,970	------	1,390	874	------
TOTAL	23,014	141,050	173,120	124,560	136,130	107,730	169,210	143,110	124,870	129,010	58,240	45,800
MEAN	742	4,702	5,585	4,018	4,862	3,475	5,640	4,616	4,162	4,162	1,879	1,527
MAX	1,500	11,000	9,270	10,000	15,800	6,200	10,400	7,890	16,100	10,600	5,020	3,590
MIN	536	1,000	3,400	2,090	1,960	1,850	2,860	2,370	1,900	1,390	850	899
CFSM	.58	3.68	4.37	3.14	3.80	2.72	4.41	3.61	3.25	3.25	1.47	1.19
IN.	.67	4.10	5.04	3.62	3.96	3.13	4.92	4.16	3.63	3.75	1.69	1.33

CAL YR 1972 TOTAL 1,269,107 MEAN 3,468 MAX 40,000 MIN 536 CFSM 2.71 IN 36.91
WTR YR 1973 TOTAL 1,375,844 MEAN 3,769 MAX 16,100 MIN 536 CFSM 2.95 IN 40.02

01455500 Musconetcong River at outlet of Lake Hopatcong, N. J.

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, on left bank just upstream of highway bridge 300 ft (91 m) downstream from Lake Hopatcong Dam in Landing.

DRAINAGE AREA.--25.6 mi^2 (66.3 km^2).

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 (12 m) downstream. Datum of gage is 904.99 ft (275.841 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--45 years, 42.7 ft^3/s (1.209 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 198 ft^3/s (5.61 m^3/s), Jan. 7, gage height, 3.20 ft (0.975 m); minimum, 0.46 ft^3/s (0.013 m^3/s) Mar. 24, gage height, 0.50 ft (0.152 m).
Period of record: Maximum discharge, 795 ft^3/s (22.5 m^3/s) Aug. 20, 1955, (gage height, 3.85 ft or 1.173 m), from rating curve extended above 300 ft^3/s (8.50 m^3/s); maximum gage height, 3.96 ft (1.207 m) Aug. 5, 1969; no flow many days in some years.

REMARKS.--Records excellent except those from Oct. 2 to Nov. 29 and those below 20 ft^3/s (0.57 m^3/s), which are fair. Flow regulated by Lake Hopatcong (see p. 139).

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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	76	154	172	64	25	8.0	100	96	158	16	10
2	34	76	148	170	81	12	8.0	93	94	140	62	10
3	35	76	150	170	90	12	7.7	88	79	120	79	10
4	35	70	154	169	126	12	7.5	84	71	114	71	9.4
5	35	70	153	169	144	12	7.1	80	71	112	60	28
6	35	70	154	167	147	8.7	7.1	74	71	96	49	52
7	35	70	162	153	147	7.7	7.1	64	79	78	41	52
8	33	70	166	177	147	7.7	7.7	58	79	66	35	52
9	32	70	177	189	147	7.7	8.0	72	70	56	30	52
10	32	70	180	187	145	4.2	30	81	61	48	26	43
11	32	72	177	184	145	4.1	48	95	49	43	25	38
12	32	80	169	184	144	7.7	57	91	42	34	22	38
13	32	115	161	182	144	7.5	63	86	40	27	23	38
14	32	115	156	180	142	7.3	64	78	35	24	19	33
15	32	127	159	123	142	10	62	76	28	27	21	26
16	32	128	153	49	142	8.9	59	76	24	26	30	26
17	82	130	153	40	142	8.0	60	78	24	22	26	26
18	82	130	170	31	141	7.5	58	107	19	19	23	27
19	82	140	178	26	141	7.3	57	103	19	16	21	28
20	82	180	178	22	140	7.1	55	101	17	14	20	27
21	80	180	177	22	140	6.9	48	97	16	30	18	26
22	80	180	177	22	138	6.6	45	89	18	34	15	26
23	80	148	177	21	137	4.5	46	94	19	32	13	26
24	80	137	177	34	137	.50	48	98	20	27	12	26
25	80	128	175	55	135	6.2	45	93	18	23	11	26
26	80	164	175	64	93	9.2	62	81	16	19	11	26
27	78	198	175	64	48	8.7	69	75	15	16	10	26
28	78	180	175	64	39	8.4	101	86	14	15	9.7	26
29	76	180	174	65	------	8.2	110	116	32	19	9.7	26
30	76	180	172	65	------	8.2	106	114	140	17	9.4	26
31	76	------	172	65	------	8.2	------	104	------	15	8.9	------
TOTAL	1,724	3,610	5,178	3,285	3,528	260.00	1,361.2	2,732	1,376	1,487	826.7	885.4
MEAN	55.6	120	167	106	126	8.39	45.4	88.1	45.9	48.0	26.7	29.5
MAX	82	198	180	189	147	25	110	116	140	158	79	52
MIN	32	70	148	21	39	.50	7.1	58	14	14	8.9	9.4

CAL YR 1972 TOTAL 26,282.00 MEAN 71.8 MAX 355 MIN 7.4
WTR YR 1973 TOTAL 26,253.30 MEAN 71.9 MAX 198 MIN .50

NOTE.--Gage-height record from Oct. 2 to Nov. 29 taken from once-daily staff readings.

01456000 Musconetcong River near Hackettstown, N. J.

LOCATION.--Lat 40°53'10", long 74°48'00", Warren County, on right bank 75 ft (23 m) upstream from Saxton Falls Dam, 0.5 mi (0.8 km) upstream from Erie-Lackawanna Railway bridge, and 3.0 mi (4.8 km) northeast of Hackettstown.

DRAINAGE AREA.--70.0 mi^2 (181.3 km^2).

PERIOD OF RECORD.--October 1921 to September 1973 (discontinued).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 630.93 ft (192.307 m) 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 (610 m) downstream at datum 26.97 ft (8.220 m) lower.

AVERAGE DISCHARGE.--52 years, 120 ft^3/s (3.398 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Feb. 3, gage height, 2.81 ft (0.856 m); minimum 16.7 ft^3/s (0.47 m^3/s), Aug. 24, gage height, 1.15 ft (0.351 m).
Period of record: Maximum discharge, 2,170 ft^3/s (61.5 m^3/s) Aug. 19, 1955 (gage height 3.97 ft or 1.210 m) from rating curve extended above 600 ft^3/s (17 m^3/s); no flow for part of Sept. 6, 1951, Feb. 4, 5, 1957, when water was below spillway after waste gate was closed and no flow through swimming pool.

REMARKS.--Records good above 25 ft^3/s (0.71 m^3/s) and fair below. Records given herein represent flow over dam and through swimming pool. Flow regulated by Lake Hopatcong (see p. 139) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	116	400	352	206	105	149	282	346	546	90	38
2	55	123	374	332	387	90	190	259	333	415	369	39
3	54	122	337	332	915	87	328	252	298	341	418	39
4	57	119	339	352	665	117	302	265	259	323	285	39
5	59	138	334	362	551	121	378	238	254	321	225	38
6	61	125	386	352	472	113	283	220	229	303	179	47
7	175	118	594	312	426	107	225	201	255	236	148	81
8	167	260	514	292	402	136	253	189	230	199	128	87
9	108	844	599	312	394	144	248	239	208	171	115	88
10	123	595	560	302	334	123	314	278	187	153	105	87
11	99	393	521	282	305	111	344	327	162	140	96	76
12	70	311	465	272	287	109	295	311	139	122	104	68
13	70	289	442	252	285	113	274	289	128	113	130	66
14	67	423	422	222	275	107	255	259	116	117	106	78
15	68	662	422	192	329	111	229	247	104	107	102	170
16	66	505	442	162	317	111	207	277	94	111	160	98
17	87	418	383	132	267	157	194	284	93	97	139	69
18	115	365	333	112	251	221	194	583	89	89	118	84
19	126	339	333	114	247	170	193	488	90	84	109	100
20	122	487	333	155	242	144	191	409	85	86	102	73
21	118	482	363	117	241	125	174	380	82	243	98	65
22	119	399	553	122	240	118	165	350	98	206	79	61
23	119	353	463	273	234	106	162	332	108	137	50	74
24	119	321	432	195	226	97	181	377	115	115	44	76
25	118	298	422	168	219	94	168	335	103	104	42	68
26	117	454	412	171	211	190	215	300	92	97	40	63
27	118	529	402	196	148	198	230	275	82	93	40	62
28	133	430	382	334	115	153	359	336	80	88	40	62
29	177	385	362	306	------	132	353	576	206	106	44	104
30	134	361	352	253	------	120	313	482	560	106	34	97
31	118	------	372	167	------	119	------	396	------	93	37	------
TOTAL	3,199	10,764	13,048	7,497	9,191	3,949	7,366	10,036	5,225	5,462	3,776	2,197
MEAN	103	359	421	242	328	127	246	324	174	176	122	73.2
MAX	177	844	599	362	915	221	378	583	560	546	418	170
MIN	54	116	333	112	115	87	149	189	80	84	34	38

CAL YR 1972 TOTAL 79,088 MEAN 216 MAX 1,210 MIN 21
WTR YR 1973 TOTAL 81,710 MEAN 224 MAX 915 MIN 34

NOTE.--No gage-height record Dec. 13 to Jan. 18.

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 mi (2.4 km) upstream from Bloomsbury, and 9.5 mi (15.3 km) upstream from mouth.

DRAINAGE AREA.--143 mi^2 (370 km^2).

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 (83.768 m) above mean sea level. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft (4.6 m) upstream at different datum. July 26 to Sept. 21, 1921, nonrecording age at bridge at present datum.

AVERAGE DISCHARGE.--55 years (1903-6, 1921-73), 226 ft^3/s (6.40 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 6,310 ft^3/s (179 m^3/s) June 23 (gage height, 7.78 ft or 2.371 m) from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on the basis of slope-area measurement at gage height, 6.95 ft (2.118 m); minimum, 75 ft^3/s (2.12 m^3/s) Oct. 4, gage height, 1.34 ft (0.408 m).
Period of record: Maximum discharge 6,960 ft^3/s (197 m^3/s) Oct. 10, 1903 (gage height, 8.00 ft or 2.438 m, from graph of gage readings, site and datum then in use) from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on basis of slope-area measurement at gage height 6.95 ft (2.118 m); minimum, 8.1 ft^3/s (0.23 m^3/s) Aug. 2, 1955; minimum daily, 27 ft^3/s (0.76 m^3/s) Sept. 8, 1966.

REMARKS.--Records excellent. Flow regulated by Lake Hopatcong (see p. 139). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	160	580	592	408	249	292	444	496	686	213	122
2	113	174	544	552	970	240	540	416	464	536	740	118
3	106	174	500	512	1,550	231	544	412	440	456	620	118
4	98	165	488	596	1,200	273	588	424	408	416	480	130
5	101	198	484	584	925	273	654	388	396	424	370	117
6	106	183	605	536	790	261	556	356	360	388	300	114
7	249	165	845	432	720	252	480	328	356	328	260	126
8	276	641	790	436	690	324	540	313	348	285	230	148
9	177	1,240	960	456	681	306	520	432	324	264	200	149
10	165	870	910	464	580	273	641	428	296	243	190	153
11	171	568	820	448	532	255	627	488	273	228	200	148
12	136	452	725	432	496	255	556	456	252	210	230	134
13	123	400	695	420	484	243	520	424	240	201	260	129
14	118	855	636	416	472	234	484	388	222	213	225	184
15	116	960	614	416	576	246	452	372	207	207	255	293
16	116	730	677	352	544	240	420	400	198	195	320	203
17	116	592	552	285	460	328	396	408	189	177	280	152
18	146	520	516	270	436	380	384	780	189	165	240	157
19	177	476	516	267	424	332	372	672	186	160	210	172
20	180	765	540	340	420	292	356	568	180	152	190	154
21	168	668	552	276	416	270	336	560	177	532	170	135
22	165	572	800	289	408	255	320	512	204	348	160	128
23	168	508	760	488	400	243	317	492	735	255	156	138
24	165	468	668	392	380	228	340	524	476	222	144	139
25	162	440	627	324	368	222	317	476	219	204	137	133
26	160	663	600	310	364	408	404	432	195	192	135	127
27	157	710	588	376	320	368	408	404	180	180	131	122
28	186	592	560	576	270	306	568	516	174	168	133	120
29	243	540	524	663	------	276	528	735	1,040	171	129	183
30	204	512	504	496	------	261	480	641	790	189	130	172
31	168	------	580	444	------	255	------	556	------	174	126	------
TOTAL	4,857	15,961	19,760	13,440	16,284	8,579	13,940	14,745	10,214	8,569	7,564	4,418
MEAN	157	532	637	434	582	277	465	476	340	276	244	147
MAX	276	1,240	960	663	1,550	408	654	780	1,040	686	740	293
MIN	98	160	484	267	270	222	292	313	174	152	126	114

CAL YR 1972 TOTAL 136,058 MEAN 372 MAX 1,990 MIN 81 CFSM 2.60 IN 35.39
WTR YR 1973 TOTAL 138,331 MEAN 379 MAX 1,550 MIN 98 CFSM 2.65 IN 35.99

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	2145	4.45	1,440	12-09	0330	3.89	1,090	6-29	0615	5.41	2,200
11-14	1915	4.34	1,360	2-02	2245	4.97	1,830	8-02	1230	3.80	1,050
12-07	0030	3.76	1,030	6-23	2300	7.78	6,310				

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 (76 m) upstream from bridge on State Highway 27 (distance of 160 ft (49 m) 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 (12.192 m) above mean sea level.

REMARKS.--Records excellent. The canal diverts water from Delaware River at Raven Rock (see p. 143) and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft (152 m) station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	97	123	93	102	97	102	102	94	99	93	93
2	91	97	123	93	124	96	110	96	94	97	96	93
3	90	93	119	91	258	97	99	96	93	100	96	93
4	90	87	117	93	94	100	102	97	93	103	93	93
5	88	87	116	94	103	99	100	96	93	99	93	93
6	88	85	135	94	106	99	102	96	91	96	93	94
7	100	90	136	93	108	100	102	94	91	94	94	96
8	99	113	127	91	108	102	105	94	85	94	93	96
9	96	108	133	90	108	102	102	97	87	94	91	96
10	96	103	112	90	103	102	102	100	90	93	91	97
11	96	97	123	93	102	99	102	99	90	90	91	99
12	96	96	123	94	102	99	102	97	88	93	91	100
13	96	94	113	96	102	99	102	96	91	93	91	99
14	96	107	94	97	102	97	100	96	91	91	91	100
15	96	94	96	97	106	99	100	97	90	91	93	102
16	97	91	103	99	105	99	99	97	90	96	94	97
17	96	94	100	99	100	102	99	97	90	99	94	93
18	96	94	94	100	99	100	99	99	90	97	94	93
19	97	94	93	99	97	97	100	99	91	96	93	96
20	97	106	93	103	97	99	100	99	91	94	91	96
21	97	98	93	103	99	99	100	96	96	94	91	96
22	97	111	105	103	99	97	100	96	106	94	93	96
23	97	117	102	108	97	97	99	96	99	94	93	96
24	97	116	102	108	97	97	97	97	100	93	93	94
25	97	114	100	106	97	97	100	97	99	93	93	93
26	96	119	97	102	97	106	103	97	97	93	93	93
27	96	120	97	106	97	102	99	97	96	93	91	94
28	99	119	96	123	97	100	72	100	96	94	91	94
29	103	117	93	124	------	100	70	96	99	93	91	94
30	99	117	93	94	------	99	91	94	112	93	91	93
31	97	------	93	94	------	99	------	93	------	93	94	------
TOTAL	2,969	3,075	3,344	3,070	3,006	3,077	2,960	3,003	2,813	2,936	2,870	2,862
MEAN	95.8	103	108	99.0	107	99.3	98.7	96.9	93.8	94.7	92.6	95.4
MAX	103	120	136	124	258	106	110	102	112	103	96	102
MIN	88	85	93	90	94	96	70	93	85	90	91	93

CAL YR 1972 TOTAL 36,954 MEAN 101 MAX 136 MIN 85
WTR YR 1973 TOTAL 35,985 MEAN 98.6 MAX 258 MIN 70

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 (137 m) upstream from Calhoun Street Bridge at Trenton, 0.5 mi (0.8 km) upstream from Assunpink Creek, and at mile 134.5 (216.4 km).

DRAINAGE AREA.--6,780 mi^2 (17,560 km^2).

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 (2.368 m) higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft (152 m) downstream.

AVERAGE DISCHARGE.--61 years, 11,530 ft^3/s (326.6 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 135,000 ft^3/s (3,820 m^3/s) June 30, elevation 19.78 ft (6.029 m); minimum, 3,290 ft^3/s (93.2 m^3/s) Oct. 4, elevation, 8.16 ft (2.487 m). Flow in Delaware and Raritan Canal not included.

Period of record: Maximum discharge, 329,000 ft^3/s (9,320 m^3/s) Aug. 20, 1955 (elevation 28.60 ft or 8.717 m, from high-water mark in gage house) from rating curve extended above 230,000 ft^3/s (6,510 m^3/s); minimum, 1,180 ft^3/s (33.4 m^3/s) Oct. 31, 1963, elevation, 7.26 ft (2.213 m). Flow in Trenton power race and Delaware and Raritan Canal not included.

Flood of Oct. 11, 1903, reached on elevation of about 28.5 ft (8.69 m) above mean sea level, discharge estimated, 295,000 ft^3/s (8,350 m^3/s). Maximum elevation since 1903, 30.6 ft (9.33 m) 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. 137) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see p. 143). Water diverted just above station by borough of Morrisville, Pa., and city of Trenton for municipal supply (see p. 144). 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,000	5,360	23,400	30,200	15,500	7,670	13,900	15,200	22,900	108,000	5,240	5,070
2	3,850	4,890	21,100	44,300	21,900	7,560	24,800	14,400	20,300	64,500	18,200	5,670
3	3,610	5,260	18,800	43,600	43,800	7,670	37,400	13,800	18,300	42,500	21,100	4,390
4	3,330	5,360	16,800	37,300	54,200	8,220	43,600	13,700	16,400	36,500	23,900	4,010
5	3,430	6,160	16,000	33,700	43,700	9,910	50,300	13,800	16,000	33,400	18,200	4,580
6	3,490	7,170	17,400	29,100	35,700	12,300	62,300	12,600	16,300	29,600	13,100	4,460
7	4,900	6,250	27,000	24,400	31,700	13,500	49,100	11,100	16,300	24,700	10,700	3,870
8	5,610	14,600	41,900	20,100	28,300	13,900	42,100	10,800	26,500	20,700	9,780	4,230
9	5,540	45,100	42,200	16,900	25,900	15,400	38,300	12,200	26,300	18,600	8,560	4,120
10	5,380	63,100	37,900	15,600	21,500	18,600	37,200	14,400	19,800	16,700	8,560	3,690
11	4,010	42,500	37,500	14,600	18,300	17,800	40,500	18,700	16,300	14,800	8,000	3,940
12	4,190	28,000	32,300	14,000	16,500	16,500	38,400	33,200	14,400	12,900	8,850	3,800
13	4,000	22,300	28,700	13,000	14,400	15,400	32,100	31,700	13,900	10,100	7,780	3,800
14	3,830	29,200	25,500	12,100	14,000	14,900	27,600	27,700	12,900	8,500	6,950	4,390
15	3,830	45,900	24,200	10,900	15,100	14,900	23,900	24,400	12,600	8,790	7,100	8,620
16	3,710	57,300	25,100	10,800	16,200	15,500	21,100	22,700	11,300	8,390	7,360	9,840
17	3,710	40,900	21,500	11,100	14,000	18,800	19,200	23,200	10,000	8,330	10,600	7,150
18	3,780	30,100	18,300	10,900	12,100	23,900	17,900	26,200	8,730	8,730	10,500	5,580
19	3,730	23,500	16,300	10,800	11,700	29,500	16,700	39,200	8,160	8,160	9,210	6,950
20	3,830	27,400	16,100	11,600	11,100	25,200	15,900	38,500	8,110	7,510	7,890	7,720
21	3,980	27,700	16,900	12,300	11,900	21,900	15,100	34,400	8,110	8,620	7,200	6,410
22	3,750	27,000	23,000	12,600	11,400	19,500	13,700	36,800	9,210	11,100	7,250	5,360
23	3,880	22,700	29,900	15,500	10,600	17,900	13,000	34,800	9,450	9,910	6,460	5,450
24	3,670	19,500	34,000	22,800	9,910	16,100	12,800	31,300	12,700	8,000	5,670	5,850
25	3,620	16,200	28,800	22,000	8,970	14,200	13,200	26,900	11,400	6,750	5,240	6,560
26	3,530	18,600	25,600	18,000	8,390	17,200	14,100	24,000	10,700	5,940	4,940	6,460
27	3,600	27,500	24,500	17,500	7,830	17,700	14,000	20,900	11,400	5,720	4,780	5,850
28	4,240	30,300	23,700	21,300	7,940	17,200	17,700	23,400	11,000	6,040	4,740	5,670
29	5,170	26,100	21,900	26,000	------	15,700	18,200	27,500	27,100	7,150	5,110	6,130
30	5,780	23,800	19,600	19,800	------	14,200	16,300	28,000	109,000	7,150	5,760	6,700
31	5,790	------	19,400	17,400	------	13,500	------	26,900	------	5,630	5,150	------
TOTAL	128,770	749,750	775,300	620,200	542,540	492,230	800,400	732,400	535,570	573,420	283,880	166,320
MEAN	4,154	24,990	25,010	20,010	19,380	15,880	26,680	23,630	17,850	18,500	9,157	5,544
MAX	5,790	63,100	42,200	44,300	54,200	29,500	62,300	39,200	109,000	108,000	23,900	9,840
MIN	3,330	4,890	16,000	10,800	7,830	7,560	12,800	10,800	8,110	5,630	4,740	3,690

CAL YR 1972 TOTAL 6,194,240 MEAN 16,920 MAX 97,000 MIN 3,320
WTR YR 1973 TOTAL 6,400,780 MEAN 17,540 MAX 109,000 MIN 3,330

PEAK DISCHARGE (BASE, 50,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-10	1230	15.44	67,200	4-06	0930	15.25	64,800
11-16	0115	14.99	61,400	6-30	2030	19.78	135,000
2-04	1515	14.77	58,500				

01463620 Assunpink Creek near Clarksville, N. J.

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, on left bank 200 ft (61 m) upstream from bridge on Quaker Bridge Road, 1.9 mi (3.1 km) south of Clarksville, 2.0 mi (3.2 km) upstream from Shipetaukin Creek, and 7.6 mi (12.2 km) upstream of mouth.

DRAINAGE AREA.--34.3 mi^2 (88.8 km^2).

PERIOD OF RECORD.--Occasional low-flow measurements water years 1963-67. October 1972 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft (15.021 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 776 ft^3/s (22.0 m^3/s) Feb. 3, gage height, 8.58 ft (2.615 m); minimum, 14 ft^3/s (0.40 m^3/s) Sept. 27-29, gage height, 3.98 ft (1.213 m).
Flood of Aug. 28, 1971, reached a stage of 10.9 ft (3.32 m), discharge, 1,240 ft^3/s (35.1 m^3/s).

REMARKS.--Records fair. Some regulation from dams and ponds upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	38	140	64	69	53	95	64	37	107	16	15
2	26	35	108	58	243	52	335	58	35	52	19	20
3	26	34	80	54	312	53	276	56	33	42	20	33
4	20	36	64	98	428	86	165	59	31	59	18	27
5	19	43	58	86	157	90	269	54	41	59	16	24
6	19	47	140	64	120	69	126	49	36	44	16	40
7	78	44	185	50	155	62	87	46	30	35	15	31
8	108	108	135	46	201	86	155	44	28	31	15	23
9	84	338	195	42	130	92	171	70	27	28	14	19
10	50	359	170	38	100	76	120	82	15	25	14	16
11	36	120	130	36	82	68	102	59	25	26	15	15
12	26	71	100	35	70	63	81	48	31	34	15	14
13	27	56	80	33	63	60	70	44	64	31	14	13
14	25	146	70	32	65	56	64	42	36	27	15	64
15	21	327	102	33	102	62	60	41	31	28	15	72
16	21	230	150	35	107	64	57	41	30	34	16	32
17	20	102	100	36	73	124	55	41	30	28	16	22
18	20	69	66	37	61	128	53	48	30	26	16	30
19	25	57	63	46	60	85	50	43	32	24	16	22
20	35	205	66	66	62	70	47	41	34	22	15	19
21	36	200	70	52	70	62	46	41	120	24	15	17
22	32	120	200	60	74	58	45	43	400	27	15	16
23	29	80	180	85	66	55	44	43	200	24	16	17
24	27	70	140	68	60	52	53	53	80	21	15	19
25	24	62	100	54	56	52	50	55	55	20	14	16
26	21	100	85	50	55	188	184	56	47	19	14	17
27	20	90	80	100	55	163	205	50	43	19	14	18
28	26	70	70	270	54	82	199	87	40	19	14	18
29	78	60	62	460	------	67	115	89	200	18	15	42
30	65	54	58	310	------	64	76	59	242	17	15	28
31	47	------	62	116	------	63	------	45	------	16	14	------
TOTAL	1,116	3,371	3,309	2,614	3,150	2,405	3,455	1,651	2,083	986	477	759
MEAN	36.0	112	107	84.3	113	77.6	115	53.3	69.4	31.8	15.4	25.3
MAX	108	359	200	460	428	188	335	89	400	107	20	72
MIN	19	34	58	32	54	52	44	41	15	16	14	13
CFSM	1.05	3.27	3.12	2.46	3.29	2.26	3.35	1.55	2.02	.93	.45	.74
IN.	1.21	3.66	3.59	2.83	3.42	2.61	3.75	1.79	2.26	1.07	.52	.82

CAL YR 1972 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1973 TOTAL 25,376.00 MEAN 69.5 MAX 460 MIN 13 CFSM 2.03 IN 27.52

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	2100	7.06	459	01-29	-	-	About 650
11-15	1530	6.64	359	04-02	2030	6.78	390
02-03	1200	8.58	776	06-22	-	-	About 670

Note.--No gage-height record Nov. 21 to Feb. 13, June 12-30, and Aug. 29 to Sept. 25.

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 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--89.4 mi^2 (231.5 km^2).

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

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.97 ft (7.611 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--50 years, 123 ft^3/s (3.483 m^3/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,690 ft^3/s (76.2 m^3/s) Feb. 2 (gage height, 10.37 ft or 3.161 m); minimum, 33 ft^3/s (0.93 m^3/s) Sept. 12, 13, gage height, 2.55 ft (0.777 m).
Period of record: Maximum discharge, 3,920 ft^3/s (111 m^3/s) Aug. 28, 1971 (gage height, 13.46 ft or 4.103 m, from high-water mark in gage house); minimum, 1.0 ft^3/s (0.028 m^3/s) Aug. 21, Oct. 22, 1931 (gage height, 0.25 ft or 0.076 m); minimum daily, 4.0 ft^3/s (0.11 m^3/s) July 21, Aug. 8, Sept. 2, 1929.

REMARKS.--Records excellent except those for the period of no gage-height record which are fair. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority treatment plant, 2.4 mi (3.9 km) above station (records given herein). In addition there is an average inflow of about 2.0 ft^3/s (0.057 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	91	420	187	246	120	385	197	132	448	64	43
2	48	100	305	170	1,140	119	1,040	176	116	231	151	60
3	47	87	217	154	1,780	128	677	196	103	186	111	100
4	46	88	182	288	910	262	664	200	113	265	69	86
5	44	129	166	245	449	208	742	160	162	306	57	70
6	59	104	427	192	320	174	423	142	118	196	57	125
7	546	98	543	145	464	164	278	130	102	144	57	105
8	244	793	382	137	456	303	552	126	93	118	54	76
9	163	972	582	124	410	267	513	339	85	108	55	60
10	108	632	508	114	288	198	390	253	76	100	60	50
11	81	403	410	108	221	170	310	183	74	178	70	45
12	71	236	287	104	192	168	241	145	98	174	60	41
13	67	185	239	96	180	157	206	126	195	119	60	40
14	60	759	204	92	173	145	181	118	98	98	80	193
15	55	729	288	97	366	186	166	118	81	130	130	215
16	55	514	454	101	290	167	161	125	81	115	80	80
17	55	329	280	105	195	371	155	126	78	97	70	66
18	54	233	191	108	160	340	152	181	73	88	64	89
19	103	212	181	133	156	215	147	127	78	82	60	69
20	82	707	195	191	161	171	134	112	79	77	58	58
21	72	512	199	148	164	152	125	126	364	108	62	53
22	63	330	598	170	165	141	121	122	1,280	89	70	47
23	61	224	525	248	155	131	147	169	527	78	60	51
24	59	187	405	194	141	120	173	192	261	72	54	58
25	56	171	299	158	129	116	149	201	171	69	53	51
26	55	297	248	140	130	606	640	179	142	70	52	50
27	55	240	232	300	130	413	580	165	126	68	51	49
28	265	191	204	699	123	237	615	427	116	66	50	49
29	241	167	178	1,350	------	183	382	334	565	59	47	130
30	155	202	167	769	------	176	249	200	752	58	44	71
31	113	------	188	423	------	168	------	155	------	58	43	------
TOTAL	3,233	9,922	9,704	7,490	9,694	6,476	10,698	5,550	6,339	4,055	2,053	2,280
MEAN	104	331	313	242	346	209	357	179	211	131	66.2	76.0
MAX	546	972	598	1,350	1,780	606	1,040	427	1,280	448	151	215
MIN	44	87	166	92	123	116	121	112	73	58	43	40
(†)	10.8	17.5	18.7	15.0	17.4	15.7	20.1	15.6	14.1	15.0	10.9	11.1

CAL YR 1972 TOTAL 68,395 MEAN 187 MAX 972 MIN 33 † 14.3
WTR YR 1973 TOTAL 77,494 MEAN 212 MAX 1,780 MIN 40 † 15.1

PEAK DISCHARGE (BASE, 900, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0730	5.90	910	12-06	2130	6.29	1,060	4-02	0230	6.85	1,280
11-08	2030	7.20	1,420	1-29	0130	8.01	1,740	6-22	0245	9.23	2,230
11-14	1615	6.93	1,310	2-02	2300	10.37	2,690	6-29	1800	6.25	1,040
11-20	0600	6.05	962								

NOTE.--No gage-height record Aug. 9 to Sept. 11.

† Inflow from outside basin, 2.4 miles upstream of station, through Ewing-Lawrence Sewerage Authority

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 mi (2.6 km) downstream from toll bridge on U.S. Highway 1, 2.0 mi (3.2 km) downstream from Assunpink Creek, and at mile 131.80 (212.1 km) upstream from Atlantic Ocean.

DRAINAGE AREA.--6,870 mi^2 (17,793 km^2).

PERIOD OF RECORD.--May 1964 to current year. March 1921 to June 1946 (at municipal pier, 1.5 mi or 2.4 km 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 (3.932 m) below mean sea level. Gage-heigh 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.68	7.94	8.31	7.40	7.37	7.37	8.39	7.10	9.28	7.71	6.68	7.02
high tide	Date	23	8	22	29	2	17	5	31	30	1	1,2	15
Minimum	Elevation	-3.65	-3.12	-3.40	-3.55	-3.32	-3.81	-3.10	-3.31	-3.14	-3.32	-3.32	-3.15
low tide	Date	15	4	17	20	16	19	20	6	14	30,31	28	24
Mean high tide		5.26	6.09	5.85	5.49	5.50	5.68	6.10	6.14	6.02	6.08	5.88	5.61
Mean water level		1.42	2.53	2.29	1.82	1.90	1.94	2.49	2.46	2.21	-2.29	1.92	2.14
Mean low tide		-2.81	-1.34	-1.53	-2.20	-2.03	-2.10	-1.48	-1.76	-2.29	-2.49	-2.72	-2.34

Maximum elevation known, 17.9 ft (5.46 m) above mean sea level Aug. 20, 1955, from high-water mark; minimum elevation, 8.6 ft (2.62 m) below mean sea level Dec. 31, 1962, at site 1.4 mi (2.24 km) downstream.

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

NOTE.--No gage-height record July 3-18; 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 mi (0.8 km) upstream from Pleasant Run, and 0.7 mi (1.1 km) downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--83.6 mi^2 (216.5 km^2).

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 (7.602 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, (1940-51, 1952-73) 132 ft^3/s (3.738 m^3/s) 21,44 in/yr (545 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,720 ft^3/s (48.7 m^3/s) Nov. 9, gage height, 9.53 ft (2.905 m); minimum, 38 ft^3/s (1.08 m^3/s) Sept. 2, 13, 14, gage height, 2.48 ft (0.756 m).
Period of record: Maximum discharge, 5,180 ft^3/s (147 m^3/s) Aug. 28, 1971, gage height, 13.93 ft (4.246 m); minimum, 13.1 ft^3/s (0.37 m^3/s) Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft^3/s (0.45 m^3/s) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	123	572	219	253	126	190	217	180	318	60	40
2	51	116	608	192	426	126	702	176	131	148	62	38
3	46	116	320	162	1,450	131	942	164	116	128	74	40
4	44	100	226	223	836	232	548	199	108	210	88	101
5	44	199	190	286	432	238	806	180	155	169	71	91
6	49	174	183	197	284	187	548	155	131	185	64	71
7	366	128	376	152	522	164	302	140	126	123	57	118
8	934	314	298	155	760	199	378	133	116	101	53	83
9	488	1,220	548	171	544	306	690	215	103	86	51	64
10	174	1,060	624	140	354	197	494	340	91	108	49	57
11	121	524	628	118	230	162	446	228	81	194	57	51
12	103	264	418	113	192	152	262	176	76	152	71	44
13	98	188	276	106	162	150	203	148	74	118	60	40
14	83	774	223	103	152	138	178	136	71	98	60	46
15	76	1,370	206	108	247	145	162	126	64	93	74	162
16	74	760	404	113	286	152	155	126	64	152	128	106
17	71	406	312	116	192	332	155	121	101	113	98	78
18	66	247	187	121	178	534	150	133	81	93	74	76
19	103	185	176	128	150	238	138	126	86	81	66	93
20	169	760	183	199	150	185	136	113	71	74	60	69
21	121	884	194	169	162	160	128	143	69	93	55	55
22	103	420	480	148	199	145	128	143	266	296	62	51
23	96	249	852	217	155	136	126	128	616	162	71	51
24	88	190	696	185	143	131	178	169	342	113	60	55
25	83	167	496	152	136	126	164	157	178	91	55	49
26	78	249	318	140	136	470	438	152	140	83	51	46
27	74	382	259	176	133	822	800	140	118	78	49	46
28	116	247	217	768	126	370	840	245	111	78	49	44
29	406	197	185	1,090	------	206	622	366	150	74	46	78
30	274	174	169	1,040	------	178	320	201	408	62	44	108
31	145	------	197	448	------	171	------	241	------	62	40	------
TOTAL	4,801	12,187	11,021	7,655	8,990	7,009	11,329	5,437	4,424	3,936	1,959	2,051
MEAN	155	406	356	247	321	226	378	175	147	127	63.2	68.4
MAX	934	1,370	852	1,090	1,450	822	942	366	616	318	128	162
MIN	44	100	169	103	126	126	126	113	64	62	40	38
CFSM	1.85	4.86	4.26	2.95	3.84	2.70	4.52	2.09	1.76	1.52	.76	.82
IN.	2.14	5.42	4.90	3.41	4.00	3.12	5.04	2.42	1.97	1.75	.87	.91

CAL YR 1972 TOTAL 78,621 MEAN 215 MAX 1,370 MIN 42 CFSM 2.57 IN 34.98
WTR YR 1973 TOTAL 80,799 MEAN 221 MAX 1,450 MIN 38 CFSM 2.64 IN 35.95

PEAK DISCHARGE (BASE 750 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-08	0800	7.38	1,050	12-23	0700	6.79	910	3-27	0500	7.08	988
11-09	1700	9.53	1,720	1-29	2300	8.44	1,300	4-03	0300	7.67	1,100
11-15	0800	9.16	1,550	2-03	0900	9.46	1,680	4-28	1800	6.77	1,120
11-21	0200	7.54	1,080	2-08	0500	6.53	878				

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 Gas and Electric Company, 0.3 mi (0.5 km) downstream from Burlington-Bristol Bridge, 1.4 mi (2.3 km) downstream from Assiscunk Creek, and at mile 117.40 (188.9 km) upstream from Atlantic Ocean.

DRAINAGE AREA.--7,160 mi^2 (18,544 km^2).

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 (3.93 m) below mean sea level. Prior to May 20, 1971, water-stage recorder at site 0.8 mi (1.3 km) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum high tide	Elevation	6.07	7.31	7.74	6.93	6.64	6.86	7.93	6.60	8.58	8.55	6.4	6.58
	Date	23	8	22	29	8	17	5	31	30	1	2	15
Minimum low tide	Elevation	-4.17	-2.81	-5.67	-3.84	-4.99	-3.71	-2.93	-3.23	-2.96	-3.32	-9.76	-3.14
	Date	15	4	17	7	17	19	11,17	5	14	29	28	28
Mean high tide		4.72	5.54	5.29	4.97	4.83	5.11	5.53	5.62	5.40	5.53	5.33	5.06
Mean water level		1.23	2.14	1.91	1.47	1.41	1.61	2.03	2.00	1.73	1.75	1.37	1.41
Mean low tide		-2.53	-1.46	-1.68	-2.18	-2.25	-1.74	-1.67	-1.86	-2.20	-2.39	-2.62	-2.24

Maximum elevation known, 10.8 ft (3.29 m) above mean sea level Aug. 20, 1955, from high-water mark at site 1.4 mi (1.151 m) upstream; minimum elevation, 9.1 ft (2.77 m) 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 Feb. 1-6, Aug. 19 to Sept. 7. Summaries estimated upon the basis of records at Palymra and Trenton Marine Terminal.

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 (46 m) downstream from highway bridge on Lumberton-Vincentown road, 0.8 mi (1.3 km) west of Vincentown, 2.9 mi (4.7 km) southeast of Lumberton, and 3.1 mi (5.0 km) upstream from Southwest Branch.

DRAINAGE AREA.--53.3 mi^2 (138.0 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 13.17 ft (4.014 m) above mean sea level. Prior to Oct. 30, 1961, at site 150 ft (46 m) upstream at same datum.

AVERAGE DISCHARGE.--12 years, 93.7 ft^3/s (2.654 m^3/s), 23.87 in/yr (606 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,110 ft^3/s (31.4 m^3/s) Nov. 9, gage height, 7.56 ft (2.304 m); minimum, 8.2 ft^3/s (0.23 m^3/s) Sept. 13, 14, gage height, 0.01 ft (0.003 m).
Period of record: Maximum discharge, 1,110 ft^3/s (31.4 m^3/s) Nov. 9, gage height, 7.56 ft (2.304 m); minimum, 2.8 ft^3/s (0.079 m^3/s) July 17, 18, Aug. 9, 1966.

REMARKS.--Records excellent. Occasional regulation by lakes and ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	116	406	190	257	102	164	249	140	260	29	19
2	38	113	336	173	428	100	370	194	122	136	31	15
3	29	131	252	149	736	119	366	150	109	100	36	17
4	37	116	217	183	474	145	301	149	100	126	32	28
5	37	125	193	198	398	148	424	130	97	238	29	25
6	37	130	191	172	365	169	280	110	91	305	26	23
7	151	114	319	142	450	146	231	121	87	144	24	24
8	252	267	247	130	393	203	348	150	80	94	21	20
9	219	981	448	126	330	198	396	146	76	75	20	18
10	160	630	492	115	265	162	335	172	63	65	18	18
11	130	476	513	100	213	148	310	137	58	60	13	17
12	147	398	372	96	202	141	242	133	46	79	14	12
13	130	313	316	91	171	121	196	119	33	67	14	8.2
14	97	533	260	88	145	106	146	100	53	57	15	9.6
15	81	778	239	88	176	107	131	106	46	57	15	30
16	69	518	338	87	187	105	131	95	50	107	32	44
17	78	398	251	84	153	193	175	89	76	93	53	34
18	69	325	188	82	144	219	134	117	65	74	49	34
19	71	261	155	88	134	159	111	108	65	63	44	31
20	98	543	155	129	124	131	102	131	77	53	39	21
21	95	456	157	127	120	122	96	125	74	51	33	20
22	116	313	366	127	119	115	89	104	110	64	34	21
23	106	256	454	185	119	106	96	94	222	63	37	22
24	93	215	448	165	116	100	113	105	190	53	35	23
25	81	192	356	138	111	94	106	107	141	45	32	33
26	80	216	310	128	110	324	286	106	116	41	29	22
27	64	253	271	141	107	344	363	112	100	40	27	17
28	73	217	231	332	106	220	366	198	89	37	25	15
29	151	189	194	605	------	174	280	269	113	33	23	20
30	139	176	172	496	------	165	219	199	307	32	22	45
31	126	------	177	328	------	155	------	164	------	30	21	------
TOTAL	3,104	9,749	9,024	5,283	6,653	4,841	6,907	4,289	2,996	2,742	872	685.8
MEAN	100	325	291	170	238	156	230	138	99.9	88.5	28.1	22.9
MAX	252	981	513	605	736	344	424	269	307	305	53	45
MIN	29	113	155	82	106	94	89	89	33	30	13	8.2
CFSM	1.88	6.10	5.46	3.19	4.47	2.93	4.32	2.59	1.87	1.66	.53	.43
IN.	2.17	6.80	6.30	3.69	4.64	3.38	4.82	2.99	2.09	1.91	.61	.48

CAL YR 1972 TOTAL 57,087.0 MEAN 156 MAX 981 MIN 22 CFSM 2.93 IN 39.84
WTR YR 1973 TOTAL 57,145.8 MEAN 157 MAX 981 MIN 8.2 CFSM 2.95 IN 39.88

PEAK DISCHARGE (BASE, 550 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	~~TIME~~	~~G.H.~~	~~DISCHARGE~~
11-09	0900	7.56	1,110	~~1-29~~	1400	6.45	715
11-14	2300	7.10	930	2-03	0100	6.93	862
11-20	1500	6.26	665				

01466500 McDonalds Branch in Lebanon State Forest, N. J.
(hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, on right bank in Lebanon State Forest, 25 ft (7.6 m) upstream from Butterworth Road Bridge, 3.4 mi (5.5 km) upstream from confluence with Cooper Branch, and 7.0 mi (11.3 km) southeast of Browns Mills.

DRAINAGE AREA.--2.31 mi^2 (5.98 km^2).

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 (35.884 m) above mean sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--20 years, 2.32 ft^3/s (0.0657 m^3/s), 13.64 in/yr (346 mm/yr).

EXTREMES.--Current year: Maximum discharge, 13 ft^3/s (0.37 m^3/s) Nov. 9, 15, Feb. 3; maximum gage height, 1.84 ft (0.561 m) Nov. 9, 15; minimum, 1.2 ft^3/s (0.034 m^3/s) Sept. 26, 27, gage height, 1.10 ft (0.335 m).
Period of record: Maximum discharge, 35 ft^3/s (0.99 m^3/s) Aug. 25, 1958, gage height, 2.33 ft (0.710 m); minimum daily, 0.8 ft^3/s (0.023 m^3/s) 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 (239 m) 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.5	7.0	5.2	5.0	4.3	4.4	4.4	3.9	3.3	2.0	1.5
2	1.5	2.4	5.8	5.0	7.8	4.3	6.6	4.3	3.8	2.9	2.1	1.5
3	1.4	2.4	5.0	5.0	10	4.3	5.8	4.4	3.7	2.8	2.1	1.5
4	1.4	2.3	4.6	5.6	7.0	5.0	6.2	4.5	3.7	2.7	2.0	1.5
5	1.4	2.7	4.4	5.4	6.0	4.6	7.6	4.3	3.8	3.2	2.0	1.5
6	1.4	2.7	4.5	5.1	5.6	4.4	5.6	4.1	3.7	2.9	2.0	1.5
7	5.1	2.7	5.0	4.8	8.6	4.3	5.0	3.9	3.6	2.6	1.8	1.5
8	4.6	4.5	5.0	4.4	8.0	4.3	6.8	3.8	3.5	2.4	1.8	1.4
9	3.6	12	7.0	4.3	7.2	4.3	6.8	5.2	3.3	2.3	1.8	1.4
10	2.8	6.2	7.6	4.1	6.2	4.1	6.6	5.0	3.2	2.2	1.8	1.4
11	2.4	4.6	7.0	4.1	5.6	3.9	6.0	4.5	3.0	2.3	1.8	1.4
12	2.3	4.3	5.8	4.1	5.1	3.9	5.4	4.3	2.9	2.4	1.8	1.4
13	2.2	3.8	5.2	3.9	5.0	3.9	5.0	4.1	3.2	2.3	1.8	1.3
14	2.2	6.6	5.0	3.8	5.0	3.7	4.6	3.9	3.0	2.2	1.8	1.5
15	2.1	9.9	5.2	3.8	6.0	3.7	4.6	3.8	2.9	2.8	2.6	1.8
16	2.1	5.8	6.0	3.8	5.8	3.7	4.5	3.9	3.0	3.0	3.5	1.6
17	2.0	4.8	5.4	3.8	5.0	4.5	4.5	3.8	3.4	2.4	2.2	1.5
18	2.0	4.5	4.8	3.9	4.6	4.3	4.4	3.8	3.2	2.3	2.0	1.6
19	2.3	4.3	4.8	4.3	4.5	3.9	4.3	3.7	3.5	2.2	1.9	1.5
20	2.4	7.4	4.6	4.8	4.6	3.8	4.3	3.6	3.4	2.2	1.8	1.4
21	2.2	6.4	4.6	4.3	4.8	3.7	3.9	3.7	3.2	2.3	1.6	1.3
22	2.2	5.1	8.6	4.3	4.8	3.6	3.9	3.6	5.0	2.6	1.8	1.3
23	2.2	4.6	8.8	4.6	4.6	3.6	4.1	3.8	5.4	2.3	1.8	1.3
24	2.2	4.4	8.0	4.4	4.5	3.6	4.5	4.1	4.3	2.2	1.6	1.3
25	2.1	4.3	6.4	4.1	4.5	3.5	4.1	4.1	3.7	2.1	1.6	1.3
26	2.1	5.1	5.8	3.8	4.5	7.0	6.2	3.9	3.5	2.1	1.6	1.3
27	2.0	5.1	5.6	4.6	4.5	6.0	6.6	4.3	3.4	2.1	1.6	1.2
28	2.3	4.5	5.4	6.4	4.4	4.8	7.0	5.4	3.3	2.1	1.6	1.2
29	2.9	4.3	5.1	10	------	4.4	5.2	5.2	3.2	2.1	1.6	1.6
30	2.9	4.4	5.0	7.2	------	4.3	4.6	4.4	3.6	2.0	1.5	1.4
31	2.7	------	5.1	5.4	------	4.1	------	4.4	------	2.0	1.5	------
TOTAL	72.5	144.6	178.1	148.3	159.2	131.8	159.1	130.2	106.3	75.3	58.4	42.9
MEAN	2.34	4.82	5.75	4.78	5.69	4.25	5.30	4.20	3.54	2.43	1.88	1.43
MAX	5.1	12	8.8	10	10	7.0	7.6	5.4	5.4	3.3	3.5	1.8
MIN	1.4	2.3	4.4	3.8	4.4	3.5	3.9	3.6	2.9	2.0	1.5	1.2
CFSM	1.01	2.09	2.49	2.07	2.46	1.84	2.29	1.82	1.53	1.05	.81	.62
IN.	1.17	2.33	2.87	2.39	2.56	2.12	2.56	2.10	1.71	1.21	.94	.69

CAL YR 1972 TOTAL 1,258.5 MEAN 3.44 MAX 12 MIN 1.4 CFSM 1.49 IN 20.27
WTR YR 1973 TOTAL 1,406.7 MEAN 3.85 MAX 12 MIN 1.2 CFSM 1.67 IN 22.65

PEAK DISCHARGE (BASE, 7.0 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0800	1.63	7.6	12-22	1800	1.73	9.9	4-04	1645	1.68	8.6
11-09	0815	1.84	13	1-29	1515	1.77	11	4-08	2030	1.64	7.8
11-15	0115	1.84	13	2-03	0230	1.83	13	4-27	1615	1.63	7.6
11-20	0400	1.66	8.2	2-07	1815	1.71	9.3	6-22	1615	1.63	7.6
12-01	0130	1.62	7.4	3-26	0630	1.68	8.6				

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 mi (19 km) upstream from confluence with South Branch.

DRAINAGE AREA.--111 mi^2 (287 km^2).

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

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft (9.507 m) 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 (183 m) downstream at datum 6.54 ft (1.993 m) lower.

AVERAGE DISCHARGE.--52 years, 170 ft^3/s (4.814 m^3/s), 20.80 in/yr (528 mm/yr).

EXTREMES.--Current year: Maximum discharge, 864 ft^3/s (24.5 m^3/s) Feb. 3, gage height, 2.83 ft (0.863 m); minimum, 60 ft^3/s (1.70 m^3/s) Aug. 31, gage height, 1.54 ft (0.469 m).
Period of record: Maximum discharge, 1,730 ft^3/s (49.0 m^3/s) Aug. 31, 1939 (gage height, 4.23 ft or 1.289 m, from high-water mark at former site, present datum); minimum daily, 9.0 ft^3/s (0.25 m^3/s) Sept. 29, 1932.

REMARKS.--Records excellent except those above 400 ft^3/s (11.3 m^3/s), 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	225	430	358	448	220	313	406	236	220	95	63
2	77	175	418	352	523	215	454	335	225	205	95	63
3	77	185	370	388	856	230	537	329	220	180	100	66
4	85	195	335	436	736	263	558	340	210	190	105	77
5	85	210	313	448	544	291	558	329	205	313	95	70
6	95	205	302	424	442	324	551	307	200	329	90	70
7	424	210	364	269	537	274	442	274	190	247	80	80
8	537	370	376	200	640	291	572	269	200	170	80	80
9	388	744	460	195	593	252	558	302	185	150	77	70
10	302	808	537	190	467	258	537	329	170	135	77	66
11	236	648	616	185	424	252	495	382	155	155	73	70
12	205	544	586	200	358	241	400	370	145	180	73	70
13	241	418	516	210	329	236	376	329	135	170	66	70
14	180	558	454	205	307	236	352	291	130	135	63	80
15	155	704	388	205	358	236	329	258	125	140	73	105
16	150	672	424	200	346	258	291	205	120	180	125	100
17	145	558	412	205	313	324	280	195	155	170	120	96
18	150	488	388	215	296	324	269	205	180	150	100	93
19	180	400	335	220	280	340	258	185	185	135	90	90
20	200	544	313	258	274	280	269	180	180	120	77	90
21	190	551	302	258	269	258	247	195	185	135	73	85
22	170	523	430	263	274	241	225	200	274	190	77	80
23	175	436	544	302	274	225	220	195	436	205	80	100
24	180	382	680	285	258	215	274	200	388	160	77	100
25	155	352	640	263	241	205	307	210	291	125	73	73
26	135	376	565	241	236	370	523	225	263	110	70	70
27	125	364	495	291	236	481	593	241	230	110	70	66
28	160	388	448	454	225	430	640	346	220	110	70	66
29	269	358	324	616	------	346	586	406	200	100	66	100
30	263	318	335	672	------	329	418	352	263	90	66	100
31	252	------	352	558	------	324	------	302	------	90	63	------
TOTAL	6,071	12,909	13,452	9,566	11,084	8,769	12,432	8,692	6,301	5,099	2,539	2,409
MEAN	196	430	434	309	396	283	414	280	210	164	81.9	80.3
MAX	537	808	680	672	856	481	640	406	436	329	125	105
MIN	77	175	302	185	225	205	220	180	120	90	63	63
CFSM	1.77	3.87	3.91	2.78	3.57	2.55	3.73	2.52	1.89	1.48	.74	.72
IN.	2.03	4.33	4.51	3.21	3.71	2.94	4.17	2.91	2.11	1.71	.85	.81

CAL YR 1972 TOTAL 91,937 MEAN 251 MAX 808 MIN 53 CFSM 2.26 IN 30.81
WTR YR 1973 TOTAL 99,323 MEAN 272 MAX 856 MIN 63 CFSM 2.45 IN 33.29

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-08	0045	2.52	618	12-11	1700	2.53	624	2-03	1500	2.83	864
11-10	0615	2.78	824	12-24	1215	2.61	688	2-08	1745	2.57	656
11-15	0145	2.64	712	1-30	1215	2.60	680	4-28	0730	2.56	648

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 mi (0.8 km) upstream from Tacony-Palmyra Bridge, 3.5 mi (5.6 km) downstream from Rancocas Creek, and at mile 107.45 (172.89 km).

DRAINAGE AREA.--7,850 mi^2 (20,332 km^2).

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 (3.048 m) below mean sea level. Water-stage recorder at same datum at Torresdale Intake, 2.5 mi (4.0 km) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.62	6.83	7.31	6.50	6.33	6.42	7.39	6.14	8.11	8.00	5.81	6.16
high tide	Date	23	10	22	29	2	17	5	31	30	1	2	15
Minimum	Elevation	-3.51	-2.85	-4.10	-3.68	-2.33	-3.57	-2.28	-2.28	-2.27	-2.27	-2.27	-2.27
low tide	Date	15	1	17	7	17	19	12,13	5	-	-	27-30	-
Mean high tide		4.32	4.90	4.77	4.45	4.50	4.68	5.04	5.17	4.98	5.13	4.90	4.72
Mean water level		1.28	1.80	1.72	1.31	1.47	1.63	1.88	1.93	1.73	1.77	1.64	1.57
Mean low tide		-2.10	-1.53	-1.57	-2.02	-1.72	-1.69	-1.47	-1.55	-1.82	-1.87	-1.95	-1.93

Maximum high tide known since 1899, 8.9 ft (2.7 m) above mean sea level Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army; minimum low tide, 8.6 ft (2.6 m) below mean sea level Dec. 31, 1962.

Note.--Minimum low tide for June occurred on 4, 5, 14.
Minimum low tide for July occurred on 24, 25, 28-31.
Minimum low tide for Sept. occurred on 8, 19, 23, 24, 28.

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 in Cherry Hill, 1.1 mi (1.8 km) south of Maple Shade and 3.8 mi (6.1 km) upstream from the confluence with the North Branch.

DRAINAGE AREA.--9.16 mi^2 (23.72 km^2).

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.12 ft (2.475 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 18.4 ft^3/s (0.521 m^3/s), 27.27 in/yr (693 mm/yr).

EXTREMES.--Current year: Maximum discharge, 555 ft^3/s (15.7 m^3/s) Feb. 2, gage height, 8.80 ft (2.682 m); minimum, 3.7 ft^3/s (0.10 m^3/s) Sept. 3, 18, 26, gage height, 1.90 ft (0.579 m).
Period of record: Maximum discharge, 781 ft^3/s (22.1 m^3/s) Aug. 28, 1971, gage height, 11.34 ft (3.456 m); minimum, 2.6 ft^3/s (0.074 m^3/s) Oct. 6, 9, 10, 11, 1970, gage height, 1.71 ft (0.521 m).

REMARKS.--Records excellent.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	8.7	94	24	16	10	89	17	15	15	6.6	4.9
2	5.4	12	25	18	255	10	151	15	13	11	11	5.1
3	5.1	9.6	18	15	150	19	35	18	11	11	7.0	6.4
4	5.1	12	15	48	29	40	101	19	19	26	6.6	6.1
5	5.2	22	14	25	22	19	48	14	37	11	6.3	5.4
6	6.4	9.6	60	18	23	14	23	13	17	8.7	6.3	5.5
7	321	8.2	59	14	66	15	19	12	12	7.7	6.1	5.2
8	28	256	49	12	37	51	102	13	10	7.5	6.0	4.9
9	11	206	113	12	33	26	35	61	9.6	7.2	6.0	4.8
10	7.5	28	112	11	18	17	42	22	9.2	7.0	5.5	5.2
11	6.7	18	39	11	15	16	23	15	8.5	35	5.4	5.2
12	6.7	14	27	10	13	22	18	13	8.2	15	5.1	5.5
13	6.6	12	27	10	12	16	16	12	12	8.2	5.4	5.7
14	6.3	290	21	10	15	14	15	11	8.5	7.5	5.4	33
15	6.0	75	48	11	51	15	13	12	6.4	33	16	20
16	6.1	24	55	12	26	16	13	13	39	15	7.7	5.7
17	6.3	17	22	13	15	73	13	19	38	8.0	5.7	5.1
18	5.7	14	17	16	11	27	13	34	13	7.5	5.5	16
19	32	22	18	28	11	17	13	14	14	7.0	5.5	6.1
20	13	185	24	34	12	14	13	32	12	7.2	5.7	5.2
21	7.7	30	23	15	13	13	12	30	12	13	5.5	5.1
22	6.7	19	117	27	14	12	12	16	50	8.5	7.7	5.1
23	6.6	15	53	35	13	11	25	24	25	7.0	5.7	5.8
24	6.4	13	36	18	11	11	30	22	12	6.7	5.4	5.1
25	6.3	12	26	15	10	10	20	20	9.6	6.4	5.4	4.3
26	6.1	42	23	13	11	146	192	16	8.7	6.6	5.2	4.8
27	6.3	21	24	41	11	30	49	38	9.0	6.4	5.7	4.9
28	88	15	19	54	10	19	51	75	8.0	6.4	5.5	5.4
29	62	12	16	234	------	16	25	31	105	6.1	5.2	9.2
30	16	43	20	29	------	16	19	19	53	6.1	5.1	7.7
31	10	------	27	18	------	16	------	30	------	6.1	5.1	------
TOTAL	718.8	1,465.1	1,241	851	923	751	1,230	700	604.7	334.8	196.3	218.4
MEAN	23.2	48.8	40.0	27.5	33.0	24.2	41.0	22.6	20.2	10.8	6.33	7.28
MAX	321	290	117	234	255	146	192	75	105	35	16	33
MIN	5.1	8.2	14	10	10	10	12	11	6.4	6.1	5.1	4.3
CFSM	2.53	5.33	4.37	3.00	3.60	2.64	4.48	2.47	2.21	1.18	.69	.79
IN.	2.92	5.95	5.04	3.46	3.75	3.05	5.00	2.84	2.46	1.36	.80	.89

CAL YR 1972 TOTAL 8,317.0 MEAN 22.7 MAX 321 MIN 5.1 CFSM 2.48 IN 33.78
WTR YR 1973 TOTAL 9,234.1 MEAN 25.3 MAX 321 MIN 4.3 CFSM 2.76 IN 37.50

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0745	8.53	530	11-20	0415	7.15	390	3-26	0545	6.36	311
10-28	1815	6.94	370	1-29	0745	7.04	380	4-01	2130	6.90	365
11-08	2330	8.26	500	2-02	1545	8.80	555	4-26	0545	7.37	410
11-14	1315	8.46	520								

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 (61 m) upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi (1.0 km) upstream from North Branch Cooper River, and 7.7 mi (12.4 km) upstream from mouth.

DRAINAGE AREA.--17.4 mi^2 (45.1 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft (2.832 m) above mean sea level.

AVERAGE DISCHARGE.--10 years, 32.8 ft^3/s (0.929 m^3/s), 25.60 in/yr (650 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,270 ft^3/s (35.9 m^3/s) Feb. 2, gage height, 3.71 ft (1.131 m); minimum, 0.8 ft^3/s (0.023 m^3/s) Nov. 13 (gage height, 1.07 ft or 0.336 m, regulation from unknown source. Period of record: Maximum discharge 3,300 ft^3/s (93.5 m^3/s) Aug. 28, 1971, gage height, 5.46 ft (1.664 m); minimum, 0.8 ft^3/s (0.023 m^3/s) Nov. 13, 1972 (gage height 1.07 ft or 0.326 m) regulation from unknown source.

REMARKS.--Records good. 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-NJ 1969: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	20	144	45	36	33	112	38	41	36	18	13
2	15	25	55	38	470	36	226	38	33	29	22	13
3	14	25	41	36	276	45	77	48	31	31	20	14
4	14	27	36	79	33	79	161	45	43	50	19	16
5	15	38	36	50	50	53	112	36	63	29	17	17
6	20	22	103	41	50	43	53	31	36	25	17	19
7	343	20	109	33	119	41	45	31	29	25	17	19
8	50	330	88	31	74	100	186	33	27	24	15	16
9	22	240	190	31	71	66	82	116	25	22	15	14
10	20	53	217	29	45	48	88	53	25	22	14	14
11	22	38	85	29	38	48	55	38	25	74	14	14
12	18	33	55	29	33	48	48	33	27	36	14	13
13	20	33	50	27	33	43	43	31	36	25	15	13
14	22	429	43	27	38	38	41	31	29	24	14	50
15	20	134	85	29	106	33	38	36	25	66	35	50
16	22	48	97	29	58	38	38	38	50	45	32	18
17	24	38	48	31	38	165	41	45	36	33	26	15
18	22	33	38	33	31	69	41	66	31	24	23	27
19	66	48	38	55	31	43	38	33	43	20	21	17
20	38	285	43	63	31	36	38	63	31	19	23	15
21	27	63	43	41	36	33	38	58	27	21	19	14
22	25	41	182	50	38	33	36	38	94	20	25	13
23	25	33	103	63	36	33	55	53	45	20	22	14
24	27	31	71	41	33	31	60	45	29	20	21	14
25	25	38	50	36	33	31	45	45	31	20	20	14
26	24	74	45	36	36	244	285	38	31	20	18	14
27	24	45	48	74	36	74	100	69	31	19	19	15
28	134	38	41	106	33	48	106	130	29	19	19	16
29	88	33	38	316	------	38	53	60	165	18	17	18
30	27	74	43	66	------	38	43	43	112	17	15	19
31	20	------	48	41	------	38	------	71	------	16	14	------
TOTAL	1,248	2,389	2,313	1,635	1,942	1,746	2,384	1,533	1,280	869	600	538
MEAN	40.3	79.6	74.6	52.7	69.4	56.3	79.5	49.5	42.7	28.0	19.4	17.9
MAX	343	429	217	316	470	244	285	130	165	74	35	50
MIN	14	20	36	27	31	31	36	31	25	16	14	13
CFSM	2.32	4.57	4.29	3.03	3.99	3.24	4.57	2.84	2.45	1.61	1.11	1.03
IN.	2.67	5.11	4.95	3.50	4.15	3.73	5.10	3.28	2.74	1.86	1.28	1.15

CAL YR 1972 TOTAL 16,773.7 MEAN 45.8 MAX 429 MIN 5.7 CFSM 2.63 IN 35.86
WTR YR 1973 TOTAL 18,477.0 MEAN 50.6 MAX 470 MIN 13 CFSM 2.91 IN 39.50

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	0745	2.93	588	11-14	1545	3.20	780
11-08	1445	2.95	600	2-02	2000	3.71	1,270

01474500 Schuylkill River at Philadelphia, Pa.

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, on right bank 150 ft (46 m) upstream from Fairmont Dam, 1,500 ft (457 m) upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi (14.0 km) upstream from mouth.

DRAINAGE AREA.--1,893 sq mi (4,903 sq km).

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 (1.750 m) above mean sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmont Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmont Dam at same datum.

AVERAGE DISCHARGE.--42 years, 2,859 cfs (80.97 cu m/s), 20.51 in/yr (521 mm/yr), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 50,700 cfs (1,440 cu m/s) June 29 (gage height, 11.43 ft or 3.484 m); minimum, 448 cfs (12.7 cu m/s) Oct. 16, 18 (gage height, 5.78 ft or 1.762 m); minimum daily discharge, 490 cfs (13.9 cu m/s) Oct. 5, 16-18.
Period of record: Maximum discharge, 103,000 cfs (2,920 cu m/s) June 23, 1972 (gage height, 14.65 ft or 4.465 m); no flow over dam at times; minimum daily, 0.6 cfs (0.02 cu m/s) Sept. 2, 1966.
Maximum stage known, 17.0 ft (5.18 m) Oct. 4, 1896 (discharge, 135,000 cfs or 3,820 cu m/s, from rating curve extended above 46,000 cfs or 1,300 cu m/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft or 4.511 m (discharge, 98,000 cfs or 2,780 cu m/s).

REMARKS.--Records good except those below 1,000 cfs (28.3 cu m/s) 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 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	853	7,360	9,950	5,630	2,010	4,580	3,550	6,240	8,280	1,240	702
2	625	822	5,980	9,110	12,000	2,150	19,000	3,270	4,940	5,550	14,100	764
3	571	822	4,540	6,730	21,700	2,200	13,400	3,290	4,290	4,460	8,010	676
4	544	977	4,080	8,480	13,600	3,160	11,100	3,620	3,880	9,400	3,120	723
5	490	1,010	3,850	8,760	9,820	3,480	15,000	3,230	4,350	7,400	2,290	644
6	544	822	4,480	6,660	7,860	3,110	10,400	2,840	3,610	5,540	1,880	694
7	2,030	760	11,300	5,380	7,080	2,960	8,230	2,590	3,010	4,050	1,640	703
8	1,580	6,870	9,810	4,540	6,350	3,480	10,400	2,470	4,800	3,430	1,450	671
9	1,010	22,600	16,400	4,080	7,670	4,240	11,200	3,510	3,450	2,960	1,330	651
10	706	8,760	12,200	3,740	5,660	3,630	12,100	3,870	2,880	2,690	1,240	637
11	625	5,020	11,500	3,480	4,620	3,320	11,200	3,380	2,530	2,920	1,470	635
12	571	3,690	8,760	3,210	4,040	3,420	8,680	4,490	2,300	2,670	3,230	611
13	544	2,910	7,640	2,910	3,740	3,320	7,320	4,230	4,970	2,280	1,880	562
14	571	16,600	6,660	2,810	3,590	2,910	6,160	3,840	3,060	2,100	1,780	1,300
15	544	20,200	6,450	2,710	5,000	2,860	5,360	3,420	2,210	2,330	1,610	7,650
16	490	9,320	11,500	2,660	5,360	3,010	4,810	3,290	1,950	2,280	1,620	5,800
17	490	6,170	7,360	2,570	4,040	4,020	4,370	3,200	2,010	1,950	1,490	2,900
18	490	4,720	5,620	2,500	3,180	5,500	4,100	3,400	1,960	1,750	1,320	2,290
19	733	3,960	5,080	2,550	3,050	4,900	3,860	3,120	1,950	1,630	1,270	2,920
20	679	14,200	4,900	3,210	2,910	4,190	3,540	2,950	1,930	1,530	1,380	2,580
21	652	8,690	5,380	3,110	2,820	3,690	3,240	3,600	1,810	1,990	1,360	1,980
22	625	5,800	13,100	2,930	2,780	3,370	3,070	3,620	4,350	2,340	1,250	1,730
23	571	4,660	11,700	5,860	2,680	3,060	3,110	3,110	3,380	1,960	1,100	1,720
24	598	3,910	9,320	6,310	2,530	2,710	3,590	3,200	2,930	1,630	1,010	1,840
25	571	3,420	7,710	4,640	2,390	2,570	3,210	3,380	3,510	1,390	941	1,630
26	544	6,310	6,660	3,950	2,260	6,870	6,210	3,750	2,250	1,310	919	1,340
27	517	8,620	6,310	5,190	2,200	6,450	5,480	3,320	1,940	1,350	872	1,240
28	1,140	5,980	5,620	11,100	2,100	4,300	6,940	10,200	2,080	1,370	853	1,170
29	1,110	5,020	4,780	18,900	------	3,480	5,210	11,600	21,400	1,240	756	1,400
30	791	4,660	4,240	10,600	------	3,260	4,030	10,000	24,900	1,130	673	1,880
31	1,040	------	4,420	7,060	------	3,460	------	7,520	------	1,120	655	------
TOTAL	22,648	188,156	234,710	175,690	156,660	111,090	218,900	130,860	134,870	92,030	63,739	50,043
MEAN	731	6,272	7,571	5,667	5,595	3,584	7,297	4,221	4,496	2,969	2,056	1,668
MAX	2,030	22,600	16,400	18,900	21,700	6,870	19,000	11,600	24,900	9,400	14,100	7,650
MIN	490	760	3,850	2,500	2,100	2,010	3,070	2,470	1,810	1,120	655	562
(≠)	265	259	257	254	248	231	235	246	310	310	314	304
MEAN≠	996	6,531	7,828	5,921	5,843	3,815	7,532	4,467	4,806	3,279	2,370	1,972
CFSM≠	.53	3.45	4.14	3.13	3.09	2.02	3.98	2.36	2.54	1.73	1.25	1.04
IN.≠	.61	3.85	4.77	3.61	3.22	2.33	4.44	2.72	2.83	1.99	1.44	1.16

CAL YR 1972 TOTAL 1,606,052 MEAN 4,388 MAX 93,400 MIN 490 MEAN≠ 4,651 CFSM≠ 2.46 IN.≠ 33.47
WTR YR 1973 TOTAL 1,579,396 MEAN 4,327 MAX 24,900 MIN 490 MEAN≠ 4,596 CFSM≠ 2.43 IN.≠ 32.97

PEAK DISCHARGE (BASE, 18,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
11-14	2015	10.48	38,400	4- 2	1600	9.03	22,700
11-20	1100	8.83	20,800	4- 5	0230	8.53	18,100
1-29	1200	9.36	26,000	6-29	2315	11.43	50,700
2- 2	2230	9.69	29,400	8- 2	1915	9.71	29,600

≠ 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 mi (1.5 km) east of Pitman, and 2.0 mi (3.2 km) upstream from Porch Branch.

DRAINAGE AREA.--6.05 mi^2 (15.67 km^2).

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 (20.882 m) above mean sea level.

AVERAGE DISCHARGE.--33 years, 11.4 ft^3/s (0.323 m^3/s), 25.59 in/yr (650 mm/yr).

EXTREMES.--Current year: Maximum discharge, 152 ft^3/s (4.30 m^3/s) Feb. 2, gage height, 1.84 ft (0.561 m); minimum, 5.2 ft^3/s (0.15 m^3/s) Sept. 2, gage height, 1.04 ft (0.317 m).
Period of record: Maximum discharge, about 4,200 ft^3/s (119 m^3/s) Sept. 1, 1940 (gage height, 6.64 ft or 2.024 m) by computation of peak flow over dam and through break in earth dike; minimum, 2.5 ft^3/s (0.071 m^3/s) for several days in July 1966, gage height, 0.93 ft (0.283 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD-NJ 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	30	17	16	15	25	18	14	13	8.5	7.6
2	9.8	10	18	16	69	15	29	16	14	11	8.8	7.6
3	9.8	11	16	17	47	16	20	15	14	12	8.8	8.0
4	9.8	12	15	32	25	22	37	17	13	17	8.5	9.2
5	9.8	15	13	14	20	17	33	15	15	11	8.5	8.0
6	10	12	22	15	19	15	19	15	13	9.2	8.5	7.6
7	51	12	27	14	26	16	18	14	12	9.2	8.5	5.8
8	16	46	25	12	23	29	47	15	12	9.2	8.3	6.4
9	11	42	47	13	22	22	27	29	12	8.8	8.3	6.4
10	9.8	15	30	13	18	17	26	18	12	8.5	8.3	6.4
11	9.8	15	22	13	17	16	20	16	11	11	8.3	6.4
12	9.8	14	18	13	17	16	19	15	10	13	8.0	6.4
13	9.2	13	17	13	17	16	18	16	14	8.8	7.6	6.4
14	9.2	69	16	13	17	16	18	15	13	8.5	8.0	8.5
15	9.2	32	20	13	30	16	18	15	11	10	8.3	12
16	9.2	20	23	13	19	17	17	15	13	12	8.8	8.3
17	9.2	17	16	13	18	42	16	15	20	9.2	8.0	8.0
18	8.5	15	15	13	16	19	18	17	13	8.8	7.6	8.5
19	13	15	15	16	16	16	16	14	12	8.5	7.6	8.3
20	12	42	16	22	16	16	16	18	12	8.5	7.6	8.0
21	9.8	20	15	14	16	15	16	19	12	9.2	7.6	7.6
22	9.8	17	38	15	17	15	16	15	19	11	8.3	8.0
23	9.8	17	27	17	16	15	16	15	18	8.8	8.0	8.0
24	9.8	15	22	14	15	15	19	19	13	8.8	8.0	8.0
25	9.8	14	18	13	15	15	18	19	12	8.5	8.0	7.6
26	9.2	19	17	13	15	51	47	14	12	8.5	8.0	7.6
27	9.2	16	17	20	15	16	29	23	11	8.5	8.0	8.0
28	22	15	16	27	15	17	32	33	11	8.5	7.6	8.0
29	23	14	15	49	------	16	20	20	46	8.3	7.6	8.0
30	12	18	16	20	------	16	18	16	38	8.3	7.6	8.0
31	10	------	18	17	------	16	------	16	------	8.3	7.6	------
TOTAL	380.5	602	640	524	592	581	688	537	452	303.9	251.1	232.6
MEAN	12.3	20.1	20.6	16.9	21.1	18.7	22.9	17.3	15.1	9.80	8.10	7.75
MAX	51	69	47	49	69	51	47	33	46	17	8.8	12
MIN	8.5	10	13	12	15	15	16	14	10	8.3	7.6	5.8
CFSM	2.03	3.32	3.41	2.79	3.49	3.09	3.79	2.86	2.50	1.62	1.34	1.28
IN.	2.34	3.70	3.94	3.22	3.64	3.57	4.23	3.30	2.78	1.87	1.54	1.43

CAL YR 1972 TOTAL 5,280.0 MEAN 14.4 MAX 81 MIN 8.0 CFSM 2.38 IN 32.47
WTR YR 1973 TOTAL 5,784.1 MEAN 15.8 MAX 69 MIN 5.8 CFSM 2.61 IN 35.57

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-07	1200	1.53	77	12-09	0300	1.51	73	4-04	2100	1.54	79
11-08	2000	1.59	89	1-29	0800	1.48	67	4-08	1200	1.47	65
11-14	1700	1.80	140	2-02	2000	1.84	152	4-26	0900	1.49	69
11-20	0900	1.42	55	3-26	0800	1.55	81	6-29	1900	1.70	114

01477050 Delaware River at Chester, Pa.

LOCATION.--Lat 39°50'12", long 75°22'00", Delaware County, Pa., at end of Reynolds Aluminum Company pier, 0.5 mi (0.8 km) downstream from Chester Creek, and at mile 82.3 (132.4 km).

DRAINAGE AREA.--10,300 m^2 (26.677 km^2).

PERIOD OF RECORD.--October 1, 1972 to September 3, 1973. July 1967 to Sept. 30, 1972 used as auxiliary gage for computing tidal volumes for Delaware River at Delaware Memorial Bridge, Wilmington, Del. (sta. 01482100).

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft (3.048 m) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.03	5.90	6.47	5.59	5.24	5.54	6.02	5.24	6.46	5.97	5.06	5.48
high tide	Date	23	8	22	22	2	17	5	9	29	2	21	15
Minimum	Elevation	-3.35	-2.67	-5.51	-3.65	-4.54	-3.86	-3.44	-2.66	-2.24	-2.18	-2.26	-2.23
low tide	Date	15	29	17	7	17	19	11	5	14	25	27	28
Mean high tide		3.71	4.10	3.85	3.53	3.66	3.88	4.07	4.26	4.19	4.23	4.12	4.22
Mean water level		1.18	1.58	1.31	0.97	1.13	1.38	1.45	1.57	+1.44	1.46	1.43	1.53
Mean low tide		-1.68	-1.27	-1.55	-1.88	-1.71	-1.47	-1.50	-1.48	-1.66	-1.63	-1.66	-1.44

Note.--No gage-height record July 29 to Aug. 2, Sept. 1-7.

01477120 Raccoon Creek near Swedesboro, N. J.

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, on right bank 25 ft (7.6 m) downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi (2.9 km) west of Mullica Hill, and 2.8 mi (4.5 km) east of Swedesboro.

DRAINAGE AREA.--29.9 mi^2 (77.4 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to July 28, 1969, at datum 7.96 ft (2.426 m) higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft (1.817 m) higher.

AVERAGE DISCHARGE.--7 years, 44.9 ft^3/s (1.272 m^3/s), 20.39 in/yr (518 mm/yr).

EXTREMES.--Current year: Maximum discharge, 874 ft^3/s (24.8 m^3/s) Feb. 2, elevation, 13.06 ft (3.981 m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) Sept. 12, elevation, 6.94 ft (2.115 m).
Period of record: Maximum discharge, 3,530 ft^3/s (100 m^3/s) Aug. 10, 1967, elevation, 17.44 ft (5.316 m) present datum.

REMARKS.--Records excellent. 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	168	76	73	49	110	51	48	105	22	13
2	22	27	87	70	327	50	146	52	44	67	27	13
3	21	27	73	65	412	59	85	58	46	58	27	14
4	20	27	66	109	126	92	150	59	46	78	24	20
5	20	42	58	82	89	66	149	54	59	55	22	18
6	22	31	98	70	78	58	79	51	46	42	21	17
7	127	28	157	61	104	54	68	48	46	36	19	15
8	64	212	114	57	94	90	208	49	41	36	19	14
9	36	259	321	54	102	79	126	109	38	33	18	13
10	35	79	174	53	69	62	96	70	35	29	18	14
11	32	60	115	52	60	58	84	55	34	51	18	13
12	31	49	88	50	56	58	83	50	31	60	18	13
13	28	39	86	48	55	52	64	50	41	36	19	12
14	26	340	75	48	56	50	60	46	38	31	19	25
15	25	238	106	50	118	50	61	48	34	46	20	47
16	25	90	137	50	83	51	58	50	43	51	21	23
17	24	77	81	51	63	179	57	46	108	34	20	18
18	22	66	70	51	55	95	57	59	52	31	18	19
19	40	66	74	76	54	66	55	47	56	28	18	18
20	38	274	75	110	56	59	52	63	43	27	18	17
21	29	108	73	66	58	56	50	70	44	36	18	16
22	26	78	193	73	61	54	50	52	182	35	22	16
23	25	68	150	81	56	51	54	58	89	30	22	16
24	24	63	121	62	53	50	66	62	131	26	19	16
25	23	62	94	55	50	50	56	62	72	25	17	15
26	23	98	85	54	52	239	204	57	45	25	17	17
27	22	79	81	98	51	112	111	99	37	25	16	15
28	47	66	75	118	49	70	150	152	36	24	16	15
29	93	60	69	340	------	65	98	98	158	24	15	16
30	39	74	70	118	------	64	62	63	435	24	14	16
31	31	------	82	81	------	62	------	56	------	22	14	------
TOTAL	1,065	2,816	3,316	2,429	2,560	2,250	2,749	1,944	2,158	1,230	596	514
MEAN	34.4	93.9	107	78.4	91.4	72.6	91.6	62.7	71.9	39.7	19.2	17.1
MAX	127	340	321	340	412	239	208	152	435	105	27	47
MIN	20	27	58	48	49	49	50	46	31	22	14	12
CFSM	1.15	3.14	3.58	2.62	3.06	2.43	3.06	2.10	2.40	1.33	.64	.57
IN.	1.33	3.50	4.13	3.02	3.19	2.80	3.42	2.42	2.68	1.53	.74	.64

CAL YR 1972 TOTAL 21,393 MEAN 58.5 MAX 340 MIN 18 CFSM 1.96 IN 26.62
WTR YR 1973 TOTAL 23,627 MEAN 64.7 MAX 435 MIN 12 CFSM 2.16 IN 29.40

PEAK DISCHARGE (BASE, 350 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-09	0030	11.73	511	12-09	0715	11.68	501	3-26	1200	10.84	361
11-14	2015	12.72	747	1-29	1100	11.60	485	6-30	0715	12.56	700
11-20	1100	11.25	421	2-02	2130	13.06	874				

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 mi (3.2 km) downstream from Christina River and at mile 68.70 (110.54 km).

DRAINAGE AREA.--11,030 mi^2 (28,568 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft (3.048 m) below mean sea level. Water-stage recorder at same datum at Reynolds Aluminum Co., pier in Chester, Pa., 13.6 mi (21.9 km) 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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum high tide	Elevation	5.18	5.81	6.54	5.65	5.23	5.45	5.97	5.21	6.18	5.92	5.20	5.55
	Date	23	8	22	22	8	17	5	31	29	2	1	15
Minimum low tide	Elevation	-3.20	-2.91	-5.54	-3.63	-4.44	-3.88	-3.54	-2.74	-2.37	-2.42	-2.23	-2.13
	Date	15	9	17	7	17	19	11	5	1	29	28	28
Mean high tide		3.74	4.10	3.88	3.58	3.72	3.95	4.08	4.28	4.23	4.32	4.28	4.18
Mean water level		1.12	1.40	1.18	0.87	1.04	1.31	1.29	1.39	1.31	1.36	1.39	1.43
Mean low tide		-1.64	-1.37	-1.63	-1.91	-1.74	-1.46	-1.59	-1.60	-1.73	-1.70	-1.61	-1.42

Maximum high tide known, 8.4 ft (2.6 m) above mean sea level Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum low tide, 9.1 ft (2.8 m) below mean sea level Dec. 31, 1962.

REMARKS.--Volume records for current year 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 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.

01482100 Delaware River at Delaware Memorial Bridge, Wilmington, De.

Volume of flow, in millions of cubic feet, water year October 1972 to September 1973

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...	b1,900									40		b1,800						450							...1
	6,450	6,970							6,420	8,540	2,360	7,220	7,280	8,190	9,530	7,310	11,100	6,440							
	3,550	8,100							8,280	6,460	8,160	6,420	8,430	7,740	8,530	8,490	8,920	7,200							
2...	4,620		b6,340	7,470	7,210	6,020				373				22		110		1,870							...2
	7,240	6,940	7,360	6,760	7,610	6,400			6,750	9,280	7,090	7,510	9,150	6,800	9,910	7,100	11,100	6,560							
	1,780	8,020	190		10				8,910	2,700	7,890	6,380	10,300	6,140	8,600	7,780	8,160	5,430							
3...	6,660		7,570		6,790						7,120			320		990		3,720				b4,950			...3
	7,010	6,620	8,120	6,270	8,350	6,860		a	11,500	6,700	7,290	8,250	10,200	7,000	10,300	6,840	11,000	6,980			9,610	7,500			
	610	7,910		6,570		6,290	9,620	5,270	11,300	2,700		7,140	10,000	6,450	8,880	6,020	8,230	3,260			8,720	30			
4...	7,880			10		60		530		840		510		1,440		2,380		5,610				6,870			...4
	6,980	7,110	6,850	8,680	6,720	8,970	7,020	7,980	9,080	6,780	7,010	7,980	10,400	8,060	10,400	7,540	10,600	6,700			8,570	7,810			
	20	7,740	7,210	b8,370	7,560	6,540	10,700	4,170	10,500	3,100	8,480	5,780	9,010	4,820	9,040	3,940	8,760	1,020			8,260				
5...	7,780					550		1,180		2,460		1,090		2,420		4,220		7,110			250				...5
	7,140	8,310			6,770	8,290	8,720	7,010	9,320	7,190	8,040	7,910	12,600	4,290	10,100	5,850	9,940	7,220			7,360	6,420			
		7,650			9,110	5,190	9,720	3,210	9,340	2,480	7,460	5,420	10,200	2,930	7,460	3,320	8,300	110			b7,090	8,080			
6...		330				1,080		2,090		4,030		2,520		3,620		6,170		7,740		b8,010					...6
	6,690	8,800			6,750	8,940	8,170	6,510	7,860	8,520	7,520	8,120	10,700	5,630	10,600	6,640	9,610	7,400	9,350	7,740					
	7,710	6,860			8,960	2,900	9,110	1,630	8,020	2,300	7,560	4,410	9,540	1,630	7,500	1,250	8,170		8,040						
7...		820				550		3,090		6,060		4,120		5,340		7,440	260		780						...7
	8,030	6,910			7,350	8,610	6,420	7,400	8,000	7,390	7,630	7,920	10,500	6,480	9,770	7,970	9,590	7,100	8,870	7,060					
	8,890	3,900			8,730	2,760	8,110	1,290	8,660	800	7,880	2,760	8,550	800	7,340	130	6,880	6,510	6,280	8,010					
8...		1,110				2,840		4,780		6,600		5,020		7,170		8,390	1,520		2,450				b5,680		...8
	6,670	8,440			6,930	8,310	6,140	8,620	9,300	6,890	8,800	6,550	8,060	6,640	8,650	6,890	9,060	6,940	7,830	6,350			7,500	6,400	
	7,980	4,340			9,730	2,040	7,940	1,520	9,620		8,090	1,250	7,740	60	7,130		4,840	5,570	4,690	8,150			1,340	6,000	
9...		2,140				3,060		6,210		3,950		6,200		7,420	230		3,100		4,030				7,410		...9
	8,150	7,040			8,900	6,370	8,080	7,180	7,660	7,480	8,640	6,560	10,400	6,610	10,500	7,750	7,890	4,460	7,010	6,070			6,450	7,220	
	9,030	2,530			10,500	780	8,540	300	7,530		7,190	410	7,710		6,420	6,100	b2,320	5,290	2,980	8,490			120	7,830	
10...		3,480				4,670		6,360	60			7,490	440		1,900				5,550				7,480		..10
	6,610	7,980			7,400	7,460	8,650	6,850	8,000	7,840	8,050	6,670	11,900	8,760	9,240	7,630			6,840	6,430			6,380	7,550	
	7,800	2,310			10,600	160	8,070		5,650	6,690	6,760	10	5,790	4,510	4,470	7,320			1,420	8,730				8,300	
11...		4,500				4,690			650			8,060	2,880		3,860				7,410					40	..11
	6,610	7,330			8,940	7,420	8,120	7,520	7,180	8,980	8,100	6,370	10,800	5,250	9,170	7,080			6,860	6,420			8,210	6,670	
	8,110	1,030			9,010		7,400	6,750	3,920	7,110	6,370		2,460	4,580	2,730	6,780			290	8,730			7,480	7,350	
12...		4,770					520		2,700		510		4,040		5,930				8,680					440	..12
	6,650	6,840			7,040	6,170	7,020	5,880	8,710	8,900	9,260	7,530	8,850	7,370	9,370	6,860			6,030	6,240			8,170	7,560	
	8,280	140			8,810	7,980	6,460	7,580	3,170	6,280	4,700	4,700	2,320	6,700	1,500	6,840				8,760			6,810	6,960	
13...		5,110			200		1,830		5,060		2,150		6,760		7,840									1,240	..13
	5,880	8,010			8,520	6,610	7,540	7,940	9,960	8,210	8,330	8,090	8,680	6,820	9,120	5,980			9,000	6,430			7,710	8,340	
	7,280	10			7,140	4,840	4,470	7,000	1,230	6,250	2,770	6,670	420	6,920	400	7,360			7,380	7,690			7,710	5,640	
14...		5,720			1,230		3,020		6,830		4,470		7,330		9,180					130				2,490	..14
	5,660	7,920			7,300	7,430	8,800	8,720	8,860	8,110	8,260	8,080	8,300	7,820	8,270	6,480			9,140	6,600			7,290	9,350	
	8,300				5,390	7,000	2,570	6,680		7,520	1,420	7,010	40	7,800		7,660			5,590	6,790			6,860	3,660	
15...	920				2,100		5,280				5,930		8,950							840				3,150	..15
	6,490	3,680			6,340	8,980	8,590	8,200	6,790	7,670	8,470	8,340	7,910	6,730	9,260	6,150			7,670	5,260			6,740	10,200	
	4,690	7,940			3,020	9,260	920	6,540	9,240	7,200	310	7,320		7,680	7,620	7,920			5,780	6,430			8,810	2,440	

16...	2,020				6,130		6,580				7,710			60		180		1,450		1,860				4,770	..16
	4,970	5,910			10,900	4,070	9,140	8,470			8,580	7,920	9,340	6,610	10,400	6,280	9,130	6,270	7,520	6,180			8,300	8,240	
	6,000	6,380			2,140	2,750	98	6,430				7,550	8,020	6,780	7,600	7,030	7,370	5,730	5,780	b5,320			8,970	1,160	
17...	3,900			b40	7,190		7,890					10		660		720		2,510				b2,380		5,920	..17
	6,100	4,770	3,370	6,900	6,740	4,530	9,090	8,100			7,810	8,970	9,650	5,680	10,000	6,300	8,830	7,960			8,780	8,120	6,790	9,720	
	2,870	7,220	9,210	6,940	50	6,070		6,160			9,980	3,200	8,000	5,750	7,850	4,870	5,310	4,780			7,930	2,240	8,070	240	
18...	4,750		8,460	7,640	5,590			160						1,730		1,160		3,590				5,500		6,820	..18
	6,630	7,200	9,670	6,900	9,610	8,830	7,560	9,200			11,600	4,630	9,050	6,650	10,000	5,810	8,390	6,850			8,240	8,310	7,300	8,090	
	1,650	7,350	320			5,780	8,820	6,170			10,500	3,060	7,690	4,980	7,500	4,670	6,780	3,480			7,800	880	8,710		
19...	5,910		8,410					1,090				1,240		2,800		3,070		4,900				6,680	320		..19
	6,800	7,300	9,650	8,420	7,320	9,120	7,670	9,600			6,890	6,020	8,990	6,290	10,200	5,830	8,310	7,050			7,550	9,090	5,620	6,170	
	390	6,990		8,030	9,270	6,580	9,340	4,380			7,400	4,780	7,610	3,800	8,070	3,560	6,040	2,430			7,890	120	7,180	8,830	
20...	6,940			210		410		2,060				2,610		3,660		4,080		6,180				7,340	960		..20
	7,360	8,320	7,940	7,080	7,330	10,000	8,820	6,820			8,340	7,760	9,050	7,380	9,710	6,290	8,580	6,900			7,370	8,970	7,040	6,950	
	10	7,720			10,100	5,760	9,750	1,880			8,070	5,170	6,090	3,120	7,850	2,050	6,590	1,260			7,880		5,490	7,830	
21...	8,110					1,620		4,340				3,860		4,620		4,720		7,230				230		2,910	..21
	8,420	7,950			7,560	10,500	7,080	8,810			8,730	8,120	9,450	6,100	10,400	4,380	8,570	7,230			6,540	7,330	5,700	7,190	
					9,440	5,160	7,570	2,510			7,420	4,140	6,800	1,750	7,940	960	7,200	100			6,600	9,370	3,260	8,680	
22...						3,520		5,810				5,260		5,460		6,580		7,130				1,480		4,900	..22
					7,560	9,650	7,540	9,630			8,600	7,680	9,090	5,360	9,880	5,270	8,190	6,640			6,600	6,830	6,860	7,310	
					10,400	2,460	8,990	510			6,340	1,480	6,930	600	7,430	480	7,060				4,610	9,620	1,780	8,050	
23...						4,530		5,360				5,990		6,360		6,890	10				3,680		7,480		..23
					9,490	8,100	9,160	6,480			8,780	7,260	8,300	6,210	9,470	6,560	8,350	7,670			7,500	6,270	7,420	6,780	
					9,500	1,190	8,490	80			5,460	1,130	6,750	80	7,750		6,570	7,730			3,280	9,180	290	8,380	
24...						5,910		7,080				7,150		6,980			960				6,040		7,900		..24
					8,820	7,580	8,710	5,440			8,840	6,870	8,050	6,050	8,420	6,950	7,700	7,490			7,300	6,860	7,210	8,010	
					10,100	150	7,770				7,340	160	6,490		7,170	7,240	5,320	8,230			860	8,650		9,490	
25...						6,700	110					6,850	45		290		2,670				6,760			52	..25
					8,640	7,150	7,480	6,190			8,860	6,000	7,980	6,850	7,740	7,060	7,520	6,790			6,130	6,330	7,520	9,560	
					9,000		6,590	6,270			5,910		4,760	6,630	5,750	6,820	3,830	8,830			120	8,380	7,440	7,980	
26...					30		710						350		1,670		4,500				8,060			390	..26
					7,880	6,940	7,580	7,070			8,830	7,550	8,170	7,170	8,910	6,710	7,490	6,690			6,750	6,160	8,400	8,400	
					8,010	7,400	5,610	6,420			5,390	5,820	3,960	6,710	4,750	7,030	1,600	8,970				7,840	8,220	6,310	
27...					840		1,480				380		2,010		3,620		5,740					40		1,330	..27
					7,670	7,550	7,160	7,440			6,810	7,820	6,360	8,600	7,980	6,300	6,200	5,670			8,130	6,920	7,870	8,250	
					5,340	6,430	4,900	5,950			3,470	6,580	4,140	6,730	3,090	7,600	500	8,230			6,800	7,220	8,500	4,820	
28...					1,560		3,140				1,930		5,090		5,690		7,120					740		2,490	..28
					9,460	6,580	7,970	7,820			7,470	6,740	10,100	6,340	9,220	6,700	5,950	6,000			8,040	6,970	7,580	8,690	
					3,690	5,300	2,220	5,200			2,790	6,440	2,060	5,360	1,820	6,510	20	8,330			7,070	b5,780	8,010	3,800	
29...					3,010		4,310				4,250		6,690		8,640		8,550							4,070	..29
					7,560	7,440	9,470	6,540			8,090	6,290	9,470	6,300	9,080	5,060	8,100	4,960					7,120	8,560	
					2,500	6,660	600	6,890			1,520	6,120	550	7,810	550	7,880		5,130					8,300	2,440	
30...					4,370		5,090				5,460		8,260		10,100									4,850	..30
					7,990	7,640	7,010	6,850			7,940	7,400	8,730	7,100	8,620	6,040							6,410	9,270	
					1,200	6,490	243	6,200			520	6,820	160	7,970		8,490							8,120	1,070	
31...					5,460		8,160				6,910														..31
					8,330	8,090	7,760	6,010			7,780	7,560			10,900	6,320									
								7,050			30	7,660			9,180	8,000									

a Partial volume of flow not given.
b Incomplete volume of flow.
NOTE.--Where 2 sucessive 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 or both of the gages on days where volumes are not listed. The difference between upstream and downstream flow for any given cycle will not necessarily determine the inflow to the basin.

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 mi (0.3 km) upstream from small brook, and 0.3 mi (0.5 km) downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi^2 (37.8 km^2).

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 (8.989 m) above mean sea level.

AVERAGE DISCHARGE.--31 years (1942-73), 18.8 ft^3/s (0.532 m^3/s), 17.49 in/yr (444 mm/yr).
EXTREMES.--Current year: Maximum discharge, 1,070 ft^3/s (30.30 m^3/s) Feb. 2, gage height, 2.56 ft (0.780 m); no flow Sept. 9 to 12.
Period of record: Maximum discharge, 22,000 ft^3/s (623 m^3/s) Sept. 1, 1940 (gage height, 7.98 ft or 2.432 m, from floodmark in recorder shelter) from rating curve extended above 220 ft^3/s (6.23 m^3/s) on basis of slope-area measurement of peak flow at site 0.5 mi (0.8 km) downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

REMARKS.--Records 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 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	9.6	123	33	24	16	47	22	16	30	6.4	.40
2	7.2	9.6	27	24	373	18	73	20	12	16	8.4	.10
3	7.2	12	18	22	228	22	38	20	12	16	8.4	.10
4	7.2	12	16	55	60	49	114	22	14	35	7.4	14
5	7.2	22	14	38	38	27	96	18	22	18	5.3	7.4
6	23	12	47	27	30	22	35	18	14	14	4.5	5.3
7	125	9.6	73	20	47	20	33	16	18	12	4.5	2.2
8	30	241	87	16	44	55	145	16	12	11	3.6	.40
9	9.0	136	228	14	55	47	60	49	11	11	2.9	0
10	7.2	27	69	14	27	24	47	24	9.6	9.6	2.2	0
11	7.4	18	44	14	44	22	33	18	9.6	18	1.5	0
12	7.8	16	30	14	20	24	27	16	8.4	18	2.2	0
13	7.2	14	30	14	20	20	24	16	11	11	2.9	4.5
14	7.0	335	24	14	22	20	24	14	9.6	9.6	2.9	9.6
15	7.4	123	49	14	73	20	22	16	7.4	12	4.5	27
16	7.8	30	73	16	44	24	22	18	44	14	9.6	9.6
17	7.6	20	27	16	24	190	22	16	190	9.6	6.4	7.4
18	7.4	16	20	16	18	44	22	20	27	7.4	5.3	7.4
19	30	18	22	35	18	27	20	14	20	7.4	5.3	7.4
20	10	215	24	82	20	22	18	27	16	6.4	7.4	7.4
21	8.6	38	24	27	22	20	16	33	16	6.4	6.4	6.4
22	8.6	22	195	30	24	20	16	18	52	6.4	8.4	6.4
23	8.6	18	96	41	20	18	16	20	44	7.4	8.4	7.4
24	8.6	14	60	24	18	18	22	27	18	6.4	6.4	7.4
25	8.4	14	38	18	18	18	18	27	14	4.5	5.3	6.4
26	6.4	44	30	18	18	241	123	24	12	5.3	4.5	6.4
27	11	24	33	55	18	55	47	33	12	5.3	4.5	7.4
28	47	16	27	87	16	30	91	82	11	5.3	4.5	7.4
29	55	12	22	268	------	24	38	38	91	5.3	3.6	8.4
30	12	30	24	52	------	24	24	20	195	4.5	2.9	9.6
31	12	------	38	27	------	27	------	18	------	3.6	2.2	------
TOTAL	516.8	1,527.8	1,632	1,145	1,383	1,208	1,333	0	948.6	346.4	158.7	183.40
MEAN	16.7	50.9	52.6	36.9	49.4	39.0	44.4	23.9	31.6	11.2	5.12	6.11
MAX	125	335	228	268	373	241	145	82	195	35	9.6	27
MIN	6.4	9.6	14	14	16	16	16	14	7.4	3.6	1.5	0
CFSM	1.14	3.49	3.60	2.53	3.38	2.67	3.04	1.64	2.16	.77	.35	.42
IN.	1.32	3.89	4.16	2.92	3.52	3.08	3.40	1.89	2.42	.88	.40	.47

CAL YR 1972 TOTAL 10,804.10 MEAN 29.5 MAX 458 MIN 6.4 CFSM 2.02 IN 27.53
WTR YR 1973 TOTAL 11,122.70 MEAN 30.5 MAX 373 MIN 0 CFSM 2.09 IN 28.34

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-08	1900	2.06	546	2-02	1900	2.56	1,070	6-17	0100	1.99	482
11-14	1600	2.37	857	3-26	0800	2.03	508	6-29	2400	1.86	380

Reservoirs in Delaware River basin

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, near release chamber at Downsville Dam on East Branch Delaware River, 1.6 mi (2.6 km) east of Downsville, N. Y. Drainage area, 371 mi^2 (961 km^2). Period of record, September 1954 to current year. Gage, water-state 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, 152,978 mil gal (579.0 hm^3) June 30 (elevation 1,281.71 ft (390.665 m)); minimum observed 107,807 mil gal (408.0 hm^3) Nov. 8 (elevation 1,255.11 ft (382.557 m)). Extremes for period of record: maximum contents observed, 154,027 mil gal (583.0 hm^3) Apr. 5, 1960 (elevation, 1,282.27 ft (390.836 m)); minimum observed (after first filling), 9,575 mil gal (36.24 hm^3) Dec. 26, 1964 (elevation, 1,151.92 ft (351.105 m)).

Reservoir is formed by an earth-fill, rock-faced dam; storage began Sept. 15, 1954. Usable capacity 140,190 mil gal (530.6 hm^3) between minimum operating level (elevation, 1,152.0 ft (351.13 m)) and crest of spillway (elevation 1,280.0 ft (390.14 m)). Capacity: at crest of spillway 149,700 mil gal (566.6 hm^3); at minimum operating level, 9,609 mil gal (36.37 hm^3); at sill of diversion tunnel (elevation 1,143.0 ft (348.39 m)), 6,098 mil gal (23.08 hm^3); in dead storage below release outlet (elevation, 1,126.50 ft (343.357 m)), 1,898 mil gal (7.184 hm^3). Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see elsewhere in this section), for water supply 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, in emergency gate tower at Cannonsville dam on West Branch Delaware River, 1.8 mi (2.9 km) southeast of Stilesville, N. Y. Drainage area 454 mi^2 (1,176 km^2). 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, 107,348 mil gal (406.3 hm^3) June 30 (elevation, 1,155.40 ft (352.166 m)); minimum observed, 33,827 mil gal (128.0 hm^3) Nov. 1 (elevation, 1,097.46 ft (334.506 m)). Extremes for period of record: maximum contents observed, 107,348 mil gal (406.3 hm^3) June 30, 1973 (elevation, 1,155.40 ft (352.166 m)); minimum observed (after first filling) 11,901 mil gal (45.05 hm^3) Nov. 7, 1968 (elevation, 1,066.24 ft (324.990 m)).

Reservoir is formed by an earth-fill, rock-faced dam; storage began Sept. 30, 1963. Usable capacity 95,706 mil gal (362.2 hm^3) between minimum operating level (elevation, 1,040.0 ft (316.99 m)) and crest of spillway (elevation, 1,150.0 ft (350.52 m)). Capacity, at crest of spillway, 98,618 mil gal (373.3 hm^3); at minimum operating level, 2,912 mil gal (11.02 hm^3); at mouth of inlet channel to diversion tunnel (elevation, 1,035.0 ft (315.47 m)), 1,892 mil gal (7.161 hm^3); in dead storage below release outlet (elevation, 1,020.5 ft (311.05 m)), 328 mil gal (1.241 hm^3). Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see elsewhere in this section); is released in Delaware River for downstream low flow augmentation as directed by 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 (WATER YEARS).--WRD N.Y. 1972: 1966.

01428900 PROMPTON LAKE.--Lat 41°35'18", long 75°19'39", Wayne County, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge, and 0.5 mi (0.8 km) upstream from Van Auken Creek. Drainage area, 59.6 mi^2 (154 km^2). 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, 8,170 acre-ft (10.1 hm^3) June 29 (elevation, 1,138.68 ft or 347.070 m); minimum, 3,430 acre-ft (4.23 hm^3) Oct. 6 (elevation, 1,125.03 ft or 342.909 m). Extremes for period of record: Maximum contents, 8,170 acre-ft (10.1 hm^3) June 29, 1973 (elevation, 1,138.40 ft or 347.070 m); minimum (after first filling), 2,920 acre-ft (3.60 hm^3) Sept. 27, 1964 (elevation, 1,123.20 ft or 342.351 m).

Reservoir formed by an earth and rockfill dam with ungated bed rock spillway at elevation 1,205.00 ft (367.284 m). Storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm^3). Ordinary minimum (conservation) pool elevation, 1,125.00 ft or 342.900 m (capacity, 3,420 acre-ft or 4.22 hm^3). 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, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. Drainage area, 64.5 mi^2 (167.1 km^2). 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, 6,520 acre-ft (7.97 hm^3) June 19 (elevation, 1,017.40 ft or 310.104 m); minimum, no storage many times. Extremes for period of record: Maximum contents, 6,520 acre-ft (8.04 hm^3) June 19, 1973 (elevation, 1,017.40 ft or 310.104 m); minimum, no storage many times.

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft (320.954 m). Storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm^3). Reservoir is used for flood control. It is normally empty and stores water only during periods of high flow. 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, at dam on Wallenpaupack Creek at Wilsonville, Pa. 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. Drainage area, 228 mi^2 (591 km^2). 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, 146,200 acre-ft (180 hm^3) June 29 (elevation, 1,188.00 ft or 362.102 m); minimum, 71,680 acre-ft (88.4 hm^3) Mar 1 (elevation, 1,174.40 ft or 357.957 m). Extremes for period of record: Maximum contents, 178,200 acre-ft (220 hm^3) Aug. 19-21, 1955 (elevation, 1,193.45 ft or 363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm^3) Mar. 28, 1958 (elevation, 1,162.60 ft or 354.360 m).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway at elevation, 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft high (4.267 m) 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 or 362.712 m (top of gates) is 209,300 acre-ft (258 hm^3), of which 157,800 acre-ft (195 hm^3) is controlled storage above elevation, 1,160.0 ft or 353.568 m (minimum pool). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

Reservoirs in Delaware River basin--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, at dam on Mongaup River, 1.8 mi (2.9 km) northwest of Fowlersville, N. Y. Drainage area 118 mi^2 (306 km^2) (excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir). 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.). All capacity figures given herein are based on zero storage at minimum operating pool level (1,010 ft (308 m)). Extremes for current year: maximum contents 1,457.4 mil ft^3 (41.3 hm^3) June 29 (elevation, 1,071.7 ft (326.65 m)); minimum 932.1 mil ft^3 (26.4 hm^3) Feb. 23 elevation, 1,057.7 ft (322.39 m)). Extremes for period of record: maximum contents 1,457.4 mil ft^3 (41.3 hm^3) Mar. 18, 1936, Oct. 15, 1955 and June 29, 1973 (elevation, 1,071.7 ft (326.65 m)); minimum (after first filling) -141.4 mil ft^3 (-4.00 hm^3) Dec. 2, 1938 (elevation, 987.5 ft (300.99 m)).

Reservoir is formed by an earth-fill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft^3 (40.7 hm^3) between elevations 1,010.0 ft (307.85 m) (minimum operating pool) and 1,071.2 ft (326.50 m) (top of flashboards). Capacity below elevation, 1,010.0 ft (307.85 m) (minimum operating pool) about 212.7 mil ft^3 (6.02 hm^3). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft (307.85 m). Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.

REVISIONS (Water years).--WSP 1552: 1951-54.

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, at dam on Black Lake Creek, 2.5 mi (4.0 km) southeast of village of Black Lake, N. Y. Drainage area 23.2 mi^2 (60.1 km^2). 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.). All capacity figures given herein are based on zero storage at minimum operating pool level (1,165.0 ft (355.09 m)). Extremes for current year: maximum contents observed, 1,145.3 mil ft^3 (32.43 hm^3) July 2 (elevation 1,221.3 ft (372.25 m)); minimum observed 216.4 mil ft^3 (6.13 hm^3) Nov. 8 (elevation 1,185.3 ft (361.28 m)). Extremes for period of record: maximum contents observed 1,171.2 mil ft^3 (33.2 hm^3) July 20, 1945 (elevation 1,222.0 ft (372.47 m)); minimum observed (after first filling), -26.8 mil ft^3 (-0.759 hm^3) Nov. 15, 1928 (elevation 1,144.5 ft (348.84 m)).

Reservoir is formed by an earth-fill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft^3 (31.1 hm^3) between elevations 1,165.0 ft (355.09 m) (minimum operating pool) and 1,220.0 ft (371.86 m) (top of permanent flashboards). Capacity below elevation 1,165.0 ft (355.09 m) (minimum operating pool) about 26.8 mil ft^3 (0.759 hm^3). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft (355.09 m). 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, at dam on Black Lake Creek, 2.5 mi (4.0 km) northwest of Fowlersville, N.Y. Drainage area, 6.46 mi^2 (16.7 km^2) (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.). All capacity figures given herein are based on zero storage at minimum operating pool level (1,043.3 ft (318.00 m)). Extremes for current year: maximum contents observed 142.0 mil ft^3 (4.021 hm^3) June 30, July 1 (elevation 1,072.7 ft (326.96 m)); minimum observed 43.3 mil ft^3 (1.23 hm^3) Feb.23 (elevation 1,057.8 ft (322.42 m)). Extremes for period of record: maximum contents observed, 145.44 mil ft^3 (4.12 hm^3) July 30, 31, 1945 (elevation 1,073.1 ft (327.08 m)); minimum observed (after first filling), about -6.54 mil ft^3 (-0.185 hm^3) Mar. 16, 1963 (elevation 1,038.0 ft (316.38 m)).

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft^3 (3.85 hm^3) between elevations 1,043.3 ft (318.00 m) (minimum operating pool) and 1,072.0 ft (326.75 m) (top of permanent flashboards). Capacity below elevation 1,043.3 ft (318.00 m) (minimum operating pool) about 6.54 mil ft^3 (0.185 hm^3). 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 (318.00 m). 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 mi (3 km) southwest of Neversink, N.Y. Drainage area, 91.8 mi^2 (238 km^2). 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, 37,564 mil gal (142.2 hm^3) Apr. 5 (elevation, 1,440.84 ft (439.168 m)); minimum observed, 14,375 mil gal (54.41 hm^3) Nov. 2 (elevation, 1,381.22 ft (420.996 m)). Extremes for period of record: maximum contents observed, 37,978 mil gal (143.7 hm^3) Apr. 25, 1961 (elevation, 1,441.67 ft (439.421 m)); minimum observed (after first filling), 1,985 mil gal (7.513 hm^3) Nov. 25, 1964 (elevation 1,316.98 ft (401.415 m)).

Reservoir is formed by an earth-fill, rock-faced dam; storage began June 2, 1953. Usable capacity 34,941 mil gal (132.25 hm^3) between minimum operating level (elevation 1,319.0 ft (402 m)) and crest of spillway (elevation 1,440.0 ft (438.9 m)).: Capacity at crest of spillway 37,146 mil gal (140.6 hm^3); at minimum operating level 2,205 mil gal (8.35 hm^3); dead storage below diversion sill and outlet sill (elevation 1,314.0 ft (400.5 m)), 1,680 mil gal (6.36 hm^3). Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see elsewhere in this section); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master, and for conservation release. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply, and Department of Water Resources, City of New York.

01447780 FRANCIS E. WALTER LAKE (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven, Pa. Drainage area, 289 mi^2 (749 km^2). 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, 41,190 acre-ft (50.8 hm^3) July 3 (elevation, 1,396.70 ft or 425.714 m); minimum, 1,640 acre-ft (2.02 hm^3) Mar. 12 (elevation, 1,296.60 ft or 395.204 m). Extremes for period of record: Maximum contents, 42,600 acre-ft (52.5 hm^3) June 26, 1972 (elevation, 1,398.20 ft or 426.171 m); minimum (after establishment of conservation pool), 1,510 acre-ft (1.86 hm^3) Apr. 23, 1962 (elevation, 1,295.10 ft or 394.746 m).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation, 1,450.0 ft (441.96 m). Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm^3) of which 108,700 acre-ft (134 hm^3) is controlled storage above elevation 1,300.0 ft or 396.24 m (conservation pool). Dead storage is 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contetns. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

Reservoirs in Delaware River basin--Continued

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, at dam on Wild Creek near Hatchery, Pa., 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild Creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. Drainage area, 16.5 mi^2 (42.7 km^2). 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, 20,350 acre-ft (25.1 hm^3) Jan. 1 (elevation, 1,000.63 ft or 304.992 m); minimum, 15,750 acre-ft (19.4 hm^3) Nov. 1 (elevation, 990.25 ft or 301.828 m). Extremes for period of record: Maximum contents, 20,460 acre-ft (25.2 hm^3) Apr. 2, 1970 (elevation, 1,000.83 ft or 305.053 m); minimum, 176 acre-ft (0.217 hm^3) Oct. 6, 1965 (elevation, 902.40 ft or 275.052 m).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation, 1,000.00 ft (304.800 m). Storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm^3). 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, at dam on Wild Creek near Hatchery, Pa., 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. Drainage area, 22.2 mi^2 (57.5 km^2). 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, 12,220 acre-ft (15.1 hm^3) Feb. 3 (elevation, 820.73 ft or 250.159 m); minimum, 10,710 acre-ft (13.2 hm^3) Nov. 8 (elevation, 815.03 ft or 248.421 m). Extremes for period of record: Maximum contents, 12,880 acre-ft (15.9 hm^3) May 23, 1942 (elevation, 822.93 ft or 250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm^3) Nov. 15, 1966 (elevation, 774.10 ft or 235.946 m).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation, 820.00 ft (249.936 m). Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm^3) of which 12,000 acre-ft (15 hm^3) 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. Since October 1969 the basin upstream has received diversions from Tunkhannock Creek basin.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run, and 2.3 mi (3.7 km) northeast of Parryville. Drainage area, 96.3 mi^2 (249.4 km^2). Period of record, February 1971 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, 48,410 acre-ft (59.7 hm^3) July 4 (elevation, 635.10 ft or 193.578 m); minimum, 39,540 acre-ft (48.8 hm^3) Oct. 25 (elevation, 626.20 ft or 190.866 m). Extremes for period of record: Maximum contents, 48,410 acre-ft (59.7 hm^3) July 4, 1973 (elevation, 635.10 ft or 193.578 m); minimum, 136 acre-ft (0.168 hm^3) Feb. 8, 1971 (elevation, 516.20 ft or 157.338 m).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation, 651.00 ft (198.425 m). Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm^3). Ordinary minimum (conservation) pool elevation, 628.00 ft or 191.414 m (capacity, 41,250 acre-ft or 50.9 hm^3). Dead storage is 1,390 acre-ft (1.71 hm^3). 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 mi^2 (66.30 km^2). 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 (278.761 m) above mean sea level (New Jersey Geological Survey datum). Extremes for current year: Maximum contents, 8,074,000,000 gal (30.56 hm^3) June 29 (gage height 9.73 ft or 2.965 m); minimum, 5,334,000,000 gal (20.18 hm^3) Jan. 17, Mar. 1 (gage height 6.36 ft or 1.938 m), lake drawn down for dock repairs along shore. Extremes for period of record: Maximum contents 8,532,000,000 gal (32.29 hm^3) June 24, 1972 (gage height, 10.27 ft or 3.130 m); minimum, 1,525,000,000 gal (5.77 hm^3) Dec. 29, 1960 (gage height, 0.65 ft or 0.198 m).

Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft (0.033 m) in 1925. Usable capacity, 7,459,000,000 gal (28.23 hm^3) between (gage height -2.6 ft or -0.0792 m, sills of gates and 9.00 ft or 2.743 m, crest of spillway). Flow regulated by four gates (3 by 5 ft or 0.914 by 1.524 m). One 24-inch (0.615 m) pipe with gate valve to recreation fountain 250 ft (76.2 m) downstream from dam. Dead storage, about 8,117,000,000 gal (30.72 hm^3). Figures given herein represent usable capacity. Lake used for recreation.

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth, and 2.3 mi (3.7 km) north of Hometown. Drainage area, 8.5 mi^2 (22.0 km^2). Period of record, January 1933 to current year. Nonrecording gage. Datum of gage is at mean sea level (levels by Panther Valley Water Co.). Extremes for current year: Maximum contents, 8,390 acre-ft (10.3 hm^3) Apr. 9 (elevation, 1,182.33 ft or 360.374 m); minimum, 7,200 acre-ft (8.88 hm^3) Oct. 31 (elevation, 1,178.17 ft or 359.106 m). Extremes for period of record: Maximum contents, 8,570 acre-ft (10.6 hm^3) Oct. 15, 1955 (elevation, 1,182.92 ft or 360.554 m), but may have been greater during 1950 and 1951 water years; minimum, 390 acre-ft (0.481 hm^3) Feb. 26, 1933 (elevation, 1,132.00 ft or 345.034 m).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m). Storage began in February 1933. Capacity at elevation 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm^3). 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, at dam on Perkiomen Creek at Green Lane, Pa., 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. Drainage area, 70.9 mi^2 (183.6 km^2). 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, 14,190 acre-ft (17.5 hm^3) Jan. 28 (elevation, 286.85 ft or 87.432 m); minimum, 11,570 acre-ft (14.3 hm^3) Oct. 27 (elevation, 283.75 ft or 86.487 m). Extremes for period of record: Maximum contents, 17,030 acre-ft (21.0 hm^3) June 23, 1972 (elevation, 290.05 ft or 88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm^3) Aug. 25, 1957 (elevation, 251.60 ft or 76.688 m).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m). Storage began December 21, 1956. Capacity at spillway level (elevation 286.00 ft or 87.173 m), 13,430 acre-ft (16.6 hm^3). 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 1972 TO SEPTEMBER 1973

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	1,262.49	119,460	-	1,117.59	54,971	-
Oct. 31	1,255.49	108,392	-552	1,097.46	33,827	-1,060
Nov. 30	1,267.28	127,379	+979	1,129.97	70,218	+1,880
Dec. 31	1,280.91	151,485	+1,200	1,152.15	102,078	+1,590
CAL YR 1972	-	-	+183	-	-	+140
Jan. 31	1,279.98	149,762	-86.0	1,150.87	100,018	-103
Feb. 28	1,278.02	146,171	-198	1,150.48	99,390	-34.7
Mar. 31	1,280.07	149,928	+187	1,151.14	100,452	+53.0
Apr. 30	1,280.12	150,021	+4.8	1,150.81	99,921	-27.4
May 31	1,280.24	150,243	+11.1	1,151.24	100,613	+34.5
June 30	1,281.44	152,473	+115	1,154.39	105,684	+262
July 31	1,276.02	142,561	-496	1,149.50	97,858	-390
Aug. 31	1,270.41	132,710	-493	1,147.56	94,906	-147
Sept.30	1,263.11	120,468	-631	1,138.07	81,120	-711
WTR YR 1973	-	-	+427	-	-	+111

	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	1,125.12	3,450	-	975.43	0	-
Oct. 31	1,125.59	3,590	+2.3	977.37	0	0
Nov. 30	1,127.05	4,000	+6.9	978.21	4	+.1
Dec. 31	1,128.10	4,330	+5.4	985.40	270	+4.3
CAL YR 1972	-	-	+.5	-	-	0
Jan. 31	1,125.90	3,670	-10.7	976.83	0	-4.4
Feb. 28	1,125.15	3,460	-3.8	975.50	0	0
Mar. 31	1,126.36	3,800	+5.5	977.27	0	0
Apr. 30	1,126.10	3,730	-1.2	977.21	0	0
May 31	1,126.90	3,950	+3.6	978.28	6	+.1
June 30	1,132.70	5,870	+32.3	1,010.80	4,540	+76.2
July 31	1,126.08	3,720	-35.0	975.77	0	-73.8
Aug. 31	1,125.43	3,540	-2.9	975.20	0	0
Sept.30	1,125.55	3,570	+.5	975.20	0	0
WTR YR 1973	-	-	+.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	1,179.10	96,740	-	1,067.7	1,295	-
Oct. 31	1,177.90	90,260	-105	1,067.0	1,268	-10.1
Nov. 30	1,182.90	117.450	+457	1,067.2	1,276	+3.1
Dec. 31	1,182.90	117,450	0	1,067.5	1,288	+4.5
CAL YR 1972	-	-	-6.2	-	-	+4.4
Jan. 31	1,177.60	88,640	-469	1,066.4	1,245	-16.1
Feb. 28	1,174.70	73,240	-277	1,058.5	959	-118
Mar. 31	1,180.40	103,760	+496	1,064.4	1,169	+78.4
Apr. 30	1,184.80	128,080	+409	1,063.0	1,117	-20.1
May 31	1,187.00	140,500	+202	1,069.0	1,347	+85.9
June 30	1,187.80	145,060	+76.6	1,070.2	1,396	+18.9
July 31	1,183.10	118,560	-431	1,064.2	1,161	-87.7
Aug. 31	1,179.40	98,360	-329	1,059.8	1,003	-59.0
Sept.30	1,178.60	94,040	-72.6	1,064.3	1,165	+62.5
WTR YR 1973	-	-	-3.7	-	-	-4.1

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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	1,191.5	327	-	1,067.8	103	-
Oct. 31	1,186.1	230	-36.2	1,068.0	104	+.4
Nov. 30	1,198.0	468	+91.8	1,067.5	101	-1.2
Dec. 31	1,206.5	685	+81.0	1,068.8	110	+3.4
CAL YR 1972	-	-	+9.1	-	-	+.9
Jan. 31	1,210.9	806	+45.2	1,067.1	97.9	-4.5
Feb. 28	1,213.7	889	+34.3	1,058.5	46.5	-21.2
Mar. 31	1,217.4	1,008	+44.4	1,064.8	82.4	+13.4
Apr. 30	1,220.3	1,109	+39.0	1,065.5	87.0	+1.8
May 31	1,220.5	1,116	+2.6	1,072.1	137	+18.7
June 30	1,221.2	1,142	+10.0	1,072.7	142	+1.9
July 31	1,216.8	988	-57.5	1,068.4	107	-13.1
Aug. 31	1,212.7	859	-48.2	1,068.9	111	+1.5
Sept.30	1,201.0	541	-123	1,069.1	113	+.8
WTR YR 1973	-	-	+6.8	-	-	+.3

	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	1,398.52	19,827	-	1,300.40	2,040	-
Oct. 31	1,381.65	14,497	-266	1,306.00	2,620	+9.4
Nov. 30	1,407.43	23,045	+441	1,300.60	2,060	-9.4
Dec. 31	1,427.66	31,346	+414	1,299.00	1,890	-2.8
CAL YR 1972	-	-	+45.6	-	-	-.9
Jan. 31	1,431.67	33,166	+90.8	1,300.50	2,050	+2.6
Feb. 28	1,432.09	33,360	+10.7	1,300.30	2,030	-.4
Mar. 31	1,437.30	35,825	+123	1,298.65	1,850	-2.9
Apr. 30	1,439.34	36,821	+51.4	1,302.15	2,220	+6.2
May 31	1,439.82	37,058	+11.8	1,300.70	2,070	-2.4
June 30	1,440.83	37,559	+25.8	1,385.65	32,090	+505
July 31	1,430.77	32,752	-240	1,299.87	1,990	-490
Aug. 31	1,422.17	28,957	-189	1,303.80	2,380	+6.3
Sept.30	1,410.33	24,151	-248	1,300.83	2,080	-5.0
WTR YR 1973	-	-	+18.3	-	-	+.1

	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	993.49	17,100	-	817.54	11,400	-
Oct. 31	990.31	15,770	-21.6	816.11	11,010	-6.3
Nov. 30	997.65	18,920	+52.9	816.09	11,010	0
Dec. 31	1,000.43	20,230	+21.3	820.37	12,110	+17.9
CAL YR 1972	-	-	+.2	-	-	+.1
Jan. 31	1,000.15	20,070	-2.6	820.26	12,080	-.5
Feb. 28	1,000.09	20,030	-.7	819.96	11,990	-1.6
Mar. 31	1,000.18	20,080	+.8	820.00	12,000	+.2
Apr. 30	1,000.22	20,110	+.5	820.18	12,050	+.8
May 31	1,000.35	20,180	+1.1	820.36	12,110	+1.0
June 30	1,000.60	20,330	+2.5	820.63	12,190	+1.3
July 31	1,000.13	20,050	-4.6	819.73	11,950	-3.9
Aug. 31	1,000.11	20,040	-.2	819.06	11,810	-2.3
Sept.30	1,000.17	20,080	+.7	817.18	11,300	-8.6
WTR YR 1973	-	-	+4.1	-	-	-.1

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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	8.30	6,881	-	1,179.50	7,560	-
Oct. 31	7.42	6,168	-35.6	1,178.17	7,200	-5.9
Nov. 30	9.20	7,627	+75.2	1,181.50	8,140	+15.8
Dec. 31	7.89	6,547	-53.8	1,182.17	8,340	+3.3
CAL YR 1972	-	-	+4.6	-	-	+.1
Jan. 31	7.06	5,881	-33.3	1,182.08	8,310	-.5
Feb. 28	6.36	5,334	-30.2	1,181.83	8,240	-1.3
Mar. 31	7.88	6,539	+60.2	1,182.08	8,310	+1.1
Apr. 30	9.54	7,914	+70.9	1,182.02	8,290	-.3
May 31	9.56	7,930	+.8	1,182.06	8,300	+.2
June 30	9.70	8,049	+6.1	1,182.15	8,330	+.5
July 31	9.10	7,543	-25.2	1,181.92	8,260	-1.1
Aug. 31	9.03	7,484	-2.9	1,181.75	8,210	-.8
Sept.30	8.37	6,938	-28.2	1,182.08	8,310	+1.7
WTR YR 1973	-	-	+.2	-	-	+1.0

	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	284.41	12,070	-	627.00	40,300	-
Oct. 31	284.25	11,940	-2.1	626.20	39,540	-12.4
Nov. 30	286.15	13,560	+27.2	628.10	41,340	+30.3
Dec. 31	286.25	13,650	+1.5	628.30	41,540	+3.3
CAL YR 1972	-	-	+.2	-	-	+.1
Jan. 31	286.13	13,550	-1.6	628.30	41,540	0
Feb. 28	286.02	13,450	-1.8	627.80	41,060	-8.6
Mar. 31	286.14	13,560	+1.8	627.90	41,160	+1.6
Apr. 30	286.05	13,480	-1.3	629.10	42,300	+19.2
May 31	286.10	13,520	+.7	628.50	41,720	-9.4
June 30	286.55	13,920	+6.7	630.70	43,900	+36.6
July 31	285.85	13,300	-10.1	627.90	41,160	-44.6
Aug. 31	285.22	12,740	-9.1	628.10	41,340	+2.9
Sept.30	285.82	13,270	+8.9	628.30	41,540	+3.4
WTR YR 1973	-	-	+1.7	-	-	+1.7

† 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 below) 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 (Water Years).--WRD N.Y. 1972: 1970.

01423900 Diversion from Cannonsville Reservoir, N.Y., (see below) 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 below) 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 1972 TO SEPTEMBER 1973

Month	Pepacton Reservoir	Cannonsville Reservoir	Neversink Reservoir
October	697	0	351
November	576	0	187
December	492	0	143
CAL YR 1972	504	117	419
January	698	0	219
February	696	11.0	307
March	697	6.95	337
April	460	25.5	255
May	391	39.8	192
June	641	160	273
July	644	73.8	361
August	634	145	329
September	697	7.58	307
WTR YR 1973	610	39.2	272

Miscellaneous withdrawals from basin

	East Pond Reservoir	Bear Swamp Reservoir	Bear Creek	Hazle Creek	Delaware & Raritan Canal	Mud Run
October	.5	.3	0	3.1	95.8	0
November	.5	.3	4.02	3.9	103	0
December	.5	.3	5.41	3.9	103	.05
CAL YR 1972	.50	.3	1.62	3.2	101	.06
January	.5	.3	0	3.9	92.9	.05
February	.5	.3	0	3.9	95.6	.05
March	.5	.3	8.66	3.9	93.0	.05
April	.5	.3	3.09	3.9	92.4	.05
May	.5	.3	0	3.9	90.7	.08
June	.5	.3	0	3.9	87.8	.05
July	.5	.3	0	3.9	88.5	0
August	.5	.3	0	3.9	86.5	0
September	.5	.3	0	3.9	89.1	.05
WTR YR 1973	.50	.30	1.77	3.8	93.2	.04

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 1972 TO SEPTEMBER 1973

Month	Withdrawal Borough of Morrisville	Withdrawal City of Trenton	Withdrawal City of Philadelphia		
			Schuylkill River		Delaware River
			Belmont	Queen Lane	Torresdale
October	4.2	57.2	102	164	325
November	3.9	53.2	97.5	161	323
December	4.1	52.3	97.5	159	317
CAL YR 1972	3.9	60.5	98.7	164	328
January	4.3	52.3	97.5	158	340
February	4.8	51.7	99.0	149	347
March	4.3	51.7	97.5	133	347
April	4.9	51.1	99.0	136	330
May	4.6	51.4	99.0	147	334
June	5.3	56.9	118	192	379
July	5.0	57.2	121	190	371
August	5.0	60.8	118	196	379
September	5.0	56.3	114	190	368
WTR YR 1973	4.6	54.3	105	165	347

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 1972 TO SEPTEMBER 1973

Month	Morris Lake	Octoraro Creek	
		Octoraro Water Co.	Chester Water Authority
October	1.52	1.98	46.6
November	1.45	2.10	44.1
December	1.30	2.24	40.8
CAL YR 1972	1.43	2.12	43.6
January	1.44	2.24	40.1
February	1.33	2.00	40.8
March	1.45	1.93	40.8
April	1.45	1.86	40.5
May	1.36	1.98	42.1
June	1.56	2.17	43.5
July	1.61	2.26	43.3
August	1.55	2.29	47.3
September	1.52	2.01	47.5
WTR YR 1973	1.46	2.09	43.1

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)
		Hackensack River basin				
01378410	Dwars Kill at Norwood, N. J.	Lat 40°59'01", long 73°57'35", Bergen County, at bridge on Blanche Avenue at Norwood, 0.2 mile upstream from mouth.	-	1973	7-19-73 9-27-73	2.0 1.1
01378430	Tenakill Brook tributary at Norwood, N. J.	Lat 40°59'06", long 73°57'39", Bergen County, at Blanche Avenue at Norwood, 1.0 mile east of Harrington Park, 1.5 miles upstream from Oradell Reservoir.	-	1973	7-19-73 9-27-73	.90 .76
		Passaic River basin				
01379200	Dead River near Millington, N. J.	Lat 40°38'56", long 74°31'26", Somerset County, at bridge on King George Road (Spur State 527), 100 ft above mouth, and 2.0 miles south of Millington.	20.8	1962-67, 1973	7-19-73	6.2
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, 1972-73	10-18-72 5-08-73 7-19-73 8-14-73	26 112 41 56
01379570	Passaic River at Hanover, N. J.	Lat 40°48'02", long 74°21'34", Morris County, at bridge on State Route 10, 0.6 mile southeast of Hanover, 3.5 miles southeast of Whippany, and 4.8 miles above Rockaway River.	128	1963-66, 1973	7-19-73 7-25-73	75 166
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, 1972-73	7-19-73 8-14-73	32 35
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	1967-73	5-07-73	4.7
01381600	Whippany River near Whippany, N. J.	Lat 40°48'46", long 74°23'38", Morris County, at bridge on State Route 10, 0.2 mile below Black Brook and 1.5 miles southeast of Whippany.	48.5	1963-66, 1973	8-13-73	61

See footnotes at end of table, p. 151.

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				
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, 1972-73	10-18-72 5-07-73	7.6 22
01381800	Whippany River near Pine Brook, N. J.	Lat 40°50'42", long 74°20'51", Morris County, at bridge on Edwards Road, 0.3 mile above mouth and 1.3 miles southwest of Pine Brook.	68.5	1963-68, 1973	7-19-73 8-13-73	58 102
*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, 1973	7-19-73 7-25-73	198 684
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	1970-73	5-07-73	6.7
01382870	Belcher Creek at Stowaway Road at West Milford, N. J.	Lat 41°07'27", long 74°22'48", Passaic County, at bridge on Stowaway Road in West Milford, at entrance to Pinecliff Lake, 2.8 miles upstream from mouth.	-	1973	6-05-73 7-19-73 9-27-73	6.3 2.9 3.3
01382880	Belcher Creek tributary at West Milford, N. J.	Lat 41°08'06", long 74°22'34", Passaic County, at bridge on Bearfort Road in West Milford, 150 ft upstream from mouth, 3.9 miles west of Hewitt.	-	1973	6-05-73 7-19-73 9-27-73	1.4 .38 0
01382890	Belcher Creek at West Milford, N. J.	Lat 41°08'15", long 74°22'04", Passaic County, at bridge on Union Valley Road, 150 ft downstream from Pinecliff Lake Dam, 0.4 mile from West Milford, 1.6 miles from mouth.	-	1973	6-05-73 7-19-73 9-27-73	10 4.9 3.5
01382910	Morsetown Brook at West Milford, N. J.	Lat 41°08'13", long 74°21'18", Passaic County, at bridge on Lincoln Avenue, 0.4 mile upstream from mouth, 0.9 mile northeast of West Milford.	-	1973	6-05-73 7-19-73 9-28-73	.98 .16 .04
01382960	Green Brook near West Milford, N. J.	Lat 41°09'09", long 74°21'34", Passaic County, at bridge on Union Valley Road, 0.4 mile upstream from mouth, 1.6 miles north of West Milford.	-	1973	6-05-73 7-19-73 9-28-73	3.4 .65 .03
01382990	Cooley Brook near West Milford, N. J.	Lat 41°09'16", long 74°21'27", Passaic County, at bridge on Union Valley Road, 0.1 mile upstream from mouth, 1.8 miles north of West Milford.	-	1973	6-05-73 7-19-73 9-27-73	3.0 1.1 .17
01387980	Haycock Brook at Pompton Lakes, N. J.	Lat 40°59'40", long 74°16'28", Passaic County, at bridge on U.S. Route 202 at Pompton Lakes, 150 ft upstream from mouth.	4.18	1963-64, 1973	6-05-73 7-19-73 9-27-73	3.4 2.2 1.4
*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, 1971-73	10-05-72	26
*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	1964-73	10-05-72	4.1

See footnotes at end of table, p. 151.

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				
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	1963-73	5-07-73	16
		Raritan River basin				
01396070	South Branch Raritan River tributary No. 6 at Budd Lake, N. J.	Lat 40°52'20", long 74°44'18", Morris County, at bridge on Shore Road, 300 ft upstream from mouth, 0.6 mile north of community of Budd Lake.	-	1973	6-05-73 7-19-73 9-27-73	2.2 .71 .43
01396080	South Branch Raritan River tributary No. 7 at Budd Lake, N. J.	Lat 40°52'06", long 74°44' 22", Morris County, at bridge on U.S. Route 46, 300 ft upstream from mouth, 0.3 mile north of community of Budd Lake.	-	1973	6-05-73 7-19-73 9-27-73	.38 .14 .09
01396090	South Branch Raritan River at outlet of Budd Lake, N. J.	Lat 40°51'38", long 74°45'38", Morris County, at bridge on Smithtown Road, 0.05 mile northwest of U.S. Route 46, and 0.5 mile downstream from Budd Lake dam.	5.03	1964, 1973	6-05-73 7-19-73 9-27-73	16 4.0 2.4
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, 1971-73	7-31-73 9-08-73	16 7.5
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, 1971-73	7-31-73 9-08-73	21 13
01396220	Stony Brook at Naughright, N. J.	Lat 40°48'11", long 74°45'07", Morris County, at bridge at Fairview Avenue, 0.6 mile northwest of Naughright, and 0.7 mile upstream from mouth.	3.34	1964-67, 1973	7-31-73 9-08-73	2.3 1.3
01396280	South Branch Raritan River at Middle Valley, N. J.	Lat 40°45'40", long 74°49'18", Morris County, at bridge in Middle Valley, and 6.9 miles downstream from Drakes Brook.	47.6	1964-67, 1973	7-31-73 9-08-73	63 38
01396590	Spruce Run near High Bridge, N. J.	Lat 40°40'26", long 74°55'04", Hunterdon County, at bridge on Van Syckels Corner Road, at inlet to Spruce Run Reservoir, 1.3 miles northwest of High Bridge.	-	1973	6-05-73 7-19-73 9-28-73	33 14 6.5
01396660	Mulhockaway Creek at Van Syckel, N. J.	Lat 40°38'51", long 74°58'09", Hunterdon County, at bridge on Jutland Road, 0.2 mile south of Van Syckel, 2.7 miles upstream from mouth.	-	1973	6-05-73 7-19-73 9-28-73	22 11 6.0
01396670	Mulhockaway Creek tributary at Van Syckel, N. J.	Lat 40°39'05", long 74°58'13", Hunterdon County, at bridge on secondary road at Van Syckel, 0.4 mile upstream from mouth.	-	1973	6-05-73 7-19-73 9-28-73	5.8 3.3 1.3
01398850	Peapack Brook at Far Hills, N. J.	Lat 40°41'28", long 74°38'52", Somerset County, at bridge on light-duty road, 0.1 mile upstream from mouth, and 0.7 mile northwest of Far Hills.	11.6	1964-67, 1973	7-30-73	9.0
01398950	Mine Brook at Far Hills, N. J.	Lat 40°40'57", long 74°38'08", Somerset County, at bridge on light-duty road in Far Hills, and 0.1 mile above mouth.	7.78	1964-67, 1973	7-30-73	5.8

See footnotes at end of table, p. 151.

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				
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	1964-73	7-31-73 9-08-73	19 8.5
01399700	Rockaway Creek at Whitehouse, N. J.	Lat 40°37'49", long 74°44'11", Hunterdon County, at bridge on Lamington Road, 1.4 miles northeast of Whitehouse, and 1.8 miles upstream from mouth.	37.1	1959-62, 1964-65, 1973	7-30-73 9-08-73	26 18
*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, 1965-73	5-07-73	1.8
01404300	Lawrence Brook at outlet of Davidsons Mill Pond, N. J.	Lat 40°24'46", long 74°29'58", Middlesex County, at bridge on Riva Avenue, at outlet of Davidsons Mill Pond, 0.6 mile upstream from Oakeys Brook.	-	1973	6-06-73 7-19-73 9-28-73	13 11 4.4
01404400	Oakeys Brook near Patricks Corner, N. J.	Lat 40°25'05", long 74°29'56", Middlesex County, at bridge on Davidsons Mill Road, 0.5 mile upstream from mouth, 1.2 miles east of Patricks Corner.	-	1973	6-06-73 7-19-73 9-28-73	2.4 1.7 .63
01404470	Ireland Brook at Patricks Corner, N. J.	Lat 40°25'13", long 74°29'05", Middlesex County, at bridge on Riva Avenue, 400 ft upstream from mouth, 0.5 mile southwest of Patricks Corner.	-	1973	6-06-73 7-19-73 9-28-73	5.7 5.4 2.8
01404700	Beaverdam Brook near Patricks Corner, N. J.	Lat 40°25'37", long 74°27'16", Middlesex County, at bridge on Fresh Ponds Road, 0.8 mile upstream from mouth, 1.2 miles east of Patricks Corner.	-	1973	6-06-73 7-19-73 9-28-73	.67 .57 .42
01405440	Manalapan Brook at Bridge Street at Spotswood, N. J.	Lat 40°23'26", long 74°23'26", Middlesex County, at bridge on Bridge Street in Spotswood, 400 ft below DeVoe Lake Dam.	-	1973	6-07-73 7-19-73 9-27-73	65 65 39
01405470	Iresick Brook at East Spotswood, N. J.	Lat 40°23'35", long 74°21'36", Middlesex County, at bridge on Route 527 in East Spotswood, .65 mile from mouth, 1.4 miles south of Old Bridge.	-	1973	6-07-73 7-19-73 9-27-73	1.5 2.2 .12
		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	1969-73	5-07-73	10
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	1969-73	5-06-73	14
01407300	Big Brook at Vanderburg, N. J.	Lat 49°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	1969-73	5-07-73	17
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	1969-73	5-07-73	19

See footnotes at end of table, p. 151.

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)
		Navesink River basin--Continued				
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	1969-73	5-07-73	10
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	1969-73	5-07-73	22
		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, 1969-73	5-07-73 8-21-73	15 3.9
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, 1969-73	5-07-73	16
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, 1969-73	5-07-73	8.9
01407900	Manasquan River at West Farms, N. J.	Lat 40°11'34", long 74°11'44", Monmouth County, at highway bridge, 0.3 mile east of West Farms.	a30	1959-63, 1966, 1973	8-20-73	28
*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	1969-73	5-07-73 8-20-73	14 3.8
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, 1969-73	5-07-73 8-20-73	20 5.4
		Cedar Creek basin				
01408800	Webbs Mill Branch near Whiting, N. J.	Lat 39°53'16", long 74°22'49", Ocean County, at bridge on Tuckerton Warren Grove Whiting Road, 3.3 miles upstream from Chamberlain Branch, 4.5 miles south of Whiting.	-	1973	6-08-73	7.6
01408810	Webbs Mill Branch tributary near Whiting, N. J.	Lat 39°53'29", long 74°22'52", Ocean County, at bridge on Tuckerton Warren Grove Whiting Road, 0.4 mile upstream from mouth, 4.3 miles south of Whiting.	-	1973	6-08-73	.49
		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	1968-73	5-07-73	5.1
		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	1969-73	5-07-73	46
		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	1969-73	5-07-73	25

See footnotes at end of table, p. 151.

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)
		Mullica River basin--continued				
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	1969-73	5-08-73	19
		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	1964-73	5-07-73	1.8
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.	-	1971-73	5-07-73	25
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	1972-73	5-07-73	11
		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	1965-73	5-08-73	1.2
		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	1967-73	5-08-73	.51
		Maurice River basin				
01411850	Mill Creek near Millville, N. J.	Lat 39°25'33", long 75°05'11", Cumberland County, at bridge on dirt road, 1.2 miles upstream from mouth, 3.3 miles northwest of Millville.	-	1973	6-08-73 7-19-73	21 18
01411880	Maurice River at Harp Street at Millville, N. J.	Lat 39°24'01", long 75°03'15", Cumberland County, at bridge on Harp Street, 200 ft downstream from Union Lake, 0.9 mile northwest of Millville.	-	1973	6-08-73 7-19-73	198 276
		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	1966-73	5-08-73	18
		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, 1970-73	5-07-73	49
01443450	Paulins Kill near Newton, N. J.	Lat 41°04'59", long 74°46'57", Sussex County, at bridge at inlet to Paulins Kill Lake, 2.4 miles northwest of Newton.	-	1973	6-05-73 7-19-73 9-27-73	178 58 46
01443460	Paulins Kill at Paulins Kill, N. J.	Lat 41°03'08", long 74°49'42", Sussex County, at bridge on Paulins Kill Lake Road, 300 ft downstream from Paulins Kill Lake, 0.45 mile southwest of Paulins Kill.	-	1973	6-05-73 7-19-73 9-27-73	180 64 46

See footnotes at end of table, p. 151.

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‡, 1963-73	(b)	c6.2
*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‡, 1963-73	(b)	c5.0
01455370	Weldon Brook at Hurdtown, N. J.	Lat 40°58'10", long 74°35'56", Morris County, at bridge on Union Turnpike at Hurdtown, 500 ft downstream from Lake Shawnee Dam.	-	1973	6-05-73 7-19-73 9-28-73	16 2.8 .81
01455550	Musconetcong River at Stanhope, N. J.	Lat 40°54'06", long 74°42'19", Morris County, at bridge on Route 206 at Stanhope, at outlet of Lake Musconetcong.	-	1973	6-05-73 7-19-73 9-28-73	81 11 19
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, 1972-73	5-08-73	32
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, 1971-73	5-08-73	11
01464460	Lahaway Creek near Hornerstown, 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, 1969-73	5-08-73	38
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, 1969-73	5-08-73	5.8
01465880	Southwest Branch Rancocas Creek at Medford, N. J.	Lat 39°53'43", long 74°49'26", Burlington County, at bridge on State Route 541, 0.4 mile south of Medford, and 0.7 mile below Haynes Creek.	46.8	1961-66, 1973	7-20-73 8-10-73	39 23
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	1968-73	5-08-73	.62

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.
a Estimated.
b Occurred during period Oct. 1, 1972 to Nov. 29, 1972.
c Minimum for year; computed from minimum gage reading and rating.

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					
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	1966-73	11-09-72	1.44	249
*01378350	Tenakill Brook at Cresskill, N. J.	Lat 40°56'30, long 73°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	1966-73	2-02-73	b4.50	195
*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	1965-73	2-02-73	b3.78	565
*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	1965-73	11-09-72	b2.46	224
*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	1965-73	2-02-73	b4.94	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	1966-73	8-02-73	b8.98	2,340
01389900	Fleischer Brook at Market Street, at East Paterson, N. J.	Lat 40°51'45", long 74°19'18", 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	1967-73	11-09-72	b2.79	†
*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	1965-73	2-02-73	b3.88	1,340
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	1969-73	2-02-73	6.15	555

See footnotes at end of table, p. 156.

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					
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‡, 1963-73	2-02-73	4.16	706
*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‡, 1965-73	8-02-73	8.46	4,800
		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‡, 1963-73	6-29-73	3.51	760
*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, 1964-73	8-02-73	4.03	530
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	1957-73	8-02-73	b7.60	2,650
*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, 1960-73	6-21-73	6.18	332
*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. Datum of gage is 139.26 ft above mean sea level.	26.5	1965-73	12-06-73	3.29	†
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	1968-73	2-02-73	4.77	141
01400960	Honey Branch near Mount Rose, N. J.	Lat 40°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	1968-73	6-21-73	5.60	†

See footnotes at end of table, p. 156.

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					
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	1967-73	6-02-73 6-22-72 8-28-71	10.05 7.10 11.84	2,000 c570 c2,500
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	1965-73	6-21-73	5.52	310
*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	1967-73	8-02-73	6.34	1,070
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	1967-73	8-02-73	6.36	1,300
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	1967-73	2-02-73	b10.68	4,050
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	1966-73	2-02-73	9.55	1,490
		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	1969-73	11-15-72 11-30-71 8-28-71	10.26 11.17 11.61	255 c280 c295
*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	1969-73	11-15-72	4.94	158
*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	1969-73	11-15-72	8.15	1,750

See footnotes at end of table, p. 156

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)
		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.	2.16	1952-67‡, 1968-73	2-03-73	2.58	80
		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‡, 1963-73	2-03-73	3.88	290
*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	1966-73	6-29-73	b2.73	†
*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‡, 1963-73	2-03-73	4.00	605
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‡, 1972-73	6-29-73	4.93	910
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‡, 1972-73	6-30-73	24.36	139,000
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	1968-73	2-03-73	21.85	1,300
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	1968-73	2-03-73	b12.31	†
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	1968-73	2-02-73	b7.80	800

See footnotes at end of table, p. 156.

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‡, 1967-73	2-02-73	2.00	15.2
*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	1964-73	2-02-73	1.91	228
*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	1964-73	2-02-73	b3.67	242
*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	1964-73	2-02-73	b5.27	600
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	1967-73	2-02-73	6.47	†
*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	1964-73	10-07-72	4.38	205
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	1964-73	10-07-72	3.73	85
*01467330	South Branch Big Timber Creek at Blackwood, N. J.	Lat 39°48'17", long 75°03'13", 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	1964-73	2-02-73	b4.94	605

* 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 1973

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, 0.1 mile upstream from mouth, and 2.1 miles northeast of Mendham.	-	1972	10-04-72 01-03-73	*0.47 6.1
Whippany River	Rockaway River	Lat 40°47'27", long 74°33'05", Morris County, at bridge on Tingley Road, 0.2 mile north of State Route 24, 0.9 mile southeast of Brookside.	-	-	10-04-72 01-03-73	*2.1 16
Whippany River	Rockaway River	Lat 40°47'34", long 74°32'14", Morris County, at bridge on unpaved road 0.1 mile north of State Route 24, 1.6 miles east of Brookside.	-	-	01-03-73	18
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.	-	1972	10-04-72 01-03-73	*3.4 22
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.	-	1972	10-04-72 01-03-73	*5.2 32
Erskine Brook	Wanaque River	Lat 41°05'25", long 74°15'55", Passaic County, at bridge on Skyline Drive at Erskine, 0.3 mile upstream from mouth, and 4.0 miles northeast of Wanaque.	-	-	07-19-73 09-27-73	*.27 6.8
Post Brook	Wanaque River	Lat 41°02'15", long 74°19'22", Passaic County, 150 ft upstream from bridge across head of Lake Ioscoe, and 1.5 miles west of Wanaque.	-	-	07-19-73 09-27-73	*.60 *.32
		Rahway River basin				
East Branch Rahway River	Arthur Kill	Lat 40°43'18", long 74°17'28", Essex County, at bridge on Vauxhall Road, 0.4 mile west of Millburn, 1.1 miles upstream from confluence with West Branch Rahway River.	7.58	-	08-02-73	†800
West Branch Rahway River	Rahway River	Lat 40°43'51", long 74°18'26", Essex County, at Diamond Mill Pond dam, 1,000 ft upstream from Glen Avenue in Millburn, and 1.9 miles upstream from confluence with East Branch Rahway River.	7.09	1940-50‡	08-02-73	†2,270
Van Winkle Brook	Rahway River	Lat 40°42'12", long 74°18'50", Union County, at Rahway Valley Railroad bridge, 0.3 mile southeast of the Springfield railroad station, and 0.4 mile upstream from mouth.	4.85	-	08-02-73	†a2,500
		Raritan River basin				
North Branch Raritan River	Raritan River	Lat 40°44'49", long 74°38'01", Morris County, at bridge on Pleasant Valley Road, 2.4 miles northeast of Gladstone.	-	-	07-30-73	*20

See footnotes at end of table, p. 161.

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1973--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Measurements Discharge (cfs)
		Raritan River basin--Continued				
North Branch Raritan River	Raritan River	Lat 40°41'30", long 74°38'50", Somerset County, at bridge on Peapack Road at Far Hills, 0.9 mile upstream from U.S. Route 202.	-	-	07-31-73	*37
Lamington River	North Branch Raritan River	Lat 40°48'09", long 74°41'52", Morris County, at bridge on Pleasant Hill Road, 1.2 miles north of Chester, and 1.7 miles upstream from Tanners Brook.	17.3	1964	09-09-73	*12
Lamington River	North Branch Raritan River	Lat 40°42'55", long 74°43'16", Somerset County, at County Route 512 bridge at Pottersville.	-	1922	07-31-73	*49
Lamington River	North Branch Raritan River	Lat 40°38'02", long 74°43'38", Hunterdon County, at bridge on Halls Bridge Road, 1.2 miles upstream from Rockaway Creek, 1.8 miles northeast of Whitehouse.	57.3	1964	07-30-73	*57
Lamington River	North Branch Raritan River	Lat 40°38'04", long 74°41'13", Somerset County, at bridge on Walsh Road at Burnt Mills, 0.25 mile upstream from mouth, and 3.1 miles northeast of Whitehouse.	100	1964	07-31-73 09-08-73	*79 *53
Blue Brook	Green Brook	Lat 40°40'02", long 74°24'13", Union County, at dam on Seeleys Pond, 200 ft upstream from mouth, and 2.2 miles southeast of Berkeley Heights.	3.59	-	08-02-73	†2,080
Green Brook	Bound Brook	Lat 40°39'53", long 74°24'10", Union County, at ruins of Seeley Mills, 0.1 mile downstream from Blue Brook, and 0.5 mile northwest of Scotch Plains.	6.28	1944-53b 1959-64c 1969	08-02-73	†6,240
Stony Brook	Green Brook	Lat 40°38'13", long 74°27'16", Somerset County, at Watchung Lake dam in Watchung, 800 ft upstream from Best Lake outlet stream.	3.71	-	08-02-73	†6,620
Stony Brook tributary	Stony Brook	Lat 40°38'19", long 74°27'00", Somerset County, at Best Lake dam in Watchung, 700 ft upstream from mouth.	1.57	-	08-02-73	†2,840
Stony Brook	Green Brook	Lat 40°37'57", long 74°26'39", Union County, 0.5 mile southeast of Watchung, 0.6 mile downstream from Watchung Lake dam, and 0.8 mile northwest of North Plainfield.	5.70	-	08-02-73	†11,400
Green Brook	Bound Brook	Lat 40°35'44", long 74°28'30", Middlesex County, at bridge on Madison Avenue in Dunellen, 0.4 mile upstream from Bonygutt Brook.	20.1	-	08-02-73	†11,500

See footnotes at end of table, p. 161.

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1973--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Measurements Discharge (cfs)
		Raritan River basin--Continued				
Cedar Brook	Bound Brook	Lat 40°36'24", long 74°24'48", Union County, upstream from bridge on Randolph Road in Plainfield, 0.7 mile upstream from Cedar Brook Lake outlet stream.	4.76	-	08-02-73	†d3,250
Ambrose Brook	Bound Brook	Lat 40°34'03", long 74°31'02", Middlesex County, at dam 900 ft upstream from State Route 18 in Middlesex, 0.7 mile upstream from mouth.	13.9	-	08-02-73	†2,020
South River tributary	South River	Lat 40°23'53", long 74°22'13", Middlesex County, at bridge on Riverdale Avenue in East Spotswood, 200 ft upstream from mouth, and 1.2 miles south of Old Bridge.	-	-	06-07-73 07-19-73 09-27-73	*0 *0 *0
Iresick Brook tributary	Iresick Brook	Lat 40°23'42", long 74°21'36", Middlesex County, at bridge on Route 527 in East Spotswood, 500 ft upstream from confluence with Iresick Brook tributary No. 2, and 1.3 miles south of Old Bridge.	-	-	06-07-73 07-19-73 09-27-73	*.18 *.42 *0
Iresick Brook tributary No. 2	Iresick Brook tributary	Lat 40°23'46", long 74°21'37", Middlesex County, at bridge on Route 527 in East Spotswood, 500 ft upstream from mouth, and 1.2 miles south of Old Bridge.	-	-	06-07-73 07-19-73 09-27-73	*0 *0 *0
		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	1972	08-21-73	*.70
Debois Creek	Manasquan River	Lat 40°13'54", long 74°15'35", Monmouth County, at bridge on Three Brooks Road, 0.7 mile east of U.S. Route 9, and 1.7 miles southeast of Freehold.	2.63	1972	08-21-73	*6.1
Debois Creek tributary	Debois Creek	Lat 40°14'17", long 74°16'03", Monmouth County, at bridge on Koenig Lane at Freehold.	-	-	08-21-73	*.22
Debois Creek	Manasquan River	Lat 40°12'32", long 74°16'08", Monmouth County, at bridge on Strickland Road, 0.2 mile upstream from mouth, 0.7 mile northwest of Wyckoff Mills.	-	-	08-21-73	*9.0
Manasquan River	Atlantic Ocean	Lat 40°12'15", long 74°15'25", Monmouth County, at bridge on U.S. Route 9 at Wyckoff Mills, 1.3 miles downstream from Debois Creek.	-	1966	08-20-73	*18
Marsh Bog Brook	Manasquan River	Lat 40°11'57", long 74°10'40", Monmouth County, at bridge on State Route 524, 0.6 mile northwest of Farmingdale, and 3.0 miles upstream from mouth.	-	1966	08-21-73	*.34
Marsh Bog Brook	Manasquan River	Lat 40°10'01", long 74°09'33", Monmouth County, at bridge on Squankum Yellow Brook Road at Squankum, 0.2 mile upstream from mouth.	4.91	1966, 1972	08-21-73	*0.84

See footnotes at end of table, p. 161.

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1973--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Measurements Discharge (cfs)
		Delaware River basin				
Musconetcong River	Delaware River	Lat 40°48'48", long 75°50'32", Warren County, at bridge at Beattystown, 1.2 miles northwest of Schooleys Mountain, 1.6 miles upstream from Hances Brook.	-	-	08-25-73 09-06-73	*58 *52
Musconetcong River	Delaware River	Lat 40°44'18", long 74°56'30", Warren County, at highway bridge at Changewater, 1.0 mile southwest of Butlers Park, 1.4 miles northeast of New Hampton.	-	-	08-25-73 09-06-73	*89 *70
Musconetcong River	Delaware River	Lat 40°35'32", long 75°11'12", Warren County, at highway bridge at Riegelsville, N. J., 0.1 mile upstream from mouth, 1.3 miles southwest of Finesville.	-	1940-55	07-25-73 08-25-73 09-06-73	*273 *146 *114
South Branch Rancocas Creek	Delaware River	Lat 39°56'13", long 74°45'09", Burlington County, at bridge on Church Road in Vincentown, 3.5 miles upstream from Southwest Branch Rancocas Creek.	-	-	07-20-73	*64
South Branch Rancocas Creek	Delaware River	Lat 39°56'49", long 74°47'28", Burlington County, at bridge on Mt. Holly Eayrestown Road, 0.3 mile upstream from Southwest Branch Rancocas Creek, 2.2 miles west of Vincentown.	-	-	08-10-73	*15
Southwest Branch Rancocas Creek	South Branch Rancocas Creek	Lat 39°53'18", long 74°50'10", Burlington County, at bridge on Hartford Road in Oliphants Mills, 0.2 mile upstream from Haynes Creek, 1.1 miles southwest of Medford.	-	-	07-20-73	*11
Haynes Creek	Southwest Branch Rancocas Creek	Lat 39°53'06", long 74°49'55", Burlington County, at bridge on Himmelein Road at Oliphants Mills, 1.2 miles southwest of Medford.	-	-	07-20-73	*26
Southwest Branch Rancocas Creek	South Branch Rancocas Creek	Lat 39°54'16", long 74°48'47", Burlington County, at bridge on State Route 70, 0.6 mile northeast of Medford, 4.2 miles upstream from mouth.	-	-	07-20-73	*32
Southwest Branch Rancocas Creek	South Branch Rancocas Creek	Lat 39°55'00", long 74°48'20", Burlington County, at bridge on Church Road at Kirbys Mill, 3.2 miles upstream from mouth.	-	-	07-20-73	*43
Southwest Branch Rancocas Creek	South Branch Rancocas Creek	Lat 39°56'49", long 74°47'58", Burlington County, at bridge on Mt. Laurel Eayrestown Road, 0.2 mile upstream from mouth, 0.5 mile west of Eayrestown.	-	-	07-20-73 08-10-73	*55 *34
North Branch Rancocas Creek	Rancocas Creek	Lat 39°57'37", long 74°37'46", Burlington County, at bridge in New Lisbon, 0.3 mile upstream from Greenwood Branch, 0.4 mile south of State Route 530.	-	-	07-26-73	*42

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1973--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements Date	Measurements Discharge (cfs)
		Delaware River basin--Continued				
Greenwood Branch	North Branch Rancocas Creek	Lat 39°57'22", long 74°37'41", Burlington County, at bridge in New Lisbon, 0.5 mile upstream from mouth, 0.7 mile south of State Route 530.	-	-	07-26-73	*68
North Branch Rancocas Creek	Rancocas Creek	Lat 39°57'46", long 74°39'25", Burlington County, at highway bridge 0.3 mile south of State Route 530, 1.2 miles downstream from Greenwood Branch, 1.6 miles southeast of Pemberton.	-	-	07-26-73 08-14-73	*119 *67
North Branch Rancocas Creek	Rancocas Creek	Lat 39°58'44", long 74°42'36", Burlington County, at bridge on Birmingham Road, 1.4 miles east of Evansville, 1.5 miles west of Pemberton.	-	-	07-27-73 08-14-73	*114 *80
North Branch Rancocas Creek	Rancocas Creek	Lat 39°58'55", long 74°44'11", Burlington County, at bridge on U.S. Route 206 at Evansville, 0.8 mile upstream from dam at Smithville, 1.1 miles south of North Pemberton Road.	-	-	07-26-73	*105
North Branch Rancocas Creek	Rancocas Creek	Lat 39°59'07", long 74°45'10", Burlington County, at Smithville, 0.1 mile downstream from dam at Smithville Lake.	-	-	07-26-73	*125
North Branch Rancocas Creek	Rancocas Creek	Lat 39°59'22", long 74°47'06", Burlington County, at bridge on Pine Street in Mount Holly.	-	-	07-26-73 08-14-73	*140 *88

‡ Operated as a continuous-record gaging station.
a Based on limited field data.
b Seasonal recorder charts and measurements.
c Low-flow partial-record station.
d Peak discharge includes undetermined amount of inflow from the Green Brook basin.

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.	1969-73	4-04-73	3.74
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.	1965-73	4-04-73	3.32
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 Borough, 0.35 mile southwest of Barnegat Lighthouse and 9.1 miles northeast of Ship Bottom.	1965-73	4-04-73	4.13
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 By,,2.5 miles northwest of Ship Bottom, and 3.1 miles southeast of Manahawkin.	1965-73	1-29-73	4.29
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.	1965-73	12-22-72	5.10
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.	1958-73	2-07-73	3.47
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.	1965-73	12-22-72	4.73
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‡, 1946-73‡	12-22-72	5.48
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.	1963-73	10-29-72	9.10

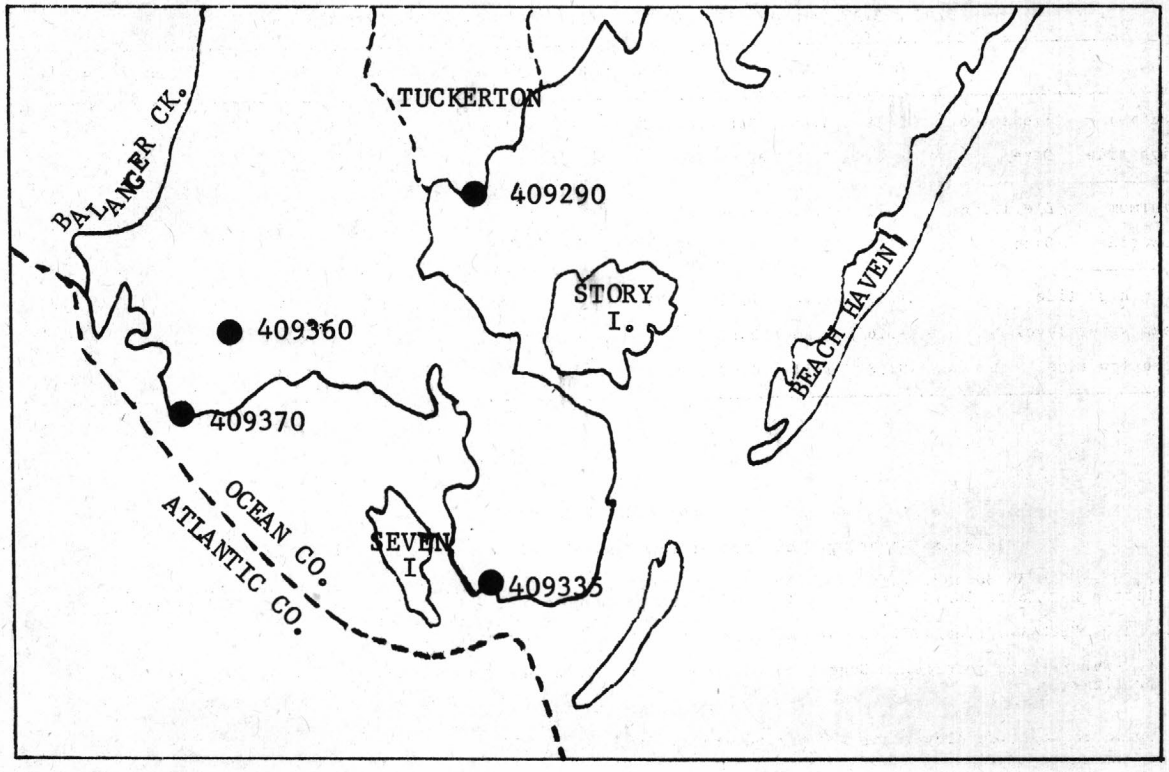
See footnotes at end of table, p. 163.

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.	1965-73	12-22-72	6.18
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.	1965-73	12-22-72	6.00
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.	1965-73	12-22-72	11.70
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.	1965-73	12-22-72	6.35
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.	1965-73	12-22-72	b
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.	1965-73	4-04-73	6.39
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.	1965-73	2-04-73	a8.35

‡ Operated as a continuous-record gaging station.
a Gage datum; not to mean sea level datum.
b Furnished by National Ocean Survey.

The following tide summary data were collected during the 1972-73 Water Year as a part of a pilot program for the New Jersey Wetlands in the Tuckerton Area.



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 mi (0.6 km) east of mouth of Tuckerton Creek, and 1.9 mi (3.1 km) south of Tuckerton.

PERIOD OF RECORD.--Partial record June 1971 to current year. 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, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	3.19	3.86	3.64	3.59		5.91			3.27			3.94
high tide	Date	26	8	22	29		22			30			15
Minimum	Elevation	0.11	+0.51	-0.54	0.11		-1.17			0.31			0.11
low tide	Date	14,15	2	14	25,26		18			7,8			27,28
Mean high tide		1.60	2.44	1.30	1.79		3.16			2.22			2.68
Mean water level		1.16	1.83	0.54	0.90		1.93			1.23			1.70
Mean low tide		0.68	1.34	-0.19	0.01		0.77			0.24			0.64

NEW JERSEY WETLANDS

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 mi (10.3 km) south of Tuckerton.

PERIOD OF RECORD.--June 1971 to current year.

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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.65	4.73	5.77	4.58	4.73	4.91	4.81	3.72	4.13	4.0	4.05	4.60
high tide	Date	7	8	22	29	12	22	4	31	30	30	22	15
Minimum	Elevation	-1.45	-1.82	-1.88	-1.82	-1.05	-1.77	-1.81	-1.48	-1.57	-1.5	-1.48	-1.30
low tide	Date	22	27	19	21	4	19	11	4	2	25	27	28
Mean high tide		2.81	3.09	2.70	2.43	2.74	2.88	2.76	2.74	2.62	2.80	2.80	2.85
Mean water level		1.13	1.38	1.03	0.73	1.06	1.17	1.21	1.00	0.88	1.07	1.08	1.16
Mean low tide		-0.59	-0.32	-0.56	-0.99	-0.61	-0.46	-0.33	-0.74	-0.85	-0.65	-0.65	-0.51

NOTE.--Doubtful or no gage height record April 12-24. No gage-height record July 10 to Aug. 1. Record estimated on the basis of the station at Great Bay Marina (station 01409370).

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 mi (6.1 km) southwest of Tuckerton.

PERIOD OF RECORD.--Partial record June 1971 to current year.

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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.35				5.37					4.55		
high tide	Date	7				12					29		
Minimum	Elevation	0.46				0.44					0.49		
low tide	Date	12				4,5					9,25		
Mean high tide		3.84				3.67					3.58		
Mean water level		2.35				2.21					2.13		
Mean low tide		0.84				0.86					0.68		

NEW JERSEY WETLANDS

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 mi (7.4 km) southwest of Tuckerton.

PERIOD OF RECORD.--Partial record June 1971 to current year.

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 1972 TO SEPTEMBER 1973

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.54	7.03	7.73	6.35		6.80		5.69		5.96	6.08	6.74
high tide	Date	7	8	22	29		22		31		30	22	15
Minimum	Elevation	1.05	0.77	-0.45	0.34		-0.28		0.77		1.19	0.10	1.16
low tide	Date	10	28	17	20		18		5		25	27	28
Mean high tide		5.00					4.96		4.78		4.80	4.92	5.32
Mean water level		3.37					3.38		3.16		3.18	3.30	3.56
Mean low tide		1.73					1.82		1.50		1.60	1.70	1.83

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